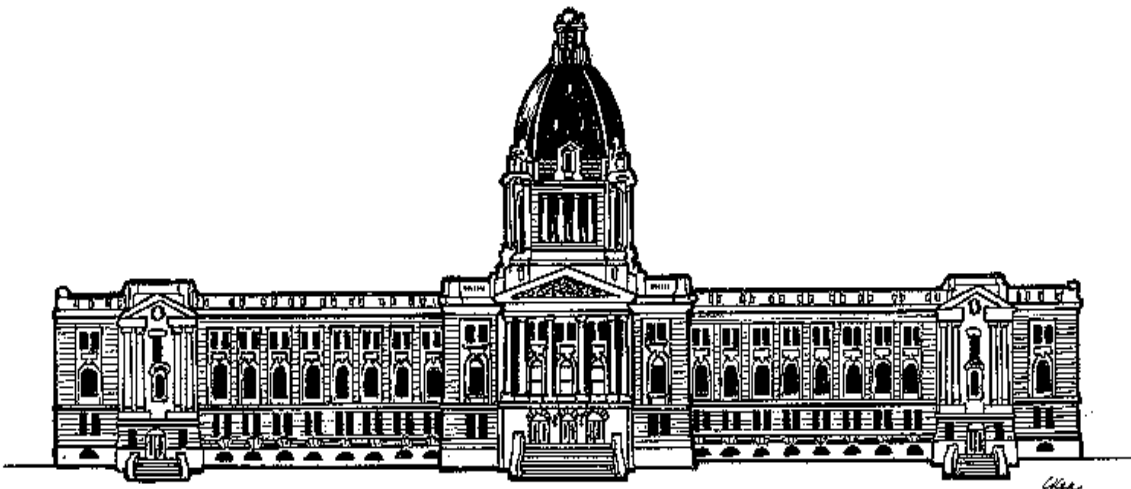




STANDING COMMITTEE ON CROWN AND CENTRAL AGENCIES

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STANDING COMMITTEE ON CROWN AND CENTRAL AGENCIES

Mr. Tim McMillan, Chair
Lloydminster

Mr. Buckley Belanger, Deputy Chair
Athabasca

Mr. Denis Allchurch
Rosthern-Shellbrook

Mr. Fred Bradshaw
Carrot River Valley

Mr. Dan D'Autremont
Cannington

Mr. Randy Weekes
Biggar

Mr. Trent Wotherspoon
Regina Rosemont

[The committee met at 10:00.]

Inquiry Into The Province's Energy Needs

The Chair: — Well I'd like to welcome everyone here today. Today it's the fourth day of our meetings in the Standing Committee on Crown and Central Agencies, the inquiry into Saskatchewan's energy needs. I'm Tim McMillan, Chair of the Committee. I would also like to introduce the other members of the committee: Mr. Weekes, Mr. Allchurch, Mr. Hickie, Mr. Bradshaw, Mr. D'Autremont — and Mr. Hickie is substituting for Mr. D'Autremont. We have as Vice-Chair, Mr. Belanger, Mr. Wotherspoon, and also joining us is Mr. Taylor.

All the committee's public documents and other information pertaining to the inquiry are posted daily to the committee's website. The committee website can be accessed by going to the Legislative Assembly of Saskatchewan website at legassembly.sk.ca under What's New and clicking on the link to the Standing Committee on Crowns and Central Agencies. The hearings will be televised across the province on the legislative television network, with audio streaming available for meetings outside of Regina. Check the website for information regarding locations, cable companies, and channels. The meetings will also be available live on the website, with past proceedings archived on the website as well.

Before we hear from our first witness, I would like to advise witnesses of the process of presentations. I will be asking all witnesses to introduce themselves and anyone else that may be presenting with them. Please state your name and if applicable possible positions within the organization you represent.

If you have a written submission, please advise that you would like to table your submission. Once this occurs, your submission will be available to the public. Electronic copies of tabled submissions will be available on the committee's website.

The committee is asking for submissions and presentations that will be in answer to this question: how should the government best meet the growing energy needs of the province in a manner that is safe, reliable, and environmentally sustainable while meeting any current and expected federal environmental standards and regulations and maintaining a focus on affordability for Saskatchewan residents today and into the future?

Each presentation should be limited to 15 minutes. We have set aside 10 minutes for question-and-answer, but with time permitting and willingness of our presenters, we will carry that out closer to an hour. I will then ask you to proceed with your presentation. Once your presentation is complete, the committee members may have questions for you.

I will direct questioning and recognize each member that is to speak. Members are not permitted to engage witnesses in any debate, and witnesses are not permitted to ask questions of committee members. I would also like to remind witnesses that any written submissions presented to the committee will become public documents and will be posted to the committee's website for public viewing.

And with that I'd like to thank our first presenters today and ask them to lead off.

Presenter: Save Our Saskatchewan

Mr. Hougham: — Thank you very much. Good morning. This presentation is on behalf of S.O.S., Save our Saskatchewan. I am Aaron Hougham, president of S.O.S., and this is Daron Priest, vice-president of S.O.S. We are extremely pleased to have this opportunity to address the Standing Committee on Crown and Central Agencies.

I would like to first give a brief background on our group. S.O.S. was formed in response to Bruce Power approaching landowners for the option to purchase property for the development of a nuclear power plant. On February 23 of this year, concerned people, neighbours, and community members in close proximity to the proposed site gathered to discuss what the community should do. At this meeting the community decided to form an organization, and S.O.S. was born.

S.O.S. is a non-partisan grassroots community group that is opposed to nuclear power generation. It is the group's goal to provide information to the public so people can make informed decisions about nuclear power. Initially we hosted information meetings where the public was invited to attend. The first information meeting at Paradise Hill had over 400 people in attendance. We also had a second successful meeting in Hillmond.

On April 15 at the rural municipality of Britannia's ratepayers' meeting, the ratepayers voted on a resolution to oppose nuclear power. The resolution to oppose nuclear power was overwhelmingly supported by 95 per cent of the ratepayers. And you can actually see the resolution is attached on the back of the handout.

The other issue of concern to the proposed nuclear power plant was the fact that the proposed site was directly above the Rex Valley water aquifer. The entire community, in one way or another, depends on this water aquifer. The map of the aquifer and proposed site is attached.

It is absolutely unacceptable to the community that such a facility would be proposed on top of the community's drinking water and put such a precious natural resource at risk.

The important thing to remember about S.O.S. presentation is the fact that Daron and I are representatives that are here to speak on behalf of our community. The numerous signatures on S.O.S. petitions and signed letters to our MLA [Member of the Legislative Assembly] Tim McMillan speak to this community support. And actually we brought along our signed letters today from our community to submit to Mr. Tim McMillan on behalf of our community.

In addressing the committee's question, how should the government best meet the growing energy needs of the province, we only have to look at the Dan Perrins report. Perrins's report stated 84 per cent of Saskatchewan respondents and 97 per cent of Lloydminster residents oppose nuclear generation. Due to these facts, nuclear generation should no

longer be an option. The people of Saskatchewan have spoken, and now the Government of Saskatchewan has to implement the results of their own consultation process.

Locally the reasons for opposing nuclear power are varied. The reasons include economic, health, environment, quality of life, and community or rural values. Two main issues I'd like to discuss in more detail are the fact that nuclear power is extremely expensive, and the issue of waste and waste storage from nuclear power plants.

The cost of nuclear power is extremely expensive. Moody's investment services estimate the cost to be 15.1 cents per kilowatt hour. My SaskPower bill was 9.13 cents per kilowatt hour. The UDP [Uranium Development Partnership] report states:

To date, the cumulative risks of nuclear new build have been too large for the private sector to bear alone and governments have played some form of facilitation in the implementation of nuclear power projects in all jurisdictions.

This statement indicates that without taxpayer dollars, nuclear projects could not be built. The extremely high cost of nuclear projects will be a burden to SaskPower customers and Saskatchewan taxpayers.

The issue of nuclear waste is also very much a concern to our community. The Perrins report states, "The majority of these responses (86% ...) from people participating in the consultation process were strongly against nuclear waste disposal and storage in Saskatchewan . . ." The public response should give government a very clear direction that people just do not want nuclear waste or nuclear waste storage.

In the Perrins report on page 3, the public has answered the committee's question clearly. Participants in the public consultation process strongly supported alternative renewable energy sources. They want the province to research and move towards renewable sources like wind, solar, and others. It is a very strong statement when you consider the question being addressed was to consider nuclear power. The province overwhelmingly went out of their way to make sure that the Government of Saskatchewan knew that the people wanted renewable energy options.

The other issue not yet mentioned is the fact that conservation is very much an important first step. The government needs to play a much stronger role in encouraging and supporting conservation. This can be done through legislation and incentives. The future cost of non-renewable power will increase. Increase in costs will continue to make alternative energy options more viable. Individuals should have the opportunity to produce power to sell back into the grid and allow an additional source of income for themselves.

The development of renewable energy allows numerous people from all over the province to share in the benefits of producing power, rather than a chosen few. People in our community look forward to the time when we can do our part and provide safe and clean energy for others in the province.

The government should be commended on the fact that the UDP public consultation process was done. It shows the willingness of the government to seek the public's opinion. Dan Perrins did a very good job collecting and presenting the information from the consultation process. Now the government and this committee has to move forward on the findings and the recommendations of the Perrins report. Due to the fact that this report is a summary of the wishes of the Saskatchewan people, the Saskatchewan government, as representatives of the people, must move forward on the wishes of the people. The Government of Saskatchewan and this committee must show a willingness to move forward, first on conservation and then on renewable energy. The government and this committee must close the door on nuclear power generation because clearly the people do not want it.

This committee is clearly making some of the most important decisions of our generation, decisions that will affect many generations to come. We would like to thank the committee for the opportunity to speak. I would also like to thank the many people and community members that have helped and supported S.O.S. We are a group of just ordinary people, but ordinary people can do extraordinary things. And S.O.S. is a community organization that has helped our community to be a clean, safe place to live, now and for future generations. Our children will be the benefit from renewable energy choices. The public will hold elected officials accountable to the wishes of the people.

With that, that's our written presentation. And Daron.

Mr. Priest: — I would just like to add that when our little group formed six months ago or however long ago it was, everybody came to our little hall and had our different ideas. There was a couple common things: people in our area, they were opposed to nuclear power, and at that time we weren't really educated on it. And it wasn't so much about Aaron or I or all the neighbours, but everybody had kind of the same feeling on it.

But one thing I took home from that first meeting: it wasn't about us, but it was about our children and the next generation coming up, that we weren't concerned about in the next 15 years building this and living by it, you know. We know the economic benefits, maybe, that are going to help the province. But we're looking at the big picture. You know, somebody looked after us, and so we live a pretty good life the way we live right now, and we feel it's important for the next generation. My grandpa, he went and fought in the war to make sure that we had a free country, and I've got two young boys that live on the farm with me and I want to make sure that they have a good life ahead of them.

[10:15]

And the way it was approached and that, the business of coming in and proposing a site on top of our drinking water, you know, it really raised some ire. And it is a very emotional issue in our area and, I really do believe, throughout the province. Like we've heard these different studies of people for it or against it or whatever, and different polls rating, well this is how it feels, but I genuinely do think that there is this kind of feeling throughout the province. And it's a very contentious issue, and I

don't think it should be underestimated, the public of the feeling of it. And without getting into the politics, I really do think that it's something to be aware of. Don't underestimate the people out there of the feelings of this project. It is a big thing.

I guess when we first started off there was a lot of people thinking oh, well gee, the world's going to end when nuclear power . . . We're not naïve like that. We weren't thinking that we were going to have another Chernobyl on our hands. But we did a lot of research. And I said in one of the articles that I had submitted somewhere that I didn't even know how to spell nuclear when it all started, but we . . .

Mr. Hougham: — We didn't know.

Mr. Priest: — We didn't, but we certainly got educated on it. And I wouldn't call us experts, but throughout it we've come across some things that we're not comfortable with. I've read ins and outs about plants in India and about a circumference around a lot of these nuclear plants, the health issues — not the health issues for me, maybe not for my sons, but the next generation after that. And like I said before, that's what we're here for and looking out for.

And it's something I hope that everybody takes to heed that, you know, economically in this province, I know that you guys have a job to do looking after our power supply and doing a really good job of things, but it's a strong consideration. It isn't all about dollars and cents. And I said to Aaron the other night on the phone, you know, there's a lot of commodities that we could drain on our farm. Like the oil companies are paying big money for water a lot of times. But we can go pump every last drop of water out of there and then, but we're trying to make sure that there's another generation and another generation out of that.

And one thing: we're not a bunch of tree huggers. We're not extremists or anything like that, but we want to make sure that people understand where we're coming from.

I've got some pictures here that I'd like to pass around. We've been down to Montana on the weekend. We went by a wind farm. We're not here saying, well the wind power's going to replace the nuclear, the baseload or whatever.

Really what I'd like to see and what our group, I think, is looking at is a real mixture of things. It isn't as cut and dried as go out and spend X amount of dollars on this nuclear plant, conceive this many megawatts. But I really think with conservation and some look at some of these other options, like with the natural gas price the way it is, I do think that maybe it's something that could be used as a baseload — maybe natural gas, or even the option of buying power from Manitoba — and then look at some of these other options as far as filling in. We've been shot down about a hundred times saying, oh gee, well the wind isn't going to replace the baseload. We're not stupid. We do understand that, but we really think that this . . .

We've got a young government. Take it and run with it. Like I really do feel that if we got on the right track, you know, people would be just tripping over themselves to get on board and do these sort of things. We've got all these resources and I really

think there is a future, like to . . . We've got machine sheds throughout Saskatchewan and can't imagine filling them with solar panels, what kind of a future we could behold. And farmers are cheap. And like if there's money to be made at something, like invest in things, you know, it really does . . . I think we've got to be looking at these things, and rather than in a box and saying, well gee, this nuclear thing is going to come, and there's X amount of jobs, and it's going to solve our power thing. This other way isn't maybe so cut and dried, but I think it's really worth taking the time to look at. And it's going to take some work to do it, but I really do believe it's worth it.

I've got these pictures I'd like to pass around. We went by this wind farm in Montana, and the rest of them are just kind of some of our local pictures. One of them, we've got cattle next to the river in a pasture out near Frenchman Butte. That's where this intake from the nuclear plant was supposed to go.

And to my way of thinking, that's part of Saskatchewan, you know, to drive through it, and see the beauty of the country. But anyway, I'll pass these pictures around. Maybe Aaron has got more to say here.

Mr. Hougham: — I guess as we studied up as group members in our organization, we realized that renewable energy sources, you really do have to have a serious look at. I think there's tremendous potential there as entrepreneurs and stuff. I think there's opportunity for rural people or individuals to try and produce either your own power or supply some to them. And I do really request from the committee that you do give that serious consideration. I think we have a tremendous potential for not only our generation but the next.

Mr. Priest: — Another thing I just want to touch on, going back to the nuclear thing. I think the whole thing with the nuclear waste — Aaron touched on it in his presentation as far as — right now we don't have it, and I don't think we have any liability to store the stuff here.

But we opened the door to nuclear. And we had some people from the Nuclear Safety Commission holding meetings in Lloydminster. It was part of the process of selling it in Lloydminster, I take it. Anyway, there were a couple of questions brought up on nuclear waste and you could tell that those fellas were just licking their lips about these mines in northern Saskatchewan and how ideal of a spot they felt it would be.

And I really don't think, it might be out of sight, out of mind up there, but we don't want to turn Saskatchewan into a dumping ground for nuclear waste. You could tell that it was something that really appealed to them. They thought it might be a perfect spot for the nuclear waste to go. I guess that's what we're looking at, is the real future here.

The Chair: — If I could catch you at that point, it might be a reasonable point, and our time is about where we need to be to start the question period. Thank you very much for your presentations. And Mr. Weekes has some questions.

Mr. Weekes: — Thank you, Mr. Chair. Thank you very much for your presentation. It's very good. I'm glad that your committee from that part of the province is here to give a

presentation. Certainly I thank you and welcome you and your community for pointing out your concerns. I mean these are all obvious concerns that everybody has really around the world, so I certainly appreciate you coming here today and reminding us of, you know, really the potential of this province and the beauty of our province that you've pointed out again.

Obviously you've raised the nuclear issue and there's certainly no . . . You know, you can look at the potential health concerns and storage concerns and all those, but it also . . . You raise the obvious point is the cost of power generation through nuclear means and that's certainly an open question. I mean we've seen around the world that there's cost overruns in building these huge nuclear power plants, and so thank you for raising all those concerns.

The challenge we as a new government have — as SaskPower pointed out in their presentation on the first day — is number one, is to replace aging infrastructure in the electrical generation field. There hasn't been any substantial new electrical generation facilities built since the Shand power plant was commissioned in 1992, and under the 16 years of NDP [New Democratic Party] government, there wasn't much done on that. And now we're having to catch up and replace aging infrastructure, and we've really lost, you know, 16 years of building and maintaining our nuclear — sorry not nuclear — but electrical generation power.

The other thing that the SaskPower pointed out again is that not only we have to replace the aging infrastructure and catch up on the lag of no new infrastructure coming online for those years of NDP government, but to also take into account for a growing economy.

It's interesting. We had one of the presenters yesterday actually said, well one of the ways to solve it is don't grow the province and don't have an increased population. Well that's not on. I mean our Saskatchewan Party government, that's what we're going to do. We're going to grow the economy. We're going to grow the population. Our challenge as a committee here is to find the right mix of electrical generation. And my question to you is, you've raised renewables, so those are all potential parts of the mix of electrical generation in the future.

A number of questions have risen again. I mean SaskPower has said that, you know, there's going to be an increased power cost to the consumer. If you have a number, what does the general public . . . I hope that they are getting a sense out of this of the concerns of the increased power costs in the future. And when you look at solar and different things, some of them are quite substantial.

So could you comment on what you see as the cost of power being? What is the acceptable cost of electrical generation in the future? And also what do you feel is the right mix of different power options in the province? And you know, you've obviously made your points clear about nuclear power; you can take that out of your comments. It's non-nuclear, is what I'm asking questions of you.

Mr. Hougham: — Basically you know, I guess, Mr. Weekes, we're not actual experts in the field. We have some views and through our readings and whatnot. They're professionals that,

you know, make recommendations in this manner.

This is a tough question for the committee, isn't it? Because what is the appropriate balance?

Mr. Priest: — I think that's where the challenge comes in. It's that it is going to take some work to find the right mix, whether it be . . . We're not here to overpower you with numbers. There's a lot smarter people than we are, as far as versed on what the power costs are, and I think we're wasting our time here trying to come in and feed numbers to you. There's a lot more people that are in the know and understand that.

We do understand that there needs to be a baseload surrounded by renewables and that. And I do think that just the natural gas might be something to look at and even buying power from Manitoba.

I don't know what the costs are, but in this nuclear talk around our area, that was going to be part of the thing: well if the plant was built here, maybe we'd sell some of the power to Alberta. Well if Alberta is going to buy the power from Saskatchewan, you know, maybe that's an option. Whether it may not be nuclear power that we're buying from Manitoba, but maybe it's something that needs to be looked at. The SaskPower people, it probably won't be at the top of their priority if they're trying to maintain jobs or whatever, but it's something. And I really do think that there's a mix that can be had.

We read a quote out of the *National Post* regarding Moody's, if I can just read it here:

On June 25, US credit-ratings firm Moody's Investors Service reported it may take a more negative view of power companies looking to build new nuclear powerplants, pointing to the risk incurred by developers. Moreover, in 2008 Moody's noted that traditional technologies have fixed designs whose costs are rapidly increasing. Renewable technologies, it said, are still undergoing advancements in terms of energy . . . [conservation], efficiency, and cost reductions.

And I guess that's where, personally, I come from. I think that if we get into a scene like the nuclear thing is such a big cost that we're going to put all our eggs in one basket, and maybe some of these technologies will get better with time. And like it said in this report things get cheaper as you go on and it's just like anything else. In 10 years' time well maybe they do have better storage for the wind power and that and we don't know that.

And I guess we're not here saying well, replace the nuclear with total wind power. It isn't that, but I really think that it's going to take some time to find out what the mix is, whether it's to find a baseload and show some incentives to get people using the wind and the solar and like, you'd be just amazed how people would take to that, I think. And maybe all of a sudden, the power consumption isn't needed as much when you've got these farmers generating some of their own power.

[10:30]

I don't begin to understand how it all works or what's . . . Just

looking from the outside, when we were through Montana looking at these big wind turbines that I have in those pictures there, they're huge and it takes a lot of wind to turn these things over. To me, why not have thousands and thousands of smaller ones that can be tapped into the power lines. Aaron's dad had a comment on the way down on one of our trips somewhere like, why not be putting little windmills on top of every one of the power poles and being able to put it into there.

Like, I don't understand that part, but I think with some work on even the energy conservation part of it, I talked to Tim in his office one day talking about that it's amazing what advertising would do and incentives to try and get people conserving energy. We just built a new house at home, and I'm probably worse than anybody. We've got lights everywhere, and you know it certainly isn't going to get any better.

But get out there and, you know, push the point. It maybe isn't as exciting as adding value to uranium but I really think that . . . I hear all these commercials on TV talking about colorectal cancer, go get checked. I'm scared of doctors; I hate doctors, but I'm going to go get this thing checked. I've heard it every 10 minutes on the radio.

And it's the same thing with energy conservation. Get people thinking about it. Get them into a different frame of mind because it's pretty easy for the government to say, well gee, we've got this big nuclear project and it's going to generate X many jobs. But I really think it's worth the time to take to try to figure out this mix and figure out where we should be at. And it might not be the easiest way of doing it, it might not be the most high-profile way of doing it, but I really think that that's what we need to be looking at.

Mr. Hougham: — I think too, actually, that the people have very much a genuine concern about the environment. And to get back to your question — like what kind of mix and how do you go about it — the purists on one side, they want to say, well you know, we want a really expensive cost to power, because we do not want any effect on the environment. And right now we're at a stage where we've been producing most of our energy through coal.

Like we realize this isn't a solution that's going to happen overnight. We grow into it. But we would like to encourage the committee to think about the . . . I think people have, really across the province, a genuine concern about the environment. And I think that we want to be very much conscious of that when selecting our power choices.

And we do realize that the price will go up, but as a committee, that's the balancing act that you have when you select the power choices in the future — you know, costs compared to environmental. And that's tough. And looking in the future, how do you tell what technologies are going to be in 10 years? You have a very tough, you know, very difficult job. Like right now solar and wind are expensive, like you said, Mr. Weekes, but in the future, are they going to be? These are the unknowns; it's a very difficult situation, very difficult question.

Mr. Priest: — I guess, I don't think we have a number value as far as where we should be at, with your question to us is where we figured the power costs should be. And we do understand

that, like with the new restrictions with carbon and whatnot, that you can't burn coal. That might not be the option. And you can't burn things as cheap, and I think that part of it's changing too. Like I don't know . . . From what I understand there's quite a storage of coal for the future, and who knows where it's going to fall out. But we're not naïve. We know that the prices are going to need to increase, but we don't have any firm numbers.

Mr. Weekes: — Thank you very much.

The Chair: — Mr. Belanger.

Mr. Belanger: — Thank you very much. First of all I want to thank you for your presentation. It's one of the purposes of the additional hearings that we're accommodated. And this committee doesn't report to a minister or doesn't report to the Sask Party or doesn't report to the Premier. We report to the Assembly, based on the findings that we have heard throughout the province.

And I certainly thank you for your eloquence and your enthusiasm. And that's exactly our sentiment in the perspective of going out, seeking advice from the people. And I can tell you right now, that based on some of the information that we've heard, that 35 customers in Saskatchewan account for 45 per cent of the electricity consumed in the province. And that's of course your large companies. And we're not foolish as well to say, no, we don't want business; no, we don't want growth. Let me correct that — we do want growth, and we do want business opportunities.

But the key thing that you raised is that have we afforded the renewable energy options as much time and attention as alternatives to the UDP process as presented by my colleagues across the way? We argue that no, we have not afforded the same resources not the time nor the attention. I think there was a decision made to put all eggs in one basket, and that train has left the station already. We are arguing no. No. You've got to listen, go back to the public and ask them, what do they want? What is it truly that Saskatchewan wants?

So I want to encourage you to continue your efforts because it's a really important message. And not getting into your argument of what option is better, we need to investigate all the options from conservation, to solar, to wind, to geothermal. And the list goes on.

Now we've heard over the last number days that billions of dollars that different companies in the economy is sinking into renewable resource opportunities — not just research, but actual usage. You know, you look at some of the countries like Germany, you know, has a lot of wind generation capacity. And all the people of Saskatchewan are saying, let's look at these alternatives. Let's not get into the political debate. And that's why I encourage the focus here today. Focus on what we need to do to make Saskatchewan energy sufficient and being able to supply enough energy to our public.

Now on your notion when you mentioned we don't have all the expertise on our side, we don't have all the data and all the numbers that we throw. We would argue that there are experts out there. There are people out there that have that information, but there is a decision somewhere along the line to stop that

information from coming forward, from coming forward in terms of all the necessary expert advice in the direction that people of Saskatchewan need.

Now on my point, and my question I'm going to ask is, in your humble opinion, do you believe that had there been a fair process allowing as much resources, if not more resources in time, to all the energy options that are out there, instead of just putting \$3 million and a 12-panel group of experts into the uranium development program as initiated by the provincial government? Do you feel that it was fair? And do you feel think that there should be adequate resources to all the other options that are out there? First question.

Mr. Hougham: — Well basically, in going back to the public consultation and the Perrins report, that was one of the recommendations that Dan Perrins brought forward on behalf of the public, saying that all energy options should be considered and should be studied. So having him bringing forward that on behalf of the public and the Saskatchewan people, you know, I would agree with that statement. I think we have to keep an open mind when we're seeking our power options. So that would be my answer to that question.

Mr. Priest: — Yes. And if I can too, I guess that's where we're looking at it. We'd like to see an even playing field.

Just my personal opinion, I think this whole thing really didn't start with the needs for power. I think it started with the adding value to uranium. And maybe after hearing from the public and realizing the views, you know, maybe it is time to step back and switch gears and take a different direction.

I always felt with Ralph Klein, that that made him the successful leader he was over in Alberta — that he'd step up and say, well maybe we're going at this the wrong way; maybe we should stop. The public could really relate to that. I know I make mistakes every day. And hearing a politician say, well maybe, gee, maybe we should be doing something different. Like, I really think that switch gears, pull back and say, well maybe this uranium, maybe we can be shipping out of it the way we are . . .

We've got cattle getting shipped out of here; they're not going out in a boxed beef state. There's a lot of different commodities that aren't. And I'm not saying that they shouldn't be, but to dig in to the whole uranium thing and create the waste and whatever, I really do think that there's different ways of going about it. I don't think it would be wrong to pull back and switch gears.

We've got a young government. And if you ever got involved with this technology and promoting the building of solar panels and wind, it would just be amazing how people would jump on board and create quite a lively economy. It might not be all jobs in one place and you might not be able to spell it out, but the spinoff from a lot of these things, I think it could be amazing. And it might not happen overnight or in a 10-year project like a nuclear plant being built, but I think it's really something worth looking at. Thank you.

Mr. Belanger: — In my second and last question, just to preface that with the point that a decision has been made

already. A decision has been made, and we are arguing that there ought to be the other investigations and other opportunities presented. The SaskPower Corporation itself is much like any other utility out in North America, that they are all facing the same dilemma. They have an aging infrastructure, rising costs of production, thus they've got to try and find a way to pass it on to their consumers, customers. So it's not a new problem for utilities, per se.

And we are saying that if you guys are going to retrofit, if you're going to spend all this money into rebuilding your system, wouldn't it be wise to consider all the energy options, as opposed to sinking your eggs into one basket? Isn't it the wise thing to do? If you're going to spend the money anyway, shouldn't we spend the money on developing and generating the capacity to match what our demands are?

And let's look at conservation. Let's look at reducing the load demands. Let's look at all these alternatives. Let's look at net metering. Let's look at all these options that people are telling us as a committee. And we're saying there's nothing wrong with that. That makes sense; that makes sense.

So how do we figure that out from our perspective as a committee to bring that message forward? And much like yourselves, the people of Saskatchewan right across the way are saying we better start getting this right because a lot of you guys just aren't getting it — talking about us guys, talking about politicians. The people want that change and they demand the change. And they want all these energy options investigated thoroughly and maybe even financed, and maybe being part of the mix when it comes to their Crown corporation called SaskPower. Then that message ought to be heard.

So my point in asking all these questions is, based on the fact that you look at all the developing technology — the wind, solar, and so on and so forth — what do you think the appetite of the people of Saskatchewan would be if they had to pay a little bit more for some of these renewable energy technologies? You know how it rapidly changes, the technologies and opportunities change. And if they said to us, what if we paid a little bit more for those technologies and those options, as opposed to sinking all our money into the UDP process as proposed by the Sask Party, do you believe that the appetite is there? And how much do you think people would be able to want to pay to make this happen?

Mr. Priest: — Yes. I really do think the appetite is there. And the people of Saskatchewan are, you know, I think they're pretty open-minded in a lot of these things.

I guess I didn't see SaskPower's presentation or what it was all about or whatever. But I guess it scares me a little bit. In the UDP reports, I went to a couple of different centres. I went to Prince Albert to one of them and to Lloydminster. And out of the whole room of people, like, the only people that were standing up in favour of this nuclear thing — I shouldn't say the only people — but in Lloydminster, there was two workers from SaskPower, one was from Estevan and one was from somewhere else. But they were the people standing up in favour of nuclear power. And if they're going to be part of the main decision on what happens in this province, I'm not sure where we're going to end up, whether we are going to get the proper

read from the people — not only the government.

I understand how hard of a job it is to sort through all this. And SaskPower as well, I think they really need to be listening to the people here.

Mr. Hougham: — Yes. It's a tough question for us, in that our expertise isn't in this field. But in studying power costs in different provinces, Saskatchewan has one of the more inexpensive power supplies of any province, you know, partly because of the way it's produced.

But it's a very tough question for me. On one hand, if you increase your costs, you do have effects on your workers and your economy. On the other hand, that's what the committee actually, this committee will have to weigh.

[10:45]

The public definitely wants a safe, clean energy source. And I see it more so in the younger generation than the older generation. And they're demanding that; you see it in our group. You see they're the people out working hard on these issues. But there is the trade-off of if power costs are too high, that does affect your economy.

So I think there is a genuine acceptance that power costs are going to increase. People definitely do want clean power. And the exact amount, I'm not sure on. I can't give you that.

Mr. Priest: — And I do think that, you know, maybe these costs are a little bit more. And myself, I'm willing to spend more if I know that it's renewables. And I really do feel that maybe right now that they're going to cost more. But in time, you know, maybe those costs come down and be more comparable to everything else.

Like, as technology improves, it . . . I've got a neighbour that's built a house, and he's gone to California to bring the solar panels in because they're that much cheaper. And just like anything else, I'm sure that as time goes . . . And if you ever started to manufacture the darn things in here — look at all the iron and that that gets built in Saskatchewan — and it could be a real hub, the way Saskatchewan's going right now. And it could be the next thing.

I watched the show on some entrepreneurs from Ontario having to move to Germany to get the funding and that to build solar panels. And he's three years behind in making these solar panels because there is such a demand for it. And the people of Canada, there just isn't the incentive there. And that's really where I think the real opportunity is for the government, is to get involved in something like this. And it might not be right in front of our face right now, but jeppers, like that fellow, he was paid by the German government to do a lot of this, and he's doing very well with it. And I think we're missing the boat with a lot of these things.

Mr. Hougham: — And going back to actually Moody's quote here is that, you know, the present, current way of producing energy is standard; whereas alternatives, we have cost-efficiencies and potentials to improve the technology. And where that leads us in five or ten years, who knows. Like at

present time it might cost us more, but in the future, it might be less. So that would be best case scenario.

Mr. Belanger: — Thank you very much. And just to point out that in Germany, when they made the transition, I think the figure that was given to the committee yesterday was \$4 per month an increase as a result of some of the wind generation. So I think your point, absolutely, that if you have the opportunity presented to the people and to industry, and they have the ability to generate that power in a much more environmentally sustainable fashion than a lot of other people. And people just are not given that opportunity. Thank you very much.

Mr. Priest: — I'll just finish up and . . . anyways and I know when it comes to that, just to those pictures and that, driving across the countryside with the cattle next to the wind turbines, I have no problem. Like I understand maybe there's some noise comes off them or whatever. But for \$4 an extra a month, I'd sure be willing to see this sort of countryside and preserve our way of life and our surroundings rather than, you know, be living next to a nuclear plant. Thank you.

The Chair: — Mr. Bradshaw.

Mr. Bradshaw: — Thank you. And again thank you for coming here and bringing your points forward. I especially want to thank you for, in your write-up, of commenting on how you were very happy with the UDP process. It was nice to have that put forward. We've had some people say it was a very flawed process. And it's nice to have somebody come back and say this was a good process to have within this province of ours.

We've talked quite a bit about renewables. We were talking about the renewables and I think it's a good idea. And it's been brought forward; of course the smart grid system is being brought forward. And we're going to be looking and this committee is going to be looking at things. And I thank Mr. Belanger for bringing that up — how we're going to be going through as an all-party committee and looking at all different aspects of this.

Now we do have a couple of those minor problems here. And one of the things was said, that we could get, you know, let's get some more power from Manitoba. Unfortunately Manitoba, my understanding is, right now they can't supply any more power to us there on their hydro until 2020. So you know, we have to look at what we have to do in this province.

The other thing is, too, is I hate to rely on somebody else to be supplying our power because what happens if something takes off in Manitoba and then all of a sudden, you know, they run into a shortage? I think we better be self-sustaining with our power.

We've heard about the wind. And we all know that the renewables — the wind, the solar — can only do so much. And it's been brought to our attention quite a few times about how Denmark is a leader in producing 20 per cent of their energy from the wind. But you still need to have that baseload. And here's the catch — Denmark, right across the border in Sweden, Denmark is tied in to their grid. They have a nuclear power plant, and that's where they actually draw their baseload back

out to help out Denmark's wind. You know, so it's still there regardless.

That being said, I think we see a large amount of the people don't — do not — want a nuclear end, and this committee has to look at all different aspects. And I guess my question goes to then should this committee — and just in your opinion — should this committee be looking at the clean coal end? Because we do have a lot of coal in Saskatchewan. Do you think that is an avenue to go on? Or should we be looking at biomass or something like that to do the rest of it? Because our hydro, we could maybe get a bit more, but we're pretty limited here in Saskatchewan.

Mr. Hougham: — Actually in speaking, we had an opportunity to meet with Minister Stewart, and he actually explained some of the clean coal project that was coming forward. The abundance of coal that we have, it's very much an interesting approach. And I hope that the clean burning coal aspect does provide a clean energy source.

I think that because we have such a abundant supply, we have to look at that as an option. And I hope that it's successful. It sounds like Saskatchewan is a leader in this undertaking. And I encourage the government and the committee to look into that. I think that that's a tremendous opportunity that does have potential.

Mr. Priest: — And I'm not up on it by any sense of the imagination, but I do think right now by the sounds of it, like, I think the clean coal's fairly expensive, but it's just the same thing like everything else. I would think maybe there's opportunity down there. Maybe as time goes on, maybe that will get cheaper.

And I'm not sure where natural gas fits into your picture, and that's a question for you. I'd like to know whether that's sustainable or . . . Like from my understanding, there's been a lot more natural gas in the last couple years. The supply has changed. The price has changed. And what I've been hearing — I haven't been researching it to any extent — but from what I understand that the future looks like a low, low natural gas price and a real good supply of it. And maybe the Manitoba thing isn't there for a baseload, but something like that. With these other things reducing our need for baseload, maybe the natural gas could supply the baseload or clean coal, along with a lot of these other things.

We're not here saying, well gee, we've got to have windmills everywhere; that's got to happen. When Bruce Power came to Britannia to start with, we went and met. And Milt Wakefield was the representative for our area, and he told us that it would take 1,500 windmills to replace this nuclear plant being proposed. And with Mr. Belanger's comment as far as putting a windmill farm, whether it's maybe in a farm form somewhere, I think people would be a lot more receptive to that sort of thing, whether it's along with some of these opportunities like the clean coal and whatnot.

I'd like to know where natural gas fits with you people as well, like whether it's part of the mix or can be. Thank you.

The Chair: — Mr. Bradshaw.

Mr. Bradshaw: — Yes, I guess on the carbon end of it, on the carbon end of it, all we know is that natural gas is about half of the carbon footprint of the way coal is — or at least the way that they plan on taxing. But we don't even know what that's going to be yet, like I mean that's . . . We don't know. That's another one of our unknowns. We don't know where the federal government is going. They're probably going to follow the US [United States] on it, but we really don't know. Anyways thank you very much for coming today.

The Chair: — Well I would like to thank you both for attending today . . . [inaudible interjection] . . . We're at 11:55. We have someone attending in five minutes. If your question is quick, we will indulge you.

Mr. Wotherspoon: — I also had some statements. I wish that members opposite would focus on presenters. I think it's incredibly refreshing — as opposed to partisan games and spin — it's refreshing to listen to two people who care so deeply about the land around them. They're here for all the right reasons, focused on the next generation. And I thank you as well, along with many other groups who have pushed back and caused a government that was tripping over themselves in pursuit of nuclear power not long ago to retreat from that position and maybe start to sing from a different songbook. And I hope there's sincerity in that new message that's coming there.

My question would be, I guess specifically, you've talked about all the economic benefits of renewables. I think this isn't a choice of choosing a new economy. Or actually in fact I think it might be a choice about a new economy. But certainly when you look at the renewables and the economic growth, the role for entrepreneurs — the role for individuals across this province — with renewables is huge. And I think you highlight those very well.

I would ask you specifically: did it seem strange and possibly presumptuous to have Bruce Power and a former Sask Party MLA out in your area trying to secure land for a nuclear power plant before any consultation had occurred?

Mr. Priest: — Yes, I don't know what the process is or how it happened. But I guess we were informed as landowners that . . . part of Aaron's family was approached as landowners, and I guess this is how the whole process started in our area. But I guess one thing Bruce Power has told us, the government's told us, that if we don't want it in our area, that it isn't going to get pushed on us.

And we've got a resolution on the table showing that we've got 95 per cent of the people that are against it in our area. And through the UDP report, there's 97 per cent of the people in Lloydminster. We've got a stack of letters here showing that people aren't for it. And I hope somebody's true to their word and respects us for it because maybe there is some place in the province that's for it. I haven't seen it, and I truly don't believe that. But in our area, I know the people, and it's cut and dried — we don't want it there. And we're strong on that.

Mr. Hougham: — As a community, we've worked very hard on that. And we're passionate about it. I want to stress to the government and the committee that it's not just a whim. People have worked hard on this since the middle of February. Every

day they're doing something. They feel one way or the other and very passionately, very passionately.

And I do want to close in saying that Saskatchewan as a province has tremendous opportunity. We can look around, ourselves, and we have so much potential in so many different ways. And I think that if we use different avenues in our energy choice that we can be leaders; we can truly be world leaders in energy development.

And I really do appreciate being able to spend this morning with you folks. You're all elected officials and represent us and doing a tough job. This committee has a tough task ahead of it because you're making decisions for the next generation — for our children and your children. And I really appreciate the time that we've had to spend with you and very much appreciate the work that you're doing.

Mr. Priest: — And I'd like to, I'd like to thank everybody. And we do realize that it isn't just going to happen overnight and that you do have to look at all avenues. But I really do feel that that is the true feeling of the people, and I know especially in our area.

But I'd like to thank you for your time and it was good meeting everybody. Through this whole process — I think that's one thing — we sure met a lot of good people along the way, whether they're agreeing with what we're saying or whatever. But we've learned a lot. Thank you.

The Chair: — On behalf of the committee, I'd like to thank you both for making it up — it wasn't the nicest morning — and putting the presentation that you did. So thank you very much.

We'll now recess momentarily while the next presenter joins us.

[The committee recessed for a period of time.]

The Chair: — I would like to welcome everyone back for our second presenter here this morning. Before we hear from our presenter I would like to advise witnesses of the process of presentations. I will be asking all witnesses to introduce themselves and announce anyone else that may be presenting with them. Please state your name and, if applicable, the organization which you are representing. If you have written submissions, please advise that you would like to table these submissions. Once these submissions are tabled, they are public documents and electronic copies will be available for the public on our website.

The committee has asked all presentations be in response to this question: how should the government best meet the growing energy needs of the province in a manner that is safe, reliable, and environmentally sustainable while meeting any current and expected federal environmental standards and regulations and maintaining a focus on affordability for Saskatchewan residents today and into the future?

Each presentation will be 15 minutes with questions to follow. I will then ask that you proceed to your presentation. Once your presentation is completed, the committee will be asking you questions. I will direct questioning and recognize each member

that is to speak. Members are not permitted to engage witnesses in any debate, and witnesses are not permitted to ask questions of committee members.

I would also like to remind witnesses that any written submissions presented to the committee will become public documents and posted to the committee's website for viewing. And with that, I would like to welcome our presenter and ask him to lead off with his presentation. Thank you.

Presenter: Dr. James Penna

Mr. Penna: — My name is Jim Penna. I'm a retired professor of philosophy. I taught at St. Thomas More College at the University of Saskatchewan for many years, and then I went down and taught at North Dakota State University. I'm here on my own behalf, but I am a member of the inter-church uranium committee — I have been a member since its founding about 30 years ago — and also belong to the Coalition for a Clean Green.

So I would just want to enter into my presentation at this point. The order of reference for the Standing Committee on Crown and Central Agencies that I read online states that you shall conduct an inquiry to determine how the province can best meet the growing demand for electricity. And of course here the assumption is made that there is a growing demand for electricity, and we have to be able to establish that.

But my concern would be, does that mean that conservation and more efficient use is off the table or that it's not a serious item to be considered? I hope other people have addressed that question because I think that's very important. There are experts like Peter Prebble, Dr. Mark Bigland-Pritchard, Amory Lovins, Jim Harding, and others who are better qualified to address those kind of questions. That's not what I'm addressing today.

The statement also goes on to say that meeting the growing demands for electricity should be in a manner that is safe, reliable, environmentally sustainable, and affordable for Saskatchewan residents. Well in my mind this clearly rules out nuclear. You just need to consult the Perrins report and read all the briefs there and the briefs that were very, very thoroughly researched and presented. And there was a lot of work that went into those, I assure you. They weren't just simply people spouting off opinions. But I also assume that your committee is not about to revisit the nuclear issue and that this inquiry is really about safe, reliable, environmentally sustainable, and affordable energy for the province.

Now although many think that this inquiry is simply a knee-jerk reaction to the part of the Saskatchewan government to the poor reception by the public of the government \$3 million funding and appointment of a biased UDP panel and its report, I trust that your committee is acting in good faith.

So be that as it may, my intention here is to bring to the attention to the standing committee some basic moral political considerations and principles that should govern your considerations and that should be respected in making safe energy choices. Now although the following moral concerns may be formulated in what might be considered Christian terms, they also reflect similar fundamental values of other

beliefs and world views. And we could discuss that if we had the time, but that's not what we're about here.

First point I'd like to raise — that all creation is good. It's interconnected and it's interdependent. And therefore all the creatures are gifts. Some consider them gifts from God. Some consider them gifts of nature. They're gifts to us; we didn't create them. They're to be nurtured and safeguarded with which we enjoy a type of kinship. We're interrelated with them. Therefore the earth's ecological diversity, beauty, and health must be protected. So that's important in your considerations and your choices that you make.

Another point is that the earth has intrinsic value. We cannot view our relationship to nature as an I/it relationship. And what I mean there is we can't treat it as an object that we can manipulate at will and do whatever we want. That's the way in which we have approached it. We think we can do with what we want. To abuse creation therefore constitutes a lack of humility. It leads to hubris, leading to a type of despair or even blasphemy.

Two hundred years ago, a philosopher named Hegel said, there's going to come a time when there's going to be a world consciousness characterized by stoicism. Stoicism, the attitude whereby . . . what happens is we feel trapped. We don't know what we can do physically. And yet we think we're free. Well we're in that kind of situation today, globally speaking, with the climate change. The problems have become so great we feel trapped by what we've done to ourselves. And we have to sort of deny almost. There's a state of denial on the part of many people. I don't want to get into all of this, but this is the kind of thing when they're talking about a type of despair. People do despair; people are afraid of what's going on. So we have to be wise in our decisions and what we make and what we do.

The Hebrew scriptures, Jesus and many respected persons, such as St. Francis of Assisi, and indigenous peoples make numerous references to flowers, to birds, to crops, seasons, and weather, and how they reveal the nature. And that nature itself reveals and has a revelatory significance which makes visible the power and the beauty of God and the majesty and the grandeur of mother earth and the entire universe.

Therefore when people destroy or damage creation, they are limiting their ability to know and to love God, to respect, to love their neighbours, and to care for and share in the goods of the earth. The earth's resources are there to be shared by peaceful means and in an equitable manner that allow current and future generations to meet their needs.

I'll put in an example here. I just finished submitting something to the Canadian Nuclear Safety Commission. I don't know if you're aware of what's going on right now there. They're going to have a hearing here on November 5. And that hearing is, Cameco has an application in to renew their Beaverlodge licence. And right now, I think up in Uranium City — today as a matter of fact or was it yesterday? I think it was yesterday — they were up there having a consultation period. And if you look at, not my words, you look at the report of the Canadian Nuclear Safety Commission, the staff, that they submitted to the last meeting in January and the one that's coming up here, it's clear evidence that the contamination at Beaverlodge will

continue on for a total of 156 years, and that's an estimate.

We got radium leaking into the environment, and they really don't know what to do about it. I think we have to be aware of what has happened and that we can't perpetuate this same kind of problem. These are not my words. You just go and read the documents. And this is one of the things that I find so painful, that people don't know what's going on and the documents are there available, although the CNSC [Canadian Nuclear Safety Commission] sometimes makes it difficult to get a hold of them because they won't post these things online. You have to know what to ask for.

But this is the kind of problem we're dealing with. We're contaminated. We have contaminated and we continue to contaminate. And if you look at Key Lake right now, you know, at the reports of the Canadian Nuclear Safety Commission there, if you look at the Key Lake, there are tailing facilities there that are, you know, corrupt, falling apart. The walls are crumbling. The drainage pipes are plugged. There's sloughing of sand. There's contamination 10 kilometres down lake from there.

[11:15]

We have to be very careful in what we're doing. Creation has limits and constitutes itself an objective order that requires respect. Therefore when we allow creation to be damaged and degraded we risk losing our sense of God's natural order and even our recognition of our own limitations. We cannot think we can act with impunity when we interfere with nature. Sooner or later our hubris or callousness will catch up to us. This is what the climate change crisis is all about. And as the medieval thinkers of the so-called Dark Ages wisely warned, nature abhors a vacuum. Climate change clearly proves the point.

Next, the pursuit of the common good reaches beyond our province and country. It has a global, international dimension. In the interests of solidarity and the common good, decisions made for the benefit of one community must not violate the rights of other communities. Therefore even great financial gain does not justify serious harm to the environment or the violation of people's rights.

Now I could elaborate on that. You're not here for a lecture on me, but I think you can understand the point that I'm making. When there is uncertainty as to whether a development project or energy source seriously endangers the environment, the precautionary principle, utilizing prudence and caution, should guide the decision-making process which itself must be administratively transparent.

The precautionary principle is a moral and political principle which states that if an action or policy might cause severe or irreversible harm to the public or to the environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action. The principle implies that there is a responsibility to intervene and protect the public from exposure to harm where scientific investigation discovers a plausible risk in the course of having screened for other suspected causes. The protections that mitigate suspected risks can be relaxed

only if further scientific findings emerge that more robustly support an alternative explanation. In some legal systems, as in the law of the European Union, the precautionary principle is also a general and compulsory principle of law.

That's taken from Wikipedia, but I've also, in my formal submission I will give you other information on that. But I thought that was a pretty comprehensive description of it, so I thought I'd use that.

But also the underlying point here is this: in the past we have been able to operate on the presumption that, well, we really don't know what might happen, but you know, there are some benefits to be gained. Let's go ahead and then we can correct the problems later. Well that's no longer viable, if it ever was. We have a moral responsibility for our ignorance. We can't think that because we don't know, we can go ahead and try it. Given the nature of modern and contemporary technology — nuclear technology and all the other technologies — the damage that is done is irreparable in many instances.

And so we just can't take the chance any more. We have to know what the outcome will be. And when they were mining Beaverlodge, I mean, they knew — they knew a lot of the things that were going on. They were just plain careless. So they're culpable for their negligence there. But in a lot of instances, we don't know what the outcome is, and we have to be aware that there are dangers associated with what we do. And if we don't know and if we can't predict with accuracy, we can't go down that road.

Massive projects that clearly endanger the environment must be approached in a deliberate, open, and consultative manner. And the principle of subsidiarity should be applied and respected. Subsidiarity — that's the principle which is defined in article 5 of the treaty establishing the European community. It is intended to ensure that decisions are taken as closely as possible to the citizen and that constant checks are made as to whether action at community level is justified in the light of the possibilities available at national, regional, or local level.

I'm quoting here:

Specifically, it is the principle whereby the European Union (EU) does not take action (except in the areas which fall within its exclusive competence) unless it is more effective than action taken at national, regional or local level. It is closely bound up with the principles of proportionality and necessity, which require that any action by the EU should not go beyond what is necessary to achieve the objectives of the Treaty.

Let me interpret this very quickly. In other words, if energy can be generated at the local level, then it should be generated at the local level. You know, the democratization of energy sources and generation of energy is the principle here. If you can do it locally, you can supply your own needs, you know, do it locally and supply your own needs. You don't have to have, you know . . . absolute necessary that you have a mega mega complex. That's the principle. The principle's subsidiarity. This is what was being told to you before when you heard from the group from Lloydminster. They're saying, you know, we can do

things locally.

The relationship of indigenous peoples, of farming, rural, and urban communities to the land and resources deserves particular attention since it is a fundamental expression of their identity. Therefore industrial projects that directly affect traditional ways of life for First Nations, for Métis, for farming, for rural and urban communities must receive their support and approval — can't override them.

All people have the right to participate fully and have control over decisions that affect their lives and communities. This is what democracy is about. They need to be informed. They need to have the information. They don't want decisions made for them, particularly when it's in these vital areas. You've heard this before. You don't need me to tell you that.

So this information that I've presented here, I've taken from other sources, and I'll present that in my documentation. But those are some of the considerations . . . [inaudible] . . . I'm sorry? Three minutes. Okay. Well that's it.

The Chair: — Would you like to go straight into questions? Because we are quite flexible. Okay.

Mr. Penna: — Questions. I prefer questions. I'm better in questions.

The Chair: — Absolutely. I didn't want to cut you off improperly though. Mr. Weekes, you had a question?

Mr. Weekes: — Thank you, Mr. Chair. Thank you, Dr. Penna. I really appreciate you coming to make a presentation in front of the committee. I appreciate the time and effort that you've put into your presentation.

A number of presenters have, like you, in a general way have gone from where we are today to where we want to be. And I think most people would agree that there's, some might say, a utopian position. But I think that when we look at the environment and what's going on, certainly we as a province need to move to a more sustainable situation.

The problem or the challenge is, we've got a long way to go from today to where we were. And today our electrical generation is based on dirty coal, and it's going to be that way for the foreseeable future. And how do we deal with that? We talk about clean coal; we talk about other renewables. Obviously you've made your opinion very clear about nuclear, as many have.

And the situation that SaskPower raised on the first day of hearings was that we have an aging infrastructure, aging energy electrical generation system, and we as a government have inherited that situation. Under the NDP there was 16 years of really no new energy electrical generation. And so we've inherited a situation of an aging infrastructure, lack of foresight on the NDP government of the day. And through those 16 years of NDP government there were never any public hearings on the future of energy, or legislative committees were struck to discuss the future of energy power generation in Saskatchewan.

There was a comment made that our government has made

some decisions on nuclear, and I just have to point out that when we look at what little was done in the past, and now we are at this point of needing to make some serious changes, our government struck the UDP process. And the former deputy minister to the NDP premier, Lorne Calvert, was the Chair of it. And Mr. Perrins brought down this report. There wasn't a knee-jerk reaction to the UDP report, because this legislative committee was struck during the spring session before Mr. Perrins's committee actually sat.

And I think, even though I understand your position on nuclear energy, I think it would be irresponsible for any government not to ask the public — as we have in both the UDP report and this legislative committee, all part of the legislative committee — what are the alternatives, and have people make presentation on the whole range of possible energy production.

I was interested that you have worked in North Dakota. I believe you taught there. Some of the legislators belong to — and I do as well — to the Horizon energy institute, and it's affiliated to the Pacific NorthWest Economic Region which Saskatchewan has joined after we formed government. And one of the frightening things, quite frankly, for the Americans is their lack of energy security. And we certainly are looked to by the United States as a source of reliable and safe energy — safe in a sense of there's going to be no wars here or no one's shutting off the valves and those types of things.

You made some comments about the future of energy in Saskatchewan. One is being just doing it locally, and other presenters have said, well why don't we — I believe you as well said that — we could rely on hydro from Manitoba and other sources outside of our jurisdiction. Given my relationship with the Horizon energy institute, I just wanted you to clarify, should we not be looking at sustainable energy production in the province as far as our own security energy needs?

And we're obviously in a position of exporting energy. There's no doubt about that. But looking at that as part of the whole mix, I would just like you to comment on that.

Mr. Penna: — Well you've raised a lot of points here. Where to start? But let me put it this way. What I tried to do in my presentation was to give you some — what I consider to be, and not just my own opinion — some long-standing principles that have to be, you know, respected and taken into consideration in making decisions. And I would invite, you know, you and your government and I would invite the NDP and its party and its group, anybody, to seriously consider these when they look at the options they are looking at. This is the most important point here. Now I could go through this as I have done that with respect to the uranium issue and the statements that, you know, the government has made. I mean this is not my point right now, okay?

So that's my point right now. I think that these are serious issues, very serious issues. And you have to weigh them against these principles because these are vital to our human well-being, to our provincial well-being.

Now in terms of, you know, the different kinds of sources, if for example . . . You know, I'll make general statements here. These things can be turned around rather quickly, in other

words. If our infrastructure is obsolete — I'm not judging that as such; you know better than I do — if it is obsolete, then the responsibility is to find the easiest, the most benign way of turning that around.

You mentioned the United States. If you look at the United States and you look at North Dakota, they have wind turbines going up all over the place. They've even got a manufacturing centre there where they build these big piles and these stacks that they use for wind turbines. You know, I heard that 30 states in the United States right now are well ahead of us here in Canada with respect to alternative sources of energy. They're going to have their own supply. Don't kid yourself. They aren't going to wait for us. They're not going to be dependent upon us. That's an independent country, independent nation. If you've lived there, you know . . . They're going ahead aggressively.

Oh yes, they'll look to us for, you know, additional power, etc. But I'm concerned that we are not taking the good route around the issue. And if we were to put half the money into alternatives that we have put into nuclear, we would be miles ahead today. And we can turn this thing around faster than we can turn around by introducing nuclear.

I don't know if I've answered all your questions, but those are some comments that come to my mind.

[11:30]

Mr. Weekes: — Just one quick follow-up. One of the members said the decision's been made by our government about nuclear. I just go back to your comments that there's no decision been made about nuclear power generation by our government whatsoever. Our government, quite responsibly, has just opened the question up to all energy.

And you have raised about renewables. I think nearly every presenter we've had has talked about renewables being an important part — non-nuclear renewables — being an important part of the mix. And of course we still have to go back to the present. And still, we're relying on dirty coal as our source of power, but if you'll like to comment on that. But I thank you very much for your taking the time to present.

Mr. Penna: — Just a very quick comment. As a citizen sitting out there and I don't have time to study everything that happens but, you know, we get mixed messages. So if you have government officials and premiers, you know, going around telling, you know, Saskatchewan is open for business, for nuclear business — we're going to do this; we want to do that — and then you come back and tell me you haven't made a decision yet, well why did you go make the announcement in the first place? I don't want to get into that kind of game right now. But this is the frustration that we have from the point of view of the public.

And this is probably one of the reasons why you get this big outcry, because people . . . What are we supposed to believe? You know, is there credibility here? I'm sorry. I would say it to the NDP too. I'm not trying to be partisan here. We need consistency. You know? The credibility of politicians is on the line here.

The Chair: — Our next questioner. I didn't introduce her off the start. Ms. Morin has joined us and would like to ask some questions. Ms. Morin.

Ms. Morin: — Thank you. Dr. Penna, it's nice to have you here presenting to the committee today and I want to thank you for your presentation. It was from a very different perspective than I have heard so far, and I appreciate the thoughtful process that you put into your presentation today.

As you've already spoken to, we've heard the Sask Party revisionism of history in terms of why things are the way they are today and such, and that all despite the fact that we've not seen a single windmill erected in this province in the two years that they've been elected. But, you know, they're going to place the spin that they want to on their version of the situation at hand.

As you've already alluded to, there are a lot of groups coming forward and making presentations who are very passionate, very worried, very concerned for their province going forward into the future because of the very mixed message, as you had put it, with respect to nuclear. We've seen the Dan Perrins report come forward, and we've seen the interpretation by the Sask Party — so far Minister Boyd — being that it's simply a yellow light, proceed with caution. I've been teaching my daughter that a yellow light means be prepared to stop. But nonetheless, this is where some of the mixed messages are coming in. This is why some of the people have as many concerns as they do with what the government is saying so far.

I'm getting from your presentation today that what you're saying is that we all have an ultimate responsibility as politicians, as decision makers, not even to mention as citizens of this fine province that we feel so strongly about — a moral obligation you're saying — to make sure that the decisions that we make are done so in a way that are comprehensive, thoughtful, and respectful of the people of the province.

So having said that, I'm assuming then that what you're saying is that in order for us to be able to move forward aggressively on making sure that the energy mix going forward is sustainable, and is respectful of the environment, and is respectful of the social fabric of our province, that there is an onus on the government and us as politicians in general to make sure that we present policies to be able to pursue that in a very aggressive fashion. And I'm sure that you know — I'm sure I don't have to tell you this — but we've heard from numerous presenters like the Pembina Institute, etc., that there are other countries, and for instance the European Union which you've been quoting to us today, who are promoting those policies from a government level and therefore have a much more aggressive and forward thinking and progressive movement towards renewable energies.

So just to be certain on what your presentation is, this is what you're promoting to us today is to be sure that we understand what our responsibilities are and that our responsibilities would then fall into making sure that we have policies that would be respectful and progressive with respect to sustainable, renewable energy policies. Am I correct in assuming that?

Mr. Penna: — Yes, and if I can make an additional comment

then with respect to that. In the description about proceedings to hear and that decisions will be made and with respect to . . . as long as national standards and national policies, regulations, everything must be done within that framework, okay? My question even goes beyond that. And I'll tell you why.

The Canadian Nuclear Safety Commission has its policies and rules and regulations which has allowed what is going on now to happen. Some of those rules and regulations invite the Saskatchewan Department of Environment to participate in the decision-making process. So the province itself has a responsibility as to what goes on in northern Saskatchewan. And my concern . . . I have a couple of concerns about that.

One concern I have is that the expertise, and we know — I mentioned intentionally that I've been with the Inter-Church Uranium Committee for 30 years; we've been on top of this matter for a long time — and we know that the Department of Environment does not have the personnel, the resources that are absolutely necessary to do a good, effective job to participate in that process. That's my first point.

My second point is that I'm concerned that the Canadian standards, Canadian Nuclear Safety Commission standards, are not current standards. And I can document this. The European commission on radiation risk have done extensive studies and looked at the international commission on radiation protection and on their standards and what they consider to be safe levels, etc., of radiation. We don't have to go into the details here, but they have found that the international standards that are being used around the world by governments to establish safe levels are not up to date because they only take into consideration external exposure to radiation. Internal exposure to radiation is not taken into consideration. And there is a lot of internal exposure to radiation up in northern Saskatchewan by workers, by the people who live in the environment. And this is dangerous. So even the Canadian standards do not meet moral requirements — good scientific and even moral requirements.

So I'm challenging on different levels here. We have to think deeply here. These are serious problems. We don't take these things lightly. Those of us who are involved in this have no vested interest other than the truth and the health of people. We're not getting paid for this. Okay? So I have those concerns, yes.

You have the responsibility but, you know, we don't have the resources. We have to put our money where our mouth is. If we're concerned about safety, then get good people in the environmental department. Put the money there. Get your regulations up to snuff. That's important.

You're playing with lives of people. Go and talk to the people in northern Saskatchewan. A lot of them are afraid to talk because there's division in their communities. Some of them have jobs and some of them don't have jobs. Let's put it on the table, you know?

Sorry. I get a little uptight about this because it's a serious problem. I have grandchildren. I don't want to have them exposed to this kind of stuff. I have friends up north. I don't want them exposed to this kind of stuff. So we have to have good regulators and good regulations and we have to be, you

know, conscientious in applying good moral and scientific rules. Sorry. I don't want to preach, but any other . . .

Ms. Morin: — Thank you, Dr. Penna. No. This issue arouses a lot of passion, and we can see that by the extent of the amount of people that want to present to the committee today. So there is nothing wrong with passion. I thank you for your passion. I thank you for your . . . [inaudible] . . . information for us in terms of what the committee is hearing from you today. And thank you very much.

The Chair: — Well thank you very much for your presentation today and answering the questions. You were generous with your time. And I hope that you were happy with the process so far. Thank you very much.

Mr. Penna: — Thank you for giving me this opportunity and for listening and for the questions you asked. Thank you, and hope you do well in your work.

The Chair: — The committee will now recess until 1 o'clock.

[The committee recessed for a period of time.]

The Chair: — I'd like to call the committee back to order. Before we hear from our next witness, I would like to advise witnesses of the process for presentations. I will be asking all witnesses to introduce themselves and anyone else that may be presenting with them. Please state your name and if applicable your position with the organization you're representing. If you have a written submission, please advise that you would like to table your submission. Once this occurs, your submission will be available to the public. Electronic copies of tabled submissions will be available on the committee's website.

The committee is asking each submission to be an answer to the following question. The question is, how should the government best meet the growing energy needs of the province, in a manner that is safe, reliable, and environmentally sustainable while meeting any current and expected federal environmental standards and regulations and maintaining a focus on affordability for Saskatchewan residents today and into the future?

Each presentation should be limited to 15 minutes and there will be questions to follow. If there is sufficient time, those questions may go up to five minutes to the hour. I will then ask you to proceed with your presentation. Once your presentation is completed, the committee members may have questions for you. I will direct the questions and recognize each member that is to speak. Members are not permitted to engage witnesses in any debate, and witnesses are not permitted to question the committee members.

I would also like to remind the witness that any written submissions presented to the committee will become public documents and will be posted to the committee's website for public viewing. I'd now like to thank our witness and ask him to carry on with his presentation. Thank you.

Presenter: Renewable Power — the Intelligent Choice

Mr. Lawrence: — My name's Steve Lawrence. I'm from

Prince Albert. I represent a group there called Renewable Power — the Intelligent Choice. I'm on their committee that's looking into renewable energy, and I would like this to be tabled. So I think that satisfies your requirements there.

I welcome the opportunity to come and talk to people and welcome questions afterwards. You guys do have a fairly lengthy presentation there. I've got one that's a little bit shorter, but the information is similar in both.

Anyway from the outset, I'd just like to say that the Perrins report made a recommendation that all options should be looked at and it should include all the costs. So the problem is how do you make a report that's going to be acceptable to the public in general. So I think that you really have to . . . I don't think we have the experts you guys need in Saskatchewan to get the kind of information you need. And I think you guys really need to go outside Saskatchewan to do some investigations and look at experts that have had some practical experience in implementing some of the energy resources and things like that.

And I would suggest that, you know, you're looking at multi-billions of dollars, so it's worthwhile taking some field trips and seeing what else is out there. And I would recommend that there's a fellow in Germany called Hermann Scheer. And I'd recommend that maybe you have a trip to Germany, and you see this stuff hands-on and just see what it's like. You know, it might be a nice trip to Germany as well, but just to see what the heck's going on there and what they're able to accomplish there, I think would be an eye-opener. So I invite you to go there.

You could also visit Denmark or Spain. They've got some pretty impressive things going on there. Take a drop off in Ontario and see what they're doing in terms of their new green energy plan, and how they're implementing it and look at some of their tariff structures and things like that.

In Saskatchewan, when I look at Saskatchewan, we have our education system here, in terms of post-secondary, we don't have any programs that are targeted in the energy field per se. You know, Newfoundland and Saskatchewan are probably the only provinces around that don't have some kind of program. So I'm wondering if we're in some kind of bubble here or something. So, you know, we really should be — if we're going to prepare for the future, and we're going to hire Saskatchewan people without bringing people in from outside — we really need to start getting programs in our post-secondary institutions so that we can be up and running with the best of them.

When, you know, I look at other countries like China has a huge, huge infrastructure of energy already built up. And by 2020 they want to implement that they're going to have 20 per cent renewable in that energy structure. So if you can imagine, most of it right now is traditional kinds of power production like coal and nuclear, so putting enough renewables in there to bump that up to 20 per cent.

So they're looking at 100 gigawatts of wind — not megawatts, gigawatts. So that's a pile of wind. And they're looking at 9 gigawatts of solar by 2020. So they're an up-and-coming competitive nation, and they're laying their bets on the renewable energies, keeping them competitive, also getting

them on top of their carbon emissions and things like that. So we should be looking at what the rest of the world is doing out there and make sure that we're not out of step with what else is going on.

In terms of our educational institutions as well, I think we could play quite a major part. Our public is not that knowledgeable on what technologies are out there and how they could use them and so on. And I think we do have some programs on leads or something like that in our architectural programs, but we really don't . . . In terms of the tradespeople, there's not too much emphasis on training them. So we need to get more stuff going in our educational institutions.

Okay. When I look at nuclear, at the Darlington plant there, when you convert that to the 3000 that we're proposing, 3000 megawatts we're proposing for Saskatchewan, you're looking at \$32 billion for 3000 megawatts which is . . . As taxpayers, if we had to pay for that, that would break the back of the taxpayers because that works out to about \$30,000 per person. So not everyone works, so that would be quite a burden.

If you're getting someone to invest in it, that's something else. But traditionally, nuclear hasn't been able to . . . You know, they need guarantees from the government and so on. So I think you'd still be looking at major inputs from the government to make sure it went forward.

Because of that cost and because of . . . I don't think nuclear is the most cost-effective way of tackling our carbon emissions either. And the clock is ticking on carbon emissions, so I think we should be making decisions fairly quickly on how we're going to cut those. And I think, as SaskPower noted in their presentation, it's really going to affect the bottom line of their coal operations as well. So maybe even the coal operations are not going to make a go.

A lot of people don't like nuclear because of all the different issues around it. I think as a government you should be looking at those, but also you should be looking at the economics and the jobs. And you really need to do thorough research on those and get those backed up.

When you build a nuclear plant, it's a large centralized facility. And if you're going to build that in a place where you don't already have a facility, you're going to have major transmission and infrastructure costs that are going to go in on top of that. So those have to be factored in. And if the plant takes 10 or 15 years to build, and you're shutting down some of your existing power plants, you have to bring in power or something like that to take care of the interim.

In Alberta they're looking at the alternatives and green jobs. And the union of labour there did a survey, and they figure they can make 200,000 green jobs there. So that's a lot of jobs, so there's lots of possibilities out there. And Environment Canada a couple of years ago did a study, and they found that for every \$1 million they spend in energy efficiency sector, it created 36.3 jobs. At the same time the same money would create 12.2 in renewable and perhaps only 7.3 in coal and nuclear. So there's quite a bit more when you go into energy efficiency end of things and quite a bit less when you go into big power, centralized power.

The alternatives are a very diversified and distributed group of energy sources that could be operated within a carefully managed grid that will predict demand and the various supply outputs. So if you have a lot of small inputs coming into your grid, right now our grid is created so we have several large sources and the grid has to be able to manage those large sources. But if you start putting little things like windmills and stuff like that all over the place, it's not able to manage that system anymore. And you need to get a smart grid system in there which can really micromanage the whole thing so they can forecast what their inputs are going to be, they can forecast what energy use is going to be, and they can try to balance their system out to get the best system that way.

So the major changes to the existing grid system would be in the controls that operate that grid system rather than . . . Because you've got to distribute power sources all over the place, you don't have to put huge transmission lines anymore, but you do have to be able to micromanage things so the controls would be the major part of that system. And I think in Germany when they started looking at things like that, they were looking at something like 3 to \$5 dollars per month increase to get that smart grid control system in there. So it wasn't a huge, huge amount of money as opposed to building a \$700 million transmission line or something like that.

Anyway so a lot of these systems, they work through wireless communications like cell phones do, and that allows the company to be able to interact with things much more readily. Computers and wireless technology have really put that system forward so that communications is everything when you start looking at smart grids and stuff. And the technology's here now that we can actually use it.

So anyway, Microsoft has a system that people can put into their homes, and it'll tell them how much they're paying for power when they're doing certain things. And a lot of people don't realize how much power a lot of their appliances and stuff have. And they're predicting just people having this system in their homes and changing their lifestyles a little bit, they'll save 5 to 10 per cent off their grid demand right there.

[13:15]

Anyway it's all about shaving the peak off. Right now we design our system so we can meet a certain peak amount of power at a certain time. If we can level off all our peaks and then we can further — through energy efficiency and more improvements in the smart grid system — we can actually take that flat level and we can lower it again. Our system, we don't have to design for nearly as much power there and it should be big savings all the way around.

Further reductions in peak capacity can be achieved by using energy efficiency and conservation technologies. And usually when you get into that kind of thing, you've got a payback of two or three years for industry or whoever's installing that. So it employs a lot of people, and by saving energy you're not only saving money on building capacity, but you're reducing your carbon emissions a lot.

And the reason efficiency works so well for cutting carbon is when you take something like a coal plant, only about a third of

the energy they burn in coal actually gets converted to energy on the grid. So if you can save a kilowatt here, you've saved 3 kilowatts on your production end of things. So you've saved three times as much carbon as going some other route. Okay.

When utilities in Vermont have a large workforce, it actually . . . They're delegated to find solutions to their customers to save them energy. And they've found that for every dollar they spend on energy efficiency and energy conservation, they save \$1.79. So they're making money investing in efficiency.

Another study done by Marber, Jaccard and Associates identified electrical savings potential for residential at 25 per cent; commercial, 44 per cent; and industrial, they could have savings up to 86 per cent. And they're looking at things like efficient motors that are properly sized to what operations you're doing. They're looking at removal of restrictions in pipes so that your liquids and stuff in your industry can flow a little bit more efficiently, smart controls, lighting appliances, HVAC [heating, ventilating, and air conditioning] systems, and things like that.

For industries that require heat for processing whatever they're doing, such as the Cory potash mine, uses natural gas to dry their salts for export. They now have a cogeneration plant there, and that cogeneration plant produces 238 megawatts. And basically they're just using the energy they otherwise would have used for drying, so that's free 238 megawatts that's available to them. So worth considering.

Wind and solar are often dismissed because they are smaller installations and many think they cannot guarantee baseload. And I think it's a mistake to think of wind and solar and everything as separate entities. I think you have to look at a very dynamic system. And when you look at wind doesn't blow all the time, and the sun doesn't shine at night, but what you can do is, when the wind's really blowing and the sun's really shining bright, is you can shut down your hydro systems and bank some of the water that would otherwise be flowing through there. And then when the wind dies and so on, you can let that water out. So you've got a built-in storage system there that works quite well.

And I think, you know, when you build something like a 1000-megawatt unit, if that thing shut down for a few days, you have to back it up 100 per cent with something else. If you're working with something like wind and solar, or if one little system goes down, it's not the whole system; you may only have to have a 10 per cent backup instead of 100 per cent.

The wind farms, they don't need any fuel. They don't use new water. You recycle the windmill after it's gone past its use and so on. So really the impacts on the environment would be much less with something like that.

And in Saskatchewan, a fellow from the Saskatchewan Research Council was saying we've got 72 000 megawatts. If we used up every scrap of wind we could use for making electricity, we have enough for 72 000 megawatts, which is a little bit more than the 3000 we use. So there's lots of potential there, and as the technology improves, that number will actually go up. This is just looking at the prime regions of Saskatchewan that we need wind, not the whole province.

When you look at solar, solar has come a long way. A lot of things that are happening in solar right now, it used to be we had these flat plate collectors that had all these little silicone chips, and each little chip collected electricity and put it onto the grid. Now they've got what they call thin film technologies, which is almost like a printing machine that prints a circuit on the plastic, and they make that into a collector. They can put that into windows. They can put that into roofing products. They can put that into siding products, and so on. So if you're building a new house, you can make the whole outside of your house — at least on the south side — a solar collector, and no one would ever know the difference kind of thing. And the cost would be fairly minimal to the homeowner.

Other things, there's a company called ZenithSolar. Instead of using a lot of silicone chips, they have, it looks like these big old satellite dishes. And they actually concentrated . . . They have a bunch of mirrors on that satellite dish-like thing, and it concentrated all the sunlight onto one little silicone disk instead. So if the cost in solar was for those silicone chips, now you're down to one instead of a whole flat plate. So your costs are . . . So it's a relatively simple thing to do.

Other things you might look at are transitional technologies. When you look at the city of Calgary, I think Enmax is the company there that runs the city of Calgary. And they're pushing something now called the whispering gen which works on a Stirling generator kind of a system. And what it does is, it's kind of like cogen. It produces electricity and the waste heat can be used for heating your building. So you can have a system that looks about the size of a dishwasher instead of a furnace. It'll create electricity and the waste heat will heat your house. So basically you're doubling the efficiency just by going to a different kind of furnace basically, and you're producing electricity at the same time.

There's other technologies out there like solid oxide fuel cells which are kind of like flat plates that they put carbon fuels past, and as it goes past it creates an electrical circuit. It creates a lot of heat as it goes through, and it produces electricity. So again you can use it to heat your home, and you've got kind of a cogen system right in your home as well for heat and electricity.

I don't know. There's other things I've got in here. Some will fly; some won't. Time will tell, I guess. But I think we shouldn't have our eyes closed to what other technologies are out there. I got one here on fusion which might be a little bit out in the ballpark but man, if that works, it's going to change the whole nature of energy. So anyway, that's about all I have to say for now.

The Chair: — Thank you for your presentation. I think we'll probably be fleshing a little more information out of you. I'm going to lead off here with a question if you don't mind. Could you just tell us a little more about this whispering gen that Calgary is up to? It's in people's office buildings, and they're running a generator for power, and it also circulates, I'm guessing, hot water for heat. And if so, do you know the make-up of how that . . .

Mr. Lawrence: — I don't know a lot about it. I know initially when they were looking at running automobiles, they had the choice between the combustion and what they call the Stirling

engine. And I don't know very much about the Stirling engine itself. Somehow it uses the fuel and creates electrical current, and in that process it also creates heat. You know, if the heat's just waste and it's sized enough to provide your home heating needs, then your electricity that you produce is free. And if you produce enough of it, it should make running your house or your building or whatever that much cheaper.

The Chair: — Do you know anything on the public policy side of it? How is Epcor or whatever the company that's kind of pushing this technology, how are they implementing it in Calgary? Have they given . . .

Mr. Lawrence: — I think in Calgary right now, I think it's Enmax is the power company there. And I think right now they're offering these units free to their employees. And they're seeing how it works, and then they'll go from there, I guess.

But Calgary's got a lot of things going on there. I think in new buildings, they're pushing for carbon-free buildings in Calgary now. So I think that's all buildings. So you should probably take a look at what Calgary's doing. There's probably some pretty exciting things. But I think if you look at the president or CEO [chief executive officer] of that Enmax, that would be a good contact to make to see what they're doing.

And Alberta is an unregulated system, so basically whatever they're doing in Alberta, there's no incentives. It's strictly a market-driven system. So for instance right now people have applied for 11 000 megawatts of wind power there and they've approved 3000. They're not going to put wind power in unless they can make money. And their climate is not any different than ours, so the windmills will work and they will work efficiently, and they will make money without the incentives. If we have incentives, we might need incentives here to make things start. And then after that it should fly a little better.

The Chair: — Great. Well thank you. You're absolutely right; there's just so many technologies. A large part of what we're doing here is bringing in ideas like that, that can be followed up upon. So thank you. I believe Mr. Weekes has a question.

Mr. Weekes: — Thank you, Mr. Chair. Thank you very much for making your presentation. Just in the one area, you just wrapped up your presentation on fusion and I've been following that. What little I know about it is there's a process which is called hot fusion which is unstable and not practical. And then there's cold fusion which, a few years ago I believe, there was scientists in the United States said they had mastered cold fusion. and it turned out to be false. Is that the kind of thing this company is working on, is cold fusion? Or could you take some time to explain that?

Mr. Lawrence: — I don't know about cold fusion. I haven't heard about it since it's made a little flap a few years ago and it seemed to die. But most of the countries are looking at maybe what you'd called hot fusion. And what they try to do is they try to create conditions for fusion, and they try to extend that for a long period of time. So you've got something that's working like at, I don't know, 20 000 degrees centigrade. It's really hot. And trying to contain something that's, you know, you can't have a container that can survive that kind of temperature, so they have to have some kind of electromagnetic field to contain

it. So it's very difficult.

What General Fusion is doing in Vancouver is, basically they've got a steel sphere — and I think it's only 3 metres across or something — and it's filled with liquid lithium. And what they do, the fuel they use is deuterium, which they get from sea water, and tritium, which has a half-life of 50 years or something like that — it's not very much.

But the process, they create a little doughnut from either end, and then they create a shock wave using sound. And that sound compresses everything, creates the conditions for fusion in the middle there, and it only lasts for a microsecond. So they don't have to contain it because it lasts for such a short time. The liquid lithium will pick up the heat from that, and then they can use that in their steam generator.

So if they can make that shock wave work and keep everything contained, you know, they're looking at 2016 for a commercial-sized model. They've already proven that the technology is possible, now they have to produce a system that's proven commercially. And when they put it in, the system they're looking at is 100 megawatts, which is a relatively small system. So you don't have to be plugged into a fuel supply anywhere; you could put it anywhere.

So it's something you could build. You can't get too small with it; you need some size. I'm not sure what their restrictions are, but it's . . . So just containing it for a short period of time, rather than trying to hold onto that hot fusion stuff for a long period of time, makes a big difference on whether it might fly or not. Whether it's going to work or not, I don't know. It looks really good to me but we'll have to see how it works out.

Mr. Weekes: — Thank you.

[13:30]

The Chair: — Mr. Belanger.

Mr. Belanger: — Thank you. In this whole file of power generation, there's hot fusion and there's cold fusion and there's confusion. The situation with SaskPower asking, asking for additional power, and some folks putting all their eggs in one basket, do you buy the notion that SaskPower does indeed need more power generation? Or do they have adequate power, just a matter of having complementary power and to measures such as conservation and also reducing the demand on the load has certainly got a lot of merit?

Mr. Lawrence: — Well it depends what you're going to use your power for in the future, whether you can predict whether you're going to need power or not. So in a sense, I don't know if Saskatchewan's actually determined what they need the power for that they're predicting they need power for. If basically our province is going to operate the way it is right now, then probably we could actually reduce our power needs by going to energy efficiency and energy conservation and using smart grids and smaller power units that are distributed across the province. We can get quite a reliable system going.

If you want to get into something bigger, I still think that the renewable, even though it's distributed you can still get the

energy needs — you know, large amounts of energy from that. But I'm not sure if I got at the heart . . . You were asking how far can we go with efficiency and stuff.

Mr. Belanger: — Yes.

Mr. Lawrence: — A lot of that depends on political will and the programs you put into place and the education you put in and things like that.

Mr. Belanger: — I know this may sound like a loaded question, but it's not. In a sense of Saskatchewan's position now there is the assertion that SaskPower needs more power. You know, they say we need more power and then it's for growth and the economy. And yet the Conference Board of Canada says our economy's actually going to shrink by over 2 per cent. So now we go back to . . . The question is, is this an argument made for the purposes of proposing the uranium issue or option? Or is there some real discussion necessary on what is needed now and what can be the alternatives as we were discussing here today?

And the point that I'm trying to raise here is that, given the fact that we have to look at this option and be very intelligent about it, is there a general feel amongst the people that are looking at these opportunities that the situation is somewhat slanted and we should perhaps look at all these other issues before we make a decision?

Mr. Lawrence: — Ontario has a history of nuclear power, and the recent bid they had put in by Darlington was three times what they considered economic. So to put something really expensive in Saskatchewan, if you figure you need the power to put something that expensive into Saskatchewan, you know, we don't need nuclear power here to promote our uranium industry. If the uranium industry is good, if the uranium's going to sell, it's going to sell. We don't need that right here.

It's all right to sell something to somewhere else if you don't need it. I mean, we've got the wind and we've got better wind resources and better solar resources than most of the country so, you know, we can utilize those and not have to worry. But — I'm getting lost in the question here — but can you just touch on your question again?

Mr. Belanger: — I was just indicating that in terms of SaskPower's needs itself, have we really gotten the adequate information as to where they see the demand going, and do you feel that they've addressed it in the renewable resource sector as opposed to being pushed one way?

Mr. Lawrence: — Well I don't know. I mean, we got the report from SaskPower on Tuesday was it or . . . So asking me for a response from something that I haven't really had time to look at, and I don't know what inputs, you know . . . They've got people that are hired to be able to do those kind of things. I don't think we need the power.

Mr. Belanger: — You see that's, that's exactly my point. That's why I asked you the question. You know, we're not challenging SaskPower officials because we obviously have to find out where exactly is the demand for power, because what's happening is the argument is slanted for political purposes. And

the argument that I would make is that we need expert, independent advice.

Mr. Lawrence: — You're right.

Mr. Belanger: — Okay. SaskPower, the vast majority of people don't know, don't know what the demands are, then we need to find out. We need to find out from people that are independent and expert in this particular area so that people like yourselves and ourselves, which are . . . I don't want to say I'm a layperson on this thing, and I don't want to say you are, but I could certainly use a lot more technical and professional and really expert advice on what exactly is necessary. And that is the dilemma we're facing is that people are not getting that information.

Mr. Lawrence: — Yes, and what you have going here is . . . I'm not an expert and none of us here are experts. I don't think we have the experts that have the answers in Saskatchewan even, and I'm inviting you guys to look outside Saskatchewan and see what other jurisdictions are doing and then make a careful consideration there. You're looking at multi-billions of dollars. You can afford to spend a little money to get it right from the start. If you don't get it right, you've got it wrong and that's going to hurt.

If we go into nuclear power, and Alberta's able to produce wind energy for 10 cents and we've got nuclear power we're selling here for 25, who's going to buy our power? I'd be looking for a transmission line to buy from Alberta myself.

Mr. Belanger: — My final question is . . . I'm not sure about the process that would be involved when you talk about nuclear power and some of the challenges attached with it with the costs and all that. And I recognize that people that have come forward said, look, I'm not an expert, but this is our opinion. This is what we foresee and that's valuable; that information is valuable to us. But in the sense of the nuclear power plant option itself, and that's where we're embarking in this exercise, people are saying it's much like a water plant in a small community. If you have a water plant with pipes that can take so much water, and they match, then the system runs well. You transpose that onto the example of your electrical grid — if you have a larger station, a power generation facility like a nuclear reactor, and our transmission system is small and not intended to receive that much power — then obviously you've got to redesign the whole distribution system. And if I'm a private developer, then guess what? No politician's going to tell me what to charge for electrical rates. I'll determine that based on my business case. But hey, political chums, can you give me some money to build this?

So the question I have is, if a facility like that is looked at, then does that end, in your opinion, the future of SaskPower? Because our system needs to be redesigned, and in a sense you're privatizing SaskPower. And this is a \$15 billion question, because that's what SaskPower's exactly trying to spend over the next number of years to rebuild their system.

Mr. Lawrence: — Well I know years ago when SaskPower put out a tender for wind energy, they required that the proponents that were submitting tenders, they would assume the costs of improvements to the grid to make their system possible. I don't

think this should be any different from nuclear. If they're going to put a system in at a certain place before they build, they're going to want to have a guaranteed price that they can sell their electricity for to the grid. And if they're expecting the grid to come to their back door at our costs, then I don't see how SaskPower can be economic.

But you know, I think if you're going to build a nuclear plant and it's going to be a centralized power source and you've got a bunch of power that's got to go out from there, they should take on the responsibility of making the changes to that grid. And that should be part of their costs, you know? If they can't make money with that transmission line and their nuclear power plant and everything else then, you know, why should the public take on all those costs?

Mr. Belanger: — Thank you.

The Chair: — I've got a couple of more questions if no one else has some. Just looking at some of the things, I know you certainly are interested in the nuclear file but this community is certainly . . . We're here to listen and look at all the options. There is no preoccupation with anything and we certainly haven't . . . no choices have been made.

But sometimes we look at new technologies replacing old technologies, and fundamental change could be in our future. What we've been doing for the last 50 years is certainly not what we're going to do for the next 50 in many ways. One that I think is something that hasn't been mentioned a lot, and I think it is an environmentally friendly technology but will heavily impact the conversation we're having today about producing electricity, is the electric car.

You know, there's some talk about, do we need the increased capacity that has been laid out before us? I'm not the expert. SaskPower has an opinion, you know. If it's based on replacing infrastructure that's coming near the end of its life, you know, that may need to be done. SaskPower says we have to replace current capacity. And there's growth forecasts as to whether our province will grow or not. You know, I don't want to get into that debate.

But, you know, if new technology like an electric car comes on and we start placing the amount of energy we're taking out of gasoline to get away from the carbon issues and go into the amount of electricity that it would take to drive cars around maybe the two biggest cities — I haven't done the math, but I'm sure people have — I can just imagine it's an incredible amount of electricity that would be needed added to the grid.

Now to go that direction would probably be to get away from the carbon issues. It wouldn't do us a lot of good to continue to burn coal the way we have been to get away from burning gasoline as we are.

But, you know, can you see technologies that . . . We talk about conservation and that's something SaskPower has, I think, recently turned onto, they say, in a rather big way. There's been people that have presented to us that haven't. But conservation is something that I think everyone needs to be mindful of. And I think SaskPower needs to somewhat lead that. And we've heard that from many people presenting.

But let's say conservation is done in a big way. Could you see a possible future — a very environmentally friendly future — where electricity usage goes up dramatically?

Mr. Lawrence: — Well I mean, with the electric car, I mean if your cost of electricity is prohibitive, you're not going to be running your electric cars. And if your gasolines, your prices for that are prohibitive, you're not going to be . . . So the market will determine that the people aren't going to be driving their cars very much and they're going to be looking at other forms of getting around — public transit maybe or electric trains or whatever.

I don't want to avoid your question. The thing that really worries me is, we're also an agricultural province and our agriculture is very energy intensive. You know, if we can't afford to buy our diesel and . . . I don't know if they're going to have electric tractors out there or what their plans are for the future. I don't know if that would work or not. It would be huge batteries, but the more weight the tractor has, maybe the better traction it has.

My understanding is we've got 20 or 30 years to make some significant changes in our carbon impact. And whatever we do, we have to look at the carbon end of things. If carbon's going into the production of our electricity and we can't get a handle on that, or if carbon is in the fuel that we're burning . . . You know, there's a lot of things coming on and I don't know if they're going to work. Like Tata Motors in India has a little car that runs on compressed air. So you could have a little solar collector or something that would run the motor to run a compressor and you could drive away your car in the morning on compressed air rather than on . . . which is probably a lot more environmentally friendly than a big old battery or something. So will compressed air engines work in Saskatchewan when it's 30 or 40 below? I don't know. Those are things that are worth researching and putting good minds to and seeing what we can do.

[13:45]

I don't know. When things get tough, people get more imaginative about how they do things. And they find ways of doing things. And I think that's why I want you guys to go to Germany and take . . . They decided they were going to go a certain course. At first people said they couldn't do it, and they're finding the answers and they're doing it. So, you know, if someone says that you want to cut your energy costs by 10 per cent by five years and you figure out how you're going to do it, either you're going to go down or you're going to figure that out. And I think the technologies are there. We've just got to look a little harder and sometimes we have to change the way we do things. And conservation is part of that; efficiency is part of that.

I don't know how to answer your question. I don't know if that was kind of a roundabout way, but . . .

The Chair: — I think something we've been hearing from everyone is that in many jurisdictions people were told, you know, you can't get more than 5 per cent wind or you can't . . . And like you say, the technology is moving forward. Our presenters this morning made a comment that farmers are cheap

and they'll find the least-cost way of doing things. And I think electricity is the same way. People will gravitate to what . . . Given your constraints, you'll migrate.

Now I'm just going to go back to my question just a little bit. I'm just taking this that . . . where we're envisioning a world where, you know, we're quibbling somewhat on is our electricity need going to go up or down. I think we all agree that not using electricity is the cheapest way of creating new electricity. But if society moves away from gasoline and towards electric trains or electric buses . . . You know, maybe I'm looking for more of an opinion, but would it be possible that in a more environmentally friendly province we could actually increase by the choices we make — you know, utilizing wind or utilizing solar power — but in the long run using more electricity and producing less carbon?

Mr. Lawrence: — Yes. Well if we produce wind and if we use wind and, you know, some numbers people throw around is 10 cents per kilowatt hour for wind as opposed to SaskPower's predicting we're going to go up 8 per cent per year. We're already paying 10 cents. So if we had 1000 megawatts of wind right now, that would be a fixed cost. There is no fuel cost coming up on it.

So it's kind of like that hydro plant in Labrador. They've got a hydro plant in Labrador that all the power gets sent to Quebec through their good lines. And they made a deal. They made a 100-year contract deal years ago to sell it for a penny a kilowatt hour. It probably sounded like a good deal back then. But, you know, I would bet that Labrador is probably making money on that still, because that's something that they've bought now and it's a fixed cost. And other than upgrades and stuff like that from time to time, you're there.

So, you know, if we could guarantee that people could make 20- or 25-year contracts with people for wind power for, say, thirteen and a half cents per kilowatt hour, that might sound like a lot now, but how long is it going to take us at 8 per cent per year to get up to the thirteen and a half cents? You know, I think it would be a good deal for SaskPower in the long run, and I think the person building that right now would be satisfied with that. But, you know, if you want to get things rolling, you might even decide you want to go more with that because your predicting costs are going up that much. I don't know.

The Chair: — Okay. Well thank you very much. I think you've certainly contributed to our debate here and we sure appreciate you taking the time. Thank you.

Mr. Lawrence: — Thank you very much.

The Chair: — The committee will recess for about 10 minutes and we'll reconvene with our new presenter. Thank you.

[The committee recessed for a period of time.]

The Chair: — I'd like to welcome everyone back to the committee. Before we hear from our next witness, I would like to advise the witness of the process for presentations. I will be asking witnesses to introduce themselves. Please state your name and, if applicable, your position within the organization you represent. If you have any written submissions, please be

advised if you would like to table your document, your submission will become a public document and will be posted to the committee's website.

The committee is asking all submissions and presentations to be in answer to the following question: how should the government best meet the growing energy needs of the province in a manner that is safe, reliable, and environmentally sustainable while meeting any current and expected federal environmental standards and regulations and maintaining a focus on affordability for Saskatchewan residents today and into the future?

Each presentation should be limited to 15 minutes. We have set aside time for questions following. Once your presentation is complete, the committee members may have questions for you. I will direct the questions and recognize each member that is to speak. Members are not permitted to engage witnesses in any debate and witnesses are not permitted to ask questions to the committee members. I would also remind witnesses that any written submissions presented to the committee will become public documents and posted to the website for public viewing. So with that, please.

Presenter: Sandra Finley

Ms. Finley: — Thank you, Tim. My name is Sandra Finley. I run an email information service and do that on an independent basis, although I do work with other people and organizations. So essentially I'm representing myself. I wouldn't want to say that I represent everybody that's in the email network. And I would like to thank every one of you for your service to the people of Saskatchewan. I know these hearings take a lot of your time.

I will try to provide a written submission to you. And, Mr. Chair, would you please if I'm forgetting any of the rules just remind me. I would appreciate that. Thanks. I'll try to follow.

Maybe I could start with, I heard Buckley Belanger — I should probably say your honourable — I heard you saying to the last presenter, what exactly is necessary? And you want to know the technical information. I would say that the exercise is to find what is possible to learn and to change, and that requires experimentation. And I don't believe that you will get the answers from the presenters. I think that those are going to unfold in time.

And, Mr. Chair, one of the things that I would like to address is you said, we should address the growing energy needs. And what I think is that like for example with the proposed nuclear reactors, that those are very clearly in response to two things which I will address in more detail later, but they are tar sands development and the export of electricity. And if you remove those two things from the equation, then I think that it's not necessarily the case that you can say, growing energy needs.

Just so I don't forget at the end, another thing that I would like to address — because I think it's important — and that is the statement that if I'm a private developer, no one will tell me what to charge. And in that regard I had brought along, just in case it might be useful — it's turning out to be useful already — the experience with the privatization of electricity sales in

California. And if you could each cast back in your minds, you will recall in around 2000 California had very great difficulty with their electricity supply. And the words of the governor of California in the aftermath of that electricity crisis was, he said he was referring to how the golden state, California, had lived up to its reputation of way-out fads by partially deregulating and privatizing its electricity supply. That's what they did. They deregulated and privatized the electricity supply. And he said:

... we must face reality: California's deregulation scheme is a colossal and dangerous failure. It has not lowered consumer prices. And it has not increased supply. In fact, it has resulted in skyrocketing prices, price-gouging and an unreliable supply of electricity. In short, an energy nightmare.

... we have lost control over our own power. We have surrendered the decisions about where electricity is sold [thinking export here] — and for how much — to private companies with only one objective: maximizing unheard-of profits.

So I think that my remarks are going to be somewhat couched in relation to that.

So what I understand is that the public discussion is about both the electricity supply for our homes and businesses, and it's also about the energy supply that fuels our transportation systems. Is that what we're talking ... No, I'm not supposed to ask you questions. I think that's what we're talking about here.

So what I want to speak to is an understanding of the economics of the energy question in the context of resource depletion. And you know, I heard somebody say, if we move away from the path we're on. Well I believe that if you understand the economics of resource depletion, it's not a question of if. It's a question of there is really ... The situation dictates the path that we should tread, and it's pretty clear.

I'd like to address, if I have time — I'd better start talking a little faster — I would also like to address the obstacles that prevent us or will prevent us from going to where we need to go.

So the economics of energy in the context of resource depletion. From what I heard just listening here briefly, I think we've come — all of you have come — to the realization that we are using very expensive and destructive tar sands to put gas in our tanks because the easy oil and gas is becoming more and more scarce. So we're in a situation where a finite resource is being depleted. That's why we're using tar sands.

So there is another finite resource upon which people are dependent for life that is also in the process of being depleted and it's applicable to our decision here and where we go with energy. It lies behind the energy question in Saskatchewan — I'll show you how that is — and it is water. Resource depletion applies there as well.

So if you understand what happens under conditions of resource depletion, you will know what to do about the energy question. I think it's actually quite simple. So I'm going to address first of all ... I think we're clear on the depletion of oil and gas. So

then we're probably not so clear on what's driving, you know, the water resource depletion and how that is behind things here.

So Saskatchewan first of all makes its money by exporting resources. You know that. We export wheat, potash, forest products, uranium, natural gas, and oil. So people come here when they want those resources. They come here when they have run out of the resource that was in their place that they used to have.

Now if you're my age, you will remember *The Beverly Hillbillies* and a television program made at the time that the Americans were experiencing their peak oil. Since then, they've run — the American states — have run out of that cheap oil and gas. And so when they finished going through their own supply with rather little conservation and a great deal of abandon, what did they do? Well they turned to the Middle East oil and gas, and they launched wars in order to secure that resource for themselves. Now they are in a battle with the Chinese to see who'll get the tar sands resource in Saskatchewan and Alberta. You probably know that the Chinese have recently invested \$1.2 billion in tar sands or 1.7 depending which source you read. So that's what happens is a consequence of resource depletion.

But I said that I was going to talk about the depletion of the water resource and it being fundamental to the energy question in Saskatchewan.

[14:15]

Well the oil and gas shows you that the question of ... The reason I used that example is because it shows you that the question of resource depletion south of the border, and indeed in Canada, drives the Americans to come up to Canada. They don't address the actual problem — nor do we — of resource depletion. Instead they seek to appropriate more of that dwindling energy supply wherever it may be, so fuel for gas tanks, for transportation.

But now look at what's happening to the water supply in the United States. And here when you're talking about energy, you're talking about hydroelectricity. You know, so water is hydroelectricity. That's your electricity that you're going to put in your homes or run your industry. Well the hydroelectricity from the Hoover and Glen Canyon dams on the Colorado River is at high risk. The projections are — if you read the scientific and government reports — you will know that there's a 50/50 chance that there won't be enough water behind the Hoover and Glen Canyon dams to produce electricity by 2017. That's eight years from now.

So what you have is corporate interests, people who know that and see a very, very lucrative electricity market in the Western United States. And if you think that that is not driving for example the production of more electricity in Saskatchewan, I think, you know, there's a little naïveté or lack of information.

So the situation is that ... I mean, it's pretty clear. The UDP report suggests that we will export electricity to Alberta. But then I talk with people in Alberta all the time, and I know that Bruce Power is proposing to build nuclear reactors in Alberta. And they're fighting like hell in the Peace River to stop them

from going in there. Well why would Saskatchewan be exporting electricity to Alberta if the plan is to build reactors in Alberta? Well you may also know that the people in Alberta are fighting a high-power transmission line from Edmonton south to Calgary. It's proposed price tag on it, \$20 billion. And you may also know that there's a private consortium that's trying to build high-power transmission lines from Lethbridge south into the States.

So it's pretty clear that the electricity that would be generated by reactors in Saskatchewan and in Alberta is for two things, tar sands and to meet the lucrative electricity market in the United States. That's what it's about. So then you have to say, okay, so both of those things are based on resource depletion.

The depletion of the water resource in the United States means that they won't be able to generate their own hydroelectricity. They don't have the water that's required for nuclear reactors, and the other thing is they need the oil and gas from the tar sands. And you know, if you have any doubts about that situation around the electricity situation in the United States, I phoned the author of the scientific report that establishes that, you know, just to check. I'm happy to supply that information to you, but right now I need to move on.

What I want to do is to use the example of the cod fishery as an example of resource depletion. You can learn from it. You can learn what not to do. And I lived in Nova Scotia for 15 years. When I went there, the cod fishery was healthy. When I left there, it was dead. And you know, there's a big difference here. Cod, the fisheries, that's a renewable resource. Well we not only depleted, we killed a renewable resource. What are we going to . . . These are finite resources. Water and gas and oil, those are finite resources.

We build an economy around a resource. Here in Saskatchewan, wheat has been a, you know, foundation of our economy. And of course in the Maritimes, the cod fishery was a foundation of the economy. So you've got the resource fuels, the . . . You know, there, it fuels the fish plants and so on and so forth.

When the resource is gone or no longer available to you, what happens? The economy that's dependent upon that resource collapses. So falling revenues to fishermen meant falling revenues to fish plants and exporters. That falling revenue was feedback to . . . Oh boy. Okay. I'd better hurry up here.

Anyhow that was to tell you that your resource is running out; you better do something about it. So the response was to pump in a whole bunch of money, government money, to build bigger fishing boats so the fishermen could go further afield. And then it was to build big refrigerated trawlers so that the trawlers could stay for two weeks out at sea and fish more. So the action actually served to accelerate the depletion of the resource. That's all it did. It only accelerated the depletion of the resource.

So what you have then is you'll also notice another pattern, in that when those actions serve to drive out the small guy, the guy that's making a living from fishing . . . And eventually, I mean, the guys that own those big trawlers that were out on the Grand Banks, those were big corporations. So what happened is the

funding, the resource, the investment ends up in the hands of the large corporation.

So what you do not want to do is to spend more money going after a dwindling resource. What you're doing is basically fuelling the acceleration of the depletion.

So I'll just wrap up by saying that if you invest all our money in pursuing tar sands and pursuing the export of electricity to the United States, you're going to merely transfer the problems here. You're going to accelerate the depletion here. And you're going to have one hell of a hard fall at the end of it all because you would have had a minimal amount of money invested where it needs to be, which is getting off of your dwindling resource. You've got to make the transition off it or you're going to hit the wall, and it's going to be a very hard fall.

So to me, if you understand the economics of dwindling resources, the answer is pretty clear — and it's what I heard the previous presenter say — we've got to use our ingenuity and our money to transition.

The Chair: — Thank you very much. I think Mr. Weekes has some questions.

Mr. Weekes: — Thank you, Ms. Finley. Thank you for making your presentation. Just in your opening comments, I'd just like to counter some of the assertions in your opening comments.

The Saskatchewan Party government certainly has not made a decision on the future of nuclear power generation in this province at all. And I think the other assertion you made is the potential of privatizing SaskPower. There is no plan to privatize SaskPower whatsoever.

When we go back to the opening day of these hearings and we met with SaskPower for the first day, and they made it very clear that the challenge for power generation in this province were based on two things. One thing is the aging infrastructure that we have, and it's obvious looking at the numbers that there was very little investment in the infrastructure of power generation in this province under the NDP governments for 16 years.

The other thing that they spoke of is the growing economy, and we can argue about what the growth of the economy of Saskatchewan will be. But certainly the need for further electrical generation certainly isn't dependent on oil sands in Alberta or future oil sands projects in Saskatchewan. The Saskatchewan economy will grow without those involved in the equation.

And so we as a legislative committee obviously we are asking people to come make presentations about how to deal with replacing aging infrastructure and the need to produce electricity in the future for a growing economy. My question to you would be, you've stated a number of things what we shouldn't be doing. What is your opinion on what we should do as far as the energy mix in the future and the per cent of renewables versus base power production, which right now is coal. And it certainly has a negative environmental factor in which we have to deal with. So if you could just answer that question about what should we be doing as a province in the

future for our energy generation.

Ms. Finley: — Well what we should be doing is . . . And I'm going back to the government's plans as expressed in the UDP report. And one of the things there in that report was that there would be a Canadian nuclear studies centre at the University of Saskatchewan. And I took the public consultations as being like bona fide. But July 17, the *On Campus News* from the University of Saskatchewan said that the Canadian nuclear studies centre has been in operation for more than a year.

So what I'm going to say is my response is — which I think basically I laid out at the beginning — we need research, experimentation with renewable, and the infrastructure is all part of that. Decentralized power production, it's all part of that experimentation that is required and research that is needed.

The situation that we have is, like when you say that there are no plans, you know, the government hasn't decided about building nuclear, that Richard Florizone, the vice-president of the university, was the Chair of the UDP panel and report. And you know, he led us to believe that, you know, this was a consultation. But that centre is already set up.

Well if the public interest was to be served, that centre would be a centre that would address the transition. That's the public interest. The public interest is in the transition to a new path. And because the nuclear studies centre is set up and going, and we don't . . . And the industry is being very, very well represented at the university. We've got nothing there to do the research and then experimentation needed to answer the question that you just posed. You know, how do we establish that infrastructure? How do we make the transition? How do we figure out what, you know, Buckley's question was? You know, what are the answers? They've got to come from research and experimentation. And we basically said, well we've got one thing that we're going to do, and it's going to be nuclear.

It's not accurate to say that the tar sands energy needs aren't part of the equation because there we've got the situation where, you know, at the University of Regina there is the petroleum — what is it called? — the Petroleum Technology Research Centre. As you are well aware, they're working on the technology for the development of the tar sands in Saskatchewan. Oilsands Quest is very well invested in the tar sands in Saskatchewan. You know, Nexen oil and gas has got tar sands investments right across the border. And what they know is that the technology that is working in Alberta, which is the gravity assisted steam, that that won't work in Saskatchewan. So taxpayers here are paying to, you know, develop the technology for tar sands development in Saskatchewan.

And they know absolutely that that is a high, high electricity demand that will be in place. Because what they need, what they're working on is these very large, I refer to them as, J-hooks that will go deep underground to where the tar sands are, that they're basically, you know, like a curling iron for your hair or something. They take a huge amount of electricity. They're electrical diodes that are needed to heat up the underground to the point where the oil will flow. You can just imagine. And their estimation is that that heat source is required to be constant for three to four years before the oil will even

flow.

So to say that the tar sands are not going to be or don't factor into the future energy plans or needs of the province, I think that that is a statement that is quite easily challenged, frankly, and in due respect, if I may.

[14:30]

Mr. Weekes: — Well, thank you. What I said was that the economy of Saskatchewan will grow with or without oil sands development. So that will take place.

I'd just like to go back to your comments about nuclear. It's interesting. We shouldn't lead the public on to think that Saskatchewan hasn't been involved in the nuclear industry in the past. We're a world leader in uranium mining, number one. We have had an experimental nuclear reactor at the University of Saskatchewan, I believe, since the early '80s. I'm not sure of the exact date. It's been there working.

We have a history of research and development and advancement in nuclear medicine. Look at Sylvia Fedoruk — the former lieutenant governor's career before she became lieutenant governor, it was all about nuclear medicine. So I don't think it's fair to just put the context of nuclear all in one basket.

I think the discussion is about nuclear power generation and that decision has not been made by our government, and it will be made at some point whether it's on or off.

But certainly the UDP process and this process is . . . We talk about alternative forms of energy. And certainly the UDP was part of that policy or decision to consult the people of Saskatchewan and look at the full nuclear cycle. So that involves everything right from nuclear power generation right on through to refinery, to mining, and the whole issue. So I think that was a very valuable process which was undertaken by this government.

And this is another process through the legislative committee structure that we have, to just ask people about what the alternatives are for our needed energy requirements in the future. I think most of the presenters have come here with alternatives to nuclear. And there's been some very interesting discussions about renewables and alternative energies to fuel our economy in the future.

If you'd like to comment on that . . .

Ms. Finley: — Yes, by all means. I do believe as well that the whole process has been very productive, very informative, and very worthwhile. One of the things that the nuclear studies centre is in its mandate, as expressed by the vice-president of research at the university, is radioactive waste disposal. So that's also part of what they are exploring. And so, yes — that which is again part of the whole chain.

You know, if I look at the economics of it again, which I think is important, and I am a graduate of commerce and so I look at products and revenues and costs. And what I know and what you all know is that a business has to generate the revenue from

its products in order to cover its costs. It's pretty simple. So then if you say, okay the radioactive waste is a cost that has to be covered by the nuclear industry, and it's pretty substantial — they're looking at billions of dollars essentially, and they've got a lot of radioactive waste piled up and it's all got to go someplace — and so what I say to people is, okay, what is the product that is going to cover the billions of dollars for the radioactive waste disposal?

You know, I read in the newspaper where it was going to cost \$200 million a year for 30 years just to bring the radioactive waste to the site. That doesn't include the cost of constructing the site. And so what's the product that's going to cover the costs? The answer of course is they sell basically one product, that's electricity. And then you say, oh well then there's a few other costs that have to be factored in here too — you know, then the construction of the facility; it's the construction of high-power transmission lines, and all those kinds of things.

So you know that it's very, very expensive electricity by the time those costs are all paid. And the industry has a little bit of money set aside for the disposal of their accumulated waste, but it's not nearly enough. So they have to keep finding suckers who will build nuclear reactors, you know, so that they can have another stream of revenue to bring online to pay for those costs that they are nowhere near covering.

So, Mr. Weekes, my purpose in coming here to talk to you is to emphasize the fact that nuclear is part of throwing more money after depleting resources, because it is for tar sands development and the export of electricity to the United States where the water resource is running out, which means that they're going to lose their electricity supply.

And you know, the bottom line is that resource depletion dictates that you transition to an economy that is not dependent on a resource that's not going to be there. And if you don't make the transition, you're going to be in . . . You know, I know you have kids. I've got kids. They're going to be in a real mess because we won't have invested in the right place.

The Chair: — Mr. Belanger.

Mr. Belanger: — Thank you very much for your comments. I just wanted to preface my question to you with the notion that we ought not to skewer the nuclear medicine argument and the isotope argument with the development of a nuclear power plant. That's just comparing the wrong priorities, and sometimes people tend to do that.

And I think this is a good discussion on the whole notion of energy development. And some of your points that you raised, I think you hit the nail right on the head as a result of the discussion here — you know, your comment does. Why are we spending more money to go after a dwindling resource? It doesn't make any economic sense. It doesn't make any kind of long-term thinking viable because it just doesn't make any sense as to how this thing is proceeding.

And this is why I think it's important to note, from your perspective, how would you characterize Saskatchewan's position in Canada and Canada's position in the world in terms of ratings? Like, I know for Saskatchewan as an example, we're

probably the per capita largest emitter of greenhouse gases, based on our coal-fired plants.

Now I'm just trying to figure out, from what was done and what we're doing now, how would you stack Saskatchewan up against the rest of Canada, and Canada against the rest of the world?

Ms. Finley: — Well you may have seen the news coverage of the Premier of Ontario unveiling the green plan that they have for Ontario. And of course, you know, we look at other countries with envy, the ones that are making progress on greening their economies.

Where does Saskatchewan stand? You know, the way I look at it is we can receive the pity, the pity of the other parts of Canada and the pity of the international community. And the reason that I say that is that the route that we're going — like for example if you move further on the tar sands expansion, which contributes to greenhouse gas emissions horrendously — again we become the worst in the world in the production of greenhouse gases.

But further to that, what we know is that the existing levels of sulphur dioxide and nitrous oxide from tar sands production on the Alberta side of the border is killing northern Saskatchewan with acid rain. It's known. It's in the Canadian Council of Ministers of the Environment report. I talked to the scientist who has monitored the water up there since the early '80s. So when I say we can have the pity of the world, the expansion of tar sands will mean that northern Saskatchewan . . . I mean, those cottage owners won't want their cottages; the hunters and trappers in the North will not be able to provide for their families. Because when you impoverish the environment, you inevitably impoverish the people that live there in many ways.

So there's nothing, nothing to be proud of. Where is our energy plan? Where is our regulation that will prevent the total acidification of northern Saskatchewan, which means it's the death of northern Saskatchewan? And that acid rain doesn't just stop where the trees stop either in northern Saskatchewan. It's having impacts elsewhere as well. They're just a little harder to see, and they just take a little longer to see them.

So, you know, that's why I'm here — to try to say, hey look, there is a better future. And there is a better future that's actually based on information.

And I think that, you know, if you look at the Canada-US western energy corridor — which Brad Wall is one of the spearheaders for — it's called the largest on the planet. And what it's based on is — I mean this is all in *The StarPhoenix*; you know it quite well after meeting with the Western governors — is that energy, that energy corridor is for what they referred to as non-renewables going south. I mean we all know that is tar sands oil and gas going south. And the other description is clean energy, and we all know that that is the nuclear energy going south. So what we have is a plan for huge, huge, massive investment in all the wrong place.

Those things will destroy what we have here beyond what has already been destroyed, as evidenced by the tar sands in northern Alberta where you've got very serious depletion and

poisoning of the water supply — the very things that I'm talking about, resource depletion, water depletion. Done it in the states; we're well on the road to doing here too. And they're not content to limit it to Alberta. They will do it to Saskatchewan too. And who's going to walk away with the money jiggling in their pockets? It's the oil and gas industry and the nuclear industry.

You know, and who is going to live in this land when the resource is gone? You know? Uranium — 45 years max resource before the end of that resource. Who's going to be left living here? It's not going to be your descendants. It's not going to be mine because it's going to be . . . You know, I mean all you have to do is look around the globe and you can see all the places where the same thing has been done. You can look at the Ogoni people in the Niger delta in Nigeria, you know. The industries walk in, they destroy, and then they leave. If you don't stand up and regulate and look out for yourself, there ain't nobody else going to do it for you. It's the way I look at it.

Mr. Belanger: — I certainly want to emphasize the point that you raised in terms of your logic. And I want to reiterate, you know, putting more money after a dwindling resource. I think that's the message I think that I like, primarily because it feeds to what the purpose of this committee is. How can we look at the future energy needs of Saskatchewan? And when people tell us — like yourselves — look, we've got to look at alternatives, folks. There's got to be a transitional process, as you've indicated, to look at this thing very intelligently and to figure it out and to get it, you know. And I re-echo your sentiments because, you know, your words are the truth. And you can't put any kind of political spin to the truth — obviously, coming from the public, it's important to listen.

Now you made a comment earlier saying that the primary investor into some of the oil sands projects in northern Saskatchewan is a Chinese investment. Is that correct? And if so — if I am correct in recounting what you said — may I ask a question as, how do you know this? Like have you researched it? Have you got information?

[14:45]

Ms. Finley: — Okay. You know, I said that the Chinese have invested \$1.2 billion in the tar sands. And I'm sorry, I don't know whether that investment is all on the Alberta side of the border or on the Saskatchewan side of the border. And I don't know what, for example, are the intentions of Suncor, whether they will expand onto the Saskatchewan side of the border or not.

The source of my information is a newspaper article. There's a couple of them, and I'm happy to supply those to you.

Mr. Belanger: — And again, the perils of the non-renewable resource that you warn us about — oil and gas, uranium, the list goes on — that there's this insatiable appetite for more and more and more. You know, people obviously have that.

And I think right now I can tell you in northern Saskatchewan, there is no environmental monitoring, that there is no discussion on how you could get the people active and engaged in how you protect the environment more. There is no regulation. There's

this full steam ahead on some of these efforts.

And while we appreciate the economic opportunities, there has to be a balance when it comes to environmental and socio-economic impacts. And that was, I think, a really key point when you determined the value of non-renewable resource versus renewable resource. The renewable resource industry itself has tremendous opportunities for the community, the people, the advocates. And you're comparing that, again side-by-side, as to the environmental and human health benefits versus the emphasis on investing in the renewable or non-renewable sector.

So I wanted to make sure that I kind of capitalized on your point, that that is what people of Saskatchewan ought to know. And I re-emphasize my earlier point that we don't have the data. We don't have the experts. We don't have the proper people around a room to really thoroughly investigate the future of Saskatchewan's power needs. And even though we're participating in this process, we think, we think it is much too short and it is not reaching out to enough regions. And most importantly, when we challenged the current government on this whole notion of the UDP process, we kind of laughed because the response we got from the . . . It's the most extensive consultation in the history of Saskatchewan. And we said, well how long is it? Oh, it's eight days. Wow. You know?

So we think that this argument you're presenting is very sound — and we don't say that for political purposes. It is very sound because people of Saskatchewan, of all stripes from all regions, are saying we need to get with the program.

So my question again to you is that in terms of the information on regulations, monitoring, and cost-benefit analysis, do you have any experts or specific groups of people that you have access to or information on that'd be a good source of information for Saskatchewan people, and more so for the Saskatchewan politicians?

Ms. Finley: — Yes. And do you know, I think that I'm glad that you raised that. And a little bit of information that I could supply to you is . . . First of all, I'm going to say this for the benefit of the Saskatchewan Party representatives here, and I don't want this to be construed as a . . . My intention is to be helpful. I think that when you're sitting in the legislature, you can't possibly cover all the areas and be very knowledgeable about everything that comes before the House, the legislature. I don't think that that's humanly possible. And I think that also that by times you're fed information that is, you know, it serves a purpose. And this is for both parties because it doesn't stop where one party comes into opposition and, you know, in and out of power. And it involves the bureaucracy as well.

So first of all, there is information at the Saskatchewan Research Council because the fellow that I talked to about the situation with water in northern Saskatchewan had been monitoring since 1980. And then, you know, the response at one point of the Government of Saskatchewan, you know, while you people were in power . . . the Saskatchewan Party was, well we're going to set up monitoring. We're doing something; we're setting up monitoring. Well actually the monitoring is already there — the information, the data is there. And it goes back in time to when in the 1980s everything was pristine and

everything was fine. Okay?

And, Buckley, I have to say this is now that you've got some responsibility on the part of the NDP . . . Because I had these conversations when the NDP were in power, what I said to this scientist, I said I don't understand. I know that Canada has treaties with the United States on acid rain. We know that the Great Lakes were dying from acid rain. And so the two nations got together to limit the emissions that cause acid rain. How can this possibly be happening then in northern Saskatchewan?

Well the answer to the question is this. Is it because we're in the boonies and they really don't give a damn what's happening in Saskatchewan? It's only if you're, you know, in central Canada — in Ontario and Quebec and the Great Lakes — then they care and then they'll do something about it. Maybe, I don't know.

A big part . . . You know, what I was assured of is, on the regulatory side, that there were independent assessors that go in that make sure that the monitors on the stacks are properly calibrated, that they're properly read, and everything else. So then I say aha, I know what the answer is. It's exactly the same thing as is happening in the Great Sandhills and elsewhere. You license and you monitor based on one smokestack.

Well hey, guys, there happens to be quite a few smokestacks, and there happens to be more of them going up all the time and more emissions all the time. What you have to be monitoring and regulating is cumulative impact, what happens when you put all those things together. I mean that's reasonable. It's common sense. How in the hell do you get away with not doing it that way?

The response of, you know, the NDP government at the time was, oh yes, we need to hurry up. And, you know, we used to have cross-border discussions with Alberta all the time; we stopped having those two years ago. Well they should never have stopped, and somebody in Saskatchewan needs to be asserting that hey guys, you're not going to do this to us.

So I'm very, very concerned about the new regulations that the Department of the Environment under the Sask Party is bringing in. And what you're doing is more deregulation, and you're saying that the industry is responsible for and they will supply the data upon which you will regulate. And you're just going to tell them what outcomes you want and there's going to be . . . You know, we don't need all those government employees to do their regulating and to do the checking up.

Well I think with the economic crisis that the United States has gone through — and there are many, many more examples of it — that simply doesn't work. You might like it to be — you know, I'm a business background; that's where I come from — you may like the idea that industry can self-regulate. In fact they rely on the government to do the regulation, and the government has got to do that.

You know, those quotes from the Governor of California: we tried deregulation; it was a nightmare. Well that's what you're getting into here with the Department of Environment, too. So your problems in the North are going to be exacerbated, they're not going to be alleviated.

The Chair: — We have about one minute left. I have one member that has a quick question. If I could ask you to keep your comments fairly brief, and I may have to give you the signal again. Mr. Hickie.

Mr. Hickie: — Thank you, Mr. Chair. And, Ms. Finley, thank you for your opinion this afternoon. You know, with all due respect, we have a body of people who've been coming to us over the last number of days who've given their opinions as to alternative energy needs and how they can be best met — from business and from academia.

In the case of Saskatchewan's needs, there's a balance that we've been told about involving solar, wind, proponents of each. There's been hydro brought up as well. SaskPower talks about the use of coal still and to talk about reinvesting for infrastructure needs to ensure we have the capacity to still supply power so we have lights on.

Can you talk to the committee and tell the committee what you would think are good, alternative energy needs that we should be looking at, as a bipartisan group of people, to bring forth the best measures for the taxpayers and ratepayers of this province? Do you have an opinion? And if you don't mind, ma'am, I would like to not know what it is any more with tar sands and nuclear, if you wouldn't mind. Do you have other forms you want to propose as a proponent to the people of the province?

Ms. Finley: — Sure. And I'm glad that you're working together in an effort to solve problems rather than being partisan. That's very positive and to be commended.

And I cannot offer a lot to you. I've seen examples, for example, like solar structure that's used in Spain for the concentration of solar energy — and I'm sure you've heard about it from other presenters — and that will supply a community of 20,000 people, for example.

And at the beginning what I prefaced was, I think that the answers will come through experimentation and through research, and that that should be done at the University of Saskatchewan. There should be a study centre there for determining and finding those alternatives. Intellectually, logically, so not just my opinion, but again the data that you will have received will show you that for example with high power transmission lines, the usual figure quoted is that 30 per cent of the electricity that goes into those lines actually reaches the end user. So you're losing 60 per cent along the way.

So to me, we've got to also change our thinking there. You know, so localized production where local people benefit is certainly based on that information, factual information. That's the way to go. And yes so you know, I have confidence that we'll find the way, but it means removing the box that we're in.

Mr. Hickie: — Thank you.

The Chair: — Well thank you very much for your presentation and taking the questions. We're just running a little bit behind, so we're going to recess just briefly for our next presenter. So thank you again for your time today.

Ms. Finley: — Thank you very much.

[The committee recessed for a period of time.]

The Chair: — I'd like to welcome the committee members back, and our next presenter. Before we hear from our next presenter I would like to advise witnesses of the process of presentations. I will be asking all witnesses to introduce themselves and, if possible, state their position in the organization they represent. If you have written submissions, please advise us that you would like them to be tabled. Once this occurs, submissions will be available to the public. Electronic copies of tabled submissions will be available on the committee's website.

The committee is asking all submissions and presentations to focus on the following question: how should the government best meet the growing energy needs of the province in a manner that is safe, reliable, and environmentally sustainable while meeting any current and expected federal environmental standards and regulations and maintaining a focus on affordability for Saskatchewan residents today and into the future?

Each presentation should be limited to 15 minutes. We have set aside some time following for questions. Once your presentation is complete, the committee members may have questions for you. I will direct the questioning and recognize each member that is to speak. Members are not permitted to engage witnesses in any debate and witnesses are not permitted to ask questions of committee members.

I would also like to remind witnesses that any written submissions presented to the committee will be public documents and will be posted to the committee's website for public viewing. That being said, I would like to welcome our next presenter and ask him to carry on with his presentation.

Presenter: Council of Canadians

Mr. Sawa: — Yes. My name is Rick Sawa. I'm with the Prince Albert chapter of the Council of Canadians, and my talk today will be in four parts. I'll talk about the UDP report. I'll talk about Perrins' report. I'll talk about renewable energy and then I'll also talk about this process.

In October 2008 the Government of Saskatchewan created, quoting from the report: "an expert panel — the Uranium Development Partnership . . . to 'identify, evaluate, and make recommendations on Saskatchewan-based value added opportunities to further develop our uranium industry.'"

The Council of Canadians have several objections to the UDP, some of which are the following.

The UDP is about propping up the uranium industry. It's a uranium business plan, and not about energy options for Saskatchewan.

All of the members of the UDP were public proponents of, or represent organizations that are public proponents of the nuclear industry. It insults the intelligence of the residents of Saskatchewan to call the UDP, again quoting from the report, "a broad cross-section of Saskatchewan stakeholders."

Young people, women, senior citizens, and Aboriginal people make up a significant portion of Saskatchewan's population, however the panel consisted of middle-aged men, again today, one of whom was a First Nations man who was a known proponent of a nuclear industry. There was an IBEW [International Brotherhood of Electrical Workers] union member on the panel, and he was from a union that supports the uranium industry.

Is not Dr. Florizone in a conflict of interest situation, as he is the vice-president of finance and resources at the U of S [University of Saskatchewan] whose university will directly benefit from the proposed nuclear industry subsidy in the form of taxpayer dollars for research, development, and training?

Several environmental groups exist in Saskatchewan, however the Government of Saskatchewan brought in a known proponent of the nuclear industry from outside the province to sit as the so-called environmentalist on the panel.

Where was the health professional on the panel?

We find it deceiving that the dollar figures are always available to broadcast possible financial gains to the province, but nowhere do we see any sign of what it will cost the Saskatchewan taxpayer. Why is one side of the financial picture being completely hidden from the public, especially when that side is precisely the financial cost estimate for each of us as taxpayers?

And as attachment 1, I list: no. 1, cost of loss revenues from reduced uranium royalties — that can be found on page 27 — no amount. Cost of loan guarantees to Bruce Power, page 64, no amount. Cost of capacity upgrades to Saskatchewan power grid, page 66, no amounts. There is an amount for the cost of power reserve capacity to back up nuclear and the cost of new interties. Costs of roads and power supplies to service the industry, page 38, no amount. Costs of monitoring nuclear waste dump site for all time, page 77, no amount. Cost of providing the research development and training arm with the nuclear industry at the University of Saskatchewan, page 80-81, no amount. Government share of costs of research reactor at U of S, page 82, no amount. Costs of potential nuclear accidents for which all insurance companies refuse to insure the public, no amount. Cost of health care for those negatively impacted by additional radiation exposure, no amount.

According to the Perrins report, and I quote:

Most of those commenting felt . . . [the public consultation process] was not adequate, was too short, did not provide enough time to prepare; did not provide government with a strong enough mandate to make a decision about uranium development; did not have enough people participating in the process; more consultation was needed; and the focus of the consultation — the UDP Report — was not the correct one.

According to Perrins' report, 88 per cent of people who participated disagreed with the UDP process. Because of growing public pressure to democratize energy policy, the Saskatchewan Party government created the public consultation process. But it was so restrictive that a widespread call for

non-nuclear options could be ignored. However to quote from the Perrins report, “the overwhelming response to this public consultation was that nuclear power generation should not be a choice for Saskatchewan.”

To quote further, “The vast majority of responses dealing with alternative energies — particularly around renewable energy sources — supported Saskatchewan moving to a greater focus on alternative energy sources.” And a large proportion of people wanted Saskatchewan to go ahead with a study on renewable sources of energy funded to the same level as the UDP report, which I believe is around \$3 million.

According to the Perrins report, 98 per cent of participants voice support for focusing on alternative energies, and 95 per cent stated that the focus should be on energy efficiency and conservation because, I quote, “Energy efficiency was thought to be good economically for . . . individual households, less expensive for government, and good for the environment.”

Again, see Perrins’ recommendation no. 1 where he says, I recommend the Government of Saskatchewan develop a consolidated report on all power generation options and make this report available to the public. He talks about health and safety, that the costs should be listed in this report, etc.

A shift to cleaner technology would result in a major, new economic sector. Tim Weis from the Pembina Institute stated in Prince Albert on Wednesday night that there really is a boom on now globally. Renewable energy has become a huge industry. More money was invested in renewable energy last year than in coal, nuclear, and natural gas combined.

[15:15]

Green jobs have grown rapidly in the last four years in Germany from 160,000 in 2004 to 214,000 today. In Spain an estimated 190,000 are employed in the renewable energy sector. A recent UN [United Nations] study concluded that 2.3 million people have in recent years found new jobs in the renewable energy sector alone, and the potential for job growth in this sector is huge.

According to the Worldwatch Institute, to produce 1000 gigawatt hours of electricity per year creates 542 jobs for wind, 248 jobs with solar thermal, 116 jobs with coal, and only 100 jobs with nuclear fission. Why would we in Saskatchewan be moving towards nuclear when, according to the *Bulletin of the Atomic Scientists*, November/December 2008, nuclear power has slipped from 16 per cent to 14 per cent of global electricity, a global electrical supply? We must know something the rest of the world doesn’t. Conversely, renewables have already surpassed nuclear capacity and are on track to double to 35 per cent or more of the world’s electricity by 2030. This was according to the United Nations Intergovernmental Panel on Climate Change, fourth assessment report 2007.

According to the TerraDaily from Berlin, Germany, the German government plans to build up to 30 offshore wind farms in the Baltic and North seas. By 2030 the output from the windmills is expected to produce 25 000 megawatts of electricity. The government plans to close all of Germany’s nuclear power plants by 2020. Investing in wind farms is better than keeping

the nuclear plants running. They say, “We believe in renewable energy and not in nuclear energy.”

In Saskatchewan, according to Mark Bigland-Pritchard, “There are more than 100 000 square kilometres of suitable area for wind turbines . . . more than 300 times the needed space.” We presently only get about 1 per cent of our electrical supply from wind when Denmark, for example, has generated close to 20 per cent of its supply from wind since 2004.

Regarding criticism of wind power, Weis said that far more birds are killed by windows in buildings, high-tension lines, and cats. A combination of solar, wind, and hydroelectricity would allow for times when the sun isn’t shining or the wind isn’t blowing. There are similar systems in place in Denmark, Spain, Portugal, and other European countries. Power generators could also be spread across the province. You would have small wind farms throughout the province — not one large one — so the wind is blowing somewhere at some time.

Weis said that people are correct to say that the sun doesn’t always shine and the wind doesn’t always blow. However nuclear power plants don’t always work either. That is something inherent to electricity.

In Prince Albert, the latest poll taken by the *Prince Albert Daily Herald* discovered that 71 per cent of people who responded were opposed to continue to go down the nuclear path in light of the Perrins report. At the Prince Albert city council meeting on October 5, 2009, city council passed a motion to lobby the provincial government to look into alternative and renewable energy sources and their feasibility that would fit with the city’s potential industrial green park. The councillor who introduced the motion stated that it was time to start thinking in the future rather than living in the past with nuclear energy.

According to Weis, there are some positive signs in Canada. Nova Scotia is aiming for 25 per cent renewable power by 2015. Alberta announced transmission upgrades to accommodate up to 3000 megawatts of wind power. Ontario has put all nuclear projects on hold and has adopted a most progressive *Green Energy Act* that puts priority grid access to renewable power. There has not been a nuclear reactor built in Canada in 20 years. There are enough interesting things happening in Canada that it’s hard to justify inaction any more. The renewable energy revolution has begun. The question is, do we in Saskatchewan want to be part of it or do we want to live in the past?

According to the Perrins report, many First Nations and Métis organizations argued that current processes around consultation are not sufficient. They indicated more must be done to ensure that the level of engagement, the results of consultation, and the quality of consultation are adequate. They reinforced the Crown’s duty and the need for a separate First Nations and Métis consultation process. The Council of Canadians fully support recommendations 5, 6, and 7 which I’m sure you are aware of. He recommends separate First Nations consultation. He recommends a First Nations consultation be established in Athabasca Basin, and he recommends a separate Métis consultation process.

In light of the above, the Council of Canadians is requesting

that the provincial government endorse the attached resolution by the Prince Albert chapter, C3:

Energy needs study resolution. Whereas the Uranium Development Partnership is about propping up the uranium industry and not about determining energy options for Saskatchewan, whereas all the members of the UDP or public proponents represent organizations that are public proponents of the nuclear industry, whereas nuclear energy development is costly, whereas nuclear waste storage remains a serious unsolved problem, whereas the nine-day public consultations proposed by the provincial government are insufficient to determine the energy needs of the province and how these needs can best be met in a safe, environmentally friendly, and cost-effective manner; thereby be it resolved that the provincial government undertake an independent study conducted by experts to determine the energy needs of the province and to ascertain what part renewable energy options can play in meeting these needs.

Again, quoting from Perrins: "People told me that there is a need for information from independent experts who do not have a stake in nuclear power or uranium."

The Prince Albert chapter of the Council of Canadians is also concerned that the provincial government will consider this Standing Committee on Crown and Central Agencies review of energy options to be the study on energy needs for the province and how these needs best be met.

I am certainly no expert on energy needs or renewable energy options, and I don't think any of you around this table are. However I do know a thing or two about democracy. I know when one side of a debate has an unfair advantage over another. Those of us who oppose nuclear energy and are proponents of renewable energy do not have the financial resources of the likes of Bruce Power and many of the other organizations that will be coming before you.

When we see \$3 million spent by the government on trying to convince us that nuclear power generation and spent uranium storage is good for us, with a similar amount of resources spent on the other side of the debate, we rightfully get upset. This is not democracy. This is an attempt to manufacture consent that does not sit well with many citizens in this province. Thank you.

The Chair: — Well thank you very much for your presentation. Mr. Weekes?

Mr. Weekes: — Thank you, Mr. Chair. Well thank you very much for your presentation. I appreciate you taking the time to come here and give your presentation to us. As you know, this process is to talk about our future energy needs and the mix of electrical production to meet those energy needs in the future.

It's obvious that you're against the nuclear. There's no secret about that. So my question is, to you — and your answer could be, you know, without any nuclear part of the energy mix — how do you feel how we should get from today's present sources of electrical production, which is mainly the coal base and natural gas. You know there's some wind and some

movement on renewables. If you could answer that question about how you feel what mix there should be of the various non-nuclear sources of energy and what is your feeling about the costs.

Everyone that we have spoken to made presentations, I believe, when they talk about costs, that they accept that there's going to increased costs to bring our system up to a more renewable or non-coal-based electrical production.

Mr. Sawa: — My answer is what I said earlier. I'm not an expert on this. All I know is that there are experts out there who can answer these questions for you. What I came here today is to talk to you about how this is being done.

You expect us as citizens to come here and tell you how to run the energy in this province. There are experts out there and that's what my recommendation is, is that you've got to ask the experts. I know what I think. I mean we've got wind, and we've got water, and we've got sun. We've got trees down in the forest that could be used. You can't take all of them out or the forest will die. So there are many ways of doing it.

But I'm an educator. I'm not an environmentalist and I'm not a physicist. And so my main reason to come here today was to say there are options. I know about them. I've read about them. I'm sure you've read about them. But I'm not an expert and I cannot tell you how to move from one to the other. All I know is that other countries are doing it. Other provinces are starting to do it, doing it. So if we go down the nuclear path, like I said earlier, we must know something others don't know. That's all I'm saying.

Now I can't tell you how to do it, but I can probably get you a list of names, if you want, of people that could probably answer the questions about how to do it.

Mr. Weekes: — Well thank you. I think we would welcome that list and if they would like to make a presentation, certainly contact the Clerk and we would welcome their input.

Mr. Sawa: — Yes, I'm sure you're hearing from people that have some of these answers.

Mr. Weekes: — Thank you.

The Chair: — Mr. Wotherspoon.

Mr. Wotherspoon: — Thank you for your presentation today, and I think without doubt we have an opportunity as a committee here. This is an inquiry that has been established with authorities from the legislature. We don't report back to any minister or the Premier. We report back to the legislature.

And we certainly, I think, certainly made public our concerns as opposition members in this operation in establishing this process, one that we see as a process that's flawed from the start without being able to go through and set up parameters that was going to create good public policy.

It wasn't long ago we sat together in a room where we talked about the fact that if we had SaskPower come in first, talk about the power needs, that we then needed some separation of time

to make sure that we had the experts coming in and to make sure we had industry come in and put forward proposals to those, the power needs of Saskatchewan. And we talked about independent processes.

I see a lot of what's being raised today, Mr. Sawa, by yourself, as pieces of a concern around process. And what we have here now is good information coming from citizens like yourself, good information coming from organizations like the Pembina Institute yesterday, and from industry. But what we don't have is a process that's going to assist this committee in making any sort of meaningful policy here, or it's going to be difficult to do. So I appreciate your comments around process. But I also appreciate your participation here today, and I think that the fact that you've focused on that aspect is a valuable one.

Your offer to put forward lists of names would be welcomed and you could do so today. But we'd also invite that when you go forward and . . . consult with some of your peers and colleagues back in Prince Albert and otherwise because I think that's important that we recognize that we here have the authority as an inquiry, which is very rare in a legislative forum. And in fact, I believe we have special authorities even as it relates to subpoena to make sure that we have the right individuals before this committee.

So we believe this process is flawed. We don't believe it's been put forward with, I guess, best public policy tools that it could have utilized. But that being said, we're going to try to do what we can make of it. So if you could put forward some experts' names, we'd certainly do our best to make sure that we could get those individuals in, in January.

We also have an interim report that we're going to be tabling after these nine days. And I think, if the co-operative spirit that this committee was supposed to have been formed in is utilized, at that point in time we might be able to clean up some of this process here yet. So thank you for your comments and we'd welcome that list.

Mr. Sawa: — Can I talk again?

The Chair: — Yes, certainly.

Mr. Sawa: — You know, like I said, I really hope that the main recommendation coming from this group — that as Perrins recommended — that a study is done by people that know what they're talking about, and that costs are put to that study so that a decision can be made. Like when we had Bruce Power going around, I mean, they had an agenda. And I have nothing against their agenda. It's a corporation — their goal is to make profit, there's no question about it. Their goal isn't to help the citizens of Saskatchewan. It's not the role of a corporation; their role is to make money. I have no problem with that.

[15:30]

So again, I would hope that when this is all said and done, that the people sitting around this table realize the importance of bringing in experts to find out what we need.

And SaskPower, I mean yes, they're experts too, but they've also got an agenda. I mean it's their job to supply power in the

province. If we cut back power, then, you know, they might lose jobs. And so you know, they aren't the only expert to tell us the energy needs. In fact, I've read that their proposal of how much is needed is out of line. But again, I'm not an expert. I read what others say.

And so again, I'd like to close with that, that the main recommendation coming from this table is that a real study is done — not one of these UDP ones where it's loaded with one side of the argument, and everyone ended up knowing that. At first, people probably didn't know that.

But we really have to be serious. We've got to look at the rest of the world. What are they doing? Why are they backing away from nuclear energy? Again, do we know something they don't? Are we smarter in Saskatchewan and we know?

So I really hope that . . . And that's why I came today, is to say let's get on with this. I live in this province. I don't want my great-grandchildren to say, you mean my great-grandfather knew about this and did nothing about it? He knew that these were all non-renewable, and they were going to go away some day and he didn't do anything about it? I don't want them to say that, so I want to be on record to say I said it.

The Chair — Mr. Belanger.

Mr. Belanger: — Yes, you said it, and we heard it. Just a curious point from my point. And I should know this, but could you explain to me, the Council of Canadians, you're obviously the Prince Albert chapter. What is the Council of Canadians, and what does your membership base look like? Is it affiliated with a religion or is it a community base?

Mr. Sawa: — The Council of Canadians was started in the early '80s. It's a citizen-based organization. We have over 70 chapters across Canada. We get no government money or no corporate money. That's why I can feel free to speak my mind. Our money comes from citizens.

And we're concerned about the independence of Canada. We're concerned about the water. Like, if you talk about the tar sands, I've read — again I'm no expert — that the tar sands uses as much water in the year as the city of Toronto. So we're concerned about that. We're concerned about free trade and the effects it's had on the citizens of Canada. We're concerned about the privatization of health care. So we're concerned about many, many issues — the war in Iraq. But we're a citizen-based group and all our money, all our funding comes from other citizens.

Mr. Belanger: — It's much like a, and I'm just again curious, it's much like a public venue and people are invited. And how many members have you got, just curious?

Mr. Sawa: — I would say across Canada about 80,000.

Mr. Belanger: — And the Prince Albert chapter?

Mr. Sawa: — Members, I'd say about 10 or 12 of serious members, you know, like any group. We've been around for over 10 years, and so we've got a core of people, and then we put on presentations. In fact if you're in Prince Albert, we're

having a movie called *Downstream*. It's the effect of the tar sands on Fort Chipewyan people. And so we do that. We do education sessions. In December we're having a peace day, a peace rally where we bring in musicians. So we do that kind of thing.

And so we have a small group of people that are committed. We've been committed for over 10 years, but we have a larger group that participate in our functions.

Mr. Belanger: — You made reference to a survey in Prince Albert. Can you give me a bit more information on the actual survey?

Mr. Sawa: — Well it was one done in the P.A. *Herald*. See, the P.A. *Herald* ran a survey and people, you go on the computer and yes, no, yes, no. And that came out after the Perrins report, and so 71 per cent of the people said we should stop going down the nuclear path in light of what Perrins's report said. Now that's just a newspaper survey, but that's what the people of Prince Albert have said that participated.

Mr. Belanger: — Right. And you were asked the question about the experts. Again I think that list would be very valuable if you do have some connections and contacts because obviously as many groups . . .

Mr. Sawa: — I can get you a list. I know enough people that if you want names — I'm sure many of them will be before you anyway — but we can put together a list of names of people that could help out in a serious study of our needs and a serious study of how these needs can be met and the cost of all of them. That's important and I understand in government, you've got to be concerned about cost. That's your job.

So how do you make a decision? Like what I reported about the UDP report — they had no figures there. How do you make your decision? Oh, it's good for the province. Oh, you're going to get this; you're going to get that. But they never told us anything about what it's going to cost us. That's not a real report; that's a business plan trying to convince us that they know what's better for us than we do.

So we've got to have a serious study about what we need, how can we get it, and what's the cost of it all. And that might take \$3 million, but you had it for the business plan, so hopefully you can find \$3 million for the other side of the story.

Mr. Belanger: — I guess I could again be a devil's advocate here. What if one were to tell you you're actually stifling the economy of Saskatchewan by taking some of these positions? What would your response be?

Mr. Sawa: — I'm sorry?

Mr. Belanger: — What if someone were to say to you you're actually stifling economic growth for the province? How would you respond to that?

Mr. Sawa: — Well I just gave you statistics about jobs that are in the renewable sector across the world. Just because there's no jobs in the uranium sector doesn't mean there'll be no jobs with wind and solar and small water — not these great big dams that

ruin people's lives, but there's smaller kinds of systems that can be put in place. So just because there's no jobs over here doesn't mean there's no jobs over here. Right? So we cut here and we gain here. And SaskPower employees, let's train them how to build windmills and how to put solar panels on. They'd still have jobs.

Mr. Belanger: — So thanks again for all your presentation. And again if history does take out the public hearings of this committee, you can say you spoke up.

Mr. Sawa: — Good. And thank you so much for listening to me.

The Chair: — Thank you for your time today. The committee will now adjourn until 10 a.m. Tuesday, October 13 . . . [inaudible interjection] . . . If we could postpone the adjournment one moment.

Mr. Belanger: — I'd just like to propose to the committee, and I spoke to the Chair of this, and I thought maybe the other committee members should know, one of the things I suggested to the Chair as Co-Chair is that we take an effort to formally invite what I think is an independent agency within — I'd just as soon use the word agency — but within Saskatchewan, and that's the rate review panel. As you know, they have hearings on the potential increases in power rates and telephone rates. And this has a significant amount of information I think would be of value.

The committee itself, it consists of a number of people appointed by the government, I think, and they're neutral. They hear all the arguments for or against raising the different rates. And since this is one of their biggest issues — power rates is a huge thing — I think as a committee it'd be wise to invite them as observers and invite them as observers just simply to hear what people are saying because it could be just invaluable to what we're trying to do, plus what they do. So I make that recommendation.

The Chair: — If I could speak to that as well — I've given it some thought throughout the day — I think that right within the question we've asked everybody to respond to, you know, we lay out kind of the hurdles and in a cost-effective way for the people of Saskatchewan.

So you know, trying to figure out the responsibilities here. But it's very likely that our recommendations will have direct effect on them. I would hope that those members are currently aware of this committee; I would almost be certain they would be. And they should be following, but it certainly doesn't hurt to send them an invitation to come and watch the proceedings in person or as they see fit. So I support that.

Excellent. I don't think we need a motion for that but . . . Unless anyone else would like to speak to it. Mr. Weekes?

Mr. Weekes: — Yes. Certainly I mean, just as an observer, they certainly can listen in. And the proceedings are being recorded, and so I don't know if they actually have to be physically in the room with us, but they're certainly welcome to be an observer or to listen in and take part through *Hansard*.

The Chair: — Mr. Belanger.

Mr. Belanger: — Sorry. If I can just further add before closing, it's good to have the presence because we really get to feel what people are saying. And I would suggest we do it ASAP [as soon as possible] because next week is our re-engaging, resuming committee work. So to be invited as of today would be great. Thank you.

The Chair: — Procedurally I had announced that we're adjourning, but because we are not at 5 o'clock, I will need a motion from the floor that this committee . . .

Mr. Bradshaw: — I'll move that.

The Chair: — Mr. Bradshaw has so moved. All in favour?

Some Hon. Members: — Agreed.

The Chair: — Opposed? Carried. Thank you. We will now adjourn until 10 a.m., Tuesday, October 13.

[The committee adjourned at 15:40.]