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Wednesday 8 April 2009

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Mercredi 8 avril 2009

**Standing Committee on
General Government**

Green Energy and Green
Economy Act, 2009

**Comité permanent des
affaires gouvernementales**

Loi de 2009 sur l'énergie verte
et l'économie verte

Chair: David Orazietti
Clerk: Trevor Day

Président : David Orazietti
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LEGISLATIVE ASSEMBLY OF ONTARIO

**STANDING COMMITTEE ON
GENERAL GOVERNMENT**

Wednesday 8 April 2009

ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

**COMITÉ PERMANENT DES
AFFAIRES GOUVERNEMENTALES**

Mercredi 8 avril 2009

*The committee met at 1603 in room 228.*GREEN ENERGY AND GREEN
ECONOMY ACT, 2009LOI DE 2009 SUR L'ÉNERGIE VERTE
ET L'ÉCONOMIE VERTE

Consideration of Bill 150, An Act to enact the Green Energy Act, 2009 and to build a green economy, to repeal the Energy Conservation Leadership Act, 2006 and the Energy Efficiency Act and to amend other statutes / Projet de loi 150, Loi édictant la Loi de 2009 sur l'énergie verte et visant à développer une économie verte, abrogeant la Loi de 2006 sur le leadership en matière de conservation de l'énergie et la Loi sur le rendement énergétique et modifiant d'autres lois.

The Chair (Mr. David Orazietti): Good afternoon, everyone, and welcome to the Standing Committee on General Government.

We have just one item before we start the presentations, an issue around travel to the three communities outside of Toronto: Sault Ste. Marie, London and Ottawa. I just need the committee's agreement that any vacant spaces on the charter plane can be charged back to the respective caucuses or ministry staff if they so choose to use those spaces. That's a fairly standard—

Mr. Peter Tabuns: I haven't counted before, so could you please explain it?

The Chair (Mr. David Orazietti): If there are empty seats on the plane, then they would be offered to staff or caucuses on a charge-back basis.

Mr. Peter Tabuns: Got it. Fine.

The Chair (Mr. David Orazietti): All agreed? Okay.

Mr. John Yakabuski: Well, we'd like them on a free basis, but we understand what your decision is.

The Chair (Mr. David Orazietti): So noted.

MINISTRY OF ENERGY AND
INFRASTRUCTURE

The Chair (Mr. David Orazietti): Good afternoon, Minister Smitherman, and welcome to the standing committee. You have 10 minutes for your presentation, and then there will be 20 minutes for questions, divided evenly among the members of the committee. As you know the practice, please state your name for the record for Hansard purposes, and you can begin when you like.

Hon. George Smitherman: I think my information was 15 and then five, five, five, but I think my remarks probably are closer to 10. I'm just concerned that I might seek your indulgence for a few seconds at the end. But I'll talk fast.

The Chair (Mr. David Orazietti): Absolutely. That's fine.

Hon. George Smitherman: Thank you very much. Since first elected, our government has taken determined steps to build a cleaner, greener energy system, one that can support a strong, 21st-century economy for Ontario, from our bold move away from coal-fired generation to the concrete steps we have taken towards energy conservation, including the installation of more than two million smart meters.

We've made tremendous progress. The renaissance of our energy system, reflected by billions in new investments, has been so successful that our government is confident we can raise the bar higher.

The Green Energy Act that we are considering in this House and this committee would, if passed, truly make this province North America's green energy leader. The act has two equally important thrusts. It would make it easier to bring renewable energy projects to life, and it would help us create a culture of conservation to encourage all Ontarians to use less electricity. Together, they would support a new, green economy for Ontario and help to create green jobs here at home.

I thank the members of this committee for their efforts, efforts which I know will help make this legislation better. We know the interest is there. Fourteen hours of debate in the Legislature, hundreds of responses to our posting on the EBR, and an overwhelming response for the seven days of public hearings, including three days of travelling, is a great example of how the committee will be well positioned to offer advice on improvements.

In these times of uncertainty, the Green Energy Act offers much promise. Few sectors offer so much hope of economic growth. We know that certainty is an important part of any economic growth formula. In order to stimulate greater implementation of renewables, certainty is provided: certainty that green power will be purchased at a good price through an innovative feed-in tariff program and backed up with a long-term contract; certainty that projects will be connected to the grid; certainty that government will issue necessary permits in a guaranteed time frame; and especially, certainty for the people of Ontario

that their interests, their health and their safety will come first.

In the several weeks since the bill was introduced, I've had the chance to travel to Port Alma and Ilderton, to Kitchener and Kincardine, as well as Danforth and High Park here in Toronto, to talk about the Green Energy Act. I'll soon be going to Fort Erie, Lac Seul and Ottawa. Wherever I have gone, I've found entrepreneurs and community activists who are so enthusiastic about the opportunities in the green economy. These are the people set to help create 50,000 additional jobs.

I would like to take some time to address some of the issues that have been raised since the Green Energy Act was first introduced.

While we collectively call this bill the Green Energy Act, the conservation thrust is just as important. Smart meters and the evolution to time-of-use pricing will soon become a powerful tool that will allow Ontarians to take better control of their electricity use. Time-of-use pricing is the catalyst that takes the meter in your basement or on your porch and makes it smart. These tools will help you manage your electricity costs if you shift some of your household tasks to lower-cost periods, such as evenings or weekends.

It is because of conservation's importance that we support making home energy audits more common in Ontario. We did so, knowing that the official opposition campaigned on it and that members of the Ontario Legislature unanimously supported the bill introduced by the member for Ottawa–Orléans, my parliamentary assistant, Phil McNeely. The logic is clear. At the time that you make the most important investment of your life, it's important to know how much energy your home uses and what you can do to use less. We pay \$150 toward the audits. Initiating an audit allows a homeowner to access up to \$10,000 for retrofits from the governments of Canada and Ontario combined. It's true that there are many important questions to answer: How long will the audit remain valid? Will there be a minimum age for a house before an audit is required? How will the audit affect seasonal residents? Should the requirement be phased in and over what period? We're going to listen to Ontarians on these questions and certainly to this committee. We're working with realtors and home builders to make sure we take the time to get this initiative right.

With respect to the search provisions and inspection powers in the bill, we recognize that these have encouraged some to speculate about their intentions. These powers are not essential to the bill's success, and amendments in this area would be very, very welcome.

On the issue of cost, we project that over a period from 2010 to 2012, a \$5-billion incremental investment will support the emergence of green energy and stimulate the emergence of a culture of conservation. Specifically, we project \$3.2 billion in transmission and distribution investment; \$950 million in more renewable generation; and \$900 million through conservation in the efforts made to enhance the capacity for all Ontarians to use less electricity.

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We anticipate about 1% per year of additional rate increase associated with the bill's implementation over the next 15 years. Our estimate of cost increases is based upon the way that we actually amortize costs in the energy sector. The research contracted by the official opposition does not. Their report apportions capital costs without consideration of the life of the asset, or, put another way, they didn't amortize those costs. Their report counts the costs for conservation programs without providing any benefit for reduced consumption by the consumer.

We believe that we have the opportunity to bring more renewable energy to life on the one hand and to create the capacity for people to go about their daily lives and use less electricity; that when we pay to assist people to transition to that, we should anticipate lower use of electricity as part of the benefit. Their report did not do that. Their report assumes that the increase in green energy and conservation will fail to supplant any other costs downstream. We quarrel with that. Their report has wild fluctuations in the projection of costs associated with it.

As I mentioned earlier, the proposed legislation would not detract from the important protection of health, safety and our environment. As an example, let's look at some of the concerns that have been raised about setbacks from wind turbines.

Under the current model, municipalities are responsible for determining setbacks for wind projects. The result is a patchwork of municipal bylaws across Ontario. In place of this pattern, the Green Energy Act seeks to upload this responsibility to the province, creating strong and uniform standards. For the first time, there would be standardized, province-wide setback requirements. Everyone would have the same rule book, and the rule book will be developed and regulated by the Ministry of the Environment. They are uniquely positioned to provide direction that is based on known science, and with obligation to the environment as well as the health and safety of the public. By raising this responsibility to the provincial level, our aim is to help Ontario's municipalities by lifting the burden of time, money and effort that these kinds of approvals require.

We're also taking steps to streamline the approvals process for renewable energy projects. We've been clear that we expect there to be public consultation as part of the streamlined approvals process that is currently being worked on by the Ministries of Environment and Natural Resources. I know that the MOE and MNR have already started consulting with stakeholders. We'll continue to work with all our partners as they move forward to develop this renewable energy permitting process. Project proponents will be obligated to engage the local community in a conversation about their project before they can move forward. People will not be surprised.

In reference to concerns that have been raised specifically regarding the Niagara Escarpment, our government sees the development of renewable energy projects and the protection of our natural environment as compatible priorities. We have confidence that the Ministries of En-

vironment and Natural Resources are appropriately positioned in this model. Protections outlined under the Niagara Escarpment plan, as well as provincial and federal statutes, continue to apply. For example, Ontario's new Endangered Species Act will fully apply to renewable energy project proposals to protect listed species and their habitat. As well, permitting requirements for protection of hazardous lands and wetlands under the Conservation Authorities Act and its regulations will continue to apply. And the federal Fisheries Act and the provincial Fish and Wildlife Conservation Act will continue to protect fish populations and habitat.

I look forward to the opportunity to respond to further questions. In closing, one of the things in the proposed act about which I am most excited is the potential for the emergence of thousands of smaller green energy projects—microgeneration—in urban as well as rural areas. The benefit of this is manyfold, but perhaps most important, it lets individual citizens and their communities be part of our green solutions.

This legislation is about bringing all Ontarians into the tent and building a green energy future for our province, and a sustainable future where we all use less energy.

This Green Energy Act continues to transform Ontario's electricity generation system into one of the cleanest, greenest energy supply mixes in the world. I know that the input of the public and the input of this committee will allow it to be an even more effective tool.

I want to thank all the members of the committee for the hard work that they'll be taking part in as we seek to make improvements to this piece of legislation. Thank you, Mr. Chair.

The Chair (Mr. Lorenzo Berardinetti): Thank you very much, Minister, for your presentation. We'll start with the official opposition, Mr. O'Toole. Each caucus has about five and a half minutes for questions.

Mr. John O'Toole: Thank you very much, Minister. I wasn't here to hear all of it, but I've heard quite a bit of it in the House. Some of it I actually believe.

I really want to make three points: The future role of the Ontario Energy Board and the oversight of what you think are neutral policies in terms of impact on the consumer; also, the familiarization you might have with the report that was done in 2002. I have here the Select Committee on Alternative Fuel Sources' final report. That was a unanimous report looking at many of the considerations that should be in this Green Energy Act. Some roles and responsibilities are outlined in that and a number of recommendations that I'd like to draw to your attention. More importantly—and this is probably the most treacherous question of all, if it is a question—is the current delay—you've delayed it a couple of times now—on the announcement of the new generation III nuclear reactors and the decision between AECL, as well as Candu.

I'm very concerned, reading the paper recently, and by other suggestions, that Ontario is primarily the biggest user of nuclear energy. I think there's one Gentilly plant. I think Ontario has a great deal at risk here: the technology transfer and the proprietary use of Candu.

My issue here is, if you're waiting or trying to outwait the federal government so they'll pick up any overruns in the contract, why wouldn't you, as a government, take a lead role in assuming a partnership with AECL and the contractual arrangements with respect to overruns or design implementation things? This will benefit Ontario. This is where Candu—where the companies are, where the job creation is, and it's proprietary technology that could be in jeopardy.

I represent the riding of Durham with two reactors—one in Pickering as well—where they've had a record of safety, a record of performance by OPG and no incidents. I think you need to be clear with the people of Ontario that you are going to look at this issue of blaming the federal government for not picking up some potential overruns. I think that's being used as a shield artificially to delay the announcements of which kind of technology is going to be used.

The second thing is, I want to have a direct briefing on the role of the Ontario Energy Board as you implement this scandalous billion-dollar expenditure on some kind of generation that's not even proven worldwide. It sounds good, Minister, but by the same token—anyway, I'm very frustrated, as you can tell. The answers to my critic here haven't been fair in the House. You've dismissed most of his questions. But there, I throw it on the table for you and the gauntlet is down.

Hon. George Smitherman: If that's your gauntlet, it's a rather poorly constructed one at that. Let me try and disassemble some of the misinformation that you took a run at there.

Firstly, I'm happy to organize a direct briefing for you about the OEB, as you've requested.

The report in 2002 was chaired by Steve Gilchrist, then the member for Scarborough East and a member of your caucus. I met with Mr. Gilchrist and he offers his very strong endorsement for the Green Energy Act. He believes that substantial of the elements of the report, which involved all members, have been addressed in the Green Energy Act, and he would be very keen to have an opportunity to participate in making sure that the Green Energy Act is implemented in a way that the report in 2002 envisioned.

On the issue of nuclear, a few things: Firstly, I guess you haven't had a chance to get from the mayor of Clarington, which I believe is in your constituency, one of the bumper stickers that they have made up that says, "Clarington loves George." So the cynicism which you've brought to the fore on the matter of the procurement of a nuclear power plant, thankfully, isn't fully reflected in your constituency.

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You've made some allegation about blaming the feds. There's been no blame involved. At the heart of the matter, as we seek to procure a very expensive piece of technology, we seek to do so in a fashion which is based on the productivity of the plant, the costs associated with its construction and the economic development that will ensue from making that investment. With all due respect,

if I took the cost modelling and applied it to electricity pricing the way you have to the Green Energy Act, we'd be into 20%, 30%, 40% increases in electricity costs because you don't even understand the principle of amortization, it would seem.

I think the approach ought to be that the good people of the province of Ontario have been the largest and most loyal customers of Candu technology through Atomic Energy of Canada Ltd. In a current procurement where we're willing to invest substantially of the ratepayers' money, we have sought to create a process with substantial tensions between competitors who have different technologies and different advantages associated with those technologies. AECL and two others are competing for that business, and we hope to be in a position where we have entered into contract with one of them by the end of this spring. That's the time frame that we're operating within, and I think that, given the uncertainty of the times, given the scale and spectre of the nature of this investment, we will continue to move this forward in a fashion which is prudent.

You have decided—

The Chair (Mr. David Orazietti): Minister Smitherman?

Hon. George Smitherman: —on an emotional level that you're just going to go with the one. We think it's important when you're making an investment of that scale that you actually do it far more prudently and make sure that we're making an investment in the very best technology that's available. Thank you.

The Chair (Mr. David Orazietti): Thank you. That's all the time we have for that caucus. Mr. Tabuns.

Mr. Peter Tabuns: Thank you, Minister.

Minister, I need some clarification. In schedule B, I think it is, subsection 5(2) amends the Electricity Act, and the clause enables you to direct the Ontario Power Authority to undertake "the procurement of electricity supplier capacity, including but not limited to supplying capacity derived from renewable energy sources." The lack of specificity concerns me here.

I'll give you the question and then you can tell me what your specific thinking is—

Hon. George Smitherman: I don't have that paper in front of me. I'll do my best.

Mr. Peter Tabuns: Aside from the renewable energy sources explicitly cited in the clause, could you clarify what other energy sources this clause allows you to procure?

Hon. George Smitherman: I'll be happy to get back to the honourable member with a more fulsome answer, but we certainly anticipate, as an example, with our feed-in tariff model, being able to continue to add elements of renewable energy that would expand that list as it's been presently constructed.

As I understand it from this note that's been given to me—it has three letters on it—to your very specific question, combined heat and power would be an example of something that we would see OPA also being given the capacity to procure.

Mr. Peter Tabuns: So can you be clear with us that nuclear power would not in any way be covered by that clause?

Hon. George Smitherman: Nuclear power is not covered by the Green Energy Act.

Mr. Peter Tabuns: So it's outside of the Green Energy Act and this clause would not allow you to procure nuclear power through this act?

Hon. George Smitherman: I'm procuring nuclear power, as you very well know, and had initiated it well before the Green Energy Act had been envisioned. Other people have asked a similar question about EFW, energy from waste. We don't have that under the rubrics of green energy. There are other procurements and other processes by which we might seek to bring other pieces of the energy supply mix, but we haven't sought to have the Green Energy Act apply to nuclear power, no.

Mr. Peter Tabuns: Okay.

In some instances you are facing transmission constraints right now, and I'm thinking about the Bruce Peninsula. If in fact there's substantial uptake on renewable power projects in that area and those renewable power projects exceed the room that's available on the transmission system now, would in fact nuclear power or the nuclear generation be rolled back to allow renewable electricity generated in that region to reach Toronto and other areas?

Hon. George Smitherman: No. We don't envision a circumstance where we're going to give supremacy to one form versus the other. We would look at it as much as anything, I think, from the standpoint of grandfathering the use that's been existing there for decades. But what we are obviously envisioning in the 2010 to 2012 period is an incremental investment of \$3 billion to enhance our distribution and especially our transmission capacity to unlock much, much more renewable energy.

In the context of the Bruce, as you know, we're going forward with stabilization of the lines with a \$600- or \$700-million investment. This will certainly provide capacity to deal with the opportunities that are there in the Bruce, which are nuclear, with a very strong foundation and a long history, and an increasing amount of renewable energy. But no, we wouldn't be developing this in a fashion that sought to displace the requirements for transmission associated with the Bruce in favour of renewable energy. We look to add incremental capacity to allow more renewable energy projects to come online, like the one this past Friday where I had the opportunity of participating in the opening of almost 200 megawatts of wind power by Kincardine.

Mr. Peter Tabuns: So, as I understand it, then, if the transmission capacity in a region is not adequate to take the new renewable energy electricity that's being generated, then in fact you won't purchase that new renewable electricity?

Hon. George Smitherman: I think, more to the point, developers and investors in the province of Ontario are not going to be encouraged to bring projects online that don't have a capacity to get to the market where they're

required, which underscores the necessity for having the wherewithal to make the steps forward and to build transmission capability. We rather expect that the directives which we will be able to issue, which will give guidance to where Hydro One should be focusing its planning attention and its dollars for expansion, are going to be a strong signal to prospective investors about what kind of timelines there will be associated with transmission capacity. So we think the directives that we will issue will give strong guidance to the renewable energy sector about the prospects of having projects emerge in a way that can be instantly connected to the grid. We don't want to be in a situation, from a planning standpoint, where we've constructed capacity on the generation side that doesn't have a vehicle to get the power to the market centres.

The other thing is, it's quite challenging to—you know, nuclear power is a stable supply. It's baseload supply. Unlike coal, as an example, it doesn't respond so well to fluctuations in utilization, which is a technical challenge associated with the idea that you've presented, or the theory that—

The Chair (Mr. David Orazietti): Thank you. That's all the time that we have, Mr. Tabuns.

Mr. Peter Tabuns: What a shame.

The Chair (Mr. David Orazietti): Ms. Mitchell?

Mrs. Carol Mitchell: Thank you, Chair, and thank you, Minister, for your presentation.

As you know, Minister, there have been a number of concerns with regard to the setbacks. I was very pleased to hear that the MOE will not only be reviewing the environment, but looking to the health and safety issue as well.

I wanted to give you the opportunity to expand on that and I also wanted to hear more about the public input that will be allowed as the progression of the business case is presented and it has worked its way through.

Hon. George Smitherman: Sure. On this subject overall, I think it helps to highlight that this is a government-wide initiative. The bill itself addresses 15 different pieces of legislation, and substantial elements of it, on implementation, are the responsibilities of the Ministry of the Environment and the Ministry of Natural Resources, and certainly a ministry like agriculture and rural affairs plays a really strong role as well.

What we envision is a circumstance whereby instead of having this patchwork quilt—and there certainly is one. I asked for a list of charts—"Show me where municipalities have been landing on the issue of setback"—and it demonstrated that they were kind of all over the map. We know that some municipalities where the best prospects for wind lie are very small municipalities, and many have found it burdensome to be able to respond. We think it's important that the standard for wind be well informed by health and safety considerations, so the MOE will be looking at all the data that's available from other jurisdictions, and that we have a standard which is the same no matter whether you're in eastern Ontario, northern Ontario or southwestern Ontario. That's kind of

the model that we're working on. Some municipalities have been opposed to the province uploading those responsibilities; others have expressed satisfaction with that approach.

What I tried to say in my remarks is that the Ministry of the Environment will develop this and create, for any proponent of a project, a very clear list of criteria, reports, etc. that they will be expected to follow. Part and parcel of that, most assuredly, will be the absolute necessity of local dialogue. I know that some people have felt, "Oh, the municipal piece is out of play and these projects are just going to spring up overnight," but to the contrary: The obligation on the proponent for a conversation in the local community will be embedded in the work that the Ministry of the Environment will task those project proponents to complete. If they do that work well and provide complete reports, we guarantee to turn those around in faster time than has been the history in our province.

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The Chair (Mr. David Orazietti): Mr. Mauro.

Mr. Bill Mauro: We've actually responded, Minister, and thank you for your presentation to the question I was going to ask. You've elaborated on the fact that even though we've uploaded this responsibility, there will still be a significant opportunity for local proponents to meet a test in the community from people who are concerned about the establishment of projects in their jurisdiction. I want to thank you for that. That's one of the pieces I've been hearing a little bit about, although, as you've said, many have come back to me and said they are very happy with the fact that we've uploaded this responsibility, even though there are some who are expressing some concern.

Given that you've addressed that one for me, perhaps you could just talk, for me and for others here, a bit more about the feed-in tariff and how you feel that's going to complement the GEA.

Hon. George Smitherman: The feed-in tariff is really an evolved model of the government's renewable energy standard offer program. At the heart of it, it's kind of simple. It establishes, for a different form and scale of energy generation, the price that we're willing to pay for that. It creates certainty, and it does so in a way that can be associated with a 20-year contract, which is like double certainty.

At present, the Ontario Power Authority is consulting on the list of feed-in tariffs that we've proposed, and they're gaining input from a lot of different folks. What we sought to do in establishing the prices that we would be prepared to pay: We looked at our own experiences here in Ontario from our renewable energy standard offer program and from the competitive processes that we've run, and we sought to establish a price which was a good price—not just a fair price, but a good price—that has some degree of incentive, with the strongest incentives associated with small-scale projects, because we really want to encourage not just big developers that can invest \$50 million or \$100 million or \$200 million, but mom and pop on the top of the variety store or their local home, clusters of individuals living in the same neigh-

bourhood, school boards and local distribution companies and municipalities working together. We really want to create opportunities for thousands and thousands of points of microgeneration, and the feed-in tariff is very much modelled toward trying to encourage those as well.

The Chair (Mr. David Orazietti): That's all the time we have. Thank you very much for your presentation.

ONTARIO GREEN ENERGY ACT ALLIANCE

The Chair (Mr. David Orazietti): The next presentation is the Green Energy Act Alliance, if you'd like to come forward.

Welcome. You have 10 minutes for your presentation. There will be five minutes left for questions from members of the committee. Please state your name for the purposes of Hansard before you begin, and you can begin when you'd like.

Ms. Deborah Doncaster: Good afternoon, and thank you very much, Mr. Chair and members of the committee. My name is Deborah Doncaster. I'm the executive director of the Community Power Fund and chair of the Green Energy Act Alliance. My colleague is David Poch. He has been a lawyer advising the alliance. He has practised energy regulation and environmental law for over 25 years in Ontario.

We're here today representing the Green Energy Act Alliance and the current 315 members that constitute that alliance. I'll be focusing on why we believe that this act is a world-class act. David will be focusing on some refinements that we would recommend to the act.

The founding members of the Green Energy Act Alliance are as follows: The Ontario Federation of Agriculture, Community Power Fund, Environmental Defence, Ivey Foundation, the David Suzuki Foundation, the Ontario Sustainable Energy Association, First Nations Energy Alliance, World Wildlife Fund and the Pembina Institute.

We would like to say, on record, that the Green Energy Act Alliance believes that this is a world-class act and could potentially revolutionize our energy economy, manufacturing sector and local economies in Ontario.

We wanted to speak a little bit about what we see as the world-class features of this act. First and foremost, we believe that the act provides a feed-in tariff program that is a first-out-of-the-gate, comprehensive approach to a feed-in tariff in North America. There are many jurisdictions in the US that are scrambling to put feed-in tariffs into legislation, but there is nothing to date that's as comprehensive and aggressive as what Ontario is proposing.

In terms of world-class features, consumer impacts are another huge consideration for this bill. The proposed act provides the basis for the lowest-cost electricity option for Ontario consumers, we believe. Let's be honest: The price of electricity is going to go up in Ontario no matter which path we take. Generation today is more expensive than generation yesterday. Nobody can seriously argue

that conservation is not the lowest-cost option. Prioritizing conservation, as this bill does, is the best way to ensure lower bills. Renewable energy and high-efficiency cogeneration combined is the least-cost generation option today. The OPA's proposed feed-in tariff for wind, biomass, biogas and hydro all come in cheaper than what Wall Street currently tells us nuclear power is going to cost. With renewables and feed-in tariffs, we lock in the price and we avoid the risks of imported gas prices, nuclear cost overruns and poor performance.

Finally, we believe that one of the most significant features of the act is that it will create jobs—tens of thousands, hundreds of thousands of jobs. The proposed act and the relevant regulations have the potential to enable the greatest number of meaningful jobs, more than the OPA's previous plan, and those jobs can start today. Renewables and conservation are shovels in the ground today—and we need the jobs today. We, too, have commissioned a study, with the Political Economy Research Institute of the University of Massachusetts. Preliminary results shows that aggressive implementation of the Green Energy and Green Economy Act, the feed-in tariff program and related regulations will produce three times the number of jobs than what the IPSP had originally proposed. The government estimates of job creation of 50,000 are likely to significantly underestimate the potential. Just as importantly, jobs from conservation and green power occur across the province and a greater proportion of those jobs are ongoing. Distributed generation and conservation means distributed local jobs—and yes, I'm going to use the Germany analogy, much to the minister's chagrin, if he were here to stay for this.

The point of referencing Germany is not to compare supply mix possibilities or probabilities; the point of comparison with Germany is that it is a jurisdiction with a landmass one third the size of Ontario, and in Germany today they have 280,000 jobs in the renewable energy sector. They're producing 32,000 megawatts of renewable energy today; that's 100 terawatt hours per year, which compares to Ontario's total electricity demand of 150 terawatt hours a year. By 2030, Germany's renewable energy supply will grow from 15% to 50% of total requirements. The German government anticipates the jobs to be in the 800,000 to 900,000 range. In some ways, Ontario's energy plan is superior to Germany's because we are legally required to eliminate coal-fired generation by 2014 and the proposed act does not place caps or limits on the amount of renewables and conservation that can come into the system.

Mr. David Poch: While we're delighted to see the government moving ahead with this, we do have some suggestions for improvement which we think are most important. We're delighted that the minister seems to be inviting the committee to engage in that.

First off, the preamble of the Green Energy Act recites the government's commitment to promoting and expanding conservation and renewables, but it falls short of ensuring that government agencies such as the OPA, IESO and OEB will give these options the priority that's

intended. There is considerable inertia; explicit prioritization in the legislation for conservation and renewables in planning, regulation, procurement and operation by all of these agencies would be greatly of assistance in overcoming that inertia. Our materials spell out the particular sections where we think such changes can be made and I won't trouble you now with that.

Secondly, with respect to the feed-in tariff proposal—which we're, of course, great supporters of—to build a renewable energy industry in Ontario, to attract the jobs and investment, certainty is a key. It's apparent to us that this government is committed to a feed-in tariff approach, but potential investors, developers and manufacturers need assurance that subsequent governments are similarly committed. So we recommend that the legislation require feed-in tariffs as the primary mechanism for procuring renewables, as opposed to merely being permissive.

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With respect to resource intensity, this is where the ability to differentiate the feed-in tariff according to the local resource situation—for example, the speed of wind where the project exists. The act doesn't explicitly allow that. We think it should. This would mean that feed-in tariffs wouldn't overpay for projects in high-wind areas, and it would allow the tariffs to be available to communities that are not in the highest-wind areas. Communities and loads can't move around the province to take advantage of the highest-wind sites, nor is transmission necessarily available, in the near future at least, at the highest-wind sites. We've done some economic analysis—Hélimax did this for us. It shows that a feed-in tariff which includes this differentiation would in fact be no more expensive, but would facilitate greater community power and deeper opportunities for renewables.

The third area where we'd like to see improvement is the fact that, except in permitting local distribution companies to proceed in a limited way, the bill is silent on combined heat and power. If combined heat and power is defined to be only the highest-efficiency variety, which we favour, there's the potential to vastly increase the efficient use of gas that's being burned in any event to provide heat or steam in industry, in commerce, in homes and so on. Combined heat and power brings all the benefits of dispersed development, reduced reliance on wires, what have you, and it has the potential to support greater penetration of intermittent renewables. It's a nice marriage. To accomplish this, we simply say that the very sections in the act dealing with renewables—the feed-in tariffs, the obligations with respect to connection and so on—simply be extended to cover combined heat and power properly defined.

The fourth area is with respect to connection charges, the wires costs to hook up new generation. As we beef up our wires system to accommodate the new generation, the question is, who pays for it? Traditionally in Ontario and today in Ontario, we all pay for it. We witnessed the major investment in wires beef-up coming out of the Bruce nuclear facility. We're all going to pay for that.

That's not going to be charged to Bruce Power. The Ontario Energy Board has been suggesting that new wires costs should be borne by the renewable energy generators. We're very concerned about that and would like to see that possibility headed off in the legislation. It would not be a level playing field. It would inject great uncertainty for renewable energy generators' investors. Ultimately, ratepayers will pay for it regardless, because the tariff would then have to rise to compensate these generators for it. So it would needlessly complicate the tariff. It would have to take into account the individual impacts of wires charges, and if it didn't individually account for this, it would simply have to overpay all generators on the assumption that they might have such charges, which would be economically inefficient. So we say that the act should mandate what's called shallow connection charges. This is for the benefit of society. It should be borne broadly by society. It shouldn't be visited on a particular generator or a particular distribution utility, to be borne by all ratepayers.

Finally, a question came up earlier from Mr. Tabuns with respect to schedule B, section 5(2), which allows the minister to direct the OPA to procure. I'm comforted by the minister's comment that he has no intention of using that to go out and procure a nuclear plant or a gas plant without scrutiny, but I can assure you that the section as it's currently drafted would allow such a thing by this minister or subsequent ministers or governments, so I would strongly urge the committee to amend that. That power should be constrained so it can only be used for renewables, for conservation and for combined heat and power.

We made a number of other specific recommendations which I won't burden you with in my oral comments today. They're in our materials. We've also included recommendations on what we think are the important topics to hit in the regulation-making and directive-making process. I know this committee isn't charged with that, but it's there for members to inform that discussion.

We welcome your questions.

The Chair (Mr. David Orazietti): Thank you very much for your presentation.

Mr. Tabuns, questions to you first. You have about a minute and a half.

Mr. Peter Tabuns: Thank you for the presentation, first of all. It's a useful thing to have before us.

When you talk about combined heat and power, what's the threshold of efficiency that we're talking about when we want to specify something that's really going to make a difference?

Mr. David Poch: There's a threshold specified in federal tax law that qualifies combined heat and power for—I think it's section 43.

Mr. Peter Tabuns: Subsection 43(1), I think.

Mr. David Poch: Subsection 43(1). We would recommend that same threshold for simplicity, so we don't overburden industry in complying. It's a reasonably high standard.

Mr. Peter Tabuns: With regard to section 5(2), as written, it would allow the minister to simply authorize the purchase of power from a nuclear generator without reference to the OEB or any other regulatory body. Is that correct?

Mr. David Poch: That's right. The whole legislative regime, which currently has the OPA having to go before the OEB to have public review of its integrated power supply plan and OEB comment and request for change before it could proceed—none of that would apply. So, yes, as currently drafted, it would allow that, and we're very concerned about that. That, in our mind, is not part of a Green Energy Act.

Mr. Peter Tabuns: No; I would agree with that.

The Chair (Mr. David Orazietti): Thank you. Ms. Broten.

Ms. Laurel C. Broten: Thank you very much for your presentation. I want to focus on the resource intensity amendment that you propose. I'm wondering whether or not you could speak to how that would require an alteration of the current feed-in tariffs that are out for consultation; secondly, whether there are other jurisdictions that we could look to with respect to the utilization of resource intensity; and thirdly, how it might affect the cost.

Mr. David Poch: It's a simple matter to change the feed-in tariff proposal that OPA has floated for comment. Paul Gipe, who's a well-known author on the topic, a North American expert, is on retainer to us. He has produced some material which he will be providing to the OPA and to the ministry in the coming days, which sets out how you do it in a simple, easily comprehended fashion. That shouldn't be a difficulty.

I'll leave it to my colleague to talk about other countries; I'm not familiar.

Ms. Deborah Doncaster: To the best of my knowledge, France is one of the few jurisdictions that have actually done feed-in-tariff differentiation on the basis of resource intensity. In terms of cost effectiveness, we did a study combined with Hélimax Energy Inc. to determine the effect of doing a tiered approach to pricing versus what the current proposition would be, and there's a minimal difference in cost if we were to do it this way, but considerable benefits in terms of getting more communities and more projects into the system.

Ms. Laurel C. Broten: Thank you.

The Chair (Mr. David Orazietti): Thank you very much. Mr. Yakabuski.

Mr. John Yakabuski: Thank you very much, Deborah and David, for joining us today. I had a couple of these questions for the minister, but unfortunately my colleague used up all the time.

Interestingly, the last presentation of the other day was from the Community Power Fund, a colleague of yours, and the first presentation today is from the Green Energy Act Alliance, which the Community Power Fund is part of. Certainly, the government has worked hard to ensure that all of its proponents are here before the committee.

I have a couple of questions, because you like to use the German example, but, like the minister, we only

sometimes get part of the story from the proponents of a certain side. Everybody's got their agenda. A friend of the act, a professor from York, José Etcheverry, was here the other day, whom I'm sure you know well.

Ms. Deborah Doncaster: Yes, we know him.

Mr. John Yakabuski: When we talked about the price of power in Germany and Denmark, he said, "Well, that's not important, because the consumers pay that high price, but the industry doesn't." I wanted to ask the minister if he's actually planning to increase the cost to consumers and homeowners in the province of Ontario in favour of industrial land or commercial users. Do you, as an alliance, support that approach—the German, Danish and Spanish approach, and much of the EU—to burden homeowners with a greater share of the electricity costs?

Secondly, I'd like to ask, because I know you are proponents of the act: Does your organization—and if so, how much—receive funds either directly from the ministry or through other publicly funded organizations such as the Ontario Trillium fund?

The Chair (Mr. David Orazietti): You have about 30 seconds to answer the question.

Ms. Deborah Doncaster: No, to the latter question.

To the first question, the average German consumer pays \$50 a year for the added benefits of a significant amount of renewable energy into the system. That's based on comparing past costs of electricity. As I mentioned in my presentation, no matter what path we follow, we're talking about increased costs. We do not believe that the green energy portfolio that will be presented through the tariff program will add costs to the ratepayer.

David will respond to the industrial issue.

Mr. David Poch: My understanding of the German regime is that for an industry to qualify to be shielded from paying any costs towards their program, they need to demonstrate that they would be at a disadvantage relative to competitors in other jurisdictions in their sector, and so on.

Mr. John Yakabuski: We've lost 300,000 jobs—

Mr. David Poch: I think the Americans are losing jobs too.

The Chair (Mr. David Orazietti): Thank you very much for your comments. That's all the time we have for your presentation.

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MARK WINFIELD

The Chair (Mr. David Orazietti): Our next presenter is Mark Winfield.

Good afternoon, sir. You have about 10 minutes for your presentation. There will be five minutes for questions from members of the committee. Can you please state your name for the purposes of Hansard, and you can begin when you like.

Mr. Mark Winfield: Thank you, Mr. Chairman. My name is Mark Winfield. I am an assistant professor of environmental studies at York University and also coor-

dinator of the joint program in law and environmental studies at York.

The sustainability of Ontario's electricity system is a major focus of my current research. I was principal co-investigator of a sustainability assessment of the integrated power system plan filed with the Ontario Energy Board last July, and I'm currently working on a study of the regulatory and policy framework in Ontario around conservation and demand management initiatives on the part of local electricity distribution utilities.

Bill 150 is a very ambitious and complex piece of legislation. I'm going to try to cover as much of it as I can and keep my remarks short at the same time.

I want to contextualize my remarks by saying that over the past seven years I've been a very strong proponent of the rapid and large-scale deployment of low-impact renewable energy sources as a means of enhancing the sustainability of Ontario's electricity system. In that context, I welcome the overall direction of the act, and in particular its mechanisms intended to facilitate the integration of low-impact renewable energy sources into the electricity grid, to establish a funding mechanism for energy conservation and renewable energy programs provided by the Ministry of Energy and Infrastructure, and to expand the mandate of the Office of the Environmental Commissioner of Ontario to include reporting on the province's progress on energy efficiency and greenhouse gas emissions.

At the same time, there are a number of provisions to the bill that, while moving in the right direction in principle, could be improved significantly, and I want to highlight a number of these areas.

One of the things the bill does is to, in effect, re-enact the Energy Efficiency Act as part of the Green Energy Act. The bill, in my view, fails to take the opportunity to do a number of things which would bring Ontario's practice into line with other leading jurisdictions in North America, like California and British Columbia; in particular, requiring that the standards made under the legislation be consistent with the highest standards in place in North America currently, and consistent with practice in California to mandate a regular three-year review of the standards.

One of the things this piece of legislation does is it actually establishes the mandate of the new Ministry of Energy and Infrastructure, and I've made a number of suggestions to strengthen and clarify that mandate, particularly related to energy efficiency, low-impact renewable energy sources, and, in particular, to establishing an energy conservation agency within the ministry to lead and coordinate the province's efforts on energy conservation.

In addition, the ministry's mandate now covers a number of areas, particularly infrastructure for transportation and urban development and electricity, that were identified as providing the overwhelming bulk of the greenhouse gas emission reductions that are to be delivered under the province's climate change strategy. These areas are also likely to be heavily affected by the impacts of

climate change, and the ministry's mandate should reflect these responsibilities in the areas of climate change mitigation and adaptation.

I share with Mr. Poch a number of suggestions around the energy conservation mandates of the Ontario Energy Board, the power authority and local distribution companies, in particular, again, to bring our legislation into line with current practice in other leading jurisdictions, particularly California and more recently British Columbia, to mandate all of these entities to pursue all cost-effective opportunities for energy conservation and efficiency before going to new supply resources and to define "cost-effectiveness" for these purposes to include the environmental costs of new supply that would be avoided through conservation measures.

Finally, several schedules of the proposed legislation introduce significant changes to the institutional and regulatory framework for electricity and renewable energy initiatives in Ontario. I think a number of these provisions require some very serious consideration by members of the committee. I am concerned, in particular, by the elimination of the position of the chief conservation officer and the Conservation Bureau within the Ontario Power Authority. A legislatively mandated entity with responsibility for providing leadership in energy conservation planning and programming, in my view, should be retained within the power authority.

I am very concerned by the provisions of the bill that would in effect create a separate approvals process under the province's environmental legislation for renewable energy projects. I have a number of concerns about this, one being that I'm not actually sure this is the best way to achieve the facilitation of approvals. I think it's going to turn out to be a lot more complex and time-consuming to create new approvals processes as opposed to making incremental adjustments in the existing processes.

The problem we've got here, really, is that the existing processes have not dealt with these types of projects before. There's no policy guidance around them. There are a number of mechanisms under the existing legislation through which that problem could be addressed, be it guidance under the Environmental Protection Act and the water resources act, be it amendments to the provincial policy statement under the Planning Act. There are a number of different ways in which this could be dealt with. I think this would be much more efficient. Indeed, I'm also concerned by the precedent that this would set in terms of setting up a separate approval process for other types of projects which might come along and claim to be green or otherwise face difficult or unusual approvals processes.

I'll end my comments there, and I'm happy to take questions.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. The Liberal caucus is up first. Ms. Broten?

Ms. Laurel C. Broten: Thank you for your comments. I'm wondering if you can just speak to the issue with respect to the approvals process. I just want to have

the discussion with you with respect to the one-window approach. We have had a history in the province of those seeking to put renewable power in place being challenged by what they've described to us as sort of a ping-ponging between various ministries and not really ever being clear about what process would be required, and the layering-on of various approvals. I'd like your comments with respect to that, and speaking to the fact that there has been guidance, there has been assistance provided in all of those projects, but we still have had the feedback that we need to do more.

Mr. Mark Winfield: I preface it by saying that my understanding of the situation is that relative to the problems of policy instability and grid access, this has been a less serious problem on the part of renewable proponents.

That said, I do think that there is still considerable room for adjustments to the existing approval process. We have not provided clarity under the Provincial Policy Statement, for example, as to how these should be dealt with in the planning process.

My concern is that, as I said, aside from the issue of the precedent, I think it might turn out to be a lot more complex to create a new process from scratch—and I think that's already becoming a little bit evident—than to take the opportunity to first try making incremental adjustments to the existing process by providing additional clarity and guidance to the agencies and to proponents about when approvals are needed and when they are not, and then to provide some specificity about what sorts of conditionalities might be there.

At the moment, we don't really have that. We certainly don't have it on the land use planning side. Part of the reason you get this hodgepodge of results is because municipalities have had no real guidance from the province about how to deal with these.

I'm also concerned that you may actually exacerbate social conflict if you cut some of these actors out of the process altogether rather than resolve it. That's why I'm suggesting a somewhat more conservative but, I also would argue, potentially more effective way of dealing with the problem.

Ms. Laurel C. Brotin: I don't know if you were here earlier when the minister spoke to setbacks. I'll just pick up on the point that you've made with respect to the hodgepodge—we describe it sometimes as patchwork—with respect to setbacks and the lack of expertise within municipalities to deal with these things. What are your comments with respect to the role that the province can play in facilitating that?

The Chair (Mr. David Orazietti): You have about 30 seconds to respond, so if you can—

Mr. Mark Winfield: I think that's exactly the sort of thing that an amendment to the provincial policy statement could deal with. Because of the Bill 26 amendments to the Planning Act, it's binding on municipal councils, municipal boards and provincial agencies. It's the obvious vehicle to provide that precise—and it is there for that purpose—province-wide guidance in how we deal with these types of decisions.

The Chair (Mr. David Orazietti): Okay, thank you. Mr. Yakabuski?

Mr. John Yakabuski: Thank you very much, Mr. Winfield, for your presentation today. Clearly, even though you certainly support the concepts, you suggest that there are some issues in this act that require some further discussion and/or amendment.

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I have to be honest with you. It's hard to hear every word with these air conditioners going here, burning all that power, but I did request it to be cooler because it's awfully warm when that sun comes in here.

We also see the overriding of all municipal decision-making powers as something that could actually create more problems than it solves, because people are members of a community first. When they see a government usurping the power that has been bestowed upon their elected officials, the ones they see every day on the street or go to church with, or their kids go to school together or whatever—they really see them as the real spokesmen for them in communities, particularly in small communities and rural areas. This act is really all about usurping that power of those small-town Ontarians and rural people. So would you be prepared to suggest some real amendments to the act that would improve upon the way that it could be implemented, and not in such a draconian way that it allows the minister to currently do?

Mr. Mark Winfield: In effect, I think I'm in some ways going even further and saying that what are in those schedules of the act need to be rethought in principle at this stage of the game. There are other mechanisms through which the necessary guidance can be provided to municipalities and to provincial agencies which are somewhat less spectacular but might actually get us to where we want to be more efficiently while still leaving space for incorporation of local knowledge and local considerations into decision-making.

Mr. John Yakabuski: Can you give me the schedules in the act? Because it's easier for me to get them from you—because I know that you know—than me trying to find them out.

Mr. Mark Winfield: In particular, schedules G, H, L and K are the ones that deal with the approvals process. I think one really needs to think about where we're trying to get to here and what is the best mechanism for getting there, which is to facilitate the deployment of these technologies but also to get to decisions which are seen as legitimate and accepted by the host community, as opposed to exacerbating social conflict.

The Chair (Mr. David Orazietti): Mr. Winfield, thank you very much. That's the time. Mr. Tabuns?

Mr. Peter Tabuns: Mark, thanks very much for the presentation. It's very useful. This is a question I asked the other day, and I want to check with you as well. I haven't had a sense that renewable energy projects have been held up that much by local approval authorities. The larger problem has been transmission and distribution constraints. Is there any significant pushback against

renewable energy that's been slowing down its implementation at the local level?

Mr. Mark Winfield: There is some. There's no question that there have been some cases where local objections have emerged. We're still in the process of feeling our way through this. This is an issue which has emerged in other jurisdictions as well. There are occasionally quite significant conflicts within communities, because there is also significant support in many rural communities for large-scale deployment of renewables as well. We need to keep that in mind.

Mr. Peter Tabuns: Yes, that's right.

Mr. Mark Winfield: At the same time, in my mind, the issue is how we get to a point where deployment happens more quickly and, at the same time, leave some room for local input and interests in the decision-making process. As I say, I think there are ways that you can adjust the existing decision-making processes to do that as opposed to trying to reinvent the process from the ground up.

Mr. Peter Tabuns: Can you suggest what those ways might be, in your remaining seconds?

Mr. Mark Winfield: Indeed I can. I think there could be substantially greater policy guidance around environmental approvals under the environmental legislation. There could be various amendments to the provincial policy statement with respect to the Planning Act. Those would be two obvious vehicles as a way of providing clarity and consistency from the province, which is binding on decision-makers, but without necessarily taking the step of throwing the existing process out the window and starting from scratch.

The Chair (Mr. David Orazietti): Thank you very much, Mr. Winfield. That's all the time we have for questions.

WORLD WILDLIFE FUND OF CANADA

The Chair (Mr. David Orazietti): Our next presenter is the World Wildlife Fund of Canada.

I just want to remind members that we're trying to keep on schedule with the presenters. We've got a lengthy list and time is limited. If you'd like to use your time to, as you know, make a statement or get on the record, that's fine, but perhaps some of our individuals will not have time to respond to your questions or comments. Make that noted.

Anyway, if you'd like to start your presentation, just start by stating your name for the purposes of Hansard. You have 10 minutes. There'll be five minutes left for members of the committee to ask questions.

Mr. Keith Stewart: My name is Keith Stewart. I'm the climate change campaign manager for World Wildlife Fund Canada. I actually think I did my first presentation on electricity planning in this province back in 1991, so I'm delighted to be here today. I'm significantly more optimistic now than I was then. I've also written a number of reports for environmental groups on electricity

in this province over the last 10 years. In 2003, I actually co-authored a book on the history of electricity, politics and policy in Ontario, copies of which were sent to all MPPs at the time. If anyone doesn't have one, I'll try and get one to you.

You may wonder why someone who works for an organization which has a panda for a logo cares about terawatt hours. The simple explanation is that burning fossil fuels to generate electricity is the single largest source of greenhouse gas emissions globally. It's bigger than transportation—not in Canada; in Canada, transportation's bigger, but electricity is still up there. Climate change caused by greenhouse gas emissions is the greatest threat to biodiversity on the planet. Climate change is also, of course, a threat to human beings. Even the practitioners of that most dismal of sciences—particularly dismal these days—economics, are telling us that it will cost our economy a lot more to clean up the damage from unrestrained global warming than to avoid it in the first place.

I must confess, however, to being initially rather skeptical about the need for new energy legislation. I was focused on the plan, the OPA's integrated power system plan, and have spent more hours than I care to admit poring through tables, drafting counter-evidence and participating in consultations on it and in the Ontario Energy Board hearings on that plan.

What brought me around to supporting the Green Energy Act was a recognition that the solutions we were putting forward, even when technically sound and pursued with the best of intentions, were being thwarted by processes designed for a different kind of electricity system. They were designed for the system we had, not the system we need. This is why we need a Green Energy Act. The energy system is going through the same kind of changes that the computer and phone industry went through in the 1990s. Just as we went from mainframe computers to laptops, the Internet and user-generated content, from Ma Bell to BlackBerrys, the energy system is going through a period of rapid technological and systemic change. From centralized generation and conventional fossil, nuclear and large hydroelectric stations that transmit power in a one-way grid to energy consumers, we're now looking at a world with decentralized generation from renewables and high-efficiency, combined heat and power operations, where power travels both ways through a smart, green grid that looks a lot more like a web than a spoked wheel, where energy users are also energy producers and the system is pursuing all opportunities to increase the efficiency with which power is used rather than treating the consumer as a black box.

The Green Energy Act modernizes the rules governing this system, and I think one of the most impressive aspects of this piece of legislation is how it incorporates an understanding of the kind of systemic changes we are experiencing and positions this province to be a leader in the 21st-century green energy economy.

There are, however, some improvements that can be made. So on behalf of WWF Canada, I'd like to support

all of the recommendations made by the Green Energy Act Alliance, of which we are a part. We hope that these recommendations will be seen as friendly amendments intended to help this legislation achieve its full potential. What that would look like on the ground, in where our power comes from and how it is used, is dealt with in the 2008 Renewable is Doable report, of which you now have a copy of the executive summary, and the full report has been mailed to your offices. We can provide more copies if you'd like.

As you can see, we made seven recommendations in the report, and the Green Energy Act goes a long way to addressing five of them. Of the remaining recommendations, the one on boosting the total amount of conservation, renewables and cogeneration and making space for this by bumping down gas and nuclear would perhaps best be addressed in the planning process for the new IPSP rather than the legislation itself. But, as recommended by the Green Energy Act Alliance, the legislation should be amended to clarify that large, centralized, non-renewable generating stations require IPSP approval.

The one thing I'd like to focus on today is the inclusion of high-efficiency cogeneration, or combined heat and power, in the Green Energy Act with a feed-in tariff and grid access similar to that granted renewables. CHP, if defined to include only highly efficient generation, offers the potential for recycling waste heat and pressure into useful electricity and a much more efficient use of our scarce gas resources while reducing the pressure on the transmission and distribution grids because power is being generated close to where it is used.

I like to think of cogeneration as a form of energy efficiency. Currently, we tend to burn fossil fuels in one place to produce heat and pressure and in another place to generate electricity, but if you bring those two sets of activities together, we dramatically increase the overall efficiency of fuel use. We don't do this now because we have traditionally separated energy systems into heat, or thermal power, and electricity, and neither regulatory system likes to deal with the other. This is a shame, because a lot of our industries, like steel mills or cement plants that use a lot of energy, are missing out on the opportunity to turn what is currently a waste product of theirs—heat—into a revenue stream, which would help make them more competitive in the global economy while generating power that we need for our electricity system with no incremental environmental impacts.

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The Green Energy Act represents the chance to change this wasteful situation. It is in line with the general orientation and principles of the act, and we should not miss out on this opportunity.

Thank you very much for this chance to speak with you, and I'd be happy to answer any questions you might have.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. We'll start with the Conserv-

ative caucus. Mr. Yakabuski, you have about two minutes.

Mr. John Yakabuski: Thank you very much for your presentation, Keith. Certainly, combined heat and power is an aspect of the industry that we haven't tapped nearly enough. I think everyone is in agreement that that's something that we can do a whole lot better on.

I do have some questions. You did talk about the threat that greenhouse gases are. Do you know what percentage of greenhouse gases produced worldwide are produced in Ontario?

Mr. Keith Stewart: The percentage produced, out of the global emissions, is low because we're a small number of people. However, our per capita emissions are amongst the highest in the world.

Mr. John Yakabuski: We understand that, but do you know the percentage?

Mr. Keith Stewart: It's a little over 2% for Canada, which is comparable to the entire emissions of the poorest billion people on the planet—

Mr. John Yakabuski: We understand that, but—

Mr. Keith Stewart: And so in Ontario, it is 203 megatonnes as of 2006. Out of global emissions, that would be less than 1%. But we all have a responsibility to do our fair share.

Mr. John Yakabuski: I understand that. In Germany, for example, their wind is being backed up with coal. They're in the process of building at least 15 new coal plants to back up their wind because the wind is inherently unreliable because it's not dispatchable; they can't turn it on and turn it off. So they're actually in the process of increasing greenhouse gas emissions by burning more coal to back up the wind.

The suggestion here is that we're going to be burning natural gas because we have to back up the wind. Well, natural gas is certainly not CO₂-free, so how do we get to be green if we have to back up the renewables with the power sources that actually produce emissions?

The Chair (Mr. David Orazietti): You have about 30 seconds to answer the question.

Mr. Keith Stewart: First of all, I think we should distinguish between coal plants planned and coal plants built. In the same way in Ontario, if you look at all the nuclear plants planned versus nuclear plants built, it's a tiny fraction.

In Germany, the wind is coming online. They have a system predominantly based on coal and so every kilowatt hour coming out of a wind plant is displacing power from coal. If the wind isn't blowing, yes, they ramp those coal plants back up, but the default would be that that energy would be coming from coal anyway, which is why Germany has reduced their greenhouse gas emissions by 18% since 1990. In Canada, our emissions have increased 21.7% since 1990.

The Chair (Mr. David Orazietti): Thank you very much. That's all the time we have for your questions. Mr. Tabuns.

Mr. Peter Tabuns: Keith, thanks for the presentation. Are there any amendments to this bill that you would suggest?

Mr. Keith Stewart: Yes. We'd like to see the combined heat and power plants also being included in sources of energy that would have a feed-in tariff, and that feed-in tariff would be determined by regulation, not within the legislation itself. We'd also like to have combined heat and power included in the same sort of priority grid access that renewables get. We also support the other list of amendments from the Ontario Green Energy Act Alliance. I really want to focus on that one because it often doesn't get—it's not as pretty as windmills.

Mr. Peter Tabuns: I know.

Mr. Keith Stewart: Well, pretty to me, but it's very important, I think, for our system overall.

Mr. Peter Tabuns: And what's the total capacity of CHP in Ontario that has been calculated?

Mr. Keith Stewart: According to a Ministry of Energy report from 2000 to 2002, it was 14,000 megawatts, which is a lot. How much of that is technically achievable and economical is open to question. It's certainly, at a minimum, 3,000 megawatts, and perhaps as high as 9,000 megawatts. So we'd say, "Let's go after that 3,000 megawatts first," and after we've pursued that, we'll see where we go from there. But I think certainly, the folks down at Stelco and Dofasco—they're having difficult times right now, but this is just the kind of time to try and provoke these investments, which will mean that those modernized, upgraded plants will continue to produce in the future.

The Chair (Mr. David Orazietti): Thank you. Ms. Broten.

Ms. Laurel C. Broten: Thank you, Keith. Are there other jurisdictions that we can look to for guidance when it comes to better uses of combined heat and power?

Mr. Keith Stewart: Yes. Certainly, if you look at the northern Europeans, Denmark is getting about 50% of its power from combined heat and power units. That was a decision they made back in the 1970s as they tried to get off of oil. Germany is actually, I think, really the exemplar of promoting farm-based combined heat and power units, which are, I think, really important. They're also adapting in a bunch of their industries. Brazil is actually ahead of us in terms of industrial applications of combined heat and power. In many ways, North America has been locked into sort of old-school thinking on this, and because Europe has much less generous endowments of energy resources, they've had to be much more frugal with what they have. So I think we can look to places like Germany, Denmark and even, actually, places like Brazil in terms of new industrial applications for combined heat and power.

Ms. Laurel C. Broten: I have had some individuals who have said that CHP cannot be treated in the same vein as true green electricity—that it's not. Do you want to speak to that?

Mr. Keith Stewart: It's not the same as renewable. Ultimately, we will have to green the source of heat that

is producing this, but as a transitional step, you're essentially getting kilowatt hours without incremental environmental impact. So if we're melting rock to make steel, you have a lot of heat left over; we can turn that heat from the coke ovens and from the smelters into electricity. You're not burning any new fuel. I wouldn't say, "Shut down the steel plants and just move them somewhere else," because that actually isn't a net benefit to the climate, so let's clean up what we have here. We actually have, I think, the brains and the skilled labour in order to do that and match anyone else in the world.

The Chair (Mr. David Orazietti): That's all the time we have. Thank you for your presentation.

STORMFISHER BIOGAS

The Chair (Mr. David Orazietti): The next presenter is StormFisher Biogas, Ryan Little.

Good afternoon. You have 10 minutes for your presentation, and five minutes will be left for questions from members of the committee. Just state your name for the purposes of Hansard, and you can begin as soon as you like.

Mr. Ryan Little: Thank you. My name is Ryan Little. I'm the vice-president of business development for StormFisher Biogas. Thanks very much for inviting me to speak today and to submit this written presentation, which will provide more background than what I will provide right now.

Three years ago, I co-founded a renewable energy development company that builds biogas plants. I started this company because I wanted to make the largest positive impact I could on the environment, and I clearly saw that this was the best opportunity to do so. Today, StormFisher Biogas has the backing to build as many as 30 plants across North America, and that makes us the most highly funded biogas company in the world. My hope is that the Green Energy Act, when translated into regulation, will allow us to build as many of these plants as possible in Ontario.

Until recently, developers of renewable energy projects had been abandoning Ontario. That the standard-offer program for renewable energy was frozen for almost a year while companies like ours, along with wind and solar companies, had been in mid-development was nearly a fatal blow to the province's budding green economy. Today, the Green Energy Act has the potential to again attract developers, as the standard-offer program did in 2006, and once again make Ontario an example for other North American jurisdictions to follow. But this all depends on how the regulations unfold.

You've likely heard much from wind, solar and water industries, which are better organized and more mature than the biogas industry. So I'd like to present some viewpoints that are specific to my industry.

The opportunity for biogas, based on a 2008 report by the Ministry of Agriculture, Food and Rural Affairs, could save the food processing industry \$118 million and generate 389 gigawatt hours per year of clean electricity.

Using OMAFRA's numbers, this could mean as much as \$378 million in direct capital investment, the offset of 283,000 tonnes of CO₂ equivalent and the creation of 530 jobs.

Biogas is, according to a Swiss study, the cleanest form of renewable energy available from a full life-cycle point of view. Anaerobic digestion uses food processing and agricultural by-products in a productive manner, taking these out of landfills and away from raw-land application, all while destroying methane, weed seeds and pathogens and reducing odours. It serves the electrical grid as distributed baseload power, which is essential to an electrical grid that is increasingly under strain. Biogas is also a source of renewable heat.

I can tell you firsthand that today, Ontario is a more challenging environment in which to develop these projects relative to US states like Wisconsin, where we're currently building a five-megawatt plant. This is in part because the regulatory environment here is exceedingly complex. Because biogas is new to Ontario, our projects currently require approvals, interpretation or guidance from the Ministries of the Environment; Energy and Infrastructure; Municipal Affairs and Housing; Agriculture, Food and Rural Affairs; and Finance; and the Ontario Power Authority, Ontario Energy Board and Hydro One. We're very happy to work with these groups to figure out where biogas fits and what kinds of regulations are appropriate to safeguard Ontario, though we would like to see a more coordinated approach across these groups. Our hope is that the Green Energy Act will help to streamline this through the renewable energy facilitator.

1720

I'd like to put forth three specific issues on behalf of developers of biogas plants. These are:

First, do not punish first movers. At present, there's only a handful of biogas plants in the province that have obtained a RESOP contract at 11.9 cents per kilowatt hour. Some of these plants are built and some are not yet. The new feed-in tariff, which pays 14.7 cents per kilowatt hour for electricity produced from biogas, puts these first movers at a disadvantage, as tipping fees for feedstock are part of a competitive market and new developments would de facto be able to accept feedstock at a lower rate than those plants operational under the RESOP. This is a challenge distinct to biogas and biomass projects, as the wind, sun and water will not blow to different windmills, shine on different solar panels and flow through different water turbines based on price. To provide a level playing field and not put early movers at risk, the new feed-in tariff that's proposed should extend the elevated new price to the small number of biogas plants that have executed RESOP contracts.

Second, I think it's important to renew the PST exemption for renewable energy developers. As of January 1, 2008, the PST exemption that had, at that time, been available to Ontario developers of renewable energy projects expired and was not renewed, severely affecting the financial viability of new projects. Meanwhile, the US is providing sweeping tax relief to producers of renewable

energy. In order to attract new renewable energy investment, renew the PST exemption for renewable energy projects in whatever form makes sense under a potentially new harmonized tax.

Finally, provide incentives to encourage Ontario renewable energy development. Ontario has made strides in attracting and maintaining a clean tech and renewable energy workforce through programs like the Next Generation of Jobs Fund, but the reality is that in the absence of major government-backed capital and tax support, Ontario is not competitive with the US, given the Obama administration's new programs like the investment tax credit and the production tax credit. More can be done to encourage development here. This includes providing capital assistance in the form of grants, loans and tax-exempt bonds for renewable energy projects. This is of particular importance, given the economic climate. Also, providing access to government land, especially brownfield sites which can be developed as renewable energy sites as the EPA has done in the US.

Thank you very much for your time and attention and for your work on this important legislation.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. Mr. Tabuns, you're first up for questions. You have about a minute and a half, two minutes.

Mr. Peter Tabuns: Thanks very much for the presentation. I appreciate it. How much capacity do we have today in terms of megawatts installed?

Mr. Ryan Little: The OMAFRA study says that there's the potential for about 53 megawatts of biogas power.

Mr. Peter Tabuns: And do we have any megawatts being produced today?

Mr. Ryan Little: In Ontario we probably have about two megawatts producing.

Mr. Peter Tabuns: Okay, so these are very small-scale, broadly distributed?

Mr. Ryan Little: It's small-scale but it's baseload.

Mr. Peter Tabuns: And when you talk about 53 megawatts of capacity, what would be the typical size of a plant?

Mr. Ryan Little: The typical size that we model is usually about three megawatts.

Mr. Peter Tabuns: I asked the minister earlier today about access to transmission, and you note in here the problem with orange zones. Now, what he had to say was that those orange zones would continue until such time as transmission constraints are dealt with. Are a significant number of the biogas opportunities that you're aware of currently located in orange zones?

Mr. Ryan Little: A number of them are. In orange zones, it may be possible to put up projects that are below, say, five megawatts. Orange zones, I think, were really put in place for larger wind and solar projects. There is an alternative. Because biogas is transportable, there's actually a very elegant solution that exists in Germany, where a premium of two cents per kilowatt hour is paid. That's to upgrade the biogas to pipeline-

grade natural gas transported to, for example, an urban centre, and they draw that gas at that place where both the electricity and the heat could be used.

The Chair (Mr. David Orazietti): Thank you. That's all the time you have. Mrs. Mitchell.

Mrs. Carol Mitchell: Thank you very much for your presentation. My riding is in an orange zone, and we provide all the nutrients.

One of the issues of moving forward biogas is that there are a number of restrictions by our municipalities with regard to nutrients: You must own the land where you're going to apply your nutrients and you cannot haul the nutrients. If you can get past that—because you certainly need a certain amount of capacity in order to produce biogas.

I guess I'm looking to you to speak to how we start to address those concerns, in your mind. If you can even get past that, then how are you going to get to the next phase, which speaks to a waste site versus the nutrients—or if you go to a richer mixture, which produces more biogas?

Mr. Ryan Little: Right. With respect to the designation of a waste site, for our early plants, we're going through that designation so that it will be designated waste.

With respect to the first question, that's a more challenging issue for us. We're meeting with the Ministry of the Environment on that very issue this Tuesday. It's an important challenge, and I think the Ministry of the Environment is open to finding a solution for that, but it's something that we've got to discuss more.

Mrs. Carol Mitchell: Thank you.

The Chair (Mr. David Orazietti): Thank you very much. Mr. Yakabuski.

Mr. John Yakabuski: Ryan, thanks for joining us today. I find the issue of biogas very interesting, because it addresses the needs of a very important, integral, essential industry that struggles in this province, and that is agriculture. It allows them to be part of the energy solution. This is one of those common occurrences where the member for Huron-Bruce and I are probably going to be closer to being on the same page—maybe not on the same window, but on the same page.

Your contentions and assertions that there are some things that need to be changed: I certainly support the idea that somebody who's in—because biogas here in Ontario is pretty new relative to getting many things off the ground. I have a couple of developments in my own riding. One is only 50 kilowatts and it's not economical at the current rates. But it's also a challenge, even under the act, on the right to connect. It's not an absolute right; it has to be assessed.

Is there a level at which biogas producers would be willing—and I understand that in some areas, you can't transport. But if you're in an area where you can transport the fuel, which is of course animal waste, which we have to deal with as farmers anyway—if you can transport that and maybe have a little bit larger projects—you talked about a five-megawatt; now we're talking some serious generation capacity there. One of the problems is

that where they're very, very small, they can't afford to connect. But even a right to connect doesn't give them an absolute certainty that they'll be able to connect if there simply isn't the economic viability there.

Has your group's association, the OFA or whoever talked about sort of amalgamating in that respect?

The Chair (Mr. David Orazietti): You've got about 30 seconds to respond. That's all the time that's left.

Mr. Ryan Little: That's exactly the model that we've taken here and why this issue of nutrients from different farms is very important. The largest dairy farms in Ontario have about 1,200 cows. In Wisconsin, we're dealing with farms that have 8,000 cows. So the reality of building one plant on one farm that's economically viable doesn't really work. For us, this was always a co-operative model.

The Chair (Mr. David Orazietti): Thank you very much. That's all the time we have.

1730

GREENPEACE CANADA

The Chair (Mr. David Orazietti): Our next presentation is Greenpeace Canada.

Good afternoon, sir. You have 10 minutes for your presentation. If you'll just state your name for recording purposes. You can begin when you like. You have 10 minutes, and there will be five minutes left over for questions from members of the committee.

Mr. Shawn-Patrick Stensil: Thank you very much. First, an apology: I've been struck by the cold that is wreaking havoc, so if I squeak during my presentation, please forgive me.

My name is Shawn-Patrick Stensil. I am an energy and climate campaigner with Greenpeace Canada. I would like to thank you for this opportunity to present today on Bill 150, the proposed Green Energy Act.

Je vais faire ma présentation en anglais, mais s'il y a des francophones, je peux prendre des questions en français si vous voulez.

First, a compliment: Greenpeace supports the passage of the Green Energy Act. Greenpeace believes the Green Energy Act could provide the right vehicle for building a renewable-based electricity system and green energy economy in Ontario, if green power is allowed to expand and replace aging nuclear stations.

In the short time I have with you today, I will focus my presentation on two amendments that Greenpeace believes will assist in reaching the goal of building a green energy future for Ontario. The first issue concerns something that should be withdrawn from the act: the ability of the minister to indiscriminately procure nuclear reactors. The minister noted in cross-examination that this was not the intent of the act, so we're in agreement. The second issue concerns something that should be included in the act, which has also been brought up a number of times: the inclusion and expansion of combined heat and power in the Green Energy Act and in Ontario, which the minister also agreed with.

First, something to withdraw from the act: Greenpeace is deeply concerned about the specific wording in schedule B, subsection 5(2), of the act which amends and expands the energy minister's existing power under the Electricity Act. Specifically, the amendment empowers the minister to direct the Ontario Power Authority to undertake "the procurement of electricity supply or capacity, including but not limited to supply and capacity derived from renewable energy sources." Simply put, the Green Energy Act, as it reads, would give the minister and the government the right to build reactors without any public scrutiny or approval from the Ontario Energy Board. Such a power, I submit, is contrary to the stated intent of the act: to promote the development of green energy. It also deprives Ontarians of their only remaining public forum to scrutinize alternatives to the government's nuclear plans by eliminating the current requirement for reviews at the Ontario Energy Board.

I would like to remind the committee that Ontarians are still paying off the \$30 billion of nuclear debt from the construction of the first generations of reactors. In the report that I've distributed to you, I discuss how the cost of building new reactors has more than doubled since the government first developed its electricity plan in 2005. So these cost estimates do need scrutiny.

As I also note in the report, this government also has an unfortunate record of bypassing environmental reviews on both the electricity plan and nuclear plants that would provide an opportunity for discussion of alternatives. So this issue of exempting at the OEB is quite significant.

As noted, the power to procure nuclear reactors in subsection 5(2) is contrary to the intent of the Green Energy Act. The power, if used, would also foreclose, I argue, on the development of a green energy-based electricity system in Ontario.

The minister stated in dialogue with Mr. Tabuns that he did not intend subsection 5(2) to include nuclear. He did say that he intended it to include combined heat and power. I, thus, would make a friendly recommendation that that line be amended to read "the procurement of electricity supply or capacity, limited to supply and capacity derived from renewable energy sources or high-efficiency combined heat and power."

Similarly, the issue of combined heat and power is something I think that should be included in the act, as I noted in that amendment. Keith from WWF discussed this in much more detail.

Ms. Brotén, you asked a question regarding how we should consider CHP as a green energy alternative. As a rule of thumb, I would suggest that the committee consider the adequacy of the draft act based on the three Rs of green energy: reduce, renew, recycle. Like the three Rs—reduce, reuse, recycle—for waste products, this is a hierarchy of preference based on environmental impacts, and I think that's the way we should be viewing the Green Energy Act. The act already does address the first two Rs: reduce, through the promotion of conservation; and renew, through the support of renewables through

such things as the feed-in tariffs. The act, however, is lacking in regard to the last R: recycle. This is where I think stronger support for combined heat and power could help, and the minister seemed to agree. Greenpeace recommends, then, that the act be amended to promote the development of combined heat and power systems.

In conclusion, you've witnessed at this meeting a unique moment when Greenpeace and Minister Smitherman are in full agreement. Subsection 5(2), schedule B, is not, or should not be, intended to procure nuclear power stations, but is intended for the procurement of combined heat and power systems. As noted, however, even to this non-lawyer, the wording of this clause is sloppy. This is where I submit to you that this committee can work to clarify and improve the act.

Thank you very much.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. Government caucus: Questions? Ms. Brotén.

Ms. Laurel C. Brotén: Thank you very much for your comments. I'm wondering whether or not you've had an opportunity this past week—and I do thank you for your positive praise of the act—to listen to some of the criticism that's come forward from the London Economics analysis of the bill, which is really talking a great deal about high costs, and whether you've taken a position or analyzed that recent report that has come forward from our Conservative friends.

Mr. Shawn-Patrick Stensil: As I've been told, I don't think that report is publicly available. I have not seen a copy. We'd be happy to critique it or support it, based on the evidence included in it, if it were publicly available.

Ms. Laurel C. Brotén: Okay. Thank you.

The Chair (Mr. David Orazietti): Thank you. Mr. Yakabuski.

Mr. John Yakabuski: It is publicly available; it was distributed to the media. So if you'd like a copy—now, that's an executive summary only, at this point. The full report has not been published, period, but I think it's supposed to be done by April 24 or something like that.

Anyway, an interesting presentation, as always. While we may differ in our views on nuclear, as you know we do, and we've had those discussions, we don't differ on some of the concerns about the ministerial powers that have been bestowed upon George Smitherman and his successor as part of this act. Your concern is, of course, the ability for him, without proper scrutiny, to approve the building of a nuclear power plant. He says, "Well, I don't have that in there so I can do that. I wouldn't exercise it in that way."

There are 22 separate sections in here, in this act, that deal with ministerial powers. One of them would allow him, for example, to build wind turbines in Algonquin Park, Ontario's most famous provincial park, part of which is in my riding. I would think that George would probably tell you that he has no intention of doing that either. But I guess a fair question is, and maybe you could offer your analysis or opinion on it, "If you have

no intention of using that section to do that, George, why do you have it in there?"

Mr. Shawn-Patrick Stensil: First of all, I'd love to receive a copy of the report when it's finished on the 24th, because the devil is always in the details. I look forward to that.

Yes, we do have a concern around ministerial power. We think the Green Energy Act has the intent to develop conservation and renewables and, hopefully, combine heat and power. Those are transparent and present in the act and explained.

That's why we're pointing to subsection 5(2) as a concern for buying nuclear plants. If the wording is sloppy, I would put it to this committee that that is where the committee should be making such corrections. If it's stated in debate that it is not the intent of the minister, it should be explicit.

The Chair (Mr. David Orazietti): Okay, thank you. That's the time I have for questions. Mr. Tabuns?

Mr. Peter Tabuns: Shawn-Patrick, thanks for the presentation. I'm concerned about the fact that the continued commitment to nuclear power essentially puts a ceiling on the development of renewable energy in this province. Can you speak about that?

Mr. Shawn-Patrick Stensil: Yes, definitely. One of Greenpeace's major concerns is that while we're talking about the promotion of green energy, we may in fact foreclose on the future development of green energy by making decisions to build nuclear plants today that will come online in 2020 when we could be further ramping up the development of renewables as innovation takes place. We know that a new nuclear plant would be online at the earliest in 2020. We're seeing a humongous growth in the development of green energy and effectiveness in innovation, and costs going down. So we think a decision today would foreclose on such a future.

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I was recently in Europe, and a Finnish colleague at Greenpeace there spoke to me about how when the Finnish government made a decision to build a nuclear plant in 2005, what that country saw was a fall-off in the development of wind and combined heat and power plants. Why? It sent a signal to the market that there wouldn't be a demand there. I think that's an important thing to keep in mind, especially for the side of the left of the committee, in the coming months: Decisions outside of this Green Energy Act could actually inhibit its full implementation. That's why, in my presentation, I said we believe this would be a good vehicle for the development of a green economy, but it needs to be given somewhere to go. Decisions to build new nuclear plants will foreclose on that.

I think the first test of the government in implementing this is the decision on whether to rebuild or close the Pickering nuclear station, which shuts down in 2013. It's only 2,000 megawatts of power. This is an opportunity where we can actually ramp up green power, which is the stated desire of the government, and lower something that we've had a long, bad history with, which is nuclear

power. Unfortunately, Minister Smitherman has consistently said that he won't back off from maintaining nuclear at 50% of generation, and that is in conflict with the statements and intent of this act.

The Chair (Mr. David Orazietti): Thank you very much. That's the time for the presentation.

SKYDIVE TORONTO INC. COOKSTOWN AERODROME

The Chair (Mr. David Orazietti): The next presentation: Skydive Toronto Inc./Cookstown Aerodrome.

Members of the committee, so you're aware, there is a vote at 5:50 and they'll be ringing the bells, I understand. So we're going to try to get through the presentation and perhaps finish it. If not, we'll have to come back for the questions.

Go ahead.

Mr. Joseph Chow: Mr. Chairman, may I please have your permission to put this on top of the table?

The Chair (Mr. David Orazietti): That's fine. You have 10 minutes for your presentation. If you'd like to begin, just please state your name for the recording purposes of Hansard, and there will be five minutes for questions following. Go ahead when you're ready, sir.

Mr. Joseph Chow: Honourable Chairman and committee members, please protect our proud aviation tradition. Please formulate the Green Energy Act so that it does not destroy our aviation heritage.

My name is Joseph Chow. I'm the owner/operator of the Cookstown Aerodrome, at which is located Skydive Toronto, the busiest parachute school in Ontario. Our fleet of six airplanes provide the airlift for about 12,000 jumps every year. I personally have been involved in aeronautical activities for the past 40 years.

The Cookstown Aerodrome has a significant positive influence on the community. It's a place of aeronautical recreation where parachutists and pilots hone their skills. We've created two world parachute champions, and many pilots have gone on to fly for the major airlines. Canada is a huge country, Ontario is a large province, and a viable aeronautical community is required to hold the country together.

The Cookstown Aerodrome is also a place of employment for 50-plus staff members: instructors, pilots and parachute packers. Our positive economic effect to the community has been conservatively estimated at around \$3 million a year by a registered management accountant.

I also represent the similar interests of other airfield owners, operators and parachutists. I am here on behalf of thousands of members of the Canadian Sport Parachuting Association as the chairperson of their wind turbine committee. There are 11 parachute drop zones in Ontario. The Cookstown Aerodrome is also a member of the Simcoe county aerodrome group, which consists of 12 registered aerodromes.

I am here today to voice our collective concern with the process of locating renewable energy projects. My own personal experience in this matter consists of two

years in opposition to a wind turbine installation proposed to be sited in close proximity to my airfield, the Cookstown Aerodrome.

My extensive research has discovered the following negative impact of these 500-foot-high wind turbine towers. First, they are an obstacle for both airplane and parachutist collision. Second, their 41-metre blades produce mechanical and wake turbulence which challenges our pilots and our parachutists. Third, they interfere with radio communication and distort radar signals, both of which are required for flying and for parachute operations.

The dangers posed to aeronautical activities by the close proximity of industrial wind turbine towers are very real. Airplanes have collided with wind turbine towers. Parachutists have been killed landing on these towers. The number of these incidents can be expected to increase as thousands of these towers are erected in the future. No mitigation can remove these dangers. It is common sense that if you have a 50-storey tower in the vicinity of an aerodrome and you have airplanes landing and taking off at that aerodrome, this is going to happen. You can expect collisions with airplanes. Yet this is what the wind industry has ignored. They have insisted on locating wind power installations close to active aerodromes. The self-screening process developed by the Ministry of the Environment for renewable energy projects sets no distances for these objects from aerodromes.

When we approached Transport Canada about this matter, they advised us that Transport Canada's role "regarding the erection of obstacles is to assess them for lighting and marking requirements.... This assessment does not constitute authority for construction." In fact, Transport Canada even admitted in my case, "The proposed wind turbines may adversely affect Skydive Toronto Inc. operations and aircraft operating in the circuit at the Cookstown registered aerodrome."

Transport Canada can do nothing because they have no jurisdiction over land use. In fact, the wind industry has repeatedly distorted Transport Canada's role as having approval of the location of wind power projects. Transport Canada denies that. They do no such thing.

Today, the Green Energy Act proposes to make the province responsible for the location of renewable energy projects. With the negative impact that these locations would have on aviation safety should they be close to an aerodrome, we urge the government of Ontario to institute a separation of at least four kilometres of any industrial wind turbine tower from an aerodrome or parachute drop zone. This standard has been recommended by Transport Canada in its TP 312 Aerodrome Standards and Recommended Practices, which calls for a four-kilometre obstacle clearance around aerodromes.

We are hopeful that the provincial government will honour its commitment not to compromise public safety with the introduction of the Green Energy Act.

I want to thank you so much for this opportunity to make this presentation to you.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. Mr. Yakabuski, you're first up for questions. You have about a minute and a half.

Mr. John Yakabuski: Thank you very much for joining us today. I know your MPP, Julia Munro, speaks very highly of your business and your operation and represents you well.

If a wind farm was erected within that prescribed area that you feel there should be an exemption of, realistically, could you survive as a business?

Mr. Joseph Chow: That's a difficult question to answer, sir, and I'll be frank. My family's life savings are in that airfield. It would be very difficult for us to move. We would have to assess the risk to our members. We would have to assess the annoyance to our neighbours, because right now we have a circuit set up in such a fashion as to minimize the nuisance level to our neighbours. If we change that circuit and fly right over the town of Churchill, right over our neighbours, that is not the proper thing to do. So there's a risk factor to our members and to our pilots. There's a nuisance factor to be considered to our neighbours. Also, who would want to jump out of an airplane with a 50-storey obstacle with a spinning blade located in the vicinity? I'm not even sure the business would be viable. So, you see, I'm sort of caught between a rock and a hard place.

Mr. John Yakabuski: Yes. And have you ever asked to talk to the ministry or the minister about this kind of area where you need a special exemption in order to operate safely?

Mr. Joseph Chow: Yes. Of course, we've contacted Transport Canada, and their response is that they can't do anything, because although aeronautics falls under Transport Canada—it's a federal jurisdiction; they set the standards and they supervise the carrying on of aeronautical activities—they have no power over land use or zoning. In other words, they have no power over the zoning or erection of obstacles on lands surrounding the airfield.

The Chair (Mr. David Orazietti): Thank you. That's the time for questions. Mr. Tabuns.

Mr. Peter Tabuns: I'll pass, Mr. Chair.

The Chair (Mr. David Orazietti): Thank you. Ms. Broten.

Ms. Laurel C. Broten: Thanks very much. Given the countdown on the screen, I'll be quick.

I do want to thank you for coming forward, Mr. Chow. I can tell you that it is my understanding that the act which would govern this is a federal one, the Aeronautics Act, which plays a significant role, but for our part, the Ministry of the Environment and the Ministry of Natural Resources are currently in the process of reviewing scientific studies and looking at best practices around the world. I'm sure that there are other places in the world that have encountered this very issue, and that's the type of thing that they are looking at as they set the rules with respect to the appropriate siting and setbacks of wind turbines around the province.

We will make sure that we relay the concerns expressed by yourself and others to this committee to our federal counterparts, and we will ensure that the Ministry of the Environment really looks at this issue in the context of the undertaking that is their responsibility flowing separately but adjacently to this act.

Mr. Joseph Chow: Thank you. I'd—

Interjection.

Ms. Laurel C. Brotén: Oh, yes, and my colleague wants to know if you know Kathy Kangas, the world champion from Thunder Bay.

Interjection: Sure, yes. She jumped with us.

Mr. Joseph Chow: Yes. Our school has been in existence for 36 years, and out of our ranks have come many national and world champions.

Ms. Laurel C. Brotén: Great.

The Chair (Mr. David Orazietti): Thank you very much for your presentation.

The committee stands recessed until 7 p.m.

The committee recessed from 1754 to 1901.

The Chair (Mr. David Orazietti): Good evening, everyone. Welcome to the Standing Committee on General Government.

WINDSHARE

The Chair (Mr. David Orazietti): We have WindShare co-operative as our first presenter this evening.

For the purposes of Hansard, please state your name. You have 10 minutes for your presentation; there will be five minutes left for questions from members of the committee. You can start when you like.

Mr. Evan Ferrari: Thank you, Mr. Chair. My name is Evan Ferrari. I'm the president of the WindShare co-operative. WindShare jointly owns and operates North America's first urban industrial wind turbine at Exhibition Place in Toronto. We operate our business as a community-based co-operative including over 600 members and based on the principle of one member, one vote.

Our decision to build our first turbine was a bold step supported vigorously by all our members. The Ex Place project has acted as a catalyst that has changed renewable energy policy in Ontario and Canada while heralding our community membership model as a way of providing everyday people with a way to directly impact our energy and environmental future.

Since the commissioning of our first turbine, we have been working on the feasibility of developing more projects, including adding more turbines at Exhibition Place. However, under the current regulatory regime and under the current act, adding more turbines to the grid has been extremely difficult for us.

In terms of Bill 150, we strongly support the direction of the Green Energy Act as it relates to wind energy and are very pleased with the proposed changes to the Co-operative Corporations Act, the CCA, that are also part of Bill 150. These CCA changes proposed here will enable us to operate much more effectively. Frankly, most of the changes that were proposed in Bill 150 would help us

alleviate a lot of the problems that we have had in operating in the past.

There are, however, some specific areas of the act that we feel need highlighting, obviously from a focused perspective as a community wind power developer.

The new act should be effectively encouraging renewable energy developments close to markets. This concept, we believe, is something where the differentiation of price should be based on resource intensity. I'll try to cut through the jargon here. Essentially, what happens in this situation is that where you have low wind, quite frequently you have a great deal of the population. In our situation at Ex Place, we have a relatively low regime, but we have our production extremely close to that market. Generating power where people use it ultimately lowers our societal, our economic and our environmental costs of providing power to the marketplace.

Pricing wind power based on resource intensity—read: wind speed; lower-wind sites get more money if located close to market—can help alleviate the concentration of high-density wind projects far from the urban marketplace. By spreading turbines around close to consumers, we ultimately create a more robust electrical system in Ontario. Under this system, projects situated in lower-wind areas close to market would be given preferential pricing.

The next point that we've run up against in many situations is what we call the "one size doesn't fit all" scenario. Generally, legislation and regulations regarding current wind projects, and conceivably even some under the GEA, were developed within the context of rural locations, assuming that all wind turbines would be located in rural locations. As a result, certain projects may suffer from not fitting the guidelines. Some issues need to be addressed based on ultimate site locations, as opposed to a one-size-fits-all approach.

As an example, our turbine is relatively close to a number of other land uses, and land uses are issues that are going to have to be dealt with clearly in the regulations. But let me just give you an example. Our turbine is a mere 20 metres from the closest paved roadway within Ex Place; it's within 30 metres of the closest arterial road, one of the busiest in the city, Lake Shore Boulevard; within 70 metres of the closest building—in this case, two buildings—Scadding Cabin, which happens to be an historic site, and Liberty Grand banquet hall; 75 metres from the closest waterway, namely Lake Ontario; and approximately 450 metres from the closest residence. What I don't have on the sheets that I handed to you is that we're also within about 1,600 metres of the Toronto Island airport. I bring that issue up because I understand that earlier in the day you heard presentations from some skydiving group. I found that rather interesting, and I thought you might find interesting that this summer—and last summer—we will be performing as part of the Canadian International Air Show—our turbine would be an integral part of it—and needless to say, skydiving is part of that air show as well.

The new regulations will be looking at setbacks for turbines from various land uses. We believe that if these regulations are looked at strictly from a rural perspective we could find, once again, that future developments within the city will be unfeasible. After over six years of operation, we have not received any complaints from other users, businesses or residents within the immediate areas. By the same token, there may be times when our setbacks could not be applied to other projects. It is important to have guidelines related to land uses within close proximity to a turbine. However, it should be very clear that these setbacks may differ by location and may differ between rural and urban locations.

While we understand that Bill 150 doesn't specifically deal with the issue of property tax issues, we feel compelled to highlight how, in our case, the formula used to assess our property tax was based on work done provincially, where it was assumed, once again, that all turbines would be located in rural situations—usually agricultural land. This assessment formula is based on not only turbine capacity and turbine size but also the value of the land beneath the turbine. Clearly, the value of the land beneath our turbine at Ex Place is significantly more expensive than the land under a wind farm in a rural area an hour and a half outside of Toronto. Needless to say, this is another poignant and expensive example of how one size doesn't fit all.

We need to be encouraging renewable projects throughout Ontario and within our cities, not frightening them away. Ultimately, it has to be easier to produce wind power in Ontario. At first blush, the idea of having multiple small wind projects throughout Ontario might seem inefficient, but once we realize the security and stability that the concept of distributed generation brings to Ontario's electrical system, we realize that multiple small projects throughout the province can have a profoundly positive impact on improving our grid and stability. Thank you.

The Chair (Mr. David Orazietti): Thank you very much for your comments. The first member to comment here is Mr. Tabuns. If you have questions, Mr. Tabuns, go ahead. You have about a minute and a half.

Mr. Peter Tabuns: Thanks for the presentation, Evan. The whole question of differential rates for resource intensity: Are there jurisdictions where they have a rate structure that in fact reflects what you think we need to have in Ontario?

Mr. Evan Ferrari: I'm not that aware with other jurisdictions out there. I've seen attempts at looking at the current pricing that the OPA has out there for comment, where one analysis—and I haven't gotten down in the weeds on things yet—took the numbers that are there and essentially reworked them in such a way that there would be resource-based pricing, but based it on a way that there's no net change to the revenue at the end of the day. You're merely redistributing it—so if at the end of the day you expected it to cost you 100 units or \$100—in a manner that gave preference to lower-wind regimes closer to market. You should be able to play with that

pricing in such a way that it's—I'm not going to say revenue neutral, but it doesn't have a net-negative impact on the bigger scheme of things.

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Mr. Peter Tabuns: Or you have reduced transmission costs, so you should be able to take advantage of that opportunity.

Mr. Evan Ferrari: Yes, you would hope so.

Mr. Peter Tabuns: Off the cuff, you may not know, but if you could take a look and provide us with information on how other jurisdictions have dealt with this beneficial impact of reducing the cost of transmission, it would be useful to us. And if you can't do it, then maybe the government will pioneer. Who knows?

Mr. Evan Ferrari: I wish I had some examples up my sleeve and I'm afraid I don't, but merely the fact that you're not sending power very long distances—

Mr. Peter Tabuns: It matters.

Mr. Evan Ferrari: Yes, it's quite phenomenal. The power that we generate at Ex Place rarely gets off of the property. It's consumed extremely locally. From a grid perspective—I don't even know if it gets to the grid most days, there's so much power even consumed right at the Ex itself.

The Chair (Mr. David Orazietti): Thank you. That's the time you have. Ms. Brotен?

Ms. Laurel C. Brotен: I understand that WindShare has two projects, the one at Exhibition Place and one under construction in Milverton.

Mr. Evan Ferrari: That's a project that we're involved with. As any wind developer, you usually have to have several irons in the fire because inevitably there's some kind of a roadblock. The Lakewind project at Milverton is one of the ones that we're also looking at.

Ms. Laurel C. Brotен: One of the things, speaking of roadblocks, that we are trying to do in the act is facilitate the development of renewable electricity through a renewable energy facilitator, through developing a one-window approach and trying to facilitate that approvals process; setting a high bar, but having you know what that bar is to meet. Do you think that type of assistance would help you move forward with projects that you would like to do in the future?

Mr. Evan Ferrari: I think that would help significantly. The biggest help that we need with the Milverton project, the project we call Lakewind, would be to have the orange zone removed. That is our stumbling block right now. We're ready to go and our colleagues at Countryside Energy are ready to go as well. That is beyond the shadow of a doubt the biggest stumbling block.

The Chair (Mr. David Orazietti): Mr. Yakabuski?

Mr. John Yakabuski: Thank you very much, Mr. Ferrari, for your presentation. I just have a couple of questions, because you did comment on Mr. Chow's presentation earlier, from Skydive Toronto, with respect to the wind turbine. The turbine at the CNE is not the size or capacity of the turbines that are being anticipated in any of these wind developments. Can you give us the specifications on that turbine?

Mr. Evan Ferrari: Our turbine is just under 100 metres tall to the tip of the blade, and its capacity is approximately 640 kilowatts. Newer turbines that are going up right now, like the ones in the Shelburne area, are probably 1.5 to two megawatts. Newer turbines are actually approaching three megawatts. However, you've got to be careful with those numbers, because a doubling in capacity doesn't mean a doubling in height.

Mr. John Yakabuski: We're aware of that.

Mr. Evan Ferrari: So the height of those would be significantly higher, but they definitely wouldn't be double the height; let's put it that way.

Mr. John Yakabuski: That's correct, but I did want to point that out. The other thing is that, yes, you're within that distance of the Toronto Island airport, but you're not in the flight path.

Mr. Evan Ferrari: We're actually 20 metres below a buffer zone from a flight path. And frankly, that's another restriction we had, because we had no intention to put such a small machine down there. The fact that the island airport is there has prevented us from putting in a more substantial machine.

Mr. John Yakabuski: I think what Mr. Chow was concerned about is significant developments within proximity of an aerodrome. I would put it to you that I think he's talking about a different circumstance than you're articulating.

Mr. Evan Ferrari: I didn't hear his presentation. Perhaps he was—as I mentioned, we are a participant in the air show. There are skydivers who participate; we actually turn it on and turn it off as part of that, along with the other participants at the air show.

Mr. John Yakabuski: Now, I'm not sure where you—it's kind of ambiguous for me, anyway. You talk about needing to reduce the amount—or this would lead to reducing the intensity of rural development if we had power being produced closer to the source. Then I'm not sure of the last paragraph. It kind of makes me not sure that's exactly what we're saying there. We have some proposed wind developments, for example, up in my riding in Renfrew county; 60 turbines in the shadow of Algonquin Park, a long way from the need, a long way from the power consumption. What's your view about developments like that?

Mr. Evan Ferrari: I don't know enough about that development to comment specifically on it. Clearly there are places that wind turbines should go and places that they shouldn't go, and not knowing the specifics, I would feel uncomfortable suggesting that I could comment one way or the other—

The Chair (Mr. David Orazietti): Thank you very much for your comments. That's all the time that we have for questions.

Mr. Evan Ferrari: Thank you.

CLEAN, AFFORDABLE ENERGY ALLIANCE

The Chair (Mr. David Orazietti): Our next presentation is Clean, Affordable Energy Alliance.

Good evening. You have 10 minutes for your presentation and five minutes for questions. State your name for the purposes of Hansard, and you can begin when you like.

Ms. Carol Chudy: Thank you and good evening. Thank you for this opportunity to provide input to Bill 150. I'm Carol Chudy. I'm co-chair of the Clean, Affordable Energy—CAE—Alliance. We are a volunteer organization representing the interests of Ontario's energy rate-payers. Our members have followed and have actively participated in the evolving energy policy and the significant changes that have taken place in the electricity sector over the past five years. We believe that there are major flaws in the proposed legislation which devalue the individual and municipal rights of citizens and undermine the economy, contrary to the provincial goal, which is the enhancement of the quality of life for the citizens of this province.

In Ontario, we've historically enjoyed reliable, secure power supply at best cost to consumers and have built our livelihood and quality of life on that. There are safeguards to ensure this. The proposed act represents a major shift away from this concept in pursuit of green energy, regardless of cost, system or human impacts. Potential gains are overshadowed by losses: economic, civil, and loss of cost and environmental safeguards—minor gains, major losses. I'd like to highlight five specific areas where we feel there are losses.

Economic losses: The act is advertised as a bold series of actions to enhance economic activity, creating up to 50,000 jobs province-wide. However, no concrete information has been provided to demonstrate how or when these jobs will be created. When analyzed, reports promising large job gains were found to contain dubious assumptions and a disregard for basic economic principles. The jobs include large numbers of clerical, bureaucratic and administrative positions—non-productive, expensive positions that raise costs for electricity consumers without adding value to Ontario's economy. The actual employment gains will be totally swallowed up in the job losses that will result from higher energy costs. The 300,000 manufacturing jobs plus supporting retail and service sector jobs lost in Ontario over the past four years will be just the beginning.

This act will cause electricity costs to rise: generation, transmission, administration costs and inevitably ongoing debt reduction costs. Mr. Smitherman states that he envisions hundreds of thousands of points of generation under the new Green Energy Act. As a result, there would be miles upon miles of new transmission lines through all sorts of terrain to connect these hundreds of thousands of small-scale generators and larger remote supply to the provincial grid—billions of dollars. Hydro One is currently overtaxed with transmission upgrades

and extensions. The right to connect to the grid guaranteed in the act will necessitate private transmission, and the public will be required to pay whatever it takes. The act will guarantee private developers rates and revenues regardless of when they operate, what or where they build, including remote northern areas, confident that they can demand delivery of their intermittent power to distant markets at the ratepayer's expense.

The act will foster additional costs, including renewable energy at triple to 20 times the cost of existing resources; real estate energy audits, which 86% of the public opposes; the special cost associated with fuel use; \$1.6 billion to roll out the smart grid; costs from municipalities, hospitals, schools and universities to prepare and update energy efficiency plans, which will all be passed down to Ontario taxpayers; and restriction on the sale or lease of products currently in use.

This act will result in the loss of economic safeguards legislated for the protection of Ontario consumers, most prominently in the change of the OEB mandate. This act subjugates price protection in favour of renewable promotion and accommodation. The role of the board as economic regulator will be compromised; in fact, the changes in mandate placed on the OEB undermine its very purpose.

The act is designed to turbocharge the renewable energy supply in the province regardless of cost and regardless of the overall impact on the Ontario economy. This is clearly opposite to the public concerns we hear daily that place the economy far above environmental issues at this particular time. Those promoting this act as a melding of the two—that is, that the Green Energy Act will spur economic growth—are presenting a skewed and misinformed perspective.

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The act will result in marginal environmental gains. The use of renewable energy in Europe has not decreased greenhouse gas emissions, nor has it reduced the need for conventional power production. The German Energy Agency states that Germany "must press on with building up conventional power generation alongside its push for a renewable energy expansion to avoid supply shortfalls and rising prices." They note that demand increases and supply volatility arising from a growing share of erratic production from renewable sources still make new coal- and gas-fired power stations necessary.

From a climate change perspective, there will be little benefit in switching from coal to natural gas. In addition, according to a recent government study, using gas for power generation to replace coal will have a minuscule benefit on air quality—a trade-off in the emissions profile at a cost to consumers.

The act will allow for transmission facilities, wind turbines, solar panels and natural gas pipelines to be installed on public lands, potentially in areas such as Algonquin Park, without public recourse. Ministries currently overseeing the environmental impacts of projects in infrastructure will have a severely diminished voice.

The act includes measures which erode the civil rights of Ontarians and is expressly designed to stifle public input. In streamlining the approvals process, the act exempts renewable projects from local planning authority and shuts down legitimate public input and opposition. Project information will be deemed confidential outside the parameters of the freedom of information act. The public will be denied access to information crucial to defining their opposition.

The act is designed to squeeze every drop of energy efficiency, outlawing used appliances and products that don't need as yet to be designated standard—at what gain? At what cost?

The act includes broad powers of seizure and search. Inspectors will be hired to go anywhere they deem necessary to enforce the act. They will have the right to use investigative techniques and may use persons who have special expert or professional knowledge to assist.

The act itself is a poorly constructed piece of legislation. It's extremely vague in far too many aspects. There are 88 uses of the word "prescribed," denoting that much of the content is yet to be determined. It is so open-ended as to allow for destructive policies and fails to anticipate the negative consequences and implications of the undefined details. One example: "The Lieutenant Governor in Council may make regulations prescribing anything that is required or permitted to be prescribed or that is required or permitted to be done in accordance with the regulations or as provided in the regulations." One can only guess how that will be applied.

Finally, the sweeping powers and authority granted to the Minister of Energy in this act are far too extensive. There are 77 instances in the act where the minister is granted specific power and authority, unconstrained by the energy board or by any other public regulation, including the right to provide grants and loans.

In contrast, the act curtails the powers and discretion of the OPA and the OEB, although in 2008 energy experts employed in those two agencies earned in excess of \$20 million. This does not include those working for the ISO, Hydro One or OPG. These experts have years and years of combined experience in the highly complex and scientific electricity industry. In spite of this, the Minister of Energy, with little background and expertise as yet, will have a direct and controlling impact on all energy-related issues and decisions in this province.

While some aspects of the new act have great merit, the benefits are overshadowed by a deviation from a mandate of reliable, affordable, environmentally sustainable power to a mandate of highly questionable environmental goals at any cost. This cost is measured in dollars from ratepayers, in continued job losses as energy costs rise, and in loss of rights to Ontarians—major losses, minor gains.

We ask you to review our written submission provided. We ask you, as you listen to the presentations over the next few weeks: For those who support the bill, what do they stand to gain? For those who oppose, what do they stand to lose?

The Chair (Mr. David Orazietti): Thank you very much for your presentation. I'll start with the government members. Ms. Broten.

Ms. Laurel C. Broten: Thank you for your presentation. I'm wondering what type of power generation you do support. I had a chance to look at your presentation and I gather that coal is your preferred source of generating electricity.

Ms. Carol Chudy: It's not. I believe that the best source of generation is what we've had in the past, which is a portfolio of resources to balance and support. I do not deny that renewable energy is a good thing for our province, and I believe that nuclear also is. However, we have to consider the intermediate load—the load following the load balancing—that is required by a thermal component at this time. In a sense, the more renewable energy we include, the more backup resources are required to shadow that. So if we're going to consider a thermal component, I believe, from a public perspective, we are better off to clean up the coal plants and keep them while we add the renewables, to remain stable rather than including huge amounts of natural gas.

Ms. Laurel C. Broten: In the time that I have—I won't have a lot of chance to ask questions—I do want to let you know that all projects will be subject to consultation. There will be public discourse and an opportunity for public input when those projects are going forward. Pieces of legislation that we are very proud of and have fought to introduce in the Legislature, like the Endangered Species Act, will continue to play an important role in the province.

No projects are proposed for Algonquin Park, and I would suggest to you that the economic analysis being brought forward with respect to the 50,000 jobs is much more detailed than you give it credit for, and the jobs are real jobs: construction jobs, manufacturing jobs. In the community that I represent, Etobicoke—Lakeshore, those are viewed as very important jobs that we need to build for the future of this province.

I do appreciate you coming forward. I would suggest to you that the externalities associated with air pollution and the generation of electricity by coal have been well documented and our government's strategy is the single-largest climate change initiative in North America.

The Chair (Mr. David Orazietti): Thank you, Ms. Broten. That's time. Mr. Yakabuski?

Mr. John Yakabuski: We were wondering if we were going to get any time there, Chair; Ms. Broten was on a roll.

Thank you very much, Carol, for your presentation. You touched on some interesting things. I know Ms. Broten wants to talk about the jobs. Interestingly enough, the entire automotive manufacturing sector in Ontario—Ford, Chrysler, General Motors, Honda and Toyota—before the meltdown only employed 38,000 people, yet they're going to tell you that this Green Energy Act is going to create 50,000 jobs over the next three years. That would beg to be analyzed and challenged by any-

body. When we hear something from the government, automatically we should be questioning it.

Her contention is that George Smitherman has no plans to put turbines in Algonquin Park. Why does he give himself the power to do so if he has no plans? I'm very concerned about those kinds of things in the act, and you've articulated them well tonight.

Interestingly enough, you talk about the cost and the jobs gained or jobs lost. A study that was released not that long—and Spain, by the way, is being told by the European Union that they must increase their power prices because they've been subsidizing them to the extent that they're not accurate, they're not within the guidelines and the rules of the European Union. The study showed that for every job gained by the production of renewable energy in Spain, it amounted to two jobs lost. Are you aware of that study? Have you seen it?

Ms. Carol Chudy: Yes, and there's also a German study on solar that indicates the same thing. Also, the studies from universities across the US where they looked at all of the reports—

Mr. John Yakabuski: Because of the price.

Ms. Carol Chudy: Yes.

Mr. John Yakabuski: And we're a goods-producing economy here in Ontario. If the price of power does what happened in Europe, what could we expect with our jobs here?

Ms. Carol Chudy: Decimated.

Mr. John Yakabuski: Thank you very much. I appreciate that.

The Chair (Mr. David Orazietti): Mr. Tabuns?

Mr. Peter Tabuns: Carol, thanks for the presentation. One of the concerns I have is that the most recent analysis of the cost of new nuclear power plants puts their price per kilowatt hour at about 15 cents. So I'm very concerned that large-scale investment in nuclear will do what you're talking about, and that's further drive up the cost of electricity and also lock us into a technology that I think will not be around 50 years from now. Do you, in your presentation, call for an end to further investment in nuclear power in this province?

Ms. Carol Chudy: I think we have to be realistic. I don't believe that renewable energy in this province can sufficiently provide the baseload that we need. As Mr. Yakabuski has indicated, we are a goods-producing province. If we shut down our largest source of baseload power, industry is going to flee. We can't run a car plant on wind or solar, not at this point in time. We do not have enough hydroelectric facilities, or even potential, left in this province.

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Mr. Peter Tabuns: I don't think anyone around this table would suggest shutting it down, but just not making any further investment in a power source that has already driven up the cost of electricity in this province quite substantially.

Ms. Carol Chudy: Nuclear units now will be reaching end-of-life at a certain point in time. If we don't

replace that with sufficient, significant baseload power, where are we?

Mr. Peter Tabuns: I'd submit that we're at a point of technological change; that, in fact, just as horse power was replaced by cars at the beginning of the last century, we're coming to the end of the lifespan of the nuclear age and we will be going forward with new technologies over the next few decades that will displace nuclear as they come on stream. I don't understand the argument for technology that actually has proved to be very expensive for us and dramatically drove up the cost of electricity in this province, undermining our manufacturing competitiveness.

Ms. Carol Chudy: The Green Energy Act is going to tie us to 20-year contracts for technology that is, as you say, rapidly developing—solar, wind; there are developments. We would be better to be prudent and careful in letting out our money. We're going to be stuck with 20-year contracts of very expensive power that might be technologically deficient in five years.

The Chair (Mr. David Orazietti): Thank you. That's time.

Ms. Carol Chudy: Thank you.

The Chair (Mr. David Orazietti): We appreciate it.

AUTOMOTIVE PARTS MANUFACTURERS' ASSOCIATION

The Chair (Mr. David Orazietti): The next presenter is the Automotive Parts Manufacturers' Association.

Good evening, gentlemen. Please state your name for the purposes of recording Hansard. You have 10 minutes for your presentation and five minutes for questions from the members of the committee. You can start when you like.

Mr. Gerry Fedchun: Thank you. I'm Gerry Fedchun, president of the Automotive Parts Manufacturers' Association. This is Peter Corbyn, director of environment and energy.

The APMA is Canada's national association representing original equipment automotive suppliers. APMA's members account for approximately 90% of Canada's \$24.3-billion industry, with 80,000 employees. APMA's fundamental objective is to promote and support the automotive original equipment supply industry, both domestically and internationally. The association creates and executes global marketing initiatives in order to develop international trade and business opportunities for the membership, and provides important representation to both the federal and provincial governments. APMA is the voice of the motor vehicle original equipment suppliers in Canada.

The total energy cost for the industry is about \$900 million, or 3.5% of total sales—a substantial number. As you know, the industry is experiencing unprecedented economic hardship right now. Virtually all other sectors of the economy are also experiencing economic hardship, but motor vehicle suppliers are in a worse downturn than most other sectors. Based on consultations we have

received, it appears that energy prices will rise substantially in Ontario as a result of the Green Energy Act. If that is the case, we fear that a number of automotive parts suppliers will face closure and/or relocation to jurisdictions with lower energy costs.

We agree that reducing greenhouse gas emissions to address climate change is necessary. However, we believe the government of Ontario should change the scope of the Green Energy Act in order to improve the balance of solutions so that the economy can prosper and citizens and government can benefit.

As we are sure you are aware, there are a number of solutions that need to be implemented to reduce greenhouse gas emissions. These solutions are best demonstrated by the Socolow and Pacala wedges, as shown in figure 1, which you have. Essentially, no one solution will reduce global greenhouse gas emissions on its own; rather, a complete repertoire of solutions needs to be employed. These solutions include:

- improving electricity end-use efficiency;
- improving other end-use efficiency;
- improving passenger vehicle efficiency;
- improving other transport efficiency;
- using more renewable energy; and
- carbon capture and supply efficiency.

Our concern is that without a balanced approach to addressing climate change, Ontario will face increased economic hardship.

The simple fact is that the implementation of any solution requires funding. Without prosperity, there are no funds to implement. With a balanced approach, there is greater potential for sustainable economic and environmental progress. For example, helping Ontario-based manufacturers improve energy efficiency will both help their global competitiveness and, at the same time, reduce their greenhouse gas emissions. In fact, according to the McKinsey abatement curve in figure 2, a number of low-cost-based strategies include improved efficiencies, such as lighting; industrial process improvements; existing power plant conversion efficiencies; and combined heat and power for industry, or cogeneration. Other low-cost opportunities include improved car and light-truck fuel-efficiency gains.

Although we support the introduction of renewable energy sources, we're concerned that these options, especially as we perceive them to be proposed in the Green Energy Act, carry a much higher abatement cost per tonne, as is consistent with McKinsey projections for wind, solar and biomass energy source costs.

We are aware of the potential economic benefits of growing a renewable energy sector in Ontario. We also believe there is a tremendous opportunity for Ontario-based automotive parts manufacturers to gain by contributing towards the more-fuel-efficient vehicles of the future. However, that gain cannot happen if the industry continues to lose thousands of jobs.

For example, in the 2009 Ontario budget, "Growing the Greening Economy" mentions an opportunity to aid in the development of green auto parts by using bio-

based materials for interior trim and head-restraint coverings. That is something that we applaud, and in fact, I sit on the board of directors of the Ontario BioAuto Council. However, if there is no automotive industry to support, that progress will go elsewhere, ultimately leading to more unemployed Ontarians and a lower tax base for the province.

Our proposal: As you know, access to capital in this economic environment is virtually non-existent. Unfortunately, this means capital spending freezes throughout the automotive parts industry, including capital for energy-efficiency-focused projects. There are a number of automotive parts manufacturers that could implement effective energy-efficiency projects but are unable to access cash for projects where the payback is less than a year. For example, one particular manufacturer is currently sitting on a \$100,000 energy efficiency project with known savings of \$150,000 per year on an eight-month payback and a reduction of over 300 tonnes per year of greenhouse gas emissions. This \$150,000 per year would substantially boost their already-slim margins. We recognize that the OPA is beginning to offer incentive programs to help improve industrial efficiency, but to our knowledge, to date these programs still require substantial private sector capital.

As you are aware, energy service companies, or ESCOs, have been in business for a few decades. Helping finance large energy efficiency projects, their revenue is based on a percentage of overall savings. This business model works well for large clients with multi-million-dollar savings opportunities, but it doesn't fit well for projects in the under-\$500,000 range, as contracts are complex and the overhead of creating and administering the contract make the process uneconomical. The result: There are few projects this small.

We propose the creation of an energy capital fund that will help smaller companies benefit from the same model. To make an analogy, ESCOs are on par with venture capital funds, i.e. providing multi-million-dollar investments, where the energy capital fund will act more like an angel investor, providing five- or six-figure financing.

In fact, an energy capital fund would actually grow over time. For example, the company above would obtain \$100,000 in financing from the fund and pay it back plus interest out of the energy savings. The process would be simple to administer, would help Ontario-based manufacturers improve energy efficiency and would reduce greenhouse gas emissions for a low cost, actually making more money relative to the feed-in tariff cost structure proposed in Green Energy Act.

If Ontario-based automotive parts manufacturers are not cost-competitive, jobs will be lost. If Ontario-based automotive parts manufacturers are cost-competitive and reducing their greenhouse gas emissions at the same time, we all win. To quote an individual in the industry, "If Ontario is out of step with the rest of North America with respect to energy prices, we are done."

We appreciate this opportunity to share our position today and look forward to further discussing our proposal

for providing a cost-effective means towards reducing greenhouse gas emissions and growing the Ontario economy. Thank you.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. Mr. Yakabuski, you're first up.

Mr. John Yakabuski: Thank you very much—

Mr. John O'Toole: Pardon me, Chair. I may have to interrupt because he's speaking up there. How can—

Mr. John Yakabuski: Yeah, we were wondering how this works. We're on the television there, too, so—

The Chair (Mr. David Orazietti): You're amazing, John. You're amazing.

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Mrs. Carol Mitchell: Technology.

Mr. John Yakabuski: Yeah, that's that new technology.

Mr. John O'Toole: Yakabuski all the time.

Mr. John Yakabuski: Yes, everywhere all the time.

The Chair (Mr. David Orazietti): You're using up your time, Mr. Yakabuski.

Mr. John Yakabuski: I know. Anyway, look, I really do appreciate your presentation. This is the kind of real information we need and I think that those folks on the other side of the room here need.

You're chasing \$1 billion a year in electricity use in your industry. The total electricity use in Ontario, I believe, is between \$7 billion and \$8 billion, so you're talking about one seventh of the entire electricity bill here in the province, and this act is going to kill you. If the price of electricity goes up as low as 15%, which is really being optimistic, or as high as 30% to 50%, can you guys survive?

Mr. Gerry Fedchun: A lot of companies will not, because right now, the average cost of electricity in Ontario is 30% higher than our competitors, and if it goes another 15%, that really kills us.

Mr. John Yakabuski: Why are we not investing in that? If we want to be part of this new economy, like Dalton McGuinty likes to talk about, why are we not helping companies be more energy-efficient? Because if you could reduce your energy costs, you would reduce your production costs and therefore be more competitive with those other economies you're trying to compete against.

Mr. Gerry Fedchun: I can say that if we're going to have some incremental increase in cost per unit, then we've got to bring the total number of units we use down. We especially need to help the smaller companies do that.

Mr. John Yakabuski: So that's what we need to help you guys: We need to make ourselves more energy-efficient, because we're a goods-producing economy and we're not going to change that or we'll all be out of work, right?

Mr. Gerry Fedchun: Well, there are 80,000 jobs in the parts sector, and a significant amount of those will disappear.

Mr. John Yakabuski: I was up at the wind farm at Melanchthon—six full-time jobs; that's what's there. Once the place was built—six jobs. They'll have more now because they've doubled it this year, but we need real jobs that pay people, don't we?

Mr. John O'Toole: Thirty-eight thousand jobs—

Mr. John Yakabuski: Well, it's 80,000 in the parts, but the cars themselves, it's 38,000.

Mr. Gerry Fedchun: That's at the assembly plants. There are almost two jobs at the parts plants for a job in the assembly plants.

The Chair (Mr. David Orazietti): Thank you. That's the time for questions. Mr. Tabuns?

Mr. Peter Tabuns: I'd also like to thank you for this presentation, because I think it's well thought out and I think the central argument you make, that we have to focus on energy efficiency, is critically important. If we do that, then in fact, yes, we can make investments, reduce greenhouse gas emissions and actually have positive economic impact. I'm far more worried about the cost of nuclear power, to tell you the truth, and its impact on our long-term electricity build than I am on renewable power. I think that what the government has brought forward actually will only add to electricity production in Ontario in a fairly small number.

Is there large-scale discussion within your sector right now on manufacturing components and full-scale products for the renewable energy industry? I know that in Toledo, Ohio, there are examples of companies that used to make windshields for cars and are now making the glass for solar panels. Michigan is doing a large-scale evaluation of auto parts plants to look at expanding the products they make to get into renewable energy. Are you, in the auto parts sector, looking at that now?

Mr. Gerry Fedchun: Yes, we are. I have to admit, this is a relatively new phenomenon and it's really a result of the fact that the production of vehicles is down. But as I said to the membership, you aren't manufacturers of auto parts; you're manufacturers. You can manufacture anything. If you're making gears for a transmission, you can make gears for a windmill and you can make gears for a lot of other things. We are also trying to get the mindset of a lot of manufacturers to understand exactly what their core competency is. The fact is, we are very good precision manufacturers. Windmills and solar power require precision machinery, and that's what we do already.

Mr. Peter Tabuns: Yes, exactly. Thank you.

The Chair (Mr. David Orazietti): Thank you, Mr. Tabuns. Mr. Mauro.

Mr. Bill Mauro: Can I ask you, who is your primary competing jurisdiction when it comes to the production of auto parts?

Mr. Gerry Fedchun: Right now, the new plants are going in the southern US. Some of our companies have had to go there because it's so far away that we couldn't supply from here.

Mr. Bill Mauro: The pricing hasn't changed yet, so why are they moving now?

Mr. Gerry Fedchun: The pricing in the southern US right now is already 30% below.

Mr. Bill Mauro: Sorry—on your 3.5% on your energy piece. So if your concern is that, going forward, the energy costs are going to make you uncompetitive—you've just told us that car part plants are already leaving. Why are they leaving now? It's not the energy part yet.

Mr. Gerry Fedchun: You've got to look at the total cost of your product, and every little bit—it's a very low-margin product.

Mr. Bill Mauro: Okay. So they're already leaving, though—

Mr. Gerry Fedchun: It's volume-based.

Mr. Bill Mauro: I understand that; I appreciate that. But they're already leaving. So now, going forward, you're at 3.5%, you said, and you have a concern about an increased impact on that number. Your primary competing jurisdictions are American. So if President Obama is going to go to a carbon pricing system, how do you anticipate that that's going to affect your primary competing jurisdictions and what position would it put you in to compete with them?

Mr. Gerry Fedchun: I have to admit that we're not that knowledgeable in all of the things he's proposed. We don't have an expert on staff to actually analyze it.

The main thing is the fact that they are our competition, so we have to make sure we stay even with them. Whatever we do, we want to do something that takes us out of the competition. We certainly, incrementally, look to having more renewable energy resource at a lower carbon footprint; that's what we need to do. But what we need to keep is to not get ahead of the competition and go faster, in terms of cost increases, than our competition is going. So as long as we stay even with them, it will work. That means to have a measured pace in terms of change so that our change in cost is not at a higher rate than the change of cost of our competitors.

The Chair (Mr. David Orazietti): I think we're out of time. You have about 30 seconds if you want to—

Mr. Bill Mauro: Thank you, Chair. I'm sorry; I thought you were saying I was done.

Currently, the 3.5% is not the issue for them leaving the jurisdiction. The carbon pricing system from Obama is likely to put an increased pressure on their input costs as well in that jurisdiction. So actually, going forward, we may find ourselves in a better position here in your sector potentially, I think it's fair to say, when it comes to energy inputs as a portion of your total input costs.

Mr. Gerry Fedchun: I think it's very important whenever you're going forward—when you're in a platoon of soldiers, the person who gets shot first is the point man, and also the person to get knocked off is the one at the back. The one in the middle has the high survival rate, and this is true in competition. You want to be in the middle. You want to be at the benchmark because that's where you'll be best and that's where the Ontario economy will perform the best: if you stay in the middle of the competition.

The Chair (Mr. David Orazietti): Thank you. That's all the time we have.

JUSTEARTH

The Chair (Mr. David Orazietti): Our next presentation is JustEarth.

Good evening. Welcome to the standing committee. You have 10 minutes for your presentation and five minutes for questions from members. If you can please just state your name for the record for Hansard purposes. You can begin when you'd like.

Ms. Lynn McDonald: I'm Lynn McDonald, with my colleague Adriana Mugnatto-Hamu. We represent a voluntary environmental group, JustEarth, a coalition for environmental justice—it's not very old—with a very strong focus on the climate crisis.

The bill that you are studying is a skeleton, and how much muscle it has, of course, will depend on the regulations. We feel some frustration about this, and our arguments will be in favour of stronger and tougher measures.

I'd like to turn the mike over to my colleague, and I'll make a couple of remarks at the end.

Ms. Adriana Mugnatto-Hamu: I wanted to thank you for this legislation, especially for the conservation portions, which I think are going to be the most important part going forward. As we know, the energy that you don't use has got to be the healthiest and cleanest energy of all.

I'm going to make four recommendations for how to go forward, and all of these are to aggressively get to the kinds of emissions reductions that we need.

The first is that we need to fully cost all our energy services. What this bill appears to do is create a premium price for renewable energy. What this has done, as other speakers have mentioned and as Mr. Yakabuski has said, is to create a situation where you don't get a lot of support. Germany's the big example for this. They've been very successful with their program—22,000 megawatts of wind, almost 1,000 megawatts of solar—but at the same time, there are 39 coal plants in planning and construction in Germany that would total over 36,000 megawatts of power from coal—and this is lignite. So it's got a problem there.

The problem is that there are serious effects of coal that are covered in other departments; the health costs of coal are given to other departments. Nuclear also: There are insurance costs, there are decommissioning costs, there are health care costs that are implicit in those, and those are all covered. You think that those are cheap energy sources, but they're not. So we should cover all of those costs in our energy prices. Health costs should go down. We should add the cap, if we introduce cap-and-trade, to those costs. Energy prices will go up. I know Mr. Yakabuski is going to complain about that. I agree that industry needs to be protected. We need to give our industry what it needs. But the solution can't be to have cheap energy and make our population sick.

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The second thing that I want to say is, we need to set more aggressive targets. This legislation doesn't say what the targets are going to be, but I should point out that we're looking at such things as Al Gore's challenge for 10 years to replace all fossil fuels with renewables in the United States. In the United States, 70% of their generation is from fossil fuels—50% from coal alone. Ontario has lots of hydro—only 37% of our energy comes from fossil fuels, and 21% from coal. We can do this. But we're going to have to plan the details or we'll never get there. This will be good for the economy. It's not good enough just to encourage renewables scattered willy-nilly across the province.

There are serious challenges to removing fossil fuels from the pool. The biggest challenge is not the reliability; the biggest challenge is producing on peak. That's pretty much the service that fossil fuels serve, overwhelmingly, beautifully, and it's hard to get away from that.

There are eight things that we're going to need in a solid electricity plan to go forward, to really build a renewable future. We're going to have to invest in storage—and I see nothing in this plan or in the electricity plan that talks about electricity storage, which we're going to need to support, whether or not we go the nuclear route, because nuclear does not produce on peak. We're going to need to make sure that generation is distributed adequately to account for fluctuations. We're going to need to encourage local generation, as they suggested, so that we cut down on transmission costs. We're going to have to worry about plug-in vehicles and how they play in terms of storage. We're going to have to get real-time pricing. We're going to have to consider how transport, heating and industry, as they go off fossil fuels, will impact the electricity system. We have to consider sustainably using biofuels for peak. And we're going to have to protect agriculture from competition with energy.

The fourth thing I want to say, and this is the last thing, is that nuclear is a very dangerous distraction. You couldn't possibly get a single reactor built in a decade, so it's useless. It's not included in Gore's plan for that reason. But it's actually worse, because in the time period when you're planning and constructing a nuclear reactor, it actually uses enormous amounts of energy. So what we're doing is increasing our energy demands, increasing our emissions, at a time when we desperately need to decrease them. Also, while we're waiting for those new nuclear power plants to come online, we're anticipating that we're going to have this big, giant producer, so we'd better keep the demand up until that time, and we're going to keep it up with fossil fuels. So, again, we're increasing emissions at a time when we desperately need to decrease them.

There are also implications of the huge infrastructure development while reducing emissions. These are big costs. It's very challenging. This is something a colleague of mine actually spoke to Minister Smitherman about at a public meeting. Minister Smitherman asked

him to write a submission. He asked me to help him. I have that letter. It hasn't been responded to. It's a serious concern.

The last problem with nuclear is just the extreme cost. Moody's Investors Service did a study and analysis of what nuclear costs—because of course the things are up and down, and the nuclear companies will always give you a lowball estimate and it'll go up. What they came up with was US\$7,500 per kilowatt installed. That's not including fuel costs, which are rising. It's not including operating costs. It doesn't include insurance or decommissioning. That's just construction. So, just for the construction alone, if Ontario goes forward with this insane plan of 14,000 megawatts, which is what it's saying, that would be C\$130 billion, which is more than \$10,000 for every Ontarian. That's an insane plan, and it'll cut down any real hope of a sustainable future.

Ms. Lynn McDonald: Do I have time to make one final comment?

The Chair (Mr. David Orazietti): Yes, you do.

Ms. Lynn McDonald: Back to the issue of regulations: The section on public agencies may be required to prepare energy conservation and demand management plans, to achieve prescribed targets and meet certain standards. Government procurement policies could play an important role in moving us to conservation and renewables, so we would certainly hope that this aspect of it would be acted on vigorously.

One final thing I would like to say is: On the benefits of renewables, it's not just when you burn fossil fuels that you cause greenhouse gas emissions. This is a resource which is non-renewable, and we don't have very much of it left—more coal than oil and gas, but still not very much—and so we have all kinds of incentives to move swiftly in this direction.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. Mr. Tabuns, you're first up. You have about a minute and a half.

Mr. Peter Tabuns: Thanks for coming and making a presentation this evening. Going back to nuclear and the cost: Most of the time when we think about these costs we don't think in terms of dollars per kilowatt of capacity; we think in terms of pennies per kilowatt hour. Do you know what the cost is or can you tell us about the cost per kilowatt hour for the nuclear power set out in the McKinsey report?

Ms. Adriana Mugnatto-Hamu: I could estimate. I don't actually know. They didn't actually say per kilowatt hour. But assuming that you've got 80% capacity, you can go from there and estimate what it would be. I do have the study if you want it.

Another thing that it does say is that the implications to a public-owned utility is, for each nuclear reactor constructed, it will decrease the credit rating of the utility by 25% to 30%. That's their estimate, if you'd like that.

Mr. Peter Tabuns: If you could provide that report to the clerk so that we can have it circulated to all of us, I would appreciate that.

Ms. Adriana Mugnatto-Hamu: Absolutely.

The Chair (Mr. David Orazietti): Thank you, Mr. Tabuns. Ms. Broten?

Ms. Laurel C. Broten: Thank you for your presentation, and I do want to commend you. I know how hard it is to put together a submission as a volunteer organization, and we do appreciate the thoughtful nature of the document and your submissions today.

If you haven't had an opportunity to look at quantification of the externalized costs associated with coal as a source of electricity, we undertook that in the province a number of years ago, and I think it was a really important aspect of explaining how many externalized costs there were to this cheap source of electricity. Similarly, we took a look at the coal electricity being produced in the US and analyzed the cost to Ontario in the form of air pollution, so it's a really important analysis to see the true cost.

You spoke about storage, and we've had a few submissions over the last number of days with respect to storage. When you're referring to storage, there could be battery-type storage, some kind of storage mechanism which we've heard about. There also could be water-based pump storage. I know that the minister made a directive with respect to analyzing that. Do you have any comments with respect to what type of storage, or do you really want to expand on that point?

Ms. Adriana Mugnatto-Hamu: I actually put together a presentation by a gentleman who came from BC. There's a Canadian company that has storage. He talked about the different options and he made it clear that the cheapest option is to, in fact, pump storage where you can have it. It's site-specific, but we have a tremendous opportunity here in Ontario because there are some engineers toying with the idea of raising the level of Lake Erie by one inch, which would represent a huge, immense storage capacity. There's also pumped gas storage, for which we have some depleted wells that we can use, and that's quite cheap. In areas where you can't use it, and that may be critical for getting electricity to where you can, the best that we've had is exactly this company out west. It's a Canadian company. They produce something called the vanadium redox battery. They're called VRB Power Systems.

Ms. Laurel C. Broten: I think they're in CC to AA right now.

Ms. Adriana Mugnatto-Hamu: Yes.

The Chair (Mr. David Orazietti): Thank you. That's all the time that we have for questions. Mr. O'Toole?

Mr. John O'Toole: A respectful thank you very much for your presentation, and I appreciate your voluntary compassion for the right things. I can't find a lot of things to disagree with. Perhaps a little touch with reality the odd time is good, too. I'm not being cynical. I think we have a structure of a generation supply mix that's—and this is really about trying to add some variety to that. What would you consider to be full-cost pricing? You've mentioned a few jurisdictions—Denmark and Germany. What's the average consumer paying—a senior citizen like me or you? What would they be paying?

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Ms. Adriana Mugnatto-Hamu: In Denmark and Germany?

Mr. John O'Toole: Yeah.

Ms. Adriana Mugnatto-Hamu: I know that their energy costs are about four or five times ours.

Mr. John O'Toole: That's reasonable. I don't want that type of increase myself. I think we have to look at some options. You talked about full cost—

Ms. Adriana Mugnatto-Hamu: Can I just mention, though, that their energy bills aren't higher, because they use so much less that the average German actually pays the same.

Mr. John O'Toole: I think you've got a good point there, and I think the smart meters are being installed and these new, different-prices plan is so that, when they realize how much it's going to cost, people won't be using the power.

Ms. Adriana Mugnatto-Hamu: That's right.

Mr. John O'Toole: In fact, they'll be shivering in the dark, and that's fine. That's a society—

Ms. Adriana Mugnatto-Hamu: I don't think the Germans are shivering.

Mr. John O'Toole: I'm not trying to be trite. I just think it's a significant shift in the way we are accustomed. I think you bring up a very honest, straightforward presentation. That's what's missing from the government.

When Mr. Yakabuski asked the question of Mr. Smitherman, "What's the price?" "A 1% increase." That is absolutely false. In fact, he should be ruled out of order. He's not telling the truth. If they're going to make these changes, I think the most important thing is to be honest with the people of Ontario. If it's all about health—which I'm in support of, by the way—let's be honest. They have told so many stories on this package that I'm losing confidence in them. They've said they would close the coal plants—

The Chair (Mr. David Orazietti): Mr. O'Toole, on that note, that is time.

Ms. Adriana Mugnatto-Hamu: Can I just point out—

The Chair (Mr. David Orazietti): I'm sorry. That's time. Thank you very much for your presentation.

TORONTO RENEWABLE ENERGY CO-OPERATIVE

The Chair (Mr. David Orazietti): Our next presentation is the Toronto Renewable Energy Co-operative.

I understand you have a PowerPoint presentation.

Ms. Judy Lipp: I do, yes.

The Chair (Mr. David Orazietti): Okay. You have 10 minutes for your presentation and five minutes for questions from members of the committee. Please state your name for the recording purposes of Hansard, and you can begin when you like.

Ms. Judy Lipp: Thank you very much. My name is Judith Lipp. I'm representing the Toronto Renewable En-

ergy Co-operative. TREC is a not-for-profit co-operative best known for developing the wind turbine down at Exhibition Place, and not to be confused with my previous colleague, who spoke for WindShare. Because we're a not-for-profit co-op, we spun off the WindShare project into a for-profit co-operative.

TREC has been active in the community power sector in Ontario for the last 10 years. Arguably, we probably have the most extensive experience developing community-based renewable energy projects in the province.

My apologies for the presentation. Technology doesn't always work, unfortunately.

TREC has, as its mission, to develop community-owned projects that individuals around the province can invest in and participate in—in that way, spreading the benefits of projects around to various constituents and individuals. We've also been very active in developing a renewable energy education program with partners like the Toronto District School Board and the Toronto conservation authority.

There are a couple of things. We certainly applaud the work that has gone into the Green Energy Act and the opportunities it provides to communities for developing projects at different scales and for different constituents and in different locations. We have been trying to develop a number of projects around the province after the WindShare co-op. One of those projects is the Lakewind project, which was mentioned previously. As some of you will know, we have been unable to connect to the grid in that area, so the right-to-connect requirement in the act is certainly very welcome.

Inclusion: We have also been working with the residential sector in Toronto, helping individuals install solar energy systems on their roofs—both solar PV and solar hot water. We've also done a study looking at a solar co-operative model for Toronto, and the numbers there indicate that we need a feed-in tariff of the level that has been introduced through this process, and so we certainly welcome that.

The Green Energy Act is a unique and significant piece of legislation. I recently completed my Ph.D. looking at policies for renewable energy in different jurisdictions, and certainly this is one of the most progressive pieces of legislation in the world. It certainly provides some strong potential for development both at the community level but also in the sector in general.

I just wanted to touch on the importance of the comprehensive approach that the act provides and to speak to Mr. Fedchun's comments about the wedge study and the need for a multilayered approach to addressing our energy issues. I think the Green Energy Act does that very well because it does prioritize conservation and renewables as well as addressing some of the other wedge components that need to go into an energy plan. From our perspective, we welcome the feed-in tariff mechanism and the guarantee for renewables to connect to the grid as well as addressing some of the barriers to community-based development.

On the recommendation side, I'd like to reiterate the point made earlier by my colleague Evan Ferrari about the need for fits that are based on resource intensity. And, to your question about which jurisdictions have experience with resource intensity-based, both Germany and France have been using a resource intensity-based approach to calculating the tariffs over time. What they've shown is that you reduce the excessive profits that can result from very-high-wind areas. So we would really like to encourage the inclusion of resource intensity-based tariffs in the act.

Other benefits of using this approach is that it would help spread development around the province as opposed to concentrating it in very high wind areas. This is important for enabling broad-based participation, because you can't move the resource; it's where it is. In this way, you enable broader participation and avoid excessive profits.

To my next point, I'd just like to address—and this perhaps doesn't fall directly under the act, but is certainly coming up in the feed-in tariff discussions—and that is the need to grandfather existing contracts. We represent 34% of all solar PV installations that have been done in the province. These people are pioneers. They've essentially gone out on a limb and invested in solar PV. The cost to the province would be only an additional \$250,000 a year for the solar PV sector, and I think, as pioneers, these people deserve recognition for their efforts. So I would be remiss to not mention that and speak on their behalf here.

My third point is the connection charges. We'd like to see shallow connection charges being applied to generators that are connecting to the grid. One of the barriers that projects have encountered in the past has been, first of all, the lack of transparency about the cost, as well as the high cost of connecting. We feel that the connection costs are in the control of and should be incurred by the rate base as opposed to by the project developer, up and beyond the basic connecting to the grid. This will be mentioned in schedule D, section 15, which determines connection charge-sharing.

Finally, I just wanted to comment a little bit further on the community power sector and the need for specific support for that sector if they are to participate actively in the benefits that the act could provide. It's our experience that it's a cumbersome process to go through and develop these projects and certainly the streamlining of applications and approvals will be a significant benefit. However, there are still access-to-financing issues, and so we would recommend that the act consider the inclusion of funds for loans and capacity-building and other community support to ensure that community groups have access to those funds and are able to move forward with their projects. In the process, the individuals involved are developing expertise and skills that they can then pass on and use as we move forward. I think this is an important feature to be included, and it will be things like grants for capacity-building and feasibility studies and project development loans, capitalization loans and the like to

ensure that not only groups like ours, but First Nations, farmers and community groups—

The Chair (Mr. David Orazietti): Excuse me. Just so you're aware, you have about 30 seconds.

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Ms. Judy Lipp: Okay. I'm just wrapping up.

So just to reiterate then: looking for FITs differentiated by resource intensity, RESOP contracts converted to FITs, shallow connection charges and ongoing financial support for the community power sector.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. Government caucus, Ms. Broten?

Ms. Laurel C. Broten: Thank you for your presentation. With respect to shallow connection charges, are there jurisdictions that you would suggest are doing a better job with respect to allocating those connection charges?

Ms. Judy Lipp: Yes. The Germans, I know, are using a shallow-connection-charge approach, but there is actually a feed-in best practice study that was commissioned by the feed-in co-operative association. They commissioned a German research organization to look into the different types of charges and which ones work best, and there's a useful summary that I can provide.

Ms. Laurel C. Broten: With respect to community co-operatives, my sense is that there's quite a big appetite for community involvement, but there are a number of barriers that really prevent communities from getting engaged. I'm wondering if you just want to highlight the top two or three issues that really stand in the way of a community putting a project together.

Ms. Judy Lipp: I touched on those, and the points that I picked out of the act are essentially those that we've faced most directly. The two biggest barriers are the access-to-grid issue, which hopefully the right to connect and the investment in the transmission grid will address; the second was the rate that's paid per kilowatt hour in the long-term contracts. The RESOP was not calculating a rate based on a reasonable return on investment.

The Chair (Mr. David Orazietti): Thank you. That's all the time we have. Questions from the Conservative caucus, Mr. Yakabuski or Mr. O'Toole?

Mr. John O'Toole: Thank you very much for the presentation. I also admire your compassion, working at the level you're working in forming co-operatives and micro-kinds of organizations. That's important; it's empowering. I would say that there has been a lot of work done on—I'd draw to your attention a really important report; it kind of fits into what you're talking about. There were a lot of hearings done in 2002 and there's a report submitted by the Select Committee on Alternative Fuels. The minister was here today and he said he met with the Chair. Well, he was wrong. He did not meet with the Chair because the Chair was not Steve Gilchrist. The Chair was actually Doug Galt. Somebody briefed him incorrectly; some staff made a mistake. Marilyn Churley was on that committee—

Mr. John Yakabuski: George fires people who brief him incorrectly.

Mr. John O'Toole: Well, no; I didn't mean it for that reason.

My point, though, is that it's an important report dealing with renewables. In some of the micro-projects—I just want to ask a question here. In my riding there was a very positive, small micro-group that developed solar production. Peter Love was there and a lot of the people from the ministry were there—a few megawatts of solar power. They got, on a standard-offer contract, 42 cents a kilowatt hour, and they financed it themselves. This is something you'd be interested in. Should he get the new 80 cents? You want the 80 cents, the feed-in tariff. You want the—

Ms. Judy Lipp: I'm suggesting that because these people didn't build those projects out of profit to them. All the micro-solar projects were built at a loss, as a commitment to the culture of conservation—

Mr. John O'Toole: That's not a very good business plan, to build at a loss. I'm not criticizing you. He built it with his own money that he raised as capital, mortgaged his house, and the project is called Watts Up Solar; a very interesting project. But he did it with the 42; he's not asking for 80. You're asking for more, and you built them with—

The Chair (Mr. David Orazietti): Thank you, Mr. O'Toole. That's the time for questions. Mr. Tabuns?

Ms. Judy Lipp: We're happy with the 80 cents.

Mr. Peter Tabuns: Thank you very much for the presentation. Before I ask you a question, I would just ask, Mr. Chair, if legislative research could bring us information on resource-intensity practices in France and Germany and practices in those countries on capacity-building. I think your suggestion, frankly, to invest in capacity-building so that community and local municipality-level activity can actually go forward is very useful for us.

You talk about the right of access to the grid. I asked the minister today about whether or not people in the orange zone could access, and it was pretty clear—no. As long as the nuclear generators are filling the transmission lines, they won't be able to connect. Do you have a different understanding of this? When you use right of access, are you assuming that every renewable power generator will, as a right, be able to connect to the grid?

Ms. Judy Lipp: Not immediately, no. Certainly, the grid constraint problem exists. It's very real. As a result, we're quite pleased that there was the commitment made to addressing the grid constraint issues and investing in the smart-grid technology, but it's going to take time. I still think that the grid is going to be the constraint for a lot of projects.

We did have a meeting with Hydro One last week and were made to understand that they are looking at some of the rules that are causing some of the constraints to see whether or not there were solutions to be found, particularly in the orange zone. Again, those studies are ongoing. It certainly looks like there is work being done

to help projects like ours move forward more quickly as opposed to waiting the three years that it takes to upgrade the grid in that particular region of the province. Our information is probably not much more than yours.

Mr. Peter Tabuns: Thank you. I appreciate it.

The Chair (Mr. David Orazietti): Thank you very much. That's all the time we have for questions. Thank you for your presentation.

MUNICIPALITY OF GREY HIGHLANDS

The Chair (Mr. David Orazietti): Our next presentation is the municipality of Grey Highlands.

Good evening and welcome to the Standing Committee on General Government. You have 10 minutes for your presentation and five minutes for questions from members of the committee. Anyone who will be speaking, just please state your name for the purposes of the recording Hansard. You can begin your presentation when you're ready.

Mr. Brian Mullin: Good evening, members of the committee. Allow me to introduce myself. I'm Mayor Brian Mullin of the municipality of Grey Highlands in the county of Grey. I am joined this evening by our chief administrative officer, Kelley Coulter, and our municipal planner, Lorelie Spencer. We are also joined by the mayor of the town of the Blue Mountains, Mayor Ellen Anderson, and the director of special projects for the town of the Blue Mountains, Peter Tollefson.

The municipality of Grey Highlands was created on January 1, 2001, and consists of the former townships of Arthesia, Euphrasia and Osprey and the village of Markdale. The municipality occupies an area of approximately 90,000 hectares and currently has a population of approximately 9,400.

The municipality is bounded by the townships of Southgate and Melancthon in Dufferin county to the south, the municipality of Meaford to the north, the townships of Chatsworth and West Grey in the west and the town of the Blue Mountains and the township of Clearview to the east.

Approximately 18% of the land area of the municipality is located within the Niagara Escarpment plan, a UNESCO biosphere reserve. Approximately 65% to 70% of the municipality is conducive to the placement of renewable energy facilities.

The municipality requested this opportunity to speak today to voice our concern regarding the proposed removal of Planning Act powers within Bill 150.

I will now turn our presentation over to our municipal planner, who will provide you with a summation of our concerns.

Ms. Lorelie Spencer: In the absence of any direction or position from the province, the municipality spent significant time and resources in a proactive manner to research, draft and implement policies to deal with the placement of renewable energy projects at the local level. Research commenced in 2004, with the final approval of what is now referred to as official plan amendment no. 10

and zoning bylaw amendment no. 2008-56 coming into force and effect in late 2007 and early 2008. Bill 150 in its current form would completely disregard these policies and basically put them into no force and effect.

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In the absence of regulations associated with this bill, the municipality is concerned that the province has not taken into full consideration all scales of renewable energy facilities. For reference purposes, the handout has underlined the scales of renewable energy facilities and systems that have been defined within the municipality's official plan amendment no. 10. We have broken down these scales into micro-, small-, medium- and large-scale projects and facilities.

We would respectfully request that further consideration related to the scale of renewable energy facilities in the bill be given. It is unclear as to whether or not the province intends to provide a permit process for all scales of renewable energy projects. The municipality is skeptical that the province intends to permit all scales of renewable energy projects, and whether or not small- or micro-scale systems will be included, specifically those purchased from department stores; or further provide permits for self-constructed systems. It is the position of the municipality that the impacts associated with the scale of the facility are significant, regardless. For example, in the event that an individual undertakes to construct their own wind turbine from a washing machine drum, will the province require that individual to go through a permitting process as part of Bill 150? The installation of self-constructed systems has occurred in the past within the surrounding municipalities and in the counties of Grey and Simcoe themselves.

At a minimum, the municipality strongly urges the standing committee to continue to permit Planning Act provisions to apply to medium-, small- and micro-scale systems in order to permit the municipality to have the tools to provide meaningful participation and directions in the process and prevent impacts from the placement of renewable energy systems on a small scale. Again, the municipality has the policies in place to adequately address renewable energy applications and should be permitted to continue to do so on at least medium-, small- and micro-scale projects. The need for municipal participation and meaningful public process exists for all scales of renewable energy projects.

Bill 150 would further seek to remove the powers of site plan control from the municipality. In doing so, the municipality would be unable to require such items as road improvements, landscape requirements or parking provisions, or impose height limitations, setback limitations or other site plan matters as part of the development.

For example, if a biomass facility is proposed, the municipality would be unable to require the proponent to participate in a site plan approval process, and in the event the facility is located on a substandard road with significant truck traffic, the municipality would also be unable to require contributions from the proponent

toward road upgrades, leaving the increased maintenance and upgrade costs of the roadway to the local ratepayer. The municipality is concerned that without local input during the preliminary project stages, the conflicts related to the siting of facilities could be significant and ultimately create project delays and cost overruns against the proponent.

The municipality is further concerned for the potential of a standard setback application to renewable energy facilities. Again, no clarification has been provided to indicate the intended methodology for the establishment of these setbacks, and they would primarily appear to address large-scale projects. As we've previously stated, medium-, small- and micro-scale projects all present potential impacts. For example, will the province be establishing setbacks on the basis of health or environmental studies relative to the local area where the project is proposed, or will an arbitrary and broad-based standard be utilized? On the basis that the municipality's own local policies were reviewed by the province, we would respectfully request that these policies be strongly considered as part of this process.

The municipality is also concerned that during the review of our local policies, the province did not indicate that they would be enacting legislation of this nature, which caused the municipality to create their own set of resources through which to address renewable energy projects in a proactive manner.

Bill 150 will also require proactive initiatives from local municipalities to streamline the functions of the municipality from a conservation perspective. The municipality is supportive in principle of the requirement for conservation and demand management plans. However, this municipality would suggest that it may be prudent to investigate a variety of conservation standards to ensure that unnecessary costs are not imposed on the municipality in the implementation of such a plan. For example, the municipality of Grey Highlands operates multiple facilities. Without a clear understanding of the requirements and responsibilities of such a plan, it is unclear what impact this requirement would have on the local tax base.

Presently, there is no requirement for home inspections or audits to be conducted prior to the sale of a home in the province. The municipality is concerned that this approach is adding burden to the local ratepayers as the costs and duration validity of such audits are not clear. It is also unclear what criteria are intended to be reviewed as part of the mandatory audit. An alternative approach may be the use of a tax incentive for those individuals who conduct home energy audits in general and not just prior to potential sale. The current proposal would appear to create an undue burden on anyone attempting to sell their home. A home is an individual's greatest asset, and in the absence of the criteria associated with a home energy audit, the value of the home could be significantly reduced, with no recourse for the ratepayer to recoup the lost value.

In summation, the recommendations from the municipality are as follows: that the aspects of Bill 150 that seek to remove powers from the local municipality, conservation authorities and the Niagara Escarpment Commission should be removed. At a minimum, the powers within the Planning Act should remain in place for all medium-, small- and micro-scale renewable energy projects. Doing so would allow municipalities to retain their OP policies, zoning bylaw provisions, and the ability to utilize site plan control. Further, to prevent an undue burden on the local tax base, the requirement for a conservation and demand management plan should be conducted in a manner that provides flexibility from a cost and implementation perspective. Finally, an alternative approach to the mandatory home energy audit should be reviewed by the province to provide tax incentives for motivated individuals to conduct energy-efficient renovations and conversions for the homeowner.

Ms. Ellen Anderson: Mr. Chair, I'm assuming we're out of time. Do we have time to hear from me?

The Chair (Mr. David Orazietti): You have about one minute.

Ms. Ellen Anderson: Oh, boy. The Blue Mountains believes in the Green Energy Act. We also believe that municipal government has a real role to play, and we're very concerned that we will lose that. Without the proper research and time involved, we do experience—jointly, we have one of the largest water-bottling facilities in Canada and perhaps North America. Permits were given out very quickly, all in good faith, before the actual impact was really realized. We're asking for a little more time to review the notes on Bill 150, as we feel that some possibly detrimental things could happen. We do support it, but we want to be involved.

The Chair (Mr. David Orazietti): Thank you very much for your presentation.

Mr. Yakabuski, questions? You have about a minute and a half.

Mr. John Yakabuski: Thank you very much for your presentation.

Ms. Spencer, you made the bulk of the presentation. It seems that George Smitherman wants to be able to put windmills wherever he wants and pretty well usurp the decision-making powers of the municipality and the authority that has been granted, by virtue of your elections, to Mayor Mullin and Mayor Anderson. What's next for this government? Are we going to reach the point in the next little while where you, as the government that is closest to the people, are not necessary, if at the provincial level we just decide that we're going to make the decisions for you? That's one question I have.

The other question is, do you think there's any connection—no pun intended—between the Liberal Party and major players in the renewable energy field such as Michael Crawley, the president of the Liberal Party, and the desire for George Smitherman to move so quickly on this bill? As you say yourself, they're moving too quickly. Do they want to get this in by cover of darkness? What seems to be the rush?

Ms. Ellen Anderson: I would be glad to try to answer that. I believe that political involvement is extremely important, be it Liberal and/or Conservative, as far as assisting municipalities with this great endeavour. I do believe that renewable energy is essential. We're in a time of crisis when it comes to work. I do appreciate anyone who's looking to be resourceful and find ways of getting people back to work. But I could never play one political party against the other. I really believe in what the act is trying to do. We're a green community. We believe in renewable energy, but we also believe that we have really valuable experience and input to work along with the province, whether it's the Conservative Party or the Liberal Party. We do appreciate it. We believe it's vital that you have the grassroots knowledge from the local municipalities. We've shown through our study process and our public consultation processes with regard to renewable energy that we are capable of making the plans.

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The Chair (Mr. David Orazietti): Mr. Tabuns?

Mr. Peter Tabuns: Thank you for taking the time to come down here today and speak to us. I know it's a bit of a distance to travel, so thank you. As I understand the government's argument on this, they want to ensure that projects are not held up by unreasonable or narrowly political interest. We had a presentation today from Mark Winfield, a professor at York University, essentially arguing along the lines that you've argued and saying that these changes would be problematic. But can you speak to us about how or what would be the best format to ensure that projects went ahead expeditiously, because we know that we need them, and yet avoid unreasonable or grandstanding-style opposition to renewable energy?

Mr. Brian Mullin: Lorelie, if you want to—

Ms. Lorelie Spencer: I would like to point out that the municipality of Grey Highlands in particular took significant time, effort and resources to create policies so that, in the absence of provincial direction, if an application came forward, we were prepared to deal with that application not on an arbitrary basis but on the basis of studies, discussion papers and periods of time where significant research over a course of many years was completed by the municipality. We're being unfairly lumped with individuals who have passed resolutions with so-called moratoriums against renewable energy projects. We feel that we've done a great service to our ratepayers by being proactive in this process, allowing processes and renewable energy facilities to move forward.

The Chair (Mr. David Orazietti): That's the time. Mrs. Mitchell?

Mrs. Carol Mitchell: Thank you very much for coming down today from the beautiful county of Grey. First—and it would behoove me to not say this—as you know, we passed in legislation that we are partners with our municipalities. This very issue was discussed at the AMO MOU table. Furthermore, we had the Minister of Energy and Infrastructure here just prior to the beginning of the hearings today. One thing that he assured us of is

that the regulatory standards framework will be by the MOE. They will be health and safety and environmental standards, and there will be a public input apportionment to the scope of the projects as well. I hope that has given you some assurances.

But one of the things that I want to give you the opportunity to speak about is, what are your setbacks today? And when you talk about excluding the definition of medium, small and micro, I want to give you an opportunity to speak to those two things. What are your setbacks, and what do you deem as small? How would you define it?

Ms. Lorelie Spencer: On the basis of setbacks, it's not a standardized setback throughout the municipality; it depends on the type of renewable energy facility. If you're speaking about biomass, for example, and a structure, the zoning bylaw provisions with respect to setbacks would apply. Whereas, if you're talking about wind turbines or wind turbine facilities, the setbacks that would be applicable to those structures are outlined in OPA 10 and they would also be based on the scale of the type of structure and the height of the structure that's involved. So it's not an arbitrary standard setback for any facility of that nature. We've gone into great detail to outline those objects within our zoning bylaw and our official plan.

With respect to going through renewable energy systems: We've classified micro-scale projects on the basis that they're considered a category A project as defined by Ontario regulation 116/01 as printed in the Ontario Gazette, May 12, 2001. It also has 10 kilowatts or less of nameplate generating capacity and does not exceed 17 metres in height. In the interest of time I will just contrast that with large-scale projects, which mean any renewable energy system that meets any of the following criteria: With respect to a wind energy system, it's classified as a category B or C project, as defined by the Ontario Regulation 116/01. These projects are subject to an environmental screening process—category B—or an individual environmental assessment process—category C—according to the Environmental Assessment Act. These structures would exceed 61 metres in height. In a solar energy system, it would have ground and solid facilities that occupy greater than one hectare or more of land. Finally, it is a biomass energy system with a nameplate generating capacity of five megawatts or greater.

The Chair (Mr. David Orazietti): Thank you very much for your comments and your presentation. That's all the time we have.

STUDENT REPRESENTATIVES OF
HUMBER COLLEGE'S
SUSTAINABLE ENERGY AND
BUILDING TECHNOLOGY PROGRAM

The Chair (Mr. David Orazietti): Next presentation, the student representatives of Humber College's sustainable energy and building technology program.

Welcome to the committee. You have 10 minutes for your presentation and five minutes for questions. Please state your name for the recording purposes of Hansard, and you can begin your presentation when you like.

Ms. Michelle Bird: Hello, everyone. My name is Michelle Bird. Thank you for allowing me to speak tonight on behalf of the students in our program. We appreciate being able to have young people have a voice in this process.

I'm a student representative at the Humber College sustainable energy and building technology program. It's the first year that this program is being offered at Humber College, and it's a three-year program. It's a really innovative program. It's one of the best in the province, I think, in terms of its ability to combine theory and design.

I just wanted to come down to talk about the kind of students that are in the program. They were expecting an enrolment of 30 students and we have 65 in the program. For September 2009 they were expecting another 60 students; we have 80 students enrolled and there are 100 on the waiting list. So there's definitely an interest from young people in sustainable energy and building technology. Humber can't even accommodate the amount of students that are interested.

The kind of people who are enrolled in my program: We have such a range. We have students coming straight out of high school. Myself, I'm a person who has already completed an undergraduate degree and I'm going back to school for more specialized training. One of my fellow students worked as a plastics moulder in Windsor in the auto supply industry and moved his whole life to Toronto to start a new life trying to get into a different sector because he sees opportunities for growth and he sees another sector that's changing.

We just had four points that we wanted to bring up to the committee.

The first point is that we're looking for you to create policy tools for the future. My generation is planning for careers that don't even exist. Ten or 20 years ago, these jobs didn't exist, and they don't even exist right now. So we need a piece of legislation that thinks big. We're looking for policy tools and economic structures that enable my generation and the generations to come to find sustainable solutions. We are receiving training to be able to make a difference in Ontario. Governments and other organizations need to provide the framework and foundation in which change can occur to move our society towards a more sustainable existence.

Our second point is that our first action still has to be conservation. We've all heard the phrase that the cheapest kilowatt is the one that's never used, but before we even speak of energy generation, we need to talk about conservation. We've learned in our Building Science course that Canada's buildings are among the most energy-intensive users on all of the planet, and that's when you take out the consideration of extreme weather. So we have to change the way we consume energy in this province. We're looking to the act to make conservation

a priority in planning, regulation, procurement and operation by all agencies responsible for regulating the energy sector.

Our third point is that we would like to see community energy empowered. We're asking you to recognize the importance of new ways of thinking. The days of relying only on centralized energy distribution need to be put behind us. We support mixing traditional distribution with community power generation and distribution. To this end, we see the need for the act to allow the minister to allow direct community investment in renewable energy projects and support community energy planning. We also see that this would provide a diverse range of jobs to be created so that not just one type of job is being created by the opportunities ahead of us.

Our last point is that we should look beyond the obvious alternatives. As I mentioned in our first point, my generation is planning for careers that don't even exist yet. There are technologies that will continue to push the envelope of energy conservation and efficiency. We encourage the act not just to enable the obvious renewable technologies of today, such as solar, wind and earth energy, but to enable innovations in the technologies that have great potential for Ontario, such as combined heat and power systems. Yes, the Green Energy Act is a groundbreaking piece of legislation for North America, but we urge you to take it further and think about the Ontario we could see in 25 years and how this act can take us there.

Thank you.

The Chair (Mr. David Orazietti): Thank you very much for your presentation. Mr. Tabuns, you have a minute and a half to two minutes.

Mr. Peter Tabuns: First of all, thanks for making the presentation and thanks for—I was going to say “putting a bet on the future,” but it’s not a bet. I think it’s a pretty safe investment, frankly.

I’m pleased that you talk about energy efficiency right at the top here. When you look at this act, are there ways that you would suggest it be reshaped to make energy efficiency far more central? We’ve got a feed-in tariff for renewable power, for instance, but we don’t have a comparable feed-in investment, an investment incentive to get people to get into conservation in a very heavy-duty way.

Ms. Michelle Bird: To be honest, I’m not sure of the mechanisms that could be used to include in the act. So I can come back and get more information if you like, but I’m not sure what the exact mechanisms are that you could include in the act that would encourage specific results in terms of efficiency.

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Mr. Peter Tabuns: And in terms of the job creation that you see in renewable power, is this an issue that’s being discussed in your college at this point?

Ms. Michelle Bird: Yes, definitely. I think, depending on how the act shakes down, there will be different ways that investors will want to come into Ontario which will shape the kinds of jobs that we see in the province. So

enabling a lot of community power will allow people who are coming out of college, who are not necessarily engineers but more a designer on a small-scale approach—that will give them opportunities to be involved in community power projects. So there are different levels at which young people can get involved in the job creation process.

Mr. Peter Tabuns: Okay. Thank you.

The Chair (Mr. David Orazietti): Thank you very much. Ms. Brotен?

Ms. Laurel C. Brotен: Thank you very much, and thank you for joining us. I am very pleased to have Humber College’s Lakeshore campus in my own home community in Etobicoke. I did have a chance to get to the north campus not long ago and was really amazed by the innovation that’s happening in the program development, in your program and many others. I really felt, meeting the students there, a sense of optimism, that the programs were very concrete and that there is a real mind’s eye to what types of jobs will exist in the future. I really did feel that in your program as well.

Folks who are coming into your program—if you could just expand a little bit on what you were talking about to Mr. Tabuns in terms of what the goals are of someone who is coming into your program and where they see themselves fitting into the new green economy.

Ms. Michelle Bird: There are a couple of different levels, but for the majority of the students that come out of the program, the focus is for them to be designers for small energy systems, so for small buildings rated in the Ontario building code as small buildings, and also to be able to take from design stage to installation small energy systems such as earth energy, solar and wind. The focus for the students in my program is definitely on the smaller scale, not so much on the large engineering scale.

There are also students who are interested in being installers, so we’re looking for more educational materials to be designed, because right now, for example, if someone wants to install a solar panel, there’s no installer accreditation. Anyone can be an installer right now. We know that that’s in the process to be developed at a federal level, but all these little tools are coming together to enable young people.

Ms. Laurel C. Brotен: And this program is how many years?

Ms. Michelle Bird: It’s a three-year program.

Ms. Laurel C. Brotен: A three-year program. And are you in your first year?

Ms. Michelle Bird: I’m in my first year. It’s the first year that it has been offered.

Ms. Laurel C. Brotен: Okay. So three years from now we’ll see a big boom in the sector as folks get out, and I think it will be one of those things that is very exponential, so congratulations and best of luck in your program.

Ms. Michelle Bird: Thank you.

The Chair (Mr. David Orazietti): Thank you. Mr. Yakabuski?

Mr. John Yakabuski: Thank you very much, Michelle. It's a pleasure to have you here, and I congratulate you for making the application to come before the committee.

I believe very much in technology. We have to embrace it. I'm going to paraphrase, but at the Paris World's Fair back in the 1800s, somebody made a comment about Thomas Edison's invention of the light bulb that, "After the light goes out on the Paris World's Fair, it will also go out on the light bulb and we'll never see it again." Of course, that same thing has been repeated over and over again through history.

Technology does lead the way, but it's also fact and documented that every time that man has found a way to use energy more efficiently, energy use has gone up, because as energy becomes more efficient and accessible, we find more things to do with it. That is historically proven. Our energy use has always gone up because we find more things to do. I mean, 20 years ago, who had a cellphone? It was that big. And now everybody has got one, or most people—those kinds of things. So technology drives the change and we need to embrace it, but it is not necessarily going to mean that the world's energy consumption is going to go down. So we do have to have ways of producing that energy.

What you people are doing with this sustainable energy program is great, absolutely fantastic, but I think there is some disagreement sometimes here about whether or not we can get all of that energy from renewable sources, or we also—and I understand the word "sustainable," but whether or not, at least now, we still have to use some of those conventional sources.

I agree with Peter. The time will come—it's not going to come in my lifetime because I'm certainly not going to live that long—when we go beyond the nuclear age.

The Chair (Mr. David Orazietti): Unfortunately, that will have to be a rhetorical question. That's our time for questions. Thanks.

Interjections.

The Chair (Mr. David Orazietti): The time for questions is over. Thank you very much for your presentation.

MICHAEL TREBILCOCK

The Chair (Mr. David Orazietti): Our next presentation is Michael Trebilcock.

Good evening, and welcome to the Standing Committee on General Government. You have 10 minutes for your presentation and five minutes for questions from committee members. Please state your name for the recording purposes of Hansard, and you can begin your presentation when you like.

Mr. Michael Trebilcock: My name is Michael Trebilcock. I'm a professor of law and economics at the University of Toronto law school. I'm also a resident of Grey Highlands, from whom you heard a few minutes ago. I'm also associated with the Preserve Grey Highlands citizens' coalition.

I've spent a large part of my academic and professional career studying issues of economic regulation. I don't envy members of this committee and the Legislature at large in wrestling with difficult policy issues pertaining to climate change. As with many other complicated policy issues, it is often not clear what the ideal policy response is.

However, focusing on industrial wind turbines, if in some other context one were to say, "There's a range of policy options, but one of these options will have no significant impact on the problem in question and, secondly, will cost a fortune," it would not seem likely to me that this would be a plausible policy response. As I turn to industrial wind turbines, that seems to be precisely what the overwhelming body of evidence shows.

Let me review quickly the points that I elaborate at greater length in my written comments that are footnoted to extensive sources. First, industrial wind turbines, where they have been used extensively in countries such as Denmark and Germany, have had either no or minimal impact on carbon emissions. We heard just half an hour ago from the JustEarth people that in Germany they're in the process of building 50 coal-fired plants, so this is not simply my view. In my written comments, I quote from leading public and private sector figures in Denmark, which is a highly wind-intensive nation, that wind turbines haven't reduced carbon dioxide emissions at all because of the need for backup generation capacity, which is often very carbon-intensive. Similarly, Der Spiegel, the leading German news magazine, says, "Germany's CO₂ emissions haven't been reduced by even a single gram." We start with a policy that will have little or no impact on carbon emissions. This is my first objection to industrial wind turbines.

My second is the cost. Again, the Danish experience is instructive. The commodity cost—that's just the generation cost, not transmission and generation—runs at about 15 cents a kilowatt hour in Denmark, compared to six cents or 6.3 cents in Ontario—more than double. I quote from leading public and political figures in Denmark in my written comments who call this policy "a terribly expensive disaster." Those are not my words. We know in Ontario today that the Ontario Power Authority is paying about 13.5 cents a kilowatt hour for wind power, which is about twice what is paid for conventional sources. So the Denmark experience tracks very closely the emerging experience in Ontario.

The government has claimed that green energy is going to create 50,000 or 55,000 jobs. Let me quote from a very detailed econometric study just published in Spain, which is another wind-intensive European country, on the effect of large government subsidies to wind energy in Spain. And I cite the study; I'm not making these studies up. There are footnotes for every claim I make.

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For every job created by state-funded support of wind energy—this is in Spain—2.2 jobs are lost through higher electricity costs. For every job created by government subsidies, almost two and a half jobs are lost. In Spain,

again, each wind-industry job created by government subsidies cost almost \$2 million in subsidies. So just think about it. The government of Spain is spending \$2 million in subsidies to create one job in the wind industry sector, to destroy almost two and a half jobs elsewhere in the economy. We used to call this voodoo economics, but nowadays, apparently it's called thinking outside the box. It makes absolutely no sense to me, and we're going down exactly this path.

So to repeat my first two key points: Industrial wind turbines will not have a significant impact on carbon emissions and they will raise electricity costs dramatically. That is the experience everywhere else.

Now, being somewhat more parochial, reflecting where I live and have maintained a residence for 20 years, in Grey Highlands, I and many other local residents are deeply concerned about potential health effects, now widely documented in all kinds of peer-reviewed scientific journals, of proximity to these very large, 400-feet-high turbines. Persistent exposure to low-intensity noise over long periods of time can cause serious health effects up to two kilometres away. Again, I cite the scientific studies. This demands, at least for these larger-scale projects, proper setbacks. The French academy of medicine—not me; the French academy of medicine—recommends a minimum setback from adjoining residences of 1.5 kilometres.

My fourth objection to industrial wind turbines, again, is parochial, if you like. It is the effect on adjacent property values. Studies done of impacts on property values in the Melancthon project, north of Shelburne, show that adjacent properties—not the properties on which the turbines are located, but adjacent properties—have suffered property value declines in the range of 20% to 25%, or close to \$50,000. I know that the wind industry claims that there are no adverse impacts on property values, but here is my common-sense question: Drive up, as I do, two or three times or four times a week, through that project, and ask yourself, "Is this where you have ever dreamt of owning a recreational or retirement home, even at sharply discounted prices?" In areas where recreational amenities dominate much more strongly, as in the Grey Highlands area, these effects will be even more pronounced.

So there are my four points. Industrial wind turbines will not have a significant impact on carbon emissions; industrial wind turbines will raise electricity prices substantially and have a negative impact on employment; they create significant adverse health effects for people living anywhere near them; and they have a negative effect on property values for adjacent residences in rural areas, which, for the most part, haven't created this problem. We are not the big carbon emitters, but we are being conscripted into being a large part of the solution.

Let me just close by saying that I think this feature of the Green Energy Act, whatever one might say about other features, reflects good politics but bad policy. What we have is an unholy coalition of environmentalists on the one hand—not all environmentalists, but some—who

take the view, if I may quote from Bill McKibben in the Toronto Star a couple of weeks ago, from "The Fierce Urgency of Now"—his view is, to use his words, that "we have to do everything we can imagine, all at once."

I've spent the last 40 years of my professional and academic life involved in the policy-making process. If anybody had said to me, "This is our starting predicate: We have to do everything we can imagine all at once to solve poverty, counter the war on terrorism," solve this or that problem, I would fire such a person. But we have some environmentalists who believe that, on the one hand, and then we have wind developers on the other who are motivated by a different kind of green. So we have an unholy alliance of these two kinds of greens: doomsdayers on the one hand and rent seekers on the other. In the Prohibition era, we called this a Baptist bootlegger coalition—

The Chair (Mr. David Orazietti): Thank you for your presentation. That's the time that we have, but we have some time for questions. Mr. Mauro.

Mr. Bill Mauro: Professor, thank you very much for your presentation. I think in Ontario we currently have 15% or 20% of our total energy mix supplied hydraulically. If we didn't have the good fortune to have 15% or 20% of our energy mix supplied hydraulically and it had to be replaced with some other sort of energy generation, whether it would be natural gas or coal or whatever that might be, would that not increase the greenhouse gas emissions that would occur in the province of Ontario?

Mr. Michael Trebilcock: Increase relative to what? Relative to wind turbines or—

Mr. Bill Mauro: Relative to the hydraulic that it would have to replace if the hydraulic wasn't there.

Mr. Michael Trebilcock: Then we're looking at other options. Nuclear is one option.

Mr. Bill Mauro: I see. Okay. That was going to lead me to my second question, because at the beginning of your presentation you made a comment that wind turbines would have no effect on reducing greenhouse gas emissions. If you could install wind capacity in a province that's 10% or 20% or 30% of your total mix, then it would likely, if it's replacing something that produces greenhouse gas, reduce it by an equivalent amount. I guess my second question would be—

Mr. Michael Trebilcock: Can I comment on that?

Mr. Bill Mauro: Sure, but I'll just throw the second question out there in case I don't have much time. My second question would be: What would your preferred energy generation choice be if it's not some of the—

Mr. Michael Trebilcock: Those are very good questions. In Denmark, about 20% of their electricity is generated by wind today, and the considered judgment of people in Denmark in the industry is that this had no effect on carbon dioxide emissions. That's an area that you're describing that already exists in Denmark. You asked me to imagine a scenario where 20% of power here is generated by wind—

Mr. Bill Mauro: But if they didn't have the wind, they'd need to get the energy from something else, and if

that something else produced greenhouse gas emissions, clearly there's a—

Mr. Michael Trebilcock: I think you have to break down what part of the load the wind power is serving. It can never be peak load because you can never depend on it blowing at the right times. If you—

The Chair (Mr. David Orazietti): That's the time for government questions. Mr. Yakabuski, opposition.

Mr. John Yakabuski: Thank you very much, Mr. Trebilcock. I really appreciate your presentation. Obviously you've done a lot of research. I think sometimes that George Smitherman likes to paint this rosy picture. People like to see these pictures of windmills and believe that they are—because the government will say, "That's supplying enough power for 100,000 homes," or whatever. When you do the math—let's just take Darlington, for example: 3,600 megawatts approximately, nuclear. It runs at approximately a 90% capacity factor, so we'll take that down to 3,200. You'd need two megawatts per wind turbine, and we don't have two-megawatt turbines here; we have one and a half. But we'll take it at two megawatts: You'd need 1,600 turbines times five, because 20% is the best you're ever going to get out of a fleet. Germany gets less than 20% out of a large fleet. It would be 8,000 turbines, and if they were one and a half megawatts you'd need 10,000 turbines to replace Darlington. I think that people have completely the wrong idea about how much power we can actually get out of a fleet of turbines, and the government likes to

paint that rosy picture that somehow we can just replace Darlington or whatever if we build enough turbines. But with 10,000 turbines, the instability in the grid would be something awful, wouldn't it? They'd have to back it up.

Mr. Michael Trebilcock: And then, of course, instead of being surrounded, as I am threatened with, by two or three turbines on each side, we would have hundreds of them through Grey Highlands. We would have to, to get to the numbers you're talking about.

Let me say that I think you raise a point that has broader dimensions; that is, should government be picking winners here? I strongly favour either a carbon tax or a cap-and-trade system so that polluters pay, whether they're consumers or suppliers, and we create incentives for everybody—suppliers, demanders—on every conceivable margin to make appropriate conservation decisions. I am not arguing for doing nothing; I'm arguing that I and the people I deal with face the costs of the carbon they generate, and we will make the necessary adjustments.

The Chair (Mr. David Orazietti): Thank you, sir. Mr. Tabuns.

Mr. Peter Tabuns: Pass, Chair.

The Chair (Mr. David Orazietti): Thank you very much for your presentation, sir.

That concludes the committee hearings for this evening. The committee is adjourned until Tuesday the 14th at 9 a.m. in Sault Ste. Marie.

The committee adjourned at 2100.

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