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# Standing Committee on Environment and Sustainable Development

Tuesday, May 10, 2005

#### • (1120)

# [English]

The Chair (Mr. Alan Tonks (York South—Weston, Lib.)): Ladies and gentlemen, we do have a quorum. Good morning, members of the committee. Bonjour. To our witnesses, good morning.

This is the 38th meeting of the Standing Committee on the Environment and Sustainable Development. Pursuant to the orders of the day, we're still undertaking our study of Canada's implementation of the Kyoto Protocol, part III, reducing demand.

Our witnesses today from the International Emissions Trading Association are Bob Page, Andrei Marcu, the executive director, and Hugh Porteous. From the Department of Natural Resources, we have Neil MacLeod, director general, Office of Energy Efficiency; Tony Taylor, director, transportation energy use; and Tim McIntosh, director, demand policy and analysis. Welcome to our civil servants and also to our witnesses.

I have already explained to our witnesses that we have 10 minutes with respect to deputations, presentations, and then 10 minutes per party with respect to questions. Then we go to five-minute rounds.

Since we are starting a little late, I'll just get a little direction from the committee as to whether we could be a little flexible on the time. We may go a little past one o'clock, but we want to avail our witnesses of their full opportunity to make their presentations.

With that, perhaps we'll start.

Mr. Page, from your side, who would like to start off with the International Emissions Trading Association?

#### Mr. Marcu.

Mr. Andrei Marcu (Executive Director, International Emissions Trading Association): Thank you, Mr. Chairman.

I'm Andrei Marcu. I'm the president of the International Emissions Trading Association. We'll split the presentation between myself, Mr. Page, and Mr. Porteous.

The Chair: That's very good. Thank you.

**Mr. Andrei Marcu:** It's a pleasure to be here with you today, introducing the International Emissions Trading Association, which is an international organization dedicated to the establishment of effective market-based trading systems for greenhouse gas emissions that are demonstrably fair, open, efficient, accountable, and linkable across national boundaries.

IETA represents 103 corporate members from around the world, which includes 28 members in Canada that represent all aspects of business activities across various sectors and regions. We have distributed a list of IETA members and Canadian members. IETA has been active in Canada since its formation in 1999 and has liaised with the Canadian government, with a memorandum of understanding signed in October 2003 between IETA and Natural Resources Canada, also attached to this document.

The targeted reductions expected of Canada are very challenging and will require cost-effective mechanisms, including a robust trading system, in order for Canadian industry to meet challenging targets and sustain their international competitiveness. Experience has shown that emissions trading is an effective means of reducing emissions at low cost while maintaining environmental integrity. Two examples of the effectiveness of emissions trading are the United States acid rain program and the emissions trading system in the United Kingdom.

The U.K. government launched its emissions trading scheme, the UK ETS, in April 2002. Direct participants were given an emissions reduction target of 0.79 million tonnes of carbon dioxide equivalent for 2002 and 1.51 million tonnes for 2003. In those years, direct participants as a whole reduced emissions relative to the baseline by 4.6 million tonnes for 2002 and 5.2 million tonnes for 2003, exceeding industry's expectations in reducing greenhouse gas emissions.

The United States has also had positive experiences with emissions trading to reduce the level of sulphur dioxide in the atmosphere. The trading system under the acid rain program was a success, allowing the States to achieve their environmental goals faster and at less cost than if a regulated system had been used. Prior to trading, economic models anticipated that SO<sub>2</sub> allowances would trade between \$750 and \$1,500 per tonne. However, the amount of reductions that were achieved and brought to the market exceeded expectations. As a result, SO<sub>2</sub> did not exceed \$300 a tonne. This illustrates the need for a liquid greenhouse gas market, in which demand does not outweigh supply.

These experiences with the U.S. acid rain program and the UK ETS clearly demonstrate that emissions trading results in significant emissions reductions at lower cost than conventional prescriptive regulation. In addition to the overall effectiveness of emissions trading in reducing emissions in a cost-effective manner, a domestic emissions trading system is needed to provide industry with predictability, so they can manage the risks associated with meeting targets under Canada's Green Plan. It is imperative that the Canadian government provide clear and early directions on the emissions trading scheme, and especially provide clarity on targets and allocation.

I will now ask Mr. Page to continue.

Dr. Bob Page (Vice President, Sustainable Development, TransAlta Corporation; Director, Board of Directors, International Emissions Trading Association): Mr. Chairman, there are two key roles for government here in terms of defining the commodity and setting the rules. The first is the design of the underlying emissions trading system as proposed by the federal government, which will form the framework for emissions trading. More specifically, this would include the following.

The first is the allocation mechanism of emission reduction targets to industrial sectors. In our view, this allocation must be done on an emissions-intensity basis and at a subsectoral level to minimize the inequalities between firms.

The second is the immediate clarification of the baseline or baseline year from which industry must reduce. The baseline must be denominated from a known emission level, which is sometimes called the historic year, and not a hypothetical future year. The baseline criteria must facilitate the broadest range of activities possible.

The third is the subsequent mechanism for allocating emission allowances to individual companies. We have argued for an *ex ante* allocation—what we mean by that is an allocation from the beginning of the period as opposed to the end—and allowances to encourage trading and innovation by participants. It's often forgotten that this is a very important part of technology change.

Next is the treatment of early action. Companies should receive credit for reducing emissions before the first trading period begins January 1, 2008, as is happening in other jurisdictions, as Andrei mentioned.

Next is the rapid establishment of the necessary tools to make an emission trading system workable, including—and I emphasize this—the compliance rules, the registries, the verification requirements, which are so important for environmental integrity, and exchanges. None of these exist today.

Then there are the rules for addressing new entrants into the trading system.

Next are the rules for fungibility—which is a trading term for interlinkage—between different domestic and international instruments, both for compliance and for trading.

Lastly, the use of the clean fund, the overriding criterion for which should be one of cost-effectiveness. The fund should not be used for other reasons such as regional disparity or other political purposes. Hugh.

• (1125)

[Translation]

Mr. Hugh Porteous (Vice-President, Government Relations, Alcan Aluminum Limited; International Emissions Trading Association): The second fundamental component is the development of a viable domestic offset market, which will provide desperately-needed emission reductions for use by large final emettors.

This is based on our belief that, in the short term, most capped emettors will be buyers.

Therefore, there will be a serious shortfall of offset supply for compliance use, given deficit international supply, modest near-term industry efficiency opportunities, and possibly some restriction on the government's technology fund.

[English]

Specifically, we require the following.

We require the creation of a domestic offset instrument. Today it does not even have a name.

We require immediate development of the acceptable process for creating domestic emission reduction credits. We need to know how it is to be done, who will approve it, and how credits can be used.

We require implementation of approved quantification protocols for calculating emission reductions. Above all, we require a registry.

We require the rules as to how domestic offsets can transact in a global marketplace. Use of domestic offsets in the international markets will ensure maximum liquidity and international flexibility.

Furthermore, we require that government competition with industry in procuring domestic offsets does not unduly inflate prices or interfere with the availability of offsets to the large final emitters.

### Andrei.

**Mr. Andrei Marcu:** I would like to conclude, Mr. Chairman, on the role of the international trading system.

Canada will have a small domestic market, so for industry to meet its obligation it will need access to credits in other parts of the world, accessible through the Kyoto mechanism. Therefore, the domestic emission trading system that is to be developed in Canada must be linked with the international system. It is one of the means by which the Canadian system can and will develop sufficient liquidity, one of the prerequisites for the success of any market system.

That concludes our testimony, Mr. Chairman.

The Chair: Thank you very much. That was well coordinated. We appreciate that.

Perhaps we could go now to Mr. MacLeod.

Did you wish to make any presentation?

Mr. Neil MacLeod (Director General, Office of Energy Efficiency, Department of Natural Resources): Yes, indeed, Mr. Chair. There's a deck prepared that has been handed around for members to follow.

Since the deck is there, I'll go through it fairly quickly in the interest of time. I understand we want to keep this to about 10 minutes and give the members more time for questions.

**The Chair:** Excuse me. Perhaps you can delegate among your members as appropriate.

**Mr. Neil MacLeod:** Thank you, Mr. Chair, and with your indulgence, we have one extra chair and I have four other directors behind me. Should their area of expertise be raised, perhaps they could come to the table.

The Chair: Thank you very much.

**Mr. Neil MacLeod:** The outline on the second page of this deck shows that we'll be talking a bit about GHG emissions, to put some of the work we do in context. We'll talk about the Office of Energy Efficiency, but more importantly, following that, we'll talk about our actual programs, about what we do.

Slide 3 is a pie chart showing a breakdown of GHG emissions. We've all seen many of these pie charts. They can all be a little different, depending on what you're looking at. These are emissions from the use of energy, and that shows the emissions from the use of energy by the five major sectors.

The next slide also helps to situate how energy efficiency relates to greenhouse gas emissions, and this is the slide on page 4, where we have these ellipses shown on the graph. The centre is GHG emissions. If the goal is to reduce greenhouse gas emissions, there are in fact a number of ways of doing it. If we look at the top, at energy efficiency, that's what we do. Sometimes what helps here is the analogy in your own home. If you want to reduce emissions caused by heating your house—say, it is heated by fossil fuels—you can simply have a more energy-efficient furnace.

Next, though, energy conservation is a separate matter. If you don't want to change your furnace to an energy-efficient one, you simply turn the furnace down, so you use less energy but you have a cooler temperature. Third is fuel switching. This includes renewables, where you move from a fuel that has a certain level of GHG intensity to one that has less GHG intensity.

There is carbon sequestration over at the far left, where you actually put  $CO_2$  into the ground, and there are some non-energy sources of greenhouse gas emissions, in particular, say, landfill gas.

The Office of Energy Efficiency was set up seven years ago to strengthen and expand Canada's commitment to energy efficiency, to engage all energy consumers and producers, but also to emphasize partnerships and economic investments as we do it. How do we do it? We have five major instruments, as shown in the next slide.

First, financial incentives. In some cases we give individual Canadians and companies financial incentives to become more energy efficient.

Next, we regulate, and I think we have a few interesting examples here about our regulations. We have voluntary programs, especially with industry. We do provide general information, but we also have leadership, by way of an example, in terms of the government getting its own house in order.

I'll go through these sectors. With housing, we have a new labeling program, EnerGuide for Houses. Many of you may be

familiar with the R-2000 standard. We actually certify R-2000 homes. We train builders and we help develop technology. We give home buyers information, and by doing this—it's very important—that gives support to higher energy efficiency requirements and codes, which are the purview of the provinces.

For existing houses, for some time now we've had an EnerGuide for Houses evaluation tool. We have partnerships across the country—39 different private sector organizations—and after an EnerGuide audit, the homeowner gets a personalized report of their own house, and it in fact lists the changes that could be made in terms of the biggest bang for the buck. So they'll know after this evaluation what to do. The Government of Canada subsidizes this; we pay for half of this.

We built on this a year and a half ago with the EnerGuide for Houses retrofit incentive. We used that evaluation tool to start off, but then we actually gave a financial incentive to homeowners who actually made changes to improve the energy efficiency of their house.

We also provide general information to the homeowner, which is linked more generally to the one-tonne challenge.

For new buildings, we have a program called the commercial building incentive program. We actually provide, again, financial incentives for the energy-efficient design of new commercial institutions and industrial buildings, and it's performance-based. The more you do, the more you get.

We also demonstrate emerging technologies with the architectural and engineering community, and once again, we support building energy code development. These are now in larger buildings.

For existing buildings, we again provide financial incentives when companies are about to retrofit their building. If they make sufficient energy-efficient improvements, we will actually give them the financial incentives.

We now have over 2,000 members in our network across Canada. That represents about 30% of sector floor space, and that's growing every day. We work with a network of partners to get this done. Our results since 1998...we've retrofitted almost 5,000 buildings, and savings were seen of 20%, on average.

A real success story, I think, is our equipment standards and regulations. If you look at our graph, we've used the light bulb as an indicator of energy use. You can see that if we just take an example of a refrigerator—we're now on page 11—in the 1970s it would have used basically four light bulbs' worth, the 200 watts. Now we're down to 66 watts. In fact, for Energy Star refrigerators, we're down to about 50 watts, which is a 75% improvement. How do we do this? We do have regulations. Most people don't realize, but Canada's regulations are the strongest in the world, period, no matter how you measure it.

We regulate more energy-efficient products than any other country in the world, and if you look at particular examples where other countries regulate—take refrigerators, for example—our standards are 15% stronger than any in Europe. There are other products, for example, electric ranges and clothes dryers. We are the only country in the world that regulates these. So we have an ambitious regulatory program as well.

#### • (1130)

We also label. Many have seen the EnerGuide label. By way of advancement, we now have the Energy Star label. Consumers said, "It's nice to know the number for every piece of equipment, but we'd like to see the best". The Energy Star tells the consumer right away that this product is the best there is.

For industry, we have a longstanding program called the Canadian industry program for energy conservation. Its acronym is CIPEC. We work with industry to set targets every year. Through this program, they cut costs. This helps industry improve productivity and it reduces greenhouse gas emissions. We also work at the program level directly on the ground. We have workshops for companies, and we work with them to help make improvements.

We subsidize audits. A few years ago industry said, "One of the biggest barriers to our not taking more action is that we don't have any benchmarking. We need to benchmark our industry's average consumption. Then we need some in-depth analysis of how our company is doing. We need an audit of our facility." So we set up resources to do the benchmarking. We've done many so far. We actually subsidize audits to help these companies.

With respect to transportation, on April 5 the Canadian automobile industry signed an agreement to reduce greenhouse gas emissions by 5.3 megatonnes annually by 2010. We're going to set interim goals to ensure we get progress. We are going to have a government-industry monitoring committee to stay on top of this year by year. We are also keeping our company average fuel consumption targets; they're still in effect. If you look at new cars today, we're already 12% below the target.

As to personal vehicles, we partner with the automotive industries to promote the purchase of more fuel-efficient vehicles. We have a ranking; every car has an EnerGuide vehicle ranking. We label them, so that cars now have an EnerGuide label on the back passenger window. We put out a fuel consumption guide. Of all the documents the Office of Energy Efficiency sponsors, this is our most popular. We want to make sure that efficiency becomes part of the mindset at the beginning, so we work with the driving schools. We have an AutoSmart program, and we provide it to 125,000 new drivers each year. We work with industry and provinces to help deliver energyefficient vehicle maintenance practices, like anti-idling and tire pressure.

We work with fleets in the private sector. We help managers reduce their operating costs. We have more than 3,600 members in this program. We have driver training. We also have financial incentives, when they make sense.

After the first study, I was from Missouri. But the follow-up studies have showed me. The average transportation truck idles six hours per day, all year around. Study after study has corroborated these figures. So we have an incentive program to get technologies into the truck. They'll be able to move when they have to and rest when they have to—without so much idling.

We also have an ambitious alternative fuels program. We encourage the production and use of cleaner, lower-carbon fuels. We have bio-fuel targets, for both bio-diesel and for ethanol, and we are doing some demonstration work on hydrogen refuelling. The auto industry has said this is where they need to have more work done.

We also have work in government operations. The Government of Canada set a target a few years ago to reduce greenhouse gas emissions to 31% less than 1990 levels by 2010. At the time the target was set, we were already 19% below, so there was only 12% to make up. We decided to get half of this by purchasing green power credits—Public Works is looking after this—and half through energy efficiency improvements in government buildings. Virtually all of the latter target has been met, and it could be revised overall in the future.

We have outreach programs to raise awareness and encourage action. We work with youth and education. We have an energy ambassadors program in the universities. Many people have probably seen the calendar, which engages much younger students.

We've heard much in the last few months about the one-tonne challenge. Individual Canadians told us it was great to have the Energy Star program for buying an appliance, great to have a guide when buying a car, and nice to have an evaluation for houses. But they said they needed something that would knit it all together, a special package for consumer-oriented initiatives.

• (1135)

That's really the genesis of the one-tonne challenge, and of course most of you have seen the television advertising over the past few months. We'll be following that up with on-the-ground work with major retailers such as Home Depot, for example, so that when consumers go there, we'll be working with these retailers to get energy-efficient products into the home.

Mr. Chair, that concludes my comments. I hope I've been within the time. And now I'll turn it back to you.

• (1140)

**The Chair:** That was very good. Thank you, Mr. MacLeod. Yes, you were within the time.

We'll now go to the top of our order. Mr. Richardson, did you wish to lead off in terms of questions?

Mr. Lee Richardson (Calgary Centre, CPC): Thanks, Mr. Chairman.

This is very interesting stuff, and I think it's appropriate that you ended with the public information side of it, because so much of this was not known to me. And we do this all the time, at least for the last year.

I congratulate you on the efforts you've made. One of the things that popped into my head as you were going through this was the energy efficiency of appliances and that sort of thing, and the Energy Star program. We've just done this in our home. Is this unique to Canada? Are these appliances made here or are they made in the United States? Are they any different from the appliances I might buy in Washington or Montana?

**Mr. Neil MacLeod:** The market for appliances in North America is a very integrated market. In fact, the Energy Star label itself began in the United States, and for the first few years, the United States was the only country with Energy Star. However, as I've noted here, in the last few years, Canada has been added. I've just found out that the European Union has also adopted Energy Star, as have Australia and some Asian countries. So it's very much becoming a global symbol. But we work very definitely in conjunction with our colleagues in Washington so that the standards are harmonized in order to facilitate international trade.

**Mr. Lee Richardson:** Right. Also, with regard to consumer education and awareness, we have this notion that meeting the Kyoto goals will.... We hear, in any event, particularly from our larger cities.... A survey was done recently in Toronto that indicated that many people in Toronto sense that if the Kyoto goals were reached, there wouldn't be any more pollution in downtown Toronto. Is there some kind of correlation here? Is there any of this that affects particulate and the pollution in the air? Will it be noticeable to a person on the street?

**Mr. Neil MacLeod:** Well, certainly, as vehicles become more energy efficient—I'll ask Dr. Taylor to add something here—as there is less gasoline consumed, there will be less  $CO_2$ , but also less of other contaminants that lead to air pollution. So there definitely are co-benefits, with cleaner air as we become more energy efficient.

Tony, do you want to add to that?

The Chair: Dr. Taylor has something to add, Mr. Richardson.

Mr. Lee Richardson: Yes, thank you.

Mr. Tony Taylor (Director, Transportation Energy Use, Department of Natural Resources): Yes. A good example are the hybrid vehicles that we're starting to see in the country—diesel and gas hybrid. The overwhelming advantage there is lower greenhouse gas emissions, but those cars turn out to be much cleaner too than any other cars on the road, from the point of view that you raised of pollutants in the air. So we expect that progress on greenhouse gas emissions in the vehicle sector will indeed reduce emissions of contaminants and pollutants considerably.

Mr. Lee Richardson: I had the impression that they might be even less efficient with regard to particulate because most of them are running on diesel, which produces more particulate, which is visible in the air and to the consumers. We also heard recently that automobile emissions are a pretty small part of it, that a cord of wood would outdistance the greenhouse gas emissions and pollution in the air and is comparable to several thousand automobiles.

I'll leave that one for the moment. I want to ask about meeting the goals again and the efficiency or effectiveness of trying to meet these targets by purchasing emission credits elsewhere. I wonder if you could explain how emissions trading can help the energy industry, strictly in my province of Alberta. How can emissions trading help the energy industries in Alberta?

• (1145)

Dr. Bob Page: Thank you, Mr. Richardson.

I want to emphasize that our first experience with emissions trading, from an industry point of view, was in the United States. For 20 years we've had experience with the acid rain and  $SO_2$  programs in the United States. The results of that have shown that, as opposed to regulation, you achieve your environmental goals more quickly and at significantly less cost. Emissions trading allows a company to shop around and find the most cost-effective route to regulatory compliance, and that's important.

Secondly, when we talk about energy we're talking about it in a very broad way. In terms of achieving credits for trading purposes, we're talking about forest activities in a great number of our provinces—often in lower-income areas of those provinces. We're talking about agriculture and tillage practices that retain more carbon in the soil. We're talking about methane capture in a variety of ways. So when we talk about energy here, there's a variety of contributors—many of them in low-income parts of Canada—to an emissions trading system.

In addition, it's extremely important for those like myself and my company, who are looking at fundamental technology change over the next few years to achieve radical reductions in  $CO_2$  emissions, to find the least-cost routes to compliance. That will allow more capital to be retained in the company for that technology change.

In connection with that, it's very important to understand that with emissions trading we're not talking about smoke and mirrors or Russian hot air; we're talking about properly verified credits that have environmental integrity.

Finally, it's extremely important to understand that from a corporate point of view in the energy sector we're very interested in trying to see ways in which government and industry can work together in partnership—emissions trading is that kind of partner-ship—without distorting the economic scene or economic forces, and bring together the goals of government in a least-cost fashion for industry to comply with.

I don't know, Hugh, if you have any additional things from aluminum's point of view.

**Mr. Hugh Porteous:** I can't resist that question, because it's one of the key ones. Alcan is in the position where we understood the climate change challenge very early. We took it very seriously, and we've worked at reducing our emissions systematically over the last 10 years, to the extent that our intensity in Canada is down by 55% per year, and absolutely down by 40%.

As a consequence of this, of course, we have plucked almost all of the low-hanging fruit, so our opportunities to make further reductions in the immediate term are extremely limited. We understand, however, that we will be expected to do more, and consequently we will have to look to the trading system to find the offset credits or other kinds of credits we'll need to comply with government obligations.

This is true not only in the short term but perhaps even in the longer term. In Canada, especially in this issue, we are in a very attractive position because our smelter operations are 100% hydro. So even though we continue to work very energetically on new processes and technologies that will reduce energy consumption, these will not translate into reducing greenhouse gases in Canada.

We are continuing to work, like the rest of us, with some of the challenges and anomalies of Kyoto. We are busy working with the OECD on a global sector process. The global sector process might also provide an opportunity to generate credits that we might need in Canada and Europe through some of the operations of the aluminum industry overseas.

Thank you.

The Chair: You have one minute, Mr. Richardson.

**Mr. Lee Richardson:** That's a fascinating point. It's quite remarkable to be able to reduce as much as you have.

Is most of the aluminum in Canada produced, as you say, by hydroelectricity, as opposed to other sources of electricity?

**Mr. Hugh Porteous:** Yes. I believe our competitor uses some bunker C. But Alcan is 100% hydro in its smelter operations.

• (1150)

**Mr. Lee Richardson:** Yet you've still managed somehow to get down to 50% of what you were previously doing, in terms of emissions.

**Mr. Hugh Porteous:** That's because we had unique opportunities that we identified in the early 1990s, and we worked with the international panel on climate change. They're called perfluorohy-drocarbons. They're released from the process of our smelters at a certain point in the process.

We've invested significantly in better computer controls and constant education of our workforce. It's mainly through the PFC reductions that we've been able to achieve these figures. However, with a couple of very modest exceptions, we have now driven these down to the absolute lowest possible levels with the existing technology. To drive them further down would require a changeover and very expensive investments in other technology.

The Chair: Thank you, Mr. Porteous.

Mr. Lee Richardson: Thank you.

The Chair: We'll go on to the next round.

Mr. Bigras.

[Translation]

Mr. Bernard Bigras (Rosemont—La Petite-Patrie, BQ): Thank you, Mr. Chairman.

I have two questions. The first is to the officials from Natural Resources Canada. I am interested in page 15 of your presentation, particularly where you talk about the voluntary agreement signed with the automobile industry on April 5, 2005, which provides for voluntary reductions of 5.3 megatonnes. You say that temporary annual objectives will be set for 2005-2007, and so on, until the 2010 objective.

What would be the role and the use of these temporary objectives for the federal government in achieving the final objective of 5.3 megatonnes set for the industry. In light of the fact that after one or two years, the industry will not have achieved these temporary objectives, will it be possible to impose a mandatory objective? What purpose will really be served by the temporary objectives? Can you guarantee that the reason these temporary objectives have been set is to ensure that a mandatory objective will be imposed if the objective is missed by a wide margin after two or three years?

**Mr. Neil MacLeod:** I will answer your question, Mr. Bigras, and I will ask Mr. Taylor to add to it, because he was involved in the discussions with the industry.

The reason we entered into a voluntary agreement is that the industry agreed to this. The industry said it would work with us, because it knows that we cannot wait until 2010 before looking at the progress it has made. The industry knew that temporary objectives had to be set, and it agreed to do so. We undertook some discussions with the industry and with our colleagues in the federal government in order to set these temporary objectives.

However, we cannot say now what we will do if the objective has not been met in 2007. The key point is to set these objectives and to look at the results obtained each year.

**Mr. Bernard Bigras:** You say that the objective can be postponed from one year to the next, if it is not met, and that there will not necessarily be a mandatory objective. The danger with such a procedure is that in 2010 we may find ourselves with an increase in greenhouse gas emissions, rather than a reduction of 5.3 megatonnes.

I would like to have the following guarantee: if after two years, the industry has not been able to live up to its commitments, a mandatory objective will be set. I would like to know what you think about this. I think that under the agreement, the government can impose a mandatory objective at any time.

Can you guarantee that if the commitments made under the temporary objectives are not met, a mandatory objective will be imposed?

• (1155)

**Mr. Neil MacLeod:** At this stage, there are no plans of this sort in place yet. Once again, the industry tells us that it is going to live up to its commitments and that we will be able to see the results achieved each year. If there is a problem in two years, we will make a decision.

**Mr. Bernard Bigras:** I see. My second question has to do with emissions trading.

Mr. Neil MacLeod: Mr. Taylor wanted to add something else.

Mr. Bernard Bigras: No, what you have said is clear. You have answered my question.

With respect to the trading mechanisms, I would like you to tell us about their impact on taxpayers.

The federal government has decided to limit the price of emissions to \$15 a tonne, and has guaranteed that if the price for one tonne of  $CO_2$  on the market is higher than \$15, it will provide assistance.

My fear is that some industrial sectors will have reduced their greenhouse gas emissions and will have reduced the marginal cost of reducing their emissions, while other industrial sectors will have sat back and relied on the international trade system. Once the price gets to \$30 a tonne, the taxpayer will have to foot the bill.

My fear as regards the \$15 ceiling is that ultimately taxpayers will have to provide financial support to polluting industries that will not really have reduced their greenhouse gas emissions and that will rely on the foreign market. Taxpayers will have to pay for these industries while the other industrial sectors, such as aluminum and pulp and paper, which have reduced their greenhouse gas emissions, will be disadvantaged by the system.

I would like to hear your views on this.

[English]

The Chair: Mr. Marcu.

Mr. Andrei Marcu: Thank you, Mr. Chairman.

The current plan is not clear as to how the \$15 guarantee will be incorporated. The previous plan was discussed with Natural Resources, but it's quite clear that we're in the process of looking at how this plan is going to be implemented.

Certainly the \$15 is a guarantee that the former Prime Minister made to industry, and that's part of the plan. As to the future price of greenhouse gases, I think it's pure speculation as to whether it's going to be higher or lower than \$15. The current price in Europe in euros has varied over the last six months, anywhere between  $\pounds 6$  and  $\pounds 15$  a tonne. As such, I think it's premature to draw a conclusion after three months of operation on where the price will lie.

However, you could argue that under certain conditions there is a risk, but in my view, unless that definition is made of how that risk is going to be shared between the taxpayers and the industry, it's very difficult to make that evaluation.

The Chair: Mr. Page.

Dr. Bob Page: I'd just like to follow up with a couple of things.

I think our Kyoto program has a variety of incentives for wind power, for some of the current LFE companies, and for things like interprovincial hydro transmission. So there's a variety of incentives being built into the system to try to improve it at this point.

The really important thing is what does Kyoto focus on? Kyoto focuses on emissions and how we lower emissions. So if we have a scheme that, in terms of my company, will drastically reduce emissions over a series of years and go significantly beyond Kyoto, these are things that are very consistent, certainly in terms of other aspects of industrial policy for Canada.

The Chair: Mr. Simard.

### [Translation]

**Mr. Christian Simard (Beauport—Limoilou, BQ):** First of all, with respect to the international system and the domestic emissions reduction system, I was quite stunned to hear you say a few moments ago that nothing has been done yet with respect to rules, procedures, the register, and the audit framework.

You said that it is not a circus, but it is real and that we have to set up a system that works. You compared it to the system for  $SO_2$ , for acid rain. This system worked and even exceeded the objectives set for it. We often hear about this.

But I must say I am surprised. This is 2005, and it appears as though people understood that the Kyoto Protocol was signed several years ago.

What progress has been made with respect to the framework, that is the determination of the year, the rules, the audit and the controlled procedures, to ensure that the reductions are real and to ensure that people trust the system? Will we be ready, once the mandatory system is in place in 2008?

• (1200)

Mr. Hugh Porteous: I will begin the answer.

Obviously, we have worked a great deal with Natural Resources Canada on the allocation rules. There has been a great deal of discussion about emissions and what happens to them. We know more or less what the allocation levels will be. We are always talking about specific points. Of course, there is a transition period between Natural Resources Canada and Environment Canada. We are expecting an official announcement by the end of the year.

With respect to the other systems, I know that the government is still in the process of setting up the register; the discussions are still under way. That is one of the reasons we are so pleased to be here with you to talk about the credit trading system.

**Mr. Christian Simard:** There is some urgency, after all, if we want the system to work. That is my understanding. The industry must know exactly what it has to do.

I see your table here. It is always interesting to see where the greenhouse gas emissions are coming from. The industrial sector produces 162 megatonnes, the institutional and commercial buildings, 64 megatonnes, and the residential sector, 75 megatonnes. However, when we see the work done by the office, we do know that improvements have been made to 4,800 existing buildings, which represents an annual reduction of 1.2 megatonne. For the residential sector, a great deal of work has also been done by means of the EnerGuide.

However, let us look at what has been done by industry, which does account for three times more greenhouse gas emissions than commercial buildings and more than commercial, industrial and residential buildings together. I see that you have done 140 audits a year. I am sure you will agree that 140 audits a year for the entire industrial sector is not much. You talk about a saving of 0.2 megatonne a year and another 0.60 megatonne a year.

The work done by the Office of Energy Efficiency with the industrial sector seems totally disproportionate and ineffective compared to what has been done with respect to buildings.

How can you explain why you have done so little work in the industrial sector and have achieved such minimal results, given that this was the main target, the main emitter of all the industries combined?

[English]

**The Chair:** Mr. Simard, we'll have to make this the final response, because we're out of that timeframe now.

Mr. Marcu and Mr. Page, would you like to respond to Mr. Simard's question?

Mr. Andrei Marcu: I just wanted to add, if I may-

#### [Translation]

**Mr. Christian Simard:** My question was more to Natural Resources Canada.

#### [English]

**Mr. Neil MacLeod:** I think the issue here is that some of the numbers we've put are from programs that are very recent. I think I mentioned that although the Canadian industry program for energy conservation has been under way for more than two decades now, and we have been working with them particularly intensively, I would say, since 1990 to achieve targets, we haven't tried to attribute all the improvements they have made simply to our program. But I can tell you that within CIPEC, within the Canadian industry program, we have more than 22 different industry associations, and we work hands-on with each one of them.

Some of the numbers you see are related to specific tools. As I indicated earlier, industry told us just a few years ago that if there can be more resources put in to their industry program, what they really need is benchmarking. If I'm a company in the rubber industry, I need to know, say, on a per square metre basis, what the average energy use is within a rubber company, or within any other kind of company. We did put resources into benchmarking, which is a kind of support initiative, but you can't really ascribe megatonne reductions to that. On the other hand, you have to have it before you can take steps.

The next thing was the audit program, where again we subsidize audits. Companies now know what an average is for, say, a rubber company, but they need to have detailed information for their company. We actually subsidize to the tune of \$5,000 each the audits being done of their companies. I would say that, once again, these are very early goings.

The last shoe to drop on the floor, now that they know the benchmarking result for their industry and they know their company, will be that they take action. I think what we're going to see in the years ahead, those two steps having been taken, is a greater take-up and those further activities taking place.

#### • (1205)

**The Chair:** Did you want your colleague to add anything to that? You're fine. Okay.

Mr. Simard, we'll have to go over to the other side, and then we'll come back.

Mr. Wilfert, for questions from your side.

Hon. Bryon Wilfert (Richmond Hill, Lib.): Thank you, Mr. Chairman.

Mr. Page, you didn't have a handout, I assume.

Mr. Andrei Marcu: You should have got it. Sorry.

Hon. Bryon Wilfert: We never got it.

**Mr. Andrei Marcu:** We provided it, but obviously it has not been distributed at this time.

**The Chair:** I'm informed by the clerk that it was only in English, so we didn't hand it out, as our policy generally is that we'd like to have it in both languages.

Hon. Bryon Wilfert: I've not read the handout. Maybe it's in there.

First of all, who does your association represent?

Dr. Bob Page: Andrei, do you want to handle that?

**Hon. Bryon Wilfert:** And then could you tell me what are the objectives of your association?

**Mr. Andrei Marcu:** The association represents, at this point, about 103 or 104 companies from around the world. That would include companies such as the ones at the table here, TransAlta Corporation and Alcan, but a variety of companies both from the north and the south—companies like Eskom, which is the South African power company; PLN, the Indonesian power company; Tokyo Electric; and Lafarge. So they're from a variety of sectors, but also gathered around that are a number of other organizations that have a stake in setting up an international trading regime. Thus, we also have legal firms such as Baker & McKenzie, or companies such as PricewaterhouseCoopers that are verifiers. In effect, it's the whole sequence and a whole cycle.

The interests of the association can be summarized in the fact that industry would like to have the flexibility of using market mechanisms in meeting its targets under regulatory regimes, whether in Canada, in the EU, or in Japan. One of the important points is that these trading regimes, once they're established at the domestic level, should be in some way linked, because many of these markets, such as the Canadian one, might not be large enough to provide the necessary liquidity on their own. A much broader market, a much deeper market that includes the EU-25, Canada, and Japan, all of a sudden allows a much better price discovery and, as such, presumably a better economic instrument.

**Hon. Bryon Wilfert:** How do you see that linkage occurring, given, for example, that the EU is a closed system at the present time?

**Mr. Andrei Marcu:** The EU has two directives. It has the trading directive and what is called the linking directive. The linking directive states very clearly that the EU emissions-trading system can be linked, and will be linked, if it is possible, to other domestic emissions trading systems in countries that have ratified the Kyoto Protocol, as well as possibly to some that have not.

**Hon. Bryon Wilfert:** "If it is possible...." Can you explain what that means?

**Mr. Andrei Marcu:** There are clearly bilateral agreements that need to come into place. The Kyoto Protocol, under article 17, provides for the linkages at the nation state level. There is nothing in any legislation or regulation or a bilateral agreement between Canada and the EU that would provide for that mutual recognition.

The EU has created an EU allowance, which is not a Kyoto commodity but is an EU-recognized unit. As such, if Canada should do the same, then there should have to be some kind of mutual agreement between Canada and the EU for mutual recognition.

**Dr. Bob Page:** I'd just like to jump in here, because the EU, to begin with, is trying to create their own system, with a variety of internal tensions in trying to create that system. Certainly my discussions in Brussels have indicated to me that at a later stage they would wish to see a broader system in place.

I would also just like to take you to an experience I had several weeks ago when Andrei and I were both speaking at the California registry, in which there was discussion of not only linkage between the EU and North America, but discussions between U.S. states and Canada in connection with going forward.

So yes, at this very early stage, in terms of a system, we're still dealing with some of this attempt to get the system up and running, but from a long-term point of view, it's certainly our hope and our expectation that it will be in place.

• (1210)

**Hon. Bryon Wilfert:** Do you think that should be one of the key issues we should be dealing with at COP 11 in Montreal?

**Mr. Andrei Marcu:** The linkages between domestic emissions trading systems is a bilateral agreement between various governments and jurisdictions. So I think it is a political issue that needs to be dealt with, and it has been addressed to some degree in meetings between the Canadian government and the EU. There have been preliminary discussions. However, with the EU being already an established system and the Canadian system being not yet in place, it is very difficult, I believe—and I don't speak, obviously, for the Government of Canada—to come to a conclusion on those discussions at this point.

**Mr. Hugh Porteous:** If I may, I'd just like to add another thought, and that is that I totally concur with everything that's been said by my colleagues. In order for these systems to link, increasingly we're hearing, particularly in the EU, a discussion about whether our emissions in one place from one industry are equivalent to emissions from another industry and another place. What are the different protocols in place?

So to the extent that we can have international agreements or protocols describing these emissions, it will greatly facilitate. That's one of the things we hope, that through the global sector initiative that I was mentioning earlier, at least my sector can contribute to this continuing international conversation.

**Hon. Bryon Wilfert:** That, Mr. Chairman, is my next question, because in order for them, in terms of value, to in fact be given the same, we have to come to an agreement as to one jurisdiction versus another.

On a sectoral basis, let's say aluminum, for example, regardless of whether it's here or Indonesia, or wherever it happens to be...are there thoughts about dealing with that on a sectoral basis, or would you suggest that it be some other mechanism?

**Mr. Hugh Porteous:** Indeed, our sector has been anticipating this and working on it for some time. In terms of the emissions coming from aluminum smelters and aluminum processes, the International Aluminium Institute has consolidated a global consensus, in conversation also with the international panel on climate change, on the sources of our emissions and the quantification and verification of those emissions.

I think one of the great challenges moving forward, one of the great flaws in Kyoto, is that there are only some countries that are in, obviously. How do we bring especially the developing countries into the fold? Perhaps global sector initiatives will be one way to bring them in less painfully, but that remains to be seen.

**Hon. Bryon Wilfert:** Obviously, for COP 11, the whole issue of beyond Kyoto will be very critical for the Chinas, the Indias, the Brazils, etc., in terms of how we.... So that could be one of the....

The Chair: Mr. Marcu wanted to add something.

Mr. Andrei Marcu: Yes, if I may.

This is indeed the basic building block of any regime, whether it leads to a trading system or not. You have to have apples and apples to compare. As such, the International Emissions Trading Association is working together with our colleagues in the World Economic Forum and the World Business Council for Sustainable Development, working with the California registry, working with the UN emissions trading scheme, and others around the world.

We were in California a couple of weeks ago for the exact purpose of beginning the process of standardization. There is no protocol right now to lead to that process, but industry has taken the lead to try to bring the parties around the table to meet on that process. It should be a very high priority on the agenda indeed.

**Hon. Bryon Wilfert:** We made it very clear, Mr. Chairman, that any compliance must be Kyoto-compliant. In other words, it must reflect real and verified reductions, not the Russian hot air that we often hear about. So we're all very clear on that.

We've been talking about the global aspect. In terms of domestically, for example, dealing with various government departments, how coordinated do you really think we are as a government in terms of dealing with NRCan or Environment Canada or Industry, in terms of it not being housed in one department or in one secretariat?

How do you find that, and what implications has that had for you in terms of moving this file forward?

**Dr. Bob Page:** This is a complicated question, and a great deal goes on behind the scenes between departments, which you're probably more privy to than we are, sir. But in my opinion it has slowed down the effective development of the rules and regulations, which we talked about in our brief at this time. There is some very important expertise within government that needs to come to the fore in terms of this effective development.

We understand the challenges that governments are facing in connection with it. We understand that what we're trying to do with an emissions trading system is create not just a new environmental policy, but also a whole new type of policy. This is what creates some of the jurisdictional issues and the issues of market mechanisms that are more fundamental than just the issue of greenhouse gases.

I think whereas on the industrial side there may be a little frustration that we would have liked to have seen this move more quickly to a period of certainty, we also have to recognize the challenges within government in facing and doing something that's really very new with climate change.

**Mr. Andrei Marcu:** If I may add something to this, and I will also try to answer Mr. Simard's question on the urgency of this, certainly, the fact is that we've had excellent cooperation from various departments, but the change of the file has slowed things down somewhat. It may be normal in some ways, but it does not help in terms of our presence in developmental markets.

If you take the Government of the Netherlands, which has been active in this market for a while, they certainly have had a head start. And whether they were purchasing a certain price, we may be purchasing at a higher price at a certain point, so the statement that there is some urgency on this file is quite true.

**Hon. Bryon Wilfert:** The Netherlands, I think, has committed about \$800 million. About 50% of their reductions they expect to do through international trade. There has been some criticism at home that we want to do international trading, but obviously whether a reduction occurs in Vancouver or in Warsaw or in Lima, it's still a reduction. So that will benefit in the broader sense. It will benefit the Japanese, I know, who have committed about \$120 million.

**Mr. Andrei Marcu:** Japan is the largest purchaser. The Japanese corporations and the Government of Japan, through a number of instruments, have entered into the market in a very significant way.

Hon. Bryon Wilfert: Yes.

**Mr. Andrei Marcu:** The market report that together with the World Bank we will release at the Carbon Expo 2005 tomorrow in Cologne will indicate that the Japanese entities are the largest purchasers in the world right now.

**Hon. Bryon Wilfert:** I do work with my Japanese colleagues fairly regularly, and I am very interested in what approaches they're taking and how they seem to be moving the file.

The Chair: Thank you, Mr. Wilfert. We're out of time there.

Thank you, Mr. Marcu.

We'll go to Mr. Jean now, please, for five minutes.

Mr. Brian Jean (Fort McMurray—Athabasca, CPC): Thank you, Mr. Chairman.

And thank you to all the presenters who came today. I found it very informative, especially as it related to the Office of Energy Efficiency. That's where my question is today, to Mr. MacLeod.

I'm curious. Some 29% of greenhouse gases come from residential and commercial buildings, in essence. That's my understanding of your chart and just the history of the file itself. It seems obvious that if we reduce consumption at the same time, we will reduce energy demand, and as demand goes down, so does price, which of course in real terms is something that hits the public hard right now, especially with what's going on with Kyoto.

Several times in the past I've asked presenters to provide information and recommendations for papers on innovative techniques for the reduction of energy consumption on the residential or commercial level, ideas that may be more or less brainstorming.

I'm curious, sir, to find out if you have any access to information and reports such as that, which would help the committee as far as our report goes—and I'm specifically talking about regulatory enforcement, things such as tax incentives for getting rid of fridges that are 20 years old and stoves that are 20 years old, ways in which it could be done effectively on a regulatory basis or tax basis, with tax refunds, for instance, and things like that. Do you have any kind of global paper or set of recommendations that would give us innovative ideas?

#### • (1220)

**Mr. Neil MacLeod:** We don't have a global paper on this, but many times these ideas are either the responsibility of or are shared by our colleagues in the provinces. And we know, for example, that it was fairly recently that the Province of Ontario—we talked about the Energy Star program just recently—decided to give rebates for people who buy those appliances, but only if they are Energy Star.

You referred to refrigerators. I have a kind of vernacular phrase for that. I call it the "beer fridge problem". We convince a person to go out and buy an Energy Star refrigerator; he does, and then he takes the old one and just throws it down in the basement, puts 12 bottles of beer in it, and keeps it going 24 hours a day, seven days a week.

We've worked with our friends in the Yukon where what we did on a pilot basis—and I don't think we've concluded it yet—was to work it so that if someone bought that Energy Star refrigerator and turned in the old one, a rebate was actually given. Then we worked with environmental groups to take apart those old refrigerators and recycle them. This would be, ideally, a thing that we could do nationally, but we're still learning from that pilot.

We also have different jurisdictions. For example, the Province of Alberta in the winter just past and the one before, said it really wanted to target high-efficiency natural gas furnaces. It asked if we could work together on this, and we're doing that. We've partnered with British Columbia, which is concerned with its need to reduce the demand for electricity in the province. In the view of our governmental partners in British Columbia, a dollar saved by reducing demand is much better than the building up of a new supply, because that can be much more expensive. So we actually have one of our officers working with our colleagues in British Columbia on a day-to-day basis make sure we jointly deliver on this.

### [Translation]

I would like to introduce my colleague, Louis Marmen, who is responsible for housing. He could talk to you about the new residential program, based on ours, that Hydro-Quebec has decided to introduce.

Mr. Louis Marmen (Director, Housing and Equipment, Department of Natural Resources): We established a basic program that involves the EnerGuide program for houses. Our partners will be contributing to it through grants. Our basic grant, for its part, is quite small—approximately 20 per cent of the cost of the energy-saving renovation. Hydro-Quebec, on the other hand, will contribute twice this amount to accelerate the take-up of the program. To some extent, this is the principle of our programs. We establish a basic program, and then we rely on our partners to speed up its market penetration.

Let me give you another example of an innovative concept for the residential sector. We are developing some pilot projects, in cooperation with the municipalities, in an attempt to use local improvement taxes to fund energy efficiency projects. For example, by using the EnerGuide for homes, we could ensure that the extra cost of projects designed to achieve improved energy efficiency would be covered through municipal taxes. The homeowner could pay back this amount over a number of years at a preferential interest rate. These are the methods we are working on developing at the moment with our partners.

In addition, our partners, including the Canada Mortgage and Housing Corporation, use the EnerGuide system for homes in order to offer preferential mortgage insurance rates. This means that banks and cooperatives such as VanCity, in Vancouver, now offer interest rates at the basic rate, for projects designed to improve energy efficiency. Once again, this is based on the EnerGuide program for houses. This is a tool that really allows us to multiply the impacts it has.

#### [English]

**Mr. Neil MacLeod:** Perhaps I could add just two final things to that, Mr. Chair, and to the member. There are some longer-term things that we've tried to get plugged into as well. There's a coalition called the Net-Zero Energy Home Coalition. Of course, this is well into the future. But if we don't start getting these ideas out now with that ultimate goal, assuming homes can sell electricity back into the grid and would use net zero energy, it's not going to happen. So we're plugged in there.

And the final example, if I could mention, is in the area of communities. We look at houses, at buildings, at cars, and at industries, but in fact energy is used within communities. And sometimes, if you take a community approach, where let's say you can integrate transportation planning with housing planning, you can

achieve much more than when you look at each of them individually. We do have another partnership with the Province of British Columbia. We have two pilots going on right now that attempt to do just that.

Thank you.

### • (1225)

**Mr. Brian Jean:** Again, my question is, do you have a list or a paper that provides some of these innovative ideas or what you're doing? It's very difficult to hear on a case-by-case basis. I'm sure you're missing some, because obviously there must be a lot out there. I would like to be referred to a paper that deals with that so I can go through it item by item and case by case.

It seems to me that we're letting down our country and our citizens, in essence. You know, it doesn't take very long to get a deal with municipalities if that's the direction the government wants to go. I think the government should go in the direction of energy efficiency on the basis of consumer demand to reduce price—in essence, long term—and also to make sure we have a future.

And quite frankly, it's just not aggressive enough when I hear there are pilot projects after pilot projects. I understand, sir, that you have to start somewhere, but we've waited 12 years to start on this particular file. I think it's far in excess of time to do something in real terms. A tax rebate, for instance, for energy-efficient fridges or to trade in, as you say, beer fridges I think would be an excellent idea. I don't see why it would take so long to get into some of these innovative ideas that will be effective.

**Mr. Neil MacLeod:** Mr. Chair, again, we don't have such a comprehensive report now. But certainly we could provide the committee with a list of the various activities, as I understand it, that are under way now and planned for the future.

**The Chair:** Mr. Jean's question is relevant. We had the construction association at the last meeting, and we were talking about these pilot projects and how we develop the instruments beyond being pilot projects.

That would be very helpful. I'm sure the committee would appreciate that, Mr. MacLeod.

**Mr. Neil MacLeod:** In fact, you could sometimes look at our work as a continuum. As I'm sure you can imagine, we work in conjunction with another group that is looking at energy efficiency in renewables, but they are very much at the R and D stage.

In fact, on the kind of flow that we have as these new technologies are developed in our laboratories and in partnership with the private sector, they are tested on a pilot basis. Once they can be market ready, the responsibility of the Office of Energy Efficiency is to move them into the marketplace through our incentive programs or voluntary programs.

We can certainly provide the list of everything we have.

The Chair: Good. Thank you.

Mr. Bigras.

### [Translation]

**Mr. Bernard Bigras:** I would like to ask a short question on international systems. I believe there is a stock exchange pilot project in Chicago. I would like to know how Canadian companies compare to their American counterparts in this regard. I know, for example, that transAlta is very active in this area. Generally speaking, how do Canadian companies perform on the international market?

I know that Pechiney is very active as well.

**Mr. Hugh Porteous:** We are not yet very active on the international market. We do some trading in Europe. I think the Chicago stock exchange is entirely voluntary. It would be better to ask Dr. Page this question, because he has a great deal of experience in this area.

### [English]

**Dr. Bob Page:** We have had trading with European partners, Japanese partners, American partners, and Latin American partners. We are already active in this field. The reason we are not a member of the Chicago Climate Exchange is because it is a voluntary operation in which credits traded in Chicago would not have value in Canada under Kyoto.

Your question is a very good one, Monsieur Bigras. To my knowledge, the only member of the Chicago Climate Exchange that is a Canadian company is Manitoba Hydro. They are trying to sell hydro credits into the United States as opposed to a true exchange among companies in going forward.

If the Chicago Climate Exchange was dealing with Kyoto-ratified credits, then I think a number of Canadian companies would have a different attitude.

The Chair: Mr. Bigras, Mr. Marcu would also like to respond.

**Mr. Andrei Marcu:** I think Mr. Page has addressed the characteristics of the Chicago Climate Exchange, which is more than an exchange. It is essentially a regime. The Chicago Climate Exchange has set up certain targets to allow the members who participate on a voluntary basis to exchange credits among themselves. Again, it is not recognizable in the regulatory regime that Canada would set to meet its Kyoto obligations.

If I correctly understood the second part of your question on how active Canadian companies are, if you look at pie charts dating back five or six years, in terms of the market share of Canadian participation in the international market, you will see a very large pie chart with a very large slice identified as Canada. That slice has dropped tremendously.

I think that is purely logical on the part of Canadian businesses, because if you go in front of a senior management committee and ask for a substantial amount of money to buy credits, the question will be on what your compliance needs are and how much you need. At this stage, for most of industry, the answer is not known. They will be told to come back when they do know.

Yes, we have seen a decline in the participation. It's too bad, because we were pioneers in this area.

# • (1230)

### [Translation]

**Mr. Bernard Bigras:** Is it not a good idea for companies to buy when the price is low? I think this is the approach for some companies. Ultimately, there can be a definite economic advantage in buying when prices are low and selling when prices go up. It is a stock exchange, there are trades, and the situation changes.

Consequently, even though we have not set objectives for the industrial sectors, would it not be a good idea for companies to buy now and to sell again at higher prices, in a few years?

[English]

**Dr. Bob Page:** Our company has in fact done that, as you may know.

To give one example, we recently had a project on credits in connection with Chile, which was very attractive financially for our company and helped to keep electricity prices down in Alberta as a result.

The point I'd like to make is that at this stage it's very difficult to go ahead and invest in credits internationally or domestically when you don't know what the rules are. You don't know whether they will actually meet the needs of the Government of Canada in a regulatory sense. The level of risk that's still involved, with the rules missing, is such that it inhibits the kind of investment that is made, for exactly the reasons you say. Otherwise, we'd see more action at this time, in the same way we're seeing it in Europe, because the rules are in place.

The Chair: Mr. Porteous.

[Translation]

**Mr. Hugh Porteous:** I would like to add that Alcan, like many other companies, I think, would like to concentrate on its own operations. It wants to do everything it can to reduce its emissions before going out and buy credits elsewhere.

Mr. Bernard Bigras: That is a good strategy.

Mr. Hugh Porteous: Thank you.

[English]

The Chair: Thank you.

Thank you, Mr. Bigras.

We'll now go to Mr. Watson. Mr. Watson, do you have a question?

Mr. Jeff Watson (Essex, CPC): Thank you to the witnesses here today.

I'm trying to understand this whole concept of a trading system. So if you'll forgive my ignorance, I may ask some questions that will show how little I know about this.

I want to start with the acid rain trading system domestically in the United States, which you said was a success. If I understood your testimony correctly, the price for credits was ultimately lower than originally forecast. I'm trying to understand where that success came from. Was it because there were more people looking to buy those credits or because there were more people on the supply side who were able to sell credits, or was it a combination of both? How did the price get driven lower than was expected?

**Mr. Andrei Marcu:** Well, I will go back and draw on my history in the power industry in Canada, as I'm somewhat familiar with what happened. Clearly, the moment you put a price on a tonne of anything, there is an incentive to look for solutions. The trading system does not produce reductions on its own; the trading system produces a price that will then induce companies like TransAlta or Alcan, or any other company, to look for solutions. If you don't have that price signal, you're in a planned economy and you're flying blind. So all the acid rain program did was to provide an incentive for companies to switch to lower-sulphur coal and to put on scrubbers, or to undertake other efficiency types of activities. It was a combination of all the above, no doubt about it.

I think Mr. Page's company operates in the States, so he may want to add something to that.

### The Chair: Mr. Page.

**Dr. Bob Page:** I'll just give you one very clear example. With our Centralia coal-fired power plant in Washington State, part of the trading system provided an incentive for us to go way beyond US EPA compliance. We invested over \$300 million in wet scrubbers for that plant, lowering the sulphur dioxide by nearly 89%, though we only needed to lower it by about 20%. We then had a financial return from having made that extra investment; in turn, we had the credits to go back into the market to sell, which Andrei was talking about just a moment ago.

The emissions trading system is a very useful tool for companies looking at large-scale investments, so they can plan that investment in an appropriate fashion, timing it to the market and timing it in terms of the financial return from the credits.

• (1235)

### Mr. Jeff Watson: Okay.

Did I understand you correctly that Canadian industry will have a small domestic market for emissions trading? Okay.

So Canadian industry, if I'm to conclude appropriately, must have access to credits internationally or outside of Canada?

**Dr. Bob Page:** Yes. I want to make one point very clear: we prefer to invest in Canada, but the international market is a safety valve for us, in terms of trying to keep prices under control here in Canada and in terms of allowing us a wide variety of options in connection with that. I don't want to leave the impression that we're wishing to jump into the international market, except in terms of the safety valve arrangement.

**Mr. Jeff Watson:** I don't think I was getting at what your desire was in terms of where to place it, but I was simply speaking to the fact that there may not be sufficient capacity for Canadian industry in a Canadian emissions trading market. Therefore, it's not a question of whether they desire to have access, but that they'll need access to international credits.

Dr. Bob Page: That's right.

**Mr. Jeff Watson:** That leads me to the next thought. If the Japanese are jumping on board with credits trading and are not going to meet their Kyoto targets, and we've already had our minister of industry testify to this committee that we're not going to meet our targets, even with a substantial amount of trading, it's going to have to be international credits that'll make up the difference.

If the world is not signed onto Kyoto, what does this do to the price of credits? Will it keep the price of these international credits high or low? Who's going to benefit the most from this type of system: developed countries, developing countries, or undeveloped countries?

**Mr. Andrei Marcu:** In that context, I think there are a number of scenarios that can play out, but very clearly the Canadian market, with a reduction of 55 megatonnes—or, sorry, 49 megatonnes, as the number will be in the end—is not a very large market. We are a trading nation in general. We are looking for broad international markets for our products in general, because we get more liquidity that way.

In this case, I think Canadian industry, not having access to reductions from developing countries that will come at a lower cost, would be at a disadvantage compared with competition in Europe that has access to those credits. If the marginal cost of abatement in Canada is at a certain level, it's certainly going to be much cheaper to do those same reductions—think, say, marginal tonne of carbon dioxide in Indonesia. If BP in the U.K. has access to that and a Canadian company here doesn't have access to the same level of price, it certainly would be at a competitive disadvantage. It's in that context that I would look at it.

The Chair: Thank you, Mr. Watson.

Mr. Simard, and then we'll come back to Mr. Mills.

#### [Translation]

**Mr. Christian Simard:** The Minister of the Environment testified before us. He said that it was very unlikely that the price would reach \$15 and that, as a result, it was almost academic to claim that the cost of subsidies would be very high.

My question is in two parts. The minister said that the price was roughly \$23 a tonne on the European market. Am I mistaken? He said that the price on our market was \$2 or \$3, and then consequently, we had time to deal with the whole issue before the price reaches \$15.

I think it is difficult to compare a voluntary market—Chicago with the European market, but, in any case... I would like to know what you think about the minister's statement.

In addition, we had a lot of questions about the impact the government's decision to subsidize the purchase of credits at over \$15 a tonne would have on the free market. Normally, the market must create an incentive. The higher the cost, the more effective the industry will be and the more it will try to find internal solutions or ways to keep the cost down. If we stop it at \$15, are we not destroying the principle of emissions rights?

• (1240)

[English]

The Chair: Mr. Page.

**Dr. Bob Page:** These are some extremely good questions. This whole question of the pricing is very important in terms of the working of the whole system, and we're in no way wishing to discount it. I was not here for the minister's speculation with regard to \$15, so I'm not quite sure what context he put it in, but there's no question that a \$15 price cap does affect the market. That's clear in terms of any international trading for Canada.

The one thing I would caution you about right now, from our own experience, especially in Latin America today, is that the price in Europe today—and you rightly quoted, I think, \$22 or \$23 a tonne is not the price if you're doing projects in Latin America. The risks that are involved with those projects mean that the price is actually significantly less than that. That may have been part of what he was talking about; I don't know.

It's extremely important at this stage to come back to what Andrei was saying a few moments ago. It's the competitive issues that are involved in this for major Canadian companies: if we don't have access to the international market, if we don't have access to what our European colleagues and even some of our American colleagues are going to be into, then we're at a serious disadvantage in connection with this.

### [Translation]

**Mr. Hugh Porteous:** I would like to add that we should not minimize the impact of this \$15 price per tonne. It could have some very significant repercussions for our industries, particularly because our industries here in Canada are subject to some restrictions. The ministries with which we compete internationally are not necessarily subject to the same restrictions.

#### [English]

**Mr. Andrei Marcu:** Mr. Chairman, first of all, the \$15 price cap is a clear political decision and not one I'm going to comment on, but it can be implemented in many ways. It can be implemented in ways that will not necessarily affect the international market. I have never understood it was the intention of the Government of Canada to stabilize the world price at \$15; I don't think so. I know a few people who would like that, but I don't think that's the case.

However, there could be a way of implementing this or simply making it an option industry would have available to it. They could profit from that option or they could miss by using that option, meaning you could buy an option at \$15 and then find the price has gone under that; it's not a risk-free adventure for industry either. The price could end up being \$9, in which case the person sitting on my right or my left, having made that decision or recommended that, may have to explain it. Nothing is certain in life—except two things.

The Chair: Thank you very much.

Thank you, Mr. Simard.

Mr. Mills.

**Mr. Bob Mills (Red Deer, CPC):** First of all, I'd like to apologize for being late. It's a fairly interesting place around here right now.

Anyway, this would be largely to look at things like...and I'll use my own riding. I have a fellow who's built 80 homes that use geothermal energy. I have a county that's building a biogas plant. It will be a trial run. It will produce about one megawatt, but they are hoping to produce 14 megawatts. There are 105 farmers participating. We have solar projects around the country being proposed. I know of an interesting one in P.E.I., where the government, actually, is proposing it.

I wonder how we're going to get access to that grid and how that's going to change our energy makeup down the road if in fact all of those kinds of things take off and become realities. How does TransAlta respond to that sort of fairly major...maybe it's 10% or whatever...down the road? How do you respond to that in terms of the grid?

• (1245)

**Dr. Bob Page:** The access to the grid is an absolutely critical question, whether it's wind power in Quebec or Alberta or whether it's others. The issue here, of course, is that these are under provincial jurisdiction; they're locally regulated functions of our electricity system.

But you're quite right, Mr. Mills, to be pointing at this, because in a number of ways today, really innovative new things are being constrained by the lack of their access to the grid. In particular, there's the question of who is to pay for the expansion of the grid and transmission capacity so they can come into play. In many cases, the provincial authorities are reluctant to make commitments and create precedents in connection with this until they have an overall plan in place. Certainly, in many areas the grid and transmission are a major inhibiting factor for wind power and for other things today, but it is an area of provincial control.

**Mr. Bob Mills:** Would you advise that the federal government work with the provinces? I mean, there should be a standard approach across the country. Is that even feasible?

**Dr. Bob Page:** It is feasible and it is possible, but it involves some complex politics, something you people are closer to than we are. The Canadian Council of Ministers for the Environment and other such bodies in the energy sector are capable of creating these kinds of agreements and this kind of standard-making, so that would be the route, in my opinion, in terms of a goal in trying to achieve this. It's difficult for the federal government on its own to achieve it, but through that uniquely Canadian institution, I think it could be achieved.

Mr. Bob Mills: I'll direct this to the Natural Resources people.

We had someone from Ballard Power here, and they suggest the biggest problem they have is bringing fuel cells and so on to commercialization...that the amount of capital, and as leaders in stack technology.... The big problem is bringing it to commercialization quickly enough. Of course, with the Americans putting billions of dollars in, I wonder if you see us being able to change that around, to change that direction, and when that might happen. How big a part of the \$10 billion plan is that?

**Mr. Tony Taylor:** I think that's broadly true. As you've pointed out, Mr. Mills, the commercialization cycle for complex technology is a long one, and we've made some good progress with fuel cells in motive applications, but they've been in large vehicles. There are some prototypes in smaller vehicles, but there's a lot of work to be done still, as Ballard knows.

Our impression is that the learning curve will draw on growing stationary applications for these devices before we get to a widespread market use of mobile applications. Indeed, one of the problems in commercializing is not just the technology issue Ballard faces, but it's the supporting infrastructure issue that needs to be in place of course to make the thing a commercial success.

As Mr. MacLeod mentioned, this is one area that we've agreed with, with Ballard and other Canadian actors in this market, that does have an appropriate role in our climate change plans in the near term, and that is our current work with them and a group called the Canadian Transportation Fuel Cell Alliance on beginning to put that infrastructure in place in Canada. The recently announced demonstration, for example, of half a dozen fuel cell Ford vehicles in Vancouver will draw on some work that our department is sponsoring to fuel those vehicles. We're going to have to learn a lot about the handling of hydrogen and its use as a fuel, as well as learn about the technology of fuel cells in mobile as opposed to stationary applications.

As Mr. MacLeod says, this is going to happen. We're not sure what form the technology will take. It appears to us that it may be a hybrid vehicle technology as a most successful way to marry the fuel cell with a vehicle; that is to say there will be an electrical or batterybased system as well that will ease enormously the otherwise very difficult demands of making a fuel cell work in transient rapid power-on cycles. So in that sense, the work that vehicle manufacturers are doing with hybrid gasoline technologies now is also a major contributor to solving Mr. Ballard's commercialization problems.

# • (1250)

The Chair: Thank you.

#### Mr. Wilfert.

**Hon. Bryon Wilfert:** Mr. Chairman, I have more of a comment than a question.

I wanted to say to Mr. Marcu and to the IETA generally, I know that last week you attended, along with two of your board members, a round table with the minister regarding a lead-up to COP 11, and I understand your association probably will do some kind of event around COP 11. Certainly you can either be part of the problem or you can be part of the solution.

I know in dealing with Mr. Page and others, you've always been very positive in terms of your approach. We don't always agree entirely, but I must say you're providing certainly some avenues for solutions, which I think is refreshing sometimes when people appear before this committee. So I certainly appreciate that.

I understand the paper you've submitted as well we will look at, so it's good to see that your association is being very proactive.

Mr. Andrei Marcu: Thank you-

The Chair: I'm sorry, Mr. Marcu. Go ahead.

**Mr. Andrei Marcu:** I would like to make a quick point of clarification. The IETA, together with the World Bank, has for the last two years put on in Germany what is called Carbon Expo, which is the largest trade fair that deals with solutions for a carbon-constrained world. In our discussion with the Government of

Canada, we have proposed that we should do something similar around COP 11, not as part of COP 11 because that is an intergovernmental negotiation, of course, but a side event where we can bring industry from around the world to show solutions that can be put in force to meet greenhouse gas targets, whether they are trading solutions or technological solutions. So we hope this is going to be a success.

I am flying from here to Cologne, where we have 1,500 people and about 140 exhibitors, some of them Canadian, showing some of these results.

**Hon. Bryon Wilfert:** This is a weekend, and it's unfortunate that due to other activities around this place that the minister won't be there. It is something that I think is very important in terms of our political approach on the international stage. Certainly the Carbon Expo and the whole issue is one, again, that I'm glad to see Canadians are participating in, if not at the ministerial level.

**The Chair:** We're going to Mr. Simard, and then we'll finish with Mr. Richardson, or vice versa, whichever.

#### [Translation]

Mr. Christian Simard: I will not take very long.

I want to talk about programs such EnerGuide and other Natural Resources Canada programs. My comments are based somewhat on Mr. Marmen's answer about the work being done in Quebec.

I have nothing against the Quebec initiatives—far from it—but are we sure that in this type of activity, we are giving priority to homes heated with oil, so that there is an impact on greenhouse gas emissions? Have you targeted the substitution of greenhouse gas emissions as a priority? Do the home insulation program and your other programs give priority to initiatives which contribute to reducing or substituting a greenhouse-gas-producing energy source, rather than to initiatives which contribute to improving energy consumption? It is all very well to make improvements to a house in order to consume less energy, but this has no effect with respect to achieving the objectives of the Kyoto Protocol.

Did you take this into account in the implementation strategies of your various programs?

Mr. Neil MacLeod: I am going to ask Mr. Marmen to answer your question.

Mr. Louis Marmen: The answer, as far as substitution is concerned, is negative.

Among other things, our EnerGuide program does not take into account the energy sources of a house. This means that if you use electricity to heat your house, you are just as eligible for the program as if your house were heated with natural gas or fuel oil. However, you have to remember that in Quebec, for instance, any savings on electricity can help eliminate or reduce needs at the margin or gasbased electricity production.

Just think of the Suroît project. Hydro-Quebec recently unveiled its energy efficiency programs. One of the reasons this is happening is precisely to avoid using fossil fuels to produce electricity, which would not be really a good idea, given the efficiency rates. Furthermore, in Quebec, we are working with the Association québécoise du chauffage au mazout to encourage it to participate in our program and also to try to increase grants for homeowners who heat with fuel oil.

We are also working with Gaz Métro. For example, in Quebec, the Fonds en efficacité énergétique gives grants to homeowners wanting to conduct an EnerGuide evaluation of their natural gas heated homes. That is one of our objectives.

The program targets older homes where the biggest energy savings can be achieved.

Mr. Christian Simard: Fine.

• (1255)

[English]

The Chair: Thank you, Mr. Simard.

Mr. Richardson, you'll end off now.

Mr. Lee Richardson: Thank you, Mr. Chairman.

I want to address a question to NRCan again. That was on the question of the housing initiatives, the programs, specifically as they relate to us as members of Parliament, and the requests and interest expressed through our offices for your programs. I want to ask about the EnerGuide for Housing evaluation tool and the partnerships. Who are the partners?

**Mr. Neil MacLeod:** These are a number of different private sector organizations around the country. They're typically smaller businesses. We went through a request for proposal process, so they in fact had to compete with their competitors, with others in the same business, before they got the contracts, and these are renewed every few years so they don't simply get stale. We've gone through a competitive process, trying to cover every region of the country—at least to the best extent we can—and the best companies in each region won the contracts.

I don't know, Louis, if you want to add to that.

[Translation]

**Mr. Louis Marmen:** Yes. The evaluations themselves are carried out on a contract basis. They are done by the private sector or by environmental groups. I mentioned that we have partnerships with public utilities. We have partnerships with Hydro-Québec and with utilities such as Union Gas and Bridge Gas. We also have partnerships with other federal departments, such as the Canadian Mortgage and Housing Corporation, which use the EnerGuide as a basis for calculating preferential rates. We also have partnerships with financial services, banks or other institutions, as well as with retailers. For instance, Home Hardware is an EnerGuide partner for homes.

I do not know if that answers your question.

[English]

**Mr. Lee Richardson:** Finally, in that regard, for our constituents, one of the concerns we hear expressed is how long it takes, once they have an interest. Is the problem a shortage of funds? Why does it take so long once people ask for an evaluation before it's accomplished?

**Mr. Neil MacLeod:** I'm not saying there's not a problem now. There certainly may well be. We had our biggest problem, I would say, in late 2003 and early 2004. If I could just go back to my slide on this, the evaluation program itself is now about seven years old. So we've been subsidizing these evaluations since 1998. It was only one and a half years ago that we added the incentive to it.

So we had a demand that was increasing, but at a fairly modest level, I would say. Then when the incentive program was announced, as you can imagine, there was a huge increase in interest. We couldn't advise our service partners to beef up ahead of time, because of course until we had approvals within the federal system, this was not an official change. So we couldn't leap ahead and start. So there was a problem, we know, in the first six months of the incentive program.

We don't want them to just hire anyone off the street either. These have to be qualified evaluators who do this or the program is going to backfire. So there was a delay. For the first six months we did have problems in different parts of the country, but by and large, those problems have now been rectified. Certainly, if there continue to be any problems anywhere, we want to hear about them.

• (1300)

Mr. Lee Richardson: Fine. Thank you very much.

Thank you again for your presentation, all of you, today. It was very effective. Thank you.

Mr. Neil MacLeod: You're very welcome.

**The Chair:** Just before we conclude, I think one of the very critical parts of the report we will be bringing out will deal with the emissions credit system—where it's at, where we think it should be going. We've had issues raised with respect to the retroactivity of the emissions credits for sectors that have made serious technological inroads, with benefits in terms of the reduction of greenhouse gases and carbon.

We've also had questions raised with respect to green credits and the linking of green credits with respect to development technology for export and for commercialization processes. So a lot of the issues you've raised have been heard by the committee. Our researcher will be attempting to identify those and bring them into the report and give them some standing, if you will, and urgency, obviously, before the Commons.

Your input today, particularly along the lines of the commercialization aspects of the many EnerGuide-related subsets, if you will.... The committee also has been apprised, as I indicated, of the huge potential to get past the pilot project stage and into working with local governments to implement programs that will have a much larger impact, on the scale of subdivisions as opposed to the individual retrofitting of homes.

So there are a lot of challenges there. We appreciate the input we've been given because it's very helpful with respect to bringing back our report.

Mr. Neil MacLeod: Thank you very much, Mr. Chair.

The Chair: Thank you for being here.

Members, before we adjourn, I just want to have the clerk update us with respect to having the meeting, pursuant to the notice of motion we had from Mr. Richardson.

Mr. Clerk.

The Clerk of the Committee (Mr. Eugene Morawski): We're going to try to get them on. We only have one witness next

Thursday, so we could split the time, one part with the witness, the Pew Centre, and the rest for user fees, with Parks Canada—

The Chair: Okay? I think that would work out pretty well. Thank you very much.

The committee is adjourned.

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