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Chair

Mr. Bob Mills

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● (1535)

[*English*]

The Chair (Mr. Bob Mills (Red Deer, CPC)): I call the meeting to order. We have a piece of business just before....

Mr. Regan, you'll be particularly interested in my first announcement. I have talked to members of the Liberal Party and Conservative members about getting our esteemed people who were at the Bali meeting to come here. Everyone wants them to come. I'm proposing that we ask our clerk to send a letter inviting them here. I would suggest this be right after our last scheduled meeting—I think it's on the 11th—and that they be asked to appear at the meeting following that. I trust that meets with everybody's approval. We will wait and see our response and if we need to do anything further, but I think this will certainly satisfy the requests I've had.

I've met with our speakers, and I certainly want to welcome you to this session on Bill C-377. The order we'll go will be: Mr. Rutherford, Mr. Stone, Mr. Weaver, and then Mr. Sauchyn. By their agreement, they've asked that that be the order we follow.

My intention is that at 5:15 p.m. we then deal with the motion of Mr. Scarpaleggia. That would give us 15 minutes, and then I think members are aware we have a vote when the bells start at 5:30.

That would be our procedure.

I would ask our guests to be as brief as possible. I do have a little grey box that most of you are certainly familiar with, so I will know how long you have been. Certainly I'd ask you to keep it to within five, seven, eight minutes, or thereabouts, so that we have maximum time for questions.

We'll start with Mr. Rutherford, please.

Mr. Ian Rutherford (Executive Director, Canadian Meteorological and Oceanographic Society): Thank you very much, Mr. Chairman.

I'd like to bid you all good afternoon and thank you for requesting this appearance by the Canadian Meteorological and Oceanographic Society, which I am representing today.

CMOS is the national society of individuals and organizations dedicated to advancing atmospheric and oceanic sciences and related environmental disciplines. We're the major non-governmental organization serving the interests of meteorologists, climatologists, oceanographers, limnologists, and a whole slew of scientists across the country. We have more than 800 members from research centres, universities, private corporations, and government institutes. Many of the scientists involved in leadership positions within the IPCC review process are members of CMOS.

The Canadian Foundation for Climate and Atmospheric Sciences, which is associated with CMOS, will distribute $110 million between now and 2010 in the form of research grants to university researchers in atmospheric and climate sciences. Funding for that foundation runs out in 2010. We would certainly like to see it continue.

As many members know from our previous appearance before this committee, CMOS endorses the IPCC process and its conclusions. We urge all segments of Canadian society to act upon the recommendations that flow from the science revealed by that process.

This bill would seem to be a step in the right direction. The UN Framework Convention on Climate Change, which Canada has ratified, requires nations to act in such a way as to avoid what's called dangerous anthropogenic interference, or DAI, with the climate system, without actually defining what that is. Hence, much of the work of the IPCC has dealt with quantifying the extent of human interference with the climate system and its consequences for local climates, and the impacts of those changes on local ecosystems, both natural and managed. This has refined our knowledge of the likely consequences of human-induced climate change and helped us understand which of those should be considered dangerous.

The IPCC has also refined estimates of the probability of various outcomes, and hence it has improved our understanding of risk, which is defined as probability times outcome. We think that risk analysis should be the basis for all policies dealing with risk.

In 2005 the U.K. hosted an international conference in Exeter on avoiding dangerous climate change. Papers at that conference took us closer towards a definition of dangerous interference, in terms of what is dangerous to whom and by how much. The result was that there's now a long list of outcomes, both global and local, linked to various degrees of warming, which make clear that even the amount of climate change already experienced satisfies the definition of dangerous to at least some people, somewhere, on the globe.

Some of these physical outcomes, such as a shutdown of the North Atlantic thermohaline circulation or a collapse of the ice sheets of Antarctica or Greenland, may well have thresholds or tipping points, while others may simply become more and more serious as time goes on. So the judgment of what is dangerous really depends on what you are interested in, who you are, and where you are.

Both the Exeter conference and the recent fourth assessment report of the IPCC provide strong evidence that a global temperature change larger than about two degrees Celsius from pre-industrial values should be avoided in order to avoid what we've called DAI. The science provides a way to link that value with a range of values of CO_2 concentration or, equivalently, to link a target value of CO_2 concentration with a range of values of temperature change, with probabilities for values within the range. Finally, the science provides a way to link the target value of concentration with the mission targets that must be achieved.

The result is that there's reasonably good agreement that in order not to exceed this two degrees Celsius limit with at least a 50% probability, the atmospheric greenhouse gas concentration should not be allowed to exceed about 450 parts per million, except perhaps for a temporary overshoot—but it should be temporary. In order to assure that, global emissions need to be reduced—and the estimates vary from about 40% to 95%—from the levels they were in 1990. Large reductions are certainly required, but there's still a fair amount of uncertainty.

● (1540)

The so-called annex one countries—that is, the developed countries—according to the IPCC, should reduce their emissions by about 80% by 2050 and even further after that.

It's also clear that the sooner emissions are reduced in the short term, the easier the targets will be to achieve. In fact, the price of delay beyond, I would say, 10 or 15 years will be failure because you simply won't be able to reach the target. The target is not easy to reach. It's going to require a number of different measures. There's no one measure that will solve it. A number of new technologies and a number of existing technologies will have to be deployed.

Some will argue that because Canada only contributes about 2% of global emissions right now, it won't make much difference what we do. Why should we feel any great obligation to solve a problem created largely by others? However, on the basis of emissions per capita, Canada is the worst performer in the world, and getting worse with every increase in energy expenditure required to extract bitumen from the Alberta tar sands and upgrade it to synthetic crude oil.

But it's not just our current performance that is bad. In terms of accumulated per capita contribution to the present burden from the start of the Industrial Revolution to the present, Canada ranks just behind the U.S.A., the U.K., and Germany and well ahead of Russia, Japan, and China. So we're already major contributors to the current problem, and if we continue on our current path we'll soon be the worst in the world in terms of accumulated per capita contribution. We're not in a good position to argue that others should solve the problem. We have to do our part.

Thank you very much.

● (1545)

The Chair: Thank you, Mr. Rutherford.

Mr. Stone.

Professor John Stone (Adjunct Professor, Department of Geography and Environmental Studies, Carleton University, As an Individual): Thank you for the opportunity to again appear before you and to share with you some of the scientific understandings regarding the increasingly urgent need to address the threat of climate change. Much of what I have to say is contained in the recently completed IPCC fourth assessment report. My remarks will focus on the long term but also on the immediate future.

In general, decision-making concerning the appropriate level and pathways for greenhouse gas emission reductions will be an iterative and, as Ian mentioned, risk management process. An explicit long-term goal is regarded as being absolutely essential. Without such a goal, none of us—individuals, businesses, or other levels of government—have a clear direction for policy and action. Such a goal must be strong enough to stimulate the necessary ambition.

One also needs short- and medium-term objectives from which it is still possible to reach the desirable long-term goal. Once each short-term objective is reached, decisions on subsequent steps can be made in the light of new knowledge and the decreased levels of uncertainty.

Now, ideally, the choice of a long-term goal is the product of solid science and wise political decision-making. The science can inform the process, but in the end, it depends on what we value, and this is best determined through a political process.

To illustrate, we can consider a table from the IPCC Working Group II summary for policymakers, which I've distributed to each of you. I'm grateful for your indulgence in allowing me to distribute it only in English. I do apologize; it is also available in French on the IPCC web page, and I will give the details of that to the clerk.

The table brings together what we know about some of the anticipated climate change impacts across several key sectors—water, ecosystems, food, coasts, and health—as a function of globally increasing temperatures. As you go from left to right, the impacts occur at higher temperatures. If you value biodiversity, for example, you can see that a temperature rise above one degree Celsius could lead us to losing about 30% of species.

Many people who have looked at such diagrams and others have come to the conclusion, based again on value judgments, that we should avoid an increase of more than two degrees Celsius above 1990 levels. This is the goal adopted by the European Union and much discussed in Bali recently.

To understand what we would have to do to achieve this goal, we need to look at some of the so-called stabilization scenarios in the IPCC Working Group I contribution. It is estimated that if we are able to stabilize concentrations of all greenhouse gases in the atmosphere at the equivalent of 445 to 490 parts per million of CO_2, then we could limit global mean temperature increases to between two and 2.4 degrees Celsius. That's above pre-industrial levels.

Such a stabilization level—that's roughly, as I said, 450 parts per million of CO_2 equivalent—implies concentrations of carbon dioxide alone in the order of 350 to 400 parts per million, which can be compared to today's level of 380 parts per million.

So we're clearly not going to be able to meet this goal without some overshoot from which we will have to recover. In order to reach this two degrees Celsius goal, it's estimated that global greenhouse gas emissions would have to peak before 2015 and be at least 50% below current levels by 2050, the middle of the century.

Now, these are global numbers, and indeed achieving these low emission scenarios requires a comprehensive global mitigation effort.

● (1550)

The IPCC's fourth assessment report contains, in one of the chapters, some estimates of what this would mean for industrialized countries. Countries like Canada would need to reduce emissions by 2020 by somewhere between 20% and 40% below 1990 levels and in 2050 by approximately 60% to 95%. These ranges cover levels suggested in the bill under examination.

Emissions in developing countries, on the other hand, would also have to be reduced. They would have to start to be below the current business as usual emission pathways by 2020 and be substantially below this pathway by 2050. Scenarios with such global greenhouse gas emission reduction targets will require increased energy intensity and carbon intensity improvements of somewhere in the order of two to three times historical values.

Let me switch to the other end of the spectrum and talk about what we have to do now. Very simply, in my view, time is running out. What we do in the next decade or so will be critical to tackling the long-term threat of climate change. For example, the locking effects of infrastructure technology and product design choices that were made by industrialized countries in the post-Second World War period, when we had low energy prices, are responsible themselves for our current increases in greenhouse gas emissions.

Delaying decisions will seriously constrain opportunities to achieve future low emission levels and they will raise the risk of progressively more severe climate change impacts. It's been estimated that with each 10-year delay in a mitigation, it implies an additional 0.2 degrees to 0.3 degrees warming over a 100- to 400-year time horizon.

There is already, at the present time, an additional 0.6 degrees of additional warming in the bank because of our previous activities, so decisions to delay emission reductions are likely to be more costly and more risky.

To conclude, Mr. Chairman and members, let me quote from the speech by the chairman of the IPCC at this year's Davos meetings in Switzerland:

> There would be dramatic loss of political power and influence for nations that stand unmoved by the growing global consensus for “deep cuts” in emissions of GHGs with a sense of urgency.

Thank you.

The Chair: Thank you.

Now we'll go to Mr. Weaver.

I trust you can hear me. Welcome. I trust the weather is better in Victoria than in most of the rest of the country.

Dr. Andrew Weaver (Professor and Canada Research Chair, School of Earth and Ocean Sciences, University of Victoria, As an Individual): It's beautiful here. I hope you can hear me.

The Chair: Yes, it sounds good.

Dr. Andrew Weaver: Wonderful.

Thank you very much for inviting me to provide some testimony here. What I would like to do is provide a bit of background with respect to a declaration that was put forward by scientists to Bali at the meeting that was held between December 3 and 14, 2007. This is a 2007 Bali climate declaration by scientists. I'll read it to you. It says:

> The 2007 IPCC report, compiled by several hundred climate scientists, has unequivocally concluded that our climate is warming rapidly, and that we are now at least 90% certain that this is mostly due to human activities. The amount of carbon dioxide in our atmosphere now far exceeds the natural range of the past 650,000 years, and it is rising very quickly due to human activity. If this trend is not halted soon, many millions of people will be at risk from extreme events such as heat waves, drought, floods and storms, our coasts and cities will be threatened by rising sea levels, and many ecosystems, plants and animal species will be in serious danger of extinction.
>
> The next round of focused negotiations for a new global climate treaty—within the 1992 UNFCCC process—needs to begin in December 2007 and be completed by 2009. The prime goal of this new regime must be to limit global warming to no more than 2ºC above the pre-industrial temperature, a limit that has already been formally adopted by the European Union and a number of other countries.
>
> Based on current scientific understanding, this requires that global greenhouse gas emissions need to be reduced by at least 50% below their 1990 levels by the year 2050. In the long run, greenhouse gas concentrations need to be stabilized at a level well below 450 parts per million, measured in CO2-equivalent concentration. In order to stay below 2ºC, global emissions must peak and decline in the next 10 to 15 years, so there is no time to lose.
>
> As scientists, we urge the negotiators to reach an agreement that takes these targets as a minimum requirement for a fair and effective global climate agreement.

In my years as a climate scientist, since the 1980s, I have never before witnessed such a spontaneous coming together of scientists around the world. This declaration was put forward by a number of scientists at the University of New South Wales in Australia and was signed by between 200 and 250 of the world's top climate scientists. This is not something that was driven politically. It was not something that was driven by special interest groups. It was driven by the scientific community to try to feed into the Bali process—a process that seems to be ignoring what the scientific community is telling the world's leaders, including those leaders in Canada.

I'm speaking to you as the lead author of the IPCC's second, third, and fourth assessments, back in 1995, 2001, and more lately 2007. I'm also the chief editor of the *Journal of Climate*, which is the premier journal for publishing new scientific research in all aspects of climate science.

When we talk about Bill C-377, one of the key things you'll ask is whether 80% is the right number or whether 70% is the right number. I'm not going to speak to a particular number. What I can say is that any stabilization of greenhouse gases at any level requires global emissions to go to zero. There is no other option. To stabilize the level of greenhouse gases in the atmosphere at any concentration that is relevant to human existence on the planet, we must go to zero emissions. The reason is that the only natural mechanisms for the draw-down of carbon dioxide on longer time scales occur through weathering of rocks, which happens on hundreds of thousands of year time scales, and the dissolution of carbon carbonates from the sediment of the ocean, which happens on tens of thousands of year time scales.

Things like the terrestrial biosphere saturate out this century and can no longer take up any more carbon dioxide. The ocean, as it warms, also begins to lose its effectiveness at taking out carbon dioxide.

So in order to stabilize, we must have global emissions go to zero. That's a big task, and it requires leadership. I'm hoping, as a Canadian, that we in Canada can show such leadership.

● (1555)

Another way of looking at this is that there has been a lot of focus in terms of emissions and a lot of focus in terms of stabilizing at a level of greenhouse gases. The climate system doesn't care about the emissions today or yesterday; what it cares about is accumulative emissions of carbon dioxide since pre-industrial times. We've put out about 458 billion tonnes of carbon to the atmosphere since that time, and it turns out if you want to not break the two-degree threshold with a 66% probability, we only have another 484 billion tonnes we can put out, and that's from now until eternity. We're putting it out at more than 10 billion tonnes a year, so you can see the challenge is large.

I'll end there and urge you to take this bill seriously and move toward implementing policies in Canada that will show leadership internationally.

The Chair: Thank you very much, Mr. Weaver.

We'll go on to Mr. Sauchyn. I know you came from somewhere where it was very cold today.

Dr. David Sauchyn (Research Professor, Prairie Adaptation Research Collaborative, University of Regina, As an Individual): In fact, it was minus 37 degrees Celsius this morning when I called for a cab and minus 52 degrees Celsius with the wind chill. So I'm enjoying the balmy weather in Ottawa; therefore I'd like to thank you for this opportunity to visit Ottawa again and to have some other meetings at the same time.

I represent an organization called the Prairie Adaptation Research Collaborative, which was created to inform decision-makers in the prairie provinces about the consequences of climate change.

The previous speakers have provided the strong scientific arguments for stabilizing greenhouse gas emissions. I will speak to the other scientific underpinnings of Bill C-377; that is, the statements in the preamble that refer to the scientific evidence for the impacts of increased levels of greenhouse gases and for the threats to the economic well-being, public health, and natural resources and environment of Canada.

A large number of facts and figures are available in the fourth assessment report of Working Group II of the IPCC in support of these scientific underpinnings. However, this IPCC report defines the scope and severity of the global problem; for a Canadian perspective, Natural Resources Canada has led, for the past two to three years, a major national scientific assessment of climate change impacts and adaptation. Within weeks, the Government of Canada will release this major scientific report that presents the synthesis and interpretation of more than 3,000 studies by more than 110 authors.

As the lead author of this report, and with the knowledge of the secretariat in Natural Resources Canada, I am able to report today that this assessment report makes it clear that significant impacts are occurring in all regions of Canada and that the number and severity of the impacts will continue to increase.

In addition to the urgent action required to reduce greenhouse gas emissions and slow the rate of climate change, the national assessment notes the critical importance of adaptation.

Allow me to give just two examples, from the prairie provinces, of the consequences of climate change for two fundamental Canadian natural resources: trees and water.

With the recent and inevitable warming, Canada's boreal forest will change dramatically as a result of increased disturbance and moisture stress. In fact, as a result of global warming, the boreal forest has begun to change, impacting the communities and economies that depend upon it.

It's likely that the institutions of Canada have enough capacity to manage a forest that has undergone moderate change; however, without deep cuts to greenhouse gas emissions, scientific studies indicate that we will entirely lose the southern boreal forest. It will disappear, along with the economies that depend on it.

But the major concern for western Canadians is the threat of global warming to water supplies. With recent warming, water supplies in the summertime have begun to decline as runoff from snow melt has declined and shifted earlier into the spring and as summers have become longer and warmer.

Once again, some change is manageable. In fact, in some parts of western Canada where there are reliable water supplies, farmers have begun to capitalize on the longer, warmer summers. However, rising greenhouse gas emissions will cause regional warming and impacts on water resources that quickly create major challenges for sustaining the economies and communities of western Canada.

With the projected and recent increase in population and industry, especially in Alberta, the demand for water will soon exceed supplies from the conventional source of water, which is snow melt runoff from the eastern slopes of the Alberta Rockies.

The tipping point is very close. Climate change is closing the gap between water supply and water demand. In fact, in some river basins in southern Alberta, the water supplies are now fully allocated.

● (1600)

The most costly natural hazard in Canada is prairie drought. Of the five most damaging climate events in Canadian history, four are prairie droughts. The other is the ice storm of 1998. The most threatening scenario for people, especially on the prairies, is a prolonged drought, and as the climate warms, this scenario becomes increasingly probable.

Some government and industry leaders believe or have stated that taking strong action to reduce greenhouse gases will devastate economies. In fact, we heard just a couple of days ago from Premier Stelmach that reducing emissions in Alberta will shut down the oil sands. I would like for once to see the scientific evidence of this. I would like to see the factual support for this argument. It seems to be lacking.

In fact, careful studies have derived estimates of the cost of reducing greenhouse gas emissions. Credible studies estimate the cost of stabilizing greenhouse gases is something on the order of one half to one and a half per cent of global GDP per year. I can refer you to one such study entitled *A cost curve for greenhouse gas reduction*, a global study of the size and cost of measures to reduce greenhouse gases by some consultants from Norway whose clients include 70% of *Fortune* magazine's most admired companies.

Although deep emission cuts will have economic, social, and perhaps political costs, the actions proposed in Bill C-377 are critical in terms of preventing a possibly devastating degree of climate change. Climate change and its consequences will almost certainly accelerate through the coming decades. We urgently need your leadership and federal policy to enable individuals, institutions, and communities to adapt to the impacts of climate change because already we are locked in to increasingly serious impacts in the immediate future.

A comprehensive climate change strategy is required to avoid the adverse consequences of climate change and to address the influence of human activities on the climate of Canada, the impacts, the risks and opportunities, and the necessary adjustments to public policy, resource management, engineering practices, and infrastructure design.

Public policies must be developed to enable adaptation, to discourage maladaptation, and to build adaptive capacity. Already the provinces are developing and releasing climate change plans and announcing targets. Yesterday in Vancouver, I read today, the western premiers signed an agreement for collective action to deal with climate change impacts on Canada's water and forests.

Also, some local governments, and industry and communities, are taking aggressive action. The federal government must play a crucial coordinating and enabling role. Without decisive national action and policy, there is the risk that federal politicians will lag far behind. Federal policy-makers are at risk of failing us at every level, regional, national, and on the world stage, and in the meantime the provincial governments are taking action.

I speak for many scientists when I conclude that Canada can and must take action now on climate change. Thank you.

● (1605)

The Chair: Good. Thank you very much. We'll go to the questioning now.

Mr. Regan.

Hon. Geoff Regan (Halifax West, Lib.): Thank you very much, Mr. Chairman, and let me thank the witnesses for appearing today, both here and remotely.

Let me begin by asking Dr. Sauchyn to refer the committee to the consultants in Norway who have looked at the cost of stabilizing global emissions. I think you said between one half and one and a half per cent of global GDP? Is that correct?

Dr. David Sauchyn: Yes, the low end was actually six-tenths of one per cent of annual GDP and the high end was one and a half per cent of global GDP annually, and this was a study by McKinsey & Company, a major consulting firm.

Hon. Geoff Regan: If we need more information on that, perhaps the clerk could get that from you after the meeting at some point.

The Chair: I'm asking for it as well.

Hon. Geoff Regan: Thank you very much, Mr. Chairman.

Dr. David Sauchyn: I would like to add that there are various studies that have made similar conclusions.

Hon. Geoff Regan: Thank you.

Could you describe for us the kinds of changes in Canada that would need to be made. I obviously don't expect you to detail all of them because there are things we don't know and technological solutions that haven't yet been found that would hopefully be applied to solve some of these problems, but in your mind, and I'm asking all of you this, in terms of doing this fast enough—we've heard about, for instance, having to stabilize by 2015—what does a Canada look like in which we have taken the actions necessary to do that? And I won't bring in what does the globe look like, what do all the countries look like, because that's another question. For the moment, let's just focus on our own responsibilities here. What kind of Canada does that mean?

● (1610)

Prof. John Stone: I can perhaps start and try to answer that.

First I'll refer you to a recent study that was done by the National Round Table on the Environment and the Economy I guess maybe a year ago. They looked at that, and to my reading it's still a great country with as much opportunity as we have now but with different opportunities, and with fulfilling lifestyles but different lifestyles. It will mean changes. It will mean changes in the cars we drive, in the way we build our cities, and in the way we travel. It will make differences to our industries and the way they are driven, and it will make a difference to the fuels we use. All of that is quite possible without a drop of living standard, as Professor Sauchyn said, and there are estimates that this can be achieved with quite small annual reductions in GDP, smaller than the normal rounding error of any estimates of annual GDP increases.

Hon. Geoff Regan: Perhaps others wish to respond, and if they do I don't want to...I'll give you that opportunity now.

Some of those who in the past argued against taking any really drastic action have argued that temperatures are going to rise regardless of whatever we do, and we're not even sure what's causing it. How do you respond to those kinds of arguments that seem specious to me? I'd like to hear your reaction to those.

Dr. Andrew Weaver: I'd be happy to address that, if you wish.

The Chair: Go ahead.

Dr. Andrew Weaver: Those arguments are simply incompatible with our scientific understanding of what's going on. People can say whatever they want to say, but unfortunately that's not consistent with the science. The science is quite clear. There is not a debate within the scientific community as to what has caused the warming; there is not a debate within the scientific community as to the level of cuts that are required to stabilize, and that is you need to get to zero emissions to stabilize because the time scales of removal are so long.

These people may have special interests, which is why they may be putting out those arguments. Some will turn around and say scientists have special interests, but I challenge you to tell me what the special interest of scientists would be, and it's not research grant funding because frankly we're not standing out saying we need more research grant funding because we don't understand the problem. We're saying we know what the problem is.

The Chair: Would anyone else like to comment?

Go ahead, Mr. Regan.

Hon. Geoff Regan: If not, I'll go on to my next question.

It seemed that going into the Bali conference the point of view of the Minister of Environment Canada, Mr. Baird, was essentially that the developing countries aren't doing enough about this, and we're not going to do anything until we get them online first. I'm just indicating what my sense of it was. Perhaps others have other views on this, and that's fine, it's a democracy.

How do you feel we should be dealing with the developing countries? What should our position be as we try to advance this cause and take action on it while at the same time trying to get action from countries like China and India, whose economies are growing very quickly and where they are using coal, fire, electricity, etc.?

Professor Rutherford.

Mr. Ian Rutherford: It seems to me that's a bit like saying I've had my cake and you're not going to get yours.

I alluded to looking at this from the point of view of contributions to the problem per capita. If you do it that way, it's clear that the developed countries are the villains, and the underdeveloped countries, who recognize very clearly that the developed countries are the villains, say, "You've done all of this; we want to do the same thing. We're going to do it more intelligently than you, but inevitably our emissions are going to rise, because we're still in an energy-intensive phase of economic development."

We have to somehow get away from the notion that we need to spend ridiculous amounts of energy to accomplish anything. Even in the report from the National Round Table on the Environment and the Economy it's clear that there are many ways we can reduce both our energy consumption and the emissions we're producing to get that energy.

There's no mystery about this. There are well-known technologies around, and there are other technologies that we haven't imagined yet that will help us get there. But we have to either determine to get there or we have to implement policy measures that force us to get there, such as those the national round table recommends—things such as a carbon tax, which will simply make the production of energy-using fossil fuels too darned expensive. People will naturally find cheaper ways of doing it, and hence emissions from fossil fuel burning will decline.

I think an equitable way to look at it is that every inhabitant of this earth ought to be treated fairly. I don't think it's fair that a citizen of Canada, Europe, or the U.S. should enjoy an energy-intensive lifestyle that produces tonnes and tonnes of carbon per year, whereas a resident of Africa is not allowed to do that—or of China, India, Brazil, or any of these economies that are developing. Equity would say that we should all try to reach a relatively uniform low level of production of carbon emissions per unit of happiness, or GDP, or whatever it is you want.

● (1615)

The Chair: Mr. Stone, I think you wanted to jump in.

Prof. John Stone: Thank you.

Let me look at it in a slightly different way. There are, as Ian mentioned, what might be regarded as moral questions, the fact that a large part of today's increases of temperature are due to our emissions in the past and that our emissions per capita are simply higher than those almost anywhere else.

The answer I would give as to why we should we do it is that it's because we can do it. I believe there are wonderful and marvellous opportunities available to us for Canada to grasp this nettle and seek to make our contribution to reducing emissions and to producing the sort of economy and industries that will see us into the future.

What worries me is that if I look, for example, at Denmark, they are now the world leaders in wind power. Their government took them there, and they have now a competitive advantage. Similarly, Germany is now the world's leader in solar power. The U.K. are becoming the world's leader in financial instruments. My worry is that if we do not act soon, we're going to be left behind. We will end up on the wrong side of history, and we don't have to be there.

The Chair: You have half a minute, Mr. Regan.

Hon. Geoff Regan: That's not much, unfortunately.

I want to ask you about a situation we've heard about. There's a professor at Dalhousie University, Dr. Anna Metaxas, who has led a study of coral in the Caribbean that found that in the year 2005, the hottest year on record, half the coral in the Caribbean died. I don't know whether that's entirely attributable to the heat, but it's certainly what one draws from that.

In view of this, is it your view that the examples of impacts in the IPCC report are alarmist, realistic, or are they in fact overly cautious? When you hear something like this, they seem even overly cautious.

Dr. Andrew Weaver: Let me address that. I actually know Anna very well. We were graduate students together back in the 1980s.

If you look at the assessments as to what will happen to corals, there are two effects. One is bleaching through temperature and the other is through their inability to grow because of ocean acidity.

The amount of carbon dioxide we're putting into the atmosphere is such that the acidity levels of the ocean towards the middle of the next century will reach levels that have not been reached in 300 million years of earth's history. This spells the demise—and there's not much we can do about it, unless we act now—of all the world's coral systems.

I suspect that when you see statements such as you just heard there, they are not alarmist; these are very real statements, and you haven't seen anything yet.

Look at the barrier reef. This is an ecosystem that's destined to death, and I don't think there's much we can do about stopping the death of the barrier reef because of the warming and the acidity we have in store due to emissions that have already happened.

The Chair: Mr. Sauchyn.

Dr. David Sauchyn: I can't speak to that particular impact, although my daughter works for this professor, so I can ask my daughter.

I want to refer to your question about whether there are alarmist statements in the IPCC report. I think at least three of the panellists here today contributed to that fourth assessment, and you have to realize it represents the work of almost 4,000 scientists who had to reach a consensus. Also, bureaucrats from more than 130 countries had to approve the report. Any time you get 4,000 people to agree on something, it has to represent a compromise. The major criticism I've heard of that report is that the statements are not alarmist enough.

● (1620)

The Chair: Thank you very much.

I would remind all of our members that this is a science panel and to try to keep it to the science. We do have economists coming, so if we can keep it to the science, I think that would get the most out of the four witnesses we have.

Go ahead, Mr. Bigras, please.

[*Translation*]

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

Thank you for coming here to give us, as Mr. Weaver said, a realistic, rather than alarming, take on the situation.

If we have one regret about the Bali conference report, it is probably the failure to include in the “road map” a reference to the two-degree Celsius threshold. When the question is relegated to footnote status, it is difficult to establish a national and international consensus on the question of reducing greenhouse gas emission levels.

Mr. Sauchyn, you indicated in your presentation that Bill C-337 was a decisive initiative in the quest to stop climate change from reaching devastating proportions. Mr. Stone talked about the importance of reducing greenhouse gas emissions anywhere from 20% and 40% by the year 2020 as compared to 1990 levels. This is one target that was proposed by certain countries in Bali. The range mentioned is between 20% and 40%, while the bill proposes a 25% cut in greenhouse gas emissions.

Fundamentally, reducing emission levels by 25% by 2020 over 1990 levels is not a conservative objective. Some countries, Germany in particular, are calling for a 40% reduction in emission levels; Europe is proposing a 30% reduction, provided industrialized nations come on board.

Is the 25% target high enough to prevent the potentially catastrophic situation that Mr. Sauchyn alluded to?Should we not amend the bill and set even more ambitious targets?

[*English*]

The Chair: Who wants to jump in?

Mr. Stone.

[*Translation*]

Prof. John Stone: With your permission, Mr. Bigras, I will answer that question in English.

[*English*]

One of the things I was trying to say in my opening remarks is whatever level you choose to stabilize and whatever pathways you choose and whatever contribution you choose, it's informed by science, but it has also to be as a result of a political process. There are political decisions to make, political decisions because it depends on values, what you value and, among what you value, what you do not wish to see disappear as a result of climate change.

It's also a matter of our values when one talks about the level of ambition. What level of ambition does Canada want to display internationally? That's as a result of how we are regarded internationally, but also, as I said earlier, as a result of what we want to achieve as an economy. So although you can go through scientific arguments and say yes, as I think all four of us have said, we need globally to reduce emissions by 2050 by at least 50%, you have to think of what part of that 50% is Canada going to contribute. And that is partly scientific, but it's going to be partly political.

My own view is that you need a level that is going to unleash the innovative strengths of Canadians and be a real challenge. It needs to be ambitious. So in that argument, one might say that the stronger the level of ambition, the better.

● (1625)

The Chair: Mr. Lussier.

[*Translation*]

Mr. Marcel Lussier (Brossard—La Prairie, BQ): Mr. Stone, you spoke of reducing emissions by anywhere from 60% to 95% by 2050. As I see it, cutting emissions by 95% would mean no longer using any oil. Correct?

[*English*]

Prof. John Stone: The figures I mentioned are in Working Group III of the IPCC report. I wasn't part of that, so I'm not intimately familiar with all of the arguments.

In the end, the IPCC chose to set a range. That's because there's a whole lot of assumptions in the models about what individual countries could do. That's why the range for the strongest levels is somewhere between about 40% and 95%.

You're right that if we're going to do that—I think Dr. Weaver mentioned something similar—we will certainly need to decarbonize our economy. We'll need to reduce the amount of carbon in the fuels we use, which means using less and less coal, oil, and gas, and using more and more renewable energy sources such as biofuels, solar energy, wind energy, tidal energy, and the like, in addition to conserving.

[*Translation*]

Mr. Marcel Lussier: Thank you.

[*English*]

Dr. Andrew Weaver: May I add something?

The Chair: Yes, Dr. Weaver, go ahead.

Dr. Andrew Weaver: I would like to clarify that it's 40% to 95% of emissions. It doesn't mean you can't use oil; it means that if you're going to burn oil, the emissions must be captured and sequestered or stored. There's a very important difference between the two: one is no fossil fuels and one is no fossil fuel emissions. I think it's the latter that we care about.

[*Translation*]

Mr. Marcel Lussier: Mr. Sauchyn, since you mainly represent organizations in Western Canada, I am particularly interested in the water issue. In your analysis, you talked about surface water. However, I believe Alberta faces a different dilemma: the drilling of one million wells to extract methane, an undertaking that will adversely affect groundwater sources that feed the rivers and lakes in Western Canada.

Has the problem of groundwater in Western Canada been addressed in your analyses or in the 3,000 studies conducted?

[*English*]

Dr. David Sauchyn: I can speak about groundwater as it relates to climate change; I can't speak to the methane problem because it's not really an issue of climate change. I assume you're speaking about coal-bed methane and contamination of groundwater.

Groundwater is a solution in terms of water supply, because presently a relatively small proportion of the water supply in the Canadian prairies is derived from groundwater. As surface water supplies become less available, groundwater represents an opportunity to supplement the water supply. However, there are some serious limitations in our knowledge of the availability of groundwater and its quality.

There's also the opportunity to store water underground. The climate change scenarios indicate that we can expect drought of greater severity and length on the Canadian prairies, but we can also expect some unusually wet years as the climate becomes more variable. As the range of climate extremes increases, there will be some unusually wet years and some unusually wet winters. There's an opportunity to store that excess water under the ground and make it available during the drier years.

● (1630)

[*Translation*]

Mr. Marcel Lussier: Mr. Sauchyn, since you are well acquainted with the natural resources secretariat, can you tell us if Natural Resources Canada representatives speak to Environment Canada representatives?

[*English*]

Dr. David Sauchyn: Sorry, that's a political question I'm not willing to speak to. We do work with both federal agencies.

The Chair: Mr. Rutherford, did you want to venture there?

Mr. Ian Rutherford: No, not at all.

[*Translation*]

Obviously, the two departments are communicating with each other, but not all the time and not often enough, in my experience.

[*English*]

The Chair: Thank you, Mr. Lussier. Hopefully you can ask that question at another panel.

Mr. Dewar, please.

Mr. Paul Dewar (Ottawa Centre, NDP): Thank you, Chair, and thank you to our guests.

Before I get into questions, I just wanted to pass my congratulations to one of the panellists, and I'm not sure of the others, who was involved in the IPCC process. Certainly, for the award bestowed upon them, the Nobel Prize, I want to say personally, and on behalf of Canadians, congratulations, because I think that's something we haven't celebrated enough. That work was done with contributions from right around the globe, but many were from here in Canada.

I know, Mr. Stone, you were part of that. I don't know if other panellists were part of that process.

Mr. Rutherford, you're indicating so.

Mr. Ian Rutherford: No, not me, but Mr. Weaver.

Mr. Paul Dewar: Oh, Mr. Weaver.

Congratulations to you, Mr. Weaver and to Mr. Stone. I think I speak on behalf of everyone here, and certainly Canadians, when I say how proud we are and were when you received that award.

I just want to start my questioning on the science and the projections of future climate change, because what we're really trying to do in this bill, and what our party is bringing forward, is setting goals. As you mentioned, Mr. Stone, we have to set goals long term, but we also have to be aware of what we need to do in the short term, if you will. You have to plan long term to be able to take action in the short term. Some of us plan our lives that way on our better days.

I want to start on the projections of future changes in the climate. When you look at the difference between the southern and northern atmospheres, a lot of this debate has spilled over into people saying, as was already mentioned, that we in the north are only responsible for 2%, and that while, okay, we're not doing too well per capita, we're in a northern climate. I'd just like to get, in terms of the science, the projection of future changes in climate. What is expected to be the greatest change in terms of latitudes, if you will? Are the changes mostly going to be in the northern latitudes or southern latitudes?

Maybe, Mr. Stone, I'll ask you first, and if others wanted to kick in, they can, because I think this will give us a picture, as we're talking about a global phenomenon here. So who is it going to affect the most, and what changes can we expect in the north vis-à-vis the south?

Prof. John Stone: Thank you very much.

The IPCC, in its fourth assessment, did make some statements about the most vulnerable regions of the globe. You can find those—and I will give the clerk the reference—in the synthesis report, the fourth volume of the fourth assessment report. There are four or five, and I'm not sure if I can remember them all. But among them clearly was the Arctic. The Arctic is vulnerable because climate change is happening at an accelerated rate in the Arctic; the temperature increases there are at least twice as rapid as they are anywhere else in the globe. The capacity of the people in the Arctic to adapt is low because they don't have the resources that we have in the more southern and western parts of the globe.

Other regions include the large cities, particularly those on the mega deltas, such as on the Brahmaputra River in Asia, and the like.

I would probably not be doing a service to try to recall all of them. But certainly as far as Canada is concerned, it is what's happening in the Arctic that is perhaps the region that is most vulnerable.

● (1635)

Mr. Paul Dewar: Thank you.

I don't know if Mr. Weaver or other panellists wanted to contribute to that.

The reason I asked the question is that often this is done in terms of the two degrees Celsius benchmark that we hear about, and about which we then say, okay, we have to by all means try to meet that. But what it means to different peoples in different regions is I think worthy—

Dr. Andrew Weaver: I could answer that.

Mr. Paul Dewar: Yes, go ahead.

Dr. Andrew Weaver: Dr. Stone talked about temperatures, and about how temperatures amplify warming in the high latitudes in the Arctic. Another key issue, of course, is water. There's quite a solid understanding as to what will happen in terms of projected changes in precipitation.

For Canada, it means actually an overall enhanced likelihood of precipitation but also, at the same time, an enhanced likelihood of drought. So when it rains, it rains in increasingly likely bigger events, coming in the winter, and there's an increased likelihood of drought.

At the same time, we know that our friends to the south, in the southern U.S., are going to experience less rain overall and an increased likelihood of drought.

This poses a real predicament in terms of water availability in North America, with Canada getting more throughout the year and the subtropical regions, including the southern U.S., getting less. Currently it's a real problem, of course, because they're draining the Great Plains aquifer at about 40 times the rate it's being replenished.

So there will be, in North America, water crises this century.

Mr. Paul Dewar: Thank you for that.

Yes, sir, go ahead.

Dr. David Sauchyn: Vulnerability to climate change depends on how much a region is exposed to climate change, and much of Canada is warming faster than the rest of the world. But vulnerability also depends on your capacity to do something about it. The capacity to mitigate and adapt requires human resources, technology, stable institutions, fiscal resources. There are few places on earth that have more of that than Canada, so we certainly have less vulnerability just in terms of our capacity to do something about it—but then, we need leaders to mobilize that capacity.

Mr. Paul Dewar: On that note, when you look at our ability to mobilize capacity, based on what our benchmarks are...and you've talked about how much carbon we're trying to eliminate, I guess, and certainly curtail, and how much we're putting into the atmosphere.

A couple of examples have been cited in terms of what European countries are doing. I was actually with Mr. Mills at a conference on energy last year in February in Washington. It seems to me that when you look at what all the countries around the world are doing, Canada has some comparative advantages in terms of technology.

From your experience and from what you've seen in terms of proven technology on the shelf that we could be not only using here but also, it seems to me, exporting abroad, which technologies can you point to that have been proven successful in curtailing the amount of carbon we're putting into the atmosphere? And which ones are most promising in terms of potential, that are maybe not refined but that look like they could have a lot of potential if we put more resources into them?

The Chair: Professor Stone.

Prof. John Stone: I'll answer that question, but if I may, I'd like to give an answer to the previous question as well. I just want to emphasize a point.

It matters to us how climate change affects other parts of the world. Climate change will exacerbate the differences between the rich and the poor, between the developing countries and the developed countries. I believe Canada has a vested interest in ensuring that the weakest, the most vulnerable, are protected as much as possible.

I have the privilege of working some of the time with the International Development Research Centre on a project to enhance the adaptive capacity in Africa. I think it is in Canada's interest to do that.

Turning now to your question on technologies, I don't have full command of all the technologies, and I presume you were talking primarily about Canadian technologies. Let me just mention, too, that one is on the use of our biosphere, what you'd call biofuels.

I'm not necessarily thinking of liquid biofuels, which have received a lot of media attention, but simply the use of solid waste from agriculture and from forestry that we can use for heat and electricity generation. We have a lot of potential there. Some of that was spearheaded by an organization called BIOCAP Canada, which unfortunately hasn't received new funding.

I suppose the other one I might mention is actually construction. We have tremendous ability to construct energy efficient offices and houses and the like. I think that's another one of those areas that we can export.

I'm sure I've forgotten lots of others. You'll have to excuse me; this is not really my area of expertise.

● (1640)

The Chair: Mr. Rutherford.

Mr. Ian Rutherford: It's not my area of expertise either, but there's one area that I can think of in which Canada has demonstrated some leadership, and that is in the sequestration of carbon underground in Saskatchewan to aid in oil extraction. I am aware that there are experiments in other areas as well, such as coal beds and so on. That's an area where we might be able to take advantage of some local expertise and get a march on the world.

There are two other areas that always strike me. One is that we're terribly inefficient. We have technologies available to build better-insulated houses and buildings, and it's beginning to happen, but it should happen much faster, and we should be world leaders in doing that. We live in a northern country where we really need that kind of thing. Why aren't we world leaders? We should be.

Secondly, long distance power transmission is an area in which Canada has considerable expertise. It strikes me that wind power is something that suffers from the “not in my backyard” syndrome. People don't like these towers around. I don't know what the indigenous people in the north would think of that, but it strikes one that one could put wind generation towers in distant places and arrange to transmit the electricity to where it's needed. We have a lot of open space, a lot of undevelopable land in this country, so maybe that's another area in which we might have an advantage.

Dr. Andrew Weaver: May I add something?

The Chair: Go ahead quickly, if you could, please, sir. Time is up.

Dr. Andrew Weaver: I think it's important to add that Canada is a leader in CANDU reactor technology, and I think it's something that really needs to be put on the portfolio of things being discussed. Canada has a strategic advantage in nuclear technology, which is zero-emission. There's also geothermal, which is not being tapped into properly.

The Chair: Mr. Sauchyn.

Dr. David Sauchyn: Recently I was speaking to a senior vice-president of a large western Canadian energy company, and he told me that by far the most effective program they have is conservation. But engineers like to design and build things, so it's hard to convince the corporation that they should invest to a large extent in conservation measures.

The Chair: Mr. Dewar, I'll also mention my own experience in my riding. Our petro-chemical industry has been sequestering all of their CO_2 for at least 10 years. So it is technology in Canada.

Mr. Warawa.

Mr. Mark Warawa (Langley, CPC): Thank you, Chair.

I'd like to thank the witnesses for being here. We've heard from each other on numerous occasions, so it's good to see each of you again.

To be able to move forward you need to look at where you are and at a bit of your past, but keep your focus on moving forward and on the goal. We're well past the debate on the science of climate change. Globally there is an agreement that we have a problem, and a big problem.

This government became government two years ago, and I'm not going to dwell on the past, but we found ourselves in a situation where we were going in a direction we didn't want to go in. So we've set some targets in Canada that are some of the toughest targets in the world. Each country is unique in its own situation, where it is beginning. When you have a government that's actually serious about doing something.... In Canada this government is committed to reducing greenhouse gas emissions: absolute reductions of 20% by 2020 and 60% to 70% absolute reductions by 2050.

What we are dealing with today is providing the science on Bill C-377. Bill C-377, I'm sure you're aware, is a post-2012, post-Kyoto Protocol bill. Over the next two years there will be negotiations ongoing as to what that post-2012 agreement is going to look like.

The presenter of Bill C-377 is the leader of the NDP, Mr. Jack Layton, and he was here a week ago and shared his vision for the bill with us. I'd like to share that in a minute, but with your focus as scientists, I'd like your critique on Bill C-377.

I'd also like your critique on adaptation. Many of you said in your presentations that we are already experiencing impacts from climate change, and will continue to, and they will increase; that's going to happen. What we need to do as citizens of this world is together reduce greenhouse gas emissions. We have to do that. We agree with that, but in Canada what do we need to do in preparation for adaptation?

We have all just come back from a break, and I've had numerous discussions with numerous constituents. One of the comments stuck out in my mind. It sounded like a comment that I read before Christmas break from Rex Murphy. This constituent said how important it was and agreed with the message that Canada was taking to all these international conferences and meetings of the mind that everybody has to participate in. You can't have 30% of the people trying to solve the problem; everybody needs to participate and do their part. Canada has a unique situation, as does every country, and everybody needs to do their part.

Mr. Rutherford, I heard your same comments, and I asked those same questions of myself. Should somebody in India be able to have electricity? Absolutely. Your comment was “I've had my cake and you can't have yours”. I agree, that is a moral question, and people in India, China, or Africa need to be able to improve themselves and have a quality of life, yet protect the environment. This constituent said, “Mark, the way I see it, it is like a big pail of water with hundreds of holes in it and water is squirting out in every direction, and you as a government are plugging one of those holes. And it's lofty, it's good, it needs to happen, but we need everybody plugging their hole so that we can save that pail of water or save this globe.”

I thought it was a somewhat interesting analogy. That did remind me of what Rex Murphy said. He said:

> ...there can be no serious argument for Canada to make mandatory commitments, while exempting the giant emitters of the world such as China and India. This is like plugging a leak while ignoring the flood.

That's a very similar analogy.

● (1645)

When Mr. Layton came and spoke on Bill C-377—I want to get specifically to the bill now—he made his presentation. The targets, the objectives, he set out in Bill C-377 would be an 80% reduction by 2050. We've identified some benchmarks along the way: a 25% reduction in 2020 and interim targets at five-year intervals.

He then went on to say those targets are based on *The Case for Deep Reductions*, a report by the Pembina Institute and the David Suzuki Foundation. He also said, “I know that Matthew Bramley will be your next witness...and he will be describing his research and this report”.

When I had an opportunity to—

● (1650)

Hon. Geoff Regan: Time for questions, Mark.

Mr. Mark Warawa: Chair, I'm just going to ask people not to interrupt, because I'm trying to make a point here.

My question of Mr. Layton was, “Have you costed your plan?” And he said, “This is a set of targets. It will be up to the governments of the day to advance plans and figure out how we achieve these targets.”

So my question is, how important is it to have this costed so we know it's realistic, keeping in mind each country has unique situations? I believe we have very, very aggressive targets. Bill C-377, which we're talking about, and that's what you're here for, has not been costed.

I asked Mr. Bramley the same thing, or I think one of us asked him. He also said, no, it hadn't been costed. Both of these witnesses have said they were hoping the government would do that.

How important is it that we cost this so that Canadians, so that this government, so that each of us involved, are going into this with our eyes open? How important is it that it's costed?

The Chair: We have about three minutes, so if you could keep your answers brief, please.

Dr. Andrew Weaver: I can deal with that.

First of all, number one, Bill C-377 isn't all that much different from what you started off your speech by saying: the Government of Canada is committed to a 20% reduction by 2020 and 60% to 70% by 2050.

Has the Government of Canada costed them? I also don't think they have, because frankly I haven't seen their costing either.

I think what's been put in the spirit of Bill C-377 is something that's consistent with the European Union and the path they're taking, in terms of setting a target based on scientific evidence with respect to the two degrees Celsius threshold. I think that's what's important, and I think that's what's lacking in the Canadian context: picking targets that are working with other areas.

In terms of your comment on India and China, I think that's a very valid point, and—I've said it before—a framework already exists for dealing with that. Such a framework existed when the Montreal Protocol was signed. In fact, Minister Baird pointed out in Bali that he thought we should have a deal much like the Montreal Protocol, which had leadership being shown by the developed nations.

There's a thing call convergence and contraction or contraction and convergence, which is a framework for moving the world toward zero emissions, and that framework is where you converge and contract to eventual zero per capita emissions. It would give recognition to the fact, for example, that in Canada, since pre-industrial times, the cumulative emissions to the atmosphere of Canada of greenhouse gases is the same as India's. So it's very difficult for us to say to India, with 34 times the population of Canada, that in fact they're the source of the problem, when our emissions, with our 2%, are the same cumulative as India. The atmosphere doesn't care about year to year; it cares about cumulative emissions.

The Chair: Mr. Stone.

Prof. John Stone: Thank you very much, and I shall be very brief.

I've now appeared before this committee in one form or another four times in the last 12 months, I suppose. I certainly have been very encouraged by the words I've heard from the present government, Mr. Warawa, of their intentions to tackle this issue. But I want to see the legislation, I want to see the regulations, I want to see the caps put on industries—I want to see all those things. Words are simply not enough. We've got to move on to the next stage. I, personally, would encourage you and your colleagues to do that.

I believe that Bill C-377 is a useful contribution. The way I read it, it talks about having medium- and long-term goals. As I said in my introductory comments, I think it's absolutely essential in order that industry and we all have a long-term picture, and it challenges us and gives a level of emission.

Of course, we need to cost whatever plans they have from whatever party we have and in whichever country we're talking about. That's only good public policy. I will just have to assume that whatever plans are presented to Parliament and to the Government of Canada and to Canadians are properly costed. Yes, I agree with you.

The Chair: Mr. Rutherford, very briefly, please.

Mr. Ian Rutherford: Very briefly, there are costs to both action and inaction, and I don't think it's very easy to estimate them.

I would just look around the world and, as someone has already mentioned, look at those countries that have done the best job of de-carbonizing their economy, making it less energy intensive and less carbon intensive, countries like Norway, Denmark, and Germany. They've hardly been impoverished. They're doing very well.

I think we should be trying to take a leaf from their book, instead of always moaning and groaning about the cost of things that are proposed. Many of these things will pay for themselves; certainly energy efficiency pays for itself. This committee has heard from industries that have acted out of their own self-interest to reduce their costs by reducing their energy use. There are always questions of timing, of course.

● (1655)

Mr. Mark Warawa: On the costing, I will be glad to send Mr. Weaver a copy of our Turning the Corner plan; it is costed.

The Chair: Thank you very much.

We'll go on to Mr. Godfrey for the second round, for five minutes, please.

Hon. John Godfrey (Don Valley West, Lib.): During Mr. Warawa's speech he made the statement, which was interesting for all of us, I think, that Canada set some of the toughest targets in the world for 2020 and 2050. Of course, those targets are based on a point of departure of 2006 as opposed to 1990.

So I guess I've got three questions for the four panellists. First of all, would you agree, given the kinds of countries we've been talking about, that these are amongst the toughest targets in the world?

The second question is this, and this is scientific. You can all come in on this. Well, we might just start with this. Are these the toughest targets in the world, amongst the toughest targets in the world? Just a quick yes or no will do.

Mr. Rutherford.

Mr. Ian Rutherford: Well, we have been hearing figures thrown out about targets based on different baselines. The 2006 baseline is, what, 32% above the 1990 baseline? So it's a pretty good place to start from if you want to make yourself look good, but it doesn't help the atmosphere all that much.

Hon. John Godfrey: That leads me to the second question, which I would ask of any panellist. Would these targets, therefore, get us to where we need to be, from a scientific point of view? If Canada did its bit, would it help hold us to a 2% rise?

Dr. Andrew Weaver: If Canada were to actually put such targets into law and have policies to meet such targets, 20% and 60% to 70% by 2050 are consistent with the type of level of cuts you need. But the problem is that they cannot be aspirational targets; they must be real targets, where you have real policies set in law. I don't see those, frankly.

You have the Premier of Alberta saying that Alberta is going to have a 14% cut by 2050. How does the Government of Canada jibe with the province with the largest growth of emissions, which is clearly incompatible with the Government of Canada's plan? I don't see how it can work.

Hon. John Godfrey: I guess my next question would then be, if we don't find that the current government's targets, based on a 2006 baseline, are amongst the toughest in the world and may not get us to where we need to go, do you feel a greater level of comfort with Bill C-377, at least in terms of the kinds of mechanisms it sets out to help us get to a more stringent target? Do you think this is a helpful addition to the policy arsenal or the legal framework for moving ahead?

The Chair: I see Mr. Weaver nodding. Does anyone else have a comment on that?

Mr. Weaver.

Dr. Andrew Weaver: I think Bill C-377 is consistent with the moves that are being made internationally. I think what is interesting is that it sets, specifically, the two-degree target in the policy; it sets a framework to get there. I'm not going to argue for the 80% versus 70% versus 90% because, frankly, we need to move to zero emissions. It's the right framework, and it is consistent with international efforts in this area.

Hon. John Godfrey: Others?

Dr. David Sauchyn: We can debate levels, but.... Go ahead, John.

Prof. John Stone: Just very briefly, I don't see that Bill C-377 is necessarily inconsistent with where our present government is going, nor indeed with the aspirational statements I've heard from other parties.

My sense is that slowly—and I emphasize slowly—we seem to be coming to a consensus amongst parties in Canada that in fact this is an issue we cannot afford not to tackle.

● (1700)

Dr. David Sauchyn: We can debate hypothetical levels till suppertime or beyond, but I think the important point is that the Government of Canada needs some policy, needs some credibility, because the federal government needs to engage in agreements with the provinces and with other nations. You can start by having some reasonable policy.

We already heard about the targets released by the Alberta government, which I found particularly disappointing because I provided two days of testimony to the minister, at his expense, and I don't see it reflected in their plan; I don't see science reflected in the Alberta plan. On the other hand, the Government of Saskatchewan has much more aggressive targets: 32% by 2020. The new government has agreed to impose those targets.

The Chair: Mr. Jean.

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

I am interested, actually, in some information in relation to carbon tax, because we've had different opinions here. For instance, Mr. McGuinty has had different positions on it, as a Liberal member, and so has Mr. Godfrey. I'm wondering what kind of carbon tax would be required to meet the targets in the bill.

I've looked at your resumés, gentlemen—Mr. Weaver included—and I'm wondering who would be best to answer that. I don't know if any of you are qualified to do so, but Mr. Weaver, do you have any expertise in relation to any kind of tax or carbon tax that it would be necessary to implement in relation to this bill?

Dr. Andrew Weaver: I'm not an economist. I have read a lot, but I'm loath to give testimony on a carbon tax level required to meet the bill because that would be out of my area of expertise, although I'm quite familiar with the method and tools available to the government.

Mr. Brian Jean: Okay.

Dr. Andrew Weaver: And I support the carbon tax whole-heartedly.

Mr. Brian Jean: Yes, I understand that. Thank you, Mr. Weaver.

Mr. Stone has a comment.

Prof. John Stone: As you notice, I'm not an economist, but I've certainly listened and read about this issue quite a lot.

I don't think anybody can get away from the conclusion that whatever you do you have to put a price on carbon. That's the way the market works. That's what the market recognizes.

Personally, I take a leaf out of the EU book. The EU thought about a carbon tax. They decided not to go that route. They decided to use a cap and trade instead. The difference between the two is that with a carbon tax you essentially set the price of carbon and let that determine the level of emission reductions. The cap and trade sets the level of emission reductions and lets that determine the price of carbon. To my mind, that has some advantages included.

That's the way the EU went. I think one should really think about that. I think that has some advantages.

The Chair: Mr. Jean, I want to welcome you, but this is a science panel. We do have an economist panel coming. I know you're new to the committee, but if you could just stick to the science, that would be great.

Mr. Brian Jean: I will indeed. Thank you, Mr. Chair.

My question was more from an actual science position, because I have heard from these gentlemen before, as you know, and I was wondering if they, in their expertise, looking at international examples, could advise on what has worked and what has not. So from a science perspective, it was definitely appropriate, notwithstanding the muddles from the other side.

I've heard much testimony on Bill C-30 in the environment committee before, and actually I think from three of the four gentlemen here today. It's fair to say that many people want the result, the result of cutting emissions no matter what, and are prepared to do so at any price—and we heard Mr. Weaver earlier. I think it's fair to say that a lot of people have that position, and other people have the position that they want to look at the price, and whatever is reasonable we'll cut that much.

Would it be fair to say that this government has actually taken a position that is fairly moderate and is more right down the middle, with, quite frankly, the most aggressive targets in the world that I'm aware of, mandatory targets, including the ecoAUTO strategy, and so on? Would it be fair to say that this government has taken a more middle-of-the-road approach than the two extremes that I've put out as hypotheses?

Mr. Stone.

Prof. John Stone: I don't know if I can answer that.

I've said it already, and Professor Weaver mentioned it: I've been encouraged by what the present government is saying on its levels of targets and the like, but what we need now is action, to translate that into legislation, to translate it into regulations, to translate it into caps, to translate it into programs that you're going to need to help those who are going to have the most difficulty. We've been waiting now. We need to see that.

Everybody says yes. We've heard the starting gun; we're off. We know what the long-term goals are. We have the tools to get us there. So we begin. That's what we're all waiting for.

● (1705)

The Chair: Mr. Jean, very briefly.

Mr. Brian Jean: Isn't it fair to say, and we've heard this cliché a couple of thousand times before in the House and here...but in essence, in 10 years the Liberals didn't do a lot, didn't come up with a plan. In less than two years we've come up with a plan, we're working on regulations, and we're moving forward as a government to what I would consider to be an aggressively moderate approach to what is expected. Wouldn't it be fair to cut us a little slack and give us a little bit of time, another couple of months, to come up with these regulations?

You say yourself you're impressed with our position and our ideology. Wouldn't you say it's—

Prof. John Stone: Sorry, I didn't say that. I said I've been encouraged by what I've heard the present government say; I didn't say I agreed with your ideology. I don't think I said that anyway.

I've been involved with this issue for 15 or more years. I remember talking to senior officials in the Department of Finance at least 10 years ago, if not more, about an emissions trading system in Canada. We still don't have it. We've been talking about it with experts for 10 years at least. This has brought some of us a feeling of frustration. Can we please get on and do it now?

The Chair: Thank you, Mr. Jean.

Mr. Bigras, please.

[*Translation*]

Mr. Bernard Bigras: Thank you very much, Mr. Chairman.

I would like to ask a brief question, but before I do that, I just want to say that I am a little bit fed up with the government's argument that Canada should not commit itself until such time as emerging countries like China and India are ready to commit on the international stage. It's a little like telling my 10-year daughter to put out our blue box only when the neighbours bother to put theirs out. I find it somewhat irresponsible, both from an environmental and from a social standpoint, of the Conservatives to subject us to this type of political discourse today, just as they did in Bali.

That being said, you have read the bill and its preamble. You have also seen the reference to the two-degree Celsius threshold and to emission stabilization. Does the report of the Intergovernmental Panel on Climate Change, or IPCC, contain any elements that should be incorporated into Bill C-377, particularly into the preamble?

My questions is directed to all of the witnesses.

[*English*]

The Chair: Mr. Weaver, do you have an answer?

Dr. Andrew Weaver: If you will allow me, I could add one thing.

I think if you appeal to the Bali declaration of scientists, which was presented in Bali and had 250 signatories from around the world, I think it captured well the kind of consensus feeling in it. Many of the things you see here in terms of 10 to 15 years, two degrees, a deep cut globally of 50%, are reflected in this document now. So I'm reasonably happy with the way it was written.

The Chair: Mr. Stone.

Prof. John Stone: That's a very good question and a very open question. I can imagine myself taking many hours to answer it, but let me say just a few things.

I think there are some statements, conclusions, and findings in the fourth assessment of the IPPC that perhaps could be brought to the fore. One is that “climate change is now unequivocal”, and that's a quote. Secondly, it is very likely that the cause of it is due to human actions—that's almost a quote. Thirdly, there is evidence already of impacts as a result of anthropogenic warming. Unless we control and reduce emissions we are going to experience more and more impacts of greater and greater threat. We are already committed to some impacts as a result of past emissions, and therefore adaptation is no longer simply a policy option; it becomes a policy imperative,

Many of the economic calculations that have been done have suggested that the targets can be reached without breaking the bank. Several were mentioned at the beginning of this hearing, and in fact it amounts to perhaps a 0.12% annual change in GDP. So that's another point. Technologies exist today that can allow us to at least stabilize today's emissions for the next 50 years.

Those are some of the conclusions from the IPPC that I think could help this debate, this dialogue.

I hope I haven't been too long.

● (1710)

The Chair: Thank you.

Mr. Sauchyn.

Dr. David Sauchyn: I'd like to add that if it did not result in a delay in the processing of this bill, I would encourage you to do that, because the purpose of scientific assessment, the purpose of the IPCC, is to support decision-making.

Also, within weeks you will have available to you the 350-page Canadian assessment of climate change, and I would encourage you to use that information as well.

The Chair: Go ahead, please, very briefly, Mr. Lussier. You have about 20 seconds.

[*Translation*]

Mr. Marcel Lussier: I would like Mr. Sauchyn to speak to us about Alberta's position. The province has completely failed to take his advice into account.

You maintain that your research centre informs decision-makers. Who are these decision-makers and what strategy do you employ to communicate with them?

[*English*]

Dr. David Sauchyn: We meet periodically with deputy ministers, ministers, and premiers at their request. I referred to the testimony we provided to the Minister of the Environment in Alberta. In fact, I was part of an international panel that spent two days at a five-star hotel with the minister, providing testimony.

At the beginning of the process, one of the experts from the U.S. described it as a “ticking off the box” exercise; that is, the minister could claim he had consulted with experts. So that's the type of consultation we provide.

As recently as last week I spent an hour with a deputy minister in Saskatchewan, preparing her for the meetings in Vancouver this week.

The Chair: Thank you.

Mr. Vellacott.

Mr. Maurice Vellacott (Saskatoon—Wanuskewin, CPC): Thank you very much, Mr. Chair.

My question takes us back a little in history, but also as we head to the future. For our guests here, for quite a number of years industry complained. In fact, it was 13 long years they complained that they weren't getting direction in this whole area. They wanted direction, but they weren't getting it, so there was no action really taken over that period of time.

Then at Bali, just of late, under section 71, there was a notice to industry that they were going to be regulated, that they would have to report their GHGs. Those targets for final emissions will be coming out within the year ahead here, so that is substantial, at least when we make a comparison with what's been done in the past.

In particular, going back to the benchmarks from Kyoto, in four years from now, under Kyoto, we were supposed to be about 6% below 1990 levels. I'd like you to respond to this for a moment. We would probably be having a rather different discussion at this point if we had gotten with it a number of years ago, if we'd been moving on this, but this wasn't occurring.

Can you give me a different sense of what might have been as compared to where we're at now—actually changing the economy, signals to the industry and the effect on the economy? How different might it have been compared to where we're at now and the very difficult kind of task we have?

There are concrete measures being taken in terms of establishing hard targets. Industry is on notice for the first time. They have some policy direction they never had before.

Who wants to respond first?

The Chair: Mr. Weaver, would you like to...?

Dr. Andrew Weaver: Sure, I'm happy to respond.

First of all, I don't disagree that there was a lack of leadership on the kind of portfolio for years. There's no doubt about that. I still think we're in the realm of talking. I'm really hoping we're going to see something.

You mentioned that the business leaders were looking for guidance. In fact, on October 1, the Canadian Council of Chief Executives issued a statement calling for aggressive action to tackle climate change. In fact, one of the things they talked about was an environmental tax, which is a euphemism, of course, for a carbon tax. At Bali, too, 100 of the world's biggest companies called on governments to take action. I think business is looking for the rules of the game to be made.

I'm hoping we'll let bygones be bygones and move on. There's no question that nothing happened in the past. I don't think you're going to get anybody to stand up and say we're meeting Kyoto targets. We're not.

On the other hand, I also wouldn't laud the fact that you're getting companies to report, because being a party to the UNFCCC, Canada has to report its emissions anyway. To some extent, industry is already reporting its emissions—for Canada to meet its requirements under the UNFCCC's reporting of its emissions.

Again, I wish we would get beyond the rhetoric of what has happened—because clearly nothing has happened—and move towards the future of doing something. The opportunity is there for whatever government wants to take it to show real leadership to Canada and the world. I don't care if it's Conservative, NDP, Liberal, Bloc Québécois, or Green, so long as someone does it.

● (1715)

The Chair: Mr. Rutherford.

Mr. Ian Rutherford: If I were in charge of an industry or a plant or a company that in spite of Canada's poor overall performance had made good reductions in CO_2 emissions between 1990 and 2006, I would want to know how that was going to be treated. Am I going to get credit for that, or am I going to be held to the same standard as those companies in my industry who didn't do what I did? I think that's a major problem for making this a fair regime. One has to really look at the regulations that are going to come out of this to understand how it's going to work.

The Chair: Thank you.

Mr. Vellacott, do you have a 20-second question? I would like to get on to the motion, if we could.

Mr. Maurice Vellacott: I thought Mr. Stone was going to quickly respond.

The Chair: Okay, Mr. Stone, you have the 20 seconds.

Prof. John Stone: I've seen a lot of plans; I've heard a lot of words. You are using some words that I've heard before, “We are going to”; I think we're waiting for, “We have”. Right?

I think what Mr. Lussier mentioned is very important. We have never, in my view, had a real debate on climate change in this country. We've had some silly arguments about the cost of meeting Kyoto, but we have not had a real debate that involves everybody. I think if you can engineer that, to somehow release the imagination and the innovative ability of all Canadians—industry, individuals, and governments—then you're doing something really worthwhile. But you need to have that real debate.

The Chair: I think that's an excellent way to close, Dr. Stone.

I want to thank our guests, including you, Mr. Weaver, on the television set.

Dr. Andrew Weaver: Thank you very much, sir.

The Chair: Thank you for being here. We appreciate your input.

I would ask members to deal directly now with the motion. The procedure is that Mr. Scarpaleggia will move it. I know we do have one amendment. If we could move quickly on this, I'd appreciate it.

Mr. Scarpaleggia.

Mr. Francis Scarpaleggia (Lac-Saint-Louis, Lib.): Thank you.

I'd like to move this motion. It's fairly self-explanatory. I believe the dual issues of the oil sands and water are timely and topical, and I think we have incomplete knowledge, as policy-makers, of this issue. There are information gaps. I would like to gather a series of individual experts and groups before our committee who can fill those information gaps and give us an idea of the problems and solutions and so on.

The Chair: I'll go to Mr. Warawa next, and then to Mr. Dewar and Mr. Regan.

Mr. Mark Warawa: Thank you, Chair.

Timing is everything. I suggested when we started, I think a couple of years ago, that it would be a very interesting topic to study, including a tour of the oil sands. The committee didn't want to at that time. Now there is an appetite to deal with the oil sands. It's a great idea. I think a very important part of that study is to have a visit to the oil sands. Some of us have been there; some have not. I've been there. For us to go to the oil sands as part of that study would be very enlightening, and it would hopefully help us make good decisions.

I'll be moving an amendment. Hopefully it will be accepted as a friendly amendment. Otherwise we will be voting on it. It would add:

> and that, the Committee organize and include in its study a trip to Northern Alberta to tour the oil sands before the end of the current session

Would Mr. Scarpaleggia accept that as a friendly amendment?

● (1720)

The Chair: Mr. Scarpaleggia, do you accept that as a friendly amendment?

Mr. Francis Scarpaleggia: No, I don't.

I'm not saying that at some point I wouldn't like to visit the oil sands, but I honestly do not understand how viewing the oil sands in person would add important information. I'm looking for technical information from people like David Schindler, who spent a long time studying the impact of the oil sands on the water. These people can bring the information to us.

Maybe in the future we could visit the oil sands, but I'd really like to get on with this study after we've dealt with Bill C-377. I don't think we need to incur those expenses to get the kind of information I'm seeking out of this process.

The Chair: I assume this is to get the input from the industry itself on site, but anyway....

We have an amendment.

Mr. Mark Warawa: I'll be moving the amendment and speaking to it, then, Chair. It wasn't accepted as a friendly amendment.

The point is, good decisions are based on good information. If you only have one side of an argument, there's a good chance you may not make a good decision. What we have is a very one-sided panel being proposed in this motion from Mr. Scarpaleggia. I'm suggesting that you get a balance in.

I've found over the years in politics—and I was 14 years in local government before I got into federal politics—that your whole perspective changes when you actually go out and visit a site that you're talking about. Maybe he's never been there, but it will change perspectives. You'll get an actual, realistic, and balanced perspective if you visit there.

If he doesn't want to visit there, that's fine, but I think it should be part of this research.

The Chair: Let me ask everybody to please be briefer; otherwise, we're not going to deal with this until the next meeting.

I have a list. We're talking to the amendment, and then I would like to call the vote as quickly as possible.

Mr. Dewar, were you on the amendment?

No? Okay.

Mr. McGuinty is the next person on my list.

Mr. David McGuinty (Ottawa South, , Lib.): Mr. Chair, I don't believe it's necessary to travel to the oil sands. I would respectfully request that the minister provide a slide show for us. The minister's office could provide a very good overview, with photographs, or in fact live footage—all kinds of things. He has a very advanced video team in his office, with fancy overheads.

We can see all that from here. If Mr. Warawa wants to instead, for example, propose other witnesses who can come to give us full and frank disclosure, including economic numbers, I'd love to see that evidence.

The Chair: We'll hear Mr. Bigras very briefly, and I think I'll come back to you, Mr. Scarpaleggia, hopefully to end this debate on the amendment.

Mr. Bigras.

[*Translation*]

Mr. Bernard Bigras: In my view, the motion as tabled makes perfect sense. Moreover, this afternoon, Mr. Lussier had some questions about the impact of tar sands extraction operations on groundwater. Of course, he was not able to get any answers today, and that's fine. I think we must move forward. However, in so far as visiting Fort McMurray is concerned, the member knows full well, given his years of experience and the strong hold the Conservative Party has on its members, that the matter must first be discussed with the leaders.

It is possible to obtain information. That is the gist of the motion on the table. Therefore, I am not in favour of a trip to Fort McMurray and I will support the motion before the committee.

[*English*]

The Chair: Mr. Jean.

Mr. Brian Jean: Thank you very much, Mr. Chair.

I'd like to say that I think it's a very good motion on the face of it. Being the member for Fort McMurray and 25% of northern Alberta, I would love to have you all come to Fort McMurray. In fact, I've invited this committee at least five or six times before.

The difficulty will be, of course, that you won't be able to find a hotel room; you would have to camp in my backyard. So let's not do that. It's a little chilly—minus 42 degrees this morning.

I have an extensive background: 40 years in Fort McMurray. I think you need a balanced perspective. I've been on the water issue in Lake Athabaska for the last two years, while everybody else was not even thinking about it.

I want to point out a couple of things that I think all members of this committee should listen intently to. On the east side of Lake Athabaska, which is the largest lake in Alberta—and only a third of it is in Alberta—is a uranium mine that has been in existence since the 40s and 50s, and that has been leaching uranium, in my opinion, for years and years. I've been to that mine three or four times.

As well, we have thousands if not tens or hundreds of thousands of years of oil sands leaching into the Athabaska River. As many of you may know, it actually is on the surface and right on the edges of the river, and you can see it in the summertime, in plus 30 degrees, leaching right into the river.

So be aware of those factors.

● (1725)

The Chair: Can you be really brief? We're going to have bells going here.

Mr. Brian Jean: Absolutely, sir. I'm trying to be brief.

Finally, I would like to propose some witnesses. I would be in favour of this motion if we had a different approach—or the same approach, but just some more people. I'd like to see Health Canada, if not Alberta Health; I'd like to see some industry representatives. You'd be shocked at how much they study each and every aspect. If those people could be part of the list, I think you'd find some cooperation on this side.

The Chair: Just so that everybody knows, we're talking about an amendment for the trip to.... We're not talking about the motion. Of course, we can add to the witness list, and so on, but let's just deal with this motion about a trip to Fort McMurray.

Mr. Watson and then Mr. Scarpaleggia, and then we're going to vote.

Mr. Jeff Watson (Essex, CPC): Thank you, Mr. Chair.

I think the trip to northern Alberta would in fact be a good one.

You talk about additional witnesses. The way I read the motion it's very exclusively defined as to who's going to be there. Perhaps the trip to northern Alberta will give us the opportunity to talk to people left off their list. This motion specifically defines the witness list. There's no open end to it.

The Chair: We'll get back to the motion. Let's not open—

Mr. Jeff Watson: Hopefully, but what I'm suggesting is that the trip will at least give us the opportunity to talk to people excluded from the list.

The Chair: Let's not open that can of worms right now. Let's just deal with this amendment.

Mr. Scarpaleggia.

Mr. Francis Scarpaleggia: I would like to vote on this, and then I'll make my point.

The Chair: The amendment, as everyone knows, is that the committee organize a trip to northern Alberta to visit the oil sands before the current session ends. That means June, so maybe not in the backyard of Mr. Jean, but when spring is here. That's the motion.

(Amendment negatived)

The Chair: Now we're back to the original motion.

Mr. Mark Warawa: We're going to amend it, then.

The suggested amendment from Mr. McGuinty, I believe it was, was that we add some other people instead of taking a trip, provide a balanced group of witnesses, which has been our tradition, hopefully. Monsieur Jean suggested industry representatives—I think that's a good idea—from both oil and gas, and also health. I have a friendly amendment. Would they accept it as a friendly amendment?

The Chair: To add to the existing amendment the addition of additional witnesses as—

Hon. John Godfrey: May I suggest a form of wording: to add to the existing witnesses such additional witnesses as may be agreed to by the steering committee. If they don't agree, then they come back to the main—

The Chair: They come back here anyway. It comes back here for approval anyway.

Are you accepting that?

Mr. Francis Scarpaleggia: I just want to make it clear. It's not as slanted as one would think. We're calling representatives of NRCan—Dr. Randy Mikula is certainly not a detractor of the oil sands—and representatives of the Alberta government.

I would like to take some of the partisan flavour out of this. Yes, we can invite, obviously, someone from the oil sands industry. But let's not get carried away and overwhelm this with a multitude of people and then we lose sight of the issue, which is what are the—

The Chair: Wonderful words, “non-partisan”, about an issue like this.... I like those words too. I think if we take this subamendment, if it's accepted by you, then that adds.... We can work on that list, as we did with Bill C-377, rather than discuss this ad nauseam.

Hon. Geoff Regan: Mr. Chairman, if I may, as long as we make sure we include Fisheries and Oceans Canada.

The Chair: We'll talk about coral in the oil sands.

Mr. Mark Warawa: Mr. Chair, my understanding was that the oil and gas companies, along with Health Canada, would be represented on that.

Mr. Francis Scarpaleggia: Not companies, but maybe a representative.

● (1730)

The Chair: I propose that the steering committee discuss this list, come out with the list, bring it back here for approval—

Hon. John Godfrey: Members may suggest witnesses.

The Chair: Give us a list of witnesses as quickly as possible and we'll work on it. We still have a couple of weeks.

Mr. Dewar.

Mr. Paul Dewar: This is just a question. I'm clarifying that this will be after Bill C-377 is sent to—

The Chair: After Bill C-377 is complete.

Those in favour of the motion?

(Motion agreed to [See *Minutes of Proceedings*])

The Chair: It's unanimous. Thank you.

Mr. Scarpaleggia, I didn't let you close it because I figured we went there.

The meeting is adjourned.

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