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**Monday 4 April 2016**

**Journal  
des débats  
(Hansard)**

**Lundi 4 avril 2016**

**Standing Committee on  
General Government**

Climate Change Mitigation  
and Low-carbon Economy  
Act, 2016

**Comité permanent des  
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Loi de 2016 sur l'atténuation  
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LEGISLATIVE ASSEMBLY OF ONTARIO

ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

**STANDING COMMITTEE ON  
GENERAL GOVERNMENT**

**COMITÉ PERMANENT DES  
AFFAIRES GOUVERNEMENTALES**

Monday 4 April 2016

Lundi 4 avril 2016

*The committee met at 1403 in committee room 2.*

**CLIMATE CHANGE MITIGATION  
AND LOW-CARBON ECONOMY  
ACT, 2016**

**LOI DE 2016 SUR L'ATTÉNUATION  
DU CHANGEMENT CLIMATIQUE  
ET UNE ÉCONOMIE SOBRE EN CARBONE**

Consideration of the following bill:

Bill 172, An Act respecting greenhouse gas / Projet de loi 172, Loi concernant les gaz à effet de serre.

**The Chair (Mr. Grant Crack):** Good afternoon, everyone. I'd like to call the meeting to order. This is the Standing Committee on General Government. This afternoon, we're here to hear the public presentations on Bill 172, An Act respecting greenhouse gas.

As well, just for information for the committee, I'm sure you all remember that on the 21st of March, it was agreed that we would have presentations of 10 minutes, followed by up to nine minutes of questioning, which is a small change from the normal process that we use here.

I don't believe there would be any questions or comments at this time.

**ENVIRONMENTAL DEFENCE**

**The Chair (Mr. Grant Crack):** I would be more than happy, on behalf of the committee, to welcome, from Environmental Defence, Mr. Keith Brooks with us this afternoon. He is the director of the Clean Economy Program.

Welcome, sir. You have 10 minutes.

**Mr. Keith Brooks:** Thank you for having me. I'm Keith Brooks. I'm with Environmental Defence, and I'm the director of our Clean Economy Program. I'll be sharing some of our thoughts on Bill 172. I'll add that a lot of the points I'm making today will also be found in a written submission that the Clean Economy Alliance will be making to this committee, as well. The alliance is an organization, now 90 members large, reflecting a very broad cross-section of folks in Ontario—representatives from businesses, industry associations, labour unions, farmers' groups, health advocates and environmental organizations.

In general, the alliance and Environmental Defence are both very supportive of the Ontario government's

commitment to develop and implement a climate change strategy and to move forward with a cap-and-trade program. It's our opinion and belief that reducing emissions will bring many benefits, including cleaner air, improved public health, more jobs and business opportunities. Many of my comments today will focus on some aspects of the bill that we believe need to be strengthened, but I wanted to be clear that, on the whole, we believe this is a very sound approach to tackling climate change and we're glad to see Ontario pursuing this course.

Among other things, we'd like to see that the act enshrines Ontario's climate change reduction targets into law. We think these are very good targets, and it's good to have them put into law. I'm glad to see that those targets cannot be raised without opening up that act.

We're also glad to see that the cap is going to be set with reference to the targets and glad to see, again, that the revenue raised from the auction of permits is going to be put back towards reducing emissions.

At Environmental Defence, we understand the need for there to be some free permits in the system to address issues around competitiveness and what's called leakage, but we're concerned with the number of free permits that the province is intending to issue under this act right here. We'll have some more detailed comments about that in the future and around the regulations that will be passed under this act, as well. In general, though, we would support that free permits need to be put out there, but they need to be targeted, transitional and temporary. These don't appear to be of that variety.

With respect to this act, there's a reference that these free permits are to be a transitional measure, and I think that some more specificity around what that transition might look like and when we might expect it to proceed would be very helpful for understanding that transition, not only for the environmental aspects, but also for businesses and everybody else concerned with the carbon market that this act will create.

As I said, we're very happy to see that the province has committed to reinvesting the proceeds back into climate action. It's our belief that these revenues will be critical to fighting climate change. In fact, the alliance that I spoke of earlier took a very firm position on the matter and was very much in favour of the fact that the system be revenue-positive and that the monies be put back in toward reducing emissions. That is because a number of complementary actions and policies will need

to be taken in order for Ontario to meet its 2020, 2030 and 2050 carbon reduction targets.

Polling also shows greater public support for cap-and-trade when the revenue is reinvested wisely into cutting carbon. We also know that if that money is spent well, not only can it reduce emissions, but it can also return economic benefits to the people of Ontario. Similar programs in the States where they've reinvested money into efficiency, for example, have returned net economic benefits, created jobs etc.

But we do have a few concerns with how that fund is structured right now. In particular, we noted that the previous Greenhouse Gas Reduction Account was a special-purpose account under the Environmental Protection Act, but the account in this act is not a special-purpose account. We have some questions as to why that was changed and why this account is part of general accounts, rather than a special-purpose account.

It's our very firm belief that the revenues must be used wisely and transparently on carbon reduction if we hope to hit those targets and if we hope to sustain public support in the cap-and-trade program over the long term. We think that a special-purpose account would better guarantee that that would be the case.

We would also support some of the language to be tightened up concerning the use of some of the revenues in that Greenhouse Gas Reduction Account. For example, the bill now says that "amounts not exceeding the balance" could be charged to the account; we would prefer to see the bill say that it would be "amounts equal to the balance." California, I believe, has some money sitting in their cap-and-trade account that they haven't spent back out. We'd like some guarantees that Ontario will reinvest that money in a timely manner.

We also believe that some of the language concerning the use of proceeds could use some strengthening. The language in the act right now says that it can be spent on initiatives that are "reasonably likely to reduce, or support the reduction of, greenhouse gas and costs relating to any other initiatives that are reasonably likely to do so." We think that this leaves it potentially open to not always making the best decisions on that. Things that could reasonably support greenhouse gas emissions could be quite a broad list of things.

We would prefer that the act stipulate that the proceeds be used to fund or reimburse costs for things that are directly incurred in connection to initiatives that have a measurable carbon reduction impact.

In addition, we'd like the act to stipulate that these are for new initiatives that are not yet funded and not yet committed to by the province of Ontario. We noted that the Financial Accountability Office recently questioned as to whether or not the act was going to stipulate that the funds were going toward new endeavours. We think that, given the trajectory we're on right now, we need new funding to produce new initiatives to lead to new reductions and would strongly encourage the act to specify that this is for initiatives and expenses incurred after January 1, 2017, once the cap-and-trade program is up and running.

As a general comment, as well, we'd like to see more information publicly disclosed about the use of the funds. The requirements for an annual report are good, but the report needs more detail and it should include some projections of emissions reductions as a result of initiatives, a timeline of when the reductions are expected to be achieved, a per-dollar assessment of the costs of reducing emissions via that initiative, and also some other concerns; for example health, safety, environmental and socio-economic impacts of the various initiatives.

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I'd also add that we would support the creation of a multi-year cap-and-trade reinvestment program. Quebec has a three-year plan to guide the disbursement of their revenues, and that's an approach that Ontario might want to follow as well.

We also have some questions about the fact that the Treasury Board is ultimately the decision-maker on how that money is spent. We know the Treasury Board is an important body, of course, but they may lack the expertise needed to guide decision-making around investing in climate change mitigation. Our preference would be for an independent body to oversee these monies, but at the very least we encourage the province to embrace a very high degree of transparency concerning the disbursement of funds and the decisions made around the use of that money.

We note that the act requires the Ministry of the Environment and Climate Change to make a report to Treasury Board, but the requirements concerning the contents of the report could use a little bit of work still. For example, the act lists a number of things the minister "may" consider in making that report. We would think that that should be strengthened to say that the minister "shall" consider these things. We would also add that that report that the minister makes to Treasury Board would be a report that the public would enjoy seeing as well.

We note that there is a requirement for a public annual report, but the contents of that report are not the same as the report to Treasury Board, and we think that those two reports should be the same. The public needs to understand the rationale for the projects that have been funded and the options that were put before Treasury Board, and understand how it is that they arrive at their decisions.

We would also suggest that the annual report should show, ultimately, what actions were funded from the list of endeavours in the report the minister makes to Treasury Board so that the public can understand the rationale for what was done.

As a final point, we would suggest that the Environmental Commissioner should have a role in overseeing this act and in particular the revenues and the greenhouse gas account and the auctions etc. The Environmental Commissioner has the requisite expertise to report on this file and would be an appropriate body to handle this. We know that there are lots of other auditors in Ontario who keep track of a lot of things, but we just question as to whether or not they have the right expertise to be managing or assessing projects and initiatives that are intended to reduce emissions.

I'll conclude just by saying thank you very much for having me present to you today. I want to reiterate that although some of these comments have been critical, we're very supportive of this approach to fighting climate change. We're very, very happy to see Ontario going forward down this path and happy with many aspects of the act, including the fact that it's comprehensive in nature.

I can take any questions from you.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Brooks. We appreciate it.

It's within the time limit, so we'll start with the official opposition, Mr. McDonell. Three minutes.

**Mr. Jim McDonell:** Thank you for coming out today. I understand that previously you argued against energy-intensive and trade-exposed industries to be excluded in the first round. What would the impact of these industries be by moving them to be included off the start?

**Mr. Kevin Brooks:** We've always argued that the legislation should cover as many emissions in Ontario as is possible, but we did understand that there is a need, sometimes, for there to be free permits to deal with companies that are energy-intensive and trade-exposed and have a high leakage risk.

The issue, however, is that not all companies are necessarily trade-exposed and energy-intensive. So we've always suggested that it should be a small share of companies that receive these permits, and they should receive permits based on an assessment that has been made as to the legitimate risk around trade exposure. But we've never said that those companies should not be covered and we are very happy to see that they are covered.

**Mr. Jim McDonell:** I guess we see us moving ahead of our neighbours to the south and that concerns us that it will lead to the uncompetitive cost that really, as we've seen over the last 12 years, have driven a lot of our companies out of this province and out of this country in some cases. Do you see that not being an issue, or would we not be better off to work with our neighbours and come up with a comprehensive plan that would entice or include at least the three big economies of the US, Canada and Mexico?

**Mr. Kevin Brooks:** Well, I think we are working with our neighbours: California and Quebec, for example, and Manitoba now as well. There are lots of discussions happening with other US states. Of course, we have a national federal conversation between our Prime Minister and the President of the United States, and conversations as well, I gather, with Mexico about also joining a cap-and-trade system.

It's our opinion that the impacts of this cap-and-trade system will be very minimal, in fact, upon businesses' bottom line, because at \$18 a tonne, it's just not going to be that significant. It's not a high price. We've looked at it and it would be about 1% or 2% perhaps, probably less than that. That's a very small fraction of cost. By comparison, the dollar, for example, has moved by 30 cents—by 30%, in fact—over the last many years. The

fact that the dollar is low is in our favour on this one and is helping the competitiveness of companies, and cap-and-trade will have a marginal impact in comparison to things like that.

**Mr. Jim McDonell:** But we're not really moving with our neighbours. Sure, California is a distant neighbour, but when you look at the states that we're actually competing with for our industries—Michigan, Ohio, New York state—these are industries that are taking away our manufacturing. Of course, we don't see them moving ahead and, if we were, we would have a much more efficient process if we were to work with them to have something that was similar so it didn't really matter where you were situated. I know that our dollar has dropped, but of course we all know what happened when the dollar was at par; it just accelerated the amount of gap—

**Mr. Keith Brooks:** I'm sure you'll hear from businesses today—

**The Chair (Mr. Grant Crack):** Quickly.

**Mr. Keith Brooks:** —and I think most of them will tell you that they, in fact, support the province in taking this action to deal with emissions. Many businesses that are involved in the alliance, even some of them that are energy-intensive and trade-exposed, have said that they support Ontario in doing this. That's their view. But they're better able to speak of that than I am.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Tabuns?

**Mr. Peter Tabuns:** Thank you, Chair, and thank you very much, Mr. Brooks, for being here today. You noted at the beginning that your remarks reflect those that will be presented later by the Canadians for Clean Prosperity—

**Mr. Keith Brooks:** No, sorry. The Clean Economy Alliance.

**Mr. Peter Tabuns:** The Clean Economy Alliance.

Could we have a copy of your remarks? You have a lot of substance in there that would be useful.

**Mr. Keith Brooks:** These are a bit rough, that's all, so I just want to put a bit of polish on them, but I will send them in to you, for sure.

**Mr. Peter Tabuns:** Since we have to put our amendments in this week, the sooner you send them in, the better.

**Mr. Keith Brooks:** Yes.

**Mr. Peter Tabuns:** The question of structuring transition away from free permits: Have you thought about how that structure could be set up?

**Mr. Keith Brooks:** I think other jurisdictions gave an indication of how the free permits were going to diminish over time for the different leakage categories that they had assessed. Ontario, of course, did categorize the companies into high, medium and low leakage risk, which is a factor of energy intensity and trade exposure. Giving some sense of how those permits are going to be withdrawn for those different categories would make sense. California said that in subsequent compliance periods medium-leakage companies are only going to get

80% of free permits, or 75%, and low leakage risk will only get 50%. Something like that would give a sense of how the province intends to go forward on this.

We would also suggest that they might be inclined to work with the federal government around some measures that might be able to be put in at the national level to deal with any implications with trade law and how we can protect domestic industries etc.

**Mr. Peter Tabuns:** You also spoke about the language with regard to investment of the Greenhouse Gas Reduction Account funds, talking about investment in projects that would reduce greenhouse gas emissions or were reasonably likely to reduce greenhouse gas emissions. I fall in your camp: I think that they should be spent directly on carbon reduction. Where's the cut-off, in your mind? For instance, the minister has been very committed to putting money into setting up charging stations for electric vehicles. The calculation of the reduction would be pretty difficult at this stage. Do you have a sense of how you would split between direct and longer-term carbon reduction of investments?

**Mr. Keith Brooks:** I don't have a specific suggestion for you today, but that's why we would suggest creating a long-term investment plan. It would help guide that decision-making and help split priorities between near-term and longer-term initiatives that should be supported. We think that there should be a high degree of transparency around all of these matters and a lot of evidence to support the decisions that are made. We can assess these things as we go in a kind of iterative manner.

**Mr. Peter Tabuns:** You had also noted that the funds that are collected should only be spent on projects that start after January 1, 2017.

**Mr. Keith Brooks:** Yes.

**Mr. Peter Tabuns:** Is there a particular reason you wouldn't include 2016, for instance?

**Mr. Keith Brooks:** This fund is to capture monies that are raised through the cap-and-trade system, and that system does not start until January 1, 2017. So it's really speaking about things on a go-forward basis. The important point is that this is funding new initiatives that have not yet been announced. We know that the initiatives that have been announced to date will not put this province on track to meet the targets, so the money needs to be new and leading to new reductions.

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**The Chair (Mr. Grant Crack):** Thank you very much. I appreciate it.

We'll move to the government side. Mr. Potts?

**Mr. Arthur Potts:** Thank you very much for being here. I appreciate your advocacy in this field over the years, and your association's.

I, too, am very interested in the notion we talked about, of projects that have not previously been announced. What is in the works now that you are very supportive of that will reduce greenhouse gas emissions, and what do you think we should be looking for down the road?

**Mr. Keith Brooks:** The province's investment in building transit will obviously have some impacts on

greenhouse gas emissions reductions, but we know that's a very expensive endeavour. While we support it, we would not like to see a lot of the cap-and-trade money go towards transit projects that have already been announced and are already in the plan.

**Mr. Arthur Potts:** You talk about Treasury Board overview. I think that's very important—the notion that you're not convinced that they have the expertise and the authority. The reality is, the Treasury Board is the sign-off, but they're taking direction and recommendations from the ministry, who are experts in the field and who put the programs forward, with the review of caucus and such like that. Would that not give you the confidence that the projects that were being put forward under the climate action plan would be ones that would meet the tests?

**Mr. Keith Brooks:** I think that could give the confidence, yes. That's the point I was trying to make. We don't think the Treasury Board has that expertise, but if Treasury Board is going to be tasked with disbursing those funds, they need to have good information in front of them.

Also, I think the public needs to understand the decisions that are ultimately made by Treasury Board, in terms of what to fund.

An example: In California, they have the California Air Resources Board, which is seen to be a very credible organization. It has the requisite expertise on there. They make a report to the financial administrator in California, as well, about the disbursement of funds. We think that looks like a system that works well, and we would encourage Ontario to do something similar to that.

Make sure that there is a lot of evidence going into supporting what should and should not be funded, and that there's lot of transparency and clarity, both on the possibilities put before Treasury Board, and also on the decisions that were arrived at by Treasury Board, based on the evidence they had.

**Mr. Arthur Potts:** There are those who are talking about the fairness piece in climate change. There are some communities that are going to be hit disproportionately hard by an increase in fuel costs, for instance, and some would advocate that we should take some of the funds and just cut cheques to offset increased gas prices. Would that be a climate change use of proceeds that you'd like to see?

**Mr. Keith Brooks:** We're definitely cautious of the impacts that could be felt unevenly, especially to low-income communities and to workers who might be affected by the transition etc., but we wouldn't necessarily like to see direct relief from the costs of carbon. For one, we don't think the costs are that high. It's not a lot of money.

Regardless, we think that monies could be better invested in helping people transition to this low-carbon economy that we're trying to go toward. The same principle applies to industry and businesses, in fact. Instead of giving people relief from the carbon price, give them help complying with it. Give them help in reducing

energy use and energy costs, and reducing emissions. That's a better way to drive more change and to help deal with that issue.

**The Chair (Mr. Grant Crack):** Thank you very much. I appreciate you coming before our committee, Mr. Brooks. Have a great afternoon.

#### ONTARIO ENERGY ASSOCIATION

**The Chair (Mr. Grant Crack):** Next, from the Ontario Energy Association, we have the president and chief executive officer, Mr. Huggard; and vice-president of ICF International, Mr. Rotherham. We welcome you both, gentlemen. You have 10 minutes.

**Mr. Bob Huggard:** Good afternoon. Thank you for allowing the Ontario Energy Association to present our positions on Bill 172 to you today. I'm Bob Huggard, the president and CEO of the OEA. I'm joined by Duncan Rotherham, our technical expert, who is the vice-president of ICF International.

As many of you know, the OEA is an advocacy association that represents Ontario's electricity and natural gas industries. We have a diverse membership and represent Ontario's energy leaders that span the full diversity of the energy industry. OEA members have come together to provide our collective advice to the government regarding Bill 172 so that our diverse and expansive industry experience and expertise can be utilized to improve, clarify and strengthen the functioning of Ontario's cap-and-trade program.

Bill 172 marks an important moment for Ontario as the province works to address and mitigate climate change and to continue the province's transition to a low-carbon economy.

The OEA endorses the purpose of Bill 172 and believes that industry, and indeed every Ontarian, has a role to play in addressing climate change.

We are here today to provide you with recommendations that will facilitate the smooth rollout of the cap-and-trade program and ensure that the program meets the government's primary objective of reducing greenhouse gas emissions.

Our first recommendation is about making sure that cap-and-trade revenues are used for the right purposes. In principle, the OEA endorses Ontario joining the Western Climate Initiative, or WCI, but we also need to be sure that participating in a broader cap-and-trade market meets one of the key purposes of the program, which is to assist Ontarians to transition to a low-carbon economy.

Our concern arises because the California 2018 to 2020 carbon market appears to have ample allowances available for auction, but the Ontario market will likely be intrinsically short on allowances. Ontario businesses would therefore be buying carbon allowances from California, thus increasing the likelihood of a transfer of wealth from Ontario to California. Quite simply, this transfer of funds to California would mean less money available for reinvestment in Ontario's transition to a low-carbon economy.

To mitigate this potential problem, the OEA suggests that the government negotiate arrangements so that some or all of the monies paid to other WCI members be returned to Ontario for domestic reinvestment to the Greenhouse Gas Reduction Account.

On a similar note, the government must ensure that the administration and enforcement expenditures that will be recovered from the cap-and-trade revenues are minimized and do not result in inappropriate cost shifting from ministry budgets to the Greenhouse Gas Reduction Account.

Our second recommendation is about timelines. The OEA recommends that specific timelines be published for key components of the cap-and-trade program. In order for industry to effectively participate in the cap-and-trade program, government must provide context, modelling and analytics related to the market. Participants need these important details in order to effectively engage with the cap-and-trade program. In the bill's current form, there is no commitment to providing key content with specific timelines. We therefore recommend the following timelines be adopted so the OEA members can align their efforts with the province's plans.

First, the public notice of the baseline 1990 calculation amount should be made available to the public no later than six months before the start of a compliance period. Second, the action plan should be laid before the assembly no later than six months before the start of a compliance period. Lastly, the GGRA annual report should be released by March 31 following the prior fiscal year, beginning in March 2018 for vintage year 2017.

Getting these timelines in place will give industry the concrete information it needs to prepare for the launch of the cap-and-trade program.

Our third recommendation is that there must be adequate allowance available for fuel distributors to access. Specifically, in the event Ontario does not join the WCI or is delayed in joining, it is unclear that fuel distribution companies will have access to enough allowances at auction to meet their compliance obligations. Fuel distributors are only able to influence customer behaviour by passing through the cost of purchasing allowances. Unlike industrial emitters, your natural gas distributor can't just shut off supply to your home if it is unable to obtain enough allowances to cover the emissions from your furnace or your hot water tank. Without adequate allowances, the fuel distributors will be placed under significant pressure from their customers. Fuel distributors need to be able to buy allowances and then pass those costs on to customers if we want to see behavioural changes.

The same dynamic is true of electricity generators. Charging the price of carbon to end-use consumers is the primary means of modifying their behaviour. However, some of the older electricity generation contracts do not allow generators to recover cap-and-trade costs from consumers. Without that pricing, though, little behaviour modification can be expected. It is therefore of the utmost importance that the ministry work with the IESO

and the Ontario Electricity Financial Corp. to ensure that all electricity generation contracts allow for recovery of cap-and-trade compliance costs.

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Our fourth recommendation is made in the same vein as our first one. When it comes to offsets, we need to ensure that offset-related emission reduction credits are Ontario-centric in order to meet the stated purpose of Bill 172 and avoid a transfer of wealth outside Ontario. Paying for offsets created outside Ontario will not result in the deployment of capital to our local green economy, nor will it reduce emissions in Ontario.

The OEA would like the opportunity to engage with government on developing offset regulations with the goal of maximizing economic benefits for Ontario, and ensuring material offset supply, in order to maximize emissions reductions in areas of the economy not directly covered by cap and trade.

Last, the OEA recommends that government recognize the benefits of combined heat and power, or CHP, and ensure that cap-and-trade rules enable continued growth of combined heat and power systems. CHP, when designed well, is an efficient use of natural gas to generate both electricity and usable heat or steam at the same time. Integrated cogeneration has been identified as an integral component of the LDCs' plans to meet their assigned conservation and demand management, or CDM, targets.

For years, Ontario has been providing incentives to implement cogeneration, due to its net benefit to the provincial electricity grid and total provincial emissions. CHP, as a key component of many electricity LDCs' CDM plans, has already been approved by the IESO and is in the process of being implemented.

Unfortunately, the proposed treatment of CHP facilities under cap-and-trade would make many of the planned projects less feasible and, in some instances, uneconomical. The OEA has worked with the government to provide ongoing counsel on the effective use of CHP. The current cap-and-trade program, as structured, puts the implementation of CHP and the success of many electric LDCs' conservation plans at significant risk.

The OEA therefore recommends that government reconsider how CHP will be addressed under the cap-and-trade program to help ensure that CHP can continue to serve as an electricity conservation tool that, owing to its inherent efficiency, also reduces total natural gas consumption. In the alternative, the government should direct the Ontario Energy Board and the Independent Electricity System Operator to take such measures as are necessary and sufficient to put the LDCs in the positions they would have been in, but for this change in the government's CHP policy.

In closing, I'd like to reiterate that the OEA supports the purpose of Bill 172 and believes that our five key recommendations will bring the cap-and-trade program even closer to meeting its objectives within Ontario's broader climate change strategy. Our recommendations are both feasible and necessary, given the scope, mandate and objectives of Bill 172.

The important considerations that we have raised here will ensure that industry and the public have confidence in the process and confidence in the overall outcome. As Ontario's energy voice, we will continue our advocacy for our members in order to present a responsible, effective and efficient process and plan for Ontario's cap-and-trade program. Cap-and-trade has tremendous potential, but it must be done right. This is a long-term program that will impact all Ontarians, so we need to ensure that we get all the considerations right at the outset.

We look forward to continuing the dialogue with the government and our other important partners in this process as we work to combat climate change and build a stronger energy future for Ontario.

**The Chair (Mr. Grant Crack):** Thank you very much. We appreciate it.

We will begin with Mr. Tabuns from the NDP.

**Mr. Peter Tabuns:** Mr. Huggard, thanks for being here this afternoon.

I'm going to take a look at some of the amendments you have proposed; in particular, the amendment to section 9, "Same, direct and indirect links." Section 9 says, "A person who imports electricity into Ontario during the period and who satisfies ... other criteria as may be prescribed by regulation."

When I think of imports, I think of imports outside Ontario. Your amendment says that the emissions that are counted are the ones that are emitted in Ontario. Can you explain your reasoning here and your understanding of what is in section 9?

**Mr. Bob Huggard:** One of our considerations is for the manufacturing sector. For example, and I'll just use their name, if one of our auto manufacturers imports steel that's made in Turkey, it would be very difficult to be able to take into account the emissions that are generated in that steel production in Turkey, add it into the overall costs and expect the automaker to add that into their overall production cost. That is our reference: to try to get a focus on the emissions that are emitted in Ontario so that we can deal with those directly.

**Mr. Peter Tabuns:** But doesn't that open us to greater carbon leakage? We have a steel industry here in Ontario. It will be covered by the cap-and-trade system. Even if they don't have to pay allowances immediately, they'll have to conform to a drop in cap. If we have steel imported from Turkey—they have no caps; in fact, they have very few environmental regulations. There will be an incentive to import steel rather than use domestic steel if we follow what you have set up in this recommendation—if I understand you correctly, and maybe I don't.

**Mr. Bob Huggard:** In the example I was using, we were talking about the automaker in Ontario having to add or pay for the cost of that emission in Turkey, so that would be adding additional costs that are actually not able to change the behaviour in Ontario. That would be our concern, as opposed to leakage of carbon into other jurisdictions around the world.

**Mr. Peter Tabuns:** The bill, as written, requires importers of electricity to account for emissions. I'm

assuming that if they're importing coal-fired power from New York state or Michigan, they would have to account for those emissions. Is that your understanding?

**Mr. Bob Huggard:** Yes, that's correct.

**Mr. Peter Tabuns:** Okay. So that's the thinking through that particular item.

In your presentation, on the CHP: My understanding of CHP is that the increase in emissions is relatively small but the impact in terms of efficiency is dramatically large.

**Mr. Bob Huggard:** It's about 35% more efficient to have a CHP than two stand-alone electricity generation and boiler generation.

**Mr. Peter Tabuns:** Does it not make sense that the increased costs of the carbon credits for the CHP would be more than dwarfed by the efficiency gains, that there would be financial advantage from the CHP operating in a plant?

**Mr. Bob Huggard:** There certainly is an advantage to their efficiency. The costs are going to potentially make some of the CHP that we know today uneconomic, so it won't go ahead.

**Mr. Peter Tabuns:** So it's not throughout the sector, but there will be projects that may be affected.

**Mr. Bob Huggard:** That's correct.

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

**The Chair (Mr. Grant Crack):** Thank you very much. We'll move to the government and Mr. Potts.

**Mr. Arthur Potts:** Thank you, Chair, and thank you, Mr. Huggard, for being here—both of you for being here. A good part of your remarks focused on creating great economic benefits for Ontario, focusing on how we make sure this program doesn't suffer the kinds of leakages outside of jobs, investment and such. I appreciate very much the focus; I think that's an incredibly important piece and part of why transitional allowances are in place: in order to protect those sensitive industries.

I want to focus a bit maybe on your comment on there not being enough allowances for Ontario companies, and your own members, to purchase, resulting in revenues flowing outside of Ontario, to the benefit of other jurisdictions. Of course, in an open market, that's to be anticipated. Is there a problem that there won't be enough allowance generated in the short term because the program is new, or is there something structural that you think we should be fixing here?

**Mr. Duncan Rotherham:** Maybe I'll jump in there. Ontario's current emissions are around 150 million tonnes a year. By 2020, the target would call for emissions in the province to be around 120 million tonnes per year. That would require about 30 million tonnes of reductions to occur within this economy in a rather short period of time. Also, from those 120 million tonnes, you could be free-allocating to industry anywhere from 25 million to 30 million tonnes for free to the large, energy-intensive, trade-exposed industrials.

What's remaining there may be 90 million tonnes. We look at who would need to acquire those—those not given away for free. It would be the natural gas distribu-

tion companies as well as the transport field distribution companies, whose current emissions are well in excess of those 90 million tonnes. The challenge will come that, if you can't create the abatement necessary within those two sectors of the economy, transport and the natural gas energy end-users—the small energy end-users—then you won't have enough allowance in the province. The key scenario there is if Ontario doesn't join with California and Quebec within that time frame, which would considerably change the supply-demand paradigm.

**1440**

Under that scenario where Ontario joins the WCI, they would need to acquire, of course, California allowance to come into conformance if not able to create the abatement domestically. As such, the monies would, instead of flowing to the Greenhouse Gas Reduction Account, flow to California's equivalent of such an account and be available for disposal within California and not Ontario.

**Mr. Arthur Potts:** So the problem, though, in time, would start to rectify itself if people were able to put in emission reduction technologies. So this may be a transitional thing to start off, but it's probably not a long-term issue.

It's certainly our intention, and why we're doing a lot of work with the WCI, to make sure that the marketplace that we're entering into, we're entering into with the right criteria in place.

**Mr. Duncan Rotherham:** Yes, through 2020 there would definitely be—it would appear there would be an Ontario acquisition of California allowance, at least through that time frame.

**Mr. Arthur Potts:** I also want to talk about—

**The Chair (Mr. Grant Crack):** Sorry.

**Mr. Arthur Potts:** Already? Are you sure?

**The Chair (Mr. Grant Crack):** I apologize.

We'll move to the official opposition. Ms. Thompson?

**Ms. Lisa M. Thompson:** Thank you very much, Chair. Welcome, gentlemen. It's a pleasure to hear from you today. We're going to pick up right where you left off. You were talking about Ontario's acquisition of credits, if you will, from California. I'm just wondering if OEA has developed an estimate to show how much money will leave the province of Ontario to purchase allowances in California every year.

**Mr. Duncan Rotherham:** Our scenario would say that between now and 2020, if we look annually—so in the year 2020, when the targets are significantly reduced from where they are today, there could need to be the acquisition of five million to 10 million tonnes of allowance exogenous to Ontario. To turn that into dollars, we would need an estimate of the cost of allowance in 2020 as well. With an assumption that it might be \$20 a tonne—

**Ms. Lisa M. Thompson:** Twenty US dollars?

**Mr. Duncan Rotherham:** Assuming that it might be \$20 per tonne, the need to acquire five million tonnes could mean \$100 million.

**Ms. Lisa M. Thompson:** Yes, okay. Thanks very much for that.

Did you have anything to add to that, particularly?

**Mr. Jim McDonell:** Yes. I had some discussion with industries that are already on the system in Quebec, and they relayed about spending large amounts of money in California—money that's leaving this country. I guess that is something they've seen already, as they jumped in with California before. Any comments on that? Is that what you're really talking about?

**Mr. Bob Huggard:** It's definitely a concern, as we've laid out in our paper. The benefit of cap-and-trade and the approach of putting a price on carbon is that it's a way to enable modifying customer behaviour. If we can invest in technology in Ontario that helps to modify behaviour in Ontario, then we're maximizing the program, in our opinion. Any leakage of money outside of Ontario, buying allowances outside where you cannot bring it back or repatriate at least some of that money, does take away from some of the benefits.

**Mr. Jim McDonell:** I would think that California and Quebec are not our big competitors. The other states and Mexico are our big competitors as far as manufacturing, and yet they're not in this system. That's got to be a big disadvantage.

**Mr. Bob Huggard:** If we don't join WCI and we're not in there, then we are short allowances in Ontario. Right now it would appear, although one of the areas where we're looking for more help from the government is on the analytics and the modelling, that that would put—for example, our natural gas distributors could be in a tough situation where there are not enough allowances domestically available for them to purchase and to be able to modify customer behaviour over time.

**The Chair (Mr. Grant Crack):** Gentlemen, I'd like to thank you for coming before our committee this afternoon. I appreciate it.

#### CANADIANS FOR CLEAN PROSPERITY

**The Chair (Mr. Grant Crack):** Next, from Canadians for Clean Prosperity, we have the executive director, Mr. Mark Cameron, with us this afternoon. Sir, we welcome you to the committee this afternoon.

**Mr. Mark Cameron:** Mr. Chairman, members of the committee, I want to thank you for inviting me to appear on behalf of Canadians for Clean Prosperity.

Clean Prosperity was founded in 2013 and is dedicated to promoting market-based solutions to environmental problems. We believe that a strong, growing, free-market economy can coexist with a clean and sustainable environment. We've been actively involved in these issues across Canada. For example, here in Ontario, we were early advocates of the principle of extended producer responsibility for solid waste, and we were pleased to see many of those principles enshrined in Bill 151, the Waste-Free Ontario Act.

But the issue that we've been most involved with in the last several years has been the question of carbon pricing. In short, our position is that the best way for Ontario and Canada to reduce greenhouse gas emissions

is to put a clear and simple price signal on carbon and let markets determine the best path to reductions, and we believe that the best use of revenues from carbon pricing is to recycle them directly back into the economy as tax reductions for households and businesses.

In general, we've preferred the British Columbia revenue-neutral carbon tax model as the path for other provinces to follow, and that's what we've been advocating, not only in Ontario, but in Alberta and other provinces that have been considering carbon pricing. Consequently, we see both positive and negative aspects in Ontario's proposed cap-and-trade plan and in Bill 172.

While we commend Ontario for putting a price on carbon, we would prefer to have seen a simple tax or fee to a cap-and-trade system, and we would have preferred a commitment to revenue neutrality. We share concerns with some of the other groups who will be appearing before you; for example, concerns about the purchase of California credits through the WCI.

We've made submissions to the Ministry of the Environment and Climate Change as to how we think cap-and-trade can be improved. I don't want to simply reiterate what we've said on other occasions and in our written submissions, but I do want to highlight the reasons why we believe that carbon pricing should be revenue-neutral, since that's one of the areas where I think we differ from a number of the other groups who will be appearing before you.

The theory behind carbon pricing, whether by a carbon tax or cap-and-trade, is not that it should be a means to raise money to spend on other emissions reduction measures. If it is well-designed, the carbon pricing system itself should be the principal way that emissions are reduced. The carbon price creates the economic incentives for businesses and consumers to change behaviour and reduce their emissions by the most efficient, least-cost methods.

The evidence from other jurisdictions, whether British Columbia or European jurisdictions that have experience of carbon pricing like the UK or Finland, is that carbon pricing does work in reducing emissions. But carbon pricing has an economic cost. Whether the price that is imposed is a tax or carbon auction revenues raised from companies, it imposes costs on a wide range of economic activities: transportation, home heating, industrial production or electricity generation. Indeed, putting a cost on emissions-intensive activities is the whole point of carbon pricing, to deter those activities or reduce them in the future.

The best way to prevent these costs from being a drag on the economy is to ensure that the revenues are recycled at least as widely as the costs that are imposed. That means, generally, some form of broad-based tax reduction, whether reducing corporate and personal income taxes, consumption taxes or returning money directly to individuals or households through tax credits or rebates. This creates an incentive for businesses and households to move away from emissions-intensive activities and toward activities that reduce their carbon footprint.

In effect, this is what British Columbia has done by imposing a broad-based \$30-per-tonne price on carbon—at least for all combustion emissions—but refunding 100% of revenues raised as tax reductions. In BC's case, this is done through a combination of corporate tax cuts, personal income tax cuts and rebates for low-income households and rural residents.

The economic evidence is that, in doing this, BC has not hurt its economy. In fact, since the carbon tax came in in 2008, BC's GDP growth and employment rate have been equal to, or better than, the rest of Canada, and two major studies that have been done have said that the economic impact in terms of effect on GDP was minimal.

We would like to see Ontario and other jurisdictions follow the same path. Yes, put a price on carbon. Yes, make it as broad-based and transparent as possible. We believe that we should limit the number of exceptions, free allocations or special provisions, and we share the concerns about 100% commitment to free allocations for trade-exposed industries without some greater specification of what these risks are and that it's transitional and temporary.

Yes, we should increase the price over time to reduce emissions further. We are pleased that the Ontario plan is to have a cap that is continually reducing, which will drive the price up over time. But to protect our economy while we do so, we should be reducing taxes broadly across the economy, not targeting spending to certain sectors or geographic areas.

Now, due to low price of \$15 to \$20 a tonne that we're likely to be at for the first years of the program, cap-and-trade will not impose a great cost on Ontario's economy; perhaps \$2 billion or so out of a \$720-billion GDP. But in order to be effective at reducing emissions, carbon prices will have to rise over time. The government has indicated that by lowering the cap, prices will be rising. For Ontario and Canada to meet 2030 reduction targets—37% for Ontario or 30% for Canada as a whole—the price will have to go up, whether it hits \$30, \$50, \$80 or \$100 a tonne. This will generate more revenues and impose greater costs in the economy. Ontarians will not want to see \$5 billion or \$10 billion in additional costs, creating a drag in economic growth and then see that money going to fund greater government spending. We think that Ontarians would want to ensure that most of that money is in fact returned back into the economy as other tax reductions.

#### 1450

Making the system revenue-neutral and guaranteeing that all revenues go to tax reductions is the best way of ensuring that political support will remain for the system, even as the price of carbon escalates.

We recently commissioned a poll by the Innovative Research Group to look at support for revenue-neutral carbon pricing. A poll which was conducted just a couple of weeks ago, March 17 to 24, asked the following question—"Some have suggested that Ontario should address the threat of climate change and reduce greenhouse gas emissions by putting a price on carbon which

is revenue-neutral—which means the same amount the government raises in carbon revenues is refunded with corresponding tax cuts for individuals and businesses." Then citizens were asked whether they would support or oppose this type of revenue-neutral carbon price. The result was that 60% of Ontarians would support revenue-neutral carbon pricing and only 23% would oppose. It's interesting to note that this idea found support from supporters of all political parties: from those who intended to vote Liberal, PC, NDP, or Green.

This speaks to our suggestion that a revenue-neutral carbon price is an important means to ensure that public support remains for carbon pricing across the political spectrum.

Finally, I want to address the question of how carbon revenues will be spent under Bill 172 as it now stands. While we firmly believe the best way to build support for carbon pricing is to return the revenue to taxpayers, we also think it is legitimate for governments to spend on other kinds of programs to reduce emissions. But we think it is critical that public funds are used as efficiently and transparently as possible and we don't think that Bill 172 does that as it now stands.

The bill lays out terms to the proposed Greenhouse Gas Reduction Account, listing a wide variety of projects that could be supported by the account, but our concern is that these criteria are broad enough to support almost any kind of initiative and there is no guarantee of accountability for the use of carbon revenues to actually reduce emissions.

In the recent federal budget, which announced the creation of a \$2-billion low-carbon economy fund, it was stated that "Resources will be allocated towards those projects that yield the greatest absolute greenhouse gas reductions for the lowest cost per tonne." We believe that the government could adopt these kinds of metrics from the provincial Greenhouse Gas Reduction Account. We also support the suggestion of an independent body like the California Air Resources Board or some other kind of independent body that would be monitoring and selecting projects.

There needs to be transparency, accountability and clear metrics to ensure these funds are used as efficiently as possible to reduce emissions. Simply funding pre-existing government spending plans for transit or other infrastructure, for instance, would not be a prudent or transparent use of carbon auction revenues.

In sum, while we commend the government for bringing in carbon pricing, we would have preferred a simple tax to the cap-and-trade system proposed. We believe that making carbon pricing revenue-neutral is the best way to build public support for the program and ensure that it remains focused on its primary goal of changing behaviour and reducing emissions. While we prefer strict revenue neutrality, to the extent that the government does choose to spend on other greenhouse gas reduction measures, we prefer to see greater transparency and accountability and ensure the greatest possible reductions at the lowest possible price.

Thank you for your time. I look forward to your questions.

**The Chair (Mr. Grant Crack):** Thank you very much. You're right on schedule. I appreciate it.

So we shall begin with the government and Mr. Potts.

**Mr. Arthur Potts:** Thank you, Mr. Cameron, for coming in. I appreciate very much your views. You focus much on a fee-and-dividend type of system out of BC, and I know we were lobbied very heavily by citizens for climate change and others who also saw that as being the appropriate way to go. Having said that, that ship has somewhat sailed, as you know.

You do know that the Premier of BC has been opining publicly—but they're not getting the reductions under a fee-and-dividend system that other jurisdictions like California and Quebec are. They're not on target. The problem is that they can't—the monies, when they just go back for individuals or the free-market system, aren't being directed to specific carbon reduction programs. Whereas the system we're envisaging here, if it is adopted, will go to projects that have the best chance of reducing carbon in the most cost-effective way.

I appreciate also your comments on transparency. That is obviously the objective here. The minister's plans, the carbon reduction plan and the Treasury Board plan, will all be very public processes to get at the best programs. I think, as you go down the road, we'll see that working.

What we know—your polling results show that, I think—is that doing it that way is politically palatable but environmentally it's just ineffective. So we have gone down a different route. In view of the system we're in now, what kind of programs would you like to see the monies spent that are raised through the auctions—on reducing carbon impact?

**Mr. Mark Cameron:** Well, if I could just question your premise for a second, I don't think British Columbia would say that their program hasn't succeeded. British Columbia set much more ambitious targets than any other jurisdiction in Canada, and it's unlikely they'll achieve them by 2020, but the studies that have been done have shown that BC has seen about a 5% to 15% per capita reduction in emissions. At least in the initial years of the program, it was highly successful. I think part of the reason it hasn't succeeded in recent years is that after 2012 they froze the price and haven't increased it further, but I think there is strong evidence that the system has worked and could work if they continue to escalate the price.

That being said, I understand that that decision has been made by the government, and the government has other priorities. As I said in my presentation, if the government is determined to spend revenues on activities other than reducing taxes, which I think is necessary to help offset the cost for consumers and businesses—if they want to go that way, the way to do it is to ensure the greatest reductions at the lowest possible price. One option for doing that would be your reverse auction-type method, where you say, "We're going to purchase five million or 10 million tonnes of reductions at the lowest

possible price." Australia has implemented a system along those lines, for instance.

But I think that simply having the government of the day say, "We'd like to do charging stations," or "We'd like to build subways" and hope that it all works out to reduce emissions is, in our view, not sufficiently transparent or accountable.

**The Chair (Mr. Grant Crack):** Thank you very much. We appreciate it.

We'll move to the official opposition. Ms. Thompson?

**Ms. Lisa M. Thompson:** Thanks very much, Chair.

Welcome to committee. I want to focus in on a recent grade that you gave the Liberal government here in Ontario with regard to its proposed cap-and-trade scheme. You gave it a grade of D-. I'd like for you to explain to us how you assigned this grade to this particular government. And now that you've had a chance to review Bill 172, does this grade of D- still stand?

**Mr. Mark Cameron:** Well, that op-ed was written three months before I joined Canadians for Clean Prosperity, but—

*Interjections.*

**Ms. Lisa M. Thompson:** Still, I'd love to hear—

**Mr. Mark Cameron:** I will say—

*Interjections.*

**Ms. Lisa M. Thompson:** That's okay. Let's hear it.

**Ms. Eleanor McMahon:** Oh, come on.

**Mr. Mark Cameron:** I will say that the grade reflects the fact that we support the principle of carbon pricing. The Ontario government brought in carbon pricing, but we have a lot of concerns about the method that they chose to do so.

**Ms. Lisa M. Thompson:** There it is, the method. Let's talk about the method.

**Mr. Mark Cameron:** There's no question that we think a straight, simple carbon tax or fee is preferable to cap-and-trade. There's less opportunity for manipulation. There's less lobbying. There's a lot more transparency, a lot fewer interveners with third parties. That is our preference, clearly.

We also have concern as representatives from the OEA that under the current system, Ontario will be required to purchase a large amount of credits from California, at least in the early years of the system. Estimates we've seen have said about \$150 million a year, so that's a concern for us. The majority of the reductions being achieved will actually be achieved in jurisdictions other than Ontario.

We do think there are things that the government has done or could do to improve transparency. We appreciate the fact that they've talked about a Greenhouse Gas Reduction Account, but we'd like to see that account more segregated from political influence and spent on ensuring the greatest possible reductions at the lowest possible price.

**Ms. Lisa M. Thompson:** Thank you. I appreciate you taking this question seriously, because clearly the government doesn't.

I would also like to move on and ask how or, more specifically, why cap-and-trade has been so ineffective at reducing emissions in other jurisdictions?

**Mr. Mark Cameron:** It would depend on the system. The ETS has not been a success, and the reason is that there was an over-allocation of credits. If there's an over-allocation of credits in a system, then it's not going to achieve its results. That's why if we're going the cap-and-trade route, it's important that the credits decline over time, that the price rises over time, but that raises all the same issues that we talk about in terms of the need for offsetting the price with some form of compensation.

**Ms. Lisa M. Thompson:** Okay. And this—

**The Chair (Mr. Grant Crack):** Thank you very much. We appreciate it.

We shall move to Mr. Tabuns.

**Mr. Peter Tabuns:** Mr. Cameron, thanks for being here today.

On the question you raised about the transparency on the Greenhouse Gas Reduction Account: Can you talk about two or three things that you think should be in the bill to make that reduction account more transparent?

**Mr. Mark Cameron:** Well, I think a commitment to the principle of achieving the greatest number of reductions at the lowest possible price would be a valuable principle to have in there. I think there's a distinction to be made between reductions that are achievable right away versus potential reductions due to technology, and it would be legitimate to set aside some money for more long-term technological responses that might be more of a risk, with less certainty. But I think for those kinds of allocations, there should be some sort of an independent third party that is making those decisions. For the immediate reduction, something along the lines of an auction-type process would probably be the best way to achieve that.

1500

**Mr. Peter Tabuns:** What do you see as the right proportions between investments that will bring about reductions in the very short term, over the next year or two, as opposed to investments that won't have a substantial impact for five to 10 years? How would you allocate the funds?

**Mr. Mark Cameron:** You could arbitrarily assign a number—two thirds for immediate reductions and one third for technology or longer-term responses—but I think even for the technology or longer-term responses, you have to look at what reductions you actually expect to achieve. There may be a certain risk factor associated with that, but if you say, "Well, this project could achieve 10 million tonnes of reductions 10 years down the road," there's a certain discount value that would have, even at the current market.

**Mr. Peter Tabuns:** I don't have further questions. I want to thank you.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Cameron, for coming before committee.

**Mr. Mark Cameron:** Thank you.

## ENVIRONMENTAL DEFENSE FUND

**The Chair (Mr. Grant Crack):** Next on the agenda, from the Environmental Defense Fund, we have Ms. Erica Morehouse, senior attorney. She's appearing via teleconference. I would also, before we bring her on, just advise members of the committee that on the first page of your package is material from the Environmental Defense Fund.

Ms. Morehouse, are you with us this afternoon?

**Ms. Erica Morehouse:** Yes, I am. Can you hear me?

**The Chair (Mr. Grant Crack):** Yes, not too badly. I'm Chair Grant Crack. On behalf of the committee, I welcome you this afternoon. Where are you calling from? You have 10 minutes for your presentation.

**Ms. Erica Morehouse:** Thank you. Good afternoon. I'd like to thank the committee so much for this opportunity to present today. My name is Erica Morehouse and I'm a senior attorney with the Global Climate Program at Environmental Defense Fund. I have over seven years of experience working on the implementation of cap-and-trade in the California program and in the California context.

Founded in 1967, Environmental Defense Fund is one of the world's largest non-profit environmental organizations. It's based in the US, with more than one million members and a staff of 500 scientists, economists, policy experts and other professionals around the world. Guided by science and economics, EDF tackles urgent environmental threats with practical solutions so that people and nature can prosper.

The organization was an original sponsor of California's Global Warming Solutions Act in 2006, requiring a return to 1990 levels of emissions by 2020, and EDF has participated in the implementation process ever since. Given the close similarities between California's cap-and-trade program and the proposed cap-and-trade program and associated legislative proposals in Ontario, I would like to provide the committee today with a brief overview of California's climate policy experience to date.

I will provide a brief background on the cap-and-trade program's history and policy context, and will then provide my top three lessons learned from my experience with cap-and-trade in California. Today, I'm focusing specifically on California's experience rather than taking a direct position on Ontario's proposal, but recognizing that California's program is very similar to that proposed in Ontario and hopefully provides a relevant example for your consideration.

In 2006, California passed the Global Warming Solutions Act, tasking the Air Resources Board with developing a suite of regulations to address climate change and specifically committing California to reduce greenhouse gas emissions to 1990 levels by 2020. The Air Resources Board engaged in an extensive planning and public engagement process that resulted in a scoping plan in 2008, which was the blueprint that laid out a suite of regulatory measures, including cap-and-trade, which would allow California to meet its 2020 goal. Other

measures included a renewable portfolio standard, a low-carbon fuel standard and an incentive program.

The cap-and-trade program officially began January 1, 2013. California linked its program to Quebec's on January 1, 2014. The Air Resources Board is now engaged in a second update to the scoping plan, which will plan for and set targets for California that will reduce emissions to 40% below 1990 levels by 2030.

The cap-and-trade program is a critical policy tool for California because it sets a hard limit on harmful global warming pollution to ensure that California's greenhouse gas reduction goals are met. Cap-and-trade is a powerful economic incentive to cut emissions, while offering compliance flexibility and environmental certainty. By setting a cap and putting a price on carbon, cap-and-trade leads to real emissions reductions and new investments in clean technologies and economic developments.

Based on this experience in California, I'd like to highlight the three lessons learned.

First, despite initial predictions to the contrary, California is demonstrating that with sound climate policies like cap-and-trade in place, it is possible to maintain economic prosperity while dramatically reducing emissions.

Second, California committed to reinvest cap-and-trade auction proceeds to directly reduce greenhouse gas pollution, and in doing so is able to create additional associated benefits for Californians that far exceed the value of the initial investment. An important component of this strategy is a commitment to ensuring that a high percentage of investments are made in disadvantaged communities in California.

Third and finally, a long-term commitment to ambitious climate targets is a critical component of a successful climate strategy that can create the right incentives to drive the transformation to a low-carbon economy.

To elaborate on these points a little more: First, as I noted, California has shown that it's possible to maintain economic prosperity while dramatically reducing emissions. As you'll see on the first figure in the handout I provided, California has successfully decoupled economic growth from emissions. GDP is growing in California while emissions per GDP are declining rapidly. After three years of the most ambitious climate program in the US, California saw GDP and jobs grow at a faster rate than the US national average.

California is also benefiting from a thriving green economy, receiving more clean technology venture capital investments than all other US states combined. Meanwhile, capped emissions are down and California is ahead of schedule to meet its 2020 target, with emissions 9% below required cap levels in 2014, the last year from which we have data.

Second, California is investing auction proceeds to reduce pollution and provide additional benefits, especially to disadvantaged communities. As you can see in the second figure on the handout I provided, California's investments will go to directly reduce greenhouse gas pollution in a number of sectors. All of these investments

also have additional identified benefits associated with them, including helping California transition more quickly to a low-carbon economy; helping Californians save money on gasoline, fuel and electricity; improving transportation choices; and making California more resilient to the impacts of climate change

It's important that at least 25% of these investments, by law, must benefit disadvantaged communities in California. A disadvantaged community is identified using several indicators that cover pollution burden as well as socio-economic status. Investments in disadvantaged communities to date have far exceeded these requirements, though, with over 50% of investments benefiting these communities.

It's still early to get real data on the impact of these investments in California, but there is good data from an electricity sector cap-and-trade program in New England in place since 2009. There, researchers have shown that \$1.7 billion in energy efficiency and clean energy investments created \$2.7 billion, a full \$1-billion additional net economic gain for the region, including thousands of new jobs.

Finally, setting clear targets for reductions needed in 2030 and 2050 is critical. California has done this through executive orders, and the Air Resources Board has commissioned research and is engaged in a planning and public outreach process to determine how California can meet these goals. Research suggests that the 2030 targets should be achievable with a likely suite of climate policies.

California has not yet updated the cap-and-trade program to extend to 2030, but plans to start the process for doing so this year. A cap-and-trade program that extends through 2030 will create incentives for even more emissions reductions and will ensure California stays on track in reducing emissions.

**1510**

Thank you very much for your time and the opportunity to speak. I look forward to any questions you may have.

**The Chair (Mr. Grant Crack):** Thank you very much, Ms. Morehouse. I hope the weather is fine in California these days. We had a major snowstorm here last night.

We'll start off with the third party and Mr. Tabuns on the questioning.

**Mr. Peter Tabuns:** Ms. Morehouse, thanks for joining us this afternoon. We appreciate it.

**Ms. Erica Morehouse:** Thank you.

**Mr. Peter Tabuns:** Could you talk a bit about the investments in disadvantaged communities, both the nature of those investments and why it is that the investment rate has been closer to 50% rather than 25%?

**Ms. Erica Morehouse:** Sure. The nature of the investments are that most of the investment areas that you see listed in the second figure that I provided can be targeted to actually go to those disadvantaged communities. It's just a prioritization of the location that investments would be made in. That can go to things like free solar

panels for low-income housing or to helping lower-income Californians swap out a dirty car for maybe even an electric car—something like that.

To the second part of the question, spending more like 50% of the investments to benefit those communities really just shows the priority that California is putting into actually benefiting disadvantaged communities, because those communities with lower-income Californians who have had to suffer through higher levels of pollution for so many years are going to be hit first and worst by the impacts of climate change and should really be first in line to benefit from climate action in California.

**Mr. Peter Tabuns:** Thank you. The second question I have is with regard to the long-term commitments and that long-term commitment being necessary if you want to bring investment on board. Over what time horizon are the investment plans for the funds set out? Are we talking a 10-year investment plan, a three-year investment plan or a 20-year investment plan?

**Ms. Erica Morehouse:** Sure. In my comments, I was really referring to the targets for reducing emissions and the overall signal that that sends to the economy. California engages in a shorter-term process around planning for the actual investments. They do a three-year investment plan, which is required by law, and then there are annual appropriations of specific investments by the California Legislature.

**Mr. Peter Tabuns:** Okay. Thank you for your time.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Tabuns. We shall move to the government. Ms. McMahon.

**Ms. Eleanor McMahon:** Thank you very much for your presentation today. As you know, our government is having conversations with yours about creating a viable and credible marketplace for cap-and-trade. This has been enormously instructive—in fact, so much so that I'm not sure where to begin.

I guess I'd like to highlight your earlier comments about the GDP and jobs growth being very strong in California. In fact, this edifies a report that I saw recently with data from the Bureau of Economic Analysis in California that talks about how, despite the most aggressive climate change policies and targets in the United States, California has achieved impressive economic growth—not in spite of, but because of, the state's climate and energy policies—and the fact that the state's manufacturing sector has grown three times faster than the rest of the nation. All of this bodes very well for what lies ahead here.

When you were talking, you mentioned something about compliance flexibility. I guess I wanted to ask you about that, and then I had one more question to follow, if I may.

**Ms. Erica Morehouse:** Sure. I think the reason that I say that cap-and-trade provides compliance flexibility is that it provides an overall cap on emissions, so the government makes sure that they don't exceed the carbon budget, but it allows businesses the flexibility to decide

what the best way is for them to comply with the program. If they're able to reduce emissions at a lower cost, then emission reductions can actually take place on-site at a facility, whereas if a particular business has a very high cost of reducing emissions on-site, they're able to trade with others in the carbon marketplace and buy allowances to make sure that they can cover their compliance obligation under the cap-and-trade program.

**Ms. Eleanor McMahon:** A quick question for you: Can you tell us—I'm not sure you know; you must; you're so learned in this area—why California decided to go with cap-and-trade versus a fee-and-dividend system? British Columbia, as a matter of fact, has gone with that system, and we wondered why you chose cap-and-trade.

**Ms. Erica Morehouse:** I think there are probably a lot of reasons that go into that, but one major reason is that California actually set into law a requirement to reduce emissions to a very specific level: to 1990 emissions by 2020. They've put in place a lot of measures on climate programs, including cap-and-trade, but cap-and-trade is the only one that actually provides that emissions certainty. Because of the cap, we know that emissions will be capped at the 1990 level and that there will not be an ability to exceed that emissions level that California has set forth.

**Ms. Eleanor McMahon:** Great. Do I have more time, Mr. Chair, or am I running out?

**The Chair (Mr. Grant Crack):** No, that's about it. Thanks a lot.

**Ms. Eleanor McMahon:** Thank you.

**The Chair (Mr. Grant Crack):** I appreciate that.

We shall move to the official opposition. Ms. Thompson.

**Ms. Lisa M. Thompson:** Thank you for joining us on the telephone today.

Ms. Morehouse, I just want you to clarify: You believe that money raised through carbon pricing schemes should go back to taxpayers—yes or no?

**Ms. Erica Morehouse:** I'm not taking a position on universally where money should go. I think it is a local decision. I was trying to provide the example of what has happened in California and has been very successful in California, which is reinvestment in greenhouse-gas-reducing programs.

I would also note that through the utility program there is some return of money to utility customers through their utility bills. But all of the money that California raises through the cap-and-trade auctions that are state-controlled goes back to greenhouse-gas-reducing projects that include things like transportation, clean energy, and infrastructure—projects like that.

**Ms. Lisa M. Thompson:** Okay, thank you. Reflecting on the Western Climate Initiative, seven of the original states have withdrawn due to economic concerns. I was wondering if you could share your opinion as to why you feel that those seven states, and other states, have chosen not to join the Western Climate Initiative.

**Ms. Erica Morehouse:** I think there is a range of political realities: the ability to put different programs in

place at the agreed-upon time. California and Quebec were the first to be able to go forward with the set of policies that was laid out by the Western Climate Initiative and, I think, have also been able to provide an example of how potential climate programs could work and could actually be successful and beneficial, and not stand in the way of economic prosperity. I think that can be helpful for other governments who, as we've seen, may have needed to take a step back and be observing and deciding what the best course of action is for their province or state.

**The Chair (Mr. Grant Crack):** Twenty-five seconds.

**Mr. Jim McDonell:** What challenges or benefits do you see for California if Ontario joins the cap-and-trade?

**Ms. Erica Morehouse:** I think that California's experience with Quebec is instructive. California and Quebec have had a very successful linkage. It has expanded the market and helped them both work together for strong climate action, as well as take advantage of the administrative benefits of being able to work together and share the workload with another province. I think all of those benefits could also accrue to Ontario if they joined.

**Mr. Jim McDonell:** Thank you.

**The Chair (Mr. Grant Crack):** Thank you very much, Ms. Morehouse, for joining us this afternoon via sunny California. We appreciate your input.

**Ms. Erica Morehouse:** Thanks so much.

**The Chair (Mr. Grant Crack):** You're welcome.

1520

#### CANADIAN MANUFACTURERS AND EXPORTERS

**The Chair (Mr. Grant Crack):** Okay, ladies and gentlemen, next on the agenda, from the Canadian Manufacturers and Exporters, we have two individuals: Mr. Howcroft and Ms. Coulas. We welcome the both of you here this afternoon. You have 10 minutes.

**Mr. Ian Howcroft:** Thank you, Chair, and good afternoon, everyone. My name is Ian Howcroft and I'm vice-president of Canadian Manufacturers and Exporters. With me is our director of environmental quality and energy policy, Nancy Coulas.

CME appreciates the opportunity to present our views and positions on Bill 172. We do understand and support the need to reduce carbon emissions, and the manufacturing sector has been very successful in reducing emissions over the last several decades.

Before commenting specifically on Bill 172, we believe it is necessary to discuss what the manufacturing sector needs in order to reduce greenhouse gas emissions and maintain its competitiveness, and the economic arguments.

I'd also like to just highlight the importance of the manufacturing sector to the Ontario economy. It employs 750,000 employees directly. There are another 1.5 million individuals whose jobs are indirectly dependent on manufacturing. Last year, it generated about \$290 billion

in output. It was responsible for about 85% of the R&D and the commercialization that was done in the private sector. For every dollar invested in manufacturing, it generated about \$3.50 in total economic activity, the largest multiplier of any sector.

Data over the past decades show that the most rapid rates of emission intensity reduction have been achieved during periods of strong economic growth. Capital investment in new and improved housing and building construction, machinery and equipment, and public infrastructure accelerates emission intensity reductions. Conversely, when investment declines, emission intensity increases. If we are to meet the target of reducing GHG emissions 37% below present levels by 2030, we need to invest to more than triple the rate of historical technological progress. Not only will we be required to triple the historic investment; the capital will need to be focused on more productive and carbon-efficient technology.

With this background, we are concerned that the investment climate arising from the cap-and-trade program may not support the level of capital turnover required. For example, the steep decline that is proposed under the cap-and-trade proposal for Ontario—an approximately 4% decline—will be a major hindrance to capital investments. Manufacturers have made significant expenditures over the years and have reduced emissions. In many cases, the technology does not yet exist, or is not even feasible, for large emission reductions. The cap decline proposed is, in many instances, not achievable with our current technology. If companies are unable to make the necessary reductions, they will simply be transferring funds to government or other jurisdictions participating in cap-and-trade. This does not achieve the desired result of emissions reductions and may inhibit capital investments to achieve further reductions.

The issue of timing within the cap-and-trade program is also a key concern for our sector. There are two concerns around timing: First, the 2017 date is too soon for companies to operationalize cap-and-trade. Another timing concern is with respect to certainty for manufacturing investments after the 2020 deadline. Companies will not invest in Ontario if they do not have knowledge of the cap-and-trade regime after this time period. Companies make planning and investment decisions well beyond a five-year timeline. Again, this leads to the unintended consequences of carbon leakage and a decrease in economic climate.

Trade exposure is also a critical concern for the manufacturing sector. We need to understand that the manufacturing sector in Ontario is highly dependent on trade. As such, goods that are exported should not be burdened with a cost of carbon that does not exist in the export markets. We need to ensure that companies which are more trade-exposed than others are protected, as this will have a ripple effect on the supply chain and the entire economy.

CME believes that the Ontario government must ensure that the cost of electricity does not increase

directly or via pass-through of cost of carbon to trade-exposed sectors. We support the statement in the budget which notes that Ontario will “take steps to ensure that the net impact of cap-and-trade would not result in an overall increase in electricity costs for commercial and industrial consumers.” This must be true for all sectors.

I’ll now turn to Nancy, who will talk about some of the specifics around Bill 172.

**Ms. Nancy Coulas:** These are a few specific recommendations.

The first one that I’d like to highlight is in section 6 with respect to emission reduction targets for greenhouse gases. Section 6(2) allows the minister to increase the greenhouse gas targets, but there’s no specific section which allows them to be reduced. This has the potential to restrict the government in the future, in the event of unforeseen circumstances where targets may need to be adjusted or reduced.

We have a second specific comment with respect to section 26(3), cap-and-trade accounts and transactions. It says, “The Minister or the Director is not required to notify the registered participant before removing emission allowances and credits from the participant’s cap-and-trade accounts.” We believe that registered participants should be notified before changes are made.

In section 33, with respect to emission allowances and credits, it appears to grant a broad discretion to the registrar of the registry, regarding information to be provided, to refuse registration or set conditions. This process must be transparent and the conditions should be clearly defined. We would like to see a bit more detail in that section.

In sections 47 to 56, with respect to enforcement and fines—specifically in sections 47(3), 47(4), 47(5) and section 48—the requirements are onerous. The fines in section 48 are also very onerous. Other items, including the failure to submit allowances and credits, should be removed. The whole section around enforcement could use a good discussion. I’m not a lawyer, but I wish I was, for this section.

Section 68, with respect to the greenhouse gas account and administration of the fund: Section 68 authorizes expenditures with administration of the account and uses the term “for any such purpose.” In terms of these administrative expenses, we believe there should be some more detail around the requirements: transparent criteria for determining what is and what isn’t an appropriate administrative expense, market-based guidance on appropriate levels of expenses, and transparent and ongoing accountability for the expenses.

Schedule 1, with respect to the Greenhouse Gas Reduction Account: We support the details of schedule 1, which outline initiatives that may be funded from the Greenhouse Gas Reduction Account. However, as it is written, it limits the types of initiatives that can receive funding with the greenhouse gas account. As well, to ensure that the funds are used in the most effective manner, the criteria for assessing alternative uses needs to be fully transparent and should include details or

criteria such as the cost per tonne of greenhouse gas reduction. Of course, lower-cost options should be favoured.

Looking at economic impact is an important consideration. Noting in section 4 specifically—in the manufacturing or industry section of schedule 1—manufacturing energy efficiency is important, and we believe it should be noted in there.

Recognition of time frame: Reductions that are done today are very important, but reductions in the future, post-2020, are also clearly important. I guess we just need to have a balance between what is an immediate technological change and reduction versus what is needed in the future to make post-2020 reductions.

The last point that I wanted to make is on cap-and-trade administration in general. The Ontario government needs to ensure that the administrative requirements directly related to greenhouse gas reductions under the cap-and-trade regime be held to a minimum, both in respect to using the proceeds efficiently to offset government costs and not imposing undue administrative burden on the regulated community.

Thanks again for the opportunity to present this information.

**The Chair (Mr. Grant Crack):** Thank you both. We appreciate it.

We’ll start with the government. We shall begin with Ms. McMahan.

**Ms. Eleanor McMahan:** Hi, how are you? Hi, Ian. How are you?

**Mr. Ian Howcroft:** Very well. How are you?

**Ms. Eleanor McMahan:** It’s nice to see you.

**Mr. Ian Howcroft:** It’s nice to be here.

**Ms. Eleanor McMahan:** That was an extremely helpful presentation, by the way. I come from Burlington, as you know, where there are a good nexus of advanced manufacturers, in particular. I’ve been having vibrant conversations in my riding about this. And, of course, you know about my time at the Canadian chamber; we’ve worked together.

**1530**

A couple of things: Just circling back to your presentation, the trade exposure piece was enormously helpful. I especially liked your comments about how we need to maintain a delicate balance. I know that in the last budget, we initiated the Green Smart energy-efficiency program of \$25 million to you, so that you could administer that on behalf of the government and ratepayers provincially. Of course, that will assist small and medium-sized manufacturers. Can you talk a little bit about that and how you see it helping?

**Mr. Ian Howcroft:** Sure. We’ve always said that the most successful approach to successfully implementing cap-and-trade or reducing GHGs is through investing in technology. This will allow us to partner with the government to continue our Smart Program, which will allow us to focus on providing funding to companies so that they can look at technological improvements or process improvements to reduce GHGs and improve

energy efficiency that will help deal with the issue in a very positive, proactive and productive manner.

We've run the Smart Program in partnership with both the Ontario and federal governments since 2008-09. The methodology has proven extremely successful, so we thought this was an excellent opportunity to again partner with government in a focused way to allow the individual companies to start their own initiatives under GHG reductions and improve energy efficiency, again with a focus on improving the climate change issue.

**Ms. Eleanor McMahon:** As you know, we've been talking significantly with California and other jurisdictions—because we're creating a marketplace, right? So it's important that we have these conversations. I'm hoping that you were pleased, as I was, to learn that California has still, despite the most aggressive targets, remained the most robust manufacturing sector in the United States and is doing well. Of course, their green economy is thriving, which is something that we all want to see happen.

Can you talk a little bit about your advice vis-à-vis manufacturers and exporters and what kind of assistance or buffering they might need? That's an important conversation for us to have.

**Mr. Ian Howcroft:** I think one is to make sure that the regulatory approach is as user-friendly as possible. It was very interesting for me to hear that California—a person talked about the success they've had there. We've also done a bit of research on California's system, and I think we should note that Ontario has reduced its greenhouse gas emissions significantly more than California has over the last 10 or 15 years, notwithstanding we're just getting into the cap-and-trade system here now. Ontario has done a lot and has realized even more benefits than California has realized over that same time period.

We're looking to what they have achieved and we want to ensure that our input is taken into consideration to ensure that the cap-and-trade does have that positive impact of looking at the economic issues, helping to build businesses, and helping to do it in a way that takes into account the realities to allow us to invest in technology, to be innovative and move forward to reduce GHGs and improve energy efficiency, but also looking at all the economic parameters around it.

Nancy, I don't know if you wanted to add—

**The Chair (Mr. Grant Crack):** Thank you very much. We appreciate it. It was a little bit longer.

Ms. Thompson?

**Ms. Lisa M. Thompson:** Thanks for being here. You mentioned during your remarks that you feel that—I'm paraphrasing—Ontario is rushing into their cap-and-trade scheme. Would you agree that Ontario should take a step back, hit the pause button and give some good thought toward getting it right, and possibly miss the first round of the compliance period?

**Ms. Nancy Coulas:** I would say yes. I don't think we've seen any specific economic information yet. I know that there are some presentations that are going to

be coming out soon from the Ministry of the Environment and Climate Change, but we haven't seen that yet. We'd certainly like to review that.

Within companies, they need time to train their staff and to get these systems in place; 2017 is just around the corner for them.

In other jurisdictions—Quebec took, I think, years to get their system in place. Certainly, I don't think rushing is going to do us any favours in the long run.

**Ms. Lisa M. Thompson:** Okay. Also, I totally agree with you: Ontario's total GHGs are less than half a percentage point when you take a look at the global perspective of greenhouse gas emissions. You've noted that Ontario has already done a lot. In fact, we're below California emissions right now. Can you touch on how we've achieved that already?

**Mr. Ian Howcroft:** I think it was, over the last 20 or 25 years, investing in technological improvements, being innovative and making changes. From the early 1990s to 2014, we saw huge reductions in GHGs, notwithstanding the increase in productivity and output increasing during that time. It's about making sure that you're being innovative and continuing to invest in technology that allows you to reduce GHGs and to continue to improve energy efficiency, looking for alternatives and sharing best practices. I think that's been the success that we've had, and we have to continue on that path with even more focus if we're going to realize the targets within the new cap-and-trade legislation.

**Ms. Lisa M. Thompson:** Very good. Do you feel that the current Ontario cap-and-trade scheme, as it's defined today, could potentially handcuff innovation and stagnate what's already been achieved?

**Mr. Ian Howcroft:** We're providing our input to hopefully not have that happen, so that we have a system that does take into account the economic realities—that allow us to focus on how we can improve the cap-and-trade system to not have either result. As Nancy said, it's important that we get it right. We have to take the time to ensure that the cap-and-trade system meets all the requirements so that we have a system that does meet those objectives.

**Ms. Nancy Coulas:** And ensuring that the funds are recycled back so that industry can make those investments.

**Ms. Lisa M. Thompson:** Okay. Very good. Thank you.

**The Chair (Mr. Grant Crack):** We'll move to Mr. Tabuns.

**Mr. Peter Tabuns:** Nancy, Ian, thanks very much for being here this afternoon.

Carbon leakage: Is there a great concern on your part that producers in other jurisdictions that don't have cap-and-trade will be able to put product into Ontario at a lower cost than we can manufacture here?

**Mr. Ian Howcroft:** Yes, that's a concern. We also don't want to lose companies that are here moving to a jurisdiction that allows them to continue to do what they're doing without realizing any benefits. I think that

was an experience we saw in British Columbia in the cement industry. When the carbon tax was introduced there, major cement companies closed or moved. They're still having the same emissions, yet it took away hundreds of jobs and the tax revenues for the economy of British Columbia. That's one of the issues that we want to ensure doesn't happen to Ontario as we move forward.

**Mr. Peter Tabuns:** Should importers of industrial materials be part of this system? For instance, if you're an electricity importer, you have to recognize the carbon inherent in your electricity if you're bringing electricity in from a coal plant, say, in Michigan. With steel—we get steel from Turkey and from China, and their emissions are, generally speaking, far worse than ours. Should we be saying to them, “You should be recognizing your emissions if you're bringing them into Ontario”?

**Ms. Nancy Coulas:** Are you referring to carbon border adjustments, that type of thing?

**Mr. Peter Tabuns:** Yes. Here we don't control the tariffs, but we can say, “If you're importing steel from Turkey, that Turkish steel has to have the cost of the carbon emissions factored in.” Is that something—

**Ms. Nancy Coulas:** Certainly a lot of our companies would like to see that, to ensure that steel or products—

**Mr. Peter Tabuns:** Steel, cement.

**Ms. Nancy Coulas:** —steel as an example—being brought in have those same requirements.

**Mr. Peter Tabuns:** Okay. The detailed comments that you made—and I don't quite understand number 4. This is with regard to fines: “other items, including the failure to submit allowances and credits, should be removed.” Don't you think there should be a penalty for those who don't comply with the system? Because it means that those who do comply are actually going to be stuck with costs and those who don't comply get a free ride.

**Ms. Nancy Coulas:** Yes. I think it's a section that needs to be examined. As I mentioned, I'm not a lawyer, but I wish I was so I could go into greater detail on this.

**Mr. Ian Howcroft:** I think it's to ensure that what you said is the reality, so that we have a system that recognizes those who are being successful and a system that deals with those who aren't, but we're not confident that the wording and the way it's structured right now will allow us to achieve those results. It's not so much the intent; it's more the way it's drafted currently.

**Ms. Nancy Coulas:** Right. And do the fines represent that? Are they representative of what they should be for this failure to submit allowances and credits? We think they're onerous.

**Mr. Peter Tabuns:** One of the concerns is with regard to the GHG reduction account. Clearly, we have wasted 25 years. World emissions have gone up 16% since this issue was first recognized globally in 1990, 1992. We need to move fairly quickly. There's a split that is going to happen in terms of investments. We can invest almost everything in immediate greenhouse gas reductions, or we can invest some portion of the funds in longer-term things like electric vehicle charging stations. Do you

have a sense of the split that you think would make sense for Ontario?

**The Chair (Mr. Grant Crack):** A quick response, please.

**Ms. Nancy Coulas:** Unfortunately, I don't, unless Ian—

**Mr. Ian Howcroft:** No. That was quick, but—

**Mr. Peter Tabuns:** Quick and honest but not illuminating.

**Ms. Nancy Coulas:** As long as the manufacturing sector can reinvest into new technologies for our sector—that's what's needed.

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

**The Chair (Mr. Grant Crack):** Thank you very much to the two of you for coming before committee this afternoon. We appreciate it.

#### CANADIAN ENVIRONMENTAL LAW ASSOCIATION

**The Chair (Mr. Grant Crack):** Next we have, from the Canadian Environmental Law Association, who's been here with us before, Jacqueline Wilson, who is counsel.

We welcome you, Ms. Wilson, this afternoon. You have 10 minutes.

**Ms. Jacqueline Wilson:** Great. Thanks very much. My name is Jacqueline Wilson. I'm a lawyer with the Canadian Environmental Law Association. We're an Ontario legal aid clinic whose mandate is to use and improve laws to protect the environment, particularly on behalf of low-income communities.

We're also a founding member of the Low-Income Energy Network, which supports government policy that will provide access to adequate, affordable energy while minimizing the impacts of energy policy on health and on the environment.

#### 1540

Bill 172 has the potential to be a key piece of Ontario's response to climate change. However, the bill must be significantly amended to make it more stringent and more fair. We've distributed written submissions which provide 28 recommendations for improvement of the bill. We of course urge you to adopt all of them.

Today, in this oral presentation, I'm going to focus on four key issues. The first is the impact of the cap-and-trade program on low-income and vulnerable communities and how that can be dealt with in this bill. The second is ways to strengthen the rules for use of funds under the Greenhouse Gas Reduction Account and increase transparency. The third is CELA's opposition to industrial emitters being given free allowances. The fourth is that public powers, particularly for inspection and enforcement, should not be delegated to unaccountable third parties.

There's an environmental justice piece of this bill that's missing and needs to be addressed. Low-income communities have contributed least to greenhouse gas emissions, but face the most serious impacts of climate

change. Often, low-income communities have little ability to cover increased costs of electricity, heating, food and other necessities. At the same time, low-income communities, unlike other communities, often have little ability to reduce their greenhouse gas emissions through changes to behaviour.

We recommend following California's approach as a model, which includes a legislative requirement that a minimum of 25% of funds raised by the cap-and-trade program are used for projects that benefit low-income and disadvantaged communities, and a minimum of 10% of those funds are used for projects within those communities. We note, though, that the 25% threshold, which should be legislated in this bill, should be considered a floor. The government should assess the potential impact of this program on low-income communities and continue that assessment over time to ensure that the 25% allocation is enough for those communities.

Our recommendations 9, 10 and 11, as set out in our written submission, are that one of the purposes of the act, in subsection 2(1), should be to recognize the disproportionate impact of climate change on low-income and vulnerable communities and to assist in their transition to a decarbonized economy. Recommendations 10 and 11 look to amend section 68 and schedule 1 to ensure that a minimum of 25% of funds in the Greenhouse Gas Reduction Account are used to assist low-income and vulnerable communities.

The second issue I wanted to address was the Greenhouse Gas Reduction Account. There are quite a few recommendations in our written submission about this. I'm going to focus on a few of them today. The first is that the language in section 68 and schedule 1 should be strengthened. It needs to be very clear that cap-and-trade revenue can only be used for new, additional initiatives, to expand initiatives that will reduce greenhouse gas emissions or for programs that would assist low-income communities.

The credibility of this program would be severely undermined if revenue was used for other purposes, or to fund existing and budgeted-for environmental programs. Quebec's Green Fund has run into trouble on this very issue, and has been used to fund a Valero Energy pipeline and a new tail fin on an Air Canada Boeing 767. That's clearly not helpful in the fight against climate change. We suggest specific wording on these issues in recommendations 13 and 15 in our submission.

We also make a specific recommendation to amend schedule 1, paragraph 1(1)(1), which should make clear that nuclear refurbishments and other expenditures related to nuclear power cannot be funded by the Greenhouse Gas Reduction Account. Nuclear power has significant environmental impacts, along with significant greenhouse gas emission implications.

The Independent Electricity System Operator recently noted, in October 2015, that the current nuclear refurbishment plan will increase greenhouse gas emissions by raising the demand for natural gas. Ontario Power Generation advised the OEB that the Darlington nuclear

station's historic average annual time offline is 16.66%. When the nuclear power plants are offline, natural gas-fired generation is used as a backup. There's no reason to believe rebuilt Darlington or other rebuilt nuclear power plants will have a better record, which means that approximately 17% of our baseload electricity needs will be met by natural gas-fired generation. That locks in substantial greenhouse gas emissions for the life of all these rebuilt generators.

Our recommendation 16 in our written submission is that schedule 1, paragraph 1(1) be amended to make it clear that no nuclear power projects, including nuclear refurbishments, can be funded by the Greenhouse Gas Reduction Account.

The other issue related to the Greenhouse Gas Reduction Account is that it should be made more transparent. The Minister of the Environment's review in subsection 68(3) should require mandatory consideration of the factors listed rather than discretionary consideration; explicit consideration of vulnerable and low-income communities; the minister's report to the Treasury Board should be made public before any decisions are made; and the minister's report should detail a plan for funds not used each year.

The Treasury Board should be required to incorporate the minister's review in its decision. The current wording doesn't require the Treasury Board to do anything with the minister's report. The Treasury Board should either accept the minister's proposals or explain why those recommendations were not followed in a public report.

Finally, the minister's report, under subsection 68(6), needs to provide much more detail. It should consider the same factors that were listed under subsection 68(3). It should be clear how much money was spent on each specific initiative and it should measure the actual greenhouse gas reductions achieved by each initiative.

Wording for these recommendations is found in recommendations 17 to 20 in our report.

The third issue I wanted to address was free allowances. It's CELA's position that free allowances should not be available to all industrial emitters. Leakage is not likely to have a large effect on Ontario's economy. To give an example, a report by the ecofiscal commission estimates that at a price of \$30 per tonne of carbon dioxide equivalent—so much higher than the proposed price that is going to be put in place by this cap-and-trade program—producers amounting to only 2% of Ontario's GDP are at risk of leakage.

The government has not put forward any evidence to substantiate leakage concerns, so the current proposal of the broad free allowances given to industrial emitters amounts to an unjustified program-wide subsidy for industrial emitters, which undermines the polluter-pays principle, it distorts market signals about the carbon intensity of a process or product and it means that the ministry has forgone considerable revenue which should be used to fund complementary programs under section 68 in schedule 1. If any leakage concerns are demonstrated and proven, they should be addressed through

targeted assistance under the Greenhouse Gas Reduction Account, not through free allowances.

Those are our recommendations 3 to 5 in our submission.

Our final point today is that we oppose the very broad delegation authority in this act. We have particular concern about law enforcement activities, which are a core government function and should remain within government transparency and accountability structures. Again, there has been no evidence to show that delegated enforcement will be more timely or effective.

Recommendations 23 to 25 address this issue.

The language in the act should be amended to remove all open-ended delegation authority, public servants should exercise all law enforcement powers and, at the very, very least, Bill 172 should be amended to ensure that key government accountability mechanisms—and I've listed a bunch in this written submission, but including the Freedom of Information and Protection of Privacy Act, the Environmental Bill of Rights and the charter—should be explicitly applied to all delegated authorities.

Thank you very much.

**The Chair (Mr. Grant Crack):** Well done. Thank you very much.

We shall start with the official opposition. Mr. McDonell.

1550

**Mr. Jim McDonell:** We've heard today how there was some concern about the speed of moving to this cap-and-trade system. You're not only talking about \$17 a tonne, but moving to \$50 in 2020. Any idea how that would impact our low-income residents in Ontario? Would it not, in fact, just increase the number we have?

**Ms. Jacqueline Wilson:** I think what needs to be done here is that the program actually needs to be made much more stringent—it's not stringent enough, in my view—and then funds that are raised from that program need to target low-income communities.

In California they have done some studies based on their approach, which sets aside 25% of the funds for low-income communities, and they've been very successful. In fact, low-income communities have been well taken care of. The problem is with the structure; it's not with timing. The urgency of the climate change fight requires us to take action quickly and more stringently than we are doing, even in this act.

**Ms. Lisa M. Thompson:** If I may?

**The Chair (Mr. Grant Crack):** Ms. Thompson.

**Ms. Lisa M. Thompson:** We recently heard from an earlier deputant that a recent poll showed that 60% of the respondents favoured a neutral-revenue pricing model. How do you feel about that? How do you feel about giving the money back to the taxpayers that is generated by a cap-and-trade scheme?

**Ms. Jacqueline Wilson:** I think, based on our targets, that what we need to do is be using that money for further reductions. This cap-and-trade scheme, in my view, is not going to do enough to get us towards our

targets and so we need the complementary programs. Our other hopeful WCI partners address that fact and realize that a lot of their reductions are going to come from these complementary measures. I wouldn't suggest sending the money back to taxpayers. Instead, I would suggest investing it in the things listed in schedule 1 and low-income communities.

**Ms. Lisa M. Thompson:** Interesting. Thank you.

How much time do we have left?

**The Chair (Mr. Grant Crack):** A minute.

**Ms. Lisa M. Thompson:** A minute? Okay, very good.

You mentioned Western Climate Initiative. Why do you feel six states pulled out of it? In terms of the original states that came together to explore opportunities by coming together under the umbrella of WCI, six pulled out. I'm just wondering if you have given any thought or could share an opinion as to why they might have pulled out of it. You said hopefully more will come in, so clearly you have given some thought to why people have pulled out of it, as well.

**Ms. Jacqueline Wilson:** I haven't given thought to that issue and I'm not sure exactly why they pulled out. Maybe they thought it was not stringent enough.

**Ms. Lisa M. Thompson:** Oh, nicely done. Very nicely done. What would have to happen with WCI to get more people to join?

**Ms. Jacqueline Wilson:** Well, I think a well-functioning market and proof that it's actually working to reduce greenhouse gas—

**Ms. Lisa M. Thompson:** Because we don't have that right now, right?

**Ms. Jacqueline Wilson:** Well, it does seem to be working. I think over time it's going to be interesting to watch whether this type of market system can really give us enough incentive for our industries and consumers to shift what we need to shift to get to our decarbonized economy that we are all hoping for. We want Ontario to be a leader in that area, and to get where we need to go to meet our targets.

**Ms. Lisa M. Thompson:** Interesting.

**The Chair (Mr. Grant Crack):** Thank you. Mr. Tabuns.

**Mr. Peter Tabuns:** Yes, thank you, Chair. Jacqueline, thank you very much for being here this afternoon.

**Ms. Jacqueline Wilson:** Thank you.

**Mr. Peter Tabuns:** In your brief, on pages 9 and 10, you talk about "vulnerable people still bearing a disproportionate burden from the cap-and-trade program. CELA recommends that MOECC also implement a direct credit or rebate for targeted communities." Could you talk about what you mean there, in concrete terms?

**Ms. Jacqueline Wilson:** Sure. We have given a couple of suggestions for what we could do with the greenhouse gas reduction amounts to assist low-income communities. There are some targeted programs: for instance, increasing the social housing retrofit program that was recently announced—improving that, increasing the funding and increasing the scope of that program. Similarly, the OESP program—putting in more funding and increasing the scope of that.

But we still think that with those targeted programs people will fall through the cracks, because they are targeted and there are a lot of reasons why those programs don't necessarily match up exactly with low-income communities. So we have asked for some kind of direct credit for targeted communities, potentially something like the Ontario Trillium program.

**Mr. Peter Tabuns:** Sorry, are you talking about direct credit in terms of an income tax credit?

**Ms. Jacqueline Wilson:** Yes, something like that: money returned to low-income communities that are not able to change their behaviour or reduce their emissions.

**Mr. Peter Tabuns:** All right. With regard to the Greenhouse Gas Reduction Account, you have spent a lot of time in your brief talking about transparency and making sure that people can understand what's going on.

**Ms. Jacqueline Wilson:** Yes.

**Mr. Peter Tabuns:** Are you concerned that, as written, the law is not adequate in terms of transparency?

**Ms. Jacqueline Wilson:** Yes, I think there are quite a few reasons why the account as it's currently written is not transparent enough. One is the set-up of the account. We call for, in this brief—I didn't mention it in my oral presentation—for it to be a special-purpose account, rather than the way that it's set up currently, being an account in the public accounts where amounts are recorded. That's obscure, and it should just be clear that the money is set aside in a special-purpose account and used only for the Greenhouse Gas Reduction Account purposes.

The other reason is that it isn't clear that the minister's review and the decisions that are made about what to use the funds for are going to be made public at all. There's a minister's review that goes to the Treasury Board, but that's not made public, and it should be before those decisions are made. There are no constraints on how they use that report and whether they need to use it or not. That should be made public, and the Treasury Board's decisions on whether to use it or not should be public.

The report under subsection 68(6) should include a lot more detail. It should include all of the factors that were listed in the, at this point, non-public report of the minister to the Treasury Board. It should include information for each specific initiative, what was spent on it and what those initiatives are doing to reduce our greenhouse gas emissions.

**Mr. Peter Tabuns:** Okay. And—

**The Chair (Mr. Grant Crack):** I'm sorry, Mr. Tabuns. I wish I could give you more time.

**Mr. Peter Tabuns:** Oh, thanks, Mr. Chair.

**The Chair (Mr. Grant Crack):** We'll move to the government side. Mr. Potts.

**Mr. Arthur Potts:** Thanks, Ms. Wilson, for being here, and thanks for CELA's advocacy and the time you've taken to look at the details of this bill and come forward with the recommendations that you have.

I'm particularly interested in the fact that you have detailed the legalese behind this, but you've actually made a presentation at a level which allows those of us

who aren't lawyers as well to really understand what you're getting at. So it's much appreciated.

I want to focus on the use of funds. I appreciate very much your remarks about Quebec and that maybe, at times, in California, program monies weren't being used as we would hope—maybe for more political purposes. I get the sense that our legislation, as it's written, has learned from those experiences, that it's very clear that the targets have to be used in a certain way. Whether it's the minister "may" or "shall" or "will" consider certain things, I think it's very clear that the monies being raised here would not go into purposes other than direct greenhouse gas reductions.

Could you comment on what you see it may be lacking here?

**Ms. Jacqueline Wilson:** Sure. The first thing is that I think the language is too weak currently. If that's the purpose of the account—as it should be—the language needs to be strengthened:

—under subsection (2) of section 68, the language that allows "directly or indirectly" is too weak;

—"costs relating to initiatives described in schedule 1 ... that are reasonably likely to reduce"—"reasonably" should be removed; it should just be "likely to reduce";

—"or support the reduction of" is too weak; that should be removed. "Greenhouse gas"—period.

So it should be "that are likely to reduce greenhouse gas emissions." That should be what's funded. There's too much wiggle room in those words.

The next is that it's not clear in Bill 172—from the wording, anyway—that it's going to fund only those new additional initiatives or expand existing initiatives, rather than using the funds for existing environmental initiatives that are working to reduce greenhouse gas emissions. If we're going to make our targets, obviously, we need more; we need new environmental initiatives that are going to get us there, and these funds can only be used for those. That needs to be clear, and I don't think it is right now.

**Mr. Arthur Potts:** Fair enough.

You also speak—in the use of funds—about a special-purpose account. I get what you're saying there. But then, as part of your answer to Mr. Tabuns, you said that you would like to see tax credits going back to low-income people who can't make the changes. That seems like a social program, as opposed to direct targets. So there seems to be an inconsistency: You're advocating use of funds to support people whose gas prices or electricity prices may have gone up, but there is no direct program to reduce greenhouse gases associated with that. If that's 25% of the fund, that's a lot of money not being used for greenhouse gas reduction.

**Ms. Jacqueline Wilson:** I think that could be addressed through changes in wording that would allow section 68 to either reduce greenhouse gas emissions or assist low-income communities with the transition, which could reduce greenhouse gas emissions in those communities. If you get two birds with one stone, that's great. Things like social housing retrofits, retrofits of

other housing—those are both those purposes. But I think that could be addressed just through a wording change. As it's currently worded—

**Mr. Arthur Potts:** But through a tax credit? Because what are the chances that someone in a low-income building is going to pool all their tax credits to go and renovate that building? It's not going to happen. But if the program was specifically targeting to renovate that building and reduce the use of greenhouse gases in warming it etc., then they would all have that benefit.

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**Ms. Jacqueline Wilson:** Yes, that's right. I think realistically, though, people are still going to fall through the cracks, which is why you need some kind of direct benefit. So if that needs to be dealt with through wording, I think the amendment should be made to make sure those communities are being taken care of.

**Mr. Arthur Potts:** Thank you.

**The Chair (Mr. Grant Crack):** Thank you, Jacqueline, for coming before committee this afternoon. It's much appreciated.

#### SUSTAINABILITY COLAB

**The Chair (Mr. Grant Crack):** Next on the agenda we have, from Sustainability CoLab, the executive director and founder, Mr. Mike Morrice, again via teleconference. Mr. Morrice, are you with us?

**Mr. Mike Morrice:** I am, yes.

**The Chair (Mr. Grant Crack):** It's great to have you here. I believe you're from Ottawa?

**Mr. Mike Morrice:** That's right.

**The Chair (Mr. Grant Crack):** Excellent. We welcome you to committee this afternoon. You have 10 minutes for your presentation, followed by nine minutes of questioning from the three parties. The floor is yours, sir.

**Mr. Mike Morrice:** Wonderful. Thank you. I very much appreciate the opportunity to be in front of the committee this afternoon. I'm honoured to be asked to be before you to provide some comments, and particularly the accommodation via teleconference is much appreciated.

Let me start with some background for those not familiar. Sustainability CoLab supports a whole network of non-profits right across the province that are building a low-carbon economy. Our members support businesses and organizations to track their emissions and to set and achieve targets that work towards getting GHG reductions while at the same time both increasing their profitability and growing the low-carbon economy.

This all comes from a made-in-Ontario social innovation that started in Waterloo region back in 2009, where the Regional Carbon Initiative was launched to do the same thing: to convene a whole network of businesses, to support them in voluntarily setting targets, to achieve and make progress against those targets, and to celebrate those that do particularly well.

In just five years, this program grew to include organizations that employ over 14% of the local workforce. Collectively, these organizations, without any kind of regulation, voluntarily set targets to reduce their carbon by over 50,000 tonnes. Businesses that participated ranged from all sizes and sectors: manufacturing companies, mid-sized service companies, and large multi-nationals the likes of Ernst and Young and Sun Life Financial.

As a result of some of the success, as well as knowing that the businesses that participated actually were paying fees to participate, other communities across the province wanted to replicate the model, and so Sustainability CoLab was formed back in 2014 to share what had worked so well in Waterloo region. Today, the CoLab network is made up of eight non-profit organizations across the province, including many that operate in the communities in which you all work and live. These include Durham Sustain Ability, EnviroCentre in Ottawa, the Niagara Sustainability Initiative, reThink Green in Sudbury, Sustainable Hamilton Burlington, Sustainable Kingston, and Sustainable Waterloo Region, as well as the Windfall Ecology Centre in York region. These are networks across the province that are inspiring communities to reduce greenhouse gases outside of regulation.

Knowing that the overwhelming majority of businesses in our network do not fall under the proposed 25,000-tonne threshold for cap-and-trade, by virtue of these organizations existing in these communities across the province, we know that the minimum bar for sustainability is being raised. But as we see entire sectors being factored in—Waterloo region, for example, participating in a voluntary program to reduce their emissions—those that aren't in become conspicuous by their absence.

We've seen investments in the low-carbon economy. In 2013, for example, in just one community, five organizations set targets, and as they did that, they completed energy audits and projects that totalled \$160,000 of investment in low-carbon projects and services. And of course, as I mentioned earlier, at the same time, we know that they reduced greenhouse gases.

To date, 125 businesses are participating across the CoLab network that back in 2014 had already reduced their emissions by almost 30,000 tonnes.

We are so very pleased to see Bill 172. We're very encouraged to see the beginnings of some strong legislation to go alongside the low-carbon economy that has already been under way across the province for a number of years. We're very glad to see the prominent acknowledgement of the importance of a two-degrees-Celsius warming target, as well as the more ambitious 1.5-degree target from COP 21 and the clear call for a transition to a low-carbon economy, knowing, again, that this transition is one that will lead businesses to be more profitable, to reduce their emissions and grow a low-carbon economy at the same time. We feel that this helps to contextualize the legislation as part of a strong signal toward this deep transition to a low-carbon economy happening in this province, across the country and, in fact, around the world.

There are a few areas of the bill that we feel could be improved. We are a member of the Clean Economy Alliance. We are proud to have been part of that process, working with Environmental Defence and others over the past several years. I understand you've already heard from Keith Brooks, and I understand you've had a number of recommendations from him on behalf of the CEA, so instead, I'll keep my remarks really brief and will focus on two that we feel are most relevant to our networks. Those are, first of all—and I'm sure you've heard a lot about it—the transparency and accountability of the Greenhouse Gas Reduction Account, and then secondly the need for clarity around the free allowances being provided within the system.

I'll start with the Greenhouse Gas Reduction Account. I have a few points here to make. First of all, we encourage the government to ensure that the Greenhouse Gas Reduction Account has very transparent criteria, specifically to ensure that all investments are those that are directed specifically toward new, unfunded initiatives that directly reduce greenhouse gases.

Secondly, we would encourage an increased role for the Ministry of the Environment and Climate Change in decision-making related to the Greenhouse Gas Reduction Account. Currently, we note that in the legislation, it is being overseen by the Treasury Board. We recognize that there are assets within the MOECC around relationships, as well as the data and methodology around greenhouse gas accounting, which we feel position the ministry to be in a better position to be able to ensure that those projects that are funded through the GGRA are in fact those that directly reduce GHGs.

Thirdly, we encourage increased oversight and transparency in the mechanism around which proceeds are being invested. Of course, public confidence in this fund is absolutely critical, as you heard from the last speaker. We very much agree with the encouragement to create a special-purpose account. Currently, in section 68, that is not made clear; that is quite vague. We strongly encourage that.

Secondly, on the free allowances: Our sense is that currently, the free allowances go beyond addressing the leakage risk that we understand is a critical part of the legislation. In fact, it goes a step further to potentially disincentivize companies from taking early action and prolonging the transition of the measures. Specifically, our encouragement is to directly connect free allowances to the actual leakage risks. As I'm sure you've heard from others—the recent report from the ecofiscal commission is a fantastic resource to point to—the finding is that it's just 2% of the economy that's directly exposed to competitive pressures from carbon pricing.

Secondly on free allowances, around publishing the allowances: We would encourage you to follow the lead of partners or proposed partners through the WCI, specifically Quebec and California, to at least publish as much information as those two jurisdictions do. That transparency, when it comes to free allowances, will increase the credibility of the market.

That closes the two recommendations that we have for the committee. In conclusion, again, I'm really encouraged by the momentum happening at all levels of government, and I'm really glad to see the province playing a critical role that we know will begin to make progress in climate change, reduce GHGs and grow a low-carbon economy at the same time. We know that there's a large gap to go to get toward ambitions like two degrees Celsius, and legislation like this is part of what will get us on that path.

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Finally, I want to provide an invitation to any members of the committee who are curious to see what a low-carbon economy across the province already looks like. There are galas happening of businesses coming together right across the province. We had the Green Economy Kingston launch. We're really glad that there is a strong network launched in MPP Kiwala's riding. In Waterloo region next Thursday night, over 400 leaders of the business community will be coming together to report back on the progress they made over the past year, and in Durham that same afternoon it's the same thing. We'll be glad to share more with committee members separately about that.

Thank you for your time, and I'm glad to take any questions.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Morrice. You're right on time, it's so much appreciated.

We'll begin with the government. Mr. Potts.

**Mr. Arthur Potts:** Thank you, Mr. Morrice, for taking the time to be with us today, and congratulations on some of the work your organization is doing. I know that in the past couple of years, your collective organizations have reduced something on the order of 29,000 tonnes of greenhouse gases—over 6,000 cars equivalency off the road. That's really impressive.

What I'd like to talk to you about is these early adopters who have seen these reductions happening in real time before this bill is put into place. How does passage of this bill facilitate them in moving further and further in their greenhouse gas reductions?

**Mr. Mike Morrice:** That's a great question. We see this bill as part of the dynamic relationship between voluntary and regulatory actions. Specifically, a bill like this makes clear the signal that the transition to a low-carbon economy will not be solely expected to happen through the private sector.

One example recently was the introduction of regulation 397/11 around public sector entities. As the various organizations our members work with saw that expectation of public sector entities increasing, that was the signal that more is to follow. We see that as a very complementary relationship. Voluntary action on its own is not enough, and regulatory action on its own is not enough either. So we will continue to play our part as—I think you're right on the mark to say—early adopters across the province, and our hope is that with legislation like this in place, it will allow us to go one step further, to

point this as the signal by our government that this is the direction the economy is headed in that will allow us to reach a wider section of the economy, and to grow the number of groups that are voluntarily taking action, which in turn, we hope, sets the stage for again a more fulsome approach from government to support and incentivize business to be a large part of the growing low-carbon economy.

**Mr. Arthur Potts:** Yes, and you mentioned the Kitchener program coming up shortly, that is pursuant to, I think, \$1 million a couple of months ago out of the Green Investment Fund. Can you give a sense of how that money will be spent and what kind of reductions will result?

**Mr. Mike Morrice:** It's such a great example of the government being able to leverage partners to deliver GHG reductions. The million-dollar investment in the CoLab network will be specifically used to create an incentive fund that, as organizations like Sustainable Kingston and reThink Green in Sudbury get more businesses setting more targets faster, they will be incentivized by us. As opposed to just a high-five, they'll get a cheque that they can then reinvest in more staff, more software, more support to make it that much easier for more businesses to set voluntary targets faster—leveraging the fact that emissions have been reduced through the network so far came at a cost of \$11 a tonne. Those are direct, incremental, additional GHG reductions that we fully intend to leverage that funding to achieve more faster.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Morrice. Thank you, Mr. Potts.

We'll move to the official opposition for questioning now. Ms. Thompson.

**Ms. Lisa M. Thompson:** Thank you for joining us via telephone today.

I understand that congratulations are in order in Waterloo region, Mr. Morrice—specifically by Wilfrid Laurier. You've been recognized as a young alumnus, as well as a young entrepreneur. As such, I would imagine you're a mover and shaker. I'm just curious: Have you ever attended a Liberal activity or function in the Waterloo region?

**Mr. Mike Morrice:** I have not. I don't believe so.

**Ms. Lisa M. Thompson:** Okay. Thank you very much.

Specifically with regard to the million dollars that you received from the Green Investment Fund: The information that we saw in the media noted that it was late February when you received the million dollars. Have you signed the memorandum of agreement or understanding at this time? If so, what are the performance measures or specifically the metrics in which the government is going to ensure that Ontario taxpayers get a good return on their investment?

**Mr. Mike Morrice:** That's such a good question, thank you. Let me clarify. First of all, the announcement was made in February. The agreement was signed off on a few days ago. In that agreement, the performance

measures are right in there; we'll be glad to have our team share that with you—

**Ms. Lisa M. Thompson:** Thank you.

**Mr. Mike Morrice:** Again, the measures are, very specifically, as I mentioned, that these are funds that will only be released to non-profit organizations across our network as they achieve reduction. Specifically, as businesses in Sudbury and Niagara are setting more targets and achieving targets that both reduce their emissions and increase their profitability at the same time, that's when funding will be released to them. Our measures to the province are exactly the same as we will put to our members. In doing that, that ensures that every dollar of support is directly being used to create more capacity amongst non-profit community organizations across the province whose sole job is to make it that much easier for businesses who won't be affected by this cap-and-trade market to be a part of it, and then be inspired by and learn from others to, again, get more GHGs reduced faster. So we're really excited about it and, again, I would be very glad to share with you more about the specific terms.

**Ms. Lisa M. Thompson:** Thank you very much, Mr. Morrice. I'm glad you appreciate that it was a good question. I noted that you will share the agreement—I'm looking to the Chair and the Clerk. Again, you'll be able to share your MOA—was it an MOA or a MOU?

**Mr. Mike Morrice:** I will defer to the Clerk on what's appropriate in this case, and we can discuss more details afterwards around the specific terms and agreements to be shared.

**Ms. Lisa M. Thompson:** Thank you very much, I appreciate that.

**Mr. Mike Morrice:** Sure.

**The Chair (Mr. Grant Crack):** Thank you.

**Ms. Eleanor McMahon:** Chair, a point of order.

**The Chair (Mr. Grant Crack):** Go ahead, Ms. McMahon.

**Ms. Eleanor McMahon:** I really have to question what that line of questioning has to do with this piece of legislation. We gave \$25 million to the Canadian Manufacturers and Exporters, and I didn't hear the member opposite ask for their MOU, their conversation with the provincial government. So I think it's mildly offensive that she would go after a not-for-profit in this way, and I just want to express that on the record, Mr. Chair. I find it offensive.

**The Chair (Mr. Grant Crack):** Thank you. That's not a point of order.

Mr. Tabuns.

**Mr. Peter Tabuns:** Mr. Morrice, thank you very much for being available this afternoon. Can you or have you provided a written copy of your comments to the committee?

**Mr. Mike Morrice:** We absolutely will. We understand the deadline to do so is Wednesday afternoon, so written comments will be provided then. We also provided a written submission on the legislation earlier in the comment period back in the fall.

**Mr. Peter Tabuns:** Okay. Thank you. I have no further questions.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Tabuns, and thank you, Mr. Morrice, for coming before committee via teleconference this afternoon. It's much appreciated.

**Mr. Mike Morrice:** Again, thank you so much for having me.

**The Chair (Mr. Grant Crack):** You're quite welcome.

## ENERGY STORAGE ONTARIO

**The Chair (Mr. Grant Crack):** Next on the agenda, we have Energy Storage Ontario. We have Mr. Jim Fonger, who is senior business developer at Ameresco. We welcome you this afternoon, Mr. Fonger. You have 10 minutes for your presentation, followed by nine minutes of questioning, sir.

**Mr. Jim Fonger:** Thanks very much. Good afternoon, members of the standing committee. Thanks for having me here today. As mentioned, my name is Jim Fonger, and I've got the honour today to speak on behalf of Energy Storage Ontario. To introduce an acronym, that would be ESO from this point forward.

### *Interjection.*

**Mr. Jim Fonger:** There you go. On behalf of ESO's member companies, I'm really glad to be here today—including the one that employs me, which is Ameresco Canada Inc.

ESO is the voice of energy storage in Ontario. We are an advocacy organization that represents the broad range of companies engaged in the energy storage business in the province. ESO is, in fact, the only trade association in Canada focused on advancing the role of energy storage and building the market for the energy storage business. ESO was incorporated just two years ago and has become the hub of activity for energy storage in Canada. Through networking, knowledge sharing, advocacy and stakeholder education we're helping to build a stronger industry and showcase the value that energy storage can bring to the system.

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Our membership represents all players along the value chain, including technology providers, project developers, power generators, local electricity distribution companies and NGOs. Attached to this submission you'll see the full list of our membership.

Energy Storage Ontario welcomes Bill 172 and Ontario's plan to put a price on carbon through a cap-and-trade program. This is an effective policy instrument to curb carbon emissions and shape new practices and behaviour.

Building on Ontario's groundbreaking initiative to go off coal, the province is now in a tremendous position to demonstrate to the world how an economy can grow prosperity while migrating to low-carbon energy systems. But to get there, three critical components are required: first, an economic value on carbon that provides con-

sumers and businesses with financial reasons to move to low-carbon energy systems; second, high-efficiency energy systems that use less energy to do the same or more work; and finally, energy storage systems that will ultimately reduce fossil-based energy generation through the continued use of current carbon-free energy systems and the further deployment of intermittent renewable generation such as wind and solar.

Energy storage is often called the Swiss Army knife of resources. It adds value at all points in the energy system, from generation to distribution to transmission. It increases the value of the energy produced by other sources and adds capacity value to the system. There is a wide range of energy storage technologies, which include different types of batteries, flywheels, power-to-gas systems, compressed air and pumped hydro. Energy storage optimizes all the resources on the electricity grid, lowers greenhouse gas emissions, can help defer costly transmission and distribution system upgrades, and increases grid resiliency and efficiency.

Energy storage has the ability to both instantly absorb excess energy from and insert required energy into the electricity grid as required. This permits the following:

- the storage of Ontario's persistent surplus of low-emission baseload generation capacity at night into both high-value areas on the transmission grid and load centres within the distribution grid to be used during periods of high demand. Not only does this maximize the value of current energy generation resources, it also maximizes the use of existing transmission and distribution assets through reduced congestion in periods of high demand;

- the rapidly growing energy contribution of carbon-free energy from renewable, intermittent sources can be smoothed out and made much more reliable, allowing a much greater percentage of them to be introduced into the electricity system;

- the deployment of local area microgrids that will provide communities with energy resiliency, improving the reliability of local energy supply during climate change-induced weather events; and

- the mass adoption of electric vehicles onto Ontario's roads without the need for a complete redesign of the distribution grid, facilitating energy-storage-based vehicle charging stations.

In the 2013 long-term energy plan, Ontario took important leadership on energy storage with its 50 megawatt procurement. These procurements have made Ontario a leading jurisdiction on energy storage in North America, but it's just the beginning. These procurements were well oversubscribed, with a variety of innovative and fully commercial energy storage projects that have set the foundation for the applications that improve grid operation and resiliency in Ontario.

Energy storage can also provide low-cost options for customers to decrease emissions and electricity bills by shifting their energy demand from on-peak to off-peak periods; move northern communities off diesel-based energy systems; assist large industrial and small retail customers in conservation and demand management

through on-site energy storage systems; and finally, jump-start Ontario clean-tech manufacturing, exports and transition to a low-carbon economy.

A specific, immediate opportunity through Bill 172 is in front of you. Ontario has many of the necessary ingredients to emerge as a global leader in energy storage, including aggressive GHG reduction and low-carbon economy policy objectives. There is an opportunity to use storage in Ontario to reduce carbon from gas plants by up to 4.5 million tonnes of CO<sub>2</sub> per annum.

In 2015, 91% of available gas-fired generation capacity ran, on average, for just under three hours each day, accounting for 8.3 terawatt hours of Ontario's electricity generation and emitting approximately 4.5 million tonnes of CO<sub>2</sub>. Approximately one million to 1.5 million tonnes of CO<sub>2</sub> out of this 4.5 million tonnes could be eliminated with 1,000 megawatts of energy storage by negating two to three terawatt hours of thermal gas power generation.

Currently, the environmental benefits of transmission and distribution-based storage, such as GHG reductions associated with displacing gas-fired generation, and the potential for storage to facilitate electrification of the transportation sector, are not adequately taken into account when energy agencies make their planning decisions.

In conjunction with wind and solar, storage can also play an integral role in northern off-diesel strategies for Ontario's First Nations and the Ring of Fire. Specifically, storage plus renewable microgrids can greatly reduce the amount of expensive, dirty diesel being shipped to these communities, while increasing power supply resiliency and reliability. These solutions can be installed quickly and can bridge the gap for communities before they're connected to the transmission line.

Recommendation for inclusion into Bill 172: The government should earmark an initial \$100 million from auction revenues for an energy storage deployment fund. This amount represents the annual carbon emissions from non-baseload peak gas-fired generation in the province. It assumes a \$17-per-tonne carbon price and the potential diesel savings from deploying storage plus renewable microgrid solutions in remote communities. As gas- and diesel-fired electricity is significantly reduced through clean technologies, the annual contribution to the fund from auction revenues could decline accordingly.

The fund's specific objective would be to help deploy 24,000 megawatt hours of storage throughout the Ontario transmission and distribution grids, which would eliminate the need for gas-fired peak generation, reducing annual carbon emissions by 4.5 million tonnes, or 4.5 megatonnes, and deploying storage plus renewable microgrids in partnership with diesel-based remote communities.

The province could then invite applications from both private and public sectors to apply to the fund, to help deploy energy storage systems that meet one or more of the following criteria:

- support the elimination of GHG emissions from peak-energy inefficient gas-fired generation;

- support the move to the electrification of the transportation system through better utilization of existing generation, transmission and distribution assets;

- support the utilization of surplus baseload, eliminating the need to spill hydro and curtail renewables and to further support the better integration of renewables into Ontario's electricity system;

- support the transition of northern remote communities from diesel to renewable energy systems; and, finally,

- assist industrial, commercial and residential customers in conservation and demand management through behind-the-meter energy storage systems.

Energy Storage Ontario views Bill 172 as a very important step in ensuring environmental benefits as well as necessary economic benefits through job and new company creation. We fully support the legislation and hope to see carbon values at levels high enough to spark immediate change in personal and corporate behaviour.

Thanks for hearing me this afternoon. I'm happy to answer any questions you have.

**The Chair (Mr. Grant Crack):** Great job. You had 24 seconds left. I appreciate it. Well done.

Sir, we're going to begin questioning with the official opposition. Mr. McDonell.

**Mr. Jim McDonell:** The current bill, as we see not only through the budget, but through the details of the bill, has no requirements for any of the money to go back to initiatives like you're talking about. What would you like to see in this bill as far as the revenue that's generated off of cap-and-trade?

**Mr. Jim Fonger:** I think our understanding is that the money from cap-and-trade is going to go into green initiatives that further reduce carbon. Is that correct?

**Mr. Jim McDonell:** Okay—

**Ms. Lisa M. Thompson:** Not necessarily; 68 eight leaves it pretty open-ended.

**Mr. Jim McDonell:** Right now, it's basically a slush fund, and we see the money going into general revenue in this year's budget.

**Mr. Jim Fonger:** I think that's one of the reasons we're putting this forward—

*Interjections.*

**Ms. Lisa M. Thompson:** Shh, listen. Listen.

Could you repeat that, please?

**Mr. Jim Fonger:** Sorry. I think one of the reasons we're putting this forward is this is a specific example of what could be done with these funds, and the actual resulting benefits of doing so.

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**Mr. Jim McDonell:** As far as energy storage, what system do you believe has the greatest opportunity, going forward?

**Mr. Jim Fonger:** In terms of different types of energy storage systems?

**Mr. Jim McDonell:** Yes.

**Mr. Jim Fonger:** The great thing about energy storage is that there is a variety of different technologies, each of them doing different applications. For instance,

flywheels provide a great opportunity to provide voltage support to the system, which really helps the deployment of further wind and solar systems. On the other hand, longer storage systems like lithium-ion batteries, pumped hydro storage or gas-to-energy applications can basically take excess electricity that is produced at night, which is carbon free, and store it for different applications through the day.

Some applications are better on the transmission grid; other technologies are better on the distribution grid. That's the great thing about the overall set of technologies: There are lots of different things that can be used.

**Mr. Jim McDonell:** Do you feel the province has moved adequately on storage systems, or are you aware of any projects that you've actually awarded as far as some of their FIT programs?

**Mr. Jim Fonger:** There have been 50 megawatts of storage awarded: 35 megawatts about 18 months ago and another 15 megawatts in the late part of last year. They're all about to come online.

We certainly would like to see, and think there is a great opportunity for, putting much more online, as our ask is for 24,000 megawatt hours.

**Ms. Lisa M. Thompson:** Very good. Have you tracked the amount of money that has been spent by this government to curtail turbines not to turn?

**Mr. Jim Fonger:** If you look at the overnight period of electricity, there are periods when it goes negative.

**Ms. Lisa M. Thompson:** Yes.

**Mr. Jim Fonger:** That is basically to provide some incentive to curtail excess generation.

I think the popular view is that this is wind turbines. If you actually get into the system itself, what you'll actually find is that it's a combination of not being able to curtail nuclear as much as you would like to, so there's a variety of reasons why there is excess energy on the system right now. To say that it's all a result of a renewable issue is certainly not an accurate comment.

**The Chair (Mr. Grant Crack):** Thank you very much. I gave you some extra time, too.

Mr. Tabuns.

**Mr. Peter Tabuns:** Mr. Fonger, thank you for being here this afternoon.

**Mr. Jim Fonger:** Thanks for having me.

**Mr. Peter Tabuns:** When you talk about a carbon value at a level high enough to move activity, what dollar value are we talking about per tonne?

**Mr. Jim Fonger:** I think that's a really good question. Obviously, there needs to be a mix between moving into this particular kind of cap-and-trade and where it's ultimately going to go. If you're looking at a value somewhere in the neighbourhood of \$17 to \$20 for a price on carbon, that basically affects a consumer who drives an automobile that gets an average of 100 kilometres per 10 litres about four cents a litre at the gas pump. I think you've seen that the price of gas over the past year has basically come down a significant amount.

Overall, our sense is that for cap-and-trade to really start to change behaviour, it certainly is going have to

migrate to a level that is much higher than the dollars that are currently in the public domain for where it's going to start.

**Mr. Peter Tabuns:** Okay. I have no further questions. Thank you very much.

**The Chair (Mr. Grant Crack):** We'll move to the government side. Mr. Potts.

**Mr. Arthur Potts:** Mr. Fonger, thank you so much for being here. I've got to tell you that I'm so excited about this field you're in. As an entrepreneur myself before I got into this role, I've seen so much and worked on some sustainable energy projects in the past where more storage—better storage—would have been just the solution.

I was at a fishing camp outside of Sudbury, for instance, that has a 15-kilowatt water wheel, and it goes constantly. In order to keep that, you have to have floodlights everywhere. So in the middle of the night, it's lit up with all these floodlights, and in the morning when they make toast, the floodlights are their buffer. When you put the toaster down, the lights just dim a little and come back up.

**Mr. Jim Fonger:** They're the load.

**Mr. Arthur Potts:** So, the storage: You guys will make wind, you'll make solar, you'll make so many of the sustainable technologies that we're talking about work really efficiently in the system. I'm just delighted that you're here to bring your comments.

To Mr. Tabuns's comment about pricing, you'll be more competitive in the marketplace when carbon pricing gets to a certain level, when you will be more competitive with natural gas, which is at an all-time low as an energy source. Are those the kinds of things you see this piece of legislation assisting you in moving forward?

**Mr. Jim Fonger:** Absolutely.

**Mr. Arthur Potts:** That's a nice, short, sweet answer. I love it.

Northern communities—that's the other one—microgrids like that fishing camp: For us to get northern remote communities off diesel and into solar, wind and other forms of generation—renewable gas, for instance—in a way that they can store it and then have it available at night when they need it. You have solutions. Maybe you could talk about some of the work Ameresco is doing in this area.

**Mr. Jim Fonger:** Ameresco actually is an off-grid division that does a lot of what you're talking about on a very small scale. I think that overall for the industry there are great opportunities for northern communities to actually be small pilot projects to show what can really be established across the province.

In northern Ontario, of course, you don't have a great deal of sun in the wintertime, so it does require that you're going to have to deploy some wind resources. You will need a little bit of everything. You'll need some wind resources, you'll need some solar resources and you'll need some energy storage. Of course, if you could migrate them to electric vehicles—vehicles that are powered by electrification. They provide an excellent

opportunity for not only what's possible there, but what's possible throughout the whole province.

**Mr. Arthur Potts:** Thank you for being here. I much appreciate your comments.

**The Chair (Mr. Grant Crack):** Thank you, Mr. Fonger, for joining us this afternoon. It's much appreciated.

**Mr. Jim Fonger:** Thanks very much for having us.

**The Chair (Mr. Grant Crack):** You're welcome.

#### CHEMISTRY INDUSTRY ASSOCIATION OF CANADA

**The Chair (Mr. Grant Crack):** Next we have the Chemistry Industry Association of Canada; Mr. Scott Thurlow, counsel and director of environment and health policy—it's probably his first time here at Queen's Park.

**Mr. Scott Thurlow:** It's really nice to be here.

**The Chair (Mr. Grant Crack):** It's not his first time.

We want to welcome you to the committee this afternoon.

**Mr. Scott Thurlow:** Thank you very much, Mr. Chair.

Good afternoon. My name is Scott Thurlow. I'm legal counsel and director of environment and health policy for the Chemistry Industry Association of Canada.

I'm very pleased to participate in this hearing and happy to represent Ontario's third-largest manufacturing sector. Our industry is a \$22-billion industry in the province and indirectly supports 215,000 jobs here in the province. The overwhelming majority of our products are exported—a theme that will run through my presentation.

Our industry is the solution—pun intended—to the climate change problem. Chemistry will help other sectors improve their GHG footprint. New building materials, better insulation and stronger fabrics: These advances in chemistry will help all other manufacturers reduce their emissions.

Our industry is supportive of the purpose behind Bill 172. Across Canada, the chemistry industry has decreased absolute GHG emissions by two thirds since 1992. In Ontario, absolute GHG emissions have decreased by 24%, while our sector's contribution to GDP has grown by 20%.

We are doing our part, but let me tell you how we did it. We achieved these reductions through investments. We take existing footprints and build new efficiencies into them and expand their presence. We have won global competitions for investment because of the many features that make Ontario attractive to investors.

I have often heard the Premier and the minister talk about how efficient and advanced our manufacturing sector is in Ontario, and there is no better example than Ontario's chemical sector. By switching feedstock sources from crude oil to natural gas liquids, Nova Chemicals has seen significant emission reductions in the past few years. BioAmber, located in Sarnia, is the first commercially operating facility in the world to make

succinic acid from biomass, resulting in zero greenhouse gas emissions from their facility.

Across our industry, we have achieved impressive GHG reductions through product and process re-engineering, as well as energy-efficiency improvements. But let's be clear about one thing: Those emissions reductions largely took place at the times when companies made significant investments in their Ontario operations, including \$185 million in BioAmber and the \$500 million invested so far under Nova's 2020 growth plan. For us, it's simple: If we wish to achieve significant greenhouse gas reductions, we need a policy environment that supports significant new investments.

I want to be fair. Canada and Ontario have many things working in their favour: low corporate taxes, market access, infrastructure, skilled workers and many others. In total, these conditions are sufficient to get Canada and Ontario onto the short list of two or three locations when global companies are looking to make their next multi-billion dollar investment. This is good, and it's something we should be proud of. Unfortunately, though, it's not enough. When trying to attract world-scale investments, it's only first place that counts. It's like all forms of sales: Others on the short list get nothing. This is what gives us pause and concerns with Ontario's current climate change policy.

There are many aspects of the statute and total climate change plan that our industry will support; for example, the requirement found in Bill 172 to ensure that capital coming from industry under the cap-and-trade program will be reinvested into the industry. This is a strong signal of the government's intent to continue to invest in the sector. Unfortunately, it's undermined by what lies in wait beyond 2020. We don't know, but we imagine that there will be very steep reduction requirements.

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Our industry has a very long investment cycle compared to other industries. It can be as long as seven to 10 years after an initial investment has been committed to. The government has signalled its intention to protect energy-intensive, trade-exposed sectors like ours. Minister Duguid has done a yeoman's service in pushing to see sectors like ours protected from global forces, and he should be applauded for his actions.

Unfortunately, the current climate change plan, despite its best intentions, will not adequately protect those sectors. This plan will not make up for the added costs that Ontario industry will face when compared to our global competitors who will face no similar carbon charges. The steep reductions required under the plan—almost 5% over the next four years, per year—will be an added cost to our existing operations. Those costs are not present in Louisiana, New Jersey, the Middle East or China; that is where investment will flow. For a sector with over \$150 billion to invest worldwide, Ontario is sending the wrong message.

Ontario can learn from British Columbia in this regard. In announcing the recent carbon policy changes, the Premier herself noted that no new costs will be levied

against the energy-intensive, trade-exposed sector, in the province of British Columbia until their competing jurisdictions catch up. This was an assurance made by the Premier to ensure that the province's EITE industries were protected. Premier Clark learned from some pretty daunting experiences, and we are in a position right now to learn from British Columbia as well.

I'd like to give you one very good example of how this policy will contribute to losing global investment. The Jungbunzlauer—or JBL—plant in Port Colborne was on the fast track to expand its facility significantly. Using Ontario government incentives, they actually built a cogeneration system to generate heat and steam for their chemical process. They need this heat and steam for their processes or else the micro-organisms at the heart of their chemical reaction—a living biological process—will literally die. They have no choice but to have this cogeneration system; it is a vital piece of equipment.

The cap-and-trade model being proposed will require them to purchase allocations to fully cover the emissions associated with the power which they gain from the cogeneration system, but not the heat and the steam. This is an added cost that their Chinese competitors do not face—nor do their American counterparts, as cogeneration systems are explicitly exempted from the US EPA's climate change plan. The province actually incented that this equipment be built. Had they not done so, JBL would not even be captured by the GHG plan under the threshold for inclusion by the proposed cap-and-trade system.

We feel that the arbitrary treatment of greenhouse gas emissions from industrial electricity cogeneration is inconsistent with the treatment of other GHG emissions at other EITE facilities in Ontario. A simple fix has been proposed by CIAC and JBL. The result is that added production will head to China or America with no tangible benefit to the global environment and certainly no benefit for Ontario. It remains our view that Ontario needs to look beyond regulating industrial emissions if it wants to meet its long-term climate change objectives. Major gains are possible at the consumer level and it is in this area that the chemistry sector can have the greatest positive impact.

Ontario has made very bold choices in its transition to a lower-carbon economy. A vibrant and sustainable chemistry sector can be providing Ontarians with a sustainable, competitive advantage. Through our products and technological innovations, through chemistry and critical applications such as electrifications, transport, energy conservation and the materials required for mass energy storage in Ontario, we are poised for success.

We believe it would be counterproductive to implement carbon policies and rules that will serve to discourage developments and investments in the chemistry sector in Ontario. This is particularly acute at a time when the province resolutely seeks to transition to a more sustainable economy.

I'd like to finish by giving our top recommendations on how to marry Ontario's ambitious cap-and-trade plan

with the desire to attract new large-scale investments to the province:

First, take your time—at the very least, an extra year, like the province of Quebec did. Let's ensure that we get it right, rather than getting it done quickly.

Second, we need to really revisit the accelerated discount rate in the allowance formula for the energy-intensive, trade-exposed sectors. For our sector, as I said, this is almost a 5% reduction in emissions per year. Considering the reductions that we've already made, we believe that this is too much too fast, and it will impose significant cost not seen by our competitors in neighbouring jurisdictions.

Finally, we need a clear policy statement from the government with respect to post-2020 emission reduction requirements. We need Ontario to echo the Premier of British Columbia in her comments to protect EITE industries in the future. After the coal phase-out and the introduction of the first phases of cap-and-trade, Ontario must pause until our competitors—especially those south of the border—have a chance to catch up.

If these three recommendations are taken into consideration, the chemistry sector will be able to contribute effectively to the government's emission reductions objectives. In so doing, it will help ensure that the proposed cap-and-trade regulations do not unnecessarily result in a shift in production to jurisdictions not yet covered under a carbon pricing mechanism. This will prevent carbon leakage from the EITE sector to competing jurisdictions.

Following these recommendations will allow the Ontario economy to benefit from our products and the chemistry solutions other manufacturers will need to meet the demands of a low-carbon economy.

Thank you very much, and I'm happy to take any questions that you may have.

**The Chair (Mr. Grant Crack):** Wow, within three seconds; a good job.

**Mr. Scott Thurlow:** First time.

**The Chair (Mr. Grant Crack):** Very good. Thank you, Mr. Thurlow.

We'll begin with the third party. Mr. Tabuns.

**Mr. Peter Tabuns:** Yes, Mr. Thurlow, thank you for coming in this afternoon. It's much appreciated.

When you talk about clarity after 2020, if the government were be clear in this bill that clarity after 2020 was a 2%-per-year or 4%-per-year reduction in free allowances, is that the kind of clarity you're looking for, or are you saying that there should be no burden on these companies after 2020 to contribute to this plan?

**Mr. Scott Thurlow:** I didn't say the latter and I don't necessarily agree with the former. What we would like to see is a detailed target about what those reduction targets will be. For the minister to say, "By 2030, we're going to be at X% below our 2010 number," that's not really helpful because we don't know how it's going to be allocated between every industry.

As I've mentioned, in British Columbia they have done a very good job of specifically saying, "We will not

increase additional costs on energy-intensive, trade-exposed industries because we know that all that's going to do is"—as my friends from the manufacturers said earlier—"have BC cement go to Washington." We know that the capital flight out of Ontario would be significant, if those protections aren't there.

That having been said, to the second point that you were going to make: Our industry has done its share. We have reduced emissions by two thirds since 1992, which is the pre-Kyoto number—by two thirds. In the original outlay of time since then, the low-hanging fruit is gone, which means that the fruit that is left are very, very difficult to get to. But, again, we're up to the challenge. We need to know what that challenge is, because as I said in my remarks, business planning for our industry is seven to 10 years. We can't make the investments that we need to make to meet those targets unless we know what they are seven to 10 years out.

**Mr. Peter Tabuns:** Do you make your products primarily for the Ontario market or for the North American market?

**Mr. Scott Thurlow:** The vast majority of our products are exported, so we are competing with the markets in Michigan, in New York, in New Jersey, in Louisiana. Very few of our products stay in Ontario. It's a global market.

**Mr. Peter Tabuns:** Does most of your feedstock come from outside of Ontario?

**Mr. Scott Thurlow:** No, actually. For example, BioAmber and JBL, two companies that I referred to in my presentation—100% of their feedstock comes from within the province. With JBL, that's Ontario corn. So if something happens to JBL, that's a market for our grain farmers which won't exist in the future.

**Mr. Peter Tabuns:** What do you see as the long-term impact of climate change on your industry?

**Mr. Scott Thurlow:** That's an interesting question. I would tell you that the long-term impact is going to be a positive one for our industry, as our industry is the innovating industry that will allow for change, both from mitigation and adaptation, to come to fruition. What we want to do is make sure that all of that investment and all of that research and development is focused here in Ontario so that we are best-positioned to benefit from the need to invest in the sector.

**Mr. Peter Tabuns:** Okay. I have no further questions. Thank you very much.

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**The Chair (Mr. Grant Crack):** Thank you. You're out of time, Mr. Tabuns. I appreciate that.

We move to the government. Mr. Potts.

**Mr. Arthur Potts:** Thank you, Scott, for being here—Mr. Thurlow.

**Mr. Scott Thurlow:** "Scott" is fine.

**Mr. Arthur Potts:** I want to talk to you a little bit more about this—I think that you talked about almost a penalization of those companies in your sector that have done the early adoption and that already made the reductions. How else do you address this? If we go down

a route of just 4%, 4%, 4%, then it doesn't seem to take into consideration all the good work that has been done over the last 20 years. How, otherwise, would you want us to capture that?

**Mr. Scott Thurlow:** This is where legal counsel comes in really nicely. That's going to be an issue of competitiveness. We put it right back on you and say, "As long as it's predictable and as long as we have enough time to see it coming, we are going to do everything we can to ensure that we can meet the demands that are placed on us." But it has to be longer than four years. It has to be into that seven-to-10-year window.

But the point that you are making is: Are there industries in Ontario that haven't seen the same reductions as our industry has? Absolutely. Should they have a target that is larger than ours? Absolutely.

**Mr. Arthur Potts:** Would you see an opportunity to do an assessment of firms internationally, in the same business—performance measures, performance mandates—and see how they are performing on a carbon basis and make that comparison, or make the argument that you are already way ahead of people in other parts of the world who haven't undertaken the voluntary adoption of carbon reduction that your organization has?

**Mr. Scott Thurlow:** Again, that's a very interesting approach and so much of how that type—you use the term "benchmarking" but it's not the only viable term to use in this approach. You have to be very, very careful in how you do that benchmarking and how you pick your time period and the factors that go into that.

The other issue, again, is we've seen an increase in our costs on electricity. The environment is the beneficiary—the cleaner air in Ontario is the beneficiary—but let's be clear: As a result of the elimination of coal, we have seen some costs go up. We are bearing that cost. It's a cost that, as an energy-intensive, trade-exposed sector, we are absorbing, but at some point there's a limit to how many costs we can absorb.

**Mr. Arthur Potts:** I know your industry is not ever advocating to go to the bottom of the barrel like people do around the world, whether it's the labour rates and all those types of issues. So I know there's a lot of resilience to continue to work here and work with us. With cogen systems—yes, you need those cogens as part of the operation, like with a greenhouse. They actually run them in order to create CO<sub>2</sub> for the tomatoes and they get the electricity and the heat afterwards. But aren't there also opportunities to capture emissions for cogen operations where the CO<sub>2</sub> had been into bio-oils or other—where you can still continue to use them but you render them carbon-neutral?

**Mr. Scott Thurlow:** You're quite right. The south-western part of Ontario is replete with examples where CO<sub>2</sub> is captured and reused in processes. In the immediate near future, though, industrial cogeneration isn't in a position to benefit from that kind of a process, but we will see an increase in the costs associated with the power which is generated to facilitate the existence of the bioreaction.

We have advised Ontario that they should replicate what has been done by President Obama's regime, which is an explicit exemption for industrial cogeneration, because there are other benefits which accrue by having industrial companies like JBL generating their own electricity and keeping it off the grid. The most important one is that they are not drawing from the grid.

**The Chair (Mr. Grant Crack):** Thank you very much. We appreciate it.

We'll move to the official opposition. Ms. Thompson.

**Ms. Lisa M. Thompson:** Thanks for being here today, Scott. I heard you say earlier today that the current Liberal cap-and-trade scheme does not adequately protect Ontario businesses with regard to the competitive edge that other jurisdictions have. Can you expand on that a little bit? What do you see happening already by neighbouring states to attract business out of Ontario?

**Mr. Scott Thurlow:** I am going to be as diplomatic as I can and say that the department has done a very, very difficult job. They have developed an economic-based model that is creating various variables to account for the differences in businesses across the province.

Our view is that, by providing a full allowance to the energy-intensive, trade-exposed sector, they should actually do that. They should provide a full allowance. But the formula that they have created includes a variable that will allow, as I said, for decreases of about 5% per year. Other jurisdictions don't have to do anything to incent businesses to go there when there are carbon charges in Ontario that are not faced in other jurisdictions.

**Ms. Lisa M. Thompson:** Okay. Aside from the one company that has already chosen to go to Louisiana, I believe you said, are you getting signals from other businesses that it's like, "Ontario had better smarten up or we're going to pack up as well"?

**Mr. Scott Thurlow:** I wouldn't put it in such stark terms. My position here is to be a harbinger of what could be coming in the future. As I've said, what we'd like is that predictability, that stability, to know what the targets are going to be in the future. If we don't know what they are in the future, we can't plan for them.

**Ms. Lisa M. Thompson:** To that end—I'm sure you've had many meetings with this government and with the Ministry of the Environment and Climate Change as well—we heard earlier today that the Canadian manufacturing association is concerned that we haven't seen the economics. There are glaring gaps, to your point about what's beyond 2030. If you were to look into your looking glass, so to speak, if we stay the current course, what shape will Ontario be in in 2030?

**Mr. Scott Thurlow:** There are a few assumptions in that question that I'm not in a position to acknowledge.

**Ms. Lisa M. Thompson:** That's fair. What do you see in your looking glass?

**Mr. Scott Thurlow:** Right now we need the predictability to know what's going to be coming down the pipe in seven to 10 years. There are fierce global competitions for the \$150 billion that our industry has to put forward.

There are other advantages that come with doing business in Ontario and in Canada, one of them being the proximity to the largest market in the world.

**Ms. Lisa M. Thompson:** Okay. Thank you.

**The Chair (Mr. Grant Crack):** Very good.

**Mr. Jim McDonell:** More time?

**The Chair (Mr. Grant Crack):** You're already over three minutes.

Mr. Thurlow, thank you very much for coming before committee this afternoon.

**Mr. Scott Thurlow:** Thank you very much.

#### SUSTAINABLE PROSPERITY

**The Chair (Mr. Grant Crack):** Next on the agenda, we have via teleconference Mr. Stewart Elgie. Mr. Elgie, are you with us this afternoon?

**Mr. Stewart Elgie:** I am.

**The Chair (Mr. Grant Crack):** Did I pronounce that correctly?

**Mr. Stewart Elgie:** Almost. There have been two Elgies.

**The Chair (Mr. Grant Crack):** Elgie?

**Mr. Stewart Elgie:** You obviously weren't around when my dad was working there.

**The Chair (Mr. Grant Crack):** Very good. My apologies. I appreciate it.

I believe you're from Ottawa, so we welcome you this afternoon to make your presentation. You have 10 minutes to make your presentation, followed by nine minutes of questioning from the three parties. The floor is yours, sir.

**Mr. Stewart Elgie:** Great; thanks. I'm sorry for doing this by telephone but I just literally finished teaching a class on climate change law, ironically, so I couldn't be there in person.

I'm going to go through a slide deck. I assume you guys have that in front of you, is that correct?

Do people have the slides in front of them? Hi, can you guys hear me?

*Interjections.*

**Mr. Stewart Elgie:** Do people have the slides in front of them?

**Interjection:** Yes, we do.

**Mr. Stewart Elgie:** Okay, thanks. I'm Stewart Elgie; you've got a quick bio of me there. I'm the head of Sustainable Prosperity, which is the largest environment economy think tank in the country. I'm also a member of Canada's Ecofiscal Commission. I'm not testifying on behalf of the ecofiscal commission, but I'll reference a bunch of its work on carbon pricing, which some of you may have seen before.

I'm going to talk about four basic points in terms of the bill: one is the context for shifting to a low-carbon economy; the second is basic research on carbon pricing—I'll probably spend most of my time on some of the design features of the law and then finally a couple of thoughts about ways it might be improved, or suggestions.

Skipping over to the next slide, the starting point, I guess, is that if you look at a series of reports in the last three years that have come out from most of the world's most respected economic authorities—the OECD, McKinsay, the World Bank, Citibank, even the Canadian Council of Chief Executives—they've all essentially said that we're on the verge of a fundamental structural shift in the global economy towards greener growth. That means rewarding things like energy efficiency, reducing pollution, and clean innovation, and that firms and jurisdictions that do better at these things are going to be the most successful economically in terms of generating wealth and jobs in the decades ahead. There are various numbers on them, but the one that gets quoted most often is that this is a \$90-trillion economic opportunity over the next 15 years in terms of projected expenditures.

1700

This opportunity occurs across all parts of the economy. If you go to the next slide, I've given some of the early evidence showing this. The places we see it most obviously are in things like the massive growth in clean energy that has outpaced the rest of the economy dramatically across the world, even in places like China, where it's now outstripping investment in new coal plants, or—the next slide—the massive growth in investment in electric and hybrid vehicles.

If you look at the fastest-growing parts of the economy—this green economy—that also includes areas like natural resources and manufacturing. It's not just some of these new parts of the economy. If you go to the next slide, what's really driving competitiveness in a lot of these areas is technological innovation.

Two examples are the dramatic decrease by a factor of fivefold in the last eight years where we've seen a drop in costs for solar power, for example, or for electric car battery costs. Those slides show you how much those costs have come down. The lines on the bottom show that they're now almost cost-competitive, in the case of solar power, with coal energy, or, in the case of electric car batteries, with internal combustion engines. They're not quite there yet, and obviously the cost-effectiveness differs by plant and location. A massive investment and a massive change in technology is really driving this fundamental shift in markets, which will drive energy and transportation, which are two of the fundamentals of our whole economy.

The basic point—and obviously I'm talking about a huge issue in two minutes—is that if you look at this fundamental shift in the global economy, it makes a lot of sense for Ontario to position itself to prosper in this changing economy.

Three weeks ago at Globe 2016 in Vancouver, we launched a new initiative called Smart Prosperity, which has behind it the CEOs of some of the largest corporations in Canada as well as the leaders of major environmental, aboriginal and social groups, all of whom have rallied behind an ambition to make Canada and Ontario a global sustainability leader within the next 10 to 15 years and have put out a specific policy road map to

get there, which includes the four points listed on that page: accelerating clean innovation, investing in clean infrastructure, boosting energy efficiency, and pricing carbon, which drives all of these things.

That's a whirlwind tour through at least my take on where the economy is going.

Switch to the next slide, which is moving to this legislation and carbon pricing. Putting on my hat with Sustainable Prosperity and Canada's Ecofiscal Commission, we've done a ton of modelling and research in the last few years looking at different ways of meeting climate objectives. There's unanimous agreement—or almost unanimous agreement, if you don't count Terence Corcoran—that pricing approaches are the most cost-effective way to reach a climate target.

For example, the modelling we've done at the ecofiscal commission shows that using pricing compared to traditional regulations achieves a 2.5% better GDP outcome for Ontario by 2020. You get a lot of debate about whether a tax or a cap-and-trade system is the better system. We've debated it at the ecofiscal commission, and I can tell you that where we end up is that either of them can be equally effective, depending on how they're designed. If you design a cap-and-trade system well, it'll be effective; if you design a carbon tax well, it'll be effective. So the debate about which kind of pricing system is not that important.

The other point is that putting off taking serious action has huge costs associated with it. The longer we wait to take serious action to meet our climate targets, the more costly it is. Ontario should be commended for moving forward with this law. It's a smart way to go.

The other thing that a pricing approach does is, it promotes innovation because it gives companies flexibility about how they'll achieve an environmental target and it gives them an economic reward for every unit of reduced emissions they achieve, which is fundamentally what drives innovation. The more pollution you reduce, you can make more profit. Clean innovation is what's going to drive both environmental and economic success, to a large extent, in the new economy across all sectors.

The last point is just that while pricing is important and it really is probably the single most important thing to do, it's not the only thing to do. I won't spend as much time on other elements today, but other parts of the policy mix, the parts that I talked about in the last slide—infrastructure, innovation and energy efficiency—are also going to be critical to meeting our climate targets.

I'm just going to plow through this stuff because I can't see you and so we'll do questions at the end, but if there's a desperate question as we go through, maybe the Chair or someone could just cut in and let me know.

**The Chair (Mr. Grant Crack):** There are no questions yet. Are you finished with your presentation?

**Mr. Stewart Elgie:** No, no. I'll go through a few more slides, but I just wanted to make sure that someone wasn't desperately trying to ask me something.

Let's move just to a couple of design elements. If you step back and ask fundamentally what makes a carbon

pricing system effective or ineffective, the most important things are the three variables I have on slide 9, which is: How stringent is it—and stringency is a function both of the emissions target and the price; and the third part is coverage, how much of the emissions are covered.

If you look at Ontario's system through that lens, the stringency is actually quite good. The target Ontario set is not the strongest in the world, but it's among the leading pack. Ontario's annual reduction in its cap each year, which is about 4.2%, is actually a little bit more ambitious than Quebec and California; they're more like 3%. So Ontario is doing pretty well in terms of stringency, but it isn't so far out ahead that it constitutes an economic risk. It's leading, but not bleeding, I guess you could say.

From a price perspective, what Ontario is doing is starting with a modest price on carbon. That actually makes sense as well. Starting with a high price immediately isn't going to drive change, because people can't adapt overnight—either businesses or individuals—so starting with a modest price is appropriate. The key thing is that you want to drive investment. The way to drive investment is by giving people a clear expectation of what the price trajectory is going to be in the future. When people are making five-, 10-, or 20-year investment decisions, giving them an expectation that there will be a significant and rising price on carbon—we don't know that yet with this bill.

The one thing I guess I would say is this: To the extent that our pricing system will be linked to California and Quebec, it might be valuable to actually add a power to put a supplemental floor price on. The UK has had to do this in Europe, because the European pricing system has ended up with too low of a price. The UK has brought in an add-on price, if you will, that they add on to the European market price. Having that power in this bill might be useful.

Let me just keep moving through a couple of other points, because I want to finish up the last thing I mentioned.

On revenue recycling options, the bill is good. It talks about reusing all the revenues for different purposes of advancing clean growth. I'm happy to deal with that in questions; I won't go into detail on it here, except for a couple of points.

By the way, the ecofiscal commission will come out with a major report on Wednesday on how to use revenues from carbon pricing systems. I've given you a couple of sneak preview slides here. One of the things you'll see is that we're recommending for Ontario that reinvesting revenues in clean innovation and infrastructure should be a high priority for economic and environmental effectiveness reasons. The slide I have there shows some of the different modelling options we've done for how different revenues could be used from this system.

**The Chair (Mr. Grant Crack):** Mr. Elgie, if you could just wrap up, please. We're just over the 10 minutes already.

**Mr. Stewart Elgie:** Okay, I must have a little difference of a clock, but I'll respect yours.

I'll skip over the competitiveness and equity issues; I'm happy to look at them. Let me go to my last slide, then, slide 17. If I looked at what I think could be changed to improve this bill, I could think of two or three things. But, fundamentally, I think it's a good bill and I think it's well worth passing. It'll make a cost-effective difference. But there are three things that I think you might want to think about to improve it. One of them is—and these all come from looking at experience in other countries, particularly the UK and California—in the future, after this issue is no longer at the top of the political agenda, it will be really important to have a series of climate plans that demonstrate the government's intention to continue to raise its level of ambition. Right now, there isn't a requirement to renew the plan; it's optional every five years. So I would think of making it a requirement that the plan be renewed every five years, rather than optional.

**The Chair (Mr. Grant Crack):** Mr. Elgie, I apologize, but we're a minute and a half over already, according to my clock. We're going to start the line of questioning. I apologize for that, but we're trying to stay on schedule. We'll start with Ms. Thompson.

**Ms. Lisa M. Thompson:** Thanks for joining us via the phone today, Mr. Elgie. You referenced, just moments ago, clean infrastructure. Can you clarify for me, please, the sectors that play a role in the clean infrastructure that you're referencing—the energy sectors, to be specific?

**Mr. Stewart Elgie:** Well, infrastructure could be buildings, it could be transportation, it could be energy, it could be waste—I would consider the various types of public infrastructure that promote a low-carbon economy.  
**1710**

Within the energy sector, anything that moves us away from carbon-intensive fossil fuels moves us towards cleaner energy. Obviously wind, solar, geothermal and potentially hydro are the carbon-free sources of energy. You can get into debates about natural gas as a transition energy source. Most thinking tends to be that we should try to minimize getting too locked into natural gas, but we're not going to be able to transition to wind and solar immediately 100%, so there's going to have to be some transition.

**Ms. Lisa M. Thompson:** Okay. And then you also referenced that in the EU one of the problems was that the price was too low.

**Mr. Stewart Elgie:** Yes.

**Ms. Lisa M. Thompson:** Added to that, the ceiling was too high. Would you agree with that?

**Mr. Stewart Elgie:** Yes. There was too much volatility. At the end of the day, what you want to do is drive corporate investment in low-carbon technology, and having a predictable rising price is the key to doing that. So what Ontario has done, which is better than the EU, is that they've put in a price floor. They've also got a cost-containment reserve for the price to get too high—the

same system California used—so it's much, much better than the experience in Europe. We've learned from their mistake.

**Ms. Lisa M. Thompson:** Okay. In that spirit—learning from their mistake—another reason cap-and-trade did not work in the EU out of the gate was that it was open-ended, if you will, for fraud to be facilitated. How can we avoid that in Ontario?

**Mr. Stewart Elgie:** Boy, it would take longer than the time we have to answer that. Some of it, for example, is rules limiting the amount of allowances that can be bought by any one entity, and the law has that, which is good. A lot of it is just like any type of securities market: having a vigilant regulator that actually looks out for elements. Fraud is a potential issue in any kind of market, and so having a vigilant regulator who looks for that is probably your best remedy.

**The Chair (Mr. Grant Crack):** Thirty seconds.

**Ms. Lisa M. Thompson:** Oh, we have 30 seconds. If you had your druthers: cap-and-trade or carbon tax?

**Mr. Stewart Elgie:** You know what? It totally depends on the design. You can have good cap-and-trade, bad cap-and-trade, good tax, bad tax. The big thing is this: What you really want to do is, you want to drive the level of reductions and you want to drive the price signal up, but in a predictable, gradual way. The big thing is doing that in the system—driving the price up in a predictable, gradual way and driving the emissions limit down in a predictable, gradual way.

**Ms. Lisa M. Thompson:** What about revenue neutrality?

**Mr. Stewart Elgie:** It's the question of how government should spend our tax dollars.

**Ms. Lisa M. Thompson:** You got it.

**Mr. Stewart Elgie:** There isn't a right answer on that.

**Ms. Lisa M. Thompson:** Pardon me?

**Mr. Stewart Elgie:** There's no right answer to that question. That's more of a political question.

**Ms. Lisa M. Thompson:** Okay. Thank you.

**The Chair (Mr. Grant Crack):** Mr. Tabuns.

**Mr. Peter Tabuns:** Stewart, it's Peter Tabuns here. It's nice to have you with us in the committee this afternoon. You had run out of time. You were talking about your recommendations and you only got to address one. Could you continue on from where you left off?

**Mr. Stewart Elgie:** You don't get a lot of questions like that. Where were you when I was a litigator?

**Mr. Peter Tabuns:** I'm sorry, I couldn't help you then.

**Mr. Stewart Elgie:** Let me give you the other two. In the UK, one of the most powerful things they've found, particularly when climate change was at the top of the political agenda five to 10 years ago—it's dropped off the radar now. I've actually interviewed deputy ministers, clerks of the council and former ministers. One of the really powerful things they've had that sustained momentum with changing political whims is having this external oversight body whose job it is to pass judgment on each stage of the UK's climate plan every five years

and predict whether or not that plan is likely to put them on a trajectory to meet their target, and if not, what corrections are needed. Having that kind of thing hard-wired in, particularly in the last two years, has made a huge difference in the UK in keeping momentum going when it might otherwise have wavered. I would say having something like that in Ontario, whether you do that through the environment commission or—I've given you the link to the UK's climate committee.

The third thing is—and this is more inside baseball in government. The fundamental problem you run into with climate targets is that unless individual departments are actually accountable for their share of achieving a climate target, it's going to be a second order of priority for them. So one of the things that California has done and the UK is struggling to do is actually to assign carbon budgets to each department, much the way a department has a fiscal budget, and if it fails to meet that budget, there's a whole accountability and feedback loop that's built into the system that holds their feet to the fire. Without that, you end up in this weird system where the environment department is responsible for the performance of other departments over which it has no authority and you end up with an authority and responsibility mismatch.

I would say that departmental carbon budgets are not sexy, but they're a really, really important part of driving structural change in government.

**Mr. Peter Tabuns:** Okay. Stewart, thanks very much. We really appreciate it.

**The Chair (Mr. Grant Crack):** We'll move to the government. Ms. McMahan.

**Ms. Eleanor McMahan:** Hi, Stewart. It's Eleanor McMahan. We met when you were at Ecojustice.

**Mr. Stewart Elgie:** Ah, hi.

**Ms. Eleanor McMahan:** I'm a friend of Albert Koehl, and we know each other well. How are you? Thank you so much for coming here today. I'm going to extend the offer that Peter made. If you have anything else that you missed that you wanted to get on the record in terms of your presentation—and then I have a quick question for you. So if you'd like a little bit more airtime, I'm happy to give it to you.

**Mr. Stewart Elgie:** Well, no. I just gave you the last two. If people want to ask me questions about the other two—and I don't think any of them are probably going to be hostile amendments. I suspect that they're things that the government wouldn't be opposed to. They just maybe didn't make it into the law.

The carbon floor price is something that will only matter a few years from now, once we see the price trajectory in California. But having that tool in your pocket may be important, so building up at least the power to do it into the law now is going to be important if it's needed in a few years.

**Ms. Eleanor McMahan:** A quick question for you then: You talk about your carbon pricing being a smarter approach and the better GDP outcome that Ontario could achieve versus inflexible regulations. Can you tell me what you mean by inflexible regulations?

And by the way, just a quick point, if I may: It's so nice to hear some very positive, hopeful, lots-to-be-gained-by-doing-this kind of examples. So thank you for that. It's a breath of fresh air. Pardon the pun.

**Mr. Stewart Elgie:** I'm just relaying to you what other more economically informed people around the world are saying already. Take McKinsey's and the World Bank's word for it, not mine.

In terms of inflexible regulations I mean, for example, the approach the federal government took in mandating coal power regulations by imposing the same regulatory standard for coal-powered generation across the whole country. If we were to meet our climate targets by putting a mandatory regulation on every sector of the economy, saying that every firm must meet this level—which is the way we usually regulate pollution—as opposed to allowing pricing and trading.

The benefit of pricing and trading is it allows firms that can do things in a more efficient, productive way to do more of the work and other firms to pay them to do it, just like any other market transaction encourages efficiency. For the same reason that our modern economy and the efficiencies in it have been built on markets, creating markets for pollution reduction also drives efficiency and cost-effectiveness.

**Ms. Eleanor McMahon:** You say that delay is costly. Is there anything more that you want to add on that front? We've had some comments on that today. It's important, I think, for context, to talk about the cost of doing nothing, which is significant.

**Mr. Stewart Elgie:** It's not as if climate change will not have a cost. I don't know if the insurance industry will be testifying before you, but one of the things that strikes me when I go to these global climate meetings is that the insurance industry often sounds more like an environmental lobbyist than Greenpeace, because they're on the paying end of environmental change. They really understand that some of the severe weather costs, for example, have quadrupled in the last couple of decades, whether it be changing lake levels in the Great Lakes or loss of winter roads up in northern communities. We're just seeing the tip of the iceberg of some of these changes. There are going to be large environmental costs and the cost of meeting our target—meeting our target is about changing infrastructure and technology fundamentally. You can't do that on short notice. The infrastructure investments that we make in the next three or four years and the technology investments we make in the next few years are going to lock in the kind of economy we're going to have in 15 to 20 years.

To go back to the revenue recycling question, personally, that's why I'm actually a supporter of using a large chunk of the revenues now to invest in next-generation infrastructure and technology, because we need a large pulse of investment now to build the physical architecture of a low-carbon economy. That doesn't mean that in five or 10 years we may want to shift that towards more tax refunds or other ways of dealing with other economic issues. But in the short run, given the infrastructure and fiscal challenges we face, I'm a supporter

of putting a large pulse of it into infrastructure and technology, and so is the ecofiscal commission going to be on Wednesday; you'll see.

**The Chair (Mr. Grant Crack):** Thank you very much, Mr. Elgie, for coming before committee via teleconference this afternoon. We appreciate your comments. Have a great afternoon.

**Mr. Stewart Elgie:** It's much appreciated. Thank you, all. If you need to reach me, you've got my email there. Bye.

#### ONTARIO ENVIRONMENT INDUSTRY ASSOCIATION

**The Chair (Mr. Grant Crack):** Next on the agenda we have the Ontario Environment Industry Association. We have Alex Gill, who is the executive director. We welcome you, sir.

**Mr. Alex Gill:** Thank you. I'm happy to be here.

**The Chair (Mr. Grant Crack):** Great. The normal rules set in: 10 minutes for your presentation, followed by nine minutes of questioning from the three parties.

Again, welcome. The floor is yours, sir.

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**Mr. Alex Gill:** Thank you very much. On behalf of Ontario's 3,000 environment and clean-tech companies, I'm very happy to be here today. To continue the theme of our last speaker, I'd like to focus my remarks today around the opportunity that we're facing when it comes to the transition to a low-carbon economy. We have an incredible resource here in Ontario in the environment and clean-tech sector, so one of the things that I want to draw your attention to is: How best can we structure this transition so that we get the maximum economic benefit back to Ontario?

I know you're going to hear from a broad range of stakeholders. I've circulated, I believe, to everybody on the committee our formal response to the previous EBR posting. What I want to do is very clearly state that we've always been on the record for what we would consider not only outcome-based regulation but the idea that pricing drives environmental technology uptake and that markets have an important role to play in delivering environmental goods.

The companies that are in my membership—and we've been in existence for more than 25 years, but what I would call environment and clean-tech companies in this province have been around since the 1890s. They're delivering economic goods to this province, they're employing people and they're creating a lot of wealth. The challenge we have is: How do we create more of those companies through a cap-and-trade system to make sure that we deliver the public goods we need but that we involve the market in a very substantial way?

There's a lot I could talk about today, but I just wanted to draw your attention to, essentially, three key things. I wanted to scope out the size of the opportunity that we're talking about and some of the key things about that opportunity.

Number two, I wanted to talk about the specific job creation challenge we have in Ontario, specifically when it comes to clean tech. We have an incredible opportunity here to create a lot of jobs and a lot of wealth in Ontario, but we also have an incredible opportunity that could pass us by if we don't get it right. If I hear one thing from the members I represent, it's often: "We have to get this right. This opportunity only comes along once."

The third thing I want to talk to you about is the specific nature of the environment and clean-tech sector, because understanding that will also help us in this legislative endeavour and also tee us up for the regulatory piece as well.

In terms of the economic opportunity, you've probably heard it from all the other speakers, but the opportunity here is very real. The travel that I do around the world—and we have members who are active, probably, in 60 or 70 different jurisdictions around the world. The world is facing the same challenge. We're at a key point where we can probably steal a march on some of the other jurisdictions in the world. The competitive clock is ticking. We can't afford to sit back and say, "Maybe we can get this right. Maybe we can do something small over here." We need something that is not just about compliance with a new system; the thing I need to stress is that it's about a commitment across all levels of government and all levels of society. It's about a commitment to the transition that we need to make. The joke that I make in the office is: In a bacon-and-egg breakfast, the chicken is complying but the pig is committed. We need commitment across so many different levels of Ontario society.

The mechanisms we're going to put in place: It would be very easy to do what has happened in some other jurisdictions and make what I would say would be a convenient announcement or, "Here's a structure where we can say: Yes, we have done something. We're complying with our international obligations." We don't believe that's what is in the scope of this piece of legislation, and we're very encouraged by it.

We need a mechanism that's going to work, because if we don't get it right, it's not just that the other jurisdictions of the world are going to develop the next generation of technology that's going to eat our lunch, but they're going to eat our breakfast and dinner as well. There's a huge opportunity on the table, but if we don't get it right in Ontario, we're going to be sitting back in 20 years' time and saying, "It's too bad we're using all this technology from Germany and from Spain and from China."

We also don't want to—and our previous speaker was talking about the pricing issue—place the burden on companies to a point where it's so minimal that they can begin to buy their way out of it, but not so maximum that it's going to shut them down. We need to find that sweet spot where it's a declining cap and an increasing price that sends a very clear signal to the market. We're calling upon government here to do something that is usually within the ambit of a free market: pricing things. The challenge is that the atmosphere is a common good; the

market is not going to price that for us. That's why we need government to step in and say, "Here's how this is going to work." But once that is done, we've created a set of rules under which companies can compete and under which companies can actually understand the mechanisms of the market.

The second point that I want to make is around the nature of the jobs we're going to create in this sector. We're facing a job creation challenge. One of the other things I do in my spare time is that I moderate the G20 round table on entrepreneurship. It's not just Ontario that's facing the same challenge around creating quality jobs; it's the entire G20. We have a lot of people in the world who are saying, "The new economy is going to pull us out of where we are. We're going to create as many jobs in the tech economy, for example, as we may be losing in the traditional economy." While the tech economy is going to create a lot of work for us, the challenge we have with that—and I'm going to use two very specific examples—is that the nature of the jobs that are being created in the new economy is not exactly a one-to-one or two-to-one replacement for the jobs that we're losing.

The example I'm going to use is that if you look at the biggest private sector employer in the country, George Weston Limited, they've got about 200,000 employees right now. If we were to dig into our pockets and find enough money to buy that company, you could buy George Weston as of last week for about \$15 billion. A \$15-billion traditional-economy company generates 200,000 jobs. If you flip over to the new economy, one of the darlings of the app world before it was bought by Facebook was Instagram—if it's not already on your smart phone, it's probably on the smart phone of a lot of people you know. That company was valued at \$1.4 billion, but when it was bought it had 13 employees. The new economy is creating wealth and valuation; it is not creating jobs in the way that we need it to create jobs.

So we have a challenge. Lest this all be doom and gloom, the good news about jobs being created in the environment and clean-tech sector is that they are labour-intensive, they are local and they are sticky. If you want to put the right market conditions in place that create environment and clean-tech jobs—we'll create technology jobs. There will be a lot of engineers who will get a lot of work out of environment and clean tech. But when you look at the actual nature of the sector, most of the companies that are there are local. They hire a lot of local people, they create a lot of good jobs, and those jobs are very difficult to outsource overseas.

I'll give you two quick examples of that. If you were to fly out of Pearson on a morning like this, you would have de-icing fluid sprayed on your plane. That icing fluid doesn't just go into the ether; it doesn't get boxed up and burned. It gets collected in a little pad under the plane. They put it in a drum and send it to a company in Mississauga called Fielding Chemical Technologies. They employ about 70 to 80 people who take that product, and dozens of others, and re-refine them into

things that we use. The de-icing fluid that gets sprayed on your plane gets turned into a refrigerant that gets sold into the US market. That's the type of job we're talking about: It's taking things that used to be purposed as waste or used to be purposed as things we don't need, putting the right market conditions in place and creating wealth out of it.

Another example would be Walker Industries down in Niagara region—a great company. Their environmental division is continually looking at the waste stream and saying, “What can we pull out of there that we can turn into products that create jobs and create wealth for us?” I looked at Walker's website this morning when I came in just to see if I could find a jobs number for them. I was encouraged to find that—I couldn't find the actual number for the company; I think it's probably about 800 to 1,000—they had postings for 12 new jobs on their website as of this morning and a very nice optimistic tag over on the side that said, “Could you register here? We're always hiring. We're always looking.” That backs up the experience of our member surveys. The last survey we did of our members said that 75% of them were planning to hire people in the next year.

What I like about representing the clean-tech sector is that we have one of the few job creation hot spots in the Ontario economy. The challenge is, through opportunities like the cap-and-trade system, how do you get that working on a much better level to generate much better wealth and much better work?

That leads to my final point, which is understanding the nature of the companies that are in this sector. We've seen a wholesale transformation in everybody's economy globally. The large companies creating jobs, the jobs that our parents had, the jobs for life, the big corporate jobs, have transitioned to SMEs. SMEs are responsible for, according to whatever stat you find, between 80% and 95% of net new job creations since 1980 in North America. That's a stat from the Kauffman Foundation in the US. That's a very interesting thing, because it's not the large companies; they are remaining steady or declining a little. The SME sector is generating a lot of wealth and a lot of jobs.

In the environment sector, it's very much that case, except we have ultra-SMEs in this sector. According to the StatsCan definition, 500 employees is a small to medium-sized enterprise. That's a mammoth multinational in the environment and clean-tech sector. Our companies are between 20 and 50 employees, generally. The good news is, there's a lot of room for those companies to grow. They have great technology, great access to markets and great potential. The challenge is that the opportunity costs that those companies face when trying to understand government regulation, when trying to access government programs, are very considerable. If you have a 1,000-person company, and a new government program comes out, you can throw two or three people at it and they can figure it out. If you take one or two people away from a 20-person company, that's 5% to 10% of your capacity that's gone and put onto

something. So we need to make sure that what comes out at the end of this is able to fit in a sector that is not a big-company sector.

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**The Chair (Mr. Grant Crack):** Okay.

**Mr. Alex Gill:** We're close to the time?

**The Chair (Mr. Grant Crack):** Just very, very quickly. We're over the time already, but you get an extra half a minute.

**Mr. Alex Gill:** I will quickly wrap up. The last point I want to leave you with is: I'm sure you've been following Tesla in the news in the last little while. Tesla is not yet an ONEIA member. Tesla, according to the news feed that I saw this morning, has booked \$10 billion in revenue by selling 275,000 electric cars in advance. That's a great news story, isn't it? That's awesome. I wish it were an Ontario story. I wish I could have put my name on that list. The reason it's a California story is, starting in the 1960s, they set a very strong and increasing emissions regulation that sent a clear message to the market: Emission regulation is going up, not down, but if you can accommodate this, this will make you a lot of money. That's why Tesla is where it is, and in 20 years' time, we need to be looking at Ontario in the frame of clean tech, with the act that we're looking at today being one of the major starting blocks.

That's my presentation. I'm happy to take—

**The Chair (Mr. Grant Crack):** Thank you very much. We appreciate your comments. Mr. Tabuns will begin the line of questioning.

**Mr. Peter Tabuns:** Alex, thanks very much for being here this afternoon. I want to go to your presentation, your document here, “Transparent allocation of revenues from cap-and-trade will encourage the trust the system needs.” First of all, the act, as written—is it not adequately transparent?

**Mr. Alex Gill:** I think there is an adequate level of transparency in there. We put this in as a reminder that we have seen numerous examples—not just in Ontario but in other jurisdictions—of where government will put a policy in place to say, “This will be earmarked for that,” and in successive budgets, in successive omnibus bills, a small change is made here or there, and 20 years down the road, somebody will turn around and say, “I remember voting for that; where did that go?”

We will continually remind people that this is a tremendous resource for the transition we have to make. Taking these resources and using them to help companies make the transition is going to be very important, but we need to make sure that we continually keep that on our radar because it's very easy for it to slip.

**Mr. Peter Tabuns:** Now, you also say in here, “The province should clearly and unambiguously allocate 100% of such revenues to measures to reduce carbon emissions....” This is an issue that's come up a number of times. We can put everything into carbon reductions today, or we can put most into carbon reductions with some for measures that would have a longer term before they would actually have impact. What do you say is the ratio between those two?

**Mr. Alex Gill:** Oh, that's a tough question. I will answer the question in a little different way. I agree with the premise of your point: We need to look at the measures which are going to get us the best overall net reduction in whatever time frame we choose. The thing I will put on the radar, which I didn't get a chance to in my remarks, is that we often look at things like research and say, "We need to put money into research on new technology." The reminder I would put in there would be: You know what? When we research new technology and try to grow companies from scratch, we get a much better multiplier and a much better return on investment if we look at companies that are already existing. If we look at buying technology off the shelf from another jurisdiction, are we going to get the benefit in Ontario that we do? Maybe not. So I'm agreeing with the premise of your question, but I'm saying that there's a different way to kind of slice it up.

**Mr. Peter Tabuns:** Okay. And you talk in the rest of this document about a variety of other financial measures that would support innovation. In your thinking, we should be going far beyond the revenue from cap-and-trade itself. We should be harnessing other parts of the government's financial system, its resources, to encourage the transition. Is that an adequate reading?

**Mr. Alex Gill:** That's absolutely fair, and I'll just highlight two quick points there. Government can be a market-maker when it comes to adopting new technology. The government of Ontario is one of the biggest purchasers of products and services in the province. When we have foreign competitors coming into this province, often the first clients they have are their own governments. The Canadian company sitting next to them will say—there will be two vendors. They'll turn to the Ontario company, and the Ontario company will say, "We want you to be the first purchaser." So Ontario as a market-maker has a role.

The other point I'll make is, traffic control within the government itself, making sure that the left hand knows what the right hand is doing, is incredibly important. The government's made a very progressive move here to say, "We want innovation and cap-and-trade," but one of the most oft-repeated comments I've heard talking with branches of government other than MOE is, "Could you tell us what's going on with the cap-and-trade system, because we're not hearing it inside?" So we're in the unwitting circumstance of actually having to take what we're learning inside MOE and disseminate it to other levels of government. We think government can actually learn from that.

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

**The Chair (Mr. Grant Crack):** Thank you very much. Ms. Hoggarth from the government side.

**Ms. Ann Hoggarth:** Thank you very much for your presentation. It was very informative. I agree that we have to get it right and we need to take advantage of this economic opportunity. However, what I also hear you saying is that time's a-wasting. Other jurisdictions will be

out in front of us, should we delay unnecessarily, and we'll be eating their dust.

My question to you is, what policy mechanisms do you think will be the most effective to help reduce GHGs in Ontario and improve Ontario's economy?

**Mr. Alex Gill:** Well, that's a question that could take about 30 minutes, so I'll try to give it to you in two.

The biggest thing that we can do is give the market a clear and consistent signal that there is a price associated with emissions, but then free up the companies that can provide the technology and services to reduce those emissions. There's an entire resource of companies in Ontario that have technology, that have approaches and have services, and the minute the big emitters get the signal, "We need to decrease this over time to that point," that's where the market mechanism kicks in, and Ontario companies come in and compete. So the single biggest thing that's going to come out of this is the declining cap, the increasing cost and the mechanism whereby the market can come in and compete for the best outcome.

Where it will get a little mired—and this is not where I think we're going to go—is if we begin to get prescriptive around solutions. If there's anything in the regulatory phase where MOE will take a more active role to say, "That technology, not this one," that's where we will come to the table. I don't think that's where it's going to go, but if that's where it goes, we will come to the table and say, "No. Let the companies and emitters figure it out. Measure the final outcome strictly and enforce it."

**Ms. Ann Hoggarth:** Thank you so much.

**Ms. Eleanor McMahon:** Do we have a moment, Mr. Chair?

**The Chair (Mr. Grant Crack):** You have a minute. I'll give you another minute.

**Ms. Eleanor McMahon:** Thank you.

**The Chair (Mr. Grant Crack):** You're welcome.

**Ms. Eleanor McMahon:** Hi, there. Terrapure is in my riding.

**Mr. Alex Gill:** Oh, a fantastic company.

**Ms. Eleanor McMahon:** Yes, they sure are. I know they're very active, and they are a company that is benefiting from putting a price on carbon right now. They're one that I talk about often.

Just touching on your comments: You say that you recommend that the province play a proactive role in helping Ontario companies demonstrate their technologies and then disseminating their solutions. Is that through de-risking or creating a marketplace to do that?

**Mr. Alex Gill:** That's a really good point. Part of it is through de-risking; part of it would be expanding the definition of green purchasing beyond paper clips and paper. We have green purchasing where people say, "Great. It's FSC-certified. Fantastic. We haven't printed a report; we've given it to you on a USB key." That's such low-hanging fruit.

We have infrastructure renewal that's happening in Ontario. It's not just highways; it's public buildings. Buildings are one of the biggest gains that we're going

have in greenhouse gases. Why we don't, for example, have some of the most green and efficient and LEED-certified public buildings in the world in Ontario—that's a tremendous opportunity for money we have to spend anyway.

In the case studies that we've done with our members, often the initial reaction on the upfront cost is very strong. Nobody wants to spend any more money; I completely get that. We have example after example. Water-saving technology is a great example, where you implement the technology and, over time, the cost savings on the technology reduces the cost and the run cost to far below what it was before.

**The Chair (Mr. Grant Crack):** Thank you. I appreciate that.

We'll move to the official opposition. Mr. McDonell.

**Mr. Jim McDonell:** Any comments on cap-and-trade versus a price on carbon and letting the market work on it?

**Mr. Alex Gill:** A really good question. I think our previous speaker kind of touched on the experience of the EU, and I think you picked up on that very well. We're agnostic around method, but we're very strong around the need. We really do need some mechanism to let the market work and we need government to take the externality and price it.

The advantages of either are well known. The carbon tax is often easier for people to understand. As our former federal Liberal leader said, "Tax what you burn, not what you earn." So it does let you shift things around.

The benefit of the cap-and-trade system is that you're integrating into an international system. Four kilometres down the road, we have got the biggest clean-tech exchange in the world, an incredible resource in trading a lot of stuff. We do have something here we can piggy-back on.

Either one will give us benefits. What we need to measure it against is: Are we going to give the clearest signal to the market? Either will, but if you want a pivot point against which to judge it, that would be my advice. It's the signal to the market and what the market takes most clearly.

**Mr. Jim McDonell:** We heard some of the presenters today talk about needing clearer objectives, more than just next year. They need to know where it's going so they can actually work it in. Investment takes a while, and we know that anything with the Ministry of the Environment takes essentially years to get approval. We have to get out of industry's way, and we have to give them targets to where they should be going.

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**Mr. Alex Gill:** That's a tough one because if there was one other thing that I wish Ontario companies would develop other than great emissions technologies, it's a crystal ball that could tell people where we're going to go.

The challenges we have on that front—there are a bunch of them. Predicting where the economy is going will be really tough. If we had asked people five years

ago what the future of Ontario would look like, they would have said "BlackBerry"; 12 years ago, they would have said "Nortel"; 20 years ago, they would have said "Stelco." That's why I'm a big fan of mechanisms that let the market figure it out and let things that we could never even prescribe happen.

I could offer a bunch of other observations, but for me, that's the most poignant advice.

**Mr. Jim McDonell:** What I heard from one of the companies that operates in Quebec is to stay away from cap-and-trade. Their point was, "We're hiring consultants and lawyers to determine how to meet the system. Just tax it, and then let us look at a way to reduce the costs. We're spending a lot of money in credits to California—money leaving the country." That part seems to be counterproductive.

**Mr. Alex Gill:** We've heard that, definitely, from some companies. We've heard about the benefits from others. We're representing a very broad range of companies; that's why we're doing it down the middle.

The key thing to remember is: We're coming at this at a point in the evolution of cap-and-trade where, if we were the first ones to come out or the second ones to come out and there weren't the lessons in the marketplace that we could look at, there would be a really big reason to be cautious. We're at a point now, however, where we've got the experience of Europe, of California and of Quebec. Hopefully, we can point to those and say—if not in the legislative phase, in the regulatory phase: "This is not what we want to happen. These are the benefits we need to have." We're at a point in the learning curve where it should be advantageous to us.

**The Chair (Mr. Grant Crack):** Thank you very much. We appreciate you coming before committee this afternoon, Mr. Gill.

**Mr. Alex Gill:** Thank you for the opportunity.

**The Chair (Mr. Grant Crack):** Your comments are much appreciated.

#### INTERNATIONAL EMISSIONS TRADING ASSOCIATION

**The Chair (Mr. Grant Crack):** Last on the agenda for this afternoon/evening is the International Emissions Trading Association. We have Katie Sullivan, director, the Americas and climate finance. Welcome. How are you this afternoon?

**Ms. Katie Sullivan:** Last but not least. Are you still with me?

**The Chair (Mr. Grant Crack):** That is true. You do have 10 minutes, followed by nine minutes of questioning. Welcome; the floor is yours.

**Ms. Katie Sullivan:** On behalf of IETA, the International Emissions Trading Association, and our nearly 150 members internationally, thanks very much for inviting me here today to discuss Bill 172 and to share some insights related to carbon pricing—more specifically, cap-and-trade—globally.

I'd like to structure this around four key areas: just a bit about our membership, who we represent, our mission and our partners; why markets and trading matter, touching on some of the comments from our previous speakers; a global snapshot, which I think you'll find quite interesting and relevant—the latest and greatest in some priority jurisdictions that are also putting a price on carbon, which is happening very quickly right now; and then some key business insights and takeaways from a multi-sector business perspective to make sure that Ontario gets it right, learns from other experiences and develops the most robust cap-and-trade system—climate plan, broadly—possible.

About IETA's membership: We include Ontario's and some of the world's largest power, industrial, manufacturing and financial operations. Our members include leading firms and experts in greenhouse gas data assurance and certification: making sure that the data matters and it's properly monitored, reported and verified; brokers, trading, finance, engineering and clean technology; and—of course, something that you probably haven't spent too much time talking about but maybe we will later—a lot of the offset project developers—the aggregators—that are such a critical piece to this puzzle.

Across every continent right now, IETA's team and our membership work closely with the UN; with sub-nationals, including Quebec, California, British Columbia, Oregon, Washington; with national governments, now increasingly Canada; with multilateral institutions like the World Bank, academics, Duke, Harvard, University of Toronto and some great ones across Canada as well; and with environmental groups, including the Environmental Defense Fund—Erica, I know, joined you earlier.

Across these partnerships, our joint mission is to inform the effective design and linking of these robust carbon market mechanisms—and wanting to make sure that there's proper alignment. We can actually drive measurable environmental outcomes at least cost. That's near and dear to our hearts: the least-cost piece for business, consumers and households.

Just to be clear: IETA believes that Bill 172 and the cap-and-trade regulatory proposal do form critical pieces to help Ontario reach its 2020 and 2030-and-beyond targets, again while keeping costs low. But the sooner that business and investors have that certainty on the legislative framework and the cap-and-trade design, the sooner that business, both the mandatory and voluntary players, can begin to effectively plan, invest and thrive under future carbon constraints.

Why markets matter: I'm not agnostic, as you can imagine, regarding cap-and-trade versus tax versus hybrids, but there are lots of myths circulating globally and close to home now about the roles and merits of trading—cap-and-trade, in particular. Again, to be clear—I can't emphasize it enough: A well-designed cap-and-trade system will not only deliver certainty around the environmental outcomes—so we're talking greenhouse gas reductions that can be measured and shown to

the world that we're reaching our targets—but it also can achieve the objective of doing it at the least cost.

Other non-market climate policy approaches, standards, R&D and incentives: They do play a role, which I'll get into later, but they will not reduce greenhouse gases to anywhere near the required mitigation levels, based on the science, again while keeping costs reasonable. It's the markets and close co-operation—this is climate co-operation, cross-border, which we see in spades in the WCI—that are allowing us to reach measurable climate targets at lowest cost.

With trading comes profit-incentive power. This is what motivates companies and other stakeholders to uncover the smarter, more efficient ways to reduce their emissions. As you know, offering carrots and not just sticks can spark program buy-in and engagement across multiple sectors of the economy. I underscore it again because they get lost in the mix sometimes—but also those who are not covered entities but can find a new carbon revenue stream through potential offset credits. Trust me: Ontario is going to need a very healthy, vibrant offset system going forward.

Let's take a quick global snapshot—and I know, Chairman, that you're going to put your gavel down. For the environmental and economic reasons I've just noted, regions around the world are moving. They're moving so fast, and it's towards cap-and-trade, mostly—this is what gets lost sometimes—and co-operative solutions. When I say “co-operative,” I mean trading. Frankly, it's hard to overstate the extraordinary proliferation of these mechanisms.

I want to take a moment to say that with the 50,000-foot level coming out of the UN climate talks, where Ontario was, and was very well represented—you had the world land on a new climate change agreement, right? It's not a Kyoto world anymore; it's a Paris Agreement. You have the agreement kick-starting a new world in carbon markets. So you are seeing now how the new agreement will enable the bottom-up emissions-trading programs that are cropping up to start to link and harmonize together to reach targets.

Looking at the maps on slides 2 and 3—I won't get into it in too much detail, but—you'll see that 190 countries, including Canada, have submitted their post-2020 climate target. You'll see on the second slide that, out of all those countries, over 90 have actually included a reference to using markets and trading and offsetting in order to meet their post-2020 targets, including Canada. This is all with a view to being able to ratchet up their levels of ambition while keeping costs at a reasonable level.

Slide 4, “Carbon Pricing Worldwide”: This is what we have to update on what seems like a weekly basis these days. But I want to draw your attention to some priority areas: China, in particular, going very fast—a top priority for our business members, but I think everybody should keep an eye on it. There are seven pilot cap-and-trade systems right now, and we're talking big; we're talking the provinces, the states, Shenzhen, Guangdong and Shanghai. Now we're working with them very closely on

their national cap-and-trade system, to be launched in July 2017. We're not talking about hundreds; we're talking about tens of thousands of businesses that are going to be involved in this. Their core design elements—what are they?—in the cap-and-trade system that they're looking to: They reflect a lot of the learnings and design elements of Quebec, California and, soon to be, Ontario.

Other priority jurisdictions: You have Korea, which launched its cap-and-trade system; it's the second-largest in the world, behind the EU. It launched in January 2015. Again, it's moving fast.

**1750**

Another one is Mexico, a NAFTA partner, right? They have also announced at the highest level that they are going to be moving to try to link to the Quebec-California WCI by a 2017-18 time frame.

We can get into more Q&A later, if you want to learn more.

Lessons learned in private sector considerations just for Ontario—again, Bill 172, the draft regulation on cap-and-trade, critical design components—but I cannot emphasize it enough: Business needs clarity, stable rules, predictable rules and absolute transparency as well, as this program develops and reviews the modifications down the line.

Embracing and building upon market linkages is critical. The facts and economics are clear: The bigger and broader the market, the wider the range of abatement options and improved efficiencies. That top priority for Ontario has been a carbon market capable of linking to Quebec and California. I think this is something that you are sitting on where they've done a lot of work. Kudos to various people in the ministry for working closely—and I know how closely—with Quebec and California to make sure that those core ingredients in design will be capable of linking as swiftly and as practically as possible.

Again, enabling that policy harmonization and alignment: I want it to be clear that of course we're looking to Quebec and California right now for the near-term linkage opportunity. I'm not going to get into the bubbles, but there are also other markets with trading and offsets that are cropping up, especially across Canada: BC, Alberta. Some of the stories that don't get communicated are that they're also using trading and markets at various components.

Looking at how that alignment with these other critical jurisdictions might happen—and maybe not fungibility in these credits tomorrow, but potentially down the line or, at the very least, some common rules of the game, especially your businesses that are facing carbon exposure in Ontario and BC and Alberta—it makes it easier and not as gnarly—not a technical term—to comply and thrive, while keeping costs low.

**The Chair (Mr. Grant Crack):** Thank you very much, Ms. Sullivan.

**Ms. Katie Sullivan:** Thank you very much.

**The Chair (Mr. Grant Crack):** We appreciate it. We want to get some questions in with you.

Mr. Potts.

**Mr. Arthur Potts:** Thank you, Ms. Sullivan. I would say I'd describe what I've just heard as a bit of an existential revelation about where we are right now.

I'm so proud of the government. I think this is the most important piece of legislation that we'll bring forward as legislators in this term and this session. Your description of what's happening globally, worldwide, is so critical.

We're getting great co-operation from Mr. Tabuns, as the environmental critic, and even the naysayers on the other side. We're here actually talking about it, which was unimaginable five years ago. Every person we've heard today—every industry association, environmental association and yourself—we're in the right space.

Your organization made a submission to the climate change discussion paper, and you had a whole series of prescriptions for us. How close did we get it right to where you thought we needed to be, to be linked to the world markets, linked to California and Quebec?

**Ms. Katie Sullivan:** The world market is keeping a very close watch on WCI. We go into how we learned from the EU, right? Well, now the EU is learning from the WCI program about what can work and what can't.

As Alex pointed out, there's no good reason why Ontario shouldn't be getting it right, given it's not on the bleeding edge of this, right? It's not the first out of the gate. It's later on out of the gate, to learn from the best practices and lessons learned from all these other groups.

There are definitely some issues—granular, design-related issues—that might require some attention more in the regulatory proposal. But I think that in Bill 172, in the enabling legislation and the movement towards linking, it is definitely on course to being right. I think you'd see a lot of businesses agree.

**Mr. Arthur Potts:** You've put a lot to rest, a lot of the concerns that we've been hearing, about maybe tweaking around the fee-and-dividend programs and such, and this notion that we're often getting from the official opposition that we should not be going forward because of the impact it will have on jobs and the economy; that just because there are a few trading partners in the States who may not be there, they might want to drive us down to the lowest common denominator of people still employing child labour, if they thought it would make them more competitive.

But we hear, from what you're doing, that this is so important. You talk in your response to the discussion paper about early action. We've had people talking about how you recognize those early adopters who have already moved forward so that they get recognition. Could you maybe comment about how this program would—

**Ms. Katie Sullivan:** It's something that we feel very strongly about business, but also government players and municipalities—those who have taken action to reduce their greenhouse gas emissions without really clear signals, maybe just thinking that inevitably it was going to happen but not knowing when.

How that is designed and how that's recognized, whether it's through allowances and special reductions

that will go into the market, or early-offset opportunities and those credits—that's how California took its approach.

I think it is important, but whatever you do decide, it has to obviously remain within the caps so the environmental integrity is retained, but also done so in a really transparent and robust manner through consultations with the various industries.

**Mr. Arthur Potts:** I appreciate that. Thank you very much.

**The Chair (Mr. Grant Crack):** Thank you. We'll move to the official opposition. Ms. Thompson?

**Ms. Lisa M. Thompson:** Being the good environmental steward that I am, I'd like to speak about agricultural offsets and the fact that the agri-food industry in Ontario is currently excluded from the first round of compliance in this government's cap-and-trade scheme. Our friend Don McCabe would really like to see Ontario's agri-food sector recognized for the offsets that could be realized through embracing what's happening in our agri-food industry. Again, it's been void, one reason why we have concern about the current legislation.

With that, can you talk to us a bit more about offsets and how we need to be embracing them more, and specifically agricultural offsets? Because, again, they are excluded from the compliance table for the first three years.

**Ms. Katie Sullivan:** So from the agri-food—that's more the broader industrials. But agriculture offsets are not excluded, or won't be, although we haven't seen the draft offset regulation yet.

The basics around any cap-and-trade system anywhere in the world—and even not cap-and-trade but emissions trading like the Alberta system. You have offsets available typically from the agriculture sector, from forestry and from waste. It's the sectors that are not covered under the regulation. If you do not have a plan or a program that really takes advantage of agriculture offset opportunities—there are all types of agriculture offset opportunities—then I think that you would be missing a

huge chunk of how to contain costs while also enabling potential linkages with our partners.

**Ms. Lisa M. Thompson:** So why do you think they're not in the first round?

**Ms. Katie Sullivan:** You will have to talk to Don McCabe about that. I don't know the nuances associated with the—

*Interjection.*

**Ms. Lisa M. Thompson:** Yes. They're not involved in the first round of compliance.

*Interjection.*

**Ms. Lisa M. Thompson:** I just asked a question. Chair, I am fed up with this government today, for the record.

*Interjections.*

**The Chair (Mr. Grant Crack):** You're cutting into your time. Order.

**Ms. Lisa M. Thompson:** Sorry, Katie. It's been a long afternoon.

**Ms. Eleanor McMahon:** Understandably long.

**The Chair (Mr. Grant Crack):** Order, Ms. McMahon. It's been a good day.

You have about five seconds.

**Ms. Lisa M. Thompson:** Sorry, Katie. I'll talk to you later.

**The Chair (Mr. Grant Crack):** My apologies. Mr. Tabuns?

**Mr. Peter Tabuns:** I'd like to thank you very much for coming in this afternoon. I have no questions.

**The Chair (Mr. Grant Crack):** Thank you very much. I appreciate you coming before the committee. I apologize for the rambunctiousness at the end.

**Ms. Katie Sullivan:** It's the end of the day. Thank you very much for having me.

**The Chair (Mr. Grant Crack):** We appreciate your remarks. Thank you.

A reminder that the next committee meeting is on Wednesday, 4 p.m. to 6 p.m. We'll hear more delegations. This meeting is adjourned.

*The committee adjourned at 1758.*







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