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**Standing Committee on
Social Policy**

Green Energy Repeal Act, 2018

1st Session
42nd Parliament

Monday 29 October 2018

**Comité permanent de
la politique sociale**

Loi de 2018 abrogeant
la Loi sur l'énergie verte

1^{re} session
42^e législature

Lundi 29 octobre 2018

Chair: Nina Tangri
Clerk: Eric Rennie

Présidente : Nina Tangri
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LEGISLATIVE ASSEMBLY OF ONTARIO

ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

**STANDING COMMITTEE ON
SOCIAL POLICY**

**COMITÉ PERMANENT DE
LA POLITIQUE SOCIALE**

Monday 29 October 2018

Lundi 29 octobre 2018

The committee met at 1500 in committee room 1.

**GREEN ENERGY REPEAL ACT, 2018
LOI DE 2018 ABROGEANT
LA LOI SUR L'ÉNERGIE VERTE**

Consideration of the following bill:

Bill 34, An Act to repeal the Green Energy Act, 2009 and to amend the Electricity Act, 1998, the Environmental Protection Act, the Planning Act and various other statutes / *Projet de loi 34, Loi abrogeant la Loi de 2009 sur l'énergie verte et modifiant la Loi de 1998 sur l'électricité, la Loi sur la protection de l'environnement, la Loi sur l'aménagement du territoire et diverses autres lois.*

The Chair (Mrs. Nina Tangri): Good afternoon. We are meeting today for public hearings on Bill 34, An Act to repeal the Green Energy Act, 2009 and to amend the Electricity Act, 1998, the Environmental Protection Act, the Planning Act and various other statutes.

Pursuant to the order of the House dated October 24, 2018, each witness will receive up to 10 minutes for their presentation, followed by up to 10 minutes of questioning from the committee divided equally amongst the recognized parties.

Are there any questions before we begin? I see none.

CANADIAN WIND ENERGY ASSOCIATION

The Chair (Mrs. Nina Tangri): I'd like to call our first witness: Canadian Wind Energy Association. If you can please introduce yourself.

Mr. Robert Hornung: Thank you, Madam Chair. My name is Robert Hornung. I'm the president of the Canadian Wind Energy Association. Can I begin?

The Chair (Mrs. Nina Tangri): Go ahead.

Mr. Robert Hornung: Okay. Thank you, Madam Chair, and thank you to the committee for the invitation to appear before you this afternoon to provide the perspective of the Canadian Wind Energy Association on Bill 34.

I'm proud to represent almost 200 companies—wind turbine manufacturers and component suppliers; wind energy project developers, owners and operators; and a broad range of service providers to the industry who are active in Canada's wind energy market.

Our members have built more than 5,000 megawatts of wind energy capacity in Ontario that meets 8% of the province's electricity demand, and has provided \$12.5

billion in investment and 64,500 full-time-equivalent positions in construction and operations in the province.

Bill 34 is focused on future renewable energy development and seeks to evolve processes to ensure that projects are built when new energy is required, and that municipalities have a greater role in the process. The Canadian Wind Energy Association supports these objectives, and firmly believes that wind energy will play an important role in providing new electricity supplied to the province in a manner that supports the government's focus on ensuring affordability.

These are important things to consider at this time. The IESO currently envisions that Ontario will need new electricity supply in the mid-2020s, and that the need for new power will grow steadily after that. We've been living through a time of oversupply for the past decade, since the global economic slowdown of the late 2000s. We are approaching again a time when Ontario will need more electricity.

The advancements made by the wind energy industry in recent years will ensure that we can play an important role in ensuring that the lights stay on, and businesses keep running in a low-cost and environmentally sustainable way.

Wind energy has been the largest source of new electricity generation in Canada for more than a decade. A variety of Canadian governments, like Saskatchewan and Alberta, are now investing heavily in wind energy to meet future electricity supply needs.

Why are we confident that new wind energy will have an important role to play in Ontario's energy future? Firstly, wind energy now is the most cost-competitive source of new electricity generation in Canada on a levelized cost-of-energy basis. In December 2017, a competitive electricity supply auction in Alberta yielded the lowest-ever rate paid for wind energy in this country: a weighted average of 3.7 cents per kilowatt hour among the four winning projects. That's 72% less than the on-peak power price of electricity in Ontario today, and almost half of the off-peak power price of 6.5 cents per kilowatt hour.

This was not a fluke. It is indicative of global trends. In fact, just 10 days ago, Saskatchewan announced the results of its most recent wind energy procurement, and indicated that the average bid price for energy from all 29 projects participating in the procurement was 3.7 cents per kilowatt hour and that the winning project was well below the average.

While Ontario FIT pricing a decade ago was 13.5 cents per kilowatt hour, the low price for wind energy procured and being built here in Ontario under the LRP process had fallen to 6.9 cents by 2016. In the future, we expect pricing similar in Ontario to other markets in Canada; in other words, pricing that is significantly lower than any other form of power generation.

Secondly, wind energy projects will continue to bring significant economic and social benefits to host communities through new municipal tax revenues, as well as stable income for farmers and landowners from land lease agreements. For example, the Wolfe Island Wind Farm resulted in an investment of \$25 million into the community of Wolfe Island during construction, and royalties to landowners, tax payments to the municipality, operation and maintenance expenses and ongoing local economic benefits add up to another \$3 million per year for the community on an ongoing basis.

Thirdly, wind energy will continue to create high-value jobs, providing employment opportunities for local tradespeople and contractors as well as full-time, permanent jobs once the wind farm is operational. As noted earlier, wind energy investment in Ontario to date is responsible for 64,000 direct and indirect full-time-equivalent positions associated with construction and operations. New wind energy is going to play a significant role in Ontario's future because it's cost-competitive, creates significant economic benefits and can provide meaningful opportunities for participation by local communities, municipalities and Indigenous groups.

When Ontario needs new electricity supply in the future, it will be incredibly important to ensure that all potential forms of new generation are provided the opportunity to compete on a level playing field, without subsidy, to ensure the most affordable outcomes for consumers. This competition must extend beyond the provision of energy to also include the provision of capacity, environmental attributes and regulation services that Ontario will need to ensure a reliable electricity grid in the future. We are confident that wind energy is well positioned to compete in all of these areas if provided the opportunity to do so.

While we support the high-level objectives of Bill 34, we've reviewed the bill with an eye to assessing whether or not it will ensure a level playing field for all generation and whether or not it will produce affordable and low-cost outcomes for consumers. Our review has identified some elements that are a cause of concern for our members. We'll provide a written submission to the committee providing more detail on our specific recommendations, but I'd like to take this opportunity to provide an overview of our concerns.

First, we recommend that clarity is needed in the statute that wind power projects under contract will not be adversely affected by this legislation. While the government has stated that Bill 34 is meant to apply to future renewable energy projects, the bill includes language that would enable the issuance of regulations with a retroactive effect. If the government only intends new obligations to be imposed going forward, it should clarify the language

regarding retroactive effect. Independent of the impact of the retroactive application of regulations on specific projects, such actions would likely have a negative impact on investor confidence in new investments in Ontario that would be reflected in a higher assessment of risk and increased costs for future projects. Bill 34 should specify that every renewable energy project that has obtained a renewable energy approval as of the date Bill 34 comes into force shall continue to be able to rely on the Planning Act as it read immediately before that date.

Second, we strongly recommend that Bill 34 remove the restrictions pertaining to the right of appeal for renewable energy projects. CanWEA has grave concerns that Bill 34 discriminates against the renewable energy sector in restricting the right to appeal certain municipal planning decisions, such as decisions to deny official plan and zoning bylaw amendments, while not applying similar restrictions to any other industrial development. Restricting any person's right of appeal is contrary to the rule of law and can lead to arbitrary and capricious decision-making. The appeal process is in place to ensure proper judicial oversight of the municipal decision-making process; it doesn't favour any person or any group of people. Once again, removal of such a right will have a negative impact on investor confidence in Ontario. CanWEA strongly recommends that Bill 34 remove these restrictions in the interests of maintaining the consistent application of the rule of law.

Third, the bill would expand cabinet's decision-making to enable regulations requiring that a need for new electricity is demonstrated before a renewable energy approval is granted. It's not clear in the legislation, or in government commentary, as to whether or not permitting and approvals for electricity to be generated by renewable energy resources have specifically been singled out or if it's the government's intention to apply this condition to all electricity generation sources.

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It seems to us that the government will not succeed in ensuring that new electricity supply is only coming online when required by new demand unless such a requirement is applied to all potential sources of generation. Fundamentally, however, we believe that a demonstration of need for new electricity supply is actually best left to electricity system planners rather than the government and is better suited as a condition of procurement rather than permitting.

Fourth, Bill 34 also contains extensive provisions insulating the government and municipalities from any legal actions related to changes in law. Various renewable energy contract types in Ontario include certain protective provisions. For example, most contract types include provisions regarding force majeure claims and discriminatory actions.

The Chair (Mrs. Nina Tangri): You have one minute.

Mr. Robert Hornung: The provisions in Bill 34 would arguably take away any remedies suppliers have under their contracts as a result of the passage of the bill or the issuance of regulations or other actions pursuant to the bill.

Such allowances do not consider the fundamental tenets of a developed, stable economy, including rule of law, property rights and contract rights. Jurisdictions known for reversing these protections and stranding investment are at greater risk of eroding investment and increasing costs. This holds true not just for renewable energy projects but for the broader electricity sector, generally, and other capital-intensive infrastructure investments.

We believe that maintaining investor confidence in Ontario is essential for keeping electricity costs low, going forward. Any new legislative treatment should respect contracts and facilities already permitted, and grandfathering should be a staple of any new regulations. Any alternative would erode confidence in the market, increase costs for consumers through higher costs of capital and risk premiums, and reduce the prospect of new investment in Ontario in the future.

The Chair (Mrs. Nina Tangri): Thank you very much.

We'll begin with five minutes of questions, first from the official opposition. We'll begin with Peter Tabuns.

Mr. Peter Tabuns: Thank you, Mr. Hornung, for being here today. A few questions—you noted that the average price per kilowatt hour for power that has been bid in Alberta is 3.7 cents?

Mr. Robert Hornung: Alberta awarded four contracts in December 2017. The average price of those contracts was 3.7 cents.

Mr. Peter Tabuns: Were there ones that were below 3.7 cents?

Mr. Robert Hornung: Yes. The lowest cost was 3.1 cents.

Mr. Peter Tabuns: And in all cases, we're talking about provision of power without subsidy by the provincial or federal government. Is that correct?

Mr. Robert Hornung: Correct.

Mr. Peter Tabuns: That's just the straight economic cost of providing that power?

Mr. Robert Hornung: Yes.

Mr. Peter Tabuns: All right. In reference to the bill itself, you talked about concern regarding permitting or procurement and the determination as to whether or not there's electrical demand. Can you expand on your concerns there?

Mr. Robert Hornung: We think you have a whole range of not just renewable energy developers but people who, in the Ontario marketplace, make judgments based on whether or not they think it's worthwhile to invest in new electricity generation, based on signals that they receive. Often those signals can be related to prices in the market; they can be related to signals from the IESO that there's going to be a need for new power; and they can be related to the issuance of a procurement process.

We think that investors should continue to have that freedom to be able to make those choices at the end of the day, but really that the people who are in the most authoritative position to speak to whether or not we will have a need for new electricity is the system operator. We think it's very challenging to impose that requirement on an individual project proponent, particularly given that the

bill provides very little insight as to what metrics would be used to assess whether there's a need for demand or over what time frame there would be a need for demand. There's a significant lack of clarity there. We think we already have bodies, like the IESO, that are very well positioned to answer the question.

Mr. Peter Tabuns: Thank you. I think my colleagues have questions.

The Chair (Mrs. Nina Tangri): Mr. Harden.

Mr. Joel Harden: Thank you for the presentation. I was just wondering if you could, if you wouldn't mind, sketch the political economy of this for us a little bit. The debate on renewable energy under the Green Energy Act in the late 2000s had a very different tenor to it. From what I'm aware of—and you're more of an expert in the field, so you can clarify it for me—the World Economic Forum has just published a document suggesting that capitalizing renewable energy now, compared to even a decade ago, is a sixth of the cost. I find that figure astounding. It would explain what you're talking about, coming from the Albertan perspective. I just wonder if, for the edification of all of us, you could just explain why the economies of scale of renewable energy have gotten so much more affordable.

Mr. Robert Hornung: Sure. I'll just give another example—

The Chair (Mrs. Nina Tangri): Just so you know, you have one minute to finish.

Mr. Robert Hornung: Okay. It's been estimated that costs have fallen about 70% over the last eight years for wind energy. Reasons why: Turbines are taller and can access better winds, and longer blades can capture more energy; light weighting of materials that have enabled cost reductions in terms of balance of plant and construction; and, simply, competition. We see intense competition happening everywhere around the world in terms of new wind energy development. That is leading to innovation that is driving costs down.

The Chair (Mrs. Nina Tangri): Thank you very much. Now to the governing party. Mr. Calandra?

Mr. Paul Calandra: Thank you very much for attending. I appreciate it.

A question for you: Did you advise the previous government when the Green Energy Act was coming forward? I understand that you had provided some advice on how to implement the Green Energy Act and the impact it would have on wind.

Mr. Robert Hornung: We certainly participated in any consultation process the government established.

Mr. Paul Calandra: I was actually quite struck—and a member of the opposition mentioned this. You seemed to be very excited by the fact of 3.7 cents for, I think you said, Alberta and Manitoba.

Mr. Robert Hornung: Saskatchewan.

Mr. Paul Calandra: Saskatchewan. It seems altogether reasonable. But at the same time, you were very aggressive in suggesting that existing contracts in the province of Ontario need to be protected. If you can—and I know you

had participated in consultations—what's the average price that Ontario taxpayers are paying for wind?

Mr. Robert Horung: I'll be honest; I can't give you a number. The initial contracts under the Green Energy Act and the feed-in tariff program were roughly 13.5 cents, sometimes with additional adder. They declined over time with the reductions in cost of wind energy to—as I mentioned in the presentation—less than 7 cents.

Mr. Paul Calandra: So still significantly higher than the 3.7 cents that people are paying.

Mr. Robert Horung: Yes.

Mr. Paul Calandra: You also mentioned how important it is to investor confidence and bringing, in essence, jobs and opportunities—a low cost of energy is important for bringing jobs and opportunities. I completely agree with you. I was happy to see that you supported municipal involvement. You seem to support an open and fair market with respect to provision of energy in the future.

But I'm a little bit concerned in the sense that you participated in the consultations of the Green Energy Act. You're excited by the 3.7 cents that other jurisdictions are now paying. It's obvious that we're paying significantly more here. When do Ontario taxpayers reap the rewards of what other jurisdictions seem to be enjoying now?

Mr. Robert Horung: I think that, as we mentioned, even in Ontario, we've seen, as the time passed and the cost of wind energy came down, that was reflected in the pricing that Ontario received. Costs have continued to decline since then, since Ontario last signed contracts. In fact, you have groups like the International Renewable Energy Agency and Bloomberg who expect that costs for wind energy are going to decline significantly further, going forward.

Mr. Paul Calandra: So when you were advising the previous government and participated in the consultations—in your discourse, you mentioned that we were in a surplus power position—was it your advice at the time that we had to pay significantly more for wind power at a time that we didn't actually need the energy?

Mr. Robert Horung: We are in a surplus situation right now in Ontario, absolutely.

Mr. Paul Calandra: As you said, through the global economic recession, we were in a surplus position at that point as well. I'm just trying to get a sense of, when you advised the previous government on how the Green Energy Act would impact both the people that you represent and the taxpayers of Ontario, at what point did pricing and the cost to Ontario taxpayers come into play? Because I don't have to tell you, the global adjustment is significant. You mentioned it's 8%; you provide 8%. Renewables are, what, 40% of the global adjustment?

I guess my question is—it's more of a statement. Other jurisdictions seem to be reaping the benefits, if what you're saying is true. But I really am concerned at what point Ontario taxpayers start to get the benefit of what had really been significant, obviously, profits for the people that you represent—great. Good for you. But why the hesitation to find different ways to bring the cost of energy

down for all Ontario taxpayers, given the fact that you're so excited about the low cost in other jurisdictions?

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The Chair (Mrs. Nina Tangri): We have one minute left for you to close, thank you.

Mr. Robert Horung: The costs of wind energy did decline for Ontario over time, and indeed the costs that were represented in Ontario were a reflection of the costs of wind energy across the country at that time. So, other jurisdictions are benefiting now from lower costs because they're procuring wind energy now. If other jurisdictions had procured wind energy five or 10 years ago, they would have been paying higher prices than they're paying now as well.

Mr. Paul Calandra: So, ultimately, you would agree that it was just a very bad decision. The Ontario taxpayers have had to shoulder a tremendous burden because it was brought out at a time when we didn't need the power, when the industry was in its infancy, and as a result, we've paid—that's not to take away from what you've accomplished and what you may be able to accomplish in serving Ontario's energy requirements in the future. But you would certainly agree that the Ontario taxpayer has paid a really heavy price to allow the industry to provide cheaper power in other jurisdictions.

Mr. Robert Horung: I would say Ontario has high electricity prices today for multiple reasons, including heavy investment—

Mr. Paul Calandra: I'm not concerned about others. I'm just concerned about your—

The Chair (Mrs. Nina Tangri): I have to stop you there, gentlemen. Thank you very much for presenting to us today.

Mr. Robert Horung: Thank you very much for the opportunity.

RENEWABLE ENERGY ALLIANCE OF ONTARIO

The Chair (Mrs. Nina Tangri): I would like to call up our next witness. That would be Renewable Energy Alliance of Ontario. If you could state your name for the record as well, please, and then begin your introduction. You have 10 minutes followed by five minutes from each of the recognized parties. Thank you.

Mr. Nick Woodfield: Good afternoon Chair, committee members and Clerk. My name is Nick Woodfield and I work for Ridge National, which is a lead corporation in a group of seasoned construction-based companies servicing renewable energy projects in Ontario. Today, I am here to speak with you on behalf of the Renewable Energy Alliance of Ontario, also commonly referred to as the REAO.

The Renewable Energy Alliance of Ontario is a broad coalition of employers, labour and industry groups dedicated to working with the Ontario government to ensure renewable energy continues to play a vital role in Ontario's energy mix and skilled workforce. At present,

membership includes the following 13 industry associations and companies:

- the International Union of Operating Engineers;
- the Registered Nurses' Association of Ontario;
- the Laborers' International Union of North America;
- the Canadian Solar Industries Association;
- the Ontario Crane Rental Association;
- the Canadian Wind Energy Association;
- the Aboriginal Apprenticeship Board of Ontario;
- Rankin Construction;
- Pumpcrete;
- Surespan Wind Energy;
- the David Suzuki Foundation;
- Fengate Capital Management; and finally
- Ridge National, our firm.

Renewable energy is a sizeable industry within Ontario's economy and is an important source of generation powering the province. Now the most cost-competitive source for new electricity, provinces like Saskatchewan and Alberta—as mentioned previously—are choosing to procure these resources to take advantage of such competitive prices for customers. Market experts agree that securing zero-cost fuel sources for when Ontario will need power will cost approximately 70% less than the projected retail price to consumers. According to the IESO, Ontario's need for power is just around the corner, with an identified energy capacity shortfall of 1,400 megawatts starting in 2023. Many other markets are already realizing these cost-effective benefits as time and time again across North America renewable energy has won competitive procurements for new energy resources.

Harnessing and supporting advancements in renewable technologies is also a significant competitive advantage for Ontario, as dozens of companies across the province are actively working on innovation and processes that will create jobs and new export opportunities for Ontario-based companies to access markets around the world.

For these reasons, the REAO would like to put forth the following recommendations for the committee's consideration:

As it pertains to the Planning Act amendment that removes the ability to appeal municipal refusals of, and failures to make, decisions on application to amend official plans and zoning bylaws to allow a renewable energy undertaking, REAO believes removing the ability to appeal a municipal refusal puts renewable energy projects at a disadvantage in comparison to other types of power generation which are not subject to the same limitation. While the REAO does support the goal of increasing municipal support for energy projects and ensuring their voices are heard in siting decisions, this concept should be equally applied to all forms of generation.

If the government's objective is to create a competitive and cost-effective energy market that is technology-agnostic, then the REAO strongly recommends reconsideration of this provision, as it facilitates an uneven playing field. The REAO advocates for equity in treatment across all generation types, so that Ontario ratepayers can

benefit from conditions that facilitate the most cost-competitive energy landscape.

As it pertains to the Environmental Protection Act amendment that gives cabinet the ability to prohibit the issuance or renewal of renewable energy approvals, based on whether demand for electricity that would be generated by the renewable energy project has not been demonstrated, the REAO offers the following comment:

Ontario's electricity market relies on private sector investment to build, own and operate electricity generation facilities. These companies make the choice when to site, permit and build a facility based on whether they can sell their product. Allowing companies to make these investments ensures that a variety of projects are available to meet Ontario's needs with varying degrees of readiness.

This healthy competition also ensures a competitive market, which can help keep prices down. Restricting the ability of companies to invest in facilities and permit their projects could reduce competition and readiness to meet demand.

Furthermore, the determination of system need is a decision best left to the IESO and the Ministry of Energy, rather than to the Ministry of the Environment, Conservation and Parks. REAO believes this provision should be reconsidered so that the market can take on the risk of pursuing permits, thereby driving competition and effectively leading to less-expensive power.

REAO believes the electricity market in Ontario requires structural reform to achieve shared objectives of cost-effectiveness, affordability and reliability, but does not want the renewable energy industry to be a casualty of this process.

Renewable energy projects stimulate the economy and create jobs in rural and remote areas of the province. Our industry employs thousands of hard-working Ontarians as project managers, engineers, technicians, tradespeople, service providers and advisers. Placing renewable energy at a market disadvantage will jeopardize future full-time employment opportunities for skilled tradespeople, contractors and other workers across the province.

The REAO members welcome initiatives that encourage private sector competition and those that will make for a more reliable, affordable energy system in the future. As a collection of industry experts, the Renewable Energy Alliance of Ontario is committed to working collaboratively with the government of Ontario to ensure the most effective and efficient energy system for all Ontarians.

I thank you for your time, attention and consideration of my remarks. I welcome any questions from the committee.

The Chair (Mrs. Nina Tangri): Thank you very much. We'll begin now with the governing party. Who would like to begin? Mr. Calandra.

Mr. Paul Calandra: Thank you, Mr. Woodfield. I appreciate you coming. I can't tell you how enthusiastic and happy I am for the provinces of Alberta and Saskatchewan. It seems like everybody is highlighting—even the opposition, I know, is going to be energetically highlighting the wonderful low prices for Alberta and Saskatchewan.

Since you referenced it, do you have any similar success stories in the province of Ontario—for wind in particular, let's say, at a low cost that matches the 3.7 cents?

Mr. Nick Woodfield: Not that matches the 3.7.

The Chair (Mrs. Nina Tangri): Paul, I'm just going to stop you for one moment. The bells have rung.

Mr. Paul Calandra: Oh, they have. Sorry.

The Chair (Mrs. Nina Tangri): We have a 10-minute bell. We can continue for about three to four more minutes, and then we'll head up. Go ahead.

Mr. Paul Calandra: Could you give me an example of some of the things that the people you represent have built out? Solar, wind?

Mr. Nick Woodfield: Our firm directly—Ridge National—we would be an EPC contractor, so we would engineer, procure and construct from the very beginning. We would most likely work with the developer, helping them and assisting them with any permitting that they required. From that point on, we would begin the engineering process, employing engineers. Then the construction would begin, following any procurement activities.

Mr. Paul Calandra: I'm told—and you can correct me if I'm wrong—that a vast majority of the jobs created, for instance, in a solar or a wind farm come at the top end, in the construction phase.

Mr. Nick Woodfield: Correct.

Mr. Paul Calandra: How many people are required in a wind farm? How many people are continually employed to operate a wind farm?

Mr. Nick Woodfield: Okay. So if you started at—say you had 200 people working on a project, over a period of time following that you would see 10% of those people remain on. The remaining tradespeople, which would be about 75% of that other number, would carry on to future projects, which is why they're in unions.

Mr. Paul Calandra: So it's a small portion that would stay on in comparison to, let's say, the jobs created at one of our nuclear facilities, for instance, which are thousands and thousands of jobs.

Mr. Nick Woodfield: Correct.

Mr. Paul Calandra: You'd agree that under the previous act, one of the benefits was the fact that the people whom you were constructing for really didn't need any approval from municipal government. That had to have been something that was extraordinarily unique in your industry.

Mr. Nick Woodfield: Yes, it is. And we support that.

Mr. Paul Calandra: I imagine you would, because—

Mr. Nick Woodfield: And most of the people who live in these communities.

Mr. Paul Calandra: It certainly cost Ontario taxpayers, as we heard from the last presentation. They cited that it was produced at 13 cents a kilowatt hour, but Saskatchewan and Alberta, God bless them, are at three cents, so I would understand why you would support a more direct line of construction.

I was in Chatham for the International Plowing Match, and I can tell you that those communities certainly weren't as excited as you were to build in those communities. I'm

actually even more horrified now that I hear—because we often hear the argument about jobs, but you're telling me that only 10%, I think is what you said, stay on after—

Mr. Nick Woodfield: Based on if the developer has an operation maintenance schedule, which could increase substantially over 25 years.

Mr. Paul Calandra: Which would explain that when we went to the International Plowing Match and I saw all those windmills, I didn't see hundreds of people running around to maintain those windmills—

Mr. Nick Woodfield: That would be inefficient.

Mr. Paul Calandra: Yeah, you wouldn't need them. In terms of it being a job-creation mechanism, it's not that. In terms of it being an affordable source of energy for the province of Ontario, it hasn't been. That doesn't mean it couldn't be in the future. I don't disagree with you there, but you would agree that municipalities have to play a role. It has to be consistent or it has to be cheap—

The Chair (Mrs. Nina Tangri): One minute, please.

Mr. Paul Calandra:—let's say, at least as cheap as Alberta and Saskatchewan are getting, and it has to compete with every other clean source of energy that we have. Certainly, you'd agree on that.

Mr. Nick Woodfield: I agree.

Mr. Paul Calandra: Okay. I appreciate that.

Mr. Nick Woodfield: The town of Chatham has had resounding support for the most recent project that's taking place there, which is the Romney energy project. There was no disagreement with that project—somewhat contrary to what you said. We bid on that project, and the permitting process went smoothly. People love this project.

Mr. Paul Calandra: Who else?

Mr. Nick Woodfield: We were just talking about Chatham-Kent.

Mr. Paul Calandra: There are hundreds of windmills, so who else?

Mr. Nick Woodfield: There are. Well, some of the anti-wind advocates have definitely pushed an agenda that I don't think is supportive of our industry.

Mr. Paul Calandra: No, no. I'm just asking who else was in support. There are hundreds of these windmills, and you're giving me one example.

Mr. Nick Woodfield: The municipality was in support.

Mr. Paul Calandra: Okay. I was just there and I can tell you that the farmers certainly weren't—

The Chair (Mrs. Nina Tangri): All right, I'm going to stop you there, Mr. Calandra.

Mr. Paul Calandra: I appreciate you coming.

The Chair (Mrs. Nina Tangri): I'd like to thank you all. We will continue following the vote, at which point the opposition will ask their questions for five minutes.

We will head out now; we have four minutes and 50 seconds to get into the chamber. Thank you very much, everyone.

Just a reminder, though, for those of you who need to put in a written submission, that the Clerk of the Committee—6 o'clock, Tuesday, October 30, is the deadline. So 6 o'clock, October 30, for written submissions. Thank you.

The committee recessed from 1534 to 1549.

The Vice-Chair (Mr. Deepak Anand): Thank you so much for coming back.

It's the turn of the official opposition to ask questions. You have five minutes. Mr. Peter Tabuns.

Mr. Peter Tabuns: Thank you very much for the presentation; it's much appreciated. You have a large number of construction firms that are supporting this alliance.

Mr. Nick Woodfield: That is correct.

Mr. Peter Tabuns: I assume your alliance sees huge potential for job creation in the future with renewable energy.

Mr. Nick Woodfield: That's correct.

Mr. Peter Tabuns: I understand—and maybe you can correct me—that Bloomberg New Energy Finance and the International Energy Agency both see renewable energy, and particularly wind, as being a substantial part of the energy industry in decades to come, in fact looking at investments in the billions or trillions of dollars. Do you have information contrary to that?

Mr. Nick Woodfield: I do not.

Mr. Peter Tabuns: Okay. And it was interesting listening to the parliamentary assistant's commentary about the cost of wind. I bought a Commodore 64 in about 1988, and it cost three thousand bucks. You can buy the same computing capacity now for, I'm sure, \$200 or less. If you've got a big pocket calculator, I'm sure it's about the same.

Mr. Nick Woodfield: We just had this conversation.

Mr. Peter Tabuns: So I'm assuming that your association understands the whole idea that as technologies mature and mass production develops, the cost of that product will go down. I think that's the same with wind. Is that correct?

Mr. Nick Woodfield: That's correct, and the learning curve that takes place is overcome with contractors like our firm.

Mr. Paul Calandra: Sorry, just a clarification or a point of order, if I can.

The Vice-Chair (Mr. Deepak Anand): Mr. Calandra?

Mr. Paul Calandra: A point of order—is that allowed?
Interjections.

Mr. Peter Tabuns: "What's your point of order?," says the Chair.

Mr. Joel Harden: So long as it's not our time.

Mr. Peter Tabuns: Yes, just hold the clock, and go ahead.

Mr. Paul Calandra: Because you said you could buy a Commodore for \$3,000, I wonder if they could buy the Commodore in Alberta for \$3,000 at the same time as in Ontario. If you could just clarify that, because I know that the problem that we have is that you could actually buy the Commodore for \$3,000 in Ontario and \$200 in Alberta. Is that what you're trying to get at?

The Vice-Chair (Mr. Deepak Anand): Excuse me, Mr. Calandra. This is not a point of order. That's a question. Back to Mr. Tabuns. Restart the clock.

Mr. Peter Tabuns: As you're well aware, witnesses, this is a question of time rather than geography. I think that all over the world, Commodore 64s were pretty pricey in

1988. I don't think I would have gotten a really good deal in Alberta.

I'm assuming you were saying that there's huge potential for job creation and employment in the construction of renewable energy.

Mr. Nick Woodfield: Definitely. If we create a competitive market, it allows for the pursuit of a developer to even come to this province, to say, "Hey, we would like to invest." That, right now, I think, is pushing them away. These are international bodies. These are large groups of individuals from all over the world who are ready and willing to invest in this province if the permitting will allow. By not creating a competitive market, it will substantially dwindle away.

Mr. Peter Tabuns: In my riding, there is a large gas-fired power plant, the Portlands Energy Centre. It's 600 megawatts. It has 35 people working there. For 600 megawatts of wind, how many operational staff would there be? Comparable?

Mr. Nick Woodfield: Comparable, yes. Now, over the period of time of 25 years you would have an operations and maintenance staff that would expand as the turbine ages, and an additional manufacturing of parts that would need to take place with these devices. Those are all full-time-employment jobs across the province, and other provinces and in the United States, where our trade continues with the US.

Mr. Peter Tabuns: So there actually is a fair amount of job creation as time goes by, but as with all other industries, automation continues apace.

Mr. Nick Woodfield: Correct. Our firm employs over 250 people. We not only do renewable projects, but a majority component of our business is renewables, and those 250 employees—project managers, tradespeople, operators and assistants—all benefit heavily from these projects.

The Vice-Chair (Mr. Deepak Anand): Mr. Woodfield, we have about a minute.

Mr. Peter Tabuns: Just one last one: We're looking at a bill to shut down green energy and effectively not take advantage of the lower prices in the years to come. Does that make sense to you?

Mr. Nick Woodfield: It does not. Although I agree with some of the higher-level points in the bill, I disagree with some of the restrictions it is placing on renewables, putting us at an unfair disadvantage.

Mr. Peter Tabuns: Okay. Thank you very much.

The Vice-Chair (Mr. Deepak Anand): You have 30 seconds, MPP Arthur.

Mr. Ian Arthur: My riding is Kingston and the Islands, and we have St. Lawrence College with a large renewable energy program. They train technicians. Do you foresee skilled trade job losses, if this bill goes forward, in renewable energy?

Mr. Nick Woodfield: Most definitely.

Mr. Ian Arthur: Thank you.

The Vice-Chair (Mr. Deepak Anand): No more questions?

Mr. Ian Arthur: I had 20 seconds. I had to get it out quick.

The Vice-Chair (Mr. Deepak Anand): Yes, you arrived by seven seconds, so thank you so much.

Thank you, Mr. Woodfield. We appreciate it.

Mr. Nick Woodfield: Thank you very much for your time.

MR. KENNETH GREEN

The Vice-Chair (Mr. Deepak Anand): Our next presenter is Mr. Kenneth Green. We have a teleconference. Do we have Mr. Green on the line?

Mr. Kenneth Green: Yes, I'm here.

The Vice-Chair (Mr. Deepak Anand): Welcome, Mr. Green. Can you hear us?

Mr. Kenneth Green: Yes, I can hear you.

The Vice-Chair (Mr. Deepak Anand): You have 10 minutes to present.

Mr. Kenneth Green: Very well. Thank you. Members of the committee, thank you for inviting me to testify to your Standing Committee on Social Policy today. I am Kenneth Green, senior director of natural resources at the Fraser Institute. I have studied energy and environmental policy for over 25 years now at think tanks in Canada and across the US.

My testimony here today represents my personal opinion, and it should not be assumed to represent the views of anyone associated with the Fraser Institute other than myself.

Our subject today, of course, is the repeal of the Green Energy Act in Ontario, and it's a topic that we at the institute have written about, before and after its implementation. Fortunately for us today, and unfortunately for Ontario power consumers, we have a good understanding of the costs and benefits of the Green Energy Act.

The Fraser Institute, in fact, recently published an essay collection on this topic, covering 10 years of research, titled *Understanding the Changes in Ontario's Electricity Markets and Their Effects*. You will find that on the Fraser Institute website.

Ontario's power problems began after the Ontario government decided to start phasing out coal power generation in 2005. However, Ontario's electricity prices really took off in 2009, when the government launched its Green Energy Act.

The centerpiece of the Green Energy Act was a program to provide long-term guaranteed contracts to generators with renewable sources—wind and solar—at a fixed, above-market price. To pay for those commitments as well as the costs of building new natural gas power plants, and to cover the costs of conservation programs in the Green Energy Act, Ontario levied a new surcharge on electricity called the global adjustment.

Between 2008 and 2016, the global adjustment grew more than 70%, causing a drastic increase in electricity prices. The high cost associated with aggressively promoting renewable sources is particularly troubling given the relatively small amount of electricity generated by those

sources. In 2016, for example, non-hydro renewable sources generated less than 7% of the electricity in Ontario while accounting for almost 30% of the global adjustment.

Ontario's decision to phase out coal power generation was justified at the time with claims that it would yield large environmental and health benefits for the province by reducing conventional air pollution. Greenhouse gases were not the original rationale for the Green Energy Act. But subsequent research showed that shuttering those power plants had very little effect on air pollution. In fact, had the province simply continued with retrofits that were already under way, the environmental benefits of the shift to renewables could have been achieved at one tenth of the cost.

Rising electricity costs in Ontario are partly due to imbalances between supply and demand of electricity. Between 2005 and 2015, the province decided to increase its renewable capacity to facilitate the coal generation phase-out. However, since renewable sources are not as reliable as traditional sources, the government contracted for more, and then more expensive, natural gas capacity as a backup. Meanwhile, the demand for electricity declined, partly due to that rising price. The increase in the total installed capacity, coupled with lower electricity demand, resulted in excess production being exported to other jurisdictions, including some American states, at a significant loss to Ontarians.

As a result of these structural shifts and poor governance, electricity costs have risen substantially in Ontario, and they continue to do so. Ontario has had the fastest-growing electricity costs in the country, and among the highest in North America. Between 2008 and 2016, Ontario's residential electricity costs increased by 71%, far outpacing the 34% average growth in electricity prices across Canada. In 2016, Toronto residents paid \$60 more per month than the average Canadian for electricity.

Those skyrocketing electricity rates also hit the province's industrial sector. Between 2010 and 2016, large industrial users of energy and electricity in Toronto and Ottawa experienced cost spikes of 53% and 46%, respectively, while the average increase in electricity costs for the rest of Canada was only 14%.

In 2016, large industrial users paid almost three times more than consumers in Montreal and Calgary, and almost twice the prices paid by large consumers in Vancouver. Some select large industrial consumers were granted rate reductions but still paid higher rates compared to large electricity users in Quebec, Alberta, and British Columbia.

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Soaring electricity costs in Ontario are a significant burden on the manufacturing sector, and they hamper competitiveness. Compared to multiple comparable American and Canadian jurisdictions, our research shows that Ontario has seen the most substantial decline in its manufacturing sector over the past decade. Overall, Ontario's high electricity prices are responsible for approximately 75,000 job losses in the manufacturing sector from 2008 to 2015.

In our latest study at the Fraser Institute, *Electricity Reform in Ontario: Getting Power Prices Down*, we

looked at the evolution of the global adjustment components over time and found that the share allocated to renewables has in fact risen substantially. The renewable component represented only about 20% of the global adjustment cost in 2011-12 but is now nearly 40%, making it the single largest component of the global adjustment. This growth becomes even more problematic when considering the fact that renewables—wind, solar and biomass—account for just under 7% of Ontario's electricity output.

Notably, almost all the revenues earned by renewable power producers are from the global adjustment subsidy rather than actual power sales. From May 2017 to April 2018, market revenues for renewable generators based on wholesale market sales totalled about half a billion dollars, which was supplemented by \$4.2 billion from global adjustment revenues to satisfy the feed-in tariff contract requirements. In other words, almost 90% of the revenue to renewable generators came through the global adjustment subsidy rather than through the sales of actual power.

The Ontario government recently introduced legislation to scrap the Green Energy Act, acknowledging that the act has resulted in skyrocketing electricity prices in the province. This will help prevent further price increases but will not, by itself, bring the global adjustment down. The logical next step for the government would be to use its legislative powers to cancel funding commitments under the feed-in tariff contracts. This will reduce the global adjustment by almost 40%, resulting in an approximately 24% reduction in residential electricity prices.

After nearly a decade under the Green Energy Act, the verdict is clear. The Green Energy Act sent Ontario power prices soaring, in large part because of renewable energy costs in the global adjustment element of power bills. Very little in the way of environmental protection can be attributed to the Green Energy Act, meaning it fails the classic test of sound policy, which is that costs should not exceed benefits.

I thank the committee for hearing my thoughts today, and will gladly take questions.

The Vice-Chair (Mr. Deepak Anand): Thank you so much. It's time for questions. We have five minutes. To the official opposition: MPP Harden.

Mr. Joel Harden: Thank you, Chair, and thank you, Mr. Green, for your presentation. I have a couple of questions about things that were not in the report, although I certainly appreciate what you had to say.

Something that I know my friends have often talked about with respect to the state of renewable energy is nuclear power and the share that it makes up of our grid, but I wonder if you could comment about the real cost of nuclear power. I'm looking at a request made by Ontario Power Generation in 2016 to authorize an 11%-per-year increase in the cost of nuclear power, such that, by 2026, the real cost of nuclear would be 16 cents a kilowatt hour.

I'm also mindful of the environmental costs when we're talking about nuclear power. In my neighbourhood, not immediately in Ottawa Centre but up the river from me, there is currently a proposal to entomb decades of nuclear

waste in concrete which has been criticized by international scientists around the world as a wholly inadequate way in which to deal with highly radioactive substances—something that poses a direct threat to the Ottawa River, which feeds a lot of the water supply of the riverbed and of the river-residing communities of which I am a part.

So I'm wondering if you could comment, to an extent, sir, on what I think we need to talk about in this committee, which is the real cost of nuclear, which to this moment, Mr. Calandra, if you're up on the research—you can correct me if I'm wrong, Mr. Tabuns—I think it's 60% of the grid right now that's currently powered by nuclear. I think it's important for Ontario taxpayers that we know the real cost of that source of energy.

Mr. Kenneth Green: Well, thank you. First, I must acknowledge that I'm not a specialist in nuclear power. I am, of course, conversant with it, because I've worked on energy policy for a long time. But I'll take your second point first, which is the environmental impact of nuclear power. Nuclear power certainly does have an environmental impact. It generates waste. So does natural gas power; so does oil power; so does fossil fuel power; so does hydro power; and so does wind and solar power. All forms of energy production impact the environment in different ways. Some are more easily handled than others, which changes the cost of the individual sources.

My understanding is that with the price of natural gas in North America, it would make very little sense to build new nuclear power, but once you've sunk the cost into building it, it becomes a very low-cost option for generating power and a very stable way of generating base power, which is what's necessary to incorporate fluctuating sources, like wind and solar power, into the grid. You need to have enough baseline to meet demand at its highest point in the day or night, even if the wind is not blowing and the sun is not shining. Nuclear power is a strong component of the baseline. There are environmental groups in the States—the Breakthrough Institute is one of them—that actually promote nuclear power as a better way to generate electricity than even natural gas or, especially, coal. But the economics of nuclear power are difficult in North America because we have an abundance of much less expensive fuels.

Does that satisfy the question?

Mr. Joel Harden: Thank you, Mr. Green. Just so you know, I was able to understand a good chunk of that, but there were aspects of it that were hard to hear on our end of things.

If I could make an attempt to summarize: What you're saying is that generating new nuclear doesn't make a lot of financial sense, from your standpoint. But from your standpoint, utilizing the existing nuclear infrastructure we have makes good financial sense. Is that an effective, brief summary of your point?

Mr. Kenneth Green: Yes. That's an effective summary. And I'll keep the phone closer to my mouth.

Mr. Joel Harden: Okay. Thank you.

I guess what I would follow with is: What we've heard so far today is that we're hearing that the real costs of

renewables are dramatically coming down, on an exponential scale. I think this government is poised to think about how to do right by taxpayers and how to do right by the future energy share of this province. Employers will rely on it. Citizens will rely on it.

My question for you, then, is: What information do you have, and what information do we have, about the feasibility of the existing nuclear infrastructure to be able to perform that role? The information from the Ontario Clean Energy Alliance is that the existing nuclear infrastructure may not, in fact, be able to perform the role you're talking about, certainly not after 2026. If we were to invest in the existing infrastructure just so it could soldier on as it currently is, we're talking about a significant investment. I've heard that it's north of \$20 billion. I'm wondering if you can comment on that.

Mr. Kenneth Green: Sure. I first have to correct a misimpression. It was stated that wind and solar power prices are in precipitous decline. That is true, but—

The Vice-Chair (Mr. Deepak Anand): Thank you, Mr. Green. The time is up, actually. We have to move on. I appreciate it.

To the government side: MPP Fee.

Mrs. Amy Fee: First off, thank you very much, Kenneth, for taking the time to call in and speak with us today.

You were talking about job losses because of the Green Energy Act. I'm just wondering if you could highlight again for us the manufacturing piece—because at different points it was hard, unfortunately, to hear some of the things you were saying—and how many jobs you believe that we have lost in Ontario because of the Green Energy Act.

Mr. Kenneth Green: Of course. Our modelling suggests that Ontario's higher electricity prices resulted in about 75,000 job losses in the manufacturing sector from 2008 to 2015. In other studies, we had actually predicted that there would be losses in the mining and power sectors of the Ontario economy, based on the growing cost of power. But in our most recent study, we found 75,000 job losses in the manufacturing sector alone between 2008 and 2015.

The Vice-Chair (Mr. Deepak Anand): Mr. Green, can you repeat that a bit louder the next time you're answering? I'm having a problem in listening. I don't know about the rest.

Mr. Kenneth Green: Is this better?

The Vice-Chair (Mr. Deepak Anand): The next question is from MPP Sabawy.

Mr. Sheref Sabawy: Mr. Green, thank you very much for your intensive study about the cost and how this is affecting the price of electricity in Ontario compared to other jurisdictions in Canada.

My question is around the cost. You stated here that there is a renewable source problem, that the price is based on the fixed price above market, and that is causing 70% of the global adjustment, which is causing that type of surge in cost. Do you have any estimate about—if this cost

was not fixed and it's up to the market value price, how that will affect the price of electricity?

Mr. Kenneth Green: Yes. What we've seen in other countries around the world—I hope you can hear me—is that when the above-market subsidies are taken away from the wind and solar power industry, growth in that sector almost immediately stops and, in fact, begins to retract. So as we move those out of the grid, as they become a lesser component of the grid as they retire themselves, prices would drop. We estimate a 24% price drop if we remove the renewable component of the global adjustment.

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Mr. Sheref Sabawy: I'm not sure I got your answer. I'm talking about the 13.8 cents per megawatt or kilowatt fixed price. If this is open to the market price—as some of the presenters before said, it's now costing 3.1 or 3.2 cents—in your opinion, compared to the study you did now, what is the effect of that on the price of energy?

Mr. Kenneth Green: I think if energy markets are made more competitive, we would expect to see energy prices decline because competition would inspire more development of alternative forms of power generation and greater efficiency. So the more we have competitive energy sources in the province, the lower we would expect power prices to be.

The Vice-Chair (Mr. Deepak Anand): Any more questions?

Mr. Paul Calandra: Is there's more time? How much time is there left?

The Vice-Chair (Mr. Deepak Anand): We do have time. We have about a minute and 20 seconds. MPP Calandra.

Mr. Paul Calandra: Ken, thank you for your presentation. Avoiding massive job loss and exorbitant costs of energy is obviously at the heart of what we want to accomplish here. Just to be clear: In essence, you're an energy agnostic, in a sense, right? What's best for the economy would be an open market that gives us energy at the lowest possible price, regardless of what it is, presumably.

Mr. Kenneth Green: Yes, that's absolutely right. I am completely agnostic on the fuel type, with an acknowledgement that they have different environmental impacts and that has to factor into the cost. Also, wind and solar power require backup plants that are idling lower than their optimal capacity, and that cost needs to be put on the bill for the renewables as well. But other than actually accounting for all the proper costs and having a competitive market, I'm agnostic on energy sources and energy inputs.

Mr. Paul Calandra: Okay. Thank you.

The Vice-Chair (Mr. Deepak Anand): Thank you so much, Mr. Green.

MR. TOM ADAMS

The Vice-Chair (Mr. Deepak Anand): The next one is Mr. Tom Adams.

Mr. Tom Adams, you have 10 minutes to present, followed by questions from both sides for five minutes.

Mr. Tom Adams: Thank you, Mr. Chairman, and members of the committee.

Bill 34 claims to repeal Dalton McGuinty's signature legislation—

The Vice-Chair (Mr. Deepak Anand): Mr. Adams—

Mr. Tom Adams: I'm sorry?

The Vice-Chair (Mr. Deepak Anand): Please state your name for the records.

Mr. Tom Adams: Oh, yes, my name: Tom Adams. I'm appearing as a private citizen.

Bill 34 claims to repeal Dalton McGuinty's signature legislation, the Green Energy Act. Gross inefficiencies plague Ontario electricity consumers, many arising from that legislation. So, good riddance. However, Bill 34 focuses only on one of the least damaging elements of the original Green Energy and Green Economy Act—the role of municipal government in siting certain types of power generation projects—while preserving the core of McGuinty's original legislated intent.

While Ontario's electricity system has some strengths—reasonable reliability, low emissions of conventional pollutants—the overall health of the system is poor and deteriorating. Rates are too low to recover costs, yet too high relative to competitive market value. Consumers are burdened by surplus capacity arising from gross policy negligence over a period of a decade. A huge portfolio of long-term liabilities, far in excess of the inherent value of the underlying assets, casts a pall over the future. Ontario's core generation assets, our nuclear power plants, supplying today 50% of our energy are all at or near the end of their initial design life and are facing retirement, in the case of Pickering, or are in the midst of very costly refurbishment investments, in the case of Darlington and Bruce.

It also bears recalling that the last three Premiers of Ontario left politics sullied in no small measure by their electricity policy misadventures.

The original Green Energy and Green Economy Act had schedules A through L, impacting nearly every corner of Ontario's power situation. By contrast, Bill 34's changes almost exclusively address schedule A of the original act. The new legislation restores some municipal zoning, but the original law's essential core remains intact. That core is empowering government ministers to control Ontario's electricity future at whim. Too often, the results of this governance model have been decisions based on political expedience while causing long-term harm to consumers.

Claims that the new legislation will stop needless wind and solar development miss the point. Growth of these generation types halted long before this legislation arrived. More importantly, section 25.35.1 of the new act empowers the government to push any silly energy scheme simply by issuing a designation. While it is beneficial to the public interest to have input in the power planning process from municipalities hosting new power generation developments, it is an exaggeration to claim that Bill 34 repeals the Green Energy Act. Where the original Green

Energy and Green Economy Act articulated in legislation a comprehensive program of central planning, Bill 34 adjusts this program only slightly, introducing another layer of government into the mix of decision-making.

After Bill 34 passes, central planning will remain the core of Ontario's power system governance. The minister will still have the power to issue directives to distributors through the Ontario Energy Board, control whether the energy board conducts hearings, control so-called "smart grid" investments, which have delivered little or no net value to consumers, and control transmission systems through ministerial directive.

Bill 34 explicitly preserves the power of the government created in the original Green Energy and Green Economy Act to order any person to disclose to government their personal data on energy and water use. This is an invasive, authoritarian power that could be abused. A disadvantaged party has no recourse under Bill 34. Notice also that Bill 34 leaves intact government's authority—again created by the original Green Energy and Green Economy Act—to order energy providers to disclose anybody's energy data, and empowers government to publish customers' private information.

The last time Ontario's electricity situation was independently reviewed in a holistic way by an official inquiry was the Advisory Committee on Competition in Ontario's Electricity System under the chairmanship of Donald S. Macdonald, a renowned Canadian who, sadly, passed earlier this month. Mr. Macdonald's committee reported in May 1996. It recommended a balanced mix of independent professional public utility regulation for monopoly aspects of electricity service, and competition for those elements suitable for competition. Had the Macdonald committee's recommendations been followed, we'd be far better off today.

Despite more than two decades of official statements about Ontario's power situation being subject to so-called unprecedented change, the circumstances in Ontario's electricity situation today bear a striking resemblance to those that prevailed 21 years ago, particularly the current trajectory towards financial insolvency for the system.

The only sliver of the original Green Energy and Green Economy Act worthy of preserving is the government's authority with respect to energy efficiency labelling on appliances. Except for that, the original concept of the Green Energy and Green Economy Act ought to be comprehensively addressed and repealed.

As long as this government leaves the core of McGuinty's legislation in place, this government is expressing a preference for a politicized power system. Cleaning up Ontario's electricity mess, including the Green Energy and Green Economy Act, would be a very challenging undertaking. An excellent starting point for reorienting the power system towards stability and efficiency is to go back and review the work of the Macdonald committee. I have additional suggestions on remedies that we might discuss during questions.

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If this government thinks that the best path forward for Ontario's power system is some version of central

planning, let's have that debate directly, and then we can do our best to create a system with some capacity for foresight. Thank you.

The Vice-Chair (Mr. Deepak Anand): Thank you so much, Mr. Adams. We'll be starting with the government side. MPP Calandra.

Mr. Paul Calandra: Thank you very much, Mr. Adams. I appreciate that. I had asked the question earlier, and I know that you've been engaged in energy issues for a long time. When the original Green Energy Act came up, I'm assuming that you participated in consultations or committee hearings at that time.

Mr. Tom Adams: Yes. I was one of a small number of people who spoke against it in this committee, or one of its peers.

I'm very glad to see some changes in the faces in this committee.

Mr. Paul Calandra: In previous testimony, we heard that, basically, we've had a \$4.5-billion subsidy on the Green Energy Act. I'm wondering if, at the time, you had commented on or foreseen such a massive subsidy in terms of the legislation that the McGuinty government had brought forward. Is that something that you had envisioned at that time?

Mr. Tom Adams: Yes.

Mr. Paul Calandra: I wonder also if you've costed out—and this is probably asking a lot. There have been a lot of reports. The Fraser Institute has given us thousands of jobs. I think MPP Fee highlighted more than 70,000 jobs. But have you ever separately costed out the cost to the economy, to ratepayers, of the Green Energy Act?

Mr. Tom Adams: I was a co-author in some of the references that the previous speaker was presenting. My area of specialization was not the wider employment impacts, but really focused on modelling the financial flows within the power system itself, and specifically the global adjustment component.

But before I leave off on the employment component, if we ask ourselves, from a customer point of view, what kind of a power system we really want—one with a whole lot of high-paying jobs in the power system, or one that electricity customers can afford—I'm much more on the "afford it" side.

Electricity is a really bad place to go and try to create jobs, because the jobs are so costly and capital-intensive. Trying to stimulate the economy through electricity has been tried before. It is not an economically sound practice, in my opinion.

Mr. Paul Calandra: The previous presenter—I'd asked him whether he was energy-agnostic. Regardless of regulation that government brings into place, is it fair to say that you might also be energy-agnostic as long as it's competitive, it's lowest-cost and the most effective for our ratepayers and the people who actually use it?

Mr. Tom Adams: For about 30 years of my career, I advocated a competition-based power system. But there's not a big appetite for a really efficient, competitive market, as proven by Ontario's experience in power policy. It might be that a more stable way of organizing our affairs

in the future would be a more monopolized power system. I'm open to that possibility.

The choices of electricity generation that we arrive at arise out of an industrial structure, a governance structure, a decision-making process. What I'm speaking against—

The Vice-Chair (Mr. Deepak Anand): Government side, you have about a minute.

Mr. Tom Adams: Sorry?

The Vice-Chair (Mr. Deepak Anand): You have a minute.

Mr. Tom Adams: What my concern is, is the centralization of power in decision-making. The governance structure that we have in the power system right now is not stable. We'd be far better off with the old Ontario Hydro model if we can't get a competitive market.

Mr. Paul Calandra: But ultimately, the way to get long-term stable is a competitive market. I guess you'd be equally frustrated to hear that other jurisdictions like Alberta and Saskatchewan seem to be reaping the benefit of something that you warned of probably many years ago. Is that the type of competition that would ultimately be good for—

The Vice-Chair (Mr. Deepak Anand): Mr. Adams, thank you so much. The time is over.

Mr. Paul Calandra: I'll get you off-line on that one. I appreciate that.

The Vice-Chair (Mr. Deepak Anand): To the opposition side. Mr. Tabuns.

Mr. Peter Tabuns: Mr. Adams, as always, I appreciate you being here today.

Mr. Tom Adams: I should have remarked that some changes to this committee have been very welcome from my perspective, but I'm also very glad that you're here.

Mr. Peter Tabuns: Energy politics; it's a strange thing.

If I understood your remarks correctly, you're saying that the politicized decision-making and lack of broad consultation that was characteristic of the Liberal approach to energy policy is simply being replicated by the Conservatives with this bill. Did I understand you correctly or not?

Mr. Tom Adams: Yes, that's a fair point. What I'm saying is that the governance structure remains unchanged by this legislation, and the governance structure is my area of concern.

Mr. Peter Tabuns: Okay. As you're well aware, we were very critical in the past of the Liberals' long-term energy plan, because in fact there was very little real public input. There was really no opportunity to challenge or cross-examine those who were writing the plan or actually subject their premises to critical review.

I'm assuming, based on what you just said, that that's what we're going to see with this Conservative plan.

Mr. Tom Adams: From my review of the legislation and the debates that have happened around it, I see no indication that we're heading in a different direction than where we've been.

Mr. Peter Tabuns: That said, I know you've had concern in the past about the cost of nuclear power in Ontario and its impact on electricity rates. You do a lot of

work in this field. My understanding is that new-build nuclear is in the range of 15 cents to 16 cents per kilowatt hour. Do you have an understanding that's different from that?

Mr. Tom Adams: There are two nuclear power plants in Europe that are under construction: one in Finland and one in France—

Mr. Peter Tabuns: Right. Flamanville and Olkiluoto, yes.

Mr. Tom Adams: Olkiluoto? My Finnish is poor.

Mr. Peter Tabuns: So is mine, let me assure you.

Mr. Tom Adams: There are a number of nuclear plants where construction started in the United States, and then there is some hot controversy as to whether those will continue or not. But the figures that you just presented in terms of the levelized unit energy cost of delivered new capacity might be very optimistic relative to the existing experiences that are going on in these jurisdictions that I just mentioned. So the prospect for new nuclear seems extremely uncompetitive in current market conditions.

Mr. Peter Tabuns: Yes, it's my understanding that it was around 2002 that British Energy, which was the entity that Margaret Thatcher spun off to handle nuclear reactors, went bankrupt because it couldn't compete on the price of power. So obviously, I have concern about the high and rising cost of nuclear.

Do you have a sense of the cost of the refurbishment of Darlington and Bruce?

Mr. Tom Adams: We have had several refurbishment experiences: Pickering A and Bruce A, some of it in the public sector, some of it in the private sector.

The Vice-Chair (Mr. Deepak Anand): You have a minute.

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Mr. Tom Adams: The results of all of those, I think, were very disappointing, relative to original forecasts for both of those projects.

The current refurbishment projects are still very early days. We're speaking now of Darlington and Bruce B. OPG reports a high level of confidence in their existing estimates, but we've seen before that the story needs to play out before we really understand.

One thing to appreciate about the power system is, we're talking about extremely long-time horizons for capital decision-making.

Mr. Peter Tabuns: Okay. Thank you very much.

The Vice-Chair (Mr. Deepak Anand): Thank you, Mr. Adams. We appreciate it.

ENVIRONMENTAL DEFENCE

The Vice-Chair (Mr. Deepak Anand): Next are Mr. Keith Brooks and Ms. Sarah Buchanan. Welcome to the committee. You have 10 minutes. We would appreciate it if you could state your names for Hansard, please.

Mr. Keith Brooks: Keith Brooks, with Environmental Defence.

Ms. Sarah Buchanan: Sarah Buchanan, with Environmental Defence.

Mr. Keith Brooks: I'd like to start by thanking the committee for having us here to speak to you today. We're going to focus on the Green Energy Repeal Act and some amendments that we'd recommend to that act to limit Ontario's exposure to the potential for high-cost and high-carbon energy sources going forward.

We're concerned that passing this act, and the siting requirements for new clean energy projects, could hold Ontario back from building new clean energy that is actually the lowest-cost energy here in Canada now, and the lowest-cost energy in many, many parts of the world.

That said, we totally acknowledge that the Green Energy Act was flawed, and the electricity planning process in Ontario needs considerable work. It goes too far to say that I think green energy projects were forced on communities, because it's important to understand that every single renewable energy project out there—wind farm, solar farm, what have you—was on a landowner's property. They signed an agreement to that, they received money as a result of that, there was a contractual agreement and people benefited from these projects. By one estimate, about 60% of Ontario's farming community actually has a renewable energy project on their property and receives payments from those. These projects were beneficial; they weren't forced on anybody.

That said, the way the projects were approved was not the best way, obviously. It did pit neighbour against neighbour. It did leave municipalities feeling like they didn't have a say in the planning process, and some changes should be put in there. We would have preferred a more inclusive approach, more of a community-sharing-benefits approach. Those systems seem to be working well in other jurisdictions when everybody is actually getting something out of the projects.

For sure, when the Green Energy Act was originally passed, the price offered for solar power, and rooftop solar in particular, was quite high. Wind power has always been competitively priced in Ontario, even at 13.5 cents. That's what we pay for natural gas generation, and that's less than what the nuclear power folks want to raise prices to, to cover the refurbishment.

Some solar projects were high-priced, but new solar would not be. Prices have come down dramatically since 2009, and now renewable energy is the cheapest form of new generation in Canada. I'm assuming the Alberta auction has been discussed here already, but they received bids for wind power at 3.7 cents per kilowatt hour, which is far, far lower than anything we could be procuring here in Ontario or anywhere else in Canada. Solar power is coming in at three cents in many parts of the world now as well.

In comparison, the average cost of natural-gas-fired generation in Ontario is about 12 cents per kilowatt hour, and OPG wants to raise rates to nearly 17 cents, to cover the costs of refurbishment of the Darlington power plant.

We know that we're going to need some more power in the near future. Yes, we have some surplus today, but the IESO has said that we'll have a shortfall in just five years. That means we need to start planning now to find those

new sources of electricity, and we actually need to move pretty fast. In the world of electricity planning, five years is not a lot of time.

We think that there is some opportunity to import more hydro power from Quebec. There were some negotiations between the previous government and the government of Quebec, and I understand that the new leader of the government of Quebec is also interested in exporting some power here. That's a low-cost option for Ontario to look at.

Another option is one that creates jobs and feeds Ontario's clean tech sector here by doing more made-in-Ontario wind and solar power. These projects are fast to deploy. In fact, they have the fastest lead times of any electricity options available.

We're concerned about the move to make clean energy projects have to surmount more red tape and adding onerous siting requirements. Making it harder to build cheap electricity projects is not going to help us with bills going forward. Yes, we want municipalities to have a say in the siting of renewable energy generation facilities, and local communities should have a voice and a stake in those projects too, but Bill 34 singles out renewable energy power projects and removes the ability to appeal municipal decisions or to appeal to municipalities even when they haven't made a decision. This creates an unfair playing ground and a distorted market. We really want to see clean energy compete on its own merits against other forms of energy. We would recommend that Bill 34 be amended to remove the restrictions pertaining to the right of appeal from renewable energy projects.

Also, we don't think it's reasonable for new projects to have to show that there's demand for electricity. It takes time to build projects. Demand is coming, based on the IESO, so we need to start planning for that demand now and I think that means we need to start building that now. Otherwise, we're going to fall behind. So we'd also suggest a removal of section 4(2), which is the requirement that electricity generation projects have to show that there's demand for electricity before they move forward.

I'll pass it over to my colleague, Sarah Buchanan now.

Ms. Sarah Buchanan: Hi, everyone. As my colleague Keith mentioned, we do want to be able to find the cleanest, most affordable ways to generate electricity here in Ontario, both now and also in the future. When we hold renewables to a different standard than other energy sources and add red tape to that process for renewable energy generation projects, it can potentially hold Ontario back in a global economy that's quickly shifting to renewable energy in many, many places around the world.

This is a stat I actually got off the BP oil website: Internationally, almost 50% of the growth in new power generation in 2017 was in renewable energy—50%. That's a really big picking-up of steam for that sector, and it's something that we don't want Ontario to miss out on. There are now three times more jobs in solar power in the US than in coal. There is also the fact that wind power technician was the fastest-growing job in the United States in 2017. Things are changing really, really quickly. The

decisions Ontario makes now are going to determine whether we're leading the way on this, or whether we're lagging at the back of the pack.

Other governments are actually recognizing this—in Canada, even. For example, the Saskatchewan government actually plans to put renewable energy at the centre of their climate change strategy, with the commitment to generate 50% of their power from renewables by, I think, 2030, to reduce greenhouse gas pollution by 40%. Ontario could definitely do the same. There's a lot of potential to do that, and there are a lot of templates and models to look at to do that and do so affordably.

By expanding our low-cost clean energy sources, Ontario also has an opportunity to cut air pollution and improve the health of its residents. As many of you know, I'm sure, since banning coal-fired electricity here in Ontario, we've shifted towards cleaner sources of electricity and our air quality has improved significantly here. We've all enjoyed the benefits of that, with fewer smog days. Our kids and grandkids are going to enjoy the benefits of that as well. Cleaner air has translated into—I'll just give you some stats—reduced air pollution-related premature deaths by 23% and hospital admissions by 41% in Toronto alone. It's a really big deal for our health, as well, cutting back on polluting energy sources.

You may think that natural gas is a cleaner energy source. It is cleaner than coal or oil overall, but burning natural gas still contributes harmful emissions to Ontario's air pollution. Emissions related to natural gas combustion in Toronto are related to about 28% of premature deaths and 20% of hospitalizations from air pollution inside Toronto's borders, so that's not a solution we want to necessarily jump to. We do want to explore clean energy where it's possible to do so. Ontario can address these health impacts I just mentioned by considering clean renewable energy instead of burning natural gas for power whenever possible.

We are happy to see there are a few initiatives that have been transferred to the Electricity Act in this piece of legislation, and will continue to operate, things like allowing for the use of designated energy conservation goods; energy efficiency standards for appliances and equipment; customer access to energy data, which is important for transparency; and energy benchmarking and conservation requirements for publicly owned buildings. But we are disappointed to see that a regulation giving authority to mandate public agencies to consider energy conservation in procurements and capital investments has not been maintained.

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We feel that this is a really strong opportunity to eliminate wasteful spending among public agencies and to also ensure the adoption of a long-term lens in cutting our energy costs. Ontario has the opportunity to make longer-lasting and stronger capital investments that will both save taxpayers money and reduce carbon pollution.

This regulation would make a strong statement that our government wants to spend smarter, not more, so we

would suggest for that reason amending Bill 34 to maintain the authority to mandate conservation in procurements. Also, we would suggest maintaining the provision enabling mandatory—

The Vice-Chair (Mr. Deepak Anand): Thirty seconds.

Ms. Sarah Buchanan: Thirty seconds? Okay. I'll just skip to the end.

We want to say that prices have dropped substantially since the Green Energy Act was implemented, so we don't want you to miss out on what is now a really important way to lower electricity costs for Ontarians and also the many co-benefits: health for our climate and reducing pollution.

The Vice-Chair (Mr. Deepak Anand): Thanks so much. Members of the opposition for the questions: You have five minutes. MPP Tabuns.

Mr. Peter Tabuns: I just want to thank you both for the presentation. It was very thorough, and you make the arguments that I was going to make, so I have no questions for you. Again, thank you for presenting today.

The Chair (Mr. Prabmeet Singh Sarkaria): To the government side. MPP—it's too difficult. Say that so that it's said right.

Ms. Effie J. Triantafilopoulos: Good afternoon. Thank you both very much for coming to present. Specifically, I have a couple of questions for Mr. Brooks. I was intrigued when you said that you did agree that the Green Energy Act was flawed and needed some work, but then you went on to say that it was not forced on communities.

A lot of the anecdotal information and evidence we got when we were speaking to people who in fact felt that they had been impacted by them—in some cases, we had heard that as many as 80 municipal councils had actually passed resolutions, motions or bylaws regarding these industrial wind turbines, and despite that, they were basically forced on their communities. So I would really appreciate your response to that.

Mr. Keith Brooks: The point I was making is that every single renewable energy project was constructed on somebody's land. Most of these people are farmers, in fact. A rural energy developer approached a farmer and said, "Would you like to receive some more income in exchange for generating electricity?" And the farmer said, "Yes," and signed an agreement, and they built something there. The individual whose property it was agreed to have the project there. The project was not forced upon that individual.

Maybe the neighbours didn't like it; I understand that. A municipality didn't feel like they were being consulted or had ability to weigh in—and I understand that issue as well. I think that that was a problem. We think that there are other ways that these projects could have been done. But my point is only that nobody forced a project to go on anybody's land. Every single landowner agreed to have a project there and received benefit from it.

Ms. Effie J. Triantafilopoulos: I understand. In fact, you also went on to say that what happened in those

communities was that neighbour was pitted against neighbour as a result of the way in which this was unfolded. I believe as well that it was really largely the Liberal government at the time that took away those rights from municipalities to actually be able to have the kind of consultation they would have needed within their communities.

Mr. Keith Brooks: Do you want me to comment on that?

Ms. Effie J. Triantafilopoulos: Please.

Mr. Keith Brooks: Yes, they changed the rules to say that municipalities didn't have a veto over that. This is done sometimes in planning decisions in matters of provincial interest. I guess the government of the day deemed that this was important. If they were going to build out renewables as quickly as they wanted to, they didn't want to have a lot of opposition standing in the way. Hindsight shows that maybe that wasn't the best approach to get buy-in from all Ontarians.

We would support an approach where there was more community ownership. I think that the policies changed over time to get motions from municipalities that supported projects and motions from Indigenous communities to support projects and those kinds of things. So improvements were made, but it was quite divisive.

There has been interesting work that has been done that shows that if we had had more community benefits, we would have had more support for projects. There seems to be a correlation between people saying that they're worried about the health impacts of projects and people receiving no money from those projects. It's called the nocebo effect. If people receive money from renewable energy projects, then they don't report that they are concerned about any health impacts. I think a lot of the opposition would have actually gone away had there been better sharing of benefits from the projects.

The Vice-Chair (Mr. Deepak Anand): Member Calandra.

Mr. Paul Calandra: We've entered a strange dilemma here. The fact that Environmental Defence is concerned for farmers is stunning to me, because when the Rouge Park was being discussed, you had no issue with removing farmers who had been there for 200 years, and planting trees. So I am actually completely shocked at your love of the farmer all of a sudden, given the flip-flop with respect to the Rouge Park.

Let me ask you this: a \$4.5-billion subsidy for green energy projects—that what's the last speaker told us. Is that your opinion on what the subsidy was, or do you think it was more?

Mr. Keith Brooks: I'm not sure where that number comes from. The IESO has crunched some numbers. They're in and around that vicinity, I think, but that's over 20 years of the project. It's important to understand that the coal phase-out—

Mr. Paul Calandra: Sorry. It's my time. I don't have a lot of time—

Mr. Keith Brooks: The coal phase-out saved \$4.5 billion as well—

Mr. Paul Calandra: Mr. Chair, it's my time. I'd like the member to stop, if you don't mind.

The Vice-Chair (Mr. Deepak Anand): Go ahead. I'm just stopping the clock. Restart the clock.

Mr. Paul Calandra: I'm astounded to hear of your concern for high energy costs. In your presentation, you said, to "limit" the potential of high energy costs going forward. Where the heck were you when the Green Energy Act was introduced? Is it only now that we have to worry about the costs of green energy? There's a \$4-billion impact on the taxpayer of the province of Ontario. You agree that there's \$4.5-billion subsidy. How is that acceptable to taxpayers? Why is it now that we're all touting Alberta and Saskatchewan at 3.7 cents? Wasn't your advice in 2009 when you presented for the Green Energy Act that we should pay the rates that we paid for green energy in the fixed contracts?

The Vice-Chair (Mr. Deepak Anand): Member, the time is actually up.

Do you want to quickly answer it in five seconds?

Ms. Sarah Buchanan: As I mentioned in our presentation, we want to see our government look at the lowest-cost sources of electricity generation. Right now, renewables are coming in at pretty much that. The prices have dropped.

Interjections.

The Vice-Chair (Mr. Deepak Anand): I'll advise both sides that the time is actually up. We have to move to the next—thanks so much.

Interjections.

The Vice-Chair (Mr. Deepak Anand): Member, we're actually operating under the five minutes, so we can't change that.

Interjections.

The Vice-Chair (Mr. Deepak Anand): Order, please, Member Calandra. Government side, come to order, please.

WIND CONCERNS ONTARIO

The Vice-Chair (Mr. Deepak Anand): Next we have Mr. Warren Howard. Mr. Howard, you have 10 minutes for the presentation. That's going to be followed with five minutes of questions. I will be calling on one minute notice. Please for state your name for Hansard.

Mr. Warren Howard: Thank you for the opportunity. I'm Warren Howard. I'm here representing Wind Concerns Ontario.

Wind Concerns is a volunteer-based coalition of about 30 community groups across the province that are affected by wind turbine projects. I've been involved in this particular topic since 2010, when I became an elected member of North Perth council at the same time as a project was arriving in the municipality. I've also been involved in Wind Concerns since that time.

I've circulated a report with a lot of information. I wanted to start with what I think is the key statistic that we need to focus on. That is the 4,562 complaints that the government has received about the operation of these

wonderful machines; 35% of those related to adverse health effects. This information is government information provided to Wind Concerns through a freedom-of-information request. I would suggest, perhaps, that the committee should ask the Ministry of the Environment, Conservation and Parks to provide this information to you, because I think it's important information that you should be dealing with.

The reports show that little or no action has been taken to resolve these complaints, even though the approvals for the projects require the project operator to resolve each complaint to stop it from recurring.

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The report submission that I've given you talks about the rules governing wind turbines. I'm not going to go through them in detail. I just want to point out that they were never based on real research and they actually ignored evidence that was available in Ontario showing that the guidelines wouldn't be sufficient, because we had operating wind turbines before the Green Energy Act.

There's a section in there on the municipal review process, and I guess that's what I'm really focusing on. The input is limited to municipal or local infrastructure and servicing. Nothing else is germane to the questions. I think that's rather limiting.

We have talked a bit about the new contract process. They tried to fix that in the last RFP round. It was a total failure, with four of six contracts being let to organizations where the municipality did not support the project. That triggered, then, a municipal resolution that was supported by 117 municipalities across the province, asking very specifically that municipal support resolutions be a mandatory requirement. The list of municipalities approving that resolution is exhibit 3 in my submission. It's quite interesting, because it includes communities like Hamilton, Ottawa and many northern communities that weren't normally involved in these projects. There was a question earlier about non-willing hosts; actually, there were 95, North Perth being the first.

In terms of municipal activities, I don't have time to go through it in great detail, but I've given you eight examples of what municipalities have been doing on green energy projects. It's because residents of the municipalities are coming to the municipal government saying, "Help us. The province isn't doing anything for us." It's a broad array of things, much more than planning. Some have been successful, some of them very costly failures because of lawsuits from the wind industry.

Comments on Bill 34 specifically: I of course agree with the objectives, but I'm questioning whether the current draft actually meets the objectives. I'm going to get into those in detail. My concern, if you go back to what the municipalities are doing, is that I think the focus is rather narrow. There's a lot more that needs to be done. The key phrase that always got us concerned under the Green Energy Act was that municipal bylaws became inoperative. That clause has been taken from the Green Energy Act and put in the Electricity Act. I don't know how that's solving any problem; the thing is still there. There are a couple of clauses that deals with.

Protection from litigation is very important. I was amused by the suggestion that we needed to protect the fiscal balance in this. When you compare a wind industry company suing the township of Wainfleet, I think this clause where you're putting in some protection against lawsuits actually rights the balance—though I'm not certain the clauses that are there actually do it, because it only relates to preventing lawsuits when they permit renewable energy projects. I think we need a much broader thing to make it work.

In terms of the municipal role, there are no changes in the whole approval process or in the granting of contracts. Those are gaps.

Then these other things—there are other policy statements that I think still have to be addressed because they very much restrict municipal action, even in planning. The first one is the Chief Medical Officer of Health's statement that there is no direct link between wind turbine noise and adverse health effects. Well, that's just not supported by research. It needs to be retracted and replaced with something much more meaningful.

Regulation 359, which came out of the act, put out a whole set of rules. The key one is that the setbacks in that regulation are not sufficient to protect health—we know that from the complaints and testing—and they aren't keeping up with other jurisdictions. The turbines that are being proposed—for example, the North Stormont project that's still in process—would require, if they were being put in the state of Bavaria, a 2,000-metre setback; in Ontario, it's 550 metres. There are some gaps there.

The noise-testing protocol that the ministry uses focuses on assumed problems, not the problems that are actually reported in the complaints, so it's not aimed at complaint resolution. There's one example, in the last couple of months, of a woman in the Kincardine area who has medical advice that she should leave her home because of the noise emissions from the turbine. She got a note from the Ministry of the Environment, Conservation and Parks that the turbines in her area are operating at compliance with the standards. I think there's something wrong with the standards or the testing, because she can't live in her house.

I've documented the complaints and the numbers. I think a lot of municipalities want those rules enforced, because it's falling back on them to step in behind it. There are tools available for enforcement. You don't have to rewrite everything. It's in the approvals that wind companies are to address complaints. They're not being addressed.

In summary, I think the Green Energy Act has left a legacy of problems in rural Ontario. Restoring municipal planning powers—really restoring them—is an important first step. But Bill 34 and these committee hearings bring a focus on the problems that the Green Energy Act has created in rural Ontario. It's raising hope that this is the start of real change.

We understand that resolution will take a lot of time to get it fully complete, but I'm pleased to work with anyone who is interested in identifying straightforward solutions to situations where an immediate action is possible. It would send a real message that change is coming.

Thank you very much for the opportunity. Did I do it in under 10 minutes?

The Acting Chair (Mrs. Amy Fee): You did. You have about a minute left.

Mr. Warren Howard: Wow. I'll leave it at that then. I'm open to questions.

The Acting Chair (Mrs. Amy Fee): We can start with the government side. You have five minutes. Ms. Hogarth.

Ms. Christine Hogarth: Thank you, Mr. Howard, for being here today. We appreciate your deposition and talking about the Green Energy Act, which we, as a government, believe was very flawed. It was something we heard on the campaign trail that needed to go—the costs of skyrocketing energy rates and people having to choose between eating and heating.

Some comments that were made by the previous speaker—I just want your take on it. The previous speaker talked about it not being forced on communities, but then they also mentioned about how it put neighbour against neighbour. You started something about a “not a willing host” campaign. Can you talk a little bit about that? Do you believe that it was forced on communities?

Mr. Warren Howard: Very much. “Not a willing host” came from when Kathleen Wynne, in her first throne speech, said, “We want willing hosts for our renewable energy projects.” I happened to be sitting at my desk watching this on TV, and I was writing the municipal consultation form for North Perth. That's how we became the first non-willing host. It said, “No, we don't.” And then it went across the province, and eventually it was 95 municipalities. I was talking to some people from Ashfield-Colborne-Wawanosh, who want their township, today, to become an unwilling host. I said, “It's not really that important at this stage, but go for it.”

So, it's very much forced. If you look at the things that were going on, through those examples—I'm thinking of Kawartha Lakes, which had a project being built on the Oak Ridges moraine, on a sensitive water source. They refused—I think because of constraints in provincial legislation—to open up a road allowance to allow access to a turbine to be built there. They got sued by the wind company. This road allowance was used for hiking and was also bordered by rare and endangered butternut trees—all sorts of good reasons not to open it, but they got sued. By the time it got through the appeal court, they were assessed \$200,000 in court costs. Even for Kawartha Lakes, that's a lot of money.

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Wainfleet: I think they paid out \$200,000 trying to put a zoning bylaw in place that restricted how close turbines could be to houses.

The example of Collingwood—Clearview I think is the technical name of the project where the town of Collingwood, county of Simcoe and Clearview township collectively paid \$1.5 million to lawyers during the Environmental Review Tribunal appeal of the project which the ministry had approved to place turbines in the approach to the runways for Collingwood airport. In the ministry's view, that wasn't a serious risk for human

health. The ERT disagreed. Doing this on the way into the airport wasn't going to work.

So there has been incredible pressure to force these on. The comment about paying a farmer is an interesting one because nobody else around it gets paid, but they live with the consequences. The noise emissions go out; they're various as to kilometres. Those aren't covered.

I know that in North Stormont, about 40% of the people who have signed leases, now that they know what's going on and the risks to their wells, want to get out of the leases. But of course the leases are written so they can't get out.

It is very much forced down the throats of rural Ontario people.

The Acting Chair (Mrs. Amy Fee): You have approximately one minute left.

Ms. Christine Hogarth: One minute left. Just as a former councillor, how did this affect your daily role as a municipal councillor?

Mr. Warren Howard: Well, I became the expert on wind turbine law. We were actually one of the few municipalities—again, it was the community group that I was also deeply involved in. They actually backed off the project, but it was an exceptional set of circumstances because of some of the tactics that were used, which I shouldn't go into in public.

Ms. Christine Hogarth: Thank you.

The Acting Chair (Mrs. Amy Fee): You still have 30 seconds if you have any additional questions. No? Okay.

We will move over to the opposition side and Mr. Harden.

Mr. Joel Harden: Thank you for your testimony today. I am the MPP for Ottawa Centre but actually come from rural Ontario as well. I'm from Glengarry-Prescott-Russell, so I'm familiar with this discussion at a rural level as well; I go home a lot.

The World Health Organization has said quite clearly that solar and wind forms of energy generation are the least impactful on human health on the planet. I respect the fact that you talked a lot about accountability processes and residents wanting to be able to voice their concerns, but in your presentation I didn't hear any evidence to suggest that renewable energies posed a significant threat relative to emitting greenhouse gases.

Mr. Warren Howard: There are a number of levels I could respond to that. First of all, there's great support for nuclear power in Kincardine township but great opposition for wind turbines, and they live with them both. So they're actually quite happy with the nuclear plants there.

In terms of the World Health Organization, they just released new daytime noise standards. The levels in regulation 359/09 are actually above what's now recommended by the World Health Organization, and they don't even have nighttime noise, which is probably the most important thing.

I've seen a lot of presentations talking about how wind turbines have solved all of the problems with coal plants. The coal plants weren't shut down by wind turbines. They were shut down when Bruce Nuclear came back online. Wind turbines aren't going to solve the problems if

Darlington and Pickering go off-line. It's just not a reliable source of energy. Quite frankly, if you listen to the Ontario Society of Professional Engineers, they say that adding wind turbines and solar to the grid actually increases the carbon emissions of the Ontario electrical generation system. Because it's already so green and because of the intermittent nature of solar and wind, they need gas plant backup. So we're burning carbon fuels to generate electricity.

Mr. Joel Harden: Thanks for that. I guess what we're leaving out is what was brought up in a previous presentation. We currently import hydroelectricity from the province of Quebec at five cents a kilowatt hour instead of procuring massive investments in centralized energy generation, which study after study—and certainly people in the Ottawa Valley, I can tell you; you mentioned Kincardine—object to decades of nuclear waste being encased in cement and leaking into our water system.

I'm just curious: What is the alternative, in your mind? Everything I've heard to date suggests to me that we have to retrofit our energy system for our children and for our grandchildren. Short of not liking new and innovative suggestions, what's the alternative?

Mr. Warren Howard: I listen to my younger brother, who's building a new house in Elora, and he's just going to be completely separate from the grid on all the things we're talking about here. He doesn't really care. He's going to look after himself, thank you. I think that's the way the energy system is going.

In terms of answering your question, I stopped answering those questions because I was writing the response to regulation 359/09 when I got invited to speak here on municipal stuff. So I've got to get back to the other stuff. It's a separate topic, in my mind.

Mr. Joel Harden: Okay. Thank you.

The Acting Chair (Mrs. Amy Fee): Thank you.

Mr. Warren Howard: Thank you.

BUILDING OWNERS AND MANAGERS ASSOCIATION OF GREATER TORONTO AREA

The Acting Chair (Mrs. Amy Fee): We can call on the Building Owners and Managers Association of Greater Toronto Area.

Thank you, and before you begin, can you just state your names for the record as well?

Mr. Bala Gnanam: Bala Gnanam.

Mr. Terry Flynn: Terry Flynn.

The Acting Chair (Mrs. Amy Fee): Thank you. You have 10 minutes for your presentation, and then we'll have five minutes from either side for questions at the end.

Mr. Bala Gnanam: Good afternoon, committee members and other special delegates who may be present at this hearing. My name is Bala Gnanam. I'm the vice-president of energy, environment and strategic partnerships with the Building Owners and Managers Association. My colleague here is Mr. Terry Flynn, general manager of Bentall Kennedy and also the chair of the BOMA Toronto energy

committee. I would also like to acknowledge the presence of Ms. Susan Allen behind me, the president and CEO of BOMA Toronto.

Before we get into the crux of it, I thought I would mention a few things about who we are, what we do and what we have done, to bring in the right context for this discussion. Building Managers and Owners Association of Greater Toronto Area, commonly known as BOMA Toronto, is a not-for-profit industry association established in 1917. We're committed to developing, promoting and advancing best management practices through proactive energy advocacy, exceptional education and the creation of valuable networking opportunities. We proudly represent over 80% of leading building owners, property and facility managers, developers, corporate facility managers, leasing professionals and industry suppliers in the GTA and beyond.

We bring over 100 years of advocating, representing and working with commercial real estate in Ontario. BOMA Toronto has a long track record of successfully working with municipal and provincial governments across many initiatives, and consistently advocates for low prices, reliable service and innovative solutions.

We have been very involved in the energy sector since 2007. The highlights of our contributions over the past decade include, from 2007 to 2011, the design and delivery of a \$75-million conservation program which is a predecessor to the current saveONenergy program. We were able to achieve close to 53 megawatts of peak demand reduction and went on to receive a national and an international award.

In June 2017, we launched the race2reduce program in partnership with Toronto Hydro. Race2reduce is a fun corporate challenge to engage the commercial and institutional building sectors in improving energy efficiency and operational excellence through collaboration, innovation and best practices. Within the first 16 months of the program, we've been able to involve 560 buildings and tenant spaces totalling over 87 million square feet. We've already been able to achieve 40% of what we set out to achieve in terms of a three-year target.

In December 2017, in collaboration with Toronto Hydro, we launched our mid-tier buildings initiative to promote energy conservation and incentive programs to small and medium-sized building owners and managers, a segment of the commercial real estate sector that has long been neglected by mainstream conservation campaigns—not due to lack of trying by major utilities. This initiative has been well received and, much to our amazement, has resulted in projects that could potentially yield over nine million kilowatt hours' savings.

Since 2014, BOMA Toronto has been instrumental in obtaining industry consensus to support the government on the energy and water reporting and benchmarking regulation—that's O. Reg. 20/17—as well as support for the greenbelt initiative. Since 2007, we have also engaged with over 5,000 persons through energy education. BOMA Toronto currently sits on 24 energy and environment-related committees, working groups, advisory groups and councils set up by government and government agencies.

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These are examples of program design, delivery and management, and our influence in the industry. BOMA Toronto understands the complexities of the commercial real estate industry and knows how to rally both membership and the industry in general to drive positive changes.

Mr. Terry Flynn: Hi. I'm Terry Flynn, as I think you've heard. As for Bill 34, An Act to repeal the Green Energy Act, 2009, BOMA Toronto is supportive of our government's interest in exploring ways to cut electricity costs, increase power supply and create job growth in Ontario. However, we strongly believe that repealing the Green Energy Act, 2009, without extensive consultations with key stakeholders and without thorough consideration of all the benefits and opportunities to Ontario would not be in Ontarians' best interests. It would cause a massive decline in green jobs. Conservation sustains a large ecosystem of contractors and suppliers that sustain over 5,000 quality jobs per year. With significant economic benefits to the province, it is estimated that every dollar spent on conservation leads to \$7 in GDP.

It would also hamper Ontario's ability to retain and attract multinational companies that consider Ontario a place to set up their regional and national headquarters. Furthermore, our international trade relationships, especially with those nations that invest heavily in green and renewable energy infrastructure, could erode.

With the recent cancellation of renewable energy projects, Ontario will need to explore new sources of power supply to meet increasing customer demand. According to the recent forecast from the IESO, power will be in short supply, especially during peak demand months, by 2023. This risk could be detrimental to Ontario business and other customers if it is not addressed properly or on time. The potential impact could be further exacerbated with the closure of any one of the nuclear power plants.

Recommendation: We urge the government to properly cost the integration of renewable generation so that Ontario does not miss out on any potential opportunities for low-cost generation. Other co-benefits of clean energy include health, supply, reliability and resilience, economy and climate, and should all be considered.

Recommendation: The government should consider purchasing low-cost hydro power from Quebec as part of its broader strategy to reduce electricity costs. As for the proposed transfer of certain conservation and energy efficiency initiatives to the Electricity Act, investment in energy efficiency is critical for grid reliability and for keeping the overall cost of generation low, as well as minimizing emissions. Although we are disappointed to see the repeal of the Green Energy Act, 2009, perhaps in name, we are pleased and grateful to see that several significant initiatives have been transferred to the Electricity Act and will continue to function unhindered. These initiatives include the use of designated energy conservation goods, energy and efficiency standards for appliances and equipment, customer access to energy data, energy benchmarking and reporting for publicly owned

buildings, and energy and water reporting and benchmarking requirements for private sector buildings.

Mr. Bala Gnanam: On the overall energy conservation programs in Ontario, we ask the government to clarify its position on the future of Ontario's long-term energy plan, LTEP, the Conservation First Framework and the continuance of CDM/DSM incentive programs, namely saveONenergy and the gas incentive programs.

Energy efficiency is credited as the third fuel, i.e., the energy we do not use is always the cheapest to provide. It is also estimated that every dollar invested in energy efficiency avoids \$2 in costs to the electricity system. Therefore, there is a greater need to preserve and continue the element of the conservation programs under the current LTEP that are proven to be successful, cost-effective and which make Ontario competitive. These programs are also said to have significant impact on Ontario's economy and its ability to compete with other global cities through job creation and promotion of innovation.

BOMA Toronto acknowledges that the conservation programs are not meant to be indefinite. They're a stopgap mechanism to accelerate the adoption of energy-efficient technologies until such time as the culture of conservation is ingrained in society. In the meantime, we need to address the real challenges faced by major Ontario cities and businesses: aging distribution and transmission infrastructure; urban growth; shocks to the grid caused by extreme-weather-related events; and the rising cost of refurbishments of nuclear generation plants. All of these contribute to a reduced reliability of power supply and pose risks to Ontario businesses and the public.

Conservation programs offer temporary but necessary relief while we focus on innovating the grid and securing the necessary energy supply. Investing in conservation has been proven as an effective way to save cities millions of dollars in annual expenses. Conservation is also a tool that has allowed many businesses to remain competitive and thus retain jobs in Ontario.

The Acting Chair (Mrs. Amy Fee): You have just under one minute left.

Mr. Bala Gnanam: BOMA Toronto would be supportive of re-examining the LTEP and CFF with an aim to simplify the processes, improve access, eliminate wasteful spending or phase out initiatives that are not effective.

However, we strongly urge the government to continue the successful elements of the CDM and DSM incentive programs as part of its broader strategy to accelerate adoption of energy-efficient technologies and to minimize emissions.

Mr. Terry Flynn: Despite many challenges, energy security, reliability, efficiency and affordability are essential to meet the needs of Ontarians and to keep Ontario businesses thriving and competitive. With today's telecommunication capabilities, businesses can operate virtually anywhere in the world. Ontario remains one of the world's desirable locations to live and work, and we believe that this government is in an ideal position to make smart choices that will attract greater investment and will

provide businesses with the confidence that Ontario's energy future is under control.

The Acting Chair (Mrs. Amy Fee): Thank you. I'm going to have to stop you there.

You have five minutes, Mr. Tabuns.

Mr. Peter Tabuns: Gentlemen, thank you very much for the presentation. My questions are fairly brief. You suggest in your presentation that Ontario could lose both jobs and potential investment in terms of new head offices if we turn away from green energy. Is that a fair comment?

Mr. Terry Flynn: Yes, it is. That has been my experience. I've been involved in major projects, and we've been part of global competitions with respect to head offices. Depending on the jurisdiction and the culture of the companies that are coming—they're looking at Washington and Seattle and various places—they ask those types of questions. If they felt that maybe Ontario didn't have that culture, they might look for a head office elsewhere.

The other thing is, it's part of attracting the younger workforce. Some of these kids—I shouldn't call them kids—

Mr. Peter Tabuns: You shouldn't, but—

Mr. Terry Flynn: Are there any kids here? I'm sorry.

It's not just about the bottom line and wages. They want to work for some place that makes them feel good.

Mr. Peter Tabuns: You note a few things here. You note renewables becoming the cheapest form of new electricity generation in Canada: wind power at 3.7 cents per kilowatt hour; the average cost of electricity generation, using gas-fired plants, above 12 cents a kilowatt hour; and the cost per kilowatt hour using nuclear generation could be in excess of 16 cents a kilowatt hour. I'm accurately reading what you've noted here, I assume?

Mr. Bala Gnanam: Yes.

Mr. Peter Tabuns: Okay, thanks. I don't have further questions.

Mr. Bala Gnanam: We have provided the sources and the documentation.

Mr. Peter Tabuns: Yes, your sources are very good.

The Acting Chair (Mrs. Amy Fee): To the government side.

Mr. Sheref Sabawy: Thank you very much for taking the time to present to us today. In your recommendation 5, which I'm not sure you reached or not, you're talking about urging the government to properly cost the integration of renewable generation, so that Ontario does not miss out on any potential opportunity for low-cost generation. Can you elaborate a little bit on how we can reduce the cost when we know that renewable energy is much, much more expensive than the current one we are using?

Mr. Terry Flynn: If you've looked at it, and that's how it is today, I think you need to be flexible so that when technology changes, you have to be able to look at that new technology, because it might be the framework of the costs today but something could change six months from now. I think we need to have that flexibility to say, "Okay, I know we said that was not right, but, hey, it looks good now."

Mr. Sheref Sabawy: Yes, but do you think, in your expert opinion, that we can carry the costs on taxpayers on

the \$40 billion it now costs until it may be going down? Do you think, from an expert point of view, that could be a viable model: to wait for the future to draw up some technology which will drop the cost?

Mr. Terry Flynn: Part of me thinks that you have to help to try to grow the technology so you have a made-in-Ontario solution as well.

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Mr. Sheref Sabawy: Thank you.

Mr. Bala Gnanam: Part of the problem also is our policies extend to only around four years, in line with the election cycle. So I think we need to set up policies and strategies that are far-reaching, and when you align them with the investment, I think we'll write the right solution. It's been done in Europe and in other places. If it can work there, and the science is there to back it up, I don't see why it can't work here.

Mr. Sheref Sabawy: Thank you.

The Acting Chair (Mrs. Amy Fee): Mr. Calandra.

Mr. Paul Calandra: Are you suggesting, then, that over the last 10 years, the Green Energy Act has cost the people who you represent nothing—it saved them money?

Mr. Terry Flynn: Sorry, they've saved some money because of it?

Mr. Paul Calandra: Well, is it your suggestion that commercial or corporate building owners have actually saved money, that the cost of electricity, the cost of powering our office buildings in an industrial-commercial complex in Toronto, is reduced because of the Green Energy Act?

Mr. Bala Gnanam: I would say yes.

Mr. Paul Calandra: Really?

Mr. Bala Gnanam: Yes, because it's all about operational efficiencies. We know if you can run a more efficient building, it actually runs down to the bottom line. The comment that we normally hear is "putting money in people's pocket." To me, this is putting money in people's pocket.

Mr. Paul Calandra: This is very unique, then. We've heard from a number of other individuals who have suggested that the cost of energy in Toronto has actually gone up 30% or 40%—53%, I think it was specifically, in Toronto and Ottawa. But you're suggesting that it's actually gone down, and the building owners' costs in this area have gone down. I'm wondering if you could quantify for me the percentage of rent decrease that your industry has provided over that same period of time, because I've heard from a lot of people that it's a very, very competitive market in Ontario. If you've really seen such a wonderful savings, I'd like to know how much the percentage of decrease in rent has been—

Mr. Bala Gnanam: Let me clarify my response. Yes, the energy cost has been going up, I agree; but through conservation, what we've managed to do is avoid the cost of increase. So it's not going to change—if you're not running your buildings properly and sustaining those—

Mr. Paul Calandra: Tell me if I'm wrong, then. You don't need a government subsidy to do that; that's just a smart thing to do because you could save money.

Mr. Bala Gnanam: One could argue that.

Mr. Paul Calandra: One could argue it or it has been done?

Mr. Bala Gnanam: No, but on the other hand, we're also looking at aging infrastructure, growth and all that.

Mr. Paul Calandra: No, I'm asking you specifically. You were very specific about the impact in Toronto. As a guy from York region I'm very worried now, because you're saving so much money in the city of Toronto with your industrial-commercial that I'm terrified.

Given the fact that you're saving so much money, what percentage of your buildings have electrical vehicle chargers in them?

The Acting Chair (Mrs. Amy Fee): You have just over 30 seconds.

Mr. Paul Calandra: There are thousands of buildings and thousands of parking spots. How many, 10%?

Mr. Terry Flynn: That sounds like a fair number, but—

Mr. Paul Calandra: Is that savings passed on to your tenants?

Mr. Terry Flynn: Pardon me?

Mr. Paul Calandra: Are the savings passed on to the tenants?

Mr. Terry Flynn: The savings from—

Mr. Paul Calandra: Are the chargers free?

Mr. Terry Flynn: No, the chargers aren't free.

Mr. Paul Calandra: No, they're not free. Okay.

We heard from another witness that it was a \$4.5-billion direct subsidy for green energy. Do you think that's been a valuable use of taxpayers' money?

The Acting Chair (Mrs. Amy Fee): I'm sorry, we're going to have to stop here. You're out of time.

Mr. Terry Flynn: Out of time? Okay.

The Acting Chair (Mrs. Amy Fee): Thank you for coming before the hearing today. Just a reminder that if you are doing any written submissions that we do not have in addition to the package that you submitted, you have until 6 o'clock tomorrow.

Mr. Bala Gnanam: Sorry?

The Acting Chair (Mrs. Amy Fee): You have until 6 o'clock tomorrow, if there are any additional written statements that you would like to—

Mr. Bala Gnanam: Okay.

ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

The Acting Chair (Mrs. Amy Fee): I'd like to call on the Association of Major Power Consumers in Ontario. Thank you for coming before the committee hearing today. If you could just state your names for the record, please.

Mr. Colin Anderson: My name is Colin Anderson. I'm the president of the Association of Major Power Consumers in the province. With me today is my colleague Mr. Mark Passi. Mark is a past chairman of AMPCO and a current board member.

Members of the Standing Committee on Social Policy, I'd like to express my appreciation on behalf of the board of directors and the members of the Association of Major Power Consumers in Ontario, AMPCO, for this opportunity to address you in regard to the repeal of the Green Energy Act.

I want to start by giving a small amount of background on what AMPCO is and what exactly it is that we do. AMPCO is the voice of industrial power users in Ontario. Our members represent Ontario's industrial base: mining, pulp and paper, petrochemical, automotive, steelmaking, and many others with operations throughout our province.

AMPCO's members are major power consumers, using over 15 terawatt hours of electricity per year in the province, which was about 11% of all the power used in the province last year. A reliable, sustainable and affordable energy supply is critical to the success of their businesses, which is why AMPCO has an interest in this matter.

In 2009, Ontario embarked on a campaign to clean up its electricity sector. Part of the preamble of the Green Energy Act reads as follows: "The government of Ontario is committed to fostering the growth of renewable energy projects, which use cleaner sources of energy, and to removing barriers to and promoting opportunities for renewable energy projects and to promoting a green economy." To be clear, these are all reasonable goals. Sadly, nowhere in that preamble does the word "cost" appear.

Any electricity system—Ontario's is no exception—is something of a three-legged stool. First, electricity must be reliable. All industrial, commercial and residential customers need to be able to count on power being available when they need it. Second, it must be sustainable. AMPCO's member companies have been making improvements for decades in regard to sustainability and environmental performance. This is not just lip service. These are significant investments for today and tomorrow. We expect the same of our electricity system. Third, it must be affordable, because the greenest and most reliable system in the world is useless if customers can't afford to connect to it.

As with any three-legged stool, when only two of its legs are intact, the stool falls over. In AMPCO's submission, that's where we are today, having neglected the principle of affordability in exclusive deference to sustainability.

The most damaging legacy of the Green Energy Act is the dramatic escalation of the pre-existing global adjustment charge. This charge is comprised primarily of the difference between contracted and regulated prices and the hourly Ontario electricity price. If we look at the website of the Independent Electricity System Operator, we see the global adjustment charge is totalled at \$11.8 billion in 2017, roughly a billion dollars per month. The contracts negotiated and awarded as a result of the Green Energy Act contribute greatly to these amounts, and their terms stretch out for up to 20 years. This is staggering and illustrates the difficulties associated with achieving an affordable electricity system.

By way of example, AMPCO estimates that the average price paid to wind generators pursuant to contracts let

under the Green Energy Act was around \$140 per megawatt hour. If we contrast that amount to other jurisdictions, we can get a sense of just how much Ontario is overpaying. In December 2017, the Alberta government decided to back proposals to build 600 megawatts of new wind generation. What's the average price that Alberta is going to pay for that energy? We've already said it here today: \$37 a megawatt hour.

While sustainability is an appropriate goal for the electricity system, the truth is that no other jurisdiction will green their system in the same way that Ontario did or pay the same premium that Ontario did and still does. Ontario may have done it first, but we also did it more expensively than anyone else will.

We can't change the past, but we can take steps to safeguard the future. Bill 34 puts an end to the Renewable Energy Facilitation Office whose mandate was the negotiation of renewable energy projects. Now, this is not to say that renewable projects themselves have been banned; rather, Bill 34 allows for the prohibition of approvals in circumstances where the demand for the electricity that would be generated by the renewable energy project has not been properly demonstrated. This is not unreasonable.

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I will emphasize again that AMPCO absolutely supports the need for sustainability in the electricity sector, but we also support the need for affordability. Given the current situation in Ontario, with an electricity generation fleet that is 96% free of greenhouse gas emissions—among the cleanest systems in North America—affordability must be considered the paramount concern.

It's important to stress that the Green Energy Repeal Act does not in and of itself reduce costs to customers. It provides for the ability to limit further additions to the global adjustment charge, but in AMPCO's view, further work is necessary to reduce existing costs so as to make Ontario electricity pricing competitive.

Ontario's industrial electricity prices are among the highest in North America, with large industrial class A rates increasing almost 25% over the last five years and small and medium industrial class B rates increasing by over 40% in the same period. While Bill 34 may take steps to limit future increases, we must step up our efforts to undo some of the damage that has already been done.

Ontario needs industry. It has been and continues to be a critical part of Ontario's economy. With it come investment and employment. If industry is the beating heart of Ontario, then electricity is the lifeblood that powers industry and sustains Ontario's economic health.

AMPCO members directly employ tens of thousands of Ontarians and are indirectly responsible for employing hundreds of thousands more in companies that provide goods and services to Ontario's industrial employers.

Competitive electricity rates will help industry to maintain those Ontario jobs. Competitive electricity rates will also help Ontario attract new investment to its industrial facilities, increasing the number of jobs available to

Ontarians and ensuring that this province is truly open for business.

AMPCO applauds the Green Energy Repeal Act, but we also look forward to an additional sustained focus on electricity pricing issues, with the goal of making Ontario competitive and safeguarding the jobs of Ontarians.

Thank you for the opportunity to speak with you, and I'm happy to take any questions you might have.

The Acting Chair (Mrs. Amy Fee): Thank you very much for your presentation. We are going to start with the government side. You have five minutes. Mr. Calandra.

Mr. Paul Calandra: Thank you very much for your presentation. I appreciate—you really represent the industries that have been hardest hit by some of the increases in prices. I have to tell you, though, given the presentation we just heard, I'm actually quite worried now that all these jobs are going to come to Toronto given how affordable and cheap electricity is in Toronto, apparently.

My question to you, though, is this: I know that the vast majority of industry, including the ones that you represent, isn't necessarily opposed to green energy; it's just how it was done. Is that fair to say?

Mr. Colin Anderson: Yes, I think that's absolutely fair to say. In our submission, we have gone on the record saying we're not against sustainability. In fact, many of my member companies have taken massive steps in the last decades to improve their sustainability, improve their environmental performance. They spend real money to get better on the environmental side. This is simply a question of affordability.

I had it put to me by someone maybe a month ago that the reliability, sustainability and affordability piece is almost a Maslow's hierarchy of needs, if you will. It has to be reliable. Those are your table stakes. The next step has to be affordable. We got that one out of order, and unfortunately, that's where our sole focus is right now—getting back to the point where AMPCO members can enjoy competitive electricity rates, competitive vis-à-vis the people they're going against for business elsewhere in other jurisdictions.

Mr. Paul Calandra: It's obviously fair to say that this has been a major disincentive over the last number of years when people have considered investing—especially in the industries that you represent. This has obviously been a major disincentive to making massive investments in our economy that would create the types of jobs we're looking at. Is that a fair assessment to say?

Mr. Colin Anderson: Fair to say, and it's not only competition against external firms. For some of my members, it's competition internally, because they have facilities in Ontario, they have facilities in the northern US, they have facilities in the southern US. They're competing for capital. When their board of directors sits around a table and says, "How come it's so much cheaper in the southern US?", it's not a good answer to say, "Well, because we put sustainability first." You lose that investment money. Then the next cycle, you look for the most efficient, upgraded, newest equipment so that you can put in as little capital as you have to, to be top of the

heap again. So, it's a vicious cycle. You need to continue to get the investment dollars, and we have suffered on that.

Mr. Paul Calandra: A dumb question, and it's not even a question: Obviously, you can't run an automotive factory on windmills or solar panels exclusively. You need, as you said, that reliable base of energy, which we are very lucky that our nuclear fleet has been able to do at a very, very cost-effective rate. I think that Pickering nuclear is running at one of the lowest prices that it ever has in generations.

But given the industries that you represent, and the hardships over the last number of years—you're talking about automotive; you're talking about steel—it has got to grate you to learn that \$4.5 billion in subsidies went to temporary jobs, specifically because of this act, and, moreover, that it has cost you and industry \$12 billion. This is a stunning figure.

I wonder if you could just quantify what type of investment \$12 billion would mean, or \$4.5 billion would mean, to an industry that you represent. Certainly, given the challenges that you have—the tariffs that we're having right now, the aluminum and steel tariffs—I wonder if you could help us better understand how this has had a huge impact.

The Acting Chair (Mrs. Amy Fee): You have just under one minute to answer the question.

Mr. Colin Anderson: Okay, thank you. Certainly, the quantum, the order of magnitude of the dollars you're talking about, are staggering. I understand that the renewable industry needs its investment to create its level of jobs.

I guess I would simply counter that with this: Large industry in Ontario also needs investment, and we create a lot of jobs. That \$4.5 billion, or the \$12 billion per year that we're paying in global adjustment charges, would create a lot of jobs.

Mr. Paul Calandra: I appreciate it. Thank you.

The Acting Chair (Mrs. Amy Fee): We'll move over to the opposition. Mr. Tabuns?

Mr. Peter Tabuns: Gentlemen, thanks very much for appearing here today. Just a few questions: You may have noticed, with the previous presentation, that it's projected that the cost of power from refurbished nuclear power plants will be going to about 16 cents a kilowatt hour. What impact will that have on AMPCO? Currently, it's about six cents a kilowatt hour, and it's about half the power in this province.

Mr. Colin Anderson: Certainly, Mr. Tabuns, my area of expertise is not nuclear energy.

Mr. Peter Tabuns: I'm just asking about costs rather than technology.

Mr. Colin Anderson: I understand. I think, directionally, the easiest answer I can give you is that any time we see significant increases in any technology, it causes us concern. At the end of the day, AMPCO members need to compete—globally, in some cases, and in other cases, on a North American basis. When all things are relatively constant—supply chain, labour, infrastructure—the differentiator can be something as simple as an input cost

associated with electricity. That's why six cents to 16 cents is the wrong direction, in any technology. That's not specific to nuclear. Increasing prices decrease our competitiveness. It's that simple.

Mr. Peter Tabuns: Alberta and Saskatchewan are going to be paying about 3.7 cents a kilowatt hour for new wind. It looks like this government is turning away from what's going to be a low-cost power source. Would you think that AMPCO members would support the import, or the establishment of power sources in Ontario, at 3.7 cents a kilowatt hour?

Mr. Colin Anderson: Peter, I'm going to give you my unvarnished opinion on this: AMPCO members support cheap power. In some ways, we're technology-agnostic. It has to be reliable. To some of the questions that were already answered, it has to be reliable. There are operational considerations to wind versus solar versus hydro versus nuclear, all of which have to be taken into consideration. But at the end of the day, for my AMPCO members, they require competitive rates and they need cheap power.

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Mr. Mark Passi: I'll just add, Peter, in relative terms to your gas numbers and your nuclear numbers, the one number you indicated, that natural gas would be in excess of \$120 a megawatt hour—

Mr. Peter Tabuns: Yes. Well, that's what it has been.

Mr. Mark Passi: That's a figure certainly far beyond that on which we could build or privately afford. We'd probably be about 65. I don't know how your nuclear numbers stack up, and wind. I think I know what we can buy. We can't buy wind at 3.7 cents. Today, I couldn't get it for 10 cents in northern Ontario; that's for sure. Maybe we'll have a discussion on numbers.

Mr. Peter Tabuns: I always do have regular discussions with AMPCO, and I've always appreciated it. I think you've been very straightforward with your position: You're not interested in rates going up. You are interested in lower-cost technology.

That's the end of my questions. I really appreciate your coming here today.

Mr. Colin Anderson: Thank you.

The Acting Chair (Mrs. Amy Fee): You still have about two minutes left, if you have any other questions.

Mr. Peter Tabuns: No, we're fine.

The Acting Chair (Mrs. Amy Fee): Thank you. If you do have any written submissions, the deadline is tomorrow at 6 p.m.

Mr. Colin Anderson: Okay, thanks very much.

MS. RUBY MEKKER

The Acting Chair (Mrs. Amy Fee): Okay, do we have Ruby on the line?

Ms. Ruby Mekker: You do.

The Acting Chair (Mrs. Amy Fee): Hi, Ruby. This is MPP Amy Fee, and I am currently sitting in as Chair in the

committee. You do have 10 minutes to give your statement, and then we will have some questions at the end from the opposition and government.

Earlier on, we did have someone on the line and they were very quiet, and at different points it was hard to hear them, so I'm just going to ask if you could speak up. I may interrupt you if we do have a problem hearing you.

Ms. Ruby Mekker: Certainly.

The Acting Chair (Mrs. Amy Fee): Thank you.

Ms. Ruby Mekker: I did send copies of what I'm going to say to Toronto this morning; I hope you all got them.

My name is Ruby Mekker. I live at 14117 Concession Road 1-2, Finch, Ontario.

The Acting Chair (Mrs. Amy Fee): Ruby, just to interrupt you—just so you know, we did receive your written submissions.

Ms. Ruby Mekker: Oh, good. Okay. I'm basically just going to read it, and then if you have questions, please feel free.

The democratic rights of the people of Ontario have been trampled for the past 14 years because of the Green Energy Act. In reviewing our Environmental Review Tribunal experience following the approval of the Nation Rise Wind Farm project by Mohsen Keyvani, director, section 47.5 under the Environmental Protection Act, environmental approvals branch, May 4, 2018, one and one half business days before the writ was dropped, I would like to make three recommendations.

The ERT, for myself and community residents, was an opportunity to fight for our safety and our democratic rights, knowing everything is and was stacked against us by our own government. The process only served to increase our frustration and anger. There was one person chairing the procedure, one person who is required to make the final decision that will impact almost 7,000 residents. And, please note that there were less than 30 landowners who signed leases.

Presently, Bill 34, section 142.1(2), reads: "Written notice served upon the director and the tribunal within 15 days after a day prescribed by the regulations...." This is a short time to learn, understand and file an appeal notice. The average resident of Ontario is not experienced or prepared to understand the technicalities of an ERT, and is not a lawyer or a lobbyist.

The cost: The average resident of Ontario does not have the financial resources or expertise of industries. There should be a government department to help the residents of Ontario—to provide experts. Why should individuals have to depend on others who have experienced similar circumstances with the same result—appeal denied? Therefore, I recommend a minimum of 30 days to serve written notice.

Presently and still, Bill 34 reads:

"Grounds for hearing

"(3) A person may require a hearing under subsection (2) only on the grounds that engaging in the renewable energy project in accordance with the renewable energy approval will cause,

“(a) serious harm to human health; or

“(b) serious and irreversible harm to plant life, animal life or the natural environment. 2009, c.12, Sched. G, s.9.”

We, the residents and Concerned Citizens of North Stormont, knew we did not stand a chance. We knew, like so many other failed Environmental Review Tribunals, that we could not definitively prove that the Nation Rise wind project “will cause serious harm” until after the harm was done.

The residents and municipal council did not consent to being exposed to the risk factors of living with industrial wind turbines, and this was communicated to both past and present governments numerous times.

The “experts” could only speak to their area of expertise, so the overall interrelated impact could not be clearly identified for the chair of the tribunal.

The results of similar approvals in other parts of Ontario, Canada and the world were not considered pertinent because we could not prove “will cause” in the site location.

It did not matter that the residents were trying to protect the health, water and environment to protect the community for the future. It did not matter that the site is documented as having marginal winds—Canadian Wind Atlas; is located on highly fragile sources of water for eastern Ontario; has a high content of Leda clay; is on the west Quebec seismic fault, and this area has experienced landslides and earthquakes of 5.0 on the Richter scale—all facts not included by proponent. We could only speak of loss of income as it pertained to health issues and stress.

Here, I would like to tell you of our neighbour, whose property adjoins our son’s dairy farm—previously ours—at the township boundary. The neighbour operates a very productive dairy farm, which has grown from supporting one to now three families. The barn, housing over 200 head of dairy animals, is approximately 100 metres closer to proposed turbine 56. Any barn expansion is only possible to the north, that much closer to the turbine. T56 is 730 metres to the centre of the house. It has been proven that animals experience the same health issues as humans.

The impacts of wind turbines do not stop at a township boundary. Permitting this potential damage to an innocent resident is wrong. As the legislation still reads, we cannot prove “serious harm” to health because it has not yet happened, but the worry of the project approval is causing great stress and many sleepless nights for many residents.

Our efforts at the ERT were demeaned by both the proponent’s lawyers and the then-Ministry of the Environment lawyer, who was frequently observed being friendly with the proponent’s lawyers. The Ministry of the Environment’s lawyer told me personally that if he received a new directive to protect the people and the environment rather than the director who conditionally approved the project, he would be able to shut the ERT down. But even though the present government was advised, the new directives were not and have not been received. The ERT continues, with the final submission in Toronto on November 22.

The questions remain:

Why does the harm have to have taken place, the damage done and potentially/probably irreversible damage occur?

When will “serious harm” which has already occurred in other parts of Ontario/Canada/the world be admissible and taken into account?

Why, when the residents of Ontario are trying to protect their health, water and environment, are there not non-biased government agencies available to them?

When do health, water and environment take precedence over money?

Therefore, I propose the act to read, “potential/probable harm,” and include, “the proponent be required to prove there will be no harm to human health or to plant life, animal life of the natural environment.”

The third point—and please correct me if I am wrong, but I understand that the Environmental Protection Act, the EPA, is only used at the discretion of the Minister of the Environment. The ministry can choose to use—enforce, or not—the EPA provisions. The last government appeared not to choose to enforce any of the provisions of the EPA with regard to renewable energy. In reviewing the Nation Rise wind approval, I was not able to find any reference to the Environmental Protection Act, other than the issuing authority title.

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The Environmental Protection Act was developed, I understand, to protect the people and the environment of Ontario from “adverse effects,” which, under the Environmental Protection Act, RSO 1990, chapter E.19, reads:

“1(1) In this act....

“‘adverse effect’ means one or more of,

“(a) impairment of the quality of the natural environment for any use that can be made of it,

“(b) injury or damage to property or to plant or animal life,

“(c) harm or material discomfort to any person,

“(d) an adverse effect”—

The Acting Chair (Mrs. Amy Fee): Ruby?

Ms. Ruby Mekker: Yes?

The Acting Chair (Mrs. Amy Fee): Sorry to interrupt. You have just under a minute left.

Ms. Ruby Mekker: That’s fine. I’m almost done. Thank you.

You people can read that in the act. This has not happened in Ontario. I will quote Mr. Shawn Drennan, who wrote in an email to me just yesterday, “We believe, if one is/was to look at the turbine sited at the CAW centre in Port Elgin, there have never been noise consequences from the EPA back to the CAW under noise enforcement, even though we believe the turbine has been shown to be out of compliance on many occasions.

“The noise consultants hired by the owner (CAW) could never seem to get an accurate reading, same as in the Enbridge project. Here in K2, to get noise testing completed you will first need to sign a gag clause saying you will never provide the data to an outside source for verification (if they would give it to you at all) or tell anyone the outcome of the testing results.

“No one wants”—

The Acting Chair (Mrs. Amy Fee): Ruby, I'm going to have to stop you there, so we have time for questions.

Ms. Ruby Mekker: I just wanted my third point, then. Therefore I recommend that the Environmental Protection Act include and enforce subsection 1(1).

The Acting Chair (Mrs. Amy Fee): Okay, thank you, Ruby. We're going to start with the opposition. You have five minutes. Mr. Tabuns.

Mr. Peter Tabuns: I appreciate the presentation, Ms. Mekker. We have no questions.

Ms. Ruby Mekker: Mr. Tabuns, I have frequently written to you. I applauded you when you took the contaminated water sample into the Legislature and then were escorted out because you brought in a toxic substance. And yet, at that time, the Liberal Party maintained that it just had particles in the water and therefore could be—

The Acting Chair (Mrs. Amy Fee): Thank you, Ruby. We are going to move over to the government side. You have five minutes. Mr. McDonell.

Mr. Jim McDonell: Yes. Jim McDonell from Stormont–Dundas–South Glengarry. Thanks, Ruby. Have you got a couple of points you want to make, just to finish off?

Ms. Ruby Mekker: Yes, I do. North Stormont was an unwilling participant since day one, and any actions our municipality has taken to date have been in good faith under the compulsion of the Green Energy Act. Therefore, with the repeal of the Green Energy Act, municipalities must be given the ability to reassess the decision to have wind turbines in their municipality altogether, without any threat of legal action on behalf of the proponent, since the initial contract was essentially with the province through the Green Energy Act, not decided by the municipality. This should be especially appropriate for North Stormont given that no building permits have yet been approved or issued.

If I have time, Jim, for one other comment: The AMPCO representative that I listened to talked about reliable power. Wind power is totally unreliable, intermittent and much more costly than our hydro power, which the former government didn't even include as green.

Mr. Jim McDonell: Okay. Just a couple of points, I guess, of clarification: You talk about North Stormont being an unwilling host, but they actually followed up with a council resolution designating themselves as an unwilling host.

Ms. Ruby Mekker: This was reported to Parliament, and we did a petition—you presented it to the Legislature—with over 2,000 signatures.

Mr. Jim McDonell: Yes. I guess that's particularly telling, considering that Nation Rise had offered the township something over \$550,000 a year for the 20 years of the project.

Ms. Ruby Mekker: It's only \$300,000.

Mr. Jim McDonell: Now, but I mean originally, during the proposal. If they had agreed to—

Ms. Ruby Mekker: They didn't offer anything. It was the other bidder on the project that offered them something.

Mr. Jim McDonell: But the township turned down that subsidy.

Ms. Ruby Mekker: Yes, they did, because we are on such a major water source for basically all of eastern Ontario. And the plans actually show turbines built directly on top of the aquifers.

Mr. Jim McDonell: I think the other thing that's different about this location is the soil and the actual experience with mudslides over the past 20-some years. I remember around Lemieux, where the houses actually slid into the—

Ms. Ruby Mekker: Into the river. A man was driving his truck along the road and the whole road just slid off.

We've also had earthquakes. I was standing on a ladder in a gym, and that ladder shook for well over a minute.

Mr. Jim McDonell: I think the thing we've heard in the environmental review from experts talking about the caution that should be held around the soils in that location—and it was proven in the mudslides over the years.

Ms. Ruby Mekker: My comment to that would be: Ontario can't afford it and Ontario doesn't need it, so why would you put this area at risk?

I firmly believe my recommendations. We need longer than 15 days to prepare. I think the onus should be on the proponent to prove the safety of the project, and it should definitely include the environmental regulations. They must be enforced. If you had an opportunity to read what I sent—they're still not being addressed.

I firmly believe that the government must recognize and implement their fiduciary duty to protect the health and safety of the people, animals, water and environment of Ontario. Mankind cannot live without water, and this project definitely puts our water at risk.

The Acting Chair (Mrs. Amy Fee): Just over 30 seconds left.

Mr. Jim McDonell: Just 30 seconds left, Ruby. Is there anything else you want to quickly add?

Ms. Ruby Mekker: Just that I encourage any MPP to go to Sygation Ontario. They will very quickly see the intermittent, unreliable source that wind provides, and the high cost. They'll also see that we're completely, Mr. Tabuns, underutilizing our hydro power. Our dams and our generating facilities are not working anywhere near to capacity. I urge you to look into it.

The Acting Chair (Mrs. Amy Fee): Okay, Ruby, I'm going to have to stop you there. Thank you, Ruby.

Mr. Jim McDonell: Thank you for all your help, and your work on—

Ms. Ruby Mekker: Thank you very much. I appreciate the call.

The Acting Chair (Mrs. Amy Fee): Ruby, just a reminder, if there is anything additional that you want to submit to the committee, you have until 6 o'clock tomorrow.

Ms. Ruby Mekker: Thank you very much. The one comment about the North Stormont, I will send.

The Acting Chair (Mrs. Amy Fee): Sorry, I'm going to have to stop you there. Thank you.

Ms. Ruby Mekker: You're welcome.

The Acting Chair (Mrs. Amy Fee): I do call this meeting now adjourned until tomorrow at 3 o'clock.

The committee adjourned at 1758.

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Also taking part / Autres participants et participantes

Mr. Jim McDonnell (Stormont–Dundas–South Glengarry PC)

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Mr. Eric Rennie

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Mr. Michael Vidoni, research officer,
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