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**Jeudi 12 août 2004**

**Standing committee on  
social policy**

Electricity Restructuring  
Act, 2004

**Comité permanent de  
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Loi de 2004 sur la restructuration  
du secteur de l'électricité

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ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

## STANDING COMMITTEE ON SOCIAL POLICY

## COMITÉ PERMANENT DE LA POLITIQUE SOCIALE

Thursday 12 August 2004

Jeudi 12 août 2004

*Report continued from volume A.  
The committee recessed from 1200 to 1305.*

### ELECTRICITY RESTRUCTURING ACT, 2004 LOI DE 2004 SUR LA RESTRUCTURATION DU SECTEUR DE L'ÉLECTRICITÉ

Continuation of consideration of Bill 100, An Act to amend the Electricity Act, 1998 and the Ontario Energy Board Act, 1998 and to make consequential amendments to other Acts / Projet de loi 100, Loi modifiant la Loi de 1998 sur l'électricité, la Loi de 1998 sur la Commission de l'énergie de l'Ontario et apportant des modifications corrélatives à d'autres lois.

### CANADIAN ENERGY EFFICIENCY ALLIANCE

**The Acting Chair:** Good afternoon, everyone. We're going to reconvene the hearings on Bill 100. Our first presentation is by the Canadian Energy Efficiency Alliance, Fiona Oliver.

**Ms Fiona Oliver:** All right, great. We're here from the Canadian Energy Efficiency Alliance, which many of you have heard from before, but I'll do a quick background, take you through some of the initiatives we're currently working on and some of our future initiatives and then give some thoughts around Bill 100; in specific, items on DSM.

The Canadian Energy Efficiency Alliance is a non-profit organization established in 1995 to promote the benefits of energy efficiency to the economy and to the environment. Our members are leading utilities, manufacturers, energy consultants, associations and consumer and environmental groups across Canada, with a heavy proportion of those being in Ontario.

One of the first things the alliance did was a report to the Macdonald committee. I have provided that in the folder I've given to some of you. I believe one copy is in the hands of each caucus currently. The document was well-received by the committee, particularly because it incorporated the views from stakeholders who traditionally would have very different views around energy but managed to come together and agree on the importance of energy efficiency.

The alliance's number one priority since its inception has been regulated demand-side management for electric LDCs. Last year, we ran a series of three workshops to develop a vision statement for energy efficiency in Ontario. The outcome of that vision workshop series is also found in the folder; it was an article published in Corporate Knights, talking about a vision for a clean, green future.

One concept that was also mentioned in those workshops was the need for a central agency to promote and coordinate province-wide messaging. There was a lot of emphasis on the fact that LDCs need to drive the programs, as they're closest to their consumers.

One of the most important initiatives of the alliance is an annual report card on various provinces that reflects how the provinces are doing on their various policies around energy efficiency.

On the last report card, Ontario received a C. Ontario had done very well in codes and standards, as well as with gas utilities on DSM. However, there was a perceived need for improvement on electric LDCs and how they were regulated and dealt with, with respect to DSM. We're going to have the next report card coming up soon, so hopefully the mark will start going up.

#### 1310

We have also done our first ever report on best practices across Canada on DSM, and that will be coming out very shortly. We just did an energy conservation workshop targeted at electric LDCs on July 22, trying to bring them together to start understanding, talking about and planning for energy efficiency programs. We do work in communications and media, obviously work with government as much as we can and try to be an adviser where we might, and we also completed a report on life-cycle costing of energy efficiency.

Future activities: We hope to continue running workshops around DSM for the electric LDCs. We are hoping to organize a lighting exhibition at Queen's Park for the MPPs, aides and government, like the smart meter exhibition put on by Marion Fraser recently. We also would like to develop a generic DSM plan for Ontario LDCs that makes it easy for them to get up and running quickly, and we'd like to be at the table for developing a communication plan to consumers.

One last item that I'd like to give you background on: The alliance, in co-operation with the Ontario Home Builders' Association, formed the EnerQuality Corp,

which runs R-2000 in Ontario and also runs EnerGuide for new houses.

With that, I'd like to introduce Judy Simon, who is here with me from IndEco consulting. She was our alliance representative on the OEB stakeholder advisory committee on DSM and will be sharing the thoughts of the alliance with you now.

**Ms Judy Simon:** Thank you very much, Fiona. I'm pleased to be here.

The alliance is supportive of Bill 100 and views it as an excellent step toward building a conservation culture in Ontario. We support the provincial government's move to time-of-use rates and to smart meters.

As part of the alliance participation in the OEB DSM consultation process that Fiona has just referred to, the alliance submitted a policy paper, Demand Side Management Framework for Ontario. In that policy paper, the alliance identified a number of components that should comprise any DSM governance model. We recommend that, to the extent possible, these components be reflected in Bill 100. These components are:

—Energy prices reflect true costs. We are pleased to see this is in Bill 100.

—There is no undue burden placed on disadvantaged groups as a result of energy prices. We note that the Minister of Energy has recommended that electric LDCs provide DSM programs for low-income and other hard-to-reach consumers. This recommendation should be codified in the bill.

—Energy efficiency standards continually improve over time. The conservation bureau could be mandated to facilitate these improvements to the energy efficiency standards.

—Incentives are available to encourage the development and introduction of new, more efficient technologies. These could be provided by the conservation bureau.

—There are training or other programs to ensure energy professionals and tradespeople are skilled at using the latest technologies and techniques. This is also a potential role for the conservation bureau.

—There are coordinated and consistent public education programs on energy conservation and energy efficiency across Ontario, also a potential role for the conservation bureau.

—Natural gas and electric utilities and provincial ministries and agencies are required to implement cost-effective energy efficiency and energy conservation programs in their own operations and report on their progress. The utilities component should be part of the DSM mandate for the Ontario Energy Board.

—There is a reliable long-term source of funding for aggressive DSM.

—There are DSM programs that target each of the market segments.

—There is emphasis on local delivery of DSM programs.

—There are incentives for delivery agents to carry out successful aggressive DSM programs.

—There are clear rules for DSM.

—There is independent, third-party verification of DSM energy savings.

The alliance policy paper proposed a hybrid DSM governance model with a central coordination function for integrated resource planning at the provincial level. We are pleased that this central function for integrated system power planning has been adopted in Bill 100.

As we indicated in our paper, integrated resource planning is also important to be carried out at the more local levels, at the project level. Bill 100 should be modified to reflect this need for more local integrated system power planning and to clarify the role of the Ontario Power Authority and the LDCs in carrying out this type of planning.

As part of the hybrid governance model, we recommended local responsibility for DSM by the electric LDCs. It's not clear that Bill 100 gives the responsibility for DSM at the local level to the LDCs. The LDCs understand their customers and their markets and therefore are in the best position to develop programs to meet their customers' needs. We recognize that not all LDCs are created equal and that some, as part of fulfilling their responsibility for DSM, may choose to outsource program design and delivery to others, such as other LDCs, the natural gas utilities or other DSM service providers. We stress the importance of local responsibility for DSM and recommend that this be clearly delineated in Bill 100.

The mandate of the OPA regarding the options to be considered for integrated power system planning should be clarified in Bill 100. The framework for integrated power system planning must ensure that DSM, fuel-switching options and distributed-generation options are fully and rigorously evaluated to properly compare these with conventional supply and transmission options at both the provincial level and project level.

For example, in Toronto or the Brantford area there may be a particular constraint in the power system. Bill 100 must ensure that for each constraint there is a thorough investigation of DSM, distributed-generation and fuel-switching options, in addition to the more conventional transmission and large supply options, before the preferred option or options are chosen.

Bill 100 should ensure that suppliers of DSM, fuel-switching and distributed-generation options, including the natural gas and electric utilities, have the opportunity to provide input to the integrated power system planning and to offer and deliver these options.

Bill 100 should encourage fuel switching from more costly sources from an economic and environmentally sustainable perspective to cheaper, more environmentally sustainable sources. The bill should also encourage co-operation of electric LDCs with the natural gas utilities in the development and delivery of these fuel-switching programs as part of the natural gas and electric LDC DSM plans.

The Minister of Energy, in his May 31, 2004, letter to all electric LDCs, recommended that DSM for electric

LDCs be defined to include energy efficiency; behavioural and operational changes, including the application of benchmarking or smart control systems; load management measures which facilitate interruptible and dispatchable loads, dual fuel applications, thermal storage and demand response; measures to encourage fuel switching, which reduces the total system energy for a given end use; programs and initiatives targeted to low-income and other hard-to-reach consumers; and distributed energy options behind a customer's meter, such as tri-generation, cogeneration, ground-source heat pumps, solar, wind and biomass systems.

The alliance endorses this definition of DSM. It is consistent with the definition of DSM we have put forward in other policy papers to the province and the OEB. We recommend that the minister's definition of DSM be included in Bill 100.

In order to promote a conservation culture, all agencies of the government should be encouraged to promote energy efficiency and energy conservation within the agency as well as with the organizations it regulates. To that end, the alliance opposes the amendment proposed in Bill 100 to remove the OEB objective to promote energy conservation, energy efficiency, distributed generation and alternative energy sources. The OEB objective to promote these aspects of the conservation culture should remain in the Ontario Energy Board Act so that the OEB will take steps that will encourage the electric LDCs to carry out DSM within their own operations and with their customers.

The alliance would be pleased to discuss further any of our recommendations for Bill 100 with the committee.

**Ms Oliver:** Just a few closing remarks: The alliance will be following the actions of the government over the next 12 months to ensure the commitments to a conservation culture are being continually and actively pursued.

We have prepared an article that went out to the media this past week. It has been picked up extensively. We were in the Toronto Star on Tuesday, on Citytv, on OMNI Television and on the CBC, and we'll be on CTV.ca on Saturday as well as in a three-part series over the next three nights on Global. It outlines what we would like to see the government do over the next year. Just to top-line those, we'd like to ensure that the majority of LDCs have active conservation programs that engage their customers; that the minimum energy efficiency levels from appliances and products be increased; that we increase the minimum energy efficiency standards of new buildings, starting with commercial construction and government buildings, as well as low-income buildings, given the longer pay-back periods; expand the commitment of a 10% reduction in electricity demand for the provincial government to include municipalities, universities, schools and hospitals; have electricity prices reflect the actual cost of generation so that prices are adjusted to different seasons and times of the day; accelerate the phase-in of interval or smart meters;

and initiate aggressive, province-wide market transformation campaigns coordinated through the new conservation bureau in association with external delivery agents.

Thank you very much. We will be doing a review of where energy efficiency is at yearly now on the anniversary of the blackout. We'd like to ask one question of you, if you don't mind. We're interested in finding out where the input from this committee goes and what the next steps are from your end. We'd welcome any questions the opposite way.

**The Acting Chair:** Let me first thank both you and Judy for being here. We certainly have time for questions from all three parties. The question was posed of the clerk where all this information goes.

**The Clerk of the Committee:** This is an opportunity for the committee members to receive input from the public and interested parties on the legislation to aid them in their deliberation when it comes to clause-by-clause review of the bill itself and help them propose amendments, to discuss and debate the issues in the bill.

**Mr McMeekin:** —a summary of the points made [inaudible] research team is part of that and the government will be part of that as well.

**Ms Oliver:** Terrific. Thank you.

**The Acting Chair:** Let's start with the NDP.

**Ms Marilyn Churley (Toronto-Danforth):** How much time do we have?

**The Acting Chair:** We have 10 minutes, which we'll divide up evenly.

**Ms Churley:** A whole 10 minutes. Thank you very much for your presentation. I'm just subbing in for Howard Hampton, who is our critic in this area, and I haven't been privy to all of the presentations. But I certainly wanted to hear more of yours about energy efficiency and conservation, because that's a big interest of mine.

Just in terms of your question, by the way, about what happens to these presentations: What will happen is that we'll be making some amendments to the final bill, and at the end of the day we'll vote on those amendments. The government has the majority on committee, and generally it ends up being in the government's hands in terms of which amendments are passed or not passed because of that. So that's what will happen. We'll certainly be looking at your presentation and at the amendments you recommended and perhaps the other parties will as well. That's what will happen, and then the bill will go back to the Legislature for the final vote and some amendments will be made. At this point we don't know what the Liberals will accept or won't accept, so lobby hard for your amendments.

I just wanted to pick up on building retrofitting. I think that's very much overlooked when it comes to efficiency. You talk about future buildings, amendments to the building code so future buildings have that included. What about a massive program for retrofitting older buildings? Is that part of our recommendation?

**Ms Oliver:** That would definitely be on the table as well. I think, though, that the big opportunities are seen in new construction. When you build it, build it right the first time and it will save a lot of money longer-term. I think that's where we'd really like to put our priorities.

**Ms Churley:** As you know, the city of Toronto has such a program. It's called Let's Build or Better Build—

**Ms Oliver:** Better Buildings Partnership.

**Ms Churley:** Is that still in existence?

**Ms Oliver:** Yes.

**Ms Churley:** I have a lot of constituents who are in public housing, for instance, who have huge, high electricity costs and very drafty buildings. To me, it makes sense to also do that kind of retrofitting as well as for new buildings.

Do you look at things like the impact of roof gardens and solar panelling and all those kinds of things as part of efficiency? When you talk about amending the building code for new buildings, what do you see included in that?

**Ms Oliver:** I think those components definitely do make a more efficient building. The alliance does not specifically focus on those. We rely on the expertise of various other non-profit groups who are specializing in those particular topics. We tend to work more closely with builders and contractors, training them on energy efficiency practices and moving the bar up on that front. So that's where we do most of our work. Some of those other items, like green roofing and those sorts of initiatives: We know there are people such as Steven Peck, with an organization that specifically does green roofs. He will work on that front and we'll get the information from him on how much energy that can save. But typically we'll focus on the more traditional aspects such as insulation, windows and construction materials.

**The Acting Chair:** The government, do you have any questions?

**Mrs Cansfield:** I have a couple of questions. First of all, I commend you for the work you do. The list of your board is both for-profit and not-for-profit, and I think people don't realize it's a very broad range of folks you bring to the table.

You primarily focus on bringing in the local distribution companies and others around how they can manage their demand-side management. I guess one of the questions I would have for you is, in looking at the bill—and I know you've identified some issues around the local distribution companies and wanting to enshrine that more in the bill than in regulation—are there practices and policies and procedures that you have seen or are aware of that are barriers you could help identify in terms of moving forward with the demand side at a residential level? Given the fact you have some expertise at the commercial level, I would be particularly interested to take that back to the government from you. If you could provide some thought to giving that to us in the next couple of weeks, that would be great. I don't know if that's possible.

**Ms Oliver:** So you're looking for the barriers for LDCs to do DSM at a residential level?

**Mrs Cansfield:** You've probably tripped over some of those barriers when you've been helping provide some of these workshops. If you've identified those barriers, it would be welcome to us to see whether or not we've identified similar barriers or if we've missed any. That would certainly help in removing those barriers to enable DSM to move forward. Sometimes those barriers can be applicable both at the commercial and the residential. That would be helpful as well; there's no question.

For example, you have the green building thing you do, which is commercial. Can it be applied to a residential component, let's say, for housing? So that's what I'm asking. If you would consider giving that to us, that would be great.

**Ms Oliver:** Yes, we can definitely get back to you on that with some thoughts and a list of potential barriers that we're hearing, not only from the workshop that was recently held, but also other input from our stakeholders.

**Mr O'Toole:** Thank you very much for your presentation. I want to make sure I put on the record right away that I kind of agree that the interface with the consumer, the LDC, is absolutely critical if they're going to implement any kind of demand-response system of whatever variety.

I find a bit of a conflict with a regulated price at a certain level and then a certain part of the market that's unregulated, technically: the large consumers who are buying and hedging.

**1330**

I'm not sure I understand where the direction is if you're looking at metering technology, whether it's smart meters or interval meters or other demand-response-type meters that some of the utilities use today. Could you comment on the way the price thresholds work today—4.7 and 5.3—based on consumption? The consumer has no tools. Even the technology required to have smart technology in the house is almost prohibitive in most of Ontario. It's two-way. It would have to be sort of a floating price, where I could respond to price. I could set some sort of computer system to shut certain things off and on. It's actually a miscommunication, I suppose, in terms of that whole smart technology. They're going to invest a fortune, and the LDCs are going to have to spend a fortune to change their billing systems and the whole infrastructure to respond to when I consume the electrons, if I'm responding to price.

I'm sure there's a lot of work that can be done, but the vast majority of the consumption—and demand-response mechanisms, I believe, should be with the large consumers first. Start with the low fruit and eventually you'll refine the technology down to where you can get the apartment to switch certain things on and off at some time in the future. Could you just respond? There's some bad information on this whole smart metering. They're going to spend a fortune on it, and what are they going to get?

**Ms Simon:** As I mentioned, one of the things we support and I understand the government intends to move on is time-of-use rates. Customers who are at 50 kilowatt

hours and beyond in some jurisdictions, and 100 in other parts of Ontario, already have interval meters. So the new government program for interval meters is really focusing on the small consumers and the MUSH sector.

With time-of-use rates, the kind of price signals you're talking about will be available to some extent, depending on what the time-of-use rates end up looking like. If it's just a day price, an off-peak price and a peak price, that's still a better price signal than what we have now. I guess we'll see what the LDCs are proposing that way for the March 2005 rates cases. There are a whole number of options for time-of-use rates that could give anywhere from instantaneous pricing, like what the larger companies are dealing with, to the old historical time-of-use rates that are peak and off-peak prices, and there's a continuum between them. So the price signal for the residential consumer will certainly improve. At least the residential consumer will have options, as I understand it, for getting a better price signal and therefore will be able to make use of the data and the smart two-way interval meters.

**Ms Oliver:** Could I just add a quick comment as well, if that's all right? I think what's important to note—and I hear what you're saying. These are important tools to start getting people to understand what their behaviour is. I think the next step will be changing that behaviour, linking the rates to what people are seeing and trying to put in programs that link up with that. That will be the key piece to prove whether this has been a good use of money. I think that will be key.

**The Acting Chair:** Well said. On that note, thank you very much for being here. I appreciate your comments on behalf of the committee.

Our next presenter is from the Ontario Clean Air Alliance, Jack Gibbons. Jack, are you here?

**Mr O'Toole:** It's another one.

**The Acting Chair:** Oh, excuse me. You have to sit down, Jack.

#### ENBRIDGE GAS DISTRIBUTION INC

**The Acting Chair:** Let me just correct that. It's Enbridge Gas Distribution Inc, Jim Schultz. Don't cut off my gas for that. Sorry, Jim.

**Mr Jim Schultz:** No problem.

**The Acting Chair:** You have 15 minutes that's yours to use. If there's any time left, we'll allow for questions.

**Mr Schultz:** Thank you. I think that should be appropriate. Good afternoon, everyone. As indicated, my name is Jim Schultz, and I am president of Enbridge Gas Distribution. With me today is John Bayko, our director of sustainable growth, and Debbie Boukydis, our manager of public and government affairs for eastern Canada.

Enbridge Gas Distribution appreciates the opportunity to offer its perspective on Bill 100. We realize that these hearings occur during challenging times for Ontario's energy industry. Some of you may ask why Enbridge, Ontario's largest natural gas utility, would want to

present on a bill primarily on the electricity sector. Quite simply, all the players in the energy field have a role to play in meeting Ontario's future energy demands.

In addition, the issues raised in Bill 100 go far beyond the electricity sector. It talks about attracting private investment and restructuring the way the energy sector is regulated. We have an interest in both of these areas, not only because of our current operations but because of our interest in pursuing additional investments in this province. These are important changes, and as a regulated utility with over 155 years of experience, we feel we can offer an important perspective that will help you with your deliberations.

Enbridge Gas Distribution had its beginnings supplying gaslight to the streets of Toronto in 1848. The company has since become one of the fastest-growing, lowest-cost natural gas companies in North America. We currently distribute gas to about 1.7 million residential, commercial and industrial customers in Ontario.

Enbridge Gas Distribution supports the stated policy objectives behind this legislation: ensuring sufficient supply and meeting increasing demand. We are all aware of the recent realities that validate these objectives: the blackout that occurred almost one year ago to the day, the findings and recommendations of various advisory panels, oil prices topping \$45 per barrel, political uncertainty in the Middle East and the restructuring of Ontario's electricity sector.

In terms of Bill 100, let me start with three comments. First, Enbridge Gas Distribution welcomes Bill 100 as a positive step toward a more coordinated and efficient energy market. We hope that the final text of the bill and the regulations that follow will provide a fair and balanced approach to the solutions that will meet Ontario's energy challenges. Second, the challenges facing the energy sector are so profound that it is essential that we get this right the first time. I hope the committee will consider and incorporate the suggestions offered here today, as well as the input offered by other presenters. Finally, it's important that the industry participants have a role in shaping the regulations and other details that will transform Bill 100's stated goals into reality.

The only way to meet Ontario's energy crisis is to ensure that we have a framework that will attract new investment and not drive it away. Toward these ends, we believe that the legislation represents a positive beginning in addressing the province's energy needs. We agreed with and tried to mirror our own activities on a number of the bill's proposed or stated purposes: supply, conservation, price stability, public leadership and private investment.

Earlier this month, we were pleased to hear Minister Duncan's speech to the Calgary Chamber of Commerce. His message was quite simple: Ontario's energy problems will only get solved by less political and more private sector investment. Most importantly, he promised the McGuinty government would provide clear rules for investment, and I want to tell you that that message was very well received.

As with any legislation, the key is to translate laudable goals into practical and effective reality. I'd like to offer our views on several matters that may be of assistance to you in this regard. These comments fall under three headings: (1) strong governance for the new Ontario Power Authority; (2) clarity in regulatory rules so they work for consumers and industry and don't hold up important investments; and (3) a commitment to solutions like integrated resource planning and demand-side management.

#### 1340

The first area on which we wish to comment is governance of the proposed Ontario Power Authority, or the OPA. Enbridge strongly supports the mandate of the OPA, as strategic long-term planning is the crucial first step to start getting our house in order when it comes to energy. The bill stipulates that all directors of the new corporation are to be independent, with no direct involvement in the generation, transmission or distribution of power. However, we feel that this industry is far too complex to restrict the board to independent directors with no first-hand knowledge or experience. Thus we strongly suggest that the bill be amended so the board can include a minority of industry-related directors.

This is in keeping with the wider corporate governance practices across North America in which boards are either required to nominate or voluntarily nominate candidates who are well versed in certain skills that will help their boards and board committees in discharging their responsibilities. We submit that the adoption of such a practice on the OPA board will improve its governance while maintaining its independence, and that will mean better overall management and stronger fiscal stewardship when it comes to taxpayers' dollars.

A second area of interest to Enbridge Gas Distribution is regulatory efficiency. Under Bill 100, industry stakeholders will be dealing with the OPA, a conservation officer, the Ontario Energy Board and the revised Independent Electricity System Operator, among others. Some of these bodies will be new, others will see their authority increased or amended and all will be a part of the new proposed regulatory framework. Enbridge Gas Distribution supports the introduction and restructuring of these regulatory bodies, but we do have concerns about the potential for uncertainty caused by possible overlapping of mandates and duplicate processes. For example, it's not certain which regulator would have the ultimate authority to select the most energy-efficient option or how we would be able to make sure that alternative options like distributed energy, fuel switching and demand-side management were considered.

We urge the committee to ensure that the regulatory bodies proposed under Bill 100 be given clear mandates, that they do not overlap and that they impose minimal red tape on industry participants in the search for innovative and timely energy solutions. We also recommend that energy stakeholders beyond just the electricity sector be consulted and provided a role in drafting the regulations stemming from this legislation. The energy in-

dustry is not a monolith. There are profound differences between different sectors of that industry. These differences should be factored into the drafting of regulations that will give effect to the stated goals of Bill 100. The fact that this committee is holding hearings on Bill 100 after only the first reading is a positive sign for future meaningful consultation.

The third area in which we offer recommendations is that of integrated resource planning, or IRP, and demand-side management. The primary focus of Bill 100 is obviously the electricity sector, but we urge the committee to ensure that legislation and the ensuing regulations take a holistic approach to planning matters and address the whole electricity supply chain as well as demand-side solutions. Integrated resource planning is about using a wide range of different supply options—fuel and technology mix, transmission and distribution assets and land uses—to meet our energy needs.

One such option is distributed energy, which places small generators closer to demand centres. It frees up transmission and distribution assets, reduces line losses and provides more reliable power through diversification. Another approach is fuel switching, in which customers are provided with incentives to switch to another energy source. This occurs naturally in some industrial and commercial sectors where energy consumers take advantage of dual fuel capabilities. But fuel switching should be considered for residential markets as well, if it will improve energy efficiency and provide benefits for all energy users. For example, the electrical load created by hot water tanks could be shifted to natural gas, which would reduce the overall demand for electricity, which often occurs during peaking periods. In our view, Bill 100 should encourage both electrical and natural gas distribution companies to co-operate on fuel-switching programs as part of their demand-side activities.

Let me touch on demand-side management, an area that Enbridge has been involved in for many years. Our DSM programs have been in place for nearly a decade. During that time, our award-winning activity has helped customers save enough gas to serve 450,000 homes for a year or take 650,000 cars off the road. We are currently looking at opportunities to share our experience with the electricity distributors in ways that are mutually beneficial to both industries.

Commentators are fond of saying that a megawatt saved is as good as a megawatt generated, and they are right. In fact, it might even be better, because not having to generate the power in the first place reduces the environmental and financial costs incurred by customers.

Because of our belief in integrated and innovative solutions to energy conservation, Enbridge is concerned that the Ontario Energy Board be encouraged to support this planning. Bill 100 proposes to repeal section 1 of the OEB act and thereby remove the current OEB objective "to promote energy conservation, energy efficiency, load management and the use of cleaner energy sources" within the electricity system. In our view, this OEB objective should be preserved in order to support the government's objectives around conservation.

We also support the creation of a new standard rate plan, adjusted and approved periodically by the OEB, which would ensure price stability while passing on the true cost of electricity. We look forward to the establishment of the load-serving entities, which would deliver that price stability and take a long-term view of the marketplace. Indeed, this is the model which had enabled stable gas pricing at the start of gas deregulation.

I also want to touch on the issue of natural gas supply, which I know came up in your hearings on Monday. Recently, there has been some debate about the future viability of natural gas as a major energy source. Let me put some important information on the table.

First, it's important to remember that we operate in a North American natural gas market. Both the gas transmission infrastructure and the supply basins across the continent are highly integrated, and therefore gas supplies and prices are closely linked. The consensus on both sides of the border is that there is enough gas supply to meet future North American demand.

In the United States, the National Petroleum Council, an oil and natural gas advisory committee to the Secretary of Energy, recently released a report indicating that there are significant long-term sources of natural gas available over the next 25 years. Additionally, in Canada, Natural Resources Canada estimates that North America has approximately an 80-year supply of natural gas still untapped, based on today's production levels.

In thinking about gas reserves, we also need to be thinking globally. While North American reserves are substantial, global reserves are even more significant. A review of global reserves indicates that there is a significant amount of gas available worldwide. This is important because liquefied natural gas, or LNG, allows us to import gas by tanker and is becoming a more cost-effective supply option. Today, LNG provides approximately 1% of North America's total gas demand. By some estimates, LNG could make up as much as 15% or even 20% of North American supply in the future.

However, to most of us who are baby boomers, 80 years of supply reserve doesn't seem all that long. But it must be remembered that these reserve projections do not factor in any significant advancements in technology. Take, for example, methane gas hydrates. Hydrates are a naturally occurring ice-like combination of natural gas and water. Huge deposits of these hydrates have been discovered off our west coast and in the north. While the technical and economic potential of these new-found resources is still unproven, a study by the Geological Survey of Canada estimates that onshore and offshore hydrates in Canada could provide this country with a 1,000-year supply of natural gas. As technology advances, it is clear that natural gas will continue to be an increasingly important part of our energy future.

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The question, therefore, is not about the existence of natural gas reserves but really about how we can bring this supply to market and help us meet our future energy demands. To bring supply to market, industry, govern-

ment and regulators must all take ownership in the future of the energy industry. To start, the exploration and production industries require appropriate regulatory, environmental and commercial frameworks to continue development of new sources of supply in North America. Then government and regulators need to provide the appropriate conditions for investment in infrastructure, including support for the long-term contracts necessary to underpin infrastructure investment. With the appropriate investment climate, industry will develop the infrastructure needed to deliver supply to market.

Government needs to become involved in LNG information and siting, and industry needs to educate the public on the safety of LNG. These fundamental supporting government policies need to be established to ensure there is a strong and effective framework in place that provides stability and predictability. Only then will you encourage investment and development. That's what's been missing in Ontario and in many other jurisdictions for so long, and that's why this bill is such an important part of Ontario's energy future.

On behalf of my colleagues, I want to thank the committee for this opportunity. The challenges before you are very real, and I don't envy your task. But we cannot afford to get this wrong. Both government and the energy sector need to work together so we can provide the infrastructure Ontarians need to protect and enhance our quality of life as our province moves forward.

I'd be pleased to address any questions or comments you may have.

**The Acting Chair:** Thank you very much. We don't have any additional time to answer any questions, but on behalf of the committee, I do appreciate the three of you appearing before us.

#### ONTARIO CLEAN AIR ALLIANCE

**The Acting Chair:** Our next presenter, who I've already introduced, is Jack Gibbons from the Ontario Clean Air Alliance. Thank you very much, Jack.

**Mr McMeekin:** He's a man who needs no introduction.

**The Acting Chair:** No, he doesn't need any introduction.

Jack, you have 15 minutes. Use it all, if you'd like, or leave some time and we'll have an opportunity to ask some questions of you.

**Mr Jack Gibbons:** I'll try to leave lots of time for questions.

**The Acting Chair:** OK, watch the clock, then.

**Mr Gibbons:** OK. Thank you very much for the opportunity to speak to you today about Bill 100.

The Ontario Clean Air Alliance is a very strong supporter of the creation of the Ontario Power Authority and of most elements of Bill 100. We believe that the proposed Ontario Power Authority is a pragmatic option to help phase out our dirty coal-fired power plants and to keep the lights on in the province.

Premier McGuinty and Energy Minister Duncan have repeatedly stated that they want to move Ontario from a culture of waste to a culture of conservation. We support that policy goal because energy conservation is the only option that can simultaneously reduce bills, make our industries more competitive and help phase out the dirty coal-fired power plants.

In this context, Bill 100's proposal to repeal the Ontario Energy Board's mandate to promote electricity conservation is perplexing and very inappropriate. The Ontario Energy Board will be the central regulator of Ontario's new electricity marketplace. In addition to regulating the Ontario Power Authority, it will regulate the independent system operator, Hydro One and the 90 municipal electric utilities. Moreover, the Ontario Energy Board will also set the price of electricity. Therefore, the Ontario Energy Board must play a pivotal role in moving Ontario from a culture of waste to a culture of conservation.

To assume, as Bill 100 implicitly does, that a culture of conservation can be created solely by the conservation bureau of the Ontario Power Authority is naive and simplistic. To achieve a culture of conservation will require the help of the Ontario Energy Board, Hydro One and Ontario's 90 electric utilities that are regulated by the Ontario Energy Board. Therefore the Ontario Clean Air Alliance very strongly recommends that the Ontario Energy Board retain its legislative mandate to promote electricity conservation.

Thank you for your attention. If you have any questions, I'll be pleased to answer them.

**The Acting Chair:** I'm caught off guard here. You have lots of time for questions. We will start with Marilyn.

**Ms Churley:** To be fair, you started with me last time.

**The Acting Chair:** I was going on from where we left off, and the last person who spoke was Mr O'Toole. So then I gave you the next opportunity. But if you prefer not to, I'll certainly start on this side.

**Mr McMeekin:** She wants to be fair. I'll kick off. I'm fascinated with your reference to conservation and specifically what I think could be categorized as your critical reference to some of the government's proposals. I may, if I knew a little bit more about that, even share that because I'm one of many on the government side who take very seriously the rhetoric about a culture of conservation.

I'm wondering, in addition to obviously flagging for us that the OEB should continue to play a role or, at worst, share that role with the conservation bureau as well, what specific additional things you would like to see the government do that would affirm this culture of conservation—you know the old line that governments campaign in poetry but govern in prose—that would affirm the intent of this culture of conservation. Specifically, can you give us four or five ideas about what you'd like to see either in the bill or supplemental to it?

**Mr Gibbons:** Yes. In order to create a culture of conservation in Ontario, we need a profound shift in the

institutional framework of our electricity sector. The status quo institutional framework promotes consumption.

The Ontario Power Authority can play a very important role by establishing province-wide conservation programs. The Ontario Power Authority should also pay consumers to get off the peak and to shift their load from peak to off-peak times when we've got peak demand days. There's a very important role for doing that, because if you pay consumers to switch from the peak time period to the off-peak time period, there are multiple benefits: (1) You can dramatically push down the spot price of electricity, which is very high on peak smog alert days when we're importing expensive, coal-fired electricity from the United States; (2) by shifting demand to off-peak periods you reduce the need for new electricity supply and new transmission supply—huge cost savings there—and you reduce the risk of blackouts.

The Independent Electricity Market Operator unfortunately, because they really see their role as promoting supply, have refused to pursue this option in any serious fashion. They're establishing a very small pilot program in the fall but it's just not significant, whereas the independent system operators in New York, New England, Pennsylvania, New Jersey and Maryland pay customers significant amounts of money to shift from peak to off-peak on peak times, and that provides huge benefits for consumers in those states. That's something the Ontario Power Authority should do.

I've repeatedly gone to meetings of the Independent Electricity Market Operator where companies like Falconbridge are begging the IEMO to do this, but basically they refuse to do so. That's one very key thing, to reduce the amount of peak infrastructure we need, because that is very beneficial. The Ontario Power Authority must play a very important role in doing that and also establishing province-wide conservation programs.

**1400**

But the Ontario Power Authority can't do it alone. No agency can do it alone, especially one that's a government agency based in Queen's Park, when we have such a huge and diverse province. As other speakers have mentioned, our 90 electric utilities are close to their customers. They know their local communities, they're trusted and they already have a business relationship with every electricity consumer in their franchise area. These are key agencies that with the right incentives can develop excellent conservation programs.

Enbridge Gas, whom we've just heard from, has developed the best energy conservation programs in Canada, and that's because the Ontario Energy Board linked their profits to the bill reductions their energy conservation programs delivered for their customers. It was in their financial self-interest to do really good, cost-effective conservation programs. We need to give that type of incentive to the municipal utilities. We don't think Queen's Park has to dream up all the conservation programs; we need to give the right financial incentives

to our municipal electric utilities, and those people who are close to the customers, who are in the energy business, can dream up the actual programs if they've got the right financial incentive.

As you know, Minister Duncan gave the electric utilities an initial \$225-million energy conservation budget last November. If the municipal utilities spend that \$225 million as cost-effectively as Enbridge has, then they could potentially reduce their customers' bills by \$1.8 billion or more. That's what can be done if they're motivated to spend the money wisely. But, very unfortunately, the Ontario Energy Board is working at cross purposes with Minister Duncan, Premier McGuinty and the government of Ontario. Minister Duncan has given the utilities \$225 million to spend on energy conservation. They will spend it. But under the OEB's status quo rules the profits of the electric utilities are linked to how much electricity they sell. So for every kilowatt hour they save, their profits go down. What is the most profitable course of action for a municipal utility? It's to spend that \$225 million in a way that gets the smallest possible energy saving.

**Mr McMeekin:** What gets measured gets done, but we're measuring it the wrong way. We need to stand it on its head.

**Mr Gibbons:** Absolutely. You've got to make conservation profitable and that's what the OEB is not doing. Nine months after Minister Duncan said, "You're going to have \$225 million," the Ontario Energy Board is still penalizing electric utilities if they promote conservation, and that is absolutely wrong and absolutely irresponsible regulation. Minister Duncan has the authority under the existing Ontario Energy Board Act to direct the OEB to make conservation a profitable course of action for Toronto Hydro, Hydro One, Veridian, Waterloo North—

**Mr McMeekin:** That targets the whole nine yards.

**Mr Gibbons:** Yes, and he should do that immediately.

**The Acting Chair:** Question, Mr O'Toole or Mr Arnott?

**Mr O'Toole:** Yes. Thank you very much, Jack. As always, you bring a serious amount of energy to the issue. On the specifics of the bill here, schedule A, do you have any problem—under the purpose of the Ontario Power Authority and under the revisions to the Electricity Act it says, "to promote the use of cleaner energy," and talks about alternative energy sources, and then under subsection 2, "alternative energy source" means a source of energy" that will be described in regulations. Do you see any potential that this new, renewable energy could include—it could include nuclear and it could include clean coal, conceivably. Do you think there's any room there? I know you're strongly anti-coal.

*Interjection.*

**Mr O'Toole:** No. Do you see that there's any risk there or would you like that clarified?

**Mr Gibbons:** There's no such thing as clean coal. When Mrs Witmer was the Minister of Environment she issued a regulation requiring Lakeview to cease burning

coal in April 2005. That was a huge step forward. Mrs Witmer's regulation says that after April 2005, if Lakeview continues to operate on some other fuel, it must operate in such a way that its emissions performance is at least as good as that of a natural gas-fired power plant. I think that should be the standard for all new fossil generation. Mrs Witmer's standard should be put into regulation by Minister Dombrowsky: All new fossil generation must be as clean as that of a natural gas-fired power plant.

**Mr O'Toole:** What if you were to find that coal or some form of liquefied, gasified, whatever, high-energy, high-burn—all that stuff—new, clean coal technology did meet those standards, would you change your mandate?

**Mr Gibbons:** Our mandate is very clear: The coal-fired power plants we have in Ontario are extremely dirty and a serious health threat, but if someone could make a coal plant as clean as a natural gas-fired power plant, there would be no problem with it. It would be at least as good as a natural gas plant. We see natural gas as a good transition fuel. We would ultimately like to see a world where all our electricity needs are met from renewable power sources and energy conservation. But we see natural gas as an excellent transition fuel. If someone can make coal as clean as natural gas, then that's great. As an economist, I don't believe we'll ever see it, but if someone can do it, God bless them.

**Mr O'Toole:** I also am pleased to get your correspondence with respect to the role of the energy board. I strongly support that clarification between the OPA and the Ontario Energy Board.

**Mr Gibbons:** Thank you.

**The Acting Chair:** Thank you—

**Ms Churley:** Don't I get a question?

**The Acting Chair:** No. That's why I asked you to go first.

**Ms Churley:** On a point of order for clarification: I thought the process was that we rotated, which is why I generously gave up my time, and then the time was split. Sorry about this folks, but I did want to ask a question here. I assumed they would go next in rotation, and then we would split the time.

**The Acting Chair:** Marilyn, what happened is that we just didn't have sufficient time to allow all three parties—

**Ms Churley:** Had I known that, I wouldn't have given up my time.

**The Acting Chair:** That's why I was trying to hint to you not to give up your time.

Thank you, Jack. It was a very good presentation.

**Ms Churley:** I'll ask you personally after, Mr Gibbons.

**The Acting Chair:** And you will be the next person to ask a question.

**Ms Churley:** Thank you.

**Mr McMeekin:** We have to agree to split it up so there are at least three. It's pretty tough to do sometimes when there are 30 seconds left.

**The Acting Chair:** That's the problem. With the greatest respect, I guess if the members just asked a direct question, I could do it that way. But what happens is that you have a one-minute preamble before we get to the question, so I couldn't divide it up.

**Ms Churley:** Not to hold us up in this committee, may I just say that the normal process is that if there's a very short time left, it makes sense to give it to only one person. But when you have a long period of time, generally what we do is go in rotation and divide it up so we—

**The Acting Chair:** That was the first time we had a long period of time.

**Mr McMeekin:** It's sort of what we've been doing.

**The Acting Chair:** That was the first time we've had it; otherwise, it's been short.

**Ms Churley:** Perhaps we could agree that unless it's just a short period of time, from now on we go in rotation.

#### TERRA POWER SYSTEMS/TIRINO CORP

**The Acting Chair:** We have Terra Power Systems/Tirino Corp with us. You have 15 minutes. If you use it all, there will be no time for questions.

**Mr Bob O'Connor:** Good afternoon, my name is Bob O'Connor. I work with Terra Power Systems in Oakville, Ontario. Thank you for the opportunity to speak before this legislative committee on electricity restructuring. Not since the formation of our electricity industry in this province over 100 years ago have we faced such uncertainty in our future. Sir Adam Beck, a politician and the first chairman of the Ontario Hydroelectric Commission, always maintained that we need to keep politicians from overmanaging the electricity industry in this province. His vision was one of strong central control, driven by experts, that would provide power at cost.

**1410**

Here we are again, trying to right the ship and jump-start the industry, only now the stakes are much higher. Electricity has moved from a novelty, to a luxury, to an essential service. This Saturday, August 14, will mark one year since the blackout that cost the US and Canadian economies over \$12 billion in losses, plus some loss of life. It proves the obvious: Electricity is an essential service.

Some lessons learned from that tragedy have been implemented. Sadly, not enough has been done to prevent a reoccurrence. We are painfully aware of some weaknesses in the electricity system that could bring down that system again. While the chances of reoccurrence are low, that impact is very high.

Our knowledge of system weaknesses in the hands of terrorists could significantly increase the risk. Fortunately, the steps to substantially reduce the risk are easy to implement. Regrettably, the political will to implement improvements is non-existent or buried under bureaucratic procedural processes.

Our companies, Thermion and Terra Power Systems, are here today to provide some advice. We have technology that can improve system security and help to reduce costs. Our recommendations have been made before the OEB, the IMO and the MOE. The message is consistent: People are just not interested in demand-side alternatives.

Our solutions are prejudged to be either too expensive or unworkable. At the IMO, we encounter a cavalier attitude that the supply side rules and that demand response will distort the market and market forces. I suppose that lower prices, and more predictable demand profiles are considered market distortions. The added bonuses of our technologies are better use of existing resources and increased system security and reliability. None of these added values are reflected in the current electricity pricing structure.

Looking at our technology is like looking at a bicycle shop to build an airplane. You could not possibly look at the Wright brothers' first flying machines and see a jumbo jet or the space shuttle, yet they all use the same patented Wright brothers' technology. If you looked at our patent-pending, load-control technology, you will not at first see a 1,000-megawatt solution like you can clearly see in the refurbishment of the nuclear plant at Pickering at a cost of billions of dollars.

In our solution, you will see 100 kilowatts of load control or load shifting at each site. But if you multiply the effect over hundreds of arenas, municipal pools, government buildings and municipal offices, the megawatts add up quickly. Some of our solutions have been offered to the government at no cost. We are having a hard time getting people at ORC or utilities to even return our calls.

What is our suggestion for Bill 100? Act now. Stop wasting our tax dollars on US consultants. We have Canadian know-how and Ontario companies with products that can lead to a better and more secure electricity future now, not next month nor next year.

Not all solutions are found in the United States. McMaster University is looking to set up a demand response centre like the one funded by the California Energy Commission at the Lawrence Berkeley National Laboratory, the Berkeley Lab. We can't even get the government to co-fund a workshop on the idea to discuss their proposal with Ontario stakeholders.

I wish I could give a more positive response. We have been told to wait for the implementation of Bill 100 and the direction from the Ontario Power Authority or to go and see someone else.

Our message is simple: Equal pay for equal performance. Most only see more supply and more transmission as long-term solutions to the current crisis. Demand response in all its forms can provide short-term relief and long-term reliability.

It has been said that if we don't learn from our mistakes, we are bound to repeat them. Let us learn from the blackout of August 14, 2003, and make better and more efficient use of the electrical resources in the province of Ontario.

**The Acting Chair:** Thank you. We have five minutes, divided by three.

**Ms Churley:** Thank you very much for your presentation. Can you just describe a little bit more fully what technology you're offering?

**Mr O'Connor:** There's more than one kind. Thermion, which Richard represents—he has one sort of technology. Maybe he could speak to that a bit.

**Ms Churley:** We only have a couple of minutes.

**Mr Richard DiMarco:** Just quickly, we are a manufacturer based here in Ontario, north of Toronto; in Concord, actually. We are presently manufacturing an electric thermal storage system to be used in demand-side management technologies, in the sense where we use this equipment to store energy during off-peak hours, to be used during the day during the on-peak hours. We have a lot of difficulty trying to implement these products in this province based on the way the electricity market is structured at the moment.

**Ms Churley:** So you're here today to ask the government—first of all, you're looking for a meeting, and you haven't had that opportunity but, secondly, you need some amendments and changes to the system so you can get in the market. Is that what you're saying? I'm not clear.

**Mr DiMarco:** As a manufacturer, we're looking for a proper market so that our products are feasible. There's no use making them if nobody's going to buy them.

**Ms Churley:** I see.

**Mr DiMarco:** I read Bill 100—not the whole thing—and I like the changes that are being made, because in the past we've had a lot of difficulty trying to get the IMO and other government agencies to work with us.

**Ms Churley:** Is there a prototype being used anywhere in other jurisdictions?

**Mr DiMarco:** Not at the moment, no. We're concentrating on this market.

**Ms Wynne:** I just wanted to clarify that last comment you made. You've read Bill 100, you're happy with some of the changes, so I guess I'm just looking for what it is exactly in the bill that you're not happy with. There was definitely some disgruntlement, and I just need some clarification on your concerns or the areas in the bill that you want amended or you think should be changed.

**Mr DiMarco:** The position we're in right now—we'd like to have seen these changes years ago.

**Ms Wynne:** The best time to plant a tree is 40 years ago, right?

**Mr DiMarco:** Right.

**Ms Wynne:** We agree with you. However, here we are.

**Mr DiMarco:** Here we are. I wish there was some way we could act now. How long is this process going to take before all these changes are made? It could be a couple of years, and the problems are not going to go away.

**Ms Wynne:** I don't know if the parliamentary assistant wants to say anything, but my understanding is that we're trying to move ahead as quickly as we can. Yesterday a group came to us and said we were moving

too quickly. So we're trying to move as carefully and responsibly as we can. You're generally saying you like the direction we're moving in and you would just like us to go faster. OK. Thank you.

**Mrs Cansfield:** Very quickly, on September 8 we will be holding an industry forum for stakeholders like yourself—you'll get an invitation—so that you can have folks look at your technology. But I agree with you, it appears to be slow. It's frustrating: You need a rate change in order to store, but there's no point in storing something if the price is the same. So I understand and share your frustration. You've been in my office, I know. I also know that you have some extraordinary entrepreneurial and innovative things to offer. We all know it should have been done yesterday. So we're with you on that.

**Mr DiMarco:** I appreciate that.

**Mr Arnott:** Like Ms Churley, I'm fascinated by the discussion of your technology and I'd like to hear a little bit more about how it works. It's like an elaborate battery, I gather, is it?

**Mr DiMarco:** Basically it uses a phase-change technology. We use a medium that can change phases between solid and liquid. We store heat during the phase-change process and release that heat from a liquid back into a solid during on-peak hours. This is used primarily for heating. We are also working on cooling technology. It would take that electrical load off the grid. Maybe for one house, it won't make much of difference, but we estimate if there are 200,000 units, you could be talking about 4.3 megawatts of power, something along those lines.

**Mr Arnott:** Do you have a working prototype?

**Mr DiMarco:** Oh, absolutely. We have approached, and we are getting another meeting with, the ORC. We would like to start with government buildings, public property, because they not only have a financial issue, but there is also social responsibility. Whatever power they take off the grid means there's more power for everybody else. So by shifting the loads in government buildings, it leaves more power for everybody else, without having to generate more.

**Mr Arnott:** From what you've told me, it sounds like you've got an exciting, innovative technology that's in sync with what the government is saying needs to be done. I certainly wish you well as you continue to—

**Mr DiMarco:** And we're working with Terra Power. They have the control system and we have the actual hard product to work together to try to move forward with demand side management.

**The Acting Chair:** Thank you very much for being here, on behalf of the committee. We appreciate your comments.

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DAVID SUZUKI FOUNDATION

**The Acting Chair:** Our next speaker is Mr Alex Boston from the David Suzuki Foundation. Alex, you have 15 minutes.

**Mr Alex Boston:** You bet. I'll just circulate my submission.

Distinguished members of the social policy committee, it's a real pleasure to appear before you. I think it's only appropriate that these proceedings happen within a couple of days of the first anniversary of the greatest electricity crisis in North America.

The August 14 blackout of last year is a testament to the vulnerability of a system dependent on large, costly, centralized electricity plants. These plants are part of an expensive and increasingly fragile transmission grid still struggling to meet growing electricity demand. The blackout occurred, it is no coincidence, on a hot summer day with industry, business and residential power operating almost at peak demand. The public health toll that characterizes such days is very clear. Government has consistently failed to consider such social and environmental costs in electricity planning.

A great sage once told me that there is just one mere brush stroke of difference between the Chinese character of "crisis" and "opportunity." I consulted with a linguist friend of mine who is also Chinese, and he says it's utter nonsense, but I think it's nevertheless an important consideration that we can create opportunity out of crisis, and that informed leadership can take advantage of this opportunity.

Ontario has an unparalleled opportunity also to reduce the province's and the country's greenhouse gas emissions, addressing one of the most urgent crises facing humanity in the 21st century. Ontario can join other foresighted jurisdictions around the world in demonstrating that environmental sustainability, health protection and a competitive, efficient industrial economy need not be balanced off one another, that in actual fact these agendas must be simultaneously pursued to protect the interests of present and future generations.

Fortunately, the federal government is currently recognizing that it is deeply concerned about our non-performance in meeting our Kyoto objectives, and there are unprecedented signals that there is an interest in specifically using efficiency and renewables as a central part of the strategy to achieve our Kyoto targets. I think there is a unique opportunity for Ontario to take advantage of this interest.

The Electricity Restructuring Act is making small steps in the right direction, specifically with the stated intention of treating electricity generation on par with conservation and efficiency. However, the act as it currently stands threatens to entrench similarly unstable, centralized, expensive systems that are very fragile and clearly part of the problem of last year's blackout. To ensure that Ontario's electricity system is improved, the act must make health protection and environmental sustainability a guiding principle.

Specific provisions are required to adequately support the development of renewable energy. The distributed nature of renewable energy technologies offers the most reliable and cost-effective source of new energy. Jobs and revenue-generating streams would be created

throughout the province. Ontario is ideally situated, with its workforce and industrial base, to take advantage of the potential to develop a meaningful renewable energy industry right here in the province for domestic and international market opportunities.

I would like to commend the committee for the thorough consultations it is engaging in. We really appreciate the opportunity to appear before you.

On page 2, as I mentioned, the greatest oversight I think is the absence of any guiding principle to public health protection and environmental sustainability. One can see in the act's purposes and the objectives of the OPA and the OEB that there is no reference whatsoever to the importance of protecting public health and the environment. Given the impetus of the incredible public health costs to the commitment to phase out coal, that should become enshrined in the legislation in those particular stated places.

Furthermore, the opportunity for both efficiency and renewables to create community economic development and industrial development opportunities in the province of Ontario is enormous. Specifically in terms of community economic development, there is job creation, new revenue streams—the re-spending effect from energy savings. It's only appropriate that, since this restructuring process will involve investment by all Ontarians, communities right across the province should benefit. These valuable benefits are not acknowledged in the act and will only be fully realized if they are articulated as goals and objectives throughout the relevant parts of the act; specifically, the act's purpose and the objectives of the OPA and the OEB.

Moving on to page 3: While there is some recognition of the important role of renewable energy, there is no recognition within the act that mechanisms that renewable energy has unparalleled opportunities and unparalleled benefits to achieve Ontario's electricity needs. Certainly there's a recognition that conservation and efficiency will play a role, and that's of primary importance. Renewables is a complementary strategy, and the full development of Ontario's abundant renewable energy resources is only possible with specific mechanisms.

When we take a look at the specific benefits of renewable energy, there's increased system reliability. There's a recognition by the McGuinty government and the Ministry of Energy that distributed energy offers significantly greater security benefits to the province of Ontario, but nothing in the act ensures that there will be significant deployment of renewables. The health benefits are clear. I've already mentioned the community development benefits. Figure 1 on page 3 clearly outlines what the job creation opportunities are of deploying, operating and managing various renewable technologies, in contrast to conventional natural gas.

In terms of institutionalizing the commitment to sustainable energy overall, what is absolutely critical is that there be some kind of mechanism. The proposed conservation bureau attempts to do this with efficiency

and conservation. What we are recommending is that the conservation mandate be enlarged and that it become a sustainable energy bureau. The sustainable energy bureau must be positioned centrally within the machinery of the OPA so that conservation, efficiency and renewables, the very essence of a robust electricity system, are the priorities that shape the entire agenda of the OPA. This sustainable energy bureau would have the authority and practical tools to influence the operation of the entire electricity system.

Specific mechanisms for advancing renewable energy implementation: On August 9, Minister Duncan emphasized to this committee, “There’s no doubt that this legislation and its technical regulations are very complex. Very simply, we want to ensure that we get it right the first time....”

“Our desire is to help Ontarians unlock the potential for efficient electricity generation that is around them. We will remove barriers, free up resources, and bring new thinking and new ideas to the challenges that lie before us.”

It is in the spirit of these remarks that decision-makers could benefit from examining innovative thinking in the countries leading on renewable energy deployment around the world. For example, Germany and Spain do not have exceptional wind resources whatsoever, or large territories, but they have nevertheless become world leaders in wind deployment in less than a decade. Germany is also a world leader in solar technology and sustainable biomass technologies. Last year alone, Germany deployed more than 2,500 megawatts of wind; Spain, close to 1,500. Spain is a relatively late starter in the wind deployment challenge. Specifically, what Germany and Spain have used are renewable energy tariffs, which I understand the committee has already been made aware of.

1430

Work that we have commissioned to be released early this fall concludes that, based on the European experience, Ontario could install as much as 8,000 megawatts of wind-generating capacity alone by 2012. A fleet of wind turbines of this magnitude could generate 13 terawatt hours annually, or about 9% of current consumption. This fleet of wind turbines can be supported in Ontario with existing hydroelectric facilities as backup. Using the same assumptions as a recent economic impact study for Quebec, this 8,000 megawatts of wind capacity could produce \$14 billion in economic activity and 97,000 person-years of employment. This is the most cost-effective and reliable approach to meeting new electricity supply requirements.

Furthermore, our analysis also illustrates that there are tremendous resources in the form of low-impact hydro, sustainable biomass, solar energy and geothermal pumps. What is needed, however, is practical policy mechanisms. Specifically, once again, the act should provide for the negotiation of stable, advanced renewable energy tariffs to identify specific electricity generation payments for each renewable energy option and also facilitate the

right for renewable energy generators to connect into the electricity grid.

Page 7: I just would like to make a couple of references to the limitations of large-scale natural gas. We acknowledge it can play a role in distributed, efficient combined-cycle turbines, but there are also many implications. The contribution of natural gas to climate change is significant. A full life-cycle analysis shows that greenhouse gas emissions from natural gas are anywhere from 35% below to 25% above those of coal power, depending on the study. Natural gas prices have moved from \$2 per 1,000 cubic feet in the 1980s and 1990s to around \$3.50 to \$4 per 1,000 cubic feet. There’s a recognition domestically and in the US that Canada only has nine years of production of natural gas unless new reserves are discovered. Natural gas has an important role to play, but investing heavily in natural gas creates huge implications in terms of infrastructure renewal in the future.

I’d like to just close my remarks by tabling with the committee two reports: Bright Futures, which we published in the wake of last fall’s electricity blackout, and Kyoto and Beyond. Most notably, the two chapters that are relevant there are the chapters on residential, commercial and institutional building opportunities for advancing efficiency and conservation. Thank you.

**The Acting Chair:** Thank you very much, Alex. We have four minutes left. I will start with the government side. Any questions?

**Ms Wynne:** Actually, yes, I’ll ask a question. The wind issue: One of the things we’ve been told is that the wind in Ontario isn’t located—in Germany it’s located better. It’s easier to get at the wind in Germany and it’s more consistent than it is in Ontario. You’re saying 8,000 megawatts; that’s a big number.

**Mr Boston:** Yes, 8,000, and that’s concentrated predominantly in southern Ontario.

**Ms Wynne:** OK.

**Mr Boston:** With convenient access to the grid.

**Ms Wynne:** Because that’s the other issue in Ontario, the distances that are different from European countries, right?

**Mr Boston:** Yes, but the feasibility study that we have done is very conservative, and we’re quite confident that 8,000 megawatts is possible by 2012. But what is required most significantly is advanced renewable energy tariffs to provide long-term stability for renewable energy investors in this province.

**Ms Wynne:** It’s great news that we can get that kind of energy out of wind. We hear different stories about what’s possible and what’s not. Thank you very much.

**Mr O’Toole:** I wouldn’t disagree with many of the observations; the conclusions perhaps add some uncertainty, again, to the natural gas argument, which we heard earlier today. The supply argument is out there and it’s all predicated—in other words, the supply of gas at what price is really the issue here. You’re right: If they jump to that quick-term solution of building that natural gas infrastructure, we’re locked in; we’ve made the

decision. It would outline one of the renewables we're talking about here: the wind.

Displacing the 25% with 7,500 megawatts of coal is problematic. Even if you look at the 8,000 wind turbines you're suggesting, at about \$1.5 million per megawatt, to replace that it's about \$11 billion in wind turbines, many of which will not be tied or related to the transmission grid. So there's a whole other part of this equation of getting the electrons to the grid.

I agree with the displacing of the coal solution as quickly and efficiently as possible and a mix of generation capacity. Would you in all cases say that they should re-examine the 2007 mandate to get rid of the coal, or should they, when they can add generation, take coal off? Do you think they should forget the ideology of the 2007 date and say, "Here's 2,000 we're taking off from Nanticoke. Here's how we're replacing it. Here's the grid?"

**Mr Boston:** I think with clear leadership from this government it is possible to meet the 2007 target. But what is required is a firm commitment to conservation and efficiency, and I echo the remarks of many speakers who have preceded me. Most important are specific mechanisms within the act to provide long-term security for the deployment of renewables. The current targets are inadequate, and there isn't a mechanism.

**Mr O'Toole:** What would the renewable portfolio standard be, in your view?

**Mr Boston:** The renewable portfolio standards haven't proven as effective as advance renewable energy tariffs. That is what the mechanism that has—

**Mr O'Toole:** Which is a higher price, really.

**Mr Boston:** Which is a guaranteed price contingent on where the renewable energy is generated in the province, and that's where you get the distribution. So higher prices are afforded to areas where the resources are somewhat weaker, and guaranteed access to the grid. That's what Spain has used, that's what Germany has used and that's what Denmark has used.

**Mr O'Toole:** Spain and Germany's baseloads are from France.

**Mr Boston:** The convenience in Ontario is that our baseload is hydroelectric capacity. That's what can back up our renewables.

**The Acting Chair:** Marilyn, go ahead and ask your question.

**Ms Churley:** I wish I had more time, but I don't, so I'm going to focus on gas for a sec. Do you think it's possible to not proceed with nuclear power, close down the coal plants and move forward without building new gas infrastructure, without using gas as transition at all? If you don't think that's possible, how far do you think we should go in terms of gas as transition?

**Mr Boston:** I don't think any large-scale gas plant whatsoever should be built in this province. Natural gas has an important role to play in distributed combined-cycle operations, and I think that's the only role natural gas should play. There should be a commitment to phasing out nuclear power by 2015.

**Ms Churley:** Tied to it, and the coal plants tied to the building. By combined cycle, you mean cogen?

**Mr Boston:** Correct.

**Ms Churley:** Right. But, otherwise, if there is no cogen attached, it shouldn't be done at all.

**Mr Boston:** It shouldn't be used. What we have to make sure of is that there is a responsibility to the taxpayers of this province. The volatility and the rising price of natural gas, which is recognized by the oil and gas industry, isn't something that Ontarians should be heavily investing in whatsoever.

**Mr O'Toole:** Could I ask research a question on the supply of natural gas? I've heard a wide range of experts telling me that we have nine years to 900 years. Could we get some kind of definitive research on the availability and at what price?

**The Acting Chair:** We'll do that.

**Mr McMeekin:** I'd like to get some figures too about the amount of money that has been poured into the nuclear side of the energy equation and to what extent that's a portion of the stranded debt. I'd like to see that, because there's a lot of this either-or choice. We're hearing about freeing up the market. We're hearing that you do some creative regulatory tariff stuff to enable the green side. I heard Mr O'Toole use the word "subsidy" there, wind energy. It would be my thinking that—

**Mr O'Toole:** That's what a tariff is.

**Mr McMeekin:** Well, I think if we were to look at the kind of investment we made on the nuclear side, I'd submit it's a question of values, and I'd like to see some of those figures.

**The Acting Chair:** We will do that. OK.

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#### PEMBINA INSTITUTE FOR APPROPRIATE DEVELOPMENT

**The Acting Chair:** Our next presenter is Mark Winfield from the Pembina Institute.

Are you all set, Mark?

**Mr Mark Winfield:** Yes, we're ready to go.

**The Acting Chair:** You have 15 minutes.

**Mr Winfield:** My name is Mark Winfield, and I'm program director with the Pembina Institute for Appropriate Development and also director of the institute's Ontario initiatives.

The institute is a national, independent, not-for-profit environmental and energy research and education organization. It was founded in 1984 and now has offices in Calgary, Edmonton, Vancouver, Ottawa and Toronto.

We've taken a strong interest in electricity policy issues in Ontario over the past couple of years, and the institute is co-publisher with the Canadian Environmental Law Association of Power for the Future, the report attached to our brief which investigated the potential contributions of energy efficiency and low-impact renewable energy sources to Ontario's future electricity system.

In developing Power for the Future, we used a sophisticated computer model developed by the energy and materials research group at Simon Fraser University to investigate the potential contributions of energy efficiency to the province's future electricity supply. What we found was that a 40% reduction in electricity consumption against business-as-usual projections was possible over the next 15 years using cost-effective technologies available today. We also found that efficiency was a very good economic choice, that consumers would recover 96% of their investment in efficiency measures through long-term energy savings.

On the whole, we found that, through a combination of efficiency measures, new low-impact renewable energy sources, supplemented by new combined-cycle natural gas generating facilities, it would be possible to complete a phase-out of the province's coal and nuclear powered generation facilities by 2018.

These findings inform our comments on Bill 100. In passing, I would like to mention that we welcome the government's decision to ask the committee to look at the bill before second reading, which allows us to address it more at a conceptual level, rather than having to deal with the minutia of the provisions at this stage.

Our comments on the bill are focused in two areas: (1) how the bill defines the overall goals of Ontario's electricity system; and (2) the level and the nature of the policy direction given through the bill to the key actors in the system, particularly the proposed power authority, the independent system operator and the Ontario Energy Board.

With respect to system goals, we are surprised, given the widely recognized impact of the electricity sector on the health and environment of Ontario residents, that there are no references contained in the bill to the protection of public health and the environment as goals of the electricity system to be developed by the power authority and approved by the energy board. The goals of the protection of public health, safety, security and the environment should be reflected in the "Purposes" section of the bill and in the mandates of the institutions created or affected by it, specifically the power authority, the system operator and the energy board.

Secondary concern is around the electricity system design. The government has repeatedly highlighted its commitment to both energy efficiency and low-impact renewable energy sources as key parts of Ontario's future electricity system. We are again surprised that this direction is not reflected in Bill 100. In fact, we note that Bill 100 proposes to remove the references to the promotion of energy efficiency and clean and alternative energy sources from the mandate of the Ontario Energy Board.

In our view, Bill 100 should reflect a hierarchy of maximizing opportunities for energy efficiency first, followed by maximization of opportunities for renewable energy sources and then finally meeting remaining grid demand through the least-cost-and-impact non-renewable sources available. These directions should again be incor-

porated into the "Purposes" section of the bill and into the mandates of the power authority and the energy board.

The overall conceptual approach that we're proposing is shown in the graphic on the last page of our submission, which shows at the top the overall system goals we're describing: adequacy of supply, reliability/quality of service, protection of health and environment, long-term economic sustainability and social sustainability; and then within that framework of goals, the hierarchy of maximizing the technically and economically feasible efficiency options, followed by the maximization of the potential contributions for low-impact renewable resources; and then, finally, employing the least-cost and lowest-impact non-renewable supply to meet the remaining grid demand.

Our overall concern is that without much stronger direction in the bill, the effect of Bill 100 would be to direct the OPA and the energy board toward the maximization of conventional non-renewable supply, with limited regard for the environment and public health, and only marginal pursuit of efficiency and renewables. Such an outcome would not result in an electricity system that is economically and environmentally sustainable in the long term, and therefore would not serve the best interests of Ontarians.

I'd be pleased to answer any questions that you have.

**The Acting Chair:** Thanks, Mark. We will start with the opposition.

**Mr O'Toole:** Yes, thank you very much. I apologize; I was a little bit distracted during your presentation, but I did get the general gist of it, that the idea here was to rid ourselves of reliance on our traditional sources of generation, which were base nuclear and peaking with fossil.

**Mr Winfield:** Particularly coal, yes.

**Mr O'Toole:** Yes, particularly coal.

You're an economist, and I'm sure you've been paying close attention to the natural gas debate. I've asked research to bring some certainty to that debate. Do you have any sense that a strong reliance on natural gas is the solution in the short term? The second part to that would be bringing renewables on without some sort of tariff, which is really a subsidy. Would you address that in a general sense as an expert in the area?

**Mr Winfield:** On the gas side, certainly one of the results that we found out in the modelling was that you did get a bit of an increase in gas consumption for co-generation purposes and also as part of the substitution of electric hot water heating.

We had a pretty good look at the long-term projections around gas, both in terms of what's come out of the National Energy Board and also out of the CASA process in Alberta that the Pembina institute participates in. A couple of things came out of that. One was that the projections seemed to be that we were OK within the time frame that we're looking at in terms of overall supply. What we are definitely looking at is an increase in price. You'll find in the report the projection that was

produced for CASA that lays that out. Indeed, the modelling we did does build in the EnerCan and National Energy Board assumptions about what's going to happen with natural gas prices.

We are seeing gas as a transitional fuel, but we're very sensitive to the issues about supply and price stability. There are a number of things that can be done to hedge that in terms of long-term supply contracts. It has also been suggested to us that we may have actually underestimated the potential contributions of wind, for example, or from things like solar hot water heating, which, again, would reduce the stress on the gas supply.

On the renewables question, there are a number of different ways of doing this. The feed-in tariff is one possibility. Another one is simply a straight RFP, where you set a target and say, "We need this many megawatts by this date," and see what comes in in terms of price. Effectively, to some degree, you are assuming that you may need to subsidize the price at the margin.

You'll see in the report that we did some tables which actually showed the prices of the different forms of supply, as best as we could determine from the information that was out there. In fact, the gap between wind and other sources of supply was actually not as large as some people would suspect. But it may be that some sort of mechanism in the short term may be necessary to get that moving.

The critical thing that the wind folks said to us, especially, is that what you need is to get to a large enough scale of operation in Ontario where you actually get a manufacturing operation happening here. That would help them a lot, in terms of both costs and being able to predict their prices, because they're saying to us, "One of our problems is, we get killed on foreign exchange because we have to import all the equipment." So it's a question of getting to a critical mass.

**Mr O'Toole:** The infrastructure as well is important, both for natural gas and wind.

**Mr Winfield:** Yes—

**The Acting Chair:** Let me just stop there. I apologize. I want to make sure everybody has the opportunity to ask questions.

1450

**Mr Hampton:** Some people have been critical of your report, which your views here are based on in terms of your emphasis on energy efficiency, energy conservation. I've heard people say to me that all the low-lying fruit has been picked; anything more to be done on the energy efficiency side is going to be very difficult. How do you respond to that?

**Mr Winfield:** I think the short answer is that that does not seem to be the case. What we asked the folks at Simon Fraser University to do was to investigate very specifically what the potential was, and they did that in terms of two things: What are the available technologies—and we've said that that meant commercially available, not things that are on a lab bench; it meant things that are actually in the marketplace now—and we also built into the model consideration of the actual price

of electricity and therefore the economic attractiveness of the investments. Based on those two considerations, what they came up with was the 40% potential as being both economic and technically feasible.

What goes into the model is all based on the StatsCan and EnerCan information on current energy use patterns, which is quite detailed in terms of actual end uses. What we found was that the critical barrier is that although these investments are economic in the sense that they will pay for themselves over time, the problem is that the potential investors are unwilling to tolerate the payback periods you need to endure in order to recover your investment. Typically they're looking for a payback of a year or two years, and in fact what you need to be willing to tolerate is a payback of more like maybe five, six, seven years. We assumed that you could address that problem, and once you can overcome it, that's when you start to get the kinds of numbers we produced.

**Mr Hampton:** So how do you overcome that? What things can government do?

**Mr Winfield:** The crucial thing is that you need to find a way to allow for potential users of these technologies to realize the savings sooner. So you need to have some sort of financing mechanism that pays the upfront difference in the cost between the efficient model of a light bulb and the conventional model, and then lets them pay that back over time out of the savings they're achieving in the long term. That's fundamentally the mechanism you need.

There are all kinds of different ways you could do it. One of the things, following on from Jack Gibbons's suggestions, is that if you can structure the rate system in a way that you give the individual utilities incentives to do that, they may be willing to step forward and provide the financing to allow those kinds of programs to unfold.

**Mrs Cansfield:** I'd like to raise the question around the OEB. We've heard from a number of folks about taking away the conservation initiatives. Part of the responsibility of the OEB is consumer protection and its regulatory processes. The intent was to take away that particular initiative around conservation because there's going to be the establishment of a conservation bureau, and in fact to give the teeth to it so there isn't that crossing out of the mandates that we heard someone else speak about. It's interesting that I've heard very few people, although they're strong on conservation, speak about the impact, the significance, the board of directors, the governance, the teeth in the conservation bureau itself, as if it doesn't exist, and yet it is very much so in this bill. So I'm curious as to why, Mark, you haven't spoken about it, or why you feel it's so important that both of them have the same initiative.

**Mr Winfield:** I think what one wants to be doing is reinforcing certain messages. The subtext of what we're saying is that our concern is that, in the absence of a much stronger legislative direction at both the purposes level and at the individual institutional mandate levels, there is a very real risk that the conservation bureau will be marginalized in the overall scheme. As our reading of

the overall bill stands now, the power authority seems to be given a mandate that is really quite risk-averse, and this has been reinforced in various discussions we've had in terms of the reliability and adequacy.

Our concern is that there's a real risk there of a kind of technological tunnel vision. There's always a risk with technologically oriented institutions to begin with, but I think if you're doing that, you reinforce that risk. Therefore, it's very important that the Legislature send the message very clearly, both at the overall purposes level and in all the individual institutional mandates that set this direction, that says we want to see efficiency first, we want to see renewables there. Otherwise, I do think there's this real risk of marginalization.

**Mrs Cansfield:** It would be helpful if you would consider putting in writing how we could go about doing that in terms of strengthening that regulation. If you want to give the authority to the conservation bureau and to ensure that it does have a strong mandate that people will take notice of, it would be helpful if you could do that for us, if you could get that to us, Mark.

**Mr Winfield:** Yes. I think our brief touches on that in a preliminary way.

**Mrs Cansfield:** It does, but it doesn't give us specificity. That would be great.

**Mr Winfield:** Yes, OK.

**The Acting Chair:** Ted, do you have a three-second question?

**Mr McMeekin:** I found your comments helpful. It appears to me that consumer protection can't be divorced from conservation. It's part of the focus you're challenging us to look at.

**Mr Winfield:** Yes, it's—

**The Acting Chair:** Thank you. We are out of time. I appreciate it. Thank you very much, Mark.

#### CANADIAN CHEMICAL PRODUCERS' ASSOCIATION

**The Acting Chair:** Our next presenter is from the Canadian Chemical Producers' Association. It's Norm and David. You have 15 minutes. Do you want to just introduce yourselves?

**Mr David Podruzny:** My name is David Podruzny. I'm with the Canadian Chemical Producers' Association.

**Mr Norm Huebel:** My name is Norm Huebel. I'm also with the association.

**Mr Podruzny:** I'll try to keep my opening remarks brief, but I do want to put in some context. We have provided a submission, which I believe you already have in front of you, for reference purposes.

Ontario's chemical industry represents about \$9 billion in production of basic chemical and resin manufacturers, and we are the basis of a broader \$21-billion chemical manufacturing sector in the province. Some 70% of our production is exported; 86% of that is going to the United States. We are an important contributor both in terms of taking energy and converting it into high value-added products and in providing products for

downstream sectors such as automotive, agriculture, food processing, information and communication technologies.

Electricity is an important component in the competitiveness of our sector. I want to emphasize two areas in particular, the first being our global competitiveness and, second, I want to spend a couple of minutes discussing cogeneration or combined heat and power or distributed generation. It's got different names.

Electricity costs represent between 60% and 80% of the variable manufacturing costs for the inorganic chemicals component of our sector. They are key suppliers to the pulp and paper industry. It has a similar importance and component of operating costs in the compressed gas manufacturers' subsector. The electrochemical industry is well suited to play a role in DSM but we don't believe they could do that through the LDCs process. The petrochemical operators, where electricity is maybe only 5% or 10% of variable operating costs, represent an important—it has to be a stable electric power. Even cycle shifts will cause a plant to shut down, incurring large start-up costs and increasing health, safety and environmental risks.

On the matter of competitiveness, Ontario has a small and open economy. We have the ability to bring products into the province from outside the country. We have to be competitive to thrive. Cost matters. Electricity is an important investment and profitability factor for each segment of our chemical sector. Ontario is competing for investments in the industrial chemical manufacturing grouping, specifically with Alberta, Quebec and Manitoba in Canada, and with US locations in Texas, Louisiana and Georgia.

In the past, investment in Ontario has been predicated on available, low-cost, dependable electricity. Some companies have already told us that the total delivered price today of around \$60 a megawatt hour puts us out of the competitiveness game. Bill 100 is going to require some careful implementation to provide electricity at price levels that maintain Ontario's industrial base and allow it to expand.

#### 1500

On the issue of cogeneration, cogeneration systems generate electricity and useful thermal energy in a single, integrated system. They use, in our case, natural gas, while producing more usable power and steam. They use net less gas than separate operations and they reduce net greenhouse gas emissions. Ontario's chemical manufacturers rely on cogeneration. They require the steam. It would have to be produced through boilers separately otherwise. There are policy barriers to cogeneration that will need to be addressed if this efficient power conversion source is to realize its full potential in Ontario. The sad reality of cogeneration in Canada is that while it's about 7% of the total, its use is going down rather than going up.

If Ontario is going to deliver the power it needs at competitive rates, we believe you must retain all options for generation. That includes clean coal technology and

nuclear. We believe that reasonable performance standards need to be set and then technologies can deliver solutions. We would urge you not to find the solutions in advance. Clean coal technology is available and operating in Europe. Ontario can show some leadership in North America by setting some reasonable emission standards. We believe the 225,000 megawatts of power that's coal-fired in the United States could stand some improving, and we think Ontario could show some leadership there.

We believe there is supply uncertainty. We believe there is concern that costs will be high and there is concern over a lack of process clarity in the bill. It's enabling legislation. There's a lot of uncertainty about where we're going.

But I guess our bottom line is that, as an industrial chemical industry, we need stable and reliable power and we need a competitive system. Bill 100, with its hybrid approach, if it's successful, might well deliver that. In our view, it must deliver that. We don't have an option. We must remain internationally competitive because we are unable to increase our prices because the competitors south of the border or further south of the border can deliver the same products we're producing here. Thank you very much.

**Mr Huebel:** I guess I'd just like to add one thing too, listening to what some of the previous people were talking about. I get a little bit concerned—my wife says, "Get to the bottom line," and I'll get to the bottom line—when I hear people talk about phasing out coal at four and five cents a kilowatt hour, phasing out nuclear at two and three cents a kilowatt hour and replacing it with renewables that have been quoted anywhere from eight to 12 cents a kilowatt hour. I really question from an industry competitiveness point of view and even from that of a homeowner, a taxpayer and a voter, who's going to pay that increased cost.

**The Acting Chair:** Thank you very much. We will start with Mr Hampton.

**Mr Hampton:** Earlier today, we heard from representatives of the mining industry, the pulp and paper industry and the steel industry, and the point they collectively made was they looked at the sort of bundle the government is proposing—mind you, it's not a clear bundle yet—and said they thought this would increase electricity prices by between 30% and 50%. The representatives of all three industries said that was a major problem for them. Have you done your analysis? Can you share it with us? What does that mean for your industry?

**Mr Podruzny:** I didn't bring the numbers with me or, if I have them, it might take too long to find them. As I understand it, since market opening in 2002, the prices have already gone up 30%. The analysis—and I don't know if this was the AMPCO group you're referring to—

**Mr Hampton:** Yes.

**Mr Podruzny:** Their analysis, which we shared—and our members participated in some of the surveys—suggests a further increase of anywhere from 30% to 50% from today's prices. Ontario is at least in the top

quartile. I don't think we're overall winners, but our prices in North America are maybe third or fourth from the top already. If we're heading toward doubling those prices again, I think we've got problems as a manufacturing province. There are certain kinds of operations and certain amounts of overhead that you can eat, and certain amounts that you can't. We're not so concerned today about existing facilities as about our ability to attract growth and have good opportunities for our children as we move forward.

I should have mentioned too that there is quite a debate around natural gas. I would suggest that maybe, in analyzing the overall North American ability for supplying incremental natural gas, we make the point that it's not a silver bullet. North America has been increasing its demand for natural gas faster than its supply. I think there's a capacity to bring natural gas in from offshore, but it will pose some serious problems to Canadians to accept those kinds of delivery systems, and I think that could be an infrastructure issue.

**Ms Wynne:** I just want to make a quick point, and then I do have a question. I guess when you talk about the cost of coal-generated energy, one of the underpinning principles we're operating on with this bill, and with our energy policy in general, is that you look at the whole cost. We've got to look at the cost to kids who have asthma; we've got to look at the cost to the health care system. I think we could have that discussion, but that is one of the underpinnings of the direction we're going in.

You talked about some barriers to cogeneration. Are you talking about specific barriers in your industry? Is there something specific that you wanted us to know about your particular industry? Can you clarify that?

**Mr Podruzny:** We have a discussion document on cogeneration. We also have a short, two-page document on cogeneration and some of the policy issues that are barriers to development of cogeneration.

One thing to think of when you talk about cogeneration or local distribution and generation is that it's a small business. When that group goes up against OPG or Bruce Nuclear, they are a small business. The overhead to deliver the kind of paper burden and paper trail and guaranteed operating rates and all that sort of thing—when you compare them to a cost-plus construction company that's underwritten by the government of Ontario, these small entrepreneurs cannot meet those kinds of overhead. So there needs to be some consideration given to cogeneration. We think it needs to be incented.

**Ms Wynne:** OK. Have we got the papers you referred to?

**Mr Podruzny:** I will make sure this committee also has it. I have passed it on to the government, but I will make sure this committee gets it.

**Ms Wynne:** That would be great.

**Mr O'Toole:** I appreciate your presentation. It does reinforce what we heard from AMPCO this morning, that we can expect higher prices, according to the way Bill 100 is currently structured.

I'm reading an article from the Sarnia Observer of July 8 on the cogeneration facility built by, I believe, Imperial. It's natural gas cogeneration, electricity and steam. It's not operating. In fact, the article says it costs more to produce electricity and steam through cogeneration than to purchase the electricity from the power grid and produce the steam in boilers.

There's also the argument on this whole supply thing. We've asked every presenter to say what the number is. If you were to make investments today, as you are indicating by your discussion with Ms Wynne, is there enough certainty in price and availability? You have to have pipelines to get the gas here, and they aren't in place. That's a federal issue, and that will take 100 years with all the environmental issues. Is there enough certainty for you to build cogeneration? To replace coal by 2007, we've got to build a pipeline across Canada. If they go to natural gas, everyone who knows anything about this topic says that natural gas will come to market at seven or eight cents, which you just said will put you out of business; therefore, you won't have anybody to use it or pay for it.

1510

**Mr Podruzny:** I'm not aware of any combined-cycle gas turbine operators, including cogeneration operators, who are very happy to be operating today. By and large, natural gas-powered electricity is on the margins. Over half the time in this province, it's the coal-fireds that set the price. Natural gas cogeneration—and a lot more than just the one you've mentioned—they're either actively considering shutting down or are in the process of minimizing their electricity generation to only produce the steam, which is a requirement for the location they're in.

**Mr O'Toole:** I would also refer you to the Washington bureau—

**The Acting Chair:** We're going to have to stop there, Mr O'Toole, and I apologize for that. I'm just trying to keep on time.

STAN PEJOVIC

**The Acting Chair:** Our next presenter is Mr Pejovic. Maybe you could introduce yourself for Hansard, please. You have 15 minutes.

**Dr Stan Pejovic:** Honourable members of the committee, ladies and gentlemen, my name is Stan Pejovic. I am a professor at the University of Toronto. I have been a professor at Ryerson University as well. My whole family is in Canada. I emigrated eight years ago. All my contracts in Canada have somehow been troubleshooting.

The title is Stability of Power Production and the Huge Economic and Social Consequences of Price and Price Variation. The motivation behind the revision is understandable. Its goals are laudable. Who wants more blackouts? But are these goals achievable? Can one create a climate of needed private investment?

There is another challenge that, if not addressed, the legislation will fail to reach its goals: stable power

delivery and stable power price. The power system must be overbuilt. There must be reserve capacity. As banks must carry credit reserves to avoid financial instability and runs, so our production must carry an operational reserve. This cannot be paid for in the same way as power consumed. If not put in place, the system will fail again and again.

Stability means spinning reserves and standby reserves. Reserve energy is not directly productive and thus cannot be charged in the way Bill 100 implies. Minimal spinning reserve equals uncontrolled drop off the biggest generator or the biggest power plant or power transmitted by uncertain transmission line. Without explicit consideration of production and spinning reserves, stability in the generation system cannot be achieved. Instability creates huge economic and social consequences. The worst is a blackout.

Cartoon: "The network went down and I lost my work."

"The server crashed."

"From now on, I want advanced notice of any unplanned outages, and I need it yesterday."

"I used to think that was just a figure of speech."

At the highest consumption, available power must be above demand. This means that all units must be ready.

Random cases: The IMO experienced technical problems on June 7. Demand was 21,000 megawatts. With a drop of a few hundred megawatts, generators made the energy price soar from seven cents up to 75 cents; that's the day of a sudden drop in energy. Market demand was about 20,000. Taxpayers and consumers have had to pay approximately \$15 million. On September 3 the price soared from three cents to \$1 per kilowatt hour. That's this critical day.

Natural outcome: Available resources cannot meet demand. Power shortages lead to blackouts. This happened, and the price soared from two cents to \$2 per kilowatt hour.

The Toronto Star published, "If out of province suppliers are informed ... when a big generator breaks down ... suppliers are likely to dramatically increase their offer prices into the Ontario market."

Some 3,000 megawatts of power were knocked out: chaos. Pre-dispatch price: \$8 per kilowatt hour. Dispatch price: \$3. Conclusion: Spinning no-load reserve is much cheaper.

Huge economic and social consequences: Producers and consumers are fundamentally at odds. This tension must be more explicitly balanced and accommodated in the wording of Bill 100. There must be ways of explicitly requiring and pricing a reserve in capacity.

What should be done? Overall, a full technical balance. Either sooner or later, a pure management attempt to find a solution to the power problem will fail. Setting the price is not the only issue. The current risks of a major failure in the supply system are already great.

Now about energy.

Fossil fuels are at the end. Oil: 10, 50, 100 years. At that time, our only sources will be renewable and nuclear

energy. We have to rely on known generators of power and invest in new technology, hoping that new energy sources will miraculously be discovered.

**Experience:** New generators must be continuously built, all the time. The 15 years of experience in Ontario have proven conclusively that one of the most expensive ways is not to build new power plants on time.

In the future, the Ontario electricity market has to be adapted as the power pool to eliminate any risk to investments in new power generation from any available sources.

**Know-how:** multidisciplinary transfer of experience and knowledge. Continuity has been lost. Canada has had more than 100 years of experience. Individual areas have lost accrued experience and knowledge. Multidisciplinary transfer must be planned and financed.

**Up until now:** too few experienced engineers and project managers, even knowing how to engage the right skills from the marketplace. **Accrued experience:** Pickering; some other power plants.

**Stability** means spinning no-load and standby generators.

Peakers have a huge role in stabilizing the electricity grid.

Hydro plants are the best solution all over the world. The price is low. Coal-fired generation has environmental impacts; nuclear generation has radiation. Gas-fired also has environmental impacts. Hydro has none of these.

Price per kilowatt investment: \$600 to \$3,000. Price per kilowatt hour: one cent to six cents in US dollars.

Reversible pump-turbine storage power plants are the solution all over Europe and other countries.

#### 1520

Pumped hydro, I will just briefly mention. This is the list. For Canada it is nought. That's the list of 1,000 megawatt and larger pumped hydro installations worldwide. Canada should have been here.

Here I want to mention something about Germany. A few speakers mentioned windmills in Germany but nobody mentioned that Germany has a huge number of hydro and pumped-storage generators which can easily accumulate this wind energy and then produce when there is no wind.

**Renewables—solar, biomass and wind:** The impact on the overall power generation requirements for Ontario right now is negligible.

**Transmission grid:** A line to connect the various provincial grids would be of great benefit parallel to any other improvements.

Canada once built national railways and the St Lawrence Seaway. The next step, no doubt expensive, but also crucial and inevitable, is to create significant Canadian grid transmission lines.

**Closing thoughts:** Ontario needs spin no-load generators, standby generators and peak generators as soon as possible. I will not analyze what should be done. This is a list.

What is the role and power of OPG, IMO and OPA? We can list that here. Maybe you know some others. I concentrated on technical problems.

Who has had to point out and solve this electricity problem in the last 15 years: OPG; IMO; OPA? We are waiting for a new team.

I suggest a new, at least 30-minute presentation to discuss and analyze these issues. Thank you for your attention. I am ready to answer your questions.

**The Acting Chair:** Thank you very much. You have used up all your time for the presentation, so we won't have any time for questions.

**Mrs Cansfield:** Could we have one for clarification?

**The Acting Chair:** I'll allow a clarification question.

**Mrs Cansfield:** Can you tell me what a reversible pump-turbine storage power plant is?

**Mr Pejovic:** What it is? When the system has too much energy, and sometimes Ontario's system has a negative price and generators pay not to stop, because stopping production is very expensive and some power plants need two days to restart. We pump this energy into a hydraulic storage reservoir when the system gets too much energy and then this energy will cover peak energy. There is a huge number of such units operating all over the world. Ontario has only one and I think it's not using it in the proper way. That's in Niagara, Sir Adam Beck.

**Mrs Cansfield:** Now I know what it is.

**The Acting Chair:** Thank you very much, sir.

#### SIERRA LEGAL DEFENCE FUND

**The Acting Chair:** Our next presenters are from the Sierra Legal Defence Fund, and if you could just introduce yourselves for Hansard.

**Mr Albert Koehl:** Good afternoon. My name is Albert Koehl. I'm a lawyer with the Sierra Legal Defence Fund. I'm joined by Christine Elwell, who is also a lawyer and has been assisting us in the preparation of our submissions. She's also a former member of the Ontario Energy Board.

I want to talk to you this afternoon about power, but not mainly about electrical power. For a long time our electricity laws have been depriving citizens of real power. Bill 100 is a good framework, one that can and must be improved, for giving that power back to us.

First, we've been made powerless by the culture of supply. We consume and Big Brother provides. We're powerless to stop mega-projects, mega-debt, mega-pollution and mega-mistakes because our only role is to consume, and therefore from time to time to complain about prices even when they're artificially low. Last year's blackout helped us realize how dependent each of us has become on a lot of things over which we have absolutely no control.

We recommend that the culture of supply be replaced by one that gives each of us a meaningful part to play. This means putting energy conservation—small energy reductions multiplied millions of times—at the forefront,

while providing business and individuals with means, incentives and even requirements, through efficiency standards, to reduce consumption.

We recommend that minimum conservation targets be articulated in the act—say 5% by 2007. We support the recommendation of groups like the Pembina Institute to make the conservation bureau into an independent body reporting to the minister instead of simply being an afterthought to the Ontario Power Authority.

Second, nuclear power has made us powerless. We are powerless to protect ourselves from the risks of accident or sabotage, powerless to stop the cost overruns that are routine, and powerless to know what the real decommissioning or radioactive waste disposal costs and implications are. We're also made powerless because nuclear plants siphon billions of dollars from the public purse that could otherwise be dedicated to renewables that expose us to none of these risks. That is why we recommend that there be no further investment in nuclear power and that nuclear power be specifically excluded from the definition of alternative or cleaner energy sources under the act.

Third, coal-fired electricity makes us powerless. These plants emit millions of tonnes of contaminants like sulphur dioxide, greenhouse gases and mercury that make us victims by polluting our air, degrading our climate and contaminating our fish. How powerless must our aboriginal people feel when they expose their children to learning problems and neurological deficits by feeding them an otherwise healthy fish diet contaminated by mercury? This week, some experts have been saying, even before you finalize this act, that it is unrealistic to close our coal-fired plants by 2007. I always want to ask these experts whether this means it is realistic to continue poisoning our air, our water and our children. We recommend that this act clearly define a new reality. We recommend that the act articulate the desire of Ontarians and the promise of this government to close dirty coal-fired plants by 2007.

Fourth, hiding the real price of electricity makes the community powerless by preventing it from making prudent choices about consumption. Subsidies for electricity simply mean taxpayers in general subsidize consumers. Often it is the frugal subsidizing the frivolous. Debt financing for energy supply simply passes on the burden of our consumption habits to coming generations. And of course the real cost of electricity, especially if it is from coal-fired power, is hidden in one other place, and that is in the bodies of our children: in their lungs, their blood and their tissue. Therefore, we recommend that there be a real cost calculated and charged for all sources of electricity, by eliminating subsidies and by estimating and including in the price of electricity the health and environmental burden that each source creates.

Finally, the failure to promote and invest in renewables has left us powerless because it has deprived us of the opportunity to rely on an energy source which neither government nor big business can own: namely,

the wind and the sun. Therefore, we recommend you promote renewables by investing public funds, by guaranteeing a good price and by specifying in the legislation a specific target for renewables, such as the 5% by 2007 already mentioned by this government.

Our organization, the Sierra Legal Defence Fund, is committed to working with you to improve the proposed legislation—for instance, by providing specific amendments before August 26—so that real power will again rest in the hands of all Ontarians.

With that, I'll pass it over to Christine, who will give you some specifics about some of the recommendations we have.

**Ms Christine Elwell:** You, this committee, have the power to make some improvements to Bill 100 so we can get to where we need to go.

When the government put out an RFP for 300 megawatts of renewables, everyone was so pleased and surprised to see that over 4,000 megawatts were offered. This shows governments tend to underestimate what's out there. So the suggestion to have a renewables and conservation target, while important, ought not to be a cap; instead, we would suggest a minimum so that when you put out an RFP it's a minimum asking, not a maximum taking. All of these supplies, renewables and conservation initiatives ought to be accepted based on least-societal-cost analysis.

#### 1530

What is a renewable energy source? The bill tried to make a clarification on this; however, it's still fairly vague and the words "cleaner energy source" are dangerously ambiguous. Our recommendation is to follow the EcoLogo standard of Environment Canada or its Ontario equivalent and have real criteria and indicators of what are renewable and clean energy sources.

The other area that's very important to emphasize is that in schedule B, section 11, of the Ontario Energy Board Act, it says that rates will be based on different situations. We would ask that the committee expand and clarify what you mean by different situations. This could be an opportunity to price energy by its different sources and therefore achieve your government's objective to have consumers pay full cost. You've heard a variety of costs attributed to different energy sources: coal at this amount, wind at this amount.

We would entreat the bill to specify that different situations in setting rates would reflect different energy sources and therefore different costs. The societal externalities of coal and nuclear could be monetized, for example, and factored into the rate. The societal benefits of local distributed generation could take into account the economic benefits to the local community and provide renewable advanced tariffs that reflect those rates. But right now the language in the bill is not clear and requires further clarification.

Another important point in this regard is to look at how conservation and renewables will be put out into the Ontario system. You've heard testimony from a number of persons today that the conservation bureau ought not

to be a second sister to an OPA whose main mandate is supply. Therefore, we support the view that this should be an independent entity that would be able to have a real and equal role in the system.

With respect to governance, the OPA and the conservation bureau are required to do various reporting, system planning and business reports. Unfortunately, the way it's structured in the bill right now, these reports go to the minister and then to the OEB before the public would have any input. We would ask for an alignment of the dates so the public has an opportunity to respond to these important planning and business documents before they are approved.

Within the context of integrated system planning, I note in particular that the minister can give directions in terms of the system mix. But right now in section 25 it says the minister "may issue directives" about closing the coal plants or "may issue directives" about renewables and conservation. We would entreat you to use stronger language: "shall close," "shall mandate."

I would add one cautionary note. There are references to the dissolution of the OPA and the ISO in the future. This sends a red flag to NAFTA investors. Already you may have increased their expectations that these assets will be sold. I would suggest that you hedge your bets and take that language out of the bill now so that you don't raise expectations that may be the source of a NAFTA claim in the future.

Finally, as you've heard from many today, it's very important that the OEB retain and actually improve and enhance its role and mandate on energy efficiency and renewables. I can tell you from my time, when I was there, that there is not a culture of conservation; there is not a culture in support of renewables. In fact, there is some hostility, because they see themselves as a supply-oriented body. Rather than giving conflicting or overlapping or duplicating messages, as one member of the committee suggested, what you're doing by increasing or fulfilling or strengthening the OEB's mandate is adding a consistency of messaging. I don't believe you would be overlapping mandates. If you don't improve the language on the OEB role, that will actually be used against those programs. They'll say, "Oh, they took it away; therefore we're not supposed to care about it very much." So I would really entreat you to include that mandate in the OEB.

With our remaining time, we'd be pleased to take any questions you may have.

**The Acting Chair:** Thank you very much. We do have time to allow each party to ask one question. I'll start with the government.

**Mr McMeekin:** I really appreciate not just the affirmation of the initial intent of the bill but the very specific operational points you make. I think it's helpful, because we've been doing a lot talking around how you access the grid and how governments intervene or don't intervene. It's a big political debate: Some believe government shouldn't intervene at all and others believe

government should be almost entirely interventionist. I think the bill is trying to find some sort of balance there.

You've indicated a willingness to work with the government on some of the specifics. I think we'd like to take you up on that. Maybe we could have some conversation a little later.

In the overall context, would it be fair to say that you're feeling positive about the bill and the direction but you think it really needs some sharpening up and that you're prepared to work with the government in that regard?

**Mr Koehl:** That's exactly it.

**Mr McMeekin:** OK. Thanks.

**The Acting Chair:** Mr O'Toole?

**Mr O'Toole:** Thank you very much for your presentation. I was looking for a comment made by one of the presenters earlier today that differed on the emission issues of clean coal and natural gas. I believe, as a layperson—you do this for a living—that all energy creates waste: hydro—all of it. In your response, you might want to name one that doesn't have an environmental side effect.

But I would also want to put on the record—I don't know who appointed you to the Ontario Energy Board or who removed you—that our government gave the mandate to the Ontario Energy Board for energy efficiency, conservation and renewables. I want that to be on the record; it's a permanent record—and also alternative fuels and setting up the conservation supply task force, which I think serves as a good reference point. The conservation culture—I don't think anyone here would disagree with that.

I question the genuine ability, not the desirability, to deliver on elimination of coal and natural gas, which is probably about 70% of our supply base. Could you comment on the general conflicts that I've raised to your attention?

**Mr Koehl:** I'll let Christine comment, but the first comment is that we haven't even started trying to conserve or to supply renewables. So before we even start to admit defeat in something which I have said—

**Mr O'Toole:** I'm not admitting defeat.

**Mr Koehl:** And exactly what this bill is attempting to do is set in motion all the pent up opportunity for renewables, all the pent up desire to conserve for which we haven't had the legislative framework. We believe that once we set that in motion—and this bill is a good framework to do that—then the momentum can be created and move forward from that. I'll let Christine add to that.

**Ms Elwell:** I think that summarizes it exactly. This bill is enabling of a culture that will allow us to close the coal plants and the nuclear plants, use gas sparingly as a transitional fuel and then move forward. We saw with the blackout the willingness of the Ontario people to pull together.

**Mr O'Toole:** No Ontario people conserved—none. It was all—

**The Acting Chair:** Mr O'Toole, let her finish, please. Thank you, sir.

**Ms Elwell:** I think the intent of the bill is here, and now we need to sharpen it up and move forward.

**Mr O'Toole:** You should read schedule A. It allows them to redefine renewable alternative energy sources. In two submissions today they've admitted that it would allow them to redefine clean coal and nuclear as alternatives. It's in the bill. Three presenters today—

*Interjection.*

**Mr O'Toole:** It's not a lecture. I'm just pointing out for the record—

**The Acting Chair:** OK. I'm going to stop it right there. I'm going to allow Mr Hampton his time to speak. Mr Hampton, would you go ahead and ask your question, please.

1540

**Mr Hampton:** My question is: We've heard today from a number of people who believe that our primary objective over the next few years should be to pursue energy efficiency aggressively, that energy efficiency is in fact where we can achieve the greatest gains with the greatest cost-effectiveness, measured broadly in terms of the environment and in financial terms.

You haven't said much about that here. I think you've alluded to it. I was wondering what your views are on that subject.

**Ms Elwell:** I would support the Canadian Energy Efficiency Alliance's submission to you, as well as Jack Gibbons, in that you need to enable the energy board, in setting rates, to make it profitable to conserve. If you want to get technical, you allow for a lost adjustment revenue mechanism.

The gas companies make money on doing DSM because the rate structure is designed to make it profitable. For every dollar consumers in Ontario spend on DSM programs, they save \$20. What we need is enabling legislation to allow this goodness out there to come forward and make it profitable, create lots of jobs and not be captive to a culture of supply when we need to move to a culture of conservation.

**Mr Hampton:** Just one other question, and I get in on this because it's something that's thrown back and forth across the space here. We hear all kinds of predictions about natural gas. We hear predictions about the price of natural gas, we hear predictions about declining access to natural gas etc. Has your organization done any studies, do you have any views, do you have any information?

**Ms Elwell:** You heard wildly different numbers today: from 80 years of supply to eight years of supply. I think your message here is that it's very volatile. You wouldn't want to put all your eggs in the gas basket. No new big gas plants would probably be wise. You have the tools before you now. We've got good wind and we've got small hydro, and solar has been untapped. Conservation is key—that's 40% reduction by 2020. So why don't we use the tools we naturally have rather than importing high-impact gas from Alberta or offshore for new plants that are going to be pricey, for sure.

**Mr Koehl:** Underlying all that, what we do want to see over the long term, as opposed to the transition

period—there has to be a fundamental commitment to the reduction of greenhouse gases. That's why, in the long term, moving to renewables is really the way to implement the Kyoto protocol. We would like to see some reference in the act itself to the Kyoto protocol as a fundamental or underlying principle.

**The Acting Chair:** Thank you very much.

**Mr O'Toole:** Chair, while we're changing guests here, I'd like to put on the record an article from the National Post this morning that says, "The conservation aspect of the blackout was the most overstated event in electrical history in Ontario." Residential consumers made no reduction in consumption.

**The Acting Chair:** OK, that's on the record.

*Interjection.*

**Mr O'Toole:** The analysis was done afterwards.

**The Acting Chair:** That's on the record. Does anybody else want to put anything on the record while we're waiting for the next speaker?

**Mrs Cansfield:** I think Mr Hampton needs to know that in fact the information on gas volatility is coming. He wasn't here for part of that. Mr O'Toole has asked for some information, so Mr Hampton should be made aware of that.

**The Acting Chair:** Mr Hampton, I think that when Marilyn was subbing for you, Mr O'Toole asked the research department to do some research specific to the question you asked about supply. There's a report coming back. I just wanted that brought to your attention.

**Mr Hampton:** I don't want to miss the opportunity to ask the people who are knowledgeable.

#### CONSUMERS COUNCIL OF CANADA

**The Acting Chair:** The next presenters are from the Consumers Council of Canada. Could you please introduce yourselves?

**Dr Peter Dyne:** I am Peter Dyne, chairman of the energy committee of the Consumers Council of Canada. With me, I have Julie Girvan, who is the energy adviser to the council, and Mike Lio, the executive director of the council.

**The Acting Chair:** Welcome.

**Dr Dyne:** The consumers' council is an independent, non-profit consumer organization whose vision is an equitable and efficient marketplace for consumers. The council works collaboratively with consumers, business and government in support of consumers' rights and responsibilities to provide a consumer perspective. The council is also an active intervener in the Ontario Energy Board hearings.

The consumers' council has examined Bill 100 in the context of Minister Duncan's observation that the bill reflected a plan which included a strong public leadership role, clear accountability and a coordinated planning approach. That's where we start. We also examined Bill 100 in the context of eight international consumer rights: right to basic needs, right to information, right to education, right of representation, right to choice and the

right to redress. You will see that, as you go through what I have to say, our comments reflect that.

The council's criticism of the previous Electricity Act was that it contained no provisions for the planning of the future supply system. What happened with respect to future supply was determined by the private sector alone.

The consumers' council welcomes Bill 100, as it presents a framework that is intended to address supply issues through the establishment of the Ontario Power Authority, which will be responsible for planning new generation. The bill also recognizes the importance of consumers in paying the true cost of electricity and the long-term value of developing an effective competitive market.

We support a centralized approach to conservation and demand-side management, and therefore welcome the proposal to establish the conservation bureau, which is intended to provide leadership and planning in conservation.

Our primary concerns with Bill 100 centre around the lack of clear accountability in supply planning decisions and the lack of specificity on how these decisions will be made. So we are commenting on the bill.

One of the principal objectives of Bill 100 is consumer protection. The minister has made consumer protection the central focus of the Ontario Energy Board's mandate. That is in the act, which you have before you. We hope that the OEB will focus its efforts to fulfill this mandate. Recent initiatives by the OEB, to which we have been exposed, appear to be contrary to the enhancement of consumer protection. We are hoping that this will change.

The consumers' council supports the enhancement of consumer protection but also recognizes that consumers should be paying the true cost of power, which reflects the full cost of producing and delivering electricity. But this true cost must be a fair cost and must be seen to be fair.

Consumer protection, in our view, is enhanced if consumers can participate effectively in the decisions that affect electricity rates and services. We note that one of the proposed amendments to the OEB Act states that, "The board may order a person to pay all or part of another person's costs in a proceeding or process." This is a welcome change, in our view, but I wish I knew what it meant.

We recommend, however, that the act be more specific on this point and that criteria of cost awards be set out explicitly. In our view, all processes that affect rates should be accessible to consumer groups through cost awards. The consumers' council recommends that the act should be revised to make this provision explicit.

The council's principal concern with Bill 100 is that accountability for planning decisions is not clearly defined because three institutions and three bureaucracies are separately involved. First, the OPA has the power to enter into contracts relating to the procurement of electricity supply as part of an integrated plan. Economic prudence and cost-effectiveness must be key criteria in selecting these contracts. Second, the act says that the

OEB does this again, reviewing each plan to ensure that it is economically prudent and cost-effective. Third, the Ministry of Energy requires that all decisions are consistent with Ontario government policies, which I would suppose have been developed in the context of economic prudence and cost-effectiveness.

#### 1550

Now in this set of layered decision-making and approval processes, there are risks of contradictory decisions, diffuse accountability and added costs. The council recommends that the bill be amended to redefine, if not delete, the energy board's role in reviewing the OPA's long-term plans and its procurement processes. The Ontario Energy Board should only be reviewing decisions of the OPA which have direct rate-making implications.

To the extent that the OEB is going to undertake these reviews, there is nothing currently in the act as to how these reviews are to be conducted. The act should also be amended to require that, where the OEB is exercising its approval powers, it be required to hold a hearing with stakeholder participation. All consumer costs must be fair and must be seen to be fair.

In camera proceedings are unacceptable, and the confidentiality provisions of this act should be clarified. While the OPA's negotiations with a potential supplier may be reasonably protected under commercial confidentiality, the terms and conditions of the final contract must be fully aired in the public domain. Once again, they must be seen to be fair.

To repeat, who is responsible for long-term planning? Is it the OPA or the minister or the OEB? If every decision based on economic efficiency is to be reviewed by the OEB and the minister, what is the OPA responsible for? These concerns—the role and accountability of the OEB and the OPA—suggest that a detailed review of the act is needed. Currently, it does not provide the clear accountability required by the minister.

To part from the text, the act requires major surgery. The act says, "The board shall review each integrated power system plan submitted by the OPA to ensure it complies with any directions issued by the minister and is economically prudent and cost-effective." Turn back the page and it says, "Minister's directives," including "the phasing out of coal-fired generation." There are coy words in this, but essentially, as far as I'm concerned, this says that the prudence and cost-effectiveness of phasing out coal cannot be discussed. You'd better clear that one up.

On the business of the phase-out of coal, I agree that we should not be burning coal the way we are now doing it. I have no argument with that. But the question about the availability of natural gas is a serious question. I would draw your attention to the geological surveys report on energy supply and demand trends and forecasts by David Hughes. I came to the conclusion that it is not economically prudent to go all the way on natural gas. With that, the act requires major surgery to clear up all

those things. The council's written brief will be providing specific recommendations on that.

The OPA will include a conservation bureau and a chief conservation officer to provide planning and coordination in conservation. The consumers' council applauds this initiative. It represents the first time that conservation is being considered in the same breath as supply. Also, we have continually advocated for a centralized approach to conservation in Ontario.

The act should require that the conservation bureau work closely with consumer groups and other stakeholders, including LDCs, in order to provide consistency in program development and messaging across the province. We also see value in including natural gas demand-side management initiatives as part of the bureau's mandate.

Consumers must recognize their own critical role in demand management and be willing to change their attitudes toward consumption. This is going to be essential if we're going to create a conservation culture in Ontario. If the government expects that of Ontario consumers, it must demonstrate that its own planning structure is cost-effective and accountable. It must also guarantee that consumers have a meaningful role in the decision-making processes.

Although we support the establishment of the conservation bureau, exactly how it will carry out its mandate is not clear. In addition, it's unclear as to what type of budget will be required. We believe it is essential that the bureau consider the most cost-effective ways to implement demand management in Ontario. Initiatives must be subject to rigorous screening methods and results subject to rigorous monitoring, evaluation and audit processes. Ontario consumers cannot afford to have money wasted on programs and initiatives that will have no effect.

We have previously expressed our concern about the \$225 million that has been earmarked for LDC DSM initiatives. Without centralized direction as to how that money should be spent, we expect duplication and waste will certainly occur. I know from personal experience in the federal government that it is very difficult to spend \$100 million at all through many agencies, let alone to do it intelligently and cost-effectively.

We urge the government to clearly indicate how it intends the bureau to carry out its mandate. We also see a need to clarify the role of the OEB in demand-side management in the light of the establishment of this new entity.

To repeat, the bill needs extensive surgery. We will be following up with a detailed set of recommendations in appropriate legal language, which you will get on the 26th.

**The Acting Chair:** Thank you very much. We do have some time. If everybody asks their questions directly, we'll have time for each party to have a chance to speak. We'll start with Mr O'Toole.

**Mr O'Toole:** You made one reference to a report. I wonder if you could get us a copy of that report.

**Dr Dyne:** I can't give you a copy. It is Open File/Geological Survey of Canada, 1798. We have drawn the attention of the minister to this report but have had no reply.

**Mr O'Toole:** I've seen that report. We're just doing a thing on natural gas.

I would say the issue here is true cost. You did mention "true cost," "fair cost," "not only be done but seen to be done," that kind of language; I completely agree with you. Do you believe we've ever operated in Ontario with a true cost—ever, right since Sir Adam Beck—with power at cost? Please explain the \$28-billion debt. We have never, ever had power at cost and we never will.

**Dr Dyne:** Your point is well taken. The problem with the \$28-billion debt is the responsibility of the government who hid it from consumers.

**Mr O'Toole:** All governments, yes. That's not a political statement. I'm just saying we've never paid it—all governments, if you knew anything about it. I say that quite guardedly because I know it's a complex topic.

The point I'm trying to make is, have you done any polls, as a consumer advocacy group, to indicate what people's threshold of tolerance is for true cost? I say that because during the election they knew it was a hot-button issue. They voted for the 4.3-cent power—

**The Acting Chair:** Mr O'Toole, just ask the question.

**Mr O'Toole:** I'm asking—

**The Acting Chair:** I'm just trying to give everybody a chance to ask a question.

**Mr O'Toole:** Please don't interrupt, Chair. I am asking a question. You're just not listening.

My question to you is this: They are complaining to me now that 5.3-cent power—and the mining sectors presented it with a 50%-increase forecast. They do not want to pay any more for electricity. You are consumer protection. What do you think is a fair price? You say the true cost; the real cost.

**Dr Dyne:** I do not know the cost.

**Mr O'Toole:** Could you find that out for us?

**Dr Dyne:** No. I am telling you that the cost of electricity will be much greater than it now is, period.

**Mr O'Toole:** How much?

**Dr Dyne:** I do not know; nobody knows.

**Mr O'Toole:** Fifty per cent? Are you prepared to keep the lights on or turn them off?

**Dr Dyne:** We will have to turn them off when the price gets to \$1 a kilowatt hour.

**The Acting Chair:** Mr Hampton.

**Mr Hampton:** In a number of places in your brief you're almost pleading with the government to bring some clarity of responsibility. You point out that the OEB, the power authority and perhaps the minister or other entities all seem to have authority or responsibility in a given area.

**Dr Dyne:** As the act is written, yes.

1600

**Mr Hampton:** Let me ask you specifically, how would you divide up the responsibilities? That's a ques-

tion I've asked a few people today, because I actually believe there's even more duplication than that. If on the one hand you're saying that all power will be produced by private sector companies now, that implies private sector bureaucracies, yet you're going to have multiple bureaucracies on the public side as well. I just wonder, on the narrower question of how you would divide up the responsibilities, what's your answer on the bigger question of how you avoid some of this growing bureaucratic overlap?

**Dr Dyne:** First of all, as I read the act, what it really says is that the minister is the planner. If that's the case, that's fine by me, but he has to stand up in the House and say that.

On your other question on how we divide up this responsibility, you've posed me the question which I've been lying awake thinking about and I have not got a clear answer. But knowing Robert Warren, our lawyer, I know you will get a set of clear answers, which you may or may not like.

**Mrs Cansfield:** Your presentation was excellent. Michael and I have this thing about Canadian Tire language, about trying to make things clearer for people to understand. We call it our Canadian Tire language for consumers.

I welcome the opportunity that you're going to present in that you actually are going to give us another, more fulsome report.

**Dr Dyne:** That's what this is about; yes.

**Mrs Cansfield:** Right. In that, I'm hoping you will also identify those barriers; will you, please? We may have missed some.

**Ms Julie Girvan:** The ones with respect to the OEB? Is that what you're talking about? Yes, we'll explicitly identify those.

**Dr Dyne:** You will get that.

**Mrs Cansfield:** Thank you very much. I'm looking forward to that.

#### GREEN ENERGY COALITION

**The Acting Chair:** Our next presentation is by Green Energy Coalition. Welcome, David. Just introduce yourself.

**Mr David Poch:** I'm David Poch. I'm counsel for the Green Energy Coalition. I believe that my presentation exists here somewhere. A lot of what I would like to touch on has been said today, so I'll be jumping through my slides. I hope you have a copy. I've provided the clerk with a script that I'll be deviating from wildly.

Let me first indicate that the Green Energy Coalition is comprised of the David Suzuki Foundation, the Energy Action Council of Toronto, Greenpeace Canada and the Sierra Club of Canada. We're an umbrella group formed primarily to function as a joint intervening group before the Ontario Energy Board—we have done so for many years—and in policy discussions such as this, primarily on energy in Ontario.

You've already heard from Greenpeace. Mr Martin has given you some background information on the nuclear costs. Let me just say that the GEC as a group endorses that. Mr Martin has provided you with a clause-by-clause analysis that I assisted him with which looks at some of the specific sections of Bill 100 and makes some specific suggestions. I won't take you through in that level of detail, but would just note that the GEC also endorses that. DSF, the David Suzuki Foundation, has talked to you about some of the policy approaches that have worked generally, and we are similarly in agreement. My job is to give a little more focused comment on some of the particular problems with Bill 100 and the particular context in Ontario.

Let me start by quickly taking you to four slides that Ralph Torrie, a well-known energy analyst in Ontario, has been kind enough to provide me, just to put this into a little context, because a lot of what you have heard today is about how important energy efficiency and energy conservation are, yet again and again I hear the discussion moving to the price of natural gas and what we're going to do about the supply problem, and can we really phase out coal and can we really phase out nuclear? I think what is perhaps hidden is the extent to which energy efficiency can play and indeed already is playing a huge role. It is the big term in the equation.

Very quickly, and this is ancient history, 1958 through 1974 in Ontario: You see here the three lines. The green line is the gross provincial product for Ontario, rising through that period. What you see is generally the red line, which is energy other than electricity, going up with the GPP, fuelling the GPP, and electricity growing even faster. This was the "Live better electrically" era, as you may recall. We were switching to electricity.

On the next slide you see the following period, 1974 to 1993, and we had that decoupling for energy—not for electricity, but for other energy forms. We learned to get more efficient. Our cars became more efficient; our furnaces became more efficient. We see that GPP generally rose through that period, but energy use pretty much stabilized. Electricity, in lockstep, went up with GPP. I remember being at hearings into Ontario Hydro's 25-year supply plan, and people like the Canadian Nuclear Association would come forward and say, "You can't have economic growth without more electricity supply." This was their proof.

Well, thereafter we see what happened. GPP in Ontario over the decade, roughly, shown on this graph, 1993 to 2002, has gone up 50%, but electricity, along with the other energy forms, is just very slowly rising. We have already uncoupled energy consumption, electricity consumption, from growth in economic output. So we can have welfare without growth in supply and consumption, and it's vital that you realize, as I think the next graph makes perfectly clear, that that increase in the economy that has been fuelled without an increase in supply has been met with increased electricity productivity. That term swamps all the other terms; it's three times bigger than the loss in nuclear productivity that

we've all witnessed. So it's a huge term and it's not to be underestimated, and that really informs our comments about the bill. We want to see the energy conservation aspects amplified in this bill, in both the structure of the institutions and the mandates of the institutions, and we'd like to see a little less left for regulation, a little more stated upfront in the legislation as the marching orders for these organizations.

I won't take you through the details of this slide. I think you've heard already from Pembina the kinds of numbers we're talking about. Similarly, you've heard from a number of organizations about the scope for things like wind. I'd just point out that the 14,600 number for Germany is already out of date; 15,300 is the latest number that I've got. These are huge numbers. But when we get to what's actually happening on the ground in Ontario, we're a bit perplexed. We applauded the RFP for renewable power, 300 megawatts. You've heard that 4,400 megawatts were bid. We're not sure where the 300 came from, frankly. We're not sure why you'd want to limit it to 300. What we'd like to suggest for the future is that we should be going after all of the renewable and all of the energy efficiency that is societally cost-effective. There's no need to arbitrarily cap it. I'll get to what "societally cost-effective" means in a moment.

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We are thrilled by the government's commitment to eliminate coal in Ontario by 2007. We think you can certainly do it. We're dismayed, startled and frankly shocked that the government is in the midst of throwing another \$1 billion down the nuclear sinkhole. We don't understand it. Ralph Torrie, who provided those slides, likens it to a gambling addict who keeps betting on the same horse, keeps losing, and then says, "Gee, maybe if I throw the last of my life savings on this, I'll win it all back." We have to start learning from our mistakes. I think we're really dismayed to see what's going on with further investment in technology that has proven to perform incredibly poorly and incredibly expensively. So if we're after higher electricity rates and flickering lights, then that's on the right path, but I know you're not. I know all the parties share the goal of avoiding that, and so we'd really like to see no further commitments in that regard. Those commitments inevitably compete for the public investment that needs to be made in friendlier alternatives.

We saw a good step with the directive, pursuant to Bill 4, to the OEB to have the LDCs be able to spend that third tranche, actually, of equity money owed to them, contingent on them investing it in energy efficiency. But then the OEB's guidelines to implement the minister's directive came out just a few weeks ago, and the OEB has more than dropped the ball.

I bring this up because I know there's been a discussion already today about what the right role is for the OEB. I practised law in front of that board for about 15 years, and I can tell you that they are very meek on the topic of conservation, that unless there's either unanimous consent from everybody in front of them, as there

was to get the Enbridge accounts in place so Enbridge has a positive incentive for conservation, or the government is explicit with them, they will shirk that responsibility. So I urge you to rethink the point about what their mandate should say. They will read the retreat from the word "promotion" much more loudly than you intended, I hear.

You heard from Jack Gibbons already this morning that they've left in place the major disincentive to utilities to engage in conservation. I frankly don't understand how they can justify that. We would urge the government to insist, to use its existing powers, even before this act is finalized. Under the existing laws, the government has lots of tools to insist that the OEB do the job and do it quickly. The latest rumours I'm hearing are that the next steps from the OEB on conservation aren't going to be in place until March 2006. You're not going to phase out coal by 2007 with a board that's dragging its feet like that. I think you have to get on their back.

Turning to the bill itself, I'm going to be very quick here and just cover the highlights of our points. I've provided written material. On the OPA mandate, we say that you need to be more explicit. You need to value the societal benefits that alternatives bring you, benefits like increased reliability, diversity, price security, reduced environmental impacts, reduced health impacts, increased community development, job creation, reduced transmission costs, reduced risk and reduced peak losses. All of these are benefits that dispersed renewables bring you and that conservation brings you—conservation even more so. Unless the legislation specifies to both OPA and the OEB, in reviewing the OPA plans or budget, that, "You shall value these things," rest assured they will get short shrift. That's the history we have seen again and again.

Our advice is, make explicit the values which I believe most of you in this room share, that these are all important considerations. They ought to be counted. Indeed, they should be monetized, if there is a method to do so. We would say, make that explicit.

There are two approaches I've suggested here. The bottom one I've just spoken of, which is to set the rules for them; that is, minimize societal cost, broadly defined. Or else just tell them, "You've got a deadline for phasing out these ugly things." You can do both, in fact. Ideally, you would do both. But as it stands the bill does neither, and we're a bit in the dark as to what the regulations will do.

The conservation bureau right now is nested inside the OPA, and we've tried that. That was Ontario Hydro. It had a conservation group in it. Let me be very frank. My constituency in major environmental groups—old lefties are perhaps overrepresented in our ranks but Ontario Hydro kind of weaned us off the model that just because it's public, it's going to be good. You can have good or bad public power; you can have good or bad private power. I think the bill needs to be very clear that you want the good stuff. You don't want conservation and renewables to be the poor sibling of supply.

The scenario you get, and we saw this with Hydro, is that the engineers are going to do their load forecast, they're going to see this gap between the supply and where they see the economy and demand going—conservation is a million little things. It's hard for an engineer to get a fix on; much better to plan that next big plant. Politicians, to be fair to you—or not fair to you. I know you enjoy cutting ribbons. It's a tangible thing. Once you've committed to that, of course you're not going to go and flog conservation because you'll be undermining the economics of the investment, the long-term commitment you've made to expand supply. That's what we saw in the 1970s and 1980s with Hydro. The supply investments become self-fulfilling prophecies.

We suggest that you actually separate the conservation bureau from the supply authority, but at the very least make its mandate a lot clearer. I come back to this notion of a societal cost test. Put it in the legislation. Say that they must value societal costs, not simply lowest rates. As you've heard, you can have higher rates and lower bills with the right mix of conservation.

You've heard again and again today about this question of the OEB's mandate and the retreat from the word "promotion." I'm not suggesting the OEB should be planning conservation strategies here so we have that kind of duplication, or planning supply strategies. But the OEB should be reviewing the conservation and supply strategies that the OPA or the conservation bureau or both have cooked up and that the LDCs, in co-operation with the conservation bureau, have cooked up. That's what public accountability is. It's a public airing and a public testing. That's what goes on now with the gas utilities. The OEB doesn't get down to planning the individual conservation programs; the utilities do it. They have this nice little consultative process where they include a few stakeholders to get some input and then they come before the board with an overall plan, and at the end of the day their results get audited and the audit goes before the board before they get their reward. The board only hears about particular programs if there's some contention about, did they really perform, was it a waste of money, that sort of thing. So it need not be duplication.

The other problem we've seen at the Ontario Energy Board is that they've been retreating from the public hearing mode, and it's only in public hearings that intervenors like my clients get to be there, test the goings-on, see the goings-on and have the chance, at least, of getting our reasonable costs awarded. With the consultative mode that the OEB has been getting into, the rich parties get to play ball and we're kind of sidelined.

I would just say this: We'd like to see more explicit values in the legislation rather than left to regulation, otherwise you risk reinjecting the politicization, which I know is the stated intent of the government to avoid. The government should not be setting goals for renewables and efficiency; it should be setting minimums. If you say it's a goal, for people like the OEB and probably the OPA it's going to become a maximum. That's just a wording point but I think it may be a very important one.

With that, finally, on the question of rate levels and subsidization, we're going to pay for it one way or the other. We're paying for it in health costs; we're paying for it in nuclear debt and non-performance. We're faced with raising our electricity costs one way or the other. Let's just acknowledge that and at least get the nice stuff for the price. Thank you.

**The Acting Chair:** Thank you very much. You've used all your time. We appreciate your appearing before the committee.

**Mr Poch:** Thanks for the opportunity.

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#### INTERNATIONAL INSTITUTE OF CONCERN FOR PUBLIC HEALTH

**The Acting Chair:** I call on Marion Odell, who is with the International Institute of Concern for Public Health. Welcome, Marion. You have 15 minutes. If you use it all up, there will be no opportunity for any questions, so I leave it to your discretion.

**Ms Marion Odell:** Thank you for this opportunity to speak to Bill 100. I'm the vice-president of the International Institute of Concern for Public Health. We're based here in Toronto and we work in a number of different countries around the world. We also work here in Ontario.

We're a non-profit organization founded in 1984. Rosalie Bertell, a biometrician and epidemiologist, and Professor Ursula Franklin, were among the founders of our organization. Dr Bertell is the immediate past president of our organization and is still active, although she is now retired.

We carry out our work by providing independent scientific information on environmental health issues and we present this to individuals, groups and government. Since Dr Bertell is considered one of the leading experts on the health effects of low-level radiation, that is the major thrust of our addressing Bill 100.

There's no free lunch. That's what we say when we mean that there are consequences to the things we do. There are indeed serious health consequences to the decision that was made many years ago to build coal-fired electricity generating plants, although I feel that the people back then didn't really recognize the extent to which this was going to affect future generations. Maybe they were in ignorance of the health effects, or maybe they knew that some people would be affected but that it was an acceptable risk-benefit trade-off. Maybe they were worried about losing jobs in the coal industry. Certainly, there wasn't the awareness of the effects that would happen.

There has recently been a study reported by the lead author Dr Teresa To, a senior scientist at the Institute for Clinical Evaluative Sciences and with the Hospital for Sick Children, where they found an alarming increase in childhood asthma. In the past five years it has increased by an alarming 35%. Over the five years of the study, children with asthma were responsible for health care

expenses of 5.42 million OHIP dollars compared to \$1.7 million spent on non-asthma children. This money includes only outpatient care, physicians' visits and diagnostic tests. Hospitalization or drugs are not included. In 1999, some 9,000 children were hospitalized for asthma.

I believe that the people of Ontario are very pleased about the phase-out of coal-fired plants by 2007 and I feel this will come none too soon. Congratulations to the government on this move to improve air quality. Hopefully it will happen before 2007.

The question is, have we learned anything from this experience? Is the government now willing to look at the facts surrounding the health impacts of nuclear power plants and act to phase them out also? So far, this does not look promising, as Ontario Energy Minister Dwight Duncan has already approved the restart of a second reactor at Pickering A. The July estimate for the restart was \$900 million, approximately double the estimate made by John Manley in March. The history of nuclear power generation has been a litany of cost overruns, let alone the initial cost of building the plants in the first place or the cost of dealing with nuclear waste now and for future generations.

I see some difficulties with the structure proposed in Bill 100. One has to do with the decision-making process, another with the knowledge base of the decision-makers. Although there might be difficulty caused by looking after conservation and power generation in the same structure, this is not as important as having the right people take part in the decision-making process, whether part of the structure or part of the government. The people who are a part of the structure must be knowledgeable about the health effects from the emissions of ionizing radiation from power plants into air, water and through solid waste. It is imperative that there are epidemiologists and medical doctors who understand the present flawed standards for radiation exposure and the resulting health effects.

What is wrong with the present emission standards? The emission standards followed by Canada are set by the International Commission on Radiological Protection, the ICRP. According to Dr Bertell's research, reflected in our article on our Web site—"Can ICRP be Trusted to Set Radiation Exposure Standards?"—the ICRP is a self-constituted organization. By their rules, the main committee responsible for all decision-making will never include an epidemiologist, occupational health specialist, public health specialist, oncologist or paediatrician. One can say that it considers only the users of radiation and administrative regulators.

Since 1952 the ICRP has perpetuated itself, with current members nominating new members. They have not mandated themselves to be protectors of workers or of public health, but rather to recommend sensible trade-offs of health for the benefits of their activities.

Dr Bertell says, "For the initial research into the effects of ionizing radiation, they used survivors who had been exposed to high doses of radiation. For example, they used Hiroshima and Nagasaki survivors and people who had received high doses for cancer. They calculated

how much radiation people had received and whether or not there were more cancers.... As they moved down to lower doses, they discovered lower numbers of cancers. When they got down to 10 or 5 rad, the resulting cancers were so low they said they could not distinguish the results from radiation from spontaneous cancers in the population. They stopped the study at that point and guessed at what the response would be in the low-dose areas."

Dr Bertell states, "Those of us scientists who studied low doses were finding more cancers than would have been expected using the Hiroshima/Nagasaki model. We were accused of being poor scientists or liars. Now that the research has opened up, and more nuclear scientists are studying low doses, we have a better picture of what is happening. But it is a strange curve on a graph. At the very low doses, when the first radiation hits a person, you see an increase in the dose effect, which is usually taken as cancer death, and then there occurs an increase up to a point where the person's ability to repair the damage, their repair mechanism, kicks in, then the curve goes down. But it only goes down to a certain point, where the damage from the radiation overcomes the repair mechanism, then it starts to go up again. This is called a biphasic curve. You can take a point at a very low dose and you will see the cancer rate increasing and you might move over to a much higher dose and see the same level of cancer death." In other words, you can have low dose radiation perhaps over a period of time and end up with the same effect as if you'd had a higher dose, above 10 rad.

"This means that you get the same effect at the low dose as you get at the higher dose. It has been very difficult to understand why this happens at the scientific level. We know now that there are mechanisms at the low dose that do not work at the higher dose. Many people have suffered at the low-dose exposure because so many thought it was safe."

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Cancer is only the tip of the iceberg as far as the effects of low-dose radiation are concerned. There are many others: sterility, miscarriage, birth deformities, benign tumours, hypothyroid and premature aging.

Another factor that enters into the lack of recognition of the effects on health of low-dose radiation is that standards are based on the health of the standard man, 30 years old, Caucasian, healthy. Risk has to be adjusted for human variation. It will be different for a baby or a fetus still in utero or a woman or the elderly. Their susceptibility will be different from that of the standard man. There is no way you can set a standard that will work for everybody. That's simply common sense.

A new source of advice on the health effects of ionizing radiation has been published by the European Committee on Radiation Risk, or the ECRR. It presents a more up-to-date model for calculating health risks of exposure to ionizing radiation. Unlike the ICRP, the ECRR—

**The Acting Chair:** Marion, you have one minute left.

**Ms Odell:** OK—uses evidence from the most recent research, and they consider the present risk model of the ICRP essentially flawed.

The recommendations that we would like to make are:

Bill 100 should not only include the promise to phase out fossil-fuel power generation by 2007, but should also set an early target for the phase-out of nuclear electricity power generation, such as 2010.

The authority should have a majority on their committee of those who will speak to the public interest, such as epidemiologists and scientists, independent of industry and government, knowledgeable about nuclear radiation and renewable energy, and others not connected to government or the nuclear industry.

The authority should have, as part of their mandate, recommendations for the phase-in of renewable energy sources.

The authority must abandon the ICRP standards and recognize that there is no safe level of nuclear radiation for the general population.

The authority should conduct their deliberations in a transparent fashion. Being a part of the process can be a foil to the vested interests who will not want to see changes to the status quo.

**The Acting Chair:** Thank you very much, Marion; excellent presentation. You used up all your time, so we don't have any time to ask any questions. On behalf of the committee, thank you very much for appearing before us.

#### CANADIAN MANUFACTURERS AND EXPORTERS

**The Acting Chair:** Our next presenters are the Canadian Manufacturers and Exporters. Are they here?

**Mr Ian Howcroft:** We're here.

**The Acting Chair:** Ian? That's yourself? Who else is with you? OK, they can introduce themselves for Hansard.

**Mr McMeekin:** While they're getting ready here, we've had some conversation, at least in passing, about the direct and indirect costs, and some reference to health and what gets measured. Marion Odell just made a number of comments and, to be frank, they sounded frightening and all too possible. But I haven't a clue whether that's legit or not, and I'm wondering if it might be. I know the research people are burdened with—

**Interjection:** They're good, though.

**Mr McMeekin:** They're very good. Given our incredible reliance on the nuclear side for energy production, I'm wondering if we could have just a cursory overview of some of the literature about the health impacts. Maybe something has already been done on this; I don't know.

**Mr Jerry Richmond:** In response, I know that my colleague Anne Marzalik has done some work. I know she's done a paper. In the EU, they've begun doing some research on what they call the externalities of various forms of generation, and I know Anne has done a paper

on it. The same issue, Mr O'Toole would recall, came up a couple of years ago when we were doing the deliberations of the select committee on alternative fuel sources. I think what I'll undertake to do is provide you with that paper, which I know we have and, if there are further questions, we can pursue them. We can get everyone a copy of that in very short order.

**Mr McMeekin:** I appreciate that. I just hate to have to be on my knees, or have my grandkids on their knees 30 or 50 years from now, begging forgiveness for something we might have avoided had we known. So perhaps we could do that.

**The Acting Chair:** Thank you.

Ian, just go ahead and introduce everybody.

**Mr Howcroft:** Thank you very much, Chair, and members of the committee. Good afternoon. My name is Ian Howcroft and I'm vice-president of the Canadian Manufacturers and Exporters, Ontario division. With me are Mike Humphries, the general manager of Zochem, a CME member, who is also chair of our energy committee, and Paul Clipsham, who is a policy analyst with responsibilities for energy issues. He's employed by CME, as am I. We are very pleased to be here this afternoon and appreciate the opportunity to provide our comments on the Electricity Restructuring Act, 2004, or Bill 100. We're also pleased to provide our perspectives in general on energy in Ontario.

Before we provide our specific comments, I'd like to state a few general facts in order to provide some context and hopefully make it a little more relevant for you. CME is Canada's leading business association. We've been around since 1871. We have over 2,000 corporate members across Canada. Our members are responsible for producing 75% of all manufactured output in Ontario and in Canada and they're also responsible for 90% of the country's exports. Our members come from the very large manufacturing enterprises and also down to the very small. However, it's important to note that over 75% of our members come from the SME sector and employ fewer than 100 employees. Over one million individuals are directly employed in the manufacturing sector and two million other individuals have jobs that are dependent on the manufacturing sector.

These statistics help to demonstrate the significance of the manufacturing sector to the economy of Ontario. It's the largest single sector, and every dollar invested in manufacturing generates \$3 in total economic activity, the highest multiplier of any sector.

CME is currently undertaking a major initiative entitled Manufacturing 20/20: The Future of Manufacturing in Canada, in which we're travelling across the province and the country, speaking with and, probably more importantly, listening to manufacturers to determine the appropriate policy direction that will ensure a vibrant manufacturing sector, both now and into the future. The consultations will result in a report, recommendations and action steps that will be presented to all levels of government later this year.

From these consultations, we have learned that electricity is of primary importance to manufacturers in Ontario. They have had to absorb an average rate increase of 32.4% in energy costs from the first quarter of 2000 to the fourth quarter of 2003. Considering that selling prices have declined 6% over the same period, these figures are cause for concern and, more importantly, cause for action.

While we support the intent of the provincial government to address challenges associated with the open market, we do have some serious concerns about the content, or lack of content, in the legislation and the implications for manufacturers and business in general. If these concerns are not addressed, Ontarians will be faced with a loss of jobs and future investment to other jurisdictions where environmental and health concerns are not held to the same high standards of excellence as we have here in Ontario. It's important that we find electricity solutions that are environmentally and economically sustainable. We believe that solutions exist that will dramatically enhance the environment and foster and protect livelihoods in Ontario.

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CME's position is that legislation should create an environment that will support a diverse, open and cost-competitive energy market now and into the future. CME members have developed a set of key messages and principles to help the government in developing this legislation further and, also importantly, to help with the development of the regulations. We have appreciated the opportunities we've had to input thus far and we will continue to do that as this process also continues.

In the written submission you have before you, we've included some additional facts on the importance of manufacturing and the cost squeeze that manufacturers have and continue to endure. I will briefly highlight some of the key principles. We won't go through every point raised in our written submission. I'll let you read that. I would be pleased to answer any questions you have after this, and hopefully there will be some time at the end of the presentation for some questions.

**The Acting Chair:** You had 15 minutes from the time you started, and you wanted to ask questions.

**Mr Howcroft:** I know. One of the key principles we have is competitive pricing. Canadian manufacturers simply cannot afford further energy price increases. Canadian manufacturers are currently dealing with an average of six minutes of after-tax profitability in an eight-hour work schedule. This means that there is very little margin for energy price escalation.

There is also a need to recognize that energy costs are a critical determinant of investment and production decisions in North America. Energy costs have a direct impact on cash flow, which correlates to investment in the province of Ontario. The government needs to establish competitive benchmark prices with other jurisdictions such as the Ohio Valley and the southern United States. We are concerned that long-term RFQs essentially guarantee a higher price for consumers. Ontario's

uncompetitive energy pricing will result in jobs leaving Ontario and will affect future job growth in the province.

Furthermore, we're concerned about the wording in the proposed legislation that limits access to the annual rate plan to low-volume consumers. This type of discrimination may not affect large companies that can leverage their size to obtain better contract prices; however, medium and smaller companies may not be able to access these competitive prices, and suffer for it. This is especially critical for CME. As I already mentioned, the majority of our members are SMEs. Equitable pricing is even more critical to the economic well-being of Ontario, as they are proportionately more numerous in Ontario than they are in the United States. Therefore, growth and development of SMEs is fundamentally important to our standard of living relative to the US. Consumer designations should be removed or modified to account for small- and medium-sized enterprises.

**Supply certainty:** This is an umbrella principle that will likely resolve many of the other issues. The legislation does not adequately deal with long-term supply of electricity. There must be certainty that long-term supply challenges will be met. There must be a commitment to expedite large-scale supply development, otherwise Ontario may be forced to purchase power from the United States, where generation methods may or may not meet Ontario's environmental and health standards. Furthermore, large-scale supply development/refurbishment will create jobs in the province of Ontario and help to further stimulate economic growth.

Implicit in supply certainty is supply reliability. Improving the transmission grid is necessary for long-term supply solutions. Plant shutdowns due to transmission problems are becoming more frequent in many areas. By ensuring a diverse supply mix geared toward current and future demand, manufacturing, employment and investment will continue to flourish. About this time last year, we all saw what happened when we lost power in the province for a few days.

**Emissions-based standards:** Rather than rule out a particular supply source for health or environmental reasons, CME recommends that the government consider setting reasonable emissions standards to ensure a competitive environment and let the market determine how to achieve the targets cost-effectively.

Determining or limiting the source of supply of electricity will result in higher energy costs. The ministry must recognize that burdening large consumers with high energy costs will cause investment and jobs to leave the province. Many of these jobs will go to the southern United States and the Ohio Valley, where coal continues to be the major energy choice for large-scale generation. Therefore, the resulting impact on the environment and health in Ontario could be a net negative. Setting emissions-based standards that are realistic and attainable could be a lower-cost solution that will allow the provincial government to maintain the oversight of the environment and health concerns of the province and continue to provide jobs for all Ontarians. Indigenous

technologies exist that could achieve the highest standards of environmental health and safety, while mitigating the economic impact of certain policy decisions.

**Process certainty:** As we understand it, the market power mitigation agreement rebate will no longer be relevant under the new mixed market, or hybrid, system. This is due to the fact that the MPMA rate was based on a consistent rate market, as opposed to the new floating rate. However, the MPMA is believed to be based on the true cost of generation from the existing large-scale OPG assets, or the heritage assets. Therefore, the regulated assets under the new market system should reflect the MPMA rate. Failure to do so would result in a loss of confidence in the electricity market and could affect future investment in the broader market.

The ministry has stated that the first regulated rate would be set by the Ministry of Energy. We feel strongly that this rate-setting process must be transparent and should involve input from important stakeholders now and in the future. The initial rate will require detailed scrutiny in order to maintain a competitive future for our energy supplies.

Other issues we have included and we won't deal with in detail include process clarity, the need to avoid cross-subsidization, expediency, the importance of transparency, governance and accountability etc. They are in the paper. We will not address those right now. We thought it best to leave some time for some questions. So I will end my comments at this point, and either one of the three of us is available for questions. Thank you, Chair.

**The Acting Chair:** Thank you very much, Ian, and we do have five minutes to allow for questions. I will start with Mr Hampton.

**Mr Hampton:** Your submission repeats what we've heard from a number of other submissions today: that you're very concerned about cost. We heard from the major power consumers of Ontario that they believe what the government has in mind will result in an increase in the cost of electricity of anywhere from 30% to 50%. You've raised the issue of cost many times. Do you have a sense of potential cost increases, and do you have a sense of how that's going to affect different types of manufacturers?

**Mr Howcroft:** Well, cost increases will significantly increase manufacturers'—we haven't done an analysis of what those exact cost increases would or could be. In our view, there are too many variables and not enough details to come up with anything that was meaningful from our perspective. What we wanted to do was raise the broad issues and help to set the context for the discussions so that it would assist the government in setting those decisions, but we don't have an analysis stating that X would cause a 30% increase or Y would cause a 20% increase.

**Mr Hampton:** The 32.4% increase that you referred to here from the first quarter of the year 2000 to the fourth quarter of the year 2003—I noticed that the only cost increase that was larger than that is what you classify as industrial fuel. I take it industrial fuel would be, for the most part, natural gas.

**Mr Howcroft:** Natural gas, yes.

**The Acting Chair:** Thank you, Mr Hampton. Donna?

**Mrs Cansfield:** Thank you, Ian. It was an excellent presentation raising the issues.

One is, you've indicated the ministry stated that the first regulated price would be set by the Ministry of Energy. In fact, the OEB will set the first regulated price by 2005 and will be in the process of public hearings around that process. So, just to be helpful.

The other is something I'd like to share with you to see how maybe we could work together. One is, if in fact you can't deal with an increase that would be too substantive, then we need from you some of the solutions. I can tell you, from people who've been in my office—and as I said earlier, we're now looking at some 500 to 600 folks who've come in and out of that ministry with suggestions and consultation—one thing we've heard consistently is, there are new technologies, some of which have been sitting on shelves and have come off the shelves and have been upgraded. Some have come from other parts of the world. Some are just new entrepreneurial thinking that's happened here. When they go to the manufacturing sector, they can't get in the front door. They consistently say to me that they get to a certain level of middle management, and it's: "We've done that. We've tried it. No, thank you. Not interested," and they can't get past it.

I've actually talked to Ken about this. So maybe there's something we could work together on. We're going to have that first industry stakeholder meeting on September 8 to help clarify some of these things, but the other is, maybe we could help in terms of putting folks together.

How do you think you could help us? One is, identify the barriers as you see them and write them out for us. The other is, help us open some of those doors beyond middle management for those new technologies and, again, identify the solutions in terms of what you think would be that fair and adequate pricing structure.

1650

**Mr Howcroft:** Well, we certainly appreciate the opportunity we had to meet with you, Donna, and we think there are lots of opportunities for trying to get those messages—good practices, best practices and new technology—out to our members. We feel that's an important role we can play.

We've worked successfully and partnered with other governments and ministries, pointing out the business benefits to proper health and safety and environmental standards and a variety of other areas.

We think energy is another great potential area for us to work together with government, to get the best practices out, to identify innovative technologies and to look for other ways we can help our members reduce their costs through conservation, new technologies and other vehicles. So we appreciate that and look forward to continuing to work with you and others on that side of the equation as well. Thank you.

**Mrs Cansfield:** And you will identify those barriers in writing for us and some solutions you might see that we can put forward?

**Mr Howcroft:** Sure.

**Mrs Cansfield:** Thank you very much.

**Mr O'Toole:** I have a couple of observations and a couple of questions, if I have time. I note your 32.4% increase during the period of time when we were messing around with the market. We did, arguably, a terrible job—uncertainty and all the rest of it—so I'm not trying to blame everything on them. But I do look forward to a comment as well on cost-squeezing. I'm wondering if you had included the costs of insurance and other liabilities going forward.

**Mr Howcroft:** Yes, those were included.

**Mr O'Toole:** OK, good.

The question I have is the reasonableness of emissions-based standards. You talked about carbon taxes and all these various things as offsets and things like that.

I've heard a lot today on the elimination of coal. I think it was in our plan too, by 2015, or maybe before, if we could do it. We initiated the Lakeview shutdown. So we're not opposed to that and we don't want to leave that impression. But they are also talking about eliminating nuclear now, and I guess from your perspective—a 98% increase in natural gas—you want to eliminate natural gas too. I'm wondering where the electrons are going to come from. What's the fuel source?

I think your point here is, "Determining or limiting the source of supply of electricity will result in higher energy costs." Good language. It appears to me, if you read the bill, section 25, on eliminating coal—it's right in the bill—it's a little ambiguous. If you look at that section, it says they'll look at the reliability and the source, but the objective of the OPA is to eliminate the coal piece. This, we've been told, is a 30% to 50% increase. Would you say, on behalf of your members—you're looking at process clarity here—that we'll have any economy left?

I'm not trying to be a pessimist. That's the reality here. I want the very best for myself, my children, my constituents and future generations. Don't let anyone think they own the topic. But if you're going to freeze in the dark—and at what price? Where is the price certainty here? I've heard three cents more for energy. What does one cent per kilowatt hour cost your industry? I need to know that. What does one cent cost? Because that's what OPA is going to cost: a one-cent addition just for administration hokey-pokey. Do you know that number?

**Mr Howcroft:** We don't. We've looked at the numbers and we've tried to come up with that, but we haven't been able to with any certainty or in a meaningful way. It all depends on the relative costs as opposed to just what that one cent is.

**Mr O'Toole:** It's 20% to 25% for manufacturing.

**Mr Howcroft:** It's significant.

I agree with most of your comments. We too view ourselves as responsible stewards of the environment and want what's best for the residents here in Ontario. We

live in Ontario. So we're taking a very balanced perspective as we move forward. That's why we haven't endorsed or said you should get rid of or eliminate any source of generation capacity. What you should look at is the emissions standards and come up with a way that protects the environment but also takes into account the long-term economic impacts of your decision, too.

**Mr O'Toole:** Exactly. It's a balanced approach. I appreciate that.

**The Acting Chair:** Thank you very much, gentlemen. We appreciate your participation.

#### POSITIVE POWER CO-OPERATIVE

**The Acting Chair:** Our next presenter is Jennifer Heneberry with the Positive Power Co-Operative. Welcome, Jennifer.

**Ms Jennifer Heneberry:** I have a presentation on disk. Can I just load it into the laptop?

**The Acting Chair:** Jennifer, you'll have 15 minutes. If you use it all up, there will be no time for questions.

**Ms Heneberry:** Good afternoon, ladies and gentlemen of the committee. Thank you very much for the opportunity to present my oral submission on Bill 100. I have provided written comments on behalf of the Positive Power Co-op which I believe all the members of the committee have received. I know there is a time constraint here so I will move forward quickly, hopefully to allow an opportunity for questions at the end of my presentation.

To give you a little background, I am the project coordinator for the Positive Power Co-Operative. We are a renewable energy co-op operating out of the Hamilton, Halton and Haldimand regions. We are similar in structure to the Toronto Renewable Energy Co-op, which owns 50% of the turbine at Exhibition Place.

We advocate and utilize the community power model for our energy projects. I believe the Ontario Sustainable Energy Association addressed the committee on Monday and gave some pretty extensive background on what the community power model is, but very briefly, it's locally owned and sited green power which provides a number of local economic and environmental benefits to the communities that host those projects, as well as a number of benefits to the electricity market and the environmental system as a whole.

Before I get into specific comments on the bill, I would generally like to make a number of observations. We were very pleased to see a number of the changes being proposed as part of Bill 100. We feel some of the proposed amendments are going to make it much easier for us, as a community co-operative developing wind power projects, to participate in the electricity market; things like references to non-discriminatory access to the transmission and distribution system, the promotion of cleaner and renewable energy sources and addressing the need for goals around renewable energy production. These are all things we were really happy to see in Bill

100. However, I wouldn't be here unless I thought there were a couple of comments I could offer.

Moving into that, probably the one overview comment I would like to make that's going to frame the rest of my comments is the need to recognize the community power model explicitly in Bill 100. Community power projects offer a number of benefits to the electricity system. Obviously the production of green power is clear in terms of the environmental benefits it offers to the system. There are a number of local economic benefits through the direct investment of local citizens in these projects. Wind power in general does tend to stimulate the rural economy through land-lease agreements with farmers who host developments. Community power also leads to a distributed energy system, and I know Minister Duncan did speak to this a little bit on Monday. Distributed generation leads to a more stable and efficient electricity grid, and community power is a very good way to go about achieving that.

These benefits that we bring to the system need to be explicitly recognized in Bill 100, and a very good way to do that is to make changes to the bill to facilitate our entry into the market.

As a way of going very high level, we were glad to see—and I'm probably not the first group to mention this—that there are definitions of renewable energy and alternative energy that are contained in Bill 100. The existing Electricity Act doesn't address that. However, we feel that the definitions are unnecessarily broad. They could be interpreted to mean simply cleaner sources of electricity such as so-called clean coal or nuclear power. It's our opinion that renewable energy and clean energy need to be considered those sources of electricity that have a minimal environmental impact and are made from and utilize renewable energy sources such as wind, solar, geothermal, run-of-the-river hydro—those types of sources.

Bill 100 also references pretty extensively the need for system-wide goals around renewable energy production. We feel that a really logical mechanism to accomplish that is the development of a renewable portfolio standard, or RPS—I hope I'm not going to kill the committee too much with acronyms; I'll try to limit it to under five, so there's number one. We feel that the RPS as a mechanism needs to be explicitly defined in Bill 100. I know I'm not the first person to mention this today, but any kind of system-wide goals that get implemented as part of Bill 100 and any amendments to the Electricity Act need to be viewed as a minimum standard, not an end goal and not a maximum target that needs to be achieved around renewable energy production.

Section 25 of Bill 100 deals with differing situations which allow for different payment structures to different types of generators. We were very excited to see this, because it seems to allow a very natural way to structure payment to generators that allows the recognition of external societal costs. I know there have been some presentations on that already this afternoon.

Differing payment structures for different generators would allow the recognition and passing on of the true

costs of electricity in the sense of health costs associated with coal-fired generation or the environmental cleanup costs associated with nuclear power. It also allows the recognition of avoided costs of electricity generation by wind, things like the environmental benefits associated with green power, the distributed generation, which also results in avoided costs in transmission and line loss. We feel the payment schedules need to be fairly explicit and need to favourably recognize those generators who avoid those types of societal externalities that we've been talking about in terms of public health costs, liability insurance costs etc.

#### 1700

The benefits of community-based power could be recognized with cost benefits under this "differing situations" clause in section 25, specifically through the implementation of some type of advanced renewable tariffs, which has been advocated by the Ontario Sustainable Energy Association. I believe they did go into some detail about this plan on Monday, but just briefly, it is a fixed, long-term-rate contract for smaller-scale projects done by community groups, which allows them to financially plan their projects and enter them into the market much more easily.

Further to the definition and solicitation of renewable energy production, the recent request for proposals that the Ontario government has implemented has obviously been a way to try to improve the number of producers that are currently producing renewable energy in the province. We were glad to see that until we looked at the criteria for that particular request for proposals. The fact that it was based on lowest-cost criteria and the financial security methods that were a part of that request for proposals unduly favours large-scale projects and pretty much excludes any community-based projects from bidding in. Positive Power is currently working on two wind-power projects, and neither of them was eligible to bid into the RFP due to the financial security requirements.

We feel that any future solicitation by the province for renewable energy production needs to take this into account and needs to have separate mechanisms that will deal with soliciting energy from community groups or smaller-scale renewable energy projects. We feel the mechanisms also need to be strictly defined in Bill 100. We need to see how the government is going to solicit and meet the system-wide goals it talks about pretty extensively through Bill 100. We want those mechanisms to include not only a lowest-cost-criteria RFP.

There's also quite a bit of talk about the new Ontario Power Authority and its new roles, and the shifting of roles and responsibilities with the rest of the agencies which, it is our understanding, will remain intact as part of Bill 100. When you couple that with the sometimes onerous process of actually getting a project connected to the grid with Hydro One, this has the potential to lead to a number of multiple levels of procurement, solicitation and approval processes, which can often be both a financial and a bureaucratic burden to smaller-scale

projects. We feel there needs to be a streamlined process in place for smaller-scale projects like community co-operatives such as Positive Power.

In closing, just to bring this back and re-emphasize, there are a number of benefits present with community energy co-operative models. The benefits we bring to the electricity market are environmental benefits, and there are economic benefits. We feel that those need to be recognized and supported by virtue of us not being left out sometimes because we have smaller-scale projects.

We feel that Bill 100 really does need to introduce and explicitly define a lot of the measures and mechanisms that are mentioned within the proposed amendments and that they need to recognize community energy co-operatives specifically.

That ends my comments. I hope I still have time for questions and answers.

**The Acting Chair:** Yes, you do. A good presentation. We'll start with the government side.

**Ms Wynne:** Thank you, Jennifer. We take your point about the smaller-scale projects. We have heard that.

Part of your group's mandate, I understand, is education. Can you talk a little bit about what you think the government could be doing to support and promote education initiatives and the kind of work you are doing in the community at this point?

**Ms Heneberry:** Are you specifically talking about the type of generation we do or more about just education?

**Ms Wynne:** The education component, and what you think we should be doing in terms of education.

**Ms Heneberry:** I think a lot of this will happen organically as you see more wind projects come on to the grid. A lot of the education that needs to be done is to correct misperceptions of renewable energy generation: that it's not reliable, that it kills birds—specifically wind. I think a lot of that will happen as these projects go forward and as they're approved. Certainly the government's approving these projects would go a long way to assisting that.

I think a general culture of conservation and the need to recognize both reducing our generation need and our need to improve the amount of renewables we're generating would be just a part of the culture of conservation that the government is trying to cultivate with the conservation bureau and those types of educational initiatives.

In particular, I think recognizing the community co-operative model—I'm not sure what kind of educational initiatives might be appropriate for the government to undertake, but recognizing there are local benefits that can be gained through supporting local groups like ours.

**Ms Wynne:** Do you work with young people, or do you work with community groups?

**Ms Heneberry:** More generally, we work with citizens. We have over 140 members who represent a fairly vast demographic scale throughout Hamilton, Halton and Haldimand. We don't have anything specifically geared toward young people. It's been difficult for us to enter the curriculum—the school boards—but

certainly we would like to see education around the importance of renewable energy start younger, seeing it as a part of the curriculum in schools, as opposed to—

**Ms Wynne:** So you've tried to get into the schools and there have been barriers to that?

**Ms Heneberry:** To some extent. Most of the workshops we have been doing are geared toward the community as a whole, and they're open to anyone who comes out. So we do see a lot of homeowners out, as opposed to younger children.

**Ms Wynne:** OK. Thank you.

**The Vice-Chair:** Mr O'Toole, do you have a question?

**Mr O'Toole:** Yes, I have a couple of comments and a question at the end.

I'm in support of distributed generation, and I would like to put that on the record. In an application sense, community co-ops could apply in rural areas. If we had several dairy farms close by, they could have wind generation, and there are some suggestions about how to eliminate some of the barriers that could occur, because this has been raised to my attention. But under the agricultural food practice act, there's no mechanism for that to happen, and I'm not exactly sure where to go.

On the RPS, the alternative fuels committee made a very strong recommendation on renewable portfolio standards. I'd like your response to that. But in policy and in action, I see conflicting comments. They cancelled the provincial sales tax on energy-efficient appliances, which we had implemented. They also cancelled the 10-year property tax holiday that we had given on wind generation. So they've done nothing that I can see to incent the renewable portfolio.

We had a presentation here on Monday that said the assessment and tax implications for wind generation are 10 times those of a fossil plant. Those are the kinds of barriers you have to speak to them about to get the renewable stuff competitive, because there are a lot of barriers, red tape, regulation and taxation to properly put their business plans forward so they can compete on a level playing field without some kind of tax or incentive or tariff, as it has been called lately.

Have you got any suggestions on those comments?

**Ms Heneberry:** Certainly I am aware of the property tax issue, which Glen Estill from the Canadian Wind Energy Association brought up in his remarks on Monday. This is something that has recently come to our attention, but I'm unsure—

**Mr O'Toole:** He put a 10-year holiday on. You knew that.

**Ms Heneberry:** I'm aware of that, but due to the recent cancellation of that, we're not sure how that's going to affect us yet. I'm not sure what other kind of response you're looking for, other than our opinion on what that's going to do to our business model. We'll have to build in contingencies to deal with any kind of increase in property taxes that may result, like the cancellation of that property tax holiday.

We view these projects as economically viable. It's entry into the system that we are concerned about, and that's what I've been trying to address with my comments here today. If we didn't think these projects were economically viable, we wouldn't be trying to get members of the community to invest in them. If they weren't viable, people wouldn't support them locally. I understand the need to support with tariffs, but these are not incentive taxes. These are guaranteed long-term contracts that will support us and enable our financial planning to allow us to enter the market.

1710

**Mr O'Toole:** How many people do you think would pay three cents more per kilowatt hour for renewable energy, 5%, 10%?

**Ms Heneberry:** That's a question I'm really not qualified to answer.

**Mr O'Toole:** There are a lot of people implying that people are prepared to pay two and three cents more per kilowatt hour, or more. That's what we're being told here today. I'm not sure who they represent, but we're hearing—

*Interjection.*

**Mr O'Toole:** I'm just saying I'm all in favour of full-cost pricing, but let's find out what it is. We still don't know. I ask any of them what the cost of nuclear is.

**Mr McMeekin:** Let's compare apples to apples.

**Ms Heneberry:** I'm unsure what the question I'm being asked is.

**Mr O'Toole:** I'm just asking a question.

**The Acting Speaker:** They're just talking to each other, which is normal here. Did you want to respond before I turn it over to Mr Hampton?

**Ms Heneberry:** The only thing I would say is that I can speak for myself, and I would pay three cents extra per kilowatt hour for renewable energy. We would not have 140 members in our co-op if there weren't at least 140 people who recognized the value of renewable energy and were willing to put their money where their mouth was.

**The Acting Chair:** Good for you. Mr Hampton?

**Mr Hampton:** I just have a couple of nuts-and-bolts questions about cost and a renewable portfolio standard. Paul Gipe was here on Monday and I believe he was asked the question. He was talking about what it would require to provide the incentives to bring on more small-scale wind energy. I believe his answer was that what would be needed was a price of 10 cents a kilowatt hour for 20 years.

**Ms Heneberry:** Yes, I believe that's what they are currently advocating on the Ontario Sustainable Energy Association Web site.

**Mr Hampton:** Is that your sense from the work you've done? Is that your sense of this?

**Ms Heneberry:** Our sense is that that type of contract would be economically viable for the projects we are doing, with the understanding that different projects have different types of costs associated with them. Sometimes you could do a project for less than that. Certainly the

longer-term contract is what is important there. The longer-term contract at that guaranteed rate is what makes it easier for us to plan as a community co-operative. The rate itself is fluid. Ten cents is likely a reasonable estimate. I'm sure Paul's done a number of different research pieces on that. But it would certainly be reasonable based on what our research has entailed, with the understanding that certain projects—with some of our multi-turbine projects, you may be able to move that price down; with some of our single-turbine projects, based on the specific site, 10 cents may be cutting it a little close. But generally I would think that's a fairly reasonable estimate.

**Mr Hampton:** Ostensibly, that then enables you to go and borrow the money to begin the construction.

**Ms Heneberry:** That's correct.

**Mr Hampton:** And then the 20-year pay period, the 20-year guaranteed contract, allows you to pay that off.

**Ms Heneberry:** That's correct. Generally, most financing agencies will tell you that you need a power purchase agreement in hand and that debt will be granted to you for the term of that power purchase agreement. The longer your term, the longer you have to pay off that debt, which may enable you to take on more debt if it's needed. So, yes, it's the term and the price. Both are fairly important in the planning of these projects.

**The Acting Chair:** Thank you very much, Jennifer.

#### JV ENERGY SERVICES LTD/WHITBY HYDRO

**The Acting Chair:** Our next presenter is JV Energy Services Ltd/Whitby Hydro. Are they here?

**Mr Jurgen Volling:** Kevin Whitehead from Whitby Hydro—

**The Acting Chair:** All right. Then you are up, sir. Have a seat.

**Mr Volling:** I have a handout for each person.

**The Acting Chair:** Thank you. You have 15 minutes to make your presentation. Don't feel rushed. If there is any time that you haven't used, it will be granted to the parties to ask you some questions.

**Mr Volling:** Ladies and gentlemen of the Bill 100 committee, I thank you for the opportunity to speak to you. I'd like to spend five minutes on the technology, five minutes on how Bill 100, with the right incentives, could benefit the community, and then maybe five minutes for questions.

The technology that I'm proposing is called bi-fuel. Statistically in the United States, about 15% of the generating capacity is in emergency generators and it's not utilized about 95% to 98% of the time. If we apply that ratio to Ontario—30,000 megawatts—we have perhaps 4,500 megawatts or 5,000 megawatts of emergency power in Ontario and we estimate, in the GTA, about 3,000 megawatts of generating capacity.

If we look at the technologies that are available today and the external factors, sometimes they drive us to a new solution. Because of the aging grid and also the

limits of capacity in certain regions, we feel that the bi-fuel solution could be quickly adopted. First of all, the delivery of such equipment is about two to four weeks and it takes one to three days to install.

If you'll look at the coloured handout, I'd like to explain the technology. The existing diesel generator at the top right would remain as is. There's no modification to the diesel engine or the generator. We simply move out the air cleaner six inches and incorporate this air-fuel mixer between the turbocharger and the air cleaner. We provide a one-to-three-PSI gas line and introduce it into the air cleaner. If you look at the lower left-hand side, we have an air-fuel mixer; 3% of the air-gas mixture is gas, 97% is air, but that 3% can represent up to 80% of the energy. The diesel fuel is moved back, so now we have a cleaner fuel and we can provide this on demand.

OPG is aware of this, Enbridge Gas is aware of this and Union Gas has been aware of this for the last two and a half years. We are converting the Olympia and York generator on the 73rd floor; it's a 16-cylinder. It's completed now. We just have to test it next week or the week after. OPG is planning to talk to them about dispatching it with their software program at University Avenue. So we could bring on hundreds or thousands of megawatts in a matter of weeks or days.

The other thing: At the bottom you'll notice the emissions issue. The emissions will be reduced, and we also have an exhaust purifier that is virtually maintenance-free that could be added for additional emissions reduction.

The other interesting thing is that the emergency generator is available at all times for power during the installation. We may take a few minutes only to remove the air cleaner and clamp in this air-gas mixer, but it would be done in very short order. It could be done off-hours, in the evenings or weekends, but it's available.

On the second page of the handout, on the benefits, we would address two areas. One is demand response with a bi-fuel generator and the other one is demand side management. The benefits to the customer would be a more efficient operation because they know where their needs are, and also lower electricity costs. We have about 92 electrical distribution companies in Ontario that are members of EDA, the Electricity Distributors Association, and they would have a deferred capital expenditure, and also if there was a potential rebate after an audit of the benefits to a customer or the utility.

Presently we have rate freezes. If rates were unfrozen, then demand response and demand side management could provide these benefits. We have the support of Enbridge Gas right across the province, and also Union Gas. They are aware of this and are willing to invest in utilizing these assets to make the system more efficient.

The one barrier I see is the certificate of approval for air on the operation of these units, but we have the devices to reduce the emissions. The bi-fuel system alone, and also the catalytic purifier, can reduce it anywhere from 10% to 50% at the bottom end and from

60% to 90% at the top end, depending on make, model and age of the unit.

Thank you very much. If there are any questions, I'd be happy to—

**The Acting Chair:** I will do that. We will start with Mr O'Toole.

**Mr O'Toole:** Thank you very much. It's good to see people from Durham with the innovation you're bringing in here. I mean that quite sincerely. What we are looking for are new, not larger, models of doing the same thing that we've been doing for 100 years. You're really talking about load shifting, load management—

**Mr Volling:** Peak shaving; peak sharing.

1720

**Mr O'Toole:** Peak shaving—all of those conceptual things that need a solution. We heard from a presenter earlier today who basically outlined for us the importance of having this reserve capacity. You're right, it's in the 3,000 megawatts to 5,000 megawatts. It has to be sitting there, and it's like a stranded asset because you're only using it to deal with these peak demands or unusual demand cycles.

**Mr Volling:** That's right. You have certain spinning reserves and then you have 10-minute reserves.

**Mr O'Toole:** I think it's exciting. Have you been heard by some of the civil servants who are really the engineers of most of this stuff? Did they listen to your presentation?

**Mr Volling:** No, not many.

**Mr O'Toole:** Can you get in? Mrs Cansfield is the parliamentary assistant. She would have full access to not just Dwight Duncan but also the deputies and assistant deputies, directors of policy, who are the people who write this. We represent people and try to do the best we can; we bring as much knowledge as we can. I commend you for your creative thinking on solutions.

Whitby Hydro and Veridian and all those people, the LDCs locally in Durham, are quite creative.

**Mr Volling:** Right. I know Mike Angemeer, the president of Veridian. I spoke to him about this. He's looking for a site right now.

**Mr O'Toole:** Good. Is Veridian looking—

**Mr Volling:** Veridian is looking for a site right now.

**Mr O'Toole:** Excellent. Keep up the good work, and hopefully the ministry people will hear your new approach to the use of cleaner fuels and dealing with peak or reserve capacity.

**Mr Volling:** Just to look at, roughly, the payback on investment: The cost is about 15% of a generator set. The capital investment is already made, so it's an additional 15% of the cost of a generator set. In New York and California they have anywhere from one to six months' payback. On a drill rig, where you have flare gas available, the payback is one day on this investment. This is simple technology. It can be installed in one or two days, to give you an idea. It's been used for 10 or 15 years in the US. They are converting 200 diesel generator sets in Peru right now. They're in China, Russia—all

over the world for the last 15 years. We are just coming—it's an awareness and an education situation.

**Mr O'Toole:** This would help with the conversation on distributed generation—

**Mr Volling:** Exactly.

**Mr O'Toole:** —on which we've had presentations here just prior to yours.

**The Acting Chair:** Mr Hampton.

**Mr Hampton:** I just want to get a fuller sense of this. Interruptible power rates for a major electricity consumer who agrees that if peak demand hits a certain point, their supply of electricity will be interrupted, is not a new concept; it's been around for a while. Peak sharing is not a new concept.

**Mr Volling:** Which is different from peak shaving.

**Mr Hampton:** OK.

**Mr Volling:** Could I explain the term?

**Mr Hampton:** Yes.

**Mr Volling:** Peak shaving is where a customer shaves their own peak, whether it's a building or an industrial plant. Peak sharing is where this generator set would be parallel to the grid and then they would float up and down with the grid so they could actually export power. That's peak sharing. Peak shaving is own consumption reduction.

**Mr Hampton:** Right. But we've had some peak sharing in Ontario, haven't we?

**Mr Volling:** Yes. I've sold several systems for peak sharing. We did the Toyota auto plant in Cambridge: 13,800 volts.

**Mr Hampton:** OK. So that's been in place for how long?

**Mr Volling:** Since 1987. We did another one in 1965 with Brantford public utilities. I've been in this business for 37 years in Ontario.

**Mr Hampton:** Yes. So we've got, then, an historical record of how this has worked.

**Mr Volling:** Yes, definitely.

**Mr Hampton:** Could you share that with us?

**Mr Volling:** In terms of how it's done, or with whom?

**Mr Hampton:** In those particular enterprises, what it has meant.

**Mr Volling:** What needs to be done?

**Mr Hampton:** Yes.

**Mr Volling:** I have a little box that's about 12 inches by 12 inches. I can parallel the utility with this. I have all the protective relays. Alignment would not get hurt. We'd have a reverse-power and just trip out the generator. I have an island operation we can operate with the utility, without the utility, island and non-island operation. It can be installed very quickly. Typically in the past it was a \$40,000 investment to protect the utility and the generator in all these individual protective relays. Now we have everything in a little box. It's smaller than a laptop, and that's about a \$5,000 item. It provides everything. It used to cost \$40,000. As a matter of fact, I have to go to the airport to pick two of these up. Somebody wants two. We are going to install one of

these boxes at the Canadian Tire in Welland, Ontario, on the weekend.

**Mr Hampton:** Good. Thanks.

**The Acting Chair:** Thank you very—

*Interjection.*

**The Acting Chair:** Did you want to ask a question?

**Ms Wynne:** Are we out of time?

**The Acting Chair:** We are out of time.

Thank you very much, sir.

#### CHRISTIAN FARMERS FEDERATION OF ONTARIO

**The Acting Chair:** The next presentation is by the Christian Farmers Federation of Ontario. I saw you waving. Welcome. If you could just introduce yourself for Hansard. You have 15 minutes. If you don't use it all up, that will give us some time to ask you some good questions.

**Mr John Kikkert:** Good. Thank you very much. My name is John Kikkert, president of the Christian Farmers Federation of Ontario. We're an organization of around 5,000 members, farmers from throughout Ontario. Our office is located in Guelph. We have 22 districts throughout Ontario that are represented by groups or committees. On top of that, we're involved with discussions at the executive level and then with our provincial council meetings.

We cover pretty well all of Ontario with our districts. Myself personally, I'm involved in the aspect of chickens for the Niagara Peninsula. I guess we're kind of close to the energy belt, if you look at Niagara Falls or look anywhere outside of that. If you look back a year ago, I was one of the fortunate ones to continue to have hydro despite the blackout throughout this area and into the US.

It's a pleasure for us to be here. With me is Elbert van Donkersgoed. He is our policy adviser. He puts all this work together. I'm going to ask Elbert to lead through our three-page document.

**Mr Elbert van Donkersgoed:** My thanks to the committee for taking the time to hear us this afternoon. I am basically going to read most of this and ad lib just a few little bits.

From a very broad perspective, we support a major role for governments in guaranteeing a reliable and efficient electricity generation and delivery system. Government has a role in avoiding price spikes in response to peak load demand or generation difficulties. Too much instability will destroy confidence in the electrical system. In other words, we're very comfortable with some of the basic notions of Bill 100, and that there will be a long-term significant role for government.

We support the use of market tools where they can serve the public good. We are an organization of entrepreneurs, and we're very willing to use market tools and the like to serve the public good, but we're not exactly slaves to the marketplace. Bill 100 can be interpreted to support this direction and we're here to suggest that we make it much clearer throughout the text of the legislation.

We support a gradual change in the price of Ontario electricity to reflect the average cost of production over time. At the same time, we support a three-step graduated scale of prices so that small and medium households and businesses pay less per unit of electricity use. Medium users would pay a higher price for their consumption over the basic amount. High users would pay a still higher rate for any usage over the medium level.

We support the elimination of subsidies that encourage consumption, while we support subsidies that encourage conservation and alternative energy production.

We support the development of pricing incentives for energy conservation such as time-of-day pricing for all users and consumers. We welcome Bill 100's proposal for a conservation bureau and the enabling policies that will allow electricity distributors to develop conservation and load management programs. We would go a step further and mandate conservation and load management. There are a number of places in the bill where we would say that enabling is not enough; the bill should mandate.

We support the adoption of a long-term strategy that will significantly reduce Ontario's dependence on non-renewable energy sources, makes use of energy sources more efficiently, conserves energy resources of all kinds and enables many entrepreneurs to be part of the delivery.

We are also realistic. Markets for renewable energy are difficult to create. Renewable energy products, especially during the early years of development, generally cost more than non-renewable ones, and payback periods for investors are often longer. Long-term support for renewable alternatives is necessary to allow producers to improve technology, develop management systems and reduce costs.

**1730**

I should just mention that we have a member who diversified out of the dairy business and bought an old water-driven mill and put a generator in it. It took him three years to get through the process of getting all the approvals. It took him quite a chunk of investment and, for Howard's benefit, he tells me that at six cents, he breaks even with what he has put in toward creating that small generating system.

We note that it will take more than incentives. As a first step, a renewable and alternative bureau with as strong a mandate as the proposed conservation bureau needs to be included in Bill 100. If we think renewables are just going to happen, I think we're kidding ourselves. We're suggesting to you that this needs more than a face; it needs a promoter. It needs somebody to root for it. It needs a champion. That means this bill needs to create a champion for renewables and alternatives, and it needs to be one that isn't going to be influenced by the other parts of the electrical system. It needs to be as strong a mandate as the conservation one.

We note that in the past 30 years, our federal government has favoured non-renewable resources of energy with its spending and tax incentives, in the form of tax

write-offs for exploration expenses, contributions to megaprojects such as Hibernia and the Alberta Tar Sands and the absence of depletion charges. We need a similar level of support for entrepreneurship in renewable and alternative electricity sources.

Bill 100, it appears to us, only promotes renewable and alternative energy. It needs rewriting so that it will deliver, and we notice especially the purpose clause that says, "to promote the use of cleaner energy." We think you've got to have stronger language if we're going to have real results down the road.

You folks are our legislators, and you're going to be the ones to decide, really, what the long-term goals are, or what the long-term agenda here is, but if you don't specify it, I'm not sure that the civil service or the executive will deliver. I think you, as legislators in the Legislature, need to specify what needs to be delivered down the road. If we're going to have renewables, the language has got to be more than "promote." We need a system that delivers.

We support the creation of marketplace incentives and streamlined approvals to encourage entrepreneurs to develop cogeneration and environmentally friendly generation facilities. A bureau, for example, should have helped somebody like our member, who took three years to get through all the hoops, to get through in something like six months, once he'd decided that he was willing to make the investment. There's every reason that there should be a vigorous level of support for the entrepreneurs willing to take the long-term risks.

Alternative energy production is a way to bring value to farming without producing more crops or livestock. Done right, the legislation itself can be an encouragement for farm entrepreneurs to diversify in this direction.

The legislation needs guarantees that small- and medium-sized entrepreneurs will have access to the distribution grid. Language that might result in enabling regulations is not satisfactory. As legislators, you should not be satisfied with promises of enabling legislation. A right to connect needs to be specified in the legislation.

Secondly, the legislation needs to guarantee the basics of a pricing system. These investments are long term and necessitate fixed-term price agreements. It is not enough to enable distributors to buy or invest in renewable or alternative energy sources. We need a commitment to a pricing system that enables the participation of small- and medium-sized entrepreneurs in electricity generation. Distributors should be required to accommodate access for small- and medium-sized electricity generators in future modifications of their system.

This legislation needs to support a clarification in other legislation and policy. For example, energy generation should be recognized as an accessory use for land zoned either agricultural or rural. Zone changes should not be necessary for windmills constructed primarily for on-farm electricity needs. Wind farms, on the other hand, need some special attention in land use policy.

We support the development of technology for the production of ethanol in Ontario, but we are cautious

about building a substantive alternative fuel system based on processing food and feed grains into ethanol. As food and feed commodities are part of highly competitive international markets, we can expect dramatic spikes in the prices of these commodities. The net energy balance available from processing food and feed grains into ethanol remains controversial. In the long term, this technology needs to be based on feed stocks other than food and feed grains.

We also support the development of technology for the production of bio-diesel in Ontario. We know the technology is still expensive; however, it also has the potential to help the food system with other challenges, such as deadstock management.

We are less excited about using this technology to manage livestock manures. Livestock manures need to be returned to the land, close by livestock facilities, to maintain the long-term productivity of our soils. Applying livestock manures to cropland is also the most cost-effective way to manage manures.

We mention both bio-diesel and ethanol because we think that in areas like wind, solar and the like, there is a bigger future for alternative energy sources than in bio-diesel and ethanol. We think both of them have long hurdles before we can expect them to be competitive.

Finally, if load management, conservation and time-of-day pricing are implemented with care, there will be plenty of opportunities for farm entrepreneurs to generate energy for their own use, especially during periods of peak electricity demand and higher prices. They have the land base, the entrepreneurial experience and access to many potential energy sources such as bio-diesel, ethanol, solar, water and wind.

Bill 100 includes many initiatives that we welcome. However, in a key item, it lacks clarity and commitment: the local production of energy in many communities by small and medium-sized entrepreneurs. You have an opportunity to enable farmers, countryside landowners and rural communities to be part of the economic potential of redesigning electricity generation. We suggest you don't miss the opportunity. As the bill stands, we think we could very well miss the opportunity.

**The Acting Chair:** Thank you, and you do have time for questions. Who is next?

**Mr O'Toole:** I want to make a comment and then a question. I think your idea on the pricing structure, the three steps—residential, small business, which would include agriculture—right now, it's 250,000 kilowatts where you actually get into being a large consumer. When they say 50% of the consumption, about 25% is residential; the rest is by commercial users.

The term you're looking for on the standards or regulations for new or renewable fuel is called the renewable portfolio standard. That's the language of the world. I kind of agree with you that we set in legislation a stable line for a renewable portfolio standard of, say, 3%. That's about what Denmark has done. So put it right in legislation that it's non-negotiable, and all the contracting and RFPs would have to conform to that, knowing that

3% or 4% of all new generation would have to be from renewable sources. Right now it's completely ambiguous, as most of the bill is and most of their election platform was too.

Do you have anything to say with respect to the two comments I've made: the renewable portfolio standard, which you spent some time on, and—comment was specifically on the agricultural sector, which is important in my riding. Dairy farming—these people are going to get killed if prices double. You're in chickens, you're in livestock, you need fuel. It's a serious problem. I just throw that out for you to respond to.

How about co-ops for agriculture? A wind generator for four farms? Why not?

**The Acting Chair:** How about letting him respond?

**Mr van Donkersgoed:** On the basic question of the vagueness of the bill, we think some of this needs to be very clearly said that it's going to happen so that the civil service and the executive of this government don't have a choice but to listen to what Parliament has said. I think you, as legislators, need to set the agenda. So I don't think there is any doubt that we've got to have some more hard and fast data, details, goals, specifics in this bill about what we're going to do for renewables over the next decade or whatever.

**1740**

On the subject of pricing, our reason for three-step pricing is very much because the small-scale entrepreneur is the backbone of the countryside and many of the smaller entrepreneurs, including farmers, are not in a position to immediately start moving as fast as we probably should to the actual cost of energy, as I hope others are able to. I can't speak for them, but for us, we think the smaller entrepreneurs need to have the support of government, the support of society, in order to be the economic engines of the countryside.

**Mr Hampton:** The farmers are in a unique position here, in that you will consume electricity, and many farm operations consume a fair amount of electricity. I visited a dairy farm—I wouldn't even say it's a large dairy farm, but a medium-size dairy farm—where they showed me all their coolers, their lighting systems, the milking systems, and then they showed me their hydro bill. It was quite a substantial hydro bill.

We heard earlier today, for example, from a number of industrial groups: mining organizations, the steel industry, the pulp and paper industry. They basically said that from their accounting, the price of electricity between 2000 and 2003 went up by 30% or 31%. They've looked at Bill 100 and all of the permutations, and their concern is that it will mean a further increase in the price of electricity of somewhere between 30% and 50%. They are, of course, warning against that. What would be the effect of an increase in price of, say, another 30% on farmers in Ontario, in your view?

**Mr Kikkert:** The main thing would be, if we go up 30%, does the rest of Canada? Let's look at Quebec, with the water source. Can we be competitive with that? That would give them an advantage. Then you look at the

Great Lakes states, at how competitive their electricity rates are with ours. If we're going to go up 30%, hopefully they'll go up 30% for the same reasons. But if they only go up 10% and we go up 30%, yes, we have a competitive disadvantage.

**Mr McMeekin:** It's clear we can't have conservation without a focus on the price side also. To deny that is a problem.

**Mr van Donkersgoed:** Agreed.

**Mr McMeekin:** I just want to compliment you, Mr van Donkersgoed, for the excellent presentation. We have a strange kind of relationship. You do a lot of writing, and I always find your stuff to be not only insightful but practical and full of a lot of common sense. I always move it over to my "Save" file because it's so valuable to me personally, so I want to thank you for that.

Today is no exception. You've laid it out. You've talked about the need to be proactive. You've talked about the government needing to intervene. The only thing that was ambiguous, by the way, in the last election was the size of the deficit in Ontario.

But that having been said, you referenced ethanol and the right to connect, which was something we heard a lot about. You've talked about the government assisting to provide incentives. What specifically can you tell us about the form you'd like to see put in place to enable that to happen?

**Mr van Donkersgoed:** There are many ways that one can approach incentives, all the way from property tax-related benefits, but with every one of them that you raise, you also immediately have a concern. If, for example, we do minimal property taxes on lands or facilities that are used for energy generation, the last thing our municipalities need is another hit for not having property taxes when there's new development in their communities. So we have to do the incentives from a provincial level rather than assume that we can say, "We'll force the municipalities to deliver." One point we would want to make is that we wouldn't want the provincial government to say, "Municipalities, you've got to create the incentives." The incentives have to be from within the electrical system, and the consumer, in the long term, needs to be paying for those incentives.

**Mr McMeekin:** So don't download incentives.

**Mr van Donkersgoed:** It could still be a property tax opportunity, but the money that the municipalities are forgoing better flow to the municipalities from the province, or from the energy system.

**Mr McMeekin:** So you need the tools.

**Mr van Donkersgoed:** I think there are a lot of opportunities, from property tax to assistance with interest rates for long-term loans—in other words, providing capital at a guaranteed rate—to income tax breaks or incentives in income tax. Even if we're wanting to get all kinds of citizens to invest in green energy, you could easily have a green energy incentive on your income tax return. If you've invested so many thousand dollars into a green investment, you get a break on your provincial income tax.

We've got a lot of opportunities there. I don't think there's a lack of opportunity. The real choice needs to be based on how we get lots of people involved, how we get lots of entrepreneurs involved and then how we make sure that this big system we've got in place opens up to all these entrepreneurs and the potential that a lot of citizens are going to be willing to invest.

**Mr McMeekin:** Bang on. Thanks very much.

**The Acting Chair:** Thank you very much, gentlemen. We appreciate it.

#### ADVOCACY CENTRE FOR TENANTS ONTARIO

**The Acting Chair:** Our next presenter is the Advocacy Centre for Tenants Ontario. Is Mary here?

**Ms Mary Todorow:** That's me.

**The Acting Chair:** Would you just introduce yourself for Hansard.

**Ms Todorow:** Good afternoon to the Chair and members of the committee. I know it's a bit late in the day and I will try not to take up too much time so there's time for questions.

My name is Mary Todorow and I am a policy analyst at the Advocacy Centre for Tenants, a specialty legal aid clinic funded by Legal Aid Ontario to engage in test case litigation and law reform advocacy to better the housing situation of low-income residents, including tenants, co-op members and homeless persons across Ontario. In addition, we exercise this mandate on behalf of the 79 community Legal Aid Ontario clinics in respect of their work representing the interests of low-income residents.

Our clinic is also a member of the Low-Income Energy Network, or LIEN, a group of advocates and environmentalists who joined together in early 2004 to highlight the need for the provincial government to take the lead in safeguarding low-income consumers as it moves forward with its plan to reorganize Ontario's electricity sector and with Bill 100. LIEN held a media conference just before the April 1 rate hike and asked the government to include the following provisions in its energy plan: direct energy assistance for low-income households unable to absorb the higher cost of power or those in emergency circumstances; and a conservation program to make energy-efficiency upgrades accessible to low-income households, in line with recommendations made by the Ontario Energy Board in its report on demand-side management and demand-side response.

I have copies of our background materials. I have 10 here, if anybody would like to have a copy of the LIEN materials from March. There's some interesting background information there.

When the energy minister appeared before this committee on Monday, he stated that electricity is a fundamental public need and that the government is trying to find the right balance in Bill 100 between the need for prices that reflect the true cost of electricity and consumers' needs for affordable and predictable prices. I'm here today to draw your attention to the dispro-

portionate energy burden faced by Ontario's low-income households and tenants and the disproportionate effect that increases in electricity prices will have on these vulnerable consumers.

According to StatsCan data, 14.4% of Ontario's population—about 1.6 million people—are living at or below the poverty line. The majority of these people live in tenant households. For low-income households in Ontario, it is a daily struggle to pay for the basic necessities of life. They are particularly vulnerable to increases in shelter and utility costs, increases which are difficult to absorb and which could put their housing in jeopardy.

Approximately 23% of tenant households pay for utilities directly and separately from the rent. Under the current provisions in the Tenant Protection Act, an increase in electricity prices is incorporated into the annual rent increase guideline and passed on to tenants whose rent includes utilities. As well, landlords can apply to the Ontario Rental Housing Tribunal for an above-guideline rent increase—more than your legal annual rent increase—if electricity prices increase by an amount greater than accounted for in the annual rent increase guideline. There's a weighting factor and a percentage. For those tenants who pay for electricity in their rent, they're going to feel the impact of the April 1 rate hike about the beginning of 2005. That's because the annual rent increase guideline for 2004 has already gone and it's still to be set for 2005. Under the current rules about guideline rent increases, what will happen is a landlord will want to have at least a year's worth of base data and a reference year to maximize, in terms of recouping their costs.

#### 1750

Stats Canada census data also shows that 20% of Ontario tenant households pay 50% or more of their household income on shelter costs. The risk of homelessness increases where rental costs consume more than 50% of pre-tax household income for a tenant household. The median income of Ontario's renter households is less than half of the median income of homeowner households, so we're starting at a disadvantage right there.

The Greater Toronto Area Homelessness Action Task Force reported in 1999 that about 60% of all households paying more than half of their income on rent are on social assistance. The task force also reported that these households, when faced with an urgent and unexpected expenditure, are vulnerable to falling into arrears and possible eviction.

The inability to pay utilities is among the leading economic causes of homelessness. It is important to note that, compared to both the Ontario average and highest-income quintile, the lowest Ontario income quintile—there are five levels and this would be people at the very lowest end—has a far greater proportion of households that are rented—so they're renters—have electric space heating, have principal heating equipment that's more than 10 years old and have electric water heating. The net result is that low-income households in Ontario are likely

using more energy and paying more per unit of energy since they are more dependent on electricity as their fuel source and have older, less efficient heating equipment.

The increase in electricity rates in Ontario effective April 1 has increased the energy burden for low-income households that are already struggling to make ends meet. For many low-wage workers and people on social assistance and other income security programs, it will mean choosing between heating, eating and paying the rent. Clearly, decisive measures are required to ensure low-income households are able to access affordable electricity and to remove the barriers that presently prevent these households from fully participating in the culture of conservation being promoted by the government and through provisions in Bill 100.

There have been some encouraging signs that the significant impact that even a small change in energy costs can have on low-income consumers is being acknowledged. The provincial government announced on March 29 that it was providing a one-time allocation of \$2 million for an energy emergency fund and would be monitoring the direct impact of rate increases on households. These emergency funds have now been distributed to the consolidated municipal service managers. They're out there now. They got an allocation according to population etc, and low-income households will be able to access one-time assistance from the fund to deal with the payment of energy utility arrears, security deposits and reconnection fees.

The energy minister has also specifically referred to programs and initiatives targeted to low-income and other hard-to-reach consumers in his letter to local distribution companies that advised which conservation proposals would be supported by the Ontario Energy Board with respect to cost recovery. So that's a good sign.

Minister Duncan also requested another specialty legal aid clinic, the Canadian Environmental Law Association—and I believe they will be doing a deputation before the committee at a future date—to develop recommendations on actions the government could take to help low-income households cope with the rise in electricity prices immediately. CELA is also a member of the Low-Income Energy Network.

In response to this request, the Toronto Environmental Alliance, which also appeared before you today at these public hearings, commissioned a report on developing a low-income energy conservation and assistance strategy for Ontario. The report was submitted to Minister Duncan and to the Minister of Community and Social Services. I believe Keith Stewart from TEA left a copy of this report with the clerk this morning and I think copies are going to be made for you, so I didn't make copies, but I just wanted to bring this along.

While these initiatives that the government has taken to date are all positive initial steps, what is required now is action on the recommendations in this report so that a comprehensive package of programs that are specifically targeted to low-income households is put in place to

enable these consumers to reduce their consumption and costs on a long-term and environmentally sustained basis.

I hope that you will have some time to browse through this; you'll see this pyramid. On page 18 of the report, when you finally get around to it, are emergency situations at the top and down here are preventive things like energy efficiency, consumer protection and education. What we want to do is reduce the ad hoc taking care of the immediate emergency and go to long-term, sustained programs.

We're hoping that you will amend Bill 100 so that there's a recognition in legislation that there must be specific consumer protection and programs in place to ensure universal non-discriminatory access for low-income Ontario households. I realize I've left some comments out of here, or words.

I want to thank you for this opportunity to raise these issues before the committee. This report is a really good basis to start with those programs, and we're hoping to produce a follow-up report, ready to implement demand-side management programs for low-income consumers. That's what the Low-Income Energy Network is involved in right now.

I would welcome any questions, and I'm really happy to have this opportunity to talk about these issues today before the committee.

**The Acting Chair:** Thank you very much, and yes, we do have time for questions. I will start with Mr Hampton.

**Mr Hampton:** I want to thank you for an exhaustive brief on an area that doesn't receive enough attention.

**Ms Todorow:** That's why we thought we'd come here today.

**Mr Hampton:** That's good. I just want to ask your impression. The energy assistance fund that's been provided is pretty modest. We did an analysis which suggests that for every \$20 the hydro bill goes up, someone will get \$1. In other words, we don't think it's going to provide much assistance. What I find particularly disturbing is that some of the poorest people in Ontario, Aboriginal people who live on reserves, are not even eligible for this.

I just got a phone call from the chief of one of the First Nations in my riding who said Hydro One is in the community today disconnecting people's hydro left, right and centre. These people can't pay their hydro bill. They're certainly not going to be able to pay the hydro bill if the kinds of increases that are being anticipated are passed along as a result of this bill. So I guess I'd ask you this question: How urgent is it that we get some kind of low-income assistance in place?

**Ms Todorow:** Well, I'll tell you, the LIEN group is really worried about the upcoming heating season. That's why we're aiming toward the fall going into the new year, moving forward, hopefully, in consultation with all the affected stakeholders to get some demand-side management programs in place.

We've been very lucky. The April 1 rate price increase, I think, was chosen fairly judiciously, because it

was the end of the heating season. We've been lucky in terms of it not having been a very hot summer, although a lot of low-income people cannot afford air conditioning.

Obviously, the individual you're talking about on the Aboriginal reserve is paying directly, but as I mentioned, most low-income households are renters and most of them pay for the utilities in their rent. In fact, what we're worried about is that there's a delayed impact right now.

**Mr Hampton:** It hasn't been passed along yet.

**Ms Todorow:** Exactly. That's right. So what's happening now is it's being absorbed by the landlords who are paying that. They're being billed now at the higher rate. But what this does is give some breathing room. We don't have a comprehensive strategy put into place with all the affected stakeholders, and there is this little bit of breathing room.

I don't deny that there are people right now who are paying their utilities directly who will need to access that \$2 million, and I'm going to be very interested to see what's happening. We could probably get feedback from our clinic system. That's the amazing thing about being involved in Ontario-wide advocacy groups like the clinic system, because we hear back. The clients will come in and they'll tell them, "The money is used up. It's gone."

I just found out that the city of Toronto's rent bank—they thought that the funds they were going to disburse in a quarter were going to last all through July. They're used up. That's the only thing that was announced, the \$10 million for the rent bank fund. So it's going to be very interesting.

We all know there's going to be an impact. There's a bit of breathing space because there's this delay due to the fact that mostly low-income people are living in tenant households. It's time to move forward, particularly to acknowledge that there has to be protection in the bill, particularly for those who are most vulnerable and have a disproportionate energy burden.

**1800**

**Ms Wynne:** So the systemic solution has to be there. You said that some of the reports have been put into the ministry, but currently there are programs and regulations being developed. So my question is, how confident are you that the message has gotten through? Are you in conversation with the ministry at this point?

**Ms Todorow:** We are.

**Ms Wynne:** Because this is an issue that has come up in all of our ridings.

**Ms Todorow:** Through the LIEN group, we're working with the Canadian Environmental Law Association and other partners. The press release that just went around gives you an idea of who is involved in this.

The thing is, low-income people also want to contribute to the solution to our gap between supply and demand, but there are barriers. For example, right now there is a proposal from the landlords to both the Ministry of Energy and the Ministry of Housing to go to sub-metering. There are certain behavioural changes that you can make, but you reach that wall because you can't

afford to buy the energy-efficient appliance; that's the landlord's responsibility in the legislation. You don't have control over the type of windows in your unit. There are so many things. That's why all the stakeholders have to be at the table to talk about this.

**Ms Wynne:** Right. So on an issue like that, the protections have to be in place if we could even suggest moving in multi-residentials to sub-metering.

**Ms Todorow:** Oh, my goodness. Don't even go there. You need some studies. But the whole point is that there really is this acknowledgement. When the government first announced that it was going to move off of the rate freeze, the message seemed to be that you could absorb the rate increases by modest consumption, behavioural changes. But I think people have realized that that's not enough. It's a little more complex in terms of making sure that all citizens, despite their income level, are going to have access to affordable energy and can participate in the solution.

**Ms Wynne:** Income level and the type of housing that they're living in.

**Ms Todorow:** That too. That's right: their tenure. Because homeowners, for example, can have access to the Energuide for Houses program, which is at the federal level. Tenants don't have access to that type of program.

**Mr Arnott:** Thank you very much for your presentation this afternoon. It's my understanding that in the state of Florida, in Pinellas county, the local hydro utility sends out in the electricity bill to people's homes a solicitation in which they invite people, if they wish, to contribute money toward a fund which the utility sets aside to assist low-income people if they can't pay their hydro bills, so that their power isn't cut off.

My belief is that while the government has set aside \$2 million in this energy emergency fund, that fund will be depleted within weeks.

**Ms Todorow:** It's one-time, and we'll see, won't we?

**Mr Arnott:** Within weeks, would be my prediction.

Would you agree that the state of Florida, this utility in Pinellas county, is doing the right thing?

**Ms Todorow:** I would say that I don't think it should be a discretionary charitable donation. I think everyone in this province benefits from conservation measures. We all benefit from it, and I don't think it's fair that tenant households should be disproportionately contributing to that solution. And they will, because their energy burden is greater.

**Mr O'Toole:** I think what he actually means is that all of the residents and small businesses get the bill requesting donations which would help people who have hardship.

**Ms Todorow:** But it's charity. I think everyone agrees that it's good public policy that everyone have the equal ability to participate in conservation measures that we all benefit from. The environment benefits from it; the economy does—

**Mr O'Toole:** We agree with that. Conservation—

**Ms Todorow:** And there is charitable—but that's part of the problem. Not everybody contributes to charity.

**Mr O'Toole:** It's invisible charity when it's done through subsidies.

**The Acting Chair:** Thank you very much, Mary. We appreciate it.

**Ms Todorow:** There is a patchwork of charity programs out there. For example, there's Share the Warmth; but again, it's discretionary. It's not enough and it doesn't do the trick. You have to have a comprehensive strategy.

**Mr Arnott:** Would you consider the energy emergency fund to be charity as well?

**Ms Todorow:** I consider it a good first step toward—I consider it as we're working toward the long-term solution. I think we need to make those systemic changes.

**The Acting Chair:** Thank you.

ENERLIFE CONSULTING/  
CANADA GREEN BUILDING COUNCIL

**The Acting Chair:** Our final speaker is from Enerlife Consulting, Ian Jarvis.

Welcome, Ian. You have 15 minutes to make your presentation.

**Mr Ian Jarvis:** Good afternoon. I'm Ian Jarvis. I am the president of Enerlife Consulting, the chair of the Canada Green Building Council and also a director of Milton Hydro. Those are the three hats I wear.

At the end of a long day the good news is, the two organizations I'm here to speak for this evening are both very supportive of the direction of Bill 100. Our interest is to provide maybe a little additional context and to focus on a couple of particular areas this body might be interested in.

The two areas we'd like to focus on—one is a study we were asked to prepare for the Ministry of Energy in 2003 entitled Making Ontario the Leader in Energy Efficiency, which in fact was a position it held in North America in the 1980s and early 1990s, which has since been lost. The study looked to bring together the economic as well as the environmental and social benefits of re-establishing that position in Ontario, which essentially would be leveraging the ground we've lost over the last decade to establish the province on a North American scale as being the place to look to for both goods and services in the energy efficiency field.

The second slide in the package, which I hope you all have, looked at the total expenditure. I'm sure by now you've heard these numbers in many different ways. As a province, excluding vehicle fuel, we spend around \$22 billion a year on utilities.

The following slide talks about the generally accepted idea that economically we can readily reduce that by at least 20%. So there's a potential \$4-billion provincial energy savings that could be achieved with something like a \$20-billion capital investment. Again, the policy document for the Ministry of Energy looked to say what would become of that capital funding and what are the opportunities the province could face if it were able to

grasp that and integrate it and use it in a productive fashion.

Again, in the brief time I've been here, I've heard you're very well aware of the economic as well as the environmental benefits, the reality that Ontario is a consuming province, not a producing province. While the focus of this group is on the electricity side, on the natural gas side, that's a far larger energy import we face on an annual basis. So the degree to which we're able to reduce our imports of energy and convert that expenditure into manufacturing and service jobs within the province, that is the primary opportunity Ontario faces with respect to its energy conservation and energy efficiency potential. The argument is that Ontario can position itself in North America as a leader in that field.

The study also looked at, where are the lowest-price kilowatt hours that are available? On the left-hand side of the chart, under "Recommendations," are renewable energy and conventional energy. On the right-hand side—and again, I know you'll be familiar with this from your week of hearings—the energy retrofits, improved standards of new construction and the whole behavioural side, the whole human side, are remarkably inexpensive approaches to achieving electricity capacity within the province. Within those, there is a very significant role that utility companies could and should naturally play.

Under "Recommendations," it talks about an integrated approach, looking at the whole energy-using sector and creating an integrated approach to both the utility side, the demand side and the user side, focused on the areas which on the previous slide are looked at as the most economical ways of creating electrical capacity: awareness and education, energy retrofits and so on.

In particular, item 5—benchmarking, metering and reporting—the utilities have such a role to play there. I'll come back to this later under a particular program of how difficult it remains still to obtain utility data in a useful form that allows building owners to take meaningful action.

Slide 7, we think, is fundamental. While we're looking at electricity, the electricity, natural gas, fuel and water areas need to be integrated. There's only one customer, and they simply don't have the patience to address each of those areas independently. So an integrated approach to energy demand-side management should look at electricity, fuel and water at the same time.

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Those were the conclusions that came out of the work done for the Ministry of Energy. That study is being used quite widely in terms of developing policy at this point in time. We know how to integrate those things. We know how to implement those things. There are programs in place in the community already that are making these work. What we're looking at is building upon those as opposed to creating something that doesn't yet exist.

The Mayors' Megawatt Challenge is a program under the Toronto and Region Conservation Authority's Living City banner, which has a range of energy efficiency initiatives, along with others, looking to change the trajectory of development within the greater Toronto

area. Mayor Hazel McCallion championed this program, inviting her fellow mayors across the GTA to take part and essentially to work together on municipal energy efficiency in their buildings and in their operations.

The scale of the program, on the next slide, engaged the 12 largest municipalities across the GTA, and also a few outliers in Halton, but essentially within the geographic scope of where the Toronto and Region Conservation Authority was looking. That group of municipalities represents about 92% of the population of the GTA, so in effect it's a very large response to work together on a program for saving energy. The will of the public and organizations in Ontario to work together on these issues is quite apparent.

The scope of the program looks at Web-based systems which help them to work together, looks at benchmarking energy use, brings their people together in workshops to share best practices, to share ideas, and helps them with the use of interval metering so that they can use it as a diagnostic tool as well as a load-shifting tool. It helps them work together on energy audits. Essentially, it takes what's been an individual effort to this point and allows organizations to work together toward common ends.

The following slide is a snapshot, taken from the Web site just this morning, of 10 city halls across the GTA to give a sense of the power of benchmarking. It's been remarkable how motivational it is for city officials to see where they stand relative to other cities in terms of energy efficiency as something they control, how much that can motivate them. The power of benchmarking is directly proportional to how easy it is to obtain utility information primarily through the utility companies. So this information piece, we think, is key to progress on wide-scale energy efficiency. There are already local initiatives taking place. To make that province-wide requires real involvement from the utilities, especially on the data side.

The second area, on behalf of the Canada Green Building Council, is about Ontario as it stands with respect to green building design in North America at this time. In the late 1980s, Ontario could have taken some pride in being among the leaders. We had some leading buildings and certainly some of the leading design firms at that time. That's no longer the case today.

The Canada Green Building Council is a national organization which is enjoying quite remarkable growth. From the beginning of December, it now has more than 400 organizations across the country. Interestingly, in July, for the first time the number of Ontario members equalled the number of British Columbia members and it's growing much more quickly. The interest is here in Ontario; the experience is not. At the moment, British Columbia design firms have significantly more experience in green building design than Ontario firms and are often being asked into Ontario to play the lead role in the design of buildings, such as York University's computer science building.

The Canada Green Building Council is the champion, the manager of green building development in Canada. LEED, Leadership in Energy and Environmental Design,

is the rating system, which I'm sure many of you are familiar with. It's a rating system that was really the springboard from which the United States's green building movement took off. Once people could identify a green, sustainable building, large numbers of organizations wanted them and that drove the design and construction industry to significantly improve their practices. So LEED has been pivotal in that.

LEED Uptake in Canada is described on the following slide. It's very much a movement in the west, moving east. The city of Vancouver has adopted LEED as its standard for new construction; similarly, the greater Vancouver regional district. There's a great deal of activity within Alberta and Alberta infrastructure in the city of Calgary, again to promote LEED as being its standard; and within Ontario the city of Vaughan, the York region school board and the Kortright Living City Centre, again as part of Toronto and region conservation. All of these are adopting LEED as their means of demonstrating that they both have, and can show, energy efficiency and environmental performance in their buildings.

The distribution across the country of LEED-accredited professionals and projects that are now being registered for certification is shown on the following slide—again, at this point, a strong weighting to the west but very much a movement east into Ontario and Quebec.

That leads into the recommendations, which we make both to the government and to the utility sector, in terms of supporting higher standards in new building design. As has happened in Alberta and British Columbia, within Public Works and Government Services Canada and within Quebec, adopting a LEED standard for new construction would be the most powerful thing this government could do to transform the design and construction industry within Ontario. So the LEED standard—following that example and adopting that all new publicly funded buildings will be at a certain standard—is a powerful statement to make to the industry.

Looking at that at the municipal level, we're already seeing municipalities adopting those standards and encouraging them with the developers that are working within their communities. The support that could be provided through demand side management in Ontario to federal programs in this area, we would argue, should complement, not match, and should look more at the performance end, where the federal programs tend to look at the prescriptive and the design end. Where Ontario steps into that, especially through demand side management, is to look at the actual demonstrated performance of buildings after they're built.

In conclusion, we would argue—as you've heard and as I know you all believe—that energy efficiency and renewable energy can be very positive for Ontario as a job creator as well as an economic step forward and an environmental improvement. Utilities are a natural channel to market and are natural allies within that cause. An integrated approach is key; the electricity, gas and water utilities need to be working together on this. There's one customer, and they look for a single service. The role of utilities here is to enable that market, to enable the transition to an energy-efficient Ontario economy.

**The Acting Speaker:** Are there any questions?

**Mr Hampton:** This is a very good brief, but do you have more statistical, financial evidence on any of this?

**Mr Jarvis:** The report entitled Making Ontario the Leader in Energy Efficiency is available at the Ministry of Energy and is being used widely by them for that. All the backup data is within that; it's a fairly large report. Similarly, the programming I referred to is available on the three Web sites I've referenced in the last slide, so there's a lot more information there.

**Mr Hampton:** Good. Thanks very much.

**The Acting Speaker:** Thank you very much for appearing before the committee, Mr Jarvis.

The committee stands adjourned until we meet on August 23 in Windsor.

*The committee adjourned at 1817.*





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