STANDING COMMITTEE ON CROWN AND CENTRAL AGENCIES

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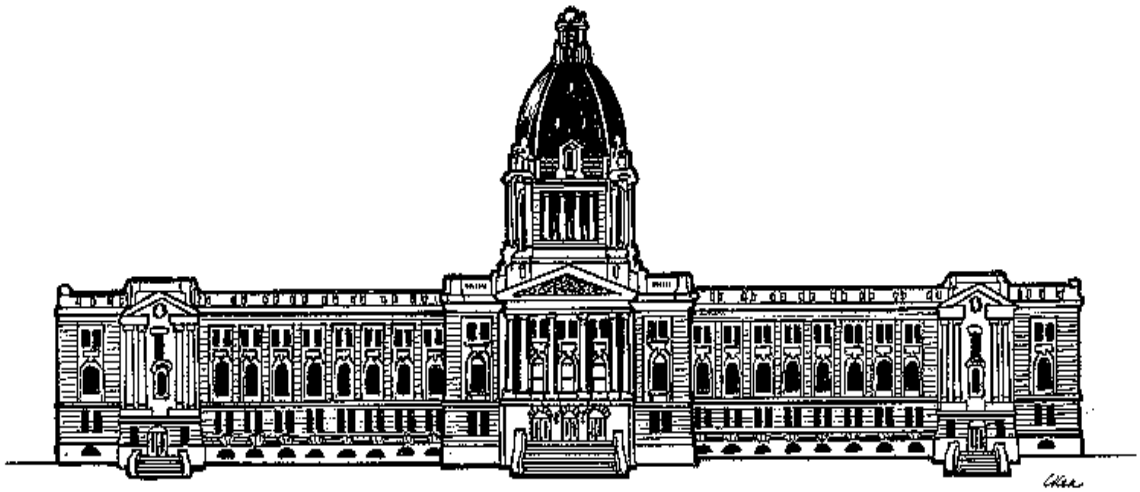

Legislative Assembly of Saskatchewan

Twenty-sixth Legislature

STANDING COMMITTEE ON CROWN AND CENTRAL AGENCIES

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Mr. Trent Wotherspoon
Regina Rosemont

Published under the authority of The Honourable Don Toth, Speaker

[The committee met at 09:12 MST.]

Inquiry into the Province's Energy Needs

The Chair: — I'd like to welcome everyone here this morning. Today is our 10th day of hearings, the first day after our interim report was published over our last session. This is the Standing Committee on Crown and Central Agencies and our inquiry into Saskatchewan's energy needs. I am Tim McMillan, the Chair of this committee. I would like to also introduce the other members on the committee: Mr. Weekes, Mr. D'Autremont, Mr. Allchurch, and Mr. Bradshaw. Today substituting in will be Mr. Taylor and Mr. McCall.

All the committee's public documents and other information pertaining to this inquiry will be posted daily to the committee's website. The committee's 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 Crown and Central Agencies.

At this point, I will also say there are several other documents that were provided to committee members that will now be tabled, and one document that Mr. Weekes has brought forward that will be provided to committee members and will also be tabled and will be up on the website for the public to view as of this afternoon.

The hearings will be televised across the province on the legislative television network, with audio streaming available for meetings outside of Regina. I will say that there has been some technical difficulties here today, so until Telus gets us sorted out, this will be taped and will be put on the website like all other presentations, once the technical difficulties are worked out. To access them, click on 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 this morning, 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, your position with an organization you represent. If you have a written submission, please advise that you would like to table the 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 has asked all presenters to present in answer to the following question. This 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?

[09:15 MST]

Each presentation should be limited to 15 minutes. Once your presentation is complete, members may have questions for you. I will direct 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 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.

I have asked this morning's presenter if she'd be willing to take questions, if the committee members have them, up to 5 to the hour, and she thought that would be acceptable.

Another note is that we will have . . . Oh I've gone through that. With that being said, I would ask our presenter to introduce herself and to go ahead with her presentation. Thank you.

Presenter: Heidi Hougham

Ms. Hougham: — Thank you, Mr. Chair, committee members. My name is Heidi Hougham. I am presenting as an individual concerned about Saskatchewan energy policy. I've recently moved back to Saskatchewan after time spent in Ontario finishing a law degree. I did practise privately in tax law, but more importantly perhaps for this discussion, I did work in tax policy at the Ontario Ministry of Finance and specific work in electricity restructuring.

I'm currently at home on the farm in Saskatchewan raising my family in the North Bend district. I hope to build a home in that area. I have interests in sustainable agriculture, renewable energy, water policy, small farms, sustainable housing, self-sufficient living, as well as family life and raising my family.

I am a member of the S.O.S [Save our Saskatchewan] group that was formed in the North Bend area in response to a proposed nuclear power plant. However, I'm not specifically addressing the nuclear issue today nor am I presenting on behalf of S.O.S. While most of what I say the group would probably agree with, this is my own individual presentation and recommendations and observations.

The committee has asked us to address the growing energy needs — how should the government best meet the growing energy needs of the province. And I'm just wondering if we have begged the question a little bit in the direction to presenters. And I won't stray off course, but I just want to ensure that the government first assess whether our energy needs are in fact growing into the future, or rather how we can prevent them from growing. I just want to make sure that the committee does not take Bruce Power or even SaskPower's projections as an indication of where we're going without further critical analysis.

If we are to make an informed decision, we must at least research why our energy needs are growing, and that changes into the future. So my first recommendation is an independent assessment of why the energy needs are growing. Is it due to increased population, increased business demands? And from there we can look at, if they are growing we can assess why, to see if other solutions are available besides just the obvious solution of increased generation. And those examples would be

conservation and self-generation for individuals and private sector.

If the scope of the demand for energy is such that we need to address long-term supply, then there's a role for government in public projects. There's also a role for the private sector in private generation. But this is almost a different policy discussion or a broader policy discussion in which we discuss private generation as an economic development strategy for Saskatchewan, and that includes any options that would consider excess generation.

If energy demands are increasing in each household or if population is increasing in that we're building more housing, I think there's a great role for conservation. And that's my third recommendation. I think that in talking about conservation I'm stressing the demand side of the energy equation. Dealing with the demand side will most immediately address least-cost methods in the shortest time frame and will in particular address any future regulatory requirements based on global warming or greenhouse gas emissions.

I think that there's been a consciousness shift in the way we deliver energy and energy policy because the new thinking — or maybe it's old thinking — the new constraints, the environmental constraints, and the political constraints, what's happening internationally with global warming, makes us question whether we should automatically supply if we see energy demands increasing. And that's why I'm focusing on conservation a little bit and questioning whether we have to accept growing energy demands.

On the environmental side I want to particularly stress growing awareness of two issues: water scarcity into the future, water policy, and also new health research regarding hazards of transmission lines and effects of nuclear power plants; and then the political awareness or movements, again the greenhouse gas emissions and global warming trends.

Some of what I'll talk about now I'll be drawing on a conference that I attended last spring in 2009. It was put on in part by Saskatchewan Agriculture and it was a sustainable energy alternatives conference.

One of the things that was stressed was that the easiest way to save money on the farm, and we can expand this to as a province, is to again address very specifically what our energy needs are on the demand side so that we don't overspend in capital investment. So looking at each function — business, residential — and assessing what our needs are and where we could decrease those needs through conservation or through self-generation, and then make the decision on capital investment.

An interesting point made at the conference by the Saskatchewan Research Council, quoting from that presentation, 40 per cent of the energy load is tied up in buildings. In Saskatchewan, building life is less than 50 years and the researcher that presented addressed new buildings as an opportunity for conservation and energy efficiency.

Initially when you're thinking about building a home — and I've been thinking about this a lot myself — there are certain initial capital costs and there are life cycle costs. And capital costs are . . . It's at that stage where you decide, am I going to put on solar panels? How am I going to heat my hot water? What type of heating will I use for this home?

Life cycle costs are things like paying your SaskPower bill, paying your water bill if you live in a city, etc. And that in most cases, what the Saskatchewan Research Council has been doing is they've been researching and building energy-efficient homes and they're finding that, yes, for a lot of these initiatives, initial capital costs are high, but life cycle costs are significantly lower. And so as a recommendation that the government assist to reduce initial capital cost to encourage capital investment in energy-efficient housing. And this will reduce cost to consumers over the long term and it will also reduce energy demands.

Building on this recommendation, a recommendation that energy demands also be decreased in a sense in allowing for more self-generation for people that want to go off grid or that want to take part in the net metering program or the small producers program currently part of SaskPower's regime, but provide greater incentive to self-produce electricity. And that's certainly happening in Ontario.

Recommendation no. 6, to support local small businesses specializing in alternative energy solutions which individuals can access. And some of the small businesses that did present at the sustainable alternative conferences were GeoSmart Energy that specializes in geothermal energies; Raum Energy, which specializes in wind technology, and then a very interesting presentation was made by an electrician out of North Battleford that's actually done some practical implementation of solar and wind power, and the name of his company is Seib's Electric.

Again more incentives aimed at this technology that would reduce the capital cost of consumer investment in these types of energy, and then sort of a global blanket recommendation and challenge to the government to be a leader in this as a consumer of electricity, working on the energy efficiency of government buildings.

And then also building on what some governments are doing in Europe at the municipal level, where cogeneration is being done at landfill sites, and the use of biomass initiatives. So really taking a look at what is waste in our system and whether there's efficiencies to be made by taking some of that waste and turning it into electricity.

So moving on to just some general observations. I know most of this information in these recommendations will not be new to government policy-makers. And I think we know what we could be doing now in the area of conservation, self-generation, renewables.

We know that it's timely and in most cases it's low cost, that it addresses greenhouse gas emissions and environmental sustainability, that in the medium and longer term framework, renewable energies are safe and will be proven to be reliable, I think, if the research is done in that area. And that, I think the public opinion is, as I say because of a shift in consciousness, the public opinion is aligning more with values of conservation and power to the people, the willingness to try some of these

new initiatives.

[09:30 MST]

If I could observe where I don't think we're at, and I'm drawing upon the public consultation following the UDP [Uranium Development Partnership] process. I'm not espousing the need for a centralized megaproject, which I believe is really a privatization of power, of energy policy. I believe a megaproject will result in increased cost, increased demands for electricity, and increased stress on current transmission and distribution system, or requirement for additional capital expenditure there. It has a long-term implementation which doesn't address the current and expected federal standards and regulations and it has no immediate impact on environmental sustainability as far as emissions in contrast to conservation. Three more minutes?

The Chair: — Roughly.

Ms. Hougham: — Okay. Bill Boyd's recent announcement that the province is not willing to go ahead with a large-scale nuclear power plant at this time but would direct SaskPower to keep nuclear in the energy mix for 2020 seems to be doublespeak because the timeline for nuclear generation is about 10 years. So I see that kind . . . I don't think that's a clear policy direction.

And also the indication that the government would be willing to spend more money on nuclear research. I would like to see more money spent on the issue of whether the nuclear industry would make an impact on Saskatchewan's watersheds, the effects of the nuclear industry on water quality, and more of an assessment on health impacts of populations currently living near nuclear plants. Megaprojects create a displacement of people, a centralized economic benefit, greater reliance on transmission, and greater environmental impacts.

A second observation which is somewhat of a criticism of government policy to date. Government's energy policy seem to stem from supply side thinking, i.e., we have uranium in Saskatchewan. How can we grow this industry and add value to it? This led to the UDP report.

Nuclear industry marketing has coined the policy framework: safe, reliable, green, greenhouse gas emission free.

Government needs to set its own framework for evaluating alternatives, independent of the nuclear and uranium industry. In assessing whether something is environmentally sustainable, we should focus on main factors, main policy issues, human needs versus wants. Until the public consultation brought health and water quality issues to the forefront, these seemed to be largely ignored.

A request for proposals to supply power at a large scale, i.e., over 1000 megawatts, is really a privatization of a significant portion of the energy industry and should be proposed as such when asking for public input.

In other jurisdictions, privatization has led to increased costs to consumers. Even with government support of nuclear megaprojects in Ontario, increased debt load to the province has been the result and eventually been resolved by debt surcharges and higher costs to consumers. In a more decentralized solution, when customers are facilitated in taking conservation measures and small-scale generation initiatives, a savings in electricity costs results.

In summary, based on these observations that government has focused on the uranium and nuclear industry and steered the policy debate towards new, large-scale generation, but that governments are already aware of what can be done now as an alternative, the following recommendations are reiterated.

No. 1, an independent study of whether Sask energy needs are growing in the future. No. 2, if energy needs are growing, to assess why, to decide whether other options other than increased generation are better solutions. No. 3, implement conservation initiatives. No. 4, government assistance to reduce capital cost, especially in the area of housing and buildings. No. 5, support for self-generation. No. 6, support for Saskatchewan-based small businesses involved in electricity. No. 7, that government become more conscious of its demand for electricity and become a leader in biomass self-generation. And no. 8, an additional recommendation that we adhere to the public input that large-scale nuclear generation is not an option.

The Chair: — Well thank you very much for your presentation. I do have a couple members that have asked to ask a couple of questions, but being that I'm the Chair and it's in my hometown, I'm going to take the prerogative and go first.

I guess a couple of things jumped out at me. You were talking about housing and energy efficiency and buildings. If you are interested, we had an excellent presentation from Ms. Pedersen in regards to some housing research that was done and some energy savings that were found at their place in Neilburg area.

But what I guess maybe I wanted to see if you had any comments about, or if you'd been following it, is Husky Energy has just announced a new office tower in Lloydminster and they're looking at all best practices and energy efficiency in their design. Have you, I guess, followed that announcement and have any comments about, you know, a prominent company here in Lloydminster that's spending their own money because they see a benefit in going with energy efficiencies? They may cost more upfront, but longer term they've recognized that's it's a benefit.

Ms. Hougham: — And is that addressing, Tim, sort of whether there needs to be a government role or whether we can count on private business to do it themselves?

The Chair: — As far as clarifying my question?

Ms. Hougham: — Yes.

The Chair: — My question is, have you been following the Husky Energy building announcement and what they're planning on doing and . . .

Ms. Hougham: — No, I haven't heard about it.

The Chair: — Okay.

Ms. Hougham: — So I think it's a very positive thing. And I guess it is a bit of an open question, how much government needs to be involved in that process if we see a lot of businesses taking it on themselves, taking on those capital costs upfront because they see that, you know, that they're going to be an example and they're going to reduce their costs over the life cycle of the building. You know, that's a good point to raise that it's already happening. And then it is a question for government policy. Like how much do we need to add to that incentive?

The Chair: — Mr. D'Autremont.

Mr. D'Autremont: — Thank you. Thank you for your presentation this morning. A couple of points that interested me. You made comment about the government and what it's doing with its building both under the previous administration and under ours. All the new government buildings are going to either gold or silver LEED [leadership in energy and environmental design] standards which are efficiency standards for energy conservation. So the government has been doing that and is doing energy conservation within government buildings.

One of the presenters that we had earlier in our previous sessions from industry stated that they were very conscious of energy costs and the large users do what they can to be as efficient as possible because it means dollar savings for them. So they are very conscious of how they use electricity and how they can reduce their usage.

The comments that you made that I found interesting was your comment that we need to look at whether or not we should be supplying energy to new demand users, and that we need to look at human needs rather than human wants. How do you make the determination then as to what new demand should be supplied energy to? How do you triage it?

Ms. Hougham: — Well I think part of what I was trying to say there is . . . Well there's two aspects to that: there's the individual and then there's businesses. And probably the comment human wants versus needs is more directed at the individual level. And it relates not only to energy, but other basic human needs.

So in terms of what you could do for conservation on a housing level . . . This is kind of a broad question. It can become broader than we really need to go, but philosophy-wise, I think part of what I was saying was, there are certain things that are basic to your human life, and one of them is water quality, air quality — those sort of environmental issues — health. And then there's how much electricity you use, what you use it for, how that relates to your basic human functioning — your shelter, your heat.

And it may be indeed hard to set a bar for this is how much electricity homes should consume. And it's really not about making a judgment about use, but it can be translated into social policy — for example the average household use of electricity is this amount. And if your household uses more than that amount, i.e. if your wants are greater than the average need of other individuals, perhaps then that rate, that extra usage, should be at a higher rate. It's a little bit of a policy translation of a bigger philosophical question.

In terms of how that works out to businesses, again you don't want to be in a situation where you're dissuading people from doing business in the province because you're saying we've decided that we're only supplying this much electricity. And if you have a project that wants to come to this province and you're finding energy is a barrier, in that you're not sure that this project can be really supported in this electricity market, then we don't want to be in a position where we're basically turning down that kind of a project necessarily.

But one of the things we could do is we could say to them we don't believe necessarily that the province needs to facilitate in that. Does the province have to go out and supply the electricity for this project? Or can you look at your wants for electricity, your excess requirement for electricity in relation to this project, and say look, we're going to look at how we can generate this ourselves?

Mr. D'Autremont: — So you're advocating then that we allow private generation for business usage.

Ms. Hougham: — I think as a cogeneration-type initiative, in that this electricity you're generating is specifically related to this project and encourage businesses to think that way.

The Chair: — Mr. McCall.

Mr. McCall: — Thank you very much, Mr. Chair. And thank you very much for your presentation, Ms. Hougham. A couple of questions, the first based on your experience in Ontario. And you'd referenced it in your presentation concerning net metering and this sort of small producer aspect of generation.

We've had a net metering program in Saskatchewan for a number of years now. In your estimation, how would you contrast that with the situation in Ontario around net metering? And are there things that we can do better as a province to get that awareness of net metering out among the general population and perhaps increase the uptake on net metering throughout the province, and again in contrast with the experience in Ontario?

[09:45 MST]

Ms. Hougham: — So I think what's happening in Ontario is a fairly new initiative, so I have no personal experience with it. But I guess the main difference is that the net metering in Saskatchewan doesn't necessarily provide an extra incentive to produce electricity, and same with the small producer. The question has been whether SaskPower's perhaps not buying the electricity at a favourable enough rate to get the uptake on the program that they would like. And I think Ontario has been a bit more generous.

Mr. McCall: — I guess my second and final question for now would be in terms of yourself and your family being individuals very interested in green building your own home. And as someone that's, you know, fairly fluent in the issues and obviously has done some thinking on them, in Saskatchewan as an individual looking to build a family home, what do you find out there in terms of a tool kit or resources that would help you do that?

Ms. Hougham: — I find myself quite a bit on my own in that you're left up to doing a lot of the research yourself. Now perhaps I haven't dug deep enough, but being able to network with somebody like Seib Electric that has done some practical applications can be very useful. Talking to other people that are basically pioneers, they're going out there purchasing the solar panels and batteries, and talking to people that have a similar experience is a good resource.

But I guess I think maybe we're lacking a little bit in the information from government and incentives from government to go out and do it because you're a little bit on your own in doing so.

I think there's, especially in rural areas, there's a great pressure to research alternatives. And one of it is . . . like currently in rural areas, if you build anywhere far away from the established power grid it's incredibly expensive — 20, $40,000 just to bring in electricity. And a lot of people are starting to look at other ways of spending that money.

So at the presentation in North Battleford, when Raum Energy was there . . . And there are grants; there's energy audit programs for established housing. There's grants for energy efficiency. Actually there's some grants for small-scale generation. Like I mean it's a matter of going to the different departments and finding initiatives and researching them.

But like Raum Energy said, if you're faced with a decision, 20, $40,000 to bring in power, and you can buy a small windmill for about 8,000, and then looking at your return on investment from generation, it's not bad. Like it's similar to, maybe better than Canada Savings Bond rate. That's the type of decision making you get into. But yes, it's a lot of research on your own and sort of willingness to be a bit of a pioneer. But I think more people are going to do it because of sort of a shift in where they're at in their lifestyles.

Mr. McCall: — Just to clarify. So it would be helpful if the government was to consolidate some kind of a resource tool kit on green new building for homes?

Ms. Hougham: — Yes, very helpful. And that kind of goes back to the recommendation that they get more involved on the demand side and trying to . . .

Mr. McCall: — Okay. I guess, and one other question that leads into what Mr. D'Autremont had referenced around the LEED standard being attained for new government buildings. Are you suggesting that, in terms of the regulation around the building code, that that should be, those kind of standards should be considered for new buildings, period, across the province, and not leaving it up to organizations like Husky to realize the obvious sort of savings from the energy efficiencies that can be attained? But are you suggesting that something like that should be written into the building code of the province across the piece?

Ms. Hougham: — Well I think that's one possible way to approach it, is to say this is the minimum standards for new housing because it is an opportunity. If our energy demands are increasing because our population is increasing and therefore we're going to have a lot more new buildings, that's one way to ensure that those homes are, their energy needs are sort of more defined and at a lesser level. Another way to do that is to provide incentives for people that do so.

Mr. McCall: — Thank you, Ms. Hougham. Thank you, Mr. Chair.

The Chair: — Mr. Taylor.

Mr. Taylor: — Thank you very much and thank you for your presentation. Just a couple of simple background questions from me before I get to my real questions, but you know the committee met last fall. We had a number of hearings. We did an interim report. Have you had a chance to read the interim report yet?

Ms. Hougham: — No, I haven't.

Mr. Taylor: — No. Have you read any of the presentations that were made in the fall?

Ms. Hougham: — Yes.

Mr. Taylor: — So you'd be aware that some of the things that you have mentioned have arisen before in front of the committee, but some of the things are new that you've presented. And I find them quite intriguing and therefore thank you very much for appearing in front of us today.

The other sort of preliminary question, I only have a couple here. But Mr. McCall started on your Ontario experience, and I see you left there shortly after the year 2000. Most of what Ontario has done has taken place since then. The newest energy Act does contain incentives that are quite substantial.

Just to follow up on Mr. McCall's question, are you familiar enough with the new energy Act in Ontario to give us some advice as to whether we should be reviewing that Act more extensively, follow more of what the policy decision-making aspect of that Act is? Or are you just advocating the greater focus on incentives for alternative energy development, options development?

Ms. Hougham: — I haven't been through the Act in detail. I have heard about some of the initiatives. So I'm not sure of the policy process or the real, the broad policy brush behind the Act. I'm not familiar with that. But I have heard of some of the initiatives, and I think it's a positive direction.

Mr. Taylor: — Okay. Thank you very much.

The Chair: — If I could just interrupt one second. We are almost at five to the hour, but I know we started a little late. I just want to say that we don't want to interrupt our next speaker too much, but please be in mind.

Mr. Taylor: — I'll just do one more question. I'll try and tie it all up into one piece here then, Mr. Chairman.

So in your presentation, you talked about Saskatchewan really should have no need for a large, mega, centralized project. You talked about, in answer to Mr. D'Autremont's question, sort of allowing businesses to create their own power source. The net

metering idea that we've talked about in answer to some questions tends to support that.

One of the ideas that has come forward from a number of presenters talks about regional energy generation or community, co-operative-type energy generation. If you live an area like the North for example, where there's a lot of peat or opportunity for bio generation, communities utilizing that source so we aren't transmitting energy over great periods. Communities in the southern part of the province where there's lots of wind developing community wind farms.

So how do you, or what advice do you have for us when we're taking a look at, if we're dealing with conservation on one side, the demand side of things, and we also have to look at the supply side of things?

What advice do you have for us with regards to not just focusing on business creating its own energy, but more a regional or community approach to deal with some perhaps growth that might be necessary in a region where — for example, as you're talking about solar or wind that's been identified for a particular farmyard — there may also be a need for some baseload connection during the coldest days in winter or the hottest days in summer or the developments or some new activity, business activity on the farm? So what advice would you have for us with regards to regional or community generation?

Ms. Hougham: — Well I think you addressed one of the issues when you said one of the problems with a large-scale generation is loss of your efficiency over transmission lines. And so yes, the closer that you can . . . The more decentralized you are in that, if you have an energy need, that that be addressed as close to that need as possible. So yes, in favour of community and more decentralized projects, especially those relating to renewables.

And I think it is possible for, well I mean the experience in some of the countries like Norway and Denmark where they've created, you know, net energy communities. That's very positive.

Mr. Taylor: — Thank you very much.

The Chair: — Well I'd like to thank you as well for your presentation and for being so generous in answering all of our questions this morning.

Ms. Hougham: — Trying to answer them.

The Chair: — So with that, the committee will recess while we get our next presenter ready to go. And we will reconvene on the top of the hour. Thank you.

[The committee recessed for a period of time.]

The Chair: — I'd like to welcome everybody back. Before we hear from our next witness this morning, I would like to advise the witness of the process of presentations. I'll 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 within the organization you represent.

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

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Each presentation should be limited to 15 minutes. Once your presentation is complete, members may have questions for you. It has been the tradition that most questioners get about 5 minutes roughly for questions, and we're alternating back and forth. I remind committee members of that tradition.

I will direct 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 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.

With that said, I would say we will again follow the tradition of recessing five minutes before the hour to allow the next presenter to prepare himself. And I would ask this presenter to introduce herself and go ahead with your presentation. Thank you.

Presenter: Christine Pike

Ms. Pike: — Good morning. I am Christine Pike from a farm north of Waseca. And this is my machine; it's a little bit bulky.

I have a handwritten submission, but fortunately I can still write. And my submission is not so much about lengthy figures. That's been covered many times. But it's more a bit of a rah-rah, and this is what others have done; this is what we can do. In my brief presentation, I will for the most part be repeating what others have said in detail and at times with a great knowledge and technical experience.

Now the North American mantra for about three generations has been consume, consume, consume from the cradle to the grave. And our system is built on this, on ideas like, oh this building's old. It must be 30 years old; time to tear it down. Little children are taught, subtly and not so subtly, to be little consumers, to grow up to be big consumers. In spite of warnings that we cannot continue like this, the juggernaut rolls on. I see it; I want it; and I want it now.

When we carried in our water, we were careful with it. As soon as we could turn a tap, flip a switch, well, full speed ahead and damn the environment. Can we not instead visualize and create a Saskatchewan that leads in true clean, green energy and conservation?

We've heard of the nuclear power companies going into

schools, particularly Aboriginal schools, to preach their philosophy and promising jobs, jobs, jobs to graduates. Isn't the educational system supposed to bring out both sides of any question? Are there people going into the schools to inform the children about all the natural, renewable sources of energy in which they can get jobs, jobs, jobs? If this isn't happening, there's something wrong.

Now with no pun intended, I think that the nuclear industry is trying to cling to their power. Any person educated in the energy business who can view all forms of supply can challenge their slogans of clean green. I look forward to the day when we can have a solar power system on the farm.

When SaskPower predicts our future use of energy, I'm always a little bit careful. I look at the figures very carefully because I can remember the time when SaskPower was trying to teach us to use more and more, including heating our walkways. I think since then our government bodies have learned to preach conservation instead of . . . well they've learned it, but I don't know if they do it.

And my main point is that I think our government is lagging behind the people. The usual entrepreneurial spirit of the western people finds them already involved in all these: whether manufacturing, selling and using, we know solar, wind, geothermal and so on. I have friends and acquaintances who have gone to all these different systems, whether on their farm or their acreage, and they're very happy with it.

And I want to mention a recycling feedlot to the west of us in which I am involved. I belong to a small group of people. We make sure our livestock are looked after the best we can all the time. And there's no way that we would knowingly send our cattle to some of those filthy feedlots in the South. But there's a feedlot to the west of us which calls itself, natural feedlot. And we have a standing invitation to go there any time we want.

And one of the most interesting things about it is their system where all the manure is fed into this big unit which creates energy for their rather large amount of buildings they have there. And then when it's used up there's a pile of compost. Now you can't get recycling much better than that.

And we know of European towns and villages that are on their own system — solar, wind, whatever is working for them — and some of these good systems have been created by Canadians who couldn't seem to get it done in this country.

We know that what was once called garbage can be used to create energy. We have the technology because we're building on what's already been done. No big breakthroughs here; we're building what others have done.

And there's more, there's more coming on all the time that we have to look into and not think that the people creating them are kooks. I'm quite sure that the first caveman that cooked his food was thought by other cavemen to be a kook. Whatever man can imagine, man can do because man can only do what man can imagine, and not necessarily the person who imagined it. But it can be done.

I want plants to manufacture the various machines and components to be spread around the province, not centred in two or three big cities. This is both socially and economically healthier. I want the government to encourage all that to be done. We have the people to do it. This isn't rhetoric; this isn't chasing rainbows. We can do it.

I have shortened my presentation. That is the gist of it, just sort of we can do it. I don't have to come out with figures. Other people can do that. I can do it if I have to. But I challenge our government to keep ahead of the people.

[10:15 MST]

The Chair: — Well thank you very much for your presentation. Mr. McCall has some questions.

Mr. McCall: — Thank you very much, Mr. Chair. And thank you, Ms. Pike, for your presentation and for your challenge. I guess the question I have concerns the natural feedlots that you'd referenced. First off the technology that they use, have they invented it themselves or have they bought it off the shelf or could you tell us a bit more about their system?

Ms. Pike: — No. My visit next time . . . We were in a hurry when we were there last time, and they were extremely busy. So I didn't go into details, but next trip I will.

The technology, I think, is German technology, but I wouldn't swear to that. I will have to find out more because I am interested in finding out more when they have more time to let us look around more. But it's extremely efficient. They're pretty proud of themselves.

Mr. McCall: — I guess the follow-up, my last question for you, Ms. Pike, is are you aware of other feedlots that employ a similar system in terms of . . .

Ms. Pike: — Not in our vicinity.

Mr. McCall: — Thank you, Mr. Chair.

The Chair: — Well with that, Ms. Pike . . . Oh, Mr. Bradshaw has a question.

Mr. Bradshaw: — I've just got one question. And I guess what I'd like to do is, just on your last statement, could you clarify that just a little bit for me please? You were saying you wanted the plants and everything else, like it shouldn't be centred in the cities. And I guess to clarify it, did you want then the manufacturing plants to be spread through, is this what you're talking about, manufacturing plants to be spread throughout Saskatchewan?

Ms. Pike: — Well it just makes sense to me. As I say, spread the jobs around, spread the people around instead of crowding everybody into one pen. Yes, I'm a farmer.

Mr. Bradshaw: — Okay. That was all. I just wanted clarification on that. I thought that's what you were saying. I just wanted to have that clarified. Thank you.

The Chair: — Mr. Taylor.

Mr. Taylor: — All right. Thank you very much. I think Fred wants to get as much activity up in Carrot River and Hudson Bay area as possible. He's frustrated with what's happening in the forestry sector, so he wants everything, everything else moved up there. So I think he'll support you, Christine, on your plan there.

Ms. Pike: — Maybe we should become pen pals.

Mr. Taylor: — Anyway my questions, to a certain extent, come back to regional and community energy use. I don't know if you heard me asking some of the questions of the previous individual here.

Ms. Pike: — No, I didn't really.

Mr. Taylor: — But just basically, have you had a chance to read our interim report that was presented at the end of November?

Ms. Pike: — Yes, I did. I skimmed it.

Mr. Taylor: — Okay. In skimming that, I'm assuming that you have seen that quite a large number of those presenting in front of the committee have suggested that the government do a number of things, including greater resources put into reviewing and planning policy initiatives around renewable options for supplying power, also of course, the demand-side conservation and efficiency matters.

But a number of presenters have also talked to us about not so much moving business around the province, but ensuring that communities and where power is needed, that power is able to be generated locally. Ontario has developed some incentives for alternative use. Is this an area that Saskatchewan needs to put more effort into encouraging the development of new power sources from a renewable prospective in a regional or a community developmental level?

Ms. Pike: — Well yes, encouragement is what is needed and acknowledgement. There are various, well there's some small towns already have manufacturing. This one town, I forget its name right now, manufactures solar panels. And they have quite a few employees. I think we've got to stop looking at people who are trying to invent non-invasive methods of creating energy as nutty people.

When I was a 4-H leader, and some of the 4-H children will come up with a really silly idea, and the other children would laugh. And I'd say, don't laugh, what he or she says might make someone else think of something that turns out to be really good.

And I think if a person — probably this is being done — if you went around the whole province, got on the Internet, whatever way you do it, and find out how many people are already involved. And as I say, they're ahead of the government. It's obviously something the people want, else it wouldn't be there. And I would very much like the government to keep encouraging people, and if there's incentives of any kind, yes, it'd be nice to see that recognition.

Mr. Taylor: — At the same time when we're talking about regional, quite often people think of regional as being very local. Regional can be broader than that. For example we on the west side of the province sometimes recognize how arbitrary the Saskatchewan and Alberta border is — this straight line that's not really a straight line, but this straight line on the map that runs from the Northwest Territories down to the US [United States] that divides Albertans from Saskatchewan people. Is there room for Saskatchewan and Alberta to be co-operating on a regional basis to generate power more, again in a local perspective, or should we be doing things separately and apart because that border exists?

Ms. Pike: — I think that's a great dream. Ignore the man-made borders and go with what you might call the natural borders. It would, in the long run, I think it would pay off. I really do.

Mr. Taylor: — On the other side of the province, the eastern side of the province with Manitoba, Manitoba is generating an awful lot of hydro power. We have not locked in any long-term contracts, but we do utilize Manitoba Hydro to produce some peak load for the province of Saskatchewan.

When we are talking about meeting Saskatchewan's future energy needs, is it your advice that, not just ignoring those borders, but to be able to utilize regional power generation? For example, Manitoba Hydro developing a biomass facility perhaps that deals with the parkland on the northwest and northeast side, wind generation that crosses the border in the southwest corner — just to expand a little bit more on your previous answer.

Ms. Pike: — Well then what you're talking about is a Western Canadian grid of various kinds.

Mr. Taylor: — Not necessarily Western Canadian. It could also take into account Montana and North Dakota, utilizing the resources . . . [inaudible interjection] . . . The Great Plains, absolutely. We've had some international or North American conferences that we've attended in which some of the advice we've been given has been to see North America more in a regional perspective than the human-made borders that exist, at least for some things like environment policy, energy policy, that sort of thing. I'm just seeking your thoughtful advice as we pursue our future energy needs in Saskatchewan.

Ms. Pike: — Well environmental and energy policy should be going hand in hand. A Great Plains system would be good, but you always have to remember that it is two different countries, different ways of looking at things. I mean after all, in the States they think we're all communist up here.

It certainly has its merits, but it would have to have some great thought put into it ahead of time so that the groundwork and the rules were laid down.

Mr. Taylor: — And my last question, there could be more, but my last question really comes down to ensuring that we can find ways to encourage the reduction of cost to individuals or communities for alternative options. Many of the presenters have told us that for example solar is a more expensive option, but there's lots of work being done to try and get those costs down. We know that the cost of providing wind today is less than it was a number of years ago. Should the government be

investing in the research and development that will ultimately lead to the reduction in cost to individuals, communities, ultimately to residents of the province for alternative options?

Ms. Pike: — Well that could be helpful. The cost of these things is bound to go down in the future as it gets more sophisticated and more of them are being done. And of course I'm sure you know that some of the farms have wind power. The windmills have been made by the farmers themselves.

A lot of people say they don't want the government to put too much money into a lot of things. They figure that private enterprise should do more and they don't lose the control, as it were, but at present I think there should be more incentives to bring down the cost so that these things can get going more. But that sometimes depends on your philosophy, and what way you look at that question.

The Chair: — Mr. D'Autremont.

Mr. D'Autremont: — Thank you. I was interested in the direction that Mr. Taylor was going, that there needs to be more co-operation on a regional basis. We're sitting in Lloydminster today right on the Saskatchewan-Alberta border. SaskPower supplies electricity on the Saskatchewan side. I think it's TransAlta — I'm not sure — on the Alberta side here. And yet never the twain shall meet; neither one of them can supply electricity across their respective provincial boundaries. Should that be allowed to happen?

Ms. Pike: — Well if you're going to talk about trading electricity with places like Montana, why not Saskatchewan and Alberta? I think when there's power problems, power failures and all that, it's a better thing to be on a grid where you can trade back and forth.

Mr. D'Autremont: — Until now that hasn't happened though, between Saskatchewan and Alberta. There is a limited contact, but certainly not in Lloydminster.

Ms. Pike: — Well both sides can have their yeses and their nos. You know, it's nice to think there'd be more co-operation because we live in a climate where things can be pretty dicey at times. And you don't want to run out of power because something happened somewhere when you could just turn around and get power from somebody else till you were up and running again. And it would be nice to see more co-operation. I mean there's always been a Saskatchewan-Alberta problem, but maybe not so much any more.

The Chair: — Well thank you very much for taking the time to present to us today and so generous too with answering our questions. So thank you.

The committee will now recess until 11 o'clock. Thank you.

[The committee recessed for a period of time.]

The Chair: — I'd like to welcome everyone back to this committee. Before I give my brief statement, I just would like to tell everyone that our technical difficulties have worked their way through and this now is audio streaming across the province. So that is good news.

Before we hear from our next witness this morning, I'd like to advise the witness of the process of presentations.

[11:00 MST]

I'll be asking all witnesses to introduce themselves and anyone else that may be presenting with them. Please state your name and, if applicable, any person or organization you represent. If you have written submissions, please advise that you would like to table your submissions. Once this occurs, your submissions will be available to the public. Electronic copies of tabled submissions will be available on the committee's website.

The committee has asked all presenters to present in answer to the following question and that is: how should Saskatchewan 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. Once your presentation is complete, members may have questions for you. I will direct 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 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.

With that, I ask our next presenter to introduce yourself, and please go ahead with your presentation. Thank you.

Presenter: Shirley Patmore

Ms. Patmore: — Good morning, fellow residents of our great province, the committee, fellow witnesses, and the public.

I'm Shirley Patmore and I was born, raised, and presently live in Saskatchewan. I hold a business administration certificate, major in accounting, from Lakeland College, and that has allowed me to work not only in this province but overseas in several countries. I held the position of president of the board of the Lloydminster and District Co-op for five years.

I am the daughter of a man of 100 years of age, mother of four children and their spouses, grandmother to 15 grandchildren and spouses to six of them, and great-grandmother to five precious little people. I have five siblings, their families, my spouse's extended family, and a host of friends and people who I care for and about the general well-being of our province and its peoples.

My concerns are, if we do not work toward preserving what we have and reducing our impact on the environment — carbon footprint, the buzz word of the day — future generations will have a great price to pay, not in dollars alone. Do we want to be held responsible? What is the legacy we wish to leave?

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 standards and regulations and maintaining a focus on affordability for Saskatchewan residents today and in the future?

I would like to address the above via strategies and benefits of conservation. If we concentrate on conservation, whether we be individuals, small businesses, manufacturers, corporations, or whatever sector we fit into, will we have growing energy needs? If we do, they will be reduced.

Safe. To conserve should not create any danger. On the other hand, it should avoid any dangers that could arise in pursuing other sources to produce more energy.

Reliable. If what we know and utilize at present is reliable, and by conserving or expanding what we know to be reliable, we can and should be in a position to maintain reliability.

Environmental sustainable. Consuming less reduces the need to produce more — the need to pollute the environment through production.

Federal standards and regulations. Are standards being met today? Will they change and how? We can only speculate.

By conservation and expanding the sources in existence, would there be a concern? I do not think so.

Affordability. No cost if we reduce what we consume. Unless there is a price hike, we would reduce expenses.

There would be a cost for adding or changing systems, however. There are government assistance programs in forms of grants to help installing efficient appliances, home heating systems, improving building structures, developing other sources of production, etc. Information is on the government websites.

We, my husband and I, suggest that conservation could and should play a large role in satisfying all the points mentioned. Sound simple? It should be.

I will interrupt myself at this point because I was supposed to introduce my husband to come and sit with me in the question period. I forgot to do it at the beginning. John Patmore is sitting at the back and will join me for the question period. Thank you.

I refer to my background, my experience growing up in the province. There was no electricity in the log home when I was a child. Today that might be considered a hardship but from it we learned to manage our resources. Things did not happen at the flip of a switch. We managed with less. We learned to conserve. It did not harm us. In the '70s when recycle and reuse became buzzwords, my mother commented, I have always saved, recycled, and reused. What's so new about this?

On CBC [Canadian Broadcasting Corporation] Saturday morning, *The House*, Mr. Prentice, speaking on reducing our carbon footprint, noted that by each of us using less, conserving more, and reducing wastes, we would be working toward reducing our Canadian footprint.

I was impressed recently when grandchildren, 11 and 9 years, were clamouring to tell me what they had learned in school about using renewable resources for power generation. They were keen to explain solar, wind, geothermal, biomass, and water. Congratulations to our educators.

I was also pleased to read in the local paper, the article, as Tim has brought it up to you before, "New home for Husky." In there it says, "The new building will include solar panels, reflective roofing material, computerized lighting, a recycling centre, bicycle storage and showers." Congratulations, Husky.

Are ways to conserve part of the curriculum as well? They should be taught in the homes, and probably are in some. We should, we must all be diligent in pursuing conservation.

Look around you and notice how many lights are on in rooms where they need not be. Every farmyard seems to have a yard light, all night — efficient ones, of course. Office buildings appear to be fully lit after business hours. Many cars I've seen to have only one driver. Whatever happened to carpooling?

Where did the following quips come from and why? An ounce of prevention is worth a pound of cure. A penny saved is a penny earned. A stitch in time saves nine. Waste not, want not.

Conservation strategies and benefits. Conservation is by far the cheapest and the quickest and environmentally beneficial way to address the problem of greenhouse gases as well as electrical demand. Studies have stated that efficiency measures are seven times less expensive to implement than the construction of new production facilities.

We are all well aware of waste in our society, be it excesses in lighting when and where not needed; use of energy-hogging appliances when newer, more efficient models are readily available; more efficient means of heating buildings, heating water, drying clothes, cooking, and operating various appliances.

Commerce and industry are as guilty as the homeowner of the excessive use of electrical power, and they use more than half of SaskPower's production. Pass through any city at night and notice the office buildings largely lit up after working hours, and the overabundance of lighted advertising. These are only the most obvious signs of wasted energy. No doubt many more are in need of critical analysis and remedial action.

The following are some measures that my husband has researched, and any of you can find on the Internet, that could be quite easily and relatively inexpensively implemented in our homes in order to reduce the electrical demand, and thus the need for more costly and often polluting new means of production. These few conservation strategies could save money, save the environment, and help the economy.

The age of waste will come to an end eventually, and the sooner it's done the less painful will be the process. After years of being encouraged to use more with a host of new uses, it's time to take a close look at cutting the waste as a solution to the ever-increasing demand.

The following information taken from various sources will

demonstrate how we can cut the use and thus the demand for expansion of our production facilities, and do it in a rapid, economical, and environmentally friendly manner in our own homes. The calculations are based on 12 cent per kilowatt hour price for electricity, something that will no doubt rise in the future.

Number one, switching from incandescent to fluorescent light bulbs, 1.6 kilowatt hours per day savings. Two, switch off unused lights. Could be two times 33 times five hours: point 33 kilowatt hours per day. Sleep your computer: 5 watts times 21 hours versus 160 watts times 24 hours, a savings of 3.7 kilowatt hours per day. Buy an LCD [liquid crystal display] flat screen computer using same hours as above: point 38.

Front-load washer versus top-load uses less water: point 25. Buy an LCD flat screen TV versus regular type and use one-sixth the power: point 5. Heat your water with gas rather than electricity: 5 kilowatt hours per day. Use a timer on a 500-watt block heater. Three times 500 versus 12 times 500: 4.5 kilowatt hours per day. Use cold water for the laundry and save point 47 kilowatt hours per load. Use gas versus electric clothes dryers: 3 kilowatt hours per load. Use gas versus electric stove, 1000 watts times two hours: 2 kilowatt hours per day.

If you total all of this, it's 23.53 kilowatt hours per day totals up to $2.82 per day. We can all multiply that times 365.

From stats on Wikipedia sites, in 2006 the potential electrical production in Saskatchewan was generated in the following manner: wind generation, 5 per cent for 172 megawatts; natural gas, 22 per cent, 767 megawatts; hydro, 25 per cent, 861 megawatts; coal, 48 per cent for 1654 megawatts.

Centralized generation requires greater investment in high voltage distribution systems, which could be reduced by decentralization. This would have the added benefits of better security of supply by eliminating huge blackouts when one major plant goes down, less line loss, and lower cost . . . less line loss on the electrical grid, pardon me.

Line loss on the electrical grid is now an estimated 7 per cent. A 1 per cent reduction in line loss could amount to significant savings in the generation of power. Reducing the distribution distances by dispersing the generation facilities using wind, solar, waste heat, cogeneration, geothermal, and biofuel generation would reduce this loss. This in turn would reduce the need for more generation capacity.

The present consumption of electrical energy in Saskatchewan is estimated at 20 000 gigawatts at peak demand, and our present generating capacity is in the order of 3400 megawatts. If we cut the consumption by 5 per cent, it would reduce demand by 150 megawatts, equal to our present 172 megawatts of wind generation, and would eliminate the need for the same amount of production. Alberta produces three times the electricity from wind as Saskatchewan does.

It is worth noting that standby power used by electronics uses from 5 to 10 per cent of household electricity, and that 75 per cent of the electricity used by electronics is used when they are on standby. CBC has produced good documentaries on conservation, and a recent program suggesting that if standby consumption was eliminated in the United States, they could shut down four coal generating plants. Sorry, I have no documentation, but for me it was certainly food for thought.

Installing continuous supply water heating units, the type that heat water on demand rather than using the more common water heaters that keep a large amount of water hot all the time, is another method of cutting electrical usage.

The cost of air conditioning is often more costly than the heating of a house, certainly in terms of electrical use. Fans and thermal blinds are a more economical method to keep a house cool.

At present, Saskatchewan could improve its building code regarding energy efficiency in new private home construction. A high-efficiency demonstration home in Regina uses 9 per cent of the energy of an average house. There's lots of room for improvement. If some incentives were to be in place, what would be the effect if the 20 billion in government subsidies to the nuclear industry had gone into development of efficiency strategies?

[11:15 MST]

What would be the effect of a scaled-up electricity pricing regime when the basic amount was as present, but cost increased as the use went up? Would that help to control waste?

A US Department of Energy study in 1979 estimated they could save 4 per cent of their consumption by heating their domestic water supply with solar, and that available conservation techniques could reduce electricity consumption by an additional 30 to 40 per cent. Israel now has solar water heating in 85 per cent of its dwellings. Australia has solar water heating in many of theirs, and many EU [European Union] countries are following suit. China has extensive domestic solar water heating and is rapidly developing solar electric generation. Solar works on sunshine, not on temperature, so why are we so far behind in this area?

A US report in the '90s stated that 25 per cent of US electrical production went to lighting and that 90 per cent of that could be saved through efficiencies. It stated that cost-effective lighting could save the equivalent of 40 1000-megawatt generating stations. A study by the Lund University in Sweden stated that 80 per cent of lighting electricity could be saved in the same manner.

The means are available. Only the motivation to implement them is lacking. Companies that make their income from selling electricity are not likely to be the instigators of conserving strategies, of conservation strategies, any more than the beef industry is likely to encourage consumer to eat less beef. One has to be realistic about why the electrical industry wants to encourage more demand for their product.

It is worth noting that California's ban on incandescent lighting will be in effect in 2012.

The commercial sector. Forty companies in Saskatchewan use 50 per cent of the power generated. What would a 5- to 10-cent reduction through more efficient use be? If you estimate 1

gigawatt, it's probably quite doable.

Heating and cooling account for the biggest percentage of electricity used in commercial buildings at 30 per cent, while lighting, which is considered to be most wasteful, uses 25 per cent. It is estimated that this could be cut by 50 per cent by using such things as proper use of programmable controls, better use of natural light, and occupancy sensors to turn lights off when no one is present. Automatic controls on air conditioning and heat exchangers would be other energy savers.

Industrial sector. One energy saving initiative would be cogeneration, as Husky is doing in Lloydminster at the upgrader by making use of waste heat.

California estimates that 20 per cent of their energy usage is water related — pumping, heating, etc. Less water uses less energy, as does solar water heating.

The Obama administration in the US now gives a 30 per cent of cost tax credit, no limit, to the construction of renewable sources of electricity. In many states there's an additional state tax credit.

Ontario buys renewable energy from producers for 70 cents per kilowatt as their way of promoting renewables. Canada and Saskatchewan are a bit behind these initiatives, but there are incentives here as well. Maybe they need to be increased to kick-start the process.

We are concerned that we are falling behind the rest of the world in the trend to reduce our emissions by this means. Almost everywhere in the world there is a big push to go renewable energy. We need to go the same way.

In conclusion, we believe that the emphasis should be based on the health of our environment and its inhabitants. If there is a need for increased energy production — no doubt there will be as we grow — we must ensure that risks to either must be carefully researched. If feasibility studies and cost-benefit analyses, including time factors and employment requirements, are not available for the various methods of producing energy, we urge the government to make them available.

We urge the government to take into consideration the trade-off of producing energy for revenue versus producing energy for the benefits of Saskatchewan and its people. Health is more important than wealth. We cannot buy health. We cannot risk health for the sake of wealth.

Let us treasure our good fortune to live in Saskatchewan. Let us do all in our power to keep it clean and green. Thank you.

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

Mr. Weekes: — Thank you, Mr. Chair. Thank you for your presentation. It certainly is . . . I think it was well researched, and I certainly agree with most of what you've been saying. I believe you touched on a number of points.

One thing that our government is doing is going to double the amount of wind power generation in the province. That's in the works. We're going to build additional natural gas electrical generation as well. So we're moving in those directions.

And you spoke in length about one topic I think that the modern society needs to look at is, you know, is a smart grid. And you've laid that out basically, explained what a smart grid is. And not only we need to, you know, personally look at ways of conserving, but I think, you know, just as far as infrastructure, we can certainly do things and incorporate those mechanisms in our homes and businesses to really reduce the . . . well reduce the load is one problem. Because at times when it's minus 40 and it's dark and there's no wind blowing, there's certainly still a need to look after the load.

The one item I think as you summed up, and I guess I'd like you to just elaborate a bit on that, is the cost of changing of renewable resources, renewable power generation. And it's the cost of these things. And the cost of power generation is going to go up. It doesn't matter what form you're looking at, whether it's nuclear right to clean coal technology, it's all going to cost more.

Could you elaborate a bit more? You laid it out quite succinctly, but my concern is, will people in Saskatchewan — and North America, quite frankly — are they willing to pay more for cleaner forms of electrical generation? And what should we do as legislators to encourage that, to, well encourage renewables? But how do we deal with the increased costs of power generation?

Ms. Patmore: — Well costs and everything are going to increase as we go ahead, I'm sure. And I agree with you. Yes, the costs will no doubt increase. But there will be less cost increases in different forms, my understanding, of power generation. For example the grid in Saskatchewan now I believe will carry any power generated by renewable resources. It will not carry power generated by nuclear power generation systems. We will have to expend great amounts of money to improve our grid.

I believe, as some of the speakers before me have mentioned, if individuals are encouraged and there are more incentives to produce power on our own, whether it be businesses or individuals, that would cut back the cost of government. And if there were larger incentives for the net metering, where we were given credit for what we did produce and it could go back in the system to pay for the costs as we incurred them when we weren't producing enough, we could get it back at the going rate.

I can't really see that the cost to the individuals, other than maybe taxpayer costs coming down from government, would increase a lot. Would you like to add, John . . . [inaudible interjection] . . . Does that satisfy your question?

Mr. Weekes: — Thank you.

The Chair: — Mr. McCall.

Mr. McCall: — Thank you very much, Mr. Chair, and thank you very much, Patmores. It was a great team report and a good team start on the question period here.

I just want to thank you for underlining the importance of the demand-side management aspect of the equation. Right off the top in page 1 you talked about the benefits of its . . . you know, whatever the federal regulations that may or may not be brought in. You know, power has a cost at present and it only bears to reason that if you can conserve your consumption of power, that there's a savings attached to that and the benefits for our collective carbon footprint and on. So I think it's a point that definitely bears being underlined, that come what may, the demand-side management of the equation has benefits regardless of what the regime is to come.

So I guess I was wondering if you might, you know, given the emphasis that you've placed on that, if you've got anything to add at this point as to what we might do, be it with greater incentives or with greater sharing of information or what we might do to equip the average consumer of electricity. And then again in the industrial, commercial sectors that you've touched on, in terms of promoting that work of demand-side management or conservation.

Ms. Patmore: — I believe we could do quite a lot through the education system. As I noted, I was really pleased to see it coming from the public school. Is this being carried out through the higher grades or through into universities, or even through our education facilities that are educating small-business people, or larger business people? Are they aware of all the efficiencies that can be created by reducing their demand, reducing their costs, possibly reducing the cost to the consumer of the product they provide for us?

I think education is the answer. There's an awful lot of people, when you look around you, that don't recognize just the importance of turning off a light, and that that little bit multiplied that many times can reduce the cost of living in general. Would you like to add, John?

Mr. Patmore: — Well I think we should be looking at pricing and there's different ways you could do that. But if people aren't trying to conserve, if they're not putting into effect conservation measures and techniques, then they should pay for that, not the whole province. And the same thing in the home. Somebody could figure out what the average consumption for a home is. And if people go over that, then they should pay extra for that, per kilowatt, for that power they're using over that. And I think you have to have some sort of an incentive to do these things or they won't happen. We've been too long with, you know, power and water and everything else. It's just use all you want.

And we think we have lots of water, for example, but the experts tell us we don't have so much water as we think we have. And I can vouch for that. I'd just go to the river when I was a teenager. You could drink the water out . . . People were drinking the water out of the river. They wouldn't try it now.

So how do you get people to cut back on waste? And I think you have to do it through some sort of, maybe some sort of pricing incentive. There's all sorts of ways of looking at it. It would take a good study of it, but I think it would be a way of doing it.

Mr. McCall: — Thank you. Thank you, Mr. Chair.

The Chair: — Thank you. Me and Shirley chatted just earlier, after I'd read your presentation, that I was under the understanding that the modern flat screen TVs use more power than the existing ones. And as it turns out, you're right and I'm wrong, that apparently plasma TVs are a bit of an energy pig but LCDs . . . You know, I've been following this very closely. And when you go and buy a TV, I think that's the type of incentives that you're talking about — that when you're making that decision, do I want to buy a plasma or an LCD, if the pricing signals you speak of are strong enough, you're going to think that an LCD is a more appropriate choice. So thank you for bringing that to our attention and certainly to my attention.

Ms. Patmore: — I would like to just comment on what you have said, if I may. It's nice to have the incentive to go and buy the new LCD, but don't forget, are we not creating waste when we get rid of the system that is already operating in our house? We have to weigh the balance. Do we replace because it's modern, it's, you know, the thing to do? Or do we replace because it's a wise decision?

Mr. Patmore: — Computers are the same thing, the computer screens. My understanding of it, one of the biggest savings you could do, as far as TV or computers or any of these standby things, when you went to bed at night, have a switch where you could shut the whole thing down. And you could save at minimum 10 or 12 hours. You're not going to watch the TV or be on the computer 24 hours a day.

The wasted power, and it doesn't sound like much, but when you get every household in the country sucking off this, and probably not just homes but all the office computers and stuff are probably sitting there on standby all night, sucking up the power. So it doesn't make good sense.

[11:30 MST]

The Chair: — Okay. Well thank you. Mr. Taylor.

Mr. Taylor: — Thank you very much. I did have a couple of questions just based on that. And again from my perspective, just want to thank you both for attending and providing us with this information. It's most useful.

I think the most interesting part of my day, though, is when you managed to get our Chair to say, you're right and I'm wrong. I can't remember when our Chair has said I'm wrong before, and I'm sure his wife would like to hear that quote a few times in the future. So thank you.

This point about people's understanding about what is contributing to energy use in their house has been raised before. And I've been thinking about this a number of times. The biggest thing is anyone with teenagers in their house knows that the chargers for those kids' cellphones are plugged in in the den or the basement or the bedroom constantly. And when the young person comes home, they stick the cellphone in the charger overnight. And then they wake up in morning, they've got their cellphone charged for the day, and they can use it.

But that plug-in of the cellphone charger pulls off the grid whether the cellphone is stuck in it or not. And everybody is encouraged to unplug those things unless you need to use them.

This may be one of those I might be wrong and you might be right scenarios as well, but I understand when we put the extension cord to plug our cars in, if we leave the extension cord plugged into our house, even when we disconnect the car there's still an energy pull into that extension cord. So every one of us that's plugging our cars in in the wintertime, if I'm right, is actually, if they aren't disconnecting from the house as opposed to just disconnecting from the vehicle, also contributing to excess energy use.

So how do we, without spending a great deal of money, communicate to young people in the case of cellphones, and older people in the case of plugging our cars in at night, how do we convince people that that dollar a month or whatever that they might save themselves contributes to saving the province and the people of the province a great deal of money? How much is that going to cost us in order to convince people that shutting things down, as you say, one big switch that shuts things off at night, that might be useful. Except if you're charging your cellphone overnight, you need to shut that one down during the day. How do we convince people of just shutting things down?

Ms. Patmore: — A very good question, and I'm not so sure that I or anybody else has that answer. It goes right back, as I said before, it goes back to education. Each one of us has to educate all of those around us.

And back to your cord, yes you can buy a cord that has a little red light at the end that tells you it's ready to go. That's using up power. Now even if it doesn't have a little red light, I'm sure it's there. It's readily available. We live in an instant-on society, a me society — I want to speak to everybody now; I want the answers now. And for all of that, we pay.

And maybe the education system needs to start pointing out what it costs each one of us and how that affects each one of our pocketbooks, then multiply it out and see what it counts the country.

So often when you're listening to items, they speak in billions, which I have no idea what that is. That's a huge number. But if they would break that down and tell me what that means to me, that would make more sense and I would feel that I was educated as to what that fact meant. So really, Len, I don't know what the answers are, but I think it rests squarely on the shoulders of each one of us that are aware of what these costs are, how we can reduce those costs, and spread the word.

Mr. Taylor: — Thank you very much. Appreciate that answer.

Mr. Patmore: — Timers would stop a lot of that instant-on drain. If you could set your timer to shut your TV or your computer off at the certain hour or turn your cellphone on or off at a certain hour, so that would help. But education of . . . Like, you need to have some kind of startling facts, like how much power, how many power plants could be shut down if they switched from incandescent to fluorescent. For example California is probably the biggest consumer of power anywhere, and if they're going to ban incandescents, there's got to be a pretty good reason for it.

The Chair: — Mr. D'Autremont.

Mr. D'Autremont: — Thank you. Thank you for a very interesting presentation. I have a couple of questions. One of the things you talked about was advocating a sort of a base for every residence or business for power consumption, and then that anybody over who consumes more than the average or whatever the base might be would pay more. Would you give considerations to particular types of residences or businesses that may have a special need?

Ms. Patmore: — I think consideration must be given in all cases. I don't think there is such a thing as blanket, you can't do this. Everything has to be taken into consideration. For example let's take a home that houses a senior who needs extra help, who has to have extra electrical equipment or various other tools. That would have to be taken into consideration. I really don't think we do a across-the-board cut on anything without educating ourselves and knowing what the requirements are.

We don't want to prevent businesses from going ahead or prevent whatever might be needed in a home to take place. But let's look at it as needs and not wants. Let's see what it is we need to satisfy whatever it takes to live in an environment we want to live in or produce products in a manner that is feasible to the public. Let us not say, no, you can't do that because that's the blanket no. We have to be considerate. We have to understand what the situations are.

Mr. D'Autremont: — Thank you. The reason I ask that is I have a quadriplegic son who has to have certain temperature controls. So, you know, that may not be the same as the next house down the road.

Ms. Patmore: — And I did not know that when I made that answer.

Mr. Patmore: — It would definitely take some careful study, but I think price is an incentive. And education is also.

I was just reading a thing written by the US Department of Energy that said that for every eight kilometres you go over 100 kilometres, you're paying the equivalent of seven and three-quarters cents a litre more for your fuel. Well you know what a stink there'd be if suddenly the government put on a seven and three-quarter cent tax on top of your fuel. But people do this all the time. Most times you drive down the main highways they're doing double that eight kilometres, so they're paying 15 cents a litre. And you can do the math and you can see where it works, you know. Just cut your mileage by five klicks, and five miles an hour and it's there. You can see where they got the figure.

Mr. D'Autremont: — So as a conservation measure, is what you're advocating is that higher prices for all electricity then? If you have a base price and you charge above that usage, then the average price is going to increase.

Mr. Patmore: — Yes, I think it's going to anyway.

Mr. D'Autremont: — But that would be in addition to what the generation costs might be.

Mr. Patmore: — Well yes, but it would cut down on your generation, so maybe it's going to balance out. It would need

some study. I'm just coming off the top of my head with the idea, but it seems to me that . . .

Mr. D'Autremont: — No, it's not the first time we've heard that.

Mr. Patmore: — Pricing is important too.

Mr. D'Autremont: — The other question I had was, we've had a number of presenters this morning talking about the need for conservation measures or alternate energy sources. Do you have any concerns there with using the alternate energy sources — I'm thinking particularly wind more so, but solar would apply as well — with reliability?

And I'm thinking of what's happening in the UK [United Kingdom] here over the last month, where they have a substantial amount of wind-generating capacity and a severe cold snap for England. I mean we would think it's fairly warm still, but their wind generation has not been working. Now I don't know if it's a technical problem with it or if it's that the wind wasn't blowing, but I've read news reports that their wind generation wasn't supplying their electrical needs and they're in short supply now of electricity.

So is there a concern with reliability when relying on wind and solar, which wind only works when the wind is blowing and solar only works when the sun is shining.

Ms. Patmore: — I have some material somewhere. But I believe, to answer that question, new ways and means and methods of storing the power when it is generated by wind for use later are being increased all the time. The same with solar. At one time I think it was thought that when the sun shines, you have heat, that's it. But we know now that that sunshine can be stored in various other ways to draw on later. And I think the same with wind and all the rest. Storage capacities are being improved.

I also think, as we mentioned, decentralization, make sure that the wind blows all over our country and we have something to collect it from all over, not from one central site. That also cuts down the transmission on the lines.

And the same with solar. If every building had a solar panel, the sun might not be shining here, but it would be shining there and solar doesn't matter about the temperature. Right? So I think we are making great steps in how to store the energy that's produced by renewable resources, much more so than we were even three or four years ago. I believe there's great energies going in that direction, and I do have documentation somewhere to back that up.

Mr. D'Autremont: — Yes, I think the storage is certainly a big part of the issue and there's work being done on it, but I don't know that they've reached a point where it's viable yet.

Ms. Patmore: — No, that's possible.

Mr. Patmore: — Baseload is a big concern, but I think we have hydro; we have natural gas; we have coal, which hopefully they'll clean up. So if you could use that or import your power from Manitoba or somewhere, there's great potential in hydro. And I think probably we've got . . . A lot of people object to more hydro, but I think in the right place and the right form, we could have more hydro.

And then you've got your baseload and what you get out of wind and solar is free power, pollution—free. And it would negate the need to build more generation facilities and would be scattered around the country. I think you've got a good initiative going with SaskPower, with the . . . what do they call it, where you can . . .

Mr. D'Autremont: — Cogeneration.

Mr. Patmore: — Cogeneration thing. Or, not cogeneration, but where you can . . .

An Hon. Member: — Net metering.

Mr. Patmore: — Net metering, that's what I'm trying to think of. But you don't see much promotion of it, you've pretty well got to go fishing for it to find out what that whole program's about. And I'm not sure why the government doesn't want . . . It's always been that way, that they don't want too many people rushing into it or what the idea is, but I think a little more promotion to that program would help.

Ms. Patmore: — I knew I had the paper here somewhere. *Six ways of providing base load power from wind*, and this is put out by the Canadian Renewable Energy Alliance. And within that document it has various ways on upgrading the storage.

The Chair: — Would you like to table that document?

Ms. Patmore: — Yes please.

[11:45 MST]

The Chair: — Mr. Allchurch.

Mr. Allchurch: — Thank you. Thank you, Mr. Chair. I want to welcome the presenters here today, and thank you for your presentation. I have a couple questions. One, most of your presentation is more to do with the smaller usage of power, people like ourselves or whatever. And then your comments that you made under the commercial sector, 40 companies in Saskatchewan use 50 per cent of the power generated. Is there something that these 40 companies can do to cut back on their power because they're the bigger users of the power in the first place?

Ms. Patmore: — Well let's take a look at an example that came via documentaries on CBC of Amsterdam and some of these big areas where the companies are producing their own energies through solar panels, through their wind terminals. They can be encouraged to create just as we can. I think everything starts small. Everything starts little; everything starts with you and I. But we are also members of the big companies and the corporations. They can expand greater than we can. They've got more possibilities. They've got more money in their pockets to develop ways of reducing their energy costs and producing energy in a manner that is more efficient.

Mr. Allchurch: — Well I think as far as the bigger companies,

and I'm not one of them so I can't really comment, but we've had many presentations that have talked about solar. And solar on a scale of cost providing is very high. And I don't know if the bigger companies, the bigger users of power, would go to that simply because of the cost. What could we, as government or this committee, look at as far as the bigger companies that use the biggest amount of power? How could they save dollars reasonable which would cut back on the usage of power for the province?

Ms. Patmore: — Do you want to start?

Mr. Patmore: — Well Wal-Mart, for example, is supposed to be starting to put solar on the roofs of their stores. If it makes sense for Wal-Mart, it should make sense for other applications.

And there's a big thing coming out in solar now what they call thin solar. I gather it's some very thin membrane that's not nearly as efficient as the photocell type of stuff that we have at the present, but it's so much cheaper that you can put it on all your roof or the siding, use it for siding on your house or whatever. And I was just reading the other day where China's going gung-ho into that type of solar. A lot of the companies that are working there have very American names, so I imagine it's like everything else, they've moved over there where labour is cheap or something.

And this type of solar doesn't use the . . . Oh what's the element that's in the solar? It's fairly scarce element that's in the normal — silicon something or other. And this is a different thing altogether and not nearly as efficient, but then if you can make it cheap and make lots of it you get the same result.

So I think this big step's going to come into things like solar and wind. And the reason that, you know, I'd be concerned that we all went gung-ho for some system, put all our money, put all our eggs in one basket, and then five years down the line you've got marvellous advances in these things. Because places like Spain are producing tremendous amounts of power with solar and all sorts of different types of solar. And with this initiative that Obama has come out with and 30 per cent tax credit, no limit for anybody that wants to produce solar power or wind power, is really going to push the thing down there I think.

Mr. Allchurch: — Okay, and my second question — thank you for that — and my second question is about baseload power. This committee was struck, it's because the economy is growing, the province is growing, and we're going to need more power. When it comes to baseload, in order to increase the population of our province, we're going to need more power. So what we have now that produces the amount of baseload power, do you think we need to go further with that? Or do you think wind and solar, as you comment in much of your presentation, do you think that will suffice the extra power needed in the province to service our growth?

Ms. Patmore: — Well, number one, if we all conserve, our increase may not be as large as we are thinking it might be now. So if we really conserve, how much more are we going to need? I don't think there's been a study to tell us that yet because we don't know how much we can conserve. So let's conserve first — simple step.

Then how do we do the baseload guarantee? If we diversify and decentralize the sources of power, we are also going to conserve in reducing line loss and all those other things, and the baseload would be more guaranteed. It's coming from all different directions, whereas if we centralize and go to one major power source, or two or three, when one goes down, how do we provide a baseload? I think baseload is a big, big question.

And yes, it's been argued that solar does not provide a baseload because the sun doesn't always shine. But we have the storage facilities. And if we have wind coming from all over, come and stand on the top of our hill if you don't think the wind doesn't blow most of the time.

I think by decentralization, conservation, and in-depth studies, we may not have as much an increase needed as we think we do now.

Mr. Allchurch: — That's in baseload, right?

Ms. Patmore: — Yes, baseload.

Mr. Allchurch: — Okay. We've also had presenters that have come and talked about the wind. And they've said, southern Saskatchewan, there's a lot of wind down in southern Saskatchewan so they have no problem producing a lot of power with the wind. But up in the North where we live, there's very little wind there.

Ms. Patmore: — I was going to refer to a statement made by Peter Prebble. And I'm sure all of you people know who Peter Prebble is, and I'm sure he doesn't mind me . . . I'm not going word for word because my memory isn't that good, but in Saskatoon when we had a rally, he got up and spoke. And he laid out a plan from the northern point of Saskatchewan to the southern point using various renewable resources to provide energy, could provide enough to cover us for many, many years.

And in the North, it might be biomass. It might be hydro. There's various ways. We don't rely on wind throughout the province. We have to rely on wind when there's wind, solar where the sun shines, biomass where there's biomass. And I think he has, as I understand, a 48-page document that covers how we could produce power from one end of our province to the other to satisfy our needs for now and for a long time to come.

Mr. Allchurch: — Thank you for that. That's all the questions I have.

The Chair: — Well thank you very much for taking the time to prepare this and present it to us today. So thank you very much.

Ms. Patmore: — Thank you.

The Chair: — The committee will recess now for just over an hour, as we had one cancellation. And we will meet back at 1 o'clock Mountain Standard Time. Thank you.

[The committee recessed for a period of time.]

[13:00 MST]

The Chair: — Thank you. I'd like to welcome everyone back. Before we hear from our next presenter, I would like to advise witnesses of the process of presentation. I'll 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 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 has asked all presenters to present in answer to the following question and that is: how should the Saskatchewan 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. Once your presentation is complete, members may have questions for you. I will direct 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 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.

With that said, I would ask our presenter to introduce himself and go ahead with his presentation. Thank you.

Presenter: Daron Priest

Mr. Priest: — Hi there. I'm Daron Priest and this is my son, Grady. And first of all I would like to thank the committee for allowing me to present. I was down in Saskatoon with Aaron Hougham on behalf of the S.O.S. But since the nuclear issue has surfaced in our area it's become a big thing with our family, and I thought it was important to come talk to you people today on behalf of our family. And I guess that's the main reason Grady's here today. That's what it's all about that I've got involved in this quite heavily. And it wasn't about me being worried about living next to a nuclear plant or whatever, but it was all about our children and wanting to make sure they're safe.

And I understand that this is a commission based on what to do as far as power needs, but I guess my presentation's basically going to focus on the nuclear part of it and my reasons why I don't think that we should be looking at it right now. And at the end, I do have some other ideas as far as maybe what we should be doing as far as looking at different power needs and whatnot.

I've been pretty naive to the whole nuclear situation as it surfaced, but when it first came about in our area that I wanted to make sure that I got educated. There was a land base 2 miles from my house that was being considered for a nuclear plant when Bruce Power was approached and so set some alarm bells off. I had no idea. I could hardly spell nuclear at the time. And I've done lots of research, and basically I've come to the conclusion that I don't know whether there is a cut and dried side one way or the other — yes, it is 100 per cent safe, or no, that these things do happen. But what I'm finding is that there is some uncertainty.

And I guess I treat our children just like everybody else in this room probably treats their children — with a high regard. And I want to make sure that my boys are safe and everybody else in their area is safe. And from the research I've done, I don't feel that way with the nuclear part of it right now. And I've got some unanswered questions with it, and that's why I feel I don't think that the nuclear, we should be looking at it at this stage.

I don't think it's . . . When it first started off, it was being approached an area from Lloydminster to Prince Albert. I didn't take much heed of it and until . . . I figured, well it won't be anywhere near me; what's it got to do with anybody else? And it didn't matter. But after being involved with it, I do understand that if there is people out there that don't want it, I know the feeling what it's like having something pushed on you. And I really feel strongly that I can understand that if there is some area wanting it or whatever, that might be a different situation.

But in my own opinion, I really do believe that we need to listen to the people. And in our particular area, some of the percentages that came out of the UDP report there was 85 per cent people in Saskatchewan opposed to it. In the Lloydminster area alone there was 97 per cent the people opposed to it. And we've been told time and time again that, yes, the people are . . . like the government is listening. We're going to listen to this. And I am disappointed that it is still on the table. I've felt that with a strong indication from that UDP report, if we were going to be listening to it wholeheartedly, it should have been taken off. But that's just my opinion.

I understand that you guys have a job to do as far as research in what our power needs should be and shouldn't be, but I feel going into the nuclear end of it we are jumping feet first into something that there is no recourse with it. I really do think in 10 years time that the technologies may change. I've been talking about solar panels and wind technology along the way, and there is a lot of reasons maybe that isn't the answer right now.

But just like anything else, I think that technology is changing so much so quick right now. It's the future, and that's the way I feel, that we've got a young government that's taken off with things. And I really think that that's what we should be looking at. Look to the future and maybe be leaders in some of these things as far as developing places to manufacture these solar panels and whatnot.

I've watched a show regarding the German technology on solar panels and it was a Canadian fellow that set up shop over there because he couldn't find the support in Canada here. And rather than go back into the nuclear thing, fine, we have our uranium up north, but look at all the barley that we grow in our fields and the cattle that we run in Saskatchewan. We aren't value adding to those things. And just because uranium's sitting up there doesn't mean it has to be the thing that we're adding value to, I don't feel. With that there's a lot of dangers come with it and I don't think we should be delving into that.

The water is a big thing. I feel in our area that when Bruce Power first came along, that we discovered that the proposed site where they're looking at's on top of a water aquifer. And when we first approached them about it, there was talk, oh no, we'd never build anywhere near a water aquifer. And that's kind of what was said up in Peace River country as well, that no, we wouldn't put it anywhere near there. We don't want to have the public perception that it is anywhere near there.

But since then you talk to the Bruce Power rep and they're, oh yes, it's all right to put it on top of a water aquifer. And we went down and spoke to Mr. Boyd through the summertime and that's what his feeling was on it, too. Yes, there is no problem putting a nuclear plant on top of a water aquifer.

This is where I have the problem with it. I really think that we've got to be looking at the next 100 years — not the next 10 years to add value to uranium and maybe what we could put in our pockets for the next 10 or 20 years, but we need to be looking at the next 100 years for these young fellows. That's what I'm here about anyways, is to make sure that we do have a safe drinking water supply, make sure that we do have enough water in our river.

This past summer I've taken a canoe trip down the river and my eyes really got opened. I had no idea that it was that shallow in places. There's lots of places you could walk across that river. It's a beautiful, serene setting down in there and that's what Saskatchewan's all about. And I don't see that there's any place for a nuclear plant along there or anywhere near our children's drinking water supply.

Nobody really considers the importance of water at this stage yet in Saskatchewan and I think it's really got to be looked at. Because right now in California and Arizona and even in Alberta, people are understanding how important our water is.

I've done some reading and research regarding the effects of a nuclear plant on water, and some of the health people in the Toronto area, they're studying the tritium in the water. And one of the reports I read is about how they are concerned with Toronto's drinking water, that the tritium in there, and from my understanding, there is no way of treating it. And that is our number one resource, water, right now that we need to be looking after. And, you know, maybe I'm talking ahead of our time here, but really that's what we need to be looking at is the big picture.

As far as the power needs and concerns, I really do feel that, like I don't understand natural gas supply, but I really feel that short term that we should be looking at something rather than nuclear, that we can go into something to fill our needs for the time being. And maybe in 10 years that we do have a better source of renewables to store this energy and that. That's where the future is, I believe.

But in closing, I really do feel strongly that I don't think that nuclear is an option. Along with the health concerns, the waste alone . . . I was appalled at hearing that there's being considered as a waste site. And you know, right now I don't know where any sites are being considered at, but if northern Saskatchewan's being considered, it might be out of sight, out of mind for the time being. But sooner or later that stuff's going to catch up with us. Probably not in my lifetime, probably not in anybody's lifetime in this room right now, but it's something that . . . We've got to look past the next 20 years and look deep into the future what we are doing with this thing here.

Thank you very much.

The Chair: — Well thank you very much for your presentation. If I could, I guess, take the first question. You had made a couple of comments about potential electricity options. I know that you and your colleagues have looked at a lot of solar and wind and their potential.

I guess maybe more of opinion, but if you could just give your opinion on, you know, what incentives would it take to have a windmill on your farm or something of that nature to get . . . If guys like you are putting up windmills, that's positive. What would it take on your farm to make that a . . .

Mr. Priest: — No, and that's what I believe is part of it. Like right now maybe the cost isn't effective right now, but that's the thing. In 10 years time, you know, as the cost comes down, then I'm all for it. You know, it's a kind of a no-brainer as far as I'm concerned. The money we're spending on our power bills goes out the window and it's gone. And I've had other neighbours saying the same thing too.

And I'm not sure what the answer is to get it out front, but I've been dealing with some friends that have been actually doing some woodworking for me and they've brought some solar panels in from California. And what he's telling me is that the price of solar panels and whatnot down there is kind of half the price of what it is up here right now. And I don't know where they're all being manufactured at, but I really do believe that as things go on, just like anything else, they will get cheaper. And I'm all for that.

And I'd really like to see the government have some incentives out there. And it's maybe not so much the dollar incentives that are needed but just to bring it to the forefront so people realize these options. And it's maybe that a lot of people don't even think about it.

The Chair: — Mr. Weekes.

Mr. Weekes: — Thank you, Mr. Chair. Thank you for your presentation.

I certainly, you know, I share, I think most people share your concerns about safety of nuclear power. I don't think anyone dismisses it. But the nuclear industry, I mean the obvious problems in the past, but I mean now the nuclear industry has developed and certainly no one in our government would ever consider a nuclear power plant unless it was considered safe and all . . . You know and there's regulations, federal regulations, around this as well.

You know, there's 440 nuclear generation plants in the world. I believe France produces 80 per cent of its electricity by nuclear power. They have these plants in cities or right beside cities, storing the waste, and, you know, the swimming pools beside the plant. And been doing this for 50 years or more.

And so I don't share your concern. I mean I certainly understand it, but I don't share your concern about safety. It's just that there's, you know, we would never let something be built that wasn't at the safest level absolutely possible.

[13:15 MST]

I guess I would like you to comment on that. I know what you said in your statement. I think the correction needs to be made to some of the polling that's been done about nuclear power in Saskatchewan. We just discussed it briefly, and we'll try to get some numbers on official polling that's been done about the acceptance of nuclear power. I believe it's well over 50 per cent in Saskatchewan are in favour of nuclear power generation. There's different, various questions, but we'll get that as part of our committee's presentation as well.

But, you know, our government responded to the UDP report and it's been tabled this morning. I'm sure you've seen it. It's online under government news releases. I believe the biggest factor was the economic factor about building a large nuclear power plant, and the costs, it just didn't make sense. But certainly safety is not a fear. I mean these things are going to be safe. If you want to comment on that.

Mr. Priest: — Okay, yes. And well, I know that's what I feel too, that it depends what book you read is what I've come up with. I've found some things out there that I don't think are 100 per cent safe. But that's my opinion. I'm no nuclear physicist by any stretch of the imagination. But I've found some things that just keep coming up over and over again with this technology, about the incidence of childhood cancer within so many kilometres of it.

I spoke to a media person in Saskatoon and he was a pro-nuclear fellow. And I talked to him for about half an hour on the phone. And I said, well what about this incidence of Down's syndrome higher down around Pickering, these 1992 studies had shown? He said, oh no, well that's nothing to do with the nuclear plant. That's the power lines. But what do you get when you get a nuclear plant? You got these high wire power lines coming from it.

I feel that there is some uncertainty there yet. And I understand that the government's looking at some maybe smaller versions of nuclear plants. And I feel that maybe we'll be the guinea pigs living by these if they haven't been tested. It's no different than working on my farm that, you go out there and my tractor works 100 per cent when it's 15 degrees out in the middle of summer, but when it's 49 below out in the wintertime, then all of a sudden things change.

And I don't think it would be any different with a nuclear plant. Maybe everything's cut and dried safety-wise here, but accidents do happen. Things do happen and I'm front and centre. I'm the next one living two doors down from it, and it's going to affect me more than anybody if it does happen. And I guess that's where I come from looking into it.

Mr. Weekes: — Thank you. Just one follow-up if I may. Interesting reads about the smaller nuclear power plants. That is something. They exist now, but there needs to be more work on that. But that was something that's intriguing about them. If there were smaller ones, we wouldn't — versus building a huge 1,000 megawatt — you wouldn't have to have the same upgrade to the infrastructure, and having, you know, that the 1,000 megawatt power plant wouldn't need to transfer the energy long distances.

So if you had smaller ones, that would eliminate that one issue to a greater extent, but I think, you know, nuclear power plants are in submarines and all sorts of . . . They certainly exist and have been working for years, but I guess it's a matter of tapping them, that resource into producing electricity for the consumer.

The Chair: — Mr. McCall.

Mr. McCall: — Thank you, Mr. Chair. Thank you very much, Mr. Priest — Mr. and Mr. Priest — for your presentation. And thank you very much for bringing Grady here to, you know, very clearly remind us of the importance of the deliberations that we're undertaking with this committee.

I guess, if you could for the records, for the committee's sake, Mr. Priest, could you describe where your farm is. It's, I believe, in the RM [rural municipality] of Britannia, is that correct?

Mr. Priest: — That's right, yes.

Mr. McCall: — Okay. And it says, you'd said two miles from the proposed site of Bruce Power putting up a nuclear plant?

Mr. Priest: — Yes.

Mr. McCall: — How did you come to know that?

Mr. Priest: — We had neighbours that were approached, and the Bruce Power representative kind of had a map of the block of land and of where it was being proposed. And I guess that's what created this whole storm around our area or whatever, and it brought it to the forefront.

And I don't know, right or wrong, how it was gone about, but those people were sworn to secrecy, and it's as far as being approached and that. And I'm glad it was brought to light anyway, and we were in the dark about what was going on. And if you hear it the other way, well Bruce Power wants to be upfront and honest about everything and kind of seeing both sides to it too though.

Mr. McCall: — Now in terms of the land that was being considered, were there options to a purchase being undertaken or anything like that?

Mr. Priest: — From my understanding there has been. But that's just hearsay from neighbours and whatnot, but I've had no confirmation one way or the other.

Mr. McCall: — Okay. And again this is a Bruce Power initiative, not SaskPower as far as you know?

Mr. Priest: — No, that's right. Bruce Power from what I understand.

Mr. McCall: — In terms of the question of support for or

against a new nuclear reactor, certainly Mr. Weekes has cited some of the information and you've cited some of the information. I understand that the RM of Britannia did undertake some kind of a measuring of the support for or against in the RM. Could you tell us about that?

Mr. Priest: — Yes, that's right. There was a resolution passed at the ratepayers' meeting last year opposing nuclear power in our area. And I think it was something like 95 per cent people were opposed to it. I don't know where we go from it. I'm not sure what poll Mr. Weekes is talking about; I guess I'm not familiar with that, the 50 per cent one.

But it was the same thing when we presented down in Saskatoon, that the fellow from Bruce Power, he rattled off some statistics as far as surveys and what not. But I've heard some of these surveys as far as, well are you in favour of green energy in Saskatchewan or whatever, and I'm a bit skeptical. My gut feeling is throughout Saskatchewan if you put it to the people, I don't think there is 51 per cent of the people in favour of nuclear in Saskatchewan. If you put it straight to them, put the thing to a plebiscite throughout Saskatchewan, I think there would be overwhelming opposition to it. That's just my feeling alone.

Mr. McCall: — Okay. I guess just a final question on the process around what happened in the RM of Britannia and the proposal coming out of Bruce Power. If something like this was to happen again, what are things that, you know, as somebody that's got your farm, your livelihood's in that RM, are there things that could have been done differently, that should have been done in terms of bringing forward a proposal, in terms of better public awareness and information for people to sink their teeth into?

Mr. Priest: — Yes. I don't know. I don't know what the proper procedure should be or whatever. One thing I think we've been told all along, Bruce Power's been upfront with it, and the government's been upfront with it, that if it isn't wanted in our area, it isn't going to be forced on us. And I guess I go to bed with that every night thinking that, hold truth to that.

And hopefully it does hold true because I really do feel that I feel very fortunate in our RM that there hasn't been a lot of bickering back and forth — well gee we've got to have this thing or whatever, that there is a general consensus. You do get the odd person, oh yes well we've got to have it sort of thing, but I really do feel that it might not be 95 per cent, but there is a big percentage.

And I'm very proud to live in a community like that and that we regard our people more than . . . Sure, there's a buck. Maybe the land's going to be worth more for the next five years or whatever, but so be it. But there's more important to things to life than money all the time, I think, but it's just me.

Mr. McCall: — Okay. Thank you, Mr. Priest. Thank you, Mr. Chairman.

The Chair: — Mr. Bradshaw.

Mr. Bradshaw: — Well thank you very much for your presentation. And I guess we had listened to you before in Saskatoon, I guess. And actually I'm going to switch here a little bit. I'm going to go back. Like we were talking about the various sources of green energy, and you've obviously looked at that, you know, to a certain extent on the wind and the solar.

And you talked about incentives. And I guess I'm asking what do you mean by, what do you mean by incentives? Now are you talking, would it be a grant from the government, from SaskPower to, say an operation for doing net metering? Or would it be a tax incentive or have you thought of any of that way? You know, you said maybe we should have incentives. Have you figured a way of how you would work the incentives?

Mr. Priest: — No, I don't really have any clear-cut ideas with it. But I do feel just as long as that it is something that's being really considered and really pushed, like going back to this documentary I'd seen on *The Fifth Estate* down in Ontario, it was the other way, that there was a fellow had set up his own I think it was a biomass set-up, but it was a total nightmare trying to get hooked up in line.

And I don't think we have to be turning big dollars in front of the farmers to support these things. But I really do think that having it upfront and make it user-friendly for people, I'm all for it. And it's something that jeepers, I think it's one of those things. You get it out there and you get some people started doing it, it'll snowball. Right now that there's hardly anybody doing it. Nobody thinks about it. But I think all it would take is a few farmers here and there to have it out there and it would be upfront.

I don't think it's going to solve all the power needs. But along with that, like I'm not familiar with the natural gas resources in Saskatchewan, but just like we're talking about developing uranium, why can't we be using the natural gas and adding value to our natural gas in Saskatchewan? That's going to create employment and that as a base power load, along with a lot of these other things with the wind and solar and whatnot. It's what I'd like to see anyway. Thank you.

Mr. Bradshaw: — In that case, like I mean obviously you've looked at it, would you be interested in the carbon capture on coal or clean coal technology? Is that also fit into something that you think we should be looking at?

Mr. Priest: — By all means, I think. And I don't understand the technology of it right now, but I assume it's no different than the rest of it. It will get better as time goes on too.

Mr. Bradshaw: — Okay. Thank you.

The Chair: — Well thank you very much for taking the time . . . Oh, Mr. Taylor.

Mr. Taylor: — Thank you. I thought you had caught my hand earlier. Thank you. I appreciate that. Thank you again for coming. I appreciate it. Your presentation in Saskatoon was one of the standout presentations, as far as I'm concerned, in the first round of hearings. So I'm glad you were able to come back and provide us with additional information.

A couple of questions. But the first one, just very simple, dealing with Bruce Power. Since the government made its

announcement about not immediately proceeding with nuclear power, we've heard one comment from Bruce Power in the media that says hey, this doesn't affect us. We weren't planning on proceeding immediately anyway.

Have you or any of your neighbours or friends heard anything from Bruce Power since the government said, hey, we're going to put this on hold for a while? Do you feel any confidence that things have changed as far as Bruce Power's perception of Saskatchewan, the North Saskatchewan River, since that announcement was made?

Mr. Priest: — No, I haven't heard anything upfront myself from Bruce Power, period. And only thing I've heard was hearsay and I don't know whether it's just with the Bruce Power rep in the area telling people that no, we're aren't to go ahead with anything right now, not until after the election we'll look at anything. And after hearing that, it fits into the time frame. We're looking to 2018 and the fact that we're looking at a nuclear plant then, and if things are pushed back to 2020, that's two years later. That's after the election.

But I hadn't heard anything myself. There's people that were meeting with some of the people from Bruce Power in the area and come back to me. And that's all I've heard.

Mr. Taylor: — Okay. Thank you very much. And you'd mentioned the Bruce Power rep earlier, you having a chat with him. I'm assuming you mean Milt Wakefield from Lloydminster. Have you had any conversation with him at all in the recent weeks?

Mr. Priest: — No I haven't, no.

Mr. Taylor: — Thank you very much. I was just at a conference in which greenhouse gas emissions was a significant topic. Greenhouse gas emissions is one of the arguments that Bruce and others use for wanting to bring nuclear to Western Canada.

At this conference, T. Boone Pickens was one of the presenters. I don't know if you know who T. Boone Pickens is, but he's very wealthy in the United States. Big supporter of wind farm development, but he's also got a proposal in front of the President of the United States and the US Senate regarding natural gas. He believes that natural gas for use in vehicles . . . transport trucks as a matter of fact; he wants to convert the entire fleet of transport trucks in the United States to natural gas. He says that will manage the greenhouse gas emissions and we won't need to be worrying about that for power generation elsewhere. Take that out of the equation for discussing the future.

[13:30 MST]

Obviously if the American transport fleet — and he's receiving a lot of support for this, by the way — but if the American transport fleet, all the trucks moving goods across United States, were to be converted . . . He's not really talking about converted. Every new truck that's purchased and put on the road is a natural gas powered truck, not the existing fleet. So as it wears out, you replace them.

My thought was, if this is happening in the United States, then Canada better get on board. We've got an awful lot of cross-border truck traffic. It also got me thinking about where a lot of diesel fuel is used in Saskatchewan and number one is on the farm, an awful lot of diesel fuel.

Do you know at all, is it possible to propel farm vehicles and equipment with natural gas? And if we started to develop a natural gas fuelled vehicle program in North America, could it also apply on the farm?

Mr. Priest: — Yes. I guess I'm not familiar with it. I was telling some of the fellows we'd just came back from California and there I seen a service station that they were fuelling up some of the transit vehicles with natural gas at that time, and that's the first I've seen or heard of it. And I don't know as far as technology whether it works. I've heard through the local tractor dealer over in Paradise Hill, they said that they've got tractors coming out as soon as 2013 or something running on hydrogen and that, and so I think there is different things coming along the way.

And going back to it, I think that's my main concern with the nuclear thing. I think that there is better things coming and I don't want to get locked into this upfront right now. Whether we're looking at the next 10 or 20 years or whatever, I'd sure like to keep our options open.

Mr. Taylor: — Good. Thank you very much for that. I appreciate your thoughts in that regard.

The Chair: — Thank you very much for your presentation and taking the time to answer our questions.

Mr. Priest: — Thank you very much, everybody from the committee.

The Chair: — The committee will now stand adjourned until tomorrow morning at 10 a.m. in Prince Albert. Thank you.

[The committee adjourned at 13:33 MST.]