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Chair

Mr. Alan Tonks

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● (1105)

[*English*]

The Chair (Mr. Alan Tonks (York South—Weston, Lib.)): Good morning, members of the committee, witnesses, ladies and gentlemen.

This is the 35th meeting of the Standing Committee on Environment and Sustainable Development. Today, pursuant to Standing Order 108(2), we are continuing to have witnesses with respect to the study of Canada's implementation of the Kyoto Protocol, part II, a lower carbon energy supply.

Appearing before the committee this morning we have the Honourable John Godfrey, Minister of State for Infrastructure and Communities; and from Infrastructure Canada, André Juneau, who is the deputy head; and Cécile Cléroux, the assistant deputy minister, program operations.

Later on we'll be having witnesses from the Department of Natural Resources, Graham Campbell and others, who I'll introduce at that time.

Minister, thank you very much for being with us this morning. The committee is looking forward to hearing what you have to say.

As you know, we allow about ten minutes for the deputant, and then we have ten-minute rounds, going through the various parties, and five-minute rounds thereafter.

Without any further ado, welcome. The floor is yours.

Hon. John Godfrey (Minister of State (Infrastructure and Communities)): Thank you, Chairman.

I appreciate the opportunity to appear before the committee as part of your ongoing consultations regarding environment and economy issues.

My officials and I consider a strong and productive working relationship with you to be a very high priority, and we'll do everything in our power to assist you in your deliberations. In fact, I have to remind the committee or tell them that when it was a question of which committee our department would be attached to, I petitioned and begged that it would be attached to you. So I'm glad our dreams came true.

[*Translation*]

This is consistent with our approach to consultations with the ministers, opposition critics, and MPs. It also reflects the way my staff, officials and I are building positive relationships with provinces, municipalities and other stakeholders.

Here, I want to focus my remarks on the challenges and opportunities we face regarding sustainable development from the perspective of the Infrastructure and Communities portfolio.

[*English*]

More specifically, I would like to explore three critical public policy agendas that are emerging and converging, because they are critical to prosperity and quality of life for Canadians: a resurgent communities agenda; a pressing infrastructure agenda; and the environmental sustainability agenda, the Kyoto agenda. These agendas are of interest to all of us and central to my work on the new deal for cities and communities, and with the ad hoc cabinet committee on environment and sustainability, of which I am a member.

Since I am by training a historian, you'll not be surprised, and I hope you'll forgive me, if I start with a little history. When the Prime Minister asked me to get involved with the new deal, we talked together first about a vision of sustainability including social, cultural, economic, and environmental sustainability; partnerships that were to be transformative and over the long haul, and respectful of jurisdictions; investments that benefit municipalities of all sizes, large and small; and new ways of doing government business.

First, as parliamentary secretary and with the support of the cities secretariat of the Privy Council Office, I met with provincial and municipal leaders to understand their priorities for our cities and communities and to develop a policy framework. At the time, the Prime Minister also mandated the previous Minister of State for Infrastructure to work as part of the environment portfolio. This meant that infrastructure policies and programs were being implemented with an ever-increasing focus on environmental outcomes.

● (1110)

[*Translation*]

Most recently, in July 2004, the Cities Secretariat and Infrastructure Canada, along with four Crown corporations, came together to form my portfolio of infrastructure and communities.

Since then, this portfolio has established itself at a central part of the government's sustainable development agenda. It is in our cities and communities, where we can make some significant progress, through more efficient use of water, reduced air pollutants and greenhouse gas emissions, more advanced solid waste management and the clean up of contaminated soil.

[*English*]

Our municipalities have told us they need more help in bridging the infrastructure gap. They told us they needed assistance that would also advance their aspirations as sustainable communities.

That's why the Prime Minister created the new deal for cities and communities.

The new deal is an active partnership with the provinces and territories, with mayors and municipal associations, to respond creatively to these local needs and national priorities. We are doing so with the full respect of provincial jurisdiction. Our focus on sustainability has shaped the new deal and informed the bilateral agreements for gas tax funding that we are reaching with provinces and territories. Accordingly, the first of these agreements, signed last week with the Province of British Columbia and the Union of British Columbia Municipalities, is targeted at supporting environmentally sustainable municipal infrastructure.

This deal means that all communities in British Columbia will have increased resources—$635 million in gas tax funds over the next five years and $254 million per year indefinitely thereafter—for things like transit, water, solid waste management, and community energy systems.

By supporting environmentally sustainable municipal infrastructure, we are helping municipalities to reduce their greenhouse gas emissions. At the same time, we're advancing their sustainability in areas of social, economic, and cultural life. This is the first deal of its kind in Canada, but there will be others that are equally transformative.

[*Translation*]

The New Deal builds on a decade of infrastructure funding by the government to help meet locally identified infrastructure priorities. I have had the opportunity of seeing many of these projects across the country. No doubt many of you have seen such projects come to life in the places that you represent. The Infrastructure and Communities portfolio is about sustainability, and as such, it has become increasingly green in its programs and initiatives.

[*English*]

For example, projects that are often selected in partnership with provinces and municipalities are evaluated with consideration to environmental outcomes. A couple of green projects we have funded are highlighted in the background document that we provided to you. Cumulatively, 50% of the projects from the Infrastructure Canada program and 60% of the projects from the municipal rural infrastructure program are to have specific, positive environmental outcomes.

In addition to our programs, one of our crown corporations, Canada Lands Company, has won numerous awards for its work on brownfield redevelopment. Even our research agenda and the work of the Prime Minister's External Advisory Committee on Cities and Communities are shaped, guided, and inspired by sustainability. We have received positive and constructive feedback on our work.

Ann MacLean, the president of the FCM, has said, "The new deal is a real deal", but she has also reminded us that should the budget become the casualty of an early election call, all the progress made in the last months, the successful federal-provincial negotiations along with municipal commitment and planning, could be for nothing, and the sense of hope in our sector and in our communities will be dashed once again. I think all members need to keep these words in mind as we move ahead.

But our work on cities and communities is complementary to a bigger sustainability agenda—climate change. Climate protection and adaptation are important to this government and to Canadians. That's why as a backbencher, along with other Liberal MPs, I orchestrated a petition that was signed eventually by 103 Liberal backbench MPs who supported our early ratification of the Kyoto protocol.

As you know, the government's Project Green is now our framework for businesses, governments, communities, and individuals to get involved and take action. This will require further consultations, some hard work, and tough choices, but I am totally supportive of Project Green. I think we need to get on with it.

● (1115)

[*Translation*]

The plan is a balance between environmental health and economic prosperity and it references the opportunities to reduce greenhouse gas emissions in cities and communities. Clearly the plan does not give municipalities a target. That said, many mayors have already told me that they will do their part.

Just the other day, municipal leaders from Quebec, Ontario, B.C. and Alberta told me that they want the New Deal to reduce greenhouse gas emissions and that they will participate in Project Green. When I visited the three territories in January, many municipal leaders and citizens told me that they need this type of plan to adapt to climate change.

[*English*]

Through the new deal and Project Green we will be looking at ways to facilitate municipal action on climate change. We will build on the innovative experience of the hundreds of municipalities that are members of the partners for climate protection program and involved in green municipal funds, both administered by the Federation of Canadian Municipalities.

We also support progress in our neighbourhoods. I'm so passionate about sustainability and climate change that I am supporting and leading with my provincial and municipal counterparts the one-tonne challenge in Don Valley West. In fact, it's a great program. In partnership with York University, elected officials, and other stakeholders, my constituents have organized a campaign to reduce greenhouse gas emissions. They are walking, taking bikes, carpooling, planting trees, and doing home and business energy audits. We began this initiative in September 2004, and there is great optimism that we are moving toward our goal of reducing greenhouse gas emissions locally.

I encourage all of you to introduce the one-tonne challenge in your constituencies, and I challenge all of you to beat Don Valley West.

All of these developments—actions that improve infrastructure, communities, and sustainability—are not unique to Canada. They are part of a movement arising out of concern for our global environment and international economy, yet the truth is that in comparison with other countries, Canada is not at the forefront.

We are notoriously conspicuous consumers of energy. We are renewing our interest in our cities and communities because we think that's where the action will be. We face unique challenges owing to a harsh climate and our geographic size.

[*Translation*]

But I think we could do more to turn these circumstances into opportunities and there is a role for government here. In the long term, in collaboration with provinces, territories and municipalities, as well as the private sector, we have a responsibility to renew our vision of what we mean by sustainable communities and how we successfully build them.

For the short term, we can make the most of government funding for sustainable municipal infrastructure. This means delivering on the gas tax funding, extending existing infrastructure programs, and offering tools and best practices that help our communities to manage infrastructure assets with a system's approach.

[*English*]

In closing, Mr. Chair, I can assure you that Infrastructure and Communities is committed to an efficient and coherent strategy that will help us to achieve our sustainability outcomes.

I look forward to your questions.

Thank you very much.

The Chair: Thank you very much, Minister Godfrey.

We'll go to the top of the batting order, and Mr. Mills will lead off.

Mr. Bob Mills (Red Deer, CPC): Thank you very much for appearing before us.

I have a number of questions I'd like to ask, and I'll try to do them as quickly as I can so we don't waste our ten minutes.

First of all, the first thing that upset me a lot was in the House when you made the comment that if we don't get the budget passed there won't be anything for cities and cities will be out in the cold as far as green projects and so on are concerned. I think you know that's not true, and obviously, if you were so concerned about that, the budget would be being debated today, this week, instead of this week and next week and whatever number of weeks we're going to talk about same sex marriage. You did have the budget for last week and this week, but now it's three weeks from now. I would think if you were so darned concerned about getting your projects, your government would have in fact dealt with the budget right now. Most of it, of course, we've already said we would support.

When you stand up in the House and say, “Well, you guys wouldn't deliver anything,” I think maybe it's you who's not delivering anything by not letting us go after the budget right now.

How would you answer that?

Hon. John Godfrey: There are really two answers.

The first one would be the answer that the finance minister offered the other day when he proposed that he was prepared to have the budget bill pass at all stages with the consent of the House. That did not sound like somebody who was trying to rag the puck.

In terms of my understanding of what the current policy of your party is with regard to both infrastructure programs and the cities agenda, and I, of course, defer to you on this, during the last election campaign—and I read very carefully what was in your program—you suggested that what you would do is get rid of Infrastructure Canada, cancel all existing infrastructure programs except for borders, and in turn, instead of that, turn over 3¢ a litre of the gas tax to the provinces, essentially, not the 5¢ that we're trying to turn over to the municipalities. That was the going-in position, and I understood that to be the position of the Conservative Party until last month.

Last month there was a motion put forward, which was put forward, actually, by a number of ridings in British Columbia and elsewhere right across the country, that there be a sharing of the gas tax dollars with municipalities for the purposes of transit and transportation. That was proposed, but unfortunately it was voted down.

I just take that at its word, that if a party convention means something, the position of the membership takes precedence over the previous position as expressed during the last election. This is the only information I have to go on publicly. It may be that things are changing, and I would welcome support, obviously, for our agenda, but I am simply going by the record, as I understood it.

● (1120)

Mr. Bob Mills: The best way to summarize it is that any agreements signed with the municipalities will be honoured by our government. That tells you a fair amount. The support for the infrastructure programs through Environment and through our Public Works will also be there. I would conclude by saying that cities and municipalities don't need to worry about what we'll deliver. We will deliver, not just promise and reintroduce.

You mentioned Kyoto. It's interesting that in Project Green, cities are not mentioned an awful lot. In fact, there are no credits being taken from cities.

You mentioned such things as capturing of landfill gases. Right now, one of the biggest liabilities that cities and municipalities face are leaking landfills. They are the subject of three lawsuits in Ottawa, one for $45 million by adjacent landowners. The potential liability for cities will far outweigh the sale of electricity.

This is something of a red herring. I don't believe we should be landfilling. I don't believe Toronto should be hauling its garbage to Wisconsin. I gave my first speech on landfills in 1972. Parts of Europe have not landfilled for 60 years. We are a long way behind.

The same applies to sewage. We have three cities in Canada dumping raw sewage into the ocean. The former Environment Minister, on a television show said, “Fifteen feet away from the pipe, it's diluted, so it's not a problem”.

I think it's third-world to be dumping sewage into the ocean, or using landfills. Let's have some plans; let's see where we're going.

Hon. John Godfrey: I also think it's outrageous for a first-world country to have raw sewage being dumped into harbours and rivers. We've been thinking that for some time in our department. We have projects from our previous infrastructure programs. Besides strategic programs, we have MRIF for smaller communities. I also take your point about landfills. It is a source of major greenhouse gases, namely, methane.

That's why in our investment categories under the gas tax deal, those are primary targets. These waste water projects allow us to do what you're suggesting. In Halifax, for example, we're making major investments. Solid waste is a primary investment category. It improves air quality and reduces greenhouse gases. So I agree with you in your critique and in the urgent need for us to be part of the solution.

You said you would honour commitments made. I hope this doesn't mean that if the budget gets shot down or we go to an early election there will be early winners and losers. British Columbia would luck out and other provinces and territories would lose because they hadn't managed to get the deal signed. I hope that's not what you meant.

Project Green is a very prudent plan. There was some discussion about whether we could build into it the reduction of a certain number of greenhouse gases. We didn't know what the final priorities for municipalities would be. It might be for worthy things like providing drinking water, which does not save much energy or reduce greenhouse gases.

Until we had signed the 13 agreements, including one with first nations, we were not in a position to determine how municipalities would make their investments from the eligible categories. Therefore, we didn't know how much we could count on from public transit. This forms part of the safety net. We expect that the major cities will be investing in transit, that there will be a measurable reduction, and that we'll be able to put that to our account against the 270. But out of prudence, we didn't want to put a number to it until we saw the priorities of the municipalities.

● (1125)

Mr. Bob Mills: I'm glad you're concerned about our policy. I just want to assure you, don't lose sleep over it, because we definitely will take care of cities, municipalities, and the environment.

I'd come back to a couple of your comments and certainly the comments of the Environment Commissioner. In her last number of reports, she's said, you know, the government has lots of plans but no action. I think that goes with the climate change, recognized in 1992 in Rio; signed onto in 1997, still no plan; 2000, a plan, but obviously scrapped very quickly; 2002, a little more detail, up to 180 megatonnes, but that was only half; and right now, a plan that's even more vague, with no targets, no real commitment.

I think there's a real problem here of credibility in terms of dealing with environmental issues and dealing with those things. Every city you go to has a problem with its garbage. They have decaying infrastructure. That's obvious. So I would rather see a plan of action, specific action, than just a lot of promises and a reintroduction of promises year after year after year. That seems to be the problem this government has had over the 12 years I've been here.

Hon. John Godfrey: Two responses. First, our department is in the business of action. We actually have not waited around for the ultimate climate change plan. There will never be an ultimate plan. We've gotten on with it. Last March we put money, $350 million, into the Toronto Transit Commission

[*Translation*]

and into the Réno-Métro project in Montreal.

[*English*]

We have been behaving as if climate change is real and a priority for us. We have what we call our “policy leveraging framework” to see how we can do infrastructure and do it in a way that's sustainable. That's the first point.

The second question is with regard to the series of plans that have been brought forward on climate change. The way to think about this, and I think Project Green lays it out very well, is that it's an iterative process. That is to say, there is never the definitive plan. You improve on each plan as you get more information and you recognize the new targets. It always has to be that way.

To me, it's very much like this: it's 1939, Canada decides to go to war, and we're trying to figure out what war production will look like in 1944. The answer is that we can't tell, but we do know what we have to do, which is to win the war. We will adjust our industrial base to meet that objective. To me, the climate change file is every bit as important as World War II in terms of getting it right for the planet. We will always be strengthening and improving and producing new plans. There will never be a definitive climate change plan, in my view.

The Chair: Thank you.

We are out of time in that particular round.

We'll go now to Mr. Laframboise.

[*Translation*]

Mr. Mario Laframboise (Argenteuil—Papineau—Mirabel, BQ): Thank you, Mr. Chairman.

First of all, thank you for your appearance, Minister. Like you, I am pleased to see that we finally have a committee where you, as a minister, and I, as the infrastructure critic, will have an opportunity to express our views on this issue.

I must say that you have proven to be very respectful. It is true that you consult people, and I have been a witness to that. We have had an opportunity to have long discussions on the concept of assistance for municipalities. As former President of the Union des municipalités du Québec, I was very pleased to discuss this with you.

Yet, there is one thing that I have some trouble accepting. You seem to be implying that it is the opposition that is responsible for the fact that the infrastructure program and certain other programs will not be implemented in the next budget. That is the opposition's fault according to you.

As I have said to you before, you made a major omission with regard to the concept of dealing with the municipal level. Cities come under provincial jurisdiction. You did make some changes. you respect the jurisdiction of the provinces. Let me give you the example of the province of Quebec. Although the money is available and although the municipal and rural infrastructure program has been available for a year now, there is still no agreement with Quebec.

The same is true regarding the gas tax. There is no agreement simply because the provinces cannot afford to participate in the program. I will grant you they will probably find the means to participate today. It is probable that Quebec will participate in the program.

But if you are trying to have us believe that in the final analysis, it is the opposition's fault that this did not work, you will not succeed. This is because, in the Canadian federation, municipalities come under provincial jurisdiction.

I would even go so far as to say that the municipalities cannot afford to participate in the program alone, without provincial assistance. All the programs will probably be subject to a tripartite agreement, regardless of the share from each level of government. There will be investments from the province of Quebec as well as federal and municipal investments.

I do understand that you are eager to settle this whole issue, but do not blame opposition for your problems. We agree with you as long as you respect provincial jurisdiction, which you have done. That suits the Bloc Québécois. Even the conservatives decided to vote in favour of the budget. So they agree with what you have included.

If the cities do not get what they should, the reason is that you miscalculated from the beginning. The provincial contributions are not arriving on time. The problem can be attributed to the haste with which the prime minister and his government—and not you necessarily—wanted to deal with the cities.

You wanted a high-profile political coup, but you disregarded the fact that cities come under the provinces and that you have to go through the provinces to reach agreements with them. I hope that these agreements will be signed as quickly as possible. If there were change in government, I am convinced that these promises to the municipalities would be respected.

● (1130)

Hon. John Godfrey: Thank you, Mr. Laframboise.

I too wish to thank you for your cooperation and kindness during our conversations. You have raised some essential points.

Of course, we always respect provincial jurisdiction. That is an essential starting point. Our philosophy is that the participation of municipalities, in the context of our tripartite conversations, is the business of each province.

It should be noted that the situation is not the same throughout the country. Let me give you an example of that. In British Columbia, we signed a new agreement last Friday. The province of British Columbia insisted on the direct participation of its municipalities through the Union of Municipalities of British Columbia. That is the choice of that province. It is not up to me to contest its decision to give its municipalities more powers. With all due respect for provincial jurisdiction, I cannot oppose this devolution of powers to the third level of government. The situation is completely different elsewhere in the country, depending on the province or territory. I am simply pointing out that there has been an interesting evolution in this regard.

We are flexible. That is another principle everyone insists upon. We must respect a decision such as that of British Columbia to give its municipalities more powers.

I must also point out that in the past 10 or 12 years, we have been working in very close cooperation with the provinces and municipalities in the area of infrastructure. That is the starting point for the discussions on cities and communities. We are building, thanks to this spirit of cooperation and partnership, and that has been a success story.

I should also point out that there must be a very clear distinction made when it comes to our former infrastructure programs. These were often done on the one-third, one-third, one-third basis. Sometimes, the municipalities had trouble finding their share of the funding.

I must also say that in the case of the gas tax and the New Deal for Cities and Communities, we are talking about 100 per cent federal funding. This is really an innovation. I think that in this case, the municipalities will have no trouble providing their share.

● (1135)

Mr. Mario Laframboise: If you will allow me, Minister, I repeat that the municipalities come under provincial jurisdiction. Of course, if Quebec decided to let the cities deal with the federal government by themselves, that would be fine by me, but it is provincial jurisdiction and you do understand that. That is why I am saying that at the outset, there was a misunderstanding of the situation. Things may not be the same all across Canada, but it is the responsibility of the government to make sure that it understands how Canada operates.

In Quebec, there are over 1,000 municipalities and two municipal unions: one represents the larger cities and the other represents the smaller municipalities. You have seen the tension that exists there. These are not easy issues to solve. But blaming the opposition and saying that if it does not work it is because... If you had understood the situation better from the start, you could have been ready much sooner, and we would not have to deal with these situations. As far as the rest goes, I do understand. However, in your speech, you are playing politics a little; I forgive you for that, but the fact remains that the reality is far more complex than what you state in your document.

Hon. John Godfrey: Thank you.

I would like to say that my colleagues and I will be meeting with the ministers responsible in Quebec, that is, Mr. Audet, Minister of Finance, Ms. Normandeau, Minister of Municipal Affairs and Regions and Mr. Després, Minister of Transport. We will consult them specifically about their wishes, their ambitions, and we will do it with the greatest possible respect.

Mr. Mario Laframboise: Let me close by saying that that is perfectly fine. You must replace the image that you projected at the outset, which was that you would deal directly with the cities, by that of a provincial-municipal-federal partnership. Then you will have the full support of the Bloc Québécois.

[*English*]

The Chair: We'll now go to Ms. Ratansi.

Ms. Ratansi.

Ms. Yasmin Ratansi (Don Valley East, Lib.): Thank you, Minister, for being here.

In your presentation you talk about the government continuing to link the infrastructure with sustainable development and how through excise and gasoline taxes you're providing predictable funding. The biggest problem, and I can talk about Toronto's example, was that municipalities did not have predictable funding.

I was quite interested in Mr. Mills' comments that they would go forward with whatever commitments come through. When I look at the Conservative government that was there during Mr. Harris' time and the downloading that took place, the decay in infrastructure, etc., came through because of all this downloading. There was really no commitment. I'm glad we have the municipalities as partners with us.

My question is this. When you talk about working in collaboration with municipalities and the province, how, for example, would you talk to a municipality, or especially the province, when it comes to waste management? Incineration or waste management is really a provincial jurisdiction and the decisions they make are theirs. In your partnership with them in ensuring Project Green, ensuring reduction, ensuring waste management, how will you deal with them in cooperation? You talked about the Vancouver agreement and the example of best practices. How would you, as a federal government, provide an enabling environment to have the best practices replicated?

Thank you.

Hon. John Godfrey : Thank you very much for two very interesting questions.

To respond to the first one, we'll use Ontario as an example of how we would propose to collaborate with that province. The relevant ministers there are Minister Garretson and Minister Caplan. What we are attempting to do in every case is to have a very good understanding of the sustainability plans of the province and of their municipalities. We want to make sure that when we make these investments through the gas tax we are reinforcing, for example, in the case of Ontario, the greenbelt legislation and plans, the “places to grow” policies of the Government of Ontario. We want to work very closely, and I do, with those particular ministers and with the Government of Ontario to make sure we're not inadvertently undermining their strategies.

[*Translation*]

We will do the same with Quebec, for instance regarding the plan that Montreal proposed yesterday in the area of sustainability.

● (1140)

[*English*]

The first order of business is to find out where they're going and where individual municipalities like Toronto are going, to reinforce their efforts and to understand their priorities. That's how we worked together on a whole range of issues—waste management, municipal transit, and others. That's the first question.

The second question you raise is a much bigger one. How do we collaborate—not simply in municipal infrastructure but across the whole range of federal activities—in social, economic, cultural, and environmental sustainability?

We're going to put into each of our gas tax agreements, as we have done for British Columbia, a place for future collaboration—whether on immigrant settlement, housing, or cultural policy.

One of the transformative parts of this file is coordination. Instead of dealing with a whole bunch of programs coming down disconnectedly from Ottawa, the federal family needs to get its act together at the city level, to coordinate its efforts, so we can work in a better way with our municipal and provincial counterparts. The Vancouver agreement of the year 2000 has 16 federal government departments, 16 provincial departments, and six departments of the city of Vancouver working together for community, economic, and social development. They also work on projects like improving the downtown east side. How do you pull together all the agencies involved in that troubled part of Vancouver to get more collaboration and measure the outcomes? Are people healthier? Is it safer? Are businesses thriving? We think this model could be applied right across the country, wherever provinces and municipalities want it.

I think Mr. Jean would like to have an urban development agreement in his community. That's going to be something we want to work on with him and our provincial partners. That's the way of the future: tripartite, respectful collaboration to tackle common problems.

The Chair: Mr. Wilfert.

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

This is my twentieth year in public life. Had you told me 20 years ago that I would be sitting across from the Minister of State for Infrastructure dealing with the urban agenda, I would have probably done more than laugh. The previous Conservative government laboured on the Federation of Canadian Municipalities' plan for national infrastructure, which was introduced in 1983 and lay dormant until 1994, when the previous government decided to implement it. This was the Canada infrastructure works program.

Minister, that was probably the best infrastructure program we've had. It was the easiest to administer. It was clear: one-third, one-third, one-third. You then had the Infrastructure Canada program of 2000, of which 50% was to be targeted towards green projects. I would like you to give me a quick evaluation of how successful that 50% target was in public transit, waste water treatment, solid waste, and so on.

As a national government, we have invested $12 billion over ten years, of which we have leveraged a great deal. I am a former president of the FCM, and I read their communiqué the other day on the climate change plan, which they are very strongly in favour of, including the climate fund and the partnership fund. They say at the end: “Since these and other significant benefits can only be realized if the federal budget is passed, we urge all parties in the House to bring this about as soon as possible.”

Some may want to play political games, but for the Conservative Party, the old Reform Party, who never supported the national infrastructure program...to suggest that they are suddenly willing to adopt everything we have is a switch on the order of Paul on the road to Damascus, on the order of their deciding to support Kyoto.

I would like to put that on the record. I would also like the evaluation I mentioned. And I would like you to tell me whether your department has done, or plans to produce, a sustainable development strategy.

● (1145)

Hon. John Godfrey: I hear three questions. I'm going to take one and I am going to allow my colleagues to have a turn here also.

On the budget, it's simply technically true that if we don't pass the budget, the money can't roll, until somebody else passes a budget to the same effect. It would simply mean a delay in getting the money.

I would say as well that it is our priority, and always has been, to sign these things as fast as we can; it's not just because we happen to be in this season we're in, as it was always going to be a busy spring, and we are carrying on as if we're following through on all of that.

As for the two other questions, I'm going to let the deputy take the question on the agency's own plans for sustainability, and then I'll let Madame Cléroux discuss a little the effectiveness of our previous programs in meeting sustainability goals.

The Chair: I'll ask both of you to keep it within two minutes, because we're running out of time

Mr. André Juneau (Deputy Head, Infrastructure Canada): I'll be very brief, Mr. Chairman.

Because we're a young organization, we decided to integrate our approach to sustainable development inside the documents destined for Parliament, for capacity reasons, rather than produce a separate sustainable development plan.

Mrs. Cécile Cléroux (Assistant Deputy Minister, Program Operations, Infrastructure Canada): As for the ICP, or the Infrastructure Canada program, we're happy to tell you that the green target has now been reached—it's 52%—which doesn't include urban transit. At that time, the definition was only water, waste water, solid waste, and energy efficiency, but if you included urban transit, which is another 10%, we would be at 62%. So when you compare it with the new definition we have of the green target and the new program, the municipal-rural one, the target has already been reached in the Infrastructure Canada program.

Hon. Bryon Wilfert: Mr. Chairman, I think that's important to note, given the fact that we are pushing.... The Minister of the Environment, particularly, has made it very clear that having part of the gas tax directed clearly at environmentally green projects is critical. I'm glad to hear that information.

I wanted to talk about the safety net issue in the new deal. I know it's not counted in our GHG emissions. I think you alluded to part of that, and maybe in the next round we'll be able to get into that.

Thank you.

The Chair: We'll leave it at that, which is a good entree for Mr. Cullen, who will take the next ten minutes.

Mr. Nathan Cullen (Skeena—Bulkley Valley, NDP): Thank you, Chair.

Thank you, Minister, and your deputies, for coming today.

Minister, I don't doubt your obvious and long-held enthusiasm for issues around the environment and greenhouse gases. I applaud your use of the municipal system to carry out some of the ambitions the government may have, seeing that municipal spending is much more effective than federal use of money in terms of its direct application and in changing people's lives.

I must say, I was disappointed by your opening comments that began the partisan ball rolling, which has frustrated many Canadians on this issue, as to which party is going to kill plans and which is going to make things happen. This committee, generally speaking, works in a very non-partisan way, but I suppose that as we approach the fever pitch of election time, so does the intensity of who's going to be more green.

I want to get into some specifics today. With respect to urban transportation, how much is allocated for that by your ministry in this year's proposed budget?

Hon. John Godfrey: Just to understand the question better, do you mean from existing infrastructure programs or do you mean from the new gas tax money?

Mr. Nathan Cullen: How much has been allocated this year for urban transit, coming from your ministry, either new money or current money that's been allocated?

Mr. André Juneau: Mr. Chair, we don't operate on an annual allocation but on the basis of projects we select in collaboration with provinces, and cities sometimes, in the case of strategic infrastructure.

Running through the country very quickly, I could tell you in what cities we have public transit projects. It will just take me a second. In Vancouver, we have the RAV Project, and we could tell you—though I couldn't right now—how much money it is going to receive this year. We agree on multi-year funding for those projects, so we don't do it on—

● (1150)

Mr. Nathan Cullen: Just for accounting and transparency purposes, which I think are important to Canadians right now, I want to understand how much funding your ministry has allocated in total or across the board this year for urban transportation.

Mr. André Juneau: Well, we'll have to do the numbers and get back to you.

Mr. Nathan Cullen: Do we know right now?

Mr. André Juneau: Off the top of my head, I'd have to add up a series of four or five projects, because we don't actually operate that way.

Hon. John Godfrey: The deputy will certainly correct me if I'm wrong. I hope he will. Basically, programs like RAV—let's take that one—are funded over a number of years. Actually, the money only flows for that particular infrastructure program after we receive invoices for work done, although we do pay out in milestones for RAV because it's a private-public partnership.

So what we could describe to you in a document, and we'd be pleased to do it, is that over the next ten years, these are the projects that are dedicated to public transit and here's the amount of money. It's a little difficult to predict the annual flow rate because in many cases, such as for the Toronto Transit Commission, we only pay when we get the bill. So if there's a delay in the bill, the money doesn't actually go out the door. But we can describe it in terms of multi-year commitments, if that would be helpful.

Mr. André Juneau: Just to pick up on your transparency point, in our parliamentary documents there is an amount of money that is our estimate of how much we will be reimbursing a series of projects. We could break that down for you by project so you could see which ones are public transit.

Mr. Nathan Cullen: If you could submit that to the committee, that would be appreciated.

Minister, I understood your point earlier with respect to not being able to allocate and not having allocated the actual tonnage of greenhouse gas reductions that are expected for government expenditure. This is difficult for me to hear in light of the recently released Project Green plan. A lot of the criticism that has been lobbed at it from many sides has been the lack of specifics, in the sense that it's not a plan but is more of a discussion paper about where we're headed.

I'm wondering, after this many years of promises about the need for and the importance of a reduction of greenhouse gases made by your government, and when after a commitment to reduce by 20% we've seen an increase of more than 20%, why, in the context of an unspecific plan and the inability to measure specific reductions through government investment, Canadians should trust this effort any more than we've trusted efforts in the past.

Hon. John Godfrey: I think the answer is that one of the important things, to be honest about what we're really achieving through any Kyoto strategy, is that we don't double-count. So, for example, as you've heard, though we've invested in a number of projects like public transit in the past, frankly, there's a certain lack of methodology for how much you can attribute to those investments, specifically in terms of a reduction, because it obviously ties in with a whole bunch of other things, such as land planning use and whether you're going to have higher parking fees downtown.

So that is a challenge. Measurement is a challenge. We are working very closely, though, with Environment Canada to understand better how we can capture that in a way that is transparent and real and is not double-counting.

For example, in the British Columbia agreement, which would be of interest to you because you're one of the communities being affected, we specifically say that we are going to measure outcomes in terms of reduced greenhouse gas emissions. We also talk about two others: cleaner water and cleaner air.

We are going to have to work very closely with Environment Canada to figure out a bulletproof, transparent, simple way of accounting for improvements that are made owing to our investments.

Mr. Nathan Cullen: Minister, just to interrupt your train of thought, why would that accounting practice not have been worked out prior to the announcement of the investment?

No company or organization would declare an expenditure for a perceived gain without working out the basic accounting. And I ask this question in all sincerity, because we have to be able to go back to Canadians, and I'm meant to say that we have things under control. Without proper accounting practices for what it is that the investments will achieve, how is it that as we approach 2008, 2010, we are going to be doing anything but buying international credits to make up for shortfalls because we just don't know how...? If you can't measure it, you can't account for it, and that's the whole point of Kyoto, is it not?

● (1155)

Hon. John Godfrey: Look, as one of the biggest supporters of Kyoto, I entirely agree that measurement is crucial—honest measurement, not kind of making it up. One of the challenges is that when you get to a complex system like urban transit, in order to maximize the effects of reducing greenhouse gases, simply buying buses in itself does not necessarily produce a noticeable effect. It has to be done in the context of a demand management plan that would, for example, have dedicated lanes for buses, if that's how you're going to do it, and that would, as the Montreal plan did yesterday, reduce the number of parking spots in downtown Montreal by 2,000. In other words, a complex series of measures would have to be taken to produce a discernible effect—getting people out of their cars and onto public transit.

In order to give credit to the investment itself—because it's a complex system that will have an effect—you have to be very careful that you don't think there's a simple equation: if I buy ten buses, I'm going to get so many tonnes. We have to work on that with Environment Canada. I think it would be superficial, unhelpful, to go around making vast claims that cannot be substantiated in exactly the way that you would want and I would want and Environment Canada would want, and that's part of the challenge of Kyoto. I guess we have to learn from international experience how to do this stuff best. But I entirely agree. You've got to account properly.

Mr. Nathan Cullen: I have two questions. I want to step to smaller communities, so maybe I'll make this one brief.

The curiosity and the confusion I have is that it's not as if this issue is new. It's not as if we haven't been thinking about a Kyoto plan for many years. Coming to this point and still needing to work on something as basic as the measurement is a confusion to me as to why this is.

This is not new. This is 2005, the time we come into Kyoto, and not having a measurement plan leaves me with a great deal of uncertainty as to the effectiveness of whichever plan, considering the number of years we've had, or you've had, to put something effective together that would be measurable and produce results for investment.

I want to step to small communities for a moment. I'm curious. Has there been any move within your department to address what I'm hearing from small municipalities and villages around the country, that the one-third split for many of the investment projects is untenable for a number of reasons—particularly for smaller communities whose tax base has been hit, communities that have been suffering economically, and the inability of those communities to be on a level playing field and compete with communities, say, in the 100,000- to 150,000-person range, which have experienced and dedicated staff to write the proposals, which are often complex, and do the accounting, which is often complex? Is there anything in your ministry to make up for that shortfall that smaller communities face?

Hon. John Godfrey: One of the things we recognize, which is recognized particularly in the municipal and rural infrastructure program that we're just rolling out across the country, is a lack of capacity in smaller communities.

So with the agreement of municipalities and provincial governments, we are setting aside a certain amount of money for capacity building simply to address that, because often, as you'd know in Smithers, where you come from, the mayor is probably a volunteer or he's doing it part time. He has another daytime job. He doesn't have the ability to make those long-term plans. We recognize that.

Madame Cléroux wants to say something.

Mrs. Cécile Cléroux: In the agreements we have signed up to now, for the MRIFs, most provinces have a provision for the challenged municipalities. So if there is an assessment that the municipality cannot face the fiscal challenge, we have provisions to be able to cover the two orders of government. But an assessment has to be done first.

So you have the two sides: the question of the municipal capacity, which we can increase, and the question of the provision, fiscally, to be able to face it.

Hon. John Godfrey: The only principle we would insist on under MRIF is that the federal and provincial shares or the territorial and federal shares be the same, but they can go up to help fill the lack of fiscal capacity.

But note well that in the new plan and the gas tax money, it is 100% federal money and it is distributed in a way—for example, in British Columbia—such that no community gets less than $25,000, and then there's a certain amount that is dedicated to regional projects and all the rest of it.

So we've tried to be sensitive to the needs of smaller communities, and we will continue to do that right across the country, because—I cannot overemphasize this—it is crucial that the federal government be as sensitive to the needs of smaller communities as it is of the cities. It is so tempting to write them off, underestimate them, or downplay the interconnectedness of the large and the small in this country. I must say, my visits have convinced me that if small communities do not thrive, large communities won't either, because there is kind of a hydrology that links them all.

● (1200)

The Chair: We'll leave it at that. Thank you, Minister.

Mr. Jean, you have five minutes.

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

Thank you, Minister, for coming here today and presenting in front of the committee. I accept the challenge you put out. I accept it on behalf of the constituents in Fort McMurray. I put a challenge back to you, sir, and the challenge is that the constituents in Don Valley West rise to the challenge of treating the people in my constituency equally. That's all we're asking for, some equality.

What you're telling us today reminds me a lot of the story of Marie Antoinette when she says, “Let them eat cake”. I say that because I do have a lot of respect for you, sir, and I know you have a lot of control over the money that goes into communities.

With regard to my constituency, I want to once again tell you, as I did in your office some time ago, that we have the hottest economy in Canada right now. We have $86 billion in investment, some 30,000 to 50,000 jobs that are going to be going in there in the next 10 years. In fact, now I understand the government is talking about bringing in 20,000 workers from South America because there's such a shortage of workers in that area, which is totally unfortunate because we have unemployment across Canada.

I'm very concerned, sir, about how my constituents address climate change, because I think they're concerned about more important things at this stage. Maslow's “hierarchy of needs” speaks to this. We have 91 hospital beds for 70,000 people. We have 19 doctors for the same amount of people. Mobile homes go for $350,000 each. There are no lots for sale. We have one-bedroom apartments that rent for $1,500 a month. Raw sewage is flowing into our rivers because we do not have infrastructure enough for what we have.

RCMP officers have three times the amount of files of the national average. One RCMP officer patrols 1,000 square kilometres of property in northern Alberta. Our businesses are closing down, left and right, because they can't find employees. We have the highest wage per capita, but that's only restricted to the plant workers, who are 15,000 to 30,000 people. The rest of the people cannot afford to live there. People in my constituency are worried about food, shelter, and safety. They do not have that, sir.

So I put that challenge back to you. When you talk about Toronto, Edmonton, Calgary, Vancouver, Regina, and Montreal, I think that's fine, sir, but you don't talk about Fort McMurray. You don't talk about what's happening in northern Alberta to High Prairie with collapsing sewers, to Lac La Biche with a lake that is so stagnant people can't even swim in it.

I, sir, want to ask you one question. When do we get the cheque? How much is it going to be? If you want a bill, I can give you one right now.

Hon. John Godfrey: Let me answer the last part first.

In terms of gas tax money for Fort McMurray—Wood Buffalo, if that's what you're asking, the good news is that both Lyle Oberg, the provincial minister, and the premier indicated earlier this week, I think in *The Edmonton Journal*, their eagerness to be one of the early signers of the new deal. We are, of course, anxious to oblige them. There has been a good deal of cooperation with the municipal associations in understanding how the division will take place between Calgary, Edmonton, and the rest of the province.

So I'm relatively optimistic about our ability to have an agreement fairly shortly with Alberta, which of course then means that your community will have some sense of where to go with all this. You don't have to send a bill because we're going to pay you money in advance, which is even better than the usual press plan.

There are two things that rise out of your comment that I think are really important. One is that the various things you list, whether it's sewage, housing, or the RCMP, show that a number of federal government departments have to contribute to the challenges and the solutions you're talking about. That speaks to the importance of a concept, as Yasmin Ratansi spoke of, something like an urban development agreement that would mobilize the resources of the town, their new mayor, and the local member, Guy Boutilier, and you. So we need to think about that.

At the same time, the fact that it's a growing, resource-driven community raises another set of challenges that we have to think about, not only in Fort McMurray but in places that will be affected by the Mackenzie Valley pipeline, like Inuvik, or Faro, or any of these places where there's a boom or a bust. We have to sit down and work out with all the players what is the long-term sustainability plan for this community.

One of the legacies, the not-so-good legacies, of our past is our inability to plan for resource booms. So communities like Faro in the Yukon get overextended, and then you're selling off houses for $10 each and you're left carrying the bill. So part of the challenge is working with the local community in doing that long-term planning for sustainability that captures all the economic benefits, answers the social challenges you raise on housing, and the infrastructure challenges you raise on sewage, but leaves behind a better community, whatever the future of the resource. We've talked about that.

● (1205)

The Chair: Thank you.

I'm going to have to get some direction from the committee, because the minister has indicated that he is here till 12 p.m. We've gone over the time. I've extended to try to allow some flexibility.

I knew you wanted to get that question in, Mr. Jean, but I also need some consent here. What is the committee's desire? Mr. McGuinty has a question and Mr. Simard has a question. We do have Natural Resources here. Can we agree that we go till 12:15 p.m.? That will give Mr. McGuinty and Mr. Simard their questions, and then we'll close it at that. Okay.

Mr. Jean, make it real quick, please.

Mr. Brian Jean: I just want to clarify. We need $1.2 billion. That's what we want, sir. That's what we need. I know you're aware that Alberta provides 75% of the equalization payments and 25% is provided by Ontario. Of that 75%, northern Alberta provides a huge amount that goes to the rest of the country. Seventy-five per cent of equalization payments come from Alberta. I just want to make that clear.

The mayor is coming to meet you, sir, and I'm hoping she's going to be able to pick up the cheque when she gets here.

Hon. John Godfrey: I look forward to meeting her.

The Chair: I think some strategic planning with respect to those infrastructure programs and the green funds from FCM and so on needs to be brought together in terms of that.

Mr. McGuinty, and then Mr. Simard.

Mr. David McGuinty (Ottawa South, Lib.): Thank you, Mr. Chairman.

Good morning, Minister. It's good to see you. Mr. Juneau, it's a pleasure again.

I want to pick up on a point I raised with the Minister of the Environment when he met with us recently. It's a bit of a plea to put a marker down for the next budget. I'm looking forward to passing this budget, and I'm sure the opposition parties are as well, despite the comments made by Mr. Norquay on the national news just an hour ago on behalf of the Conservative Party about doing infrastructure deals differently. I'm not sure what that means, Minister, but I'm looking forward to seeing an expansion of it.

The marker is about a brownfield redevelopment strategy for the country. I know you mentioned it in your remarks, and I know we are moving actively as a government for federally owned sites. It's perhaps a plea to carry it forward in the next round of budget-making, to examine the notion of a national brownfield redevelopment strategy that has a number of constituent parts. One is simply identifying the 30,000-odd sites we have; the second is some fiscal measures that are federal in nature, which would help overcome some of the financing difficulties in the front end of these sites; and the third is a provincial piece of the puzzle, where lender liability regimes are being revisited in jurisdictions like Ontario, B.C., and Quebec. Together this strategy can unleash quite an important impact in the Canadian economy, something that Finance Canada has agreed has a multiplier effect of 3.2 for every dollar invested.

I know this is in the system. It's been fed into Finance and other departments. I was hoping to put a marker down, simply, Minister, for your consideration for the next budget-making process because of the overwhelming economic generator capacity of this and the fact that most of these sites are sitting in our fully infrastructured urban centres. I just put that to you for your consideration.

Hon. John Godfrey: Thank you very much.

I have to thank you in turn, because in your previous life you headed up the National Round Table on the Economy and the Environment. I suppose one of the last things that went out the door before you changed careers was the brownfield recommendations.

When I became minister, I was so impressed by that report, as well as the previous report, which Mike Harcourt had done on sustainable communities, that I asked the department to give all of the recommendations, not just the ones that pertain to us, detailed consideration. I also asked that we liaise very closely with the Department of the Environment. Because we work so closely with the Department of the Environment, it's less important as to who, as it were, takes the lead on the file, that we both understand the file and be supportive. I want our department to be a centre of excellence and knowledge on brownfield, even if it turns out that, for example, it will be the Department of the Environment that takes a more active lead, as they already are on federally polluted sites.

We have in-house expertise already through Canada Lands. Canada Lands has taken over military bases, which they've cleaned up and remediated, and indeed industrial sites like the Moncton rail yards, and they've turned them into spectacular successes, like the Garrison Woods in Calgary, and so on. We want to leverage off that. We want to work in partnership, both to promote the wider agenda, which includes the fiscal measures, the tax measures, the risk issues you described, and to be able to figure out how to work with the new announcement of funds for brownfield sites, which was announced in the budget as sort of an extension of green municipal funds.

So we are entirely on the same page. We will work on many projects, whether it's going to be the port of Montreal or whether it's going to be working in downtown Calgary on brownfield sites. We see this as having a huge upside potential, but we have to eliminate some of the barriers you described.

● (1210)

Mr. David McGuinty: Thank you very much, Mr. Minister

The Chair: Thank you, Mr. McGuinty.

Mr. Simard.

[*Translation*]

Mr. Christian Simard (Beauport—Limoilou, BQ): Minister, you said in your speech that in total, 50 per cent of the Infrastructure Canada program and 60 per cent of the municipal-rural infrastructure program would have a positive impact on the environment. If I wanted to be nasty, I would ask you if that means that 50 per cent of the projects in the first program and 40 per cent of those in the second will have negative impact on the environment.

Getting back to something a little more serious, but in the same vein, I would tell you that I always find it funny when such statistics are bandied about. I think that this represents a major challenge for your department. It is capable of the best and the worst when it comes to the development of sustainable communities.

Let me ask you a question that is in the briefing notes provided by the Library of Parliament, not out of laziness, but because I think it is a relevant question. Will Infrastructure Canada undertake to produce a sustainable development strategy? Because it is an agency, it is not compelled to do so by law. Will it submit a report to the Environment Commissioner, specifically to ensure that there is consistency between municipal interventions? It is possible when building a road to contribute to urban sprawl on the one hand while promoting public transit on the other.

Hon. John Godfrey: I think there are two answers to your question. There is the one concerning the department, and then perhaps Ms. Cléroux could give you details about our overall policy regarding environmental assessments, reports, and so on.

First, we will give the floor to the deputy minister.

Mr. André Juneau: You are right when you say that our agency is under no obligation to produce a report. To be honest, this situation suits us quite well because our organization is small and is not really equipped for that. We therefore decided to incorporate our intentions regarding sustainable development in the documents that we must prepare for Parliament, for instance, our performance report and the report on plans and priorities. This enables us to incorporate these intentions into the overall activities of the department. We hope that by proceeding in this fashion, we will be perceived as complying with the spirit of the Commissioner's requirements.

Mr. Christian Simard: That reply is worthy of Salomon: yes and no. You are going to do so without doing so.

Mr. André Juneau: We have already done that in the case of some documents, and we will continue to do so.

Mr. Christian Simard: I will now change the subject, although this may complement what has already been said.

I would like to make you aware of the fact that it is possible to encourage urban sprawl and the use of automobiles on the one hand while remaining very green and encouraging the use of public transit on the other. These things will have to be reconciled sooner or later. I am not sure it is sufficient to refer to sustainable development all over the place in order for it to appear all by itself. If you wish, you may come back to that subject later.

I am the housing critic for the Bloc Québécois. There is an excess of federal buildings and in some cases they are owned by National Defence. We are talking about housing that is not being used by the military or houses that have not been renovated. In Quebec city, for instance, there is a military neighbourhood where almost all the housing is empty. And yet, this is a city where the housing vacancy rate is very low.

I know that in the Canada Lands Company you have a bidding system that allows you to dispose of surplus properties. Would it not be appropriate for you to promote housing? You would not necessarily have to accept the highest bidder: the practices of the Canada Lands Company could promote social housing. Have you given this any thought?

● (1215)

Hon. John Godfrey: Ms. Cléroux or Mr. Juneau may want to add something, but for my part, I can say that in its projects, Canada Lands is very sensitive to other needs, including social needs. Look at the example of Benny Farm, in Montreal. We are very sensitive to the current inhabitants. We have improved our practices. In the beginning, the picture was not all that rosy, I must admit.

The situation is the same for the former military bases that we are currently redeveloping throughout the country. We do not want to lose these resources, and we do attach importance to our social obligations. That is why I always talk about an overall vision of sustainability that includes environmental, social, economic and cultural components. Without that, we run the risk of not doing our best as a government and as a society.

Mr. André Juneau: We will nevertheless look into the situation in Quebec city.

Mr. Christian Simard: I would greatly appreciate an answer on that. Thank you.

[*English*]

The Chair: Thank you, Mr. Simard.

Thank you, Minister. We appreciate you and your colleagues being here and once again providing your insights with respect to your portfolio and the strategic infrastructure programs and the gas tax and how all that relates to sustainable development and the Kyoto objectives.

We appreciate that. Thank you for being here.

Hon. John Godfrey: Thank you very much, and I'm pleased to come back anytime and share information with my allies—all of you.

The Chair: I hope that what you dreamed for is what you got, and that it wasn't a nightmare, as others might see it. Thank you very much.

We're going to have to continue, Minister. If you and your officials could make an expeditious withdrawal, we'll have the representatives from Natural Resources here, please.

Appearing before us this morning is Graham Campbell, director general from the office of energy research and development, Department of Natural Resources.

Welcome, Graham. It's good to have you here.

Accompanying Mr. Campbell are Carolyn Preston, Mondher BenHassine, and Bill Pearson. I think you were here when I explained what the routine is.

Perhaps, Mr. Campbell, you could lead off, if you wish, or whomever, and then we can go into our question period.

Mr. Graham Campbell (Director General, Office of Energy Research and Development, Department of Natural Resources): Thank you very much, Mr. Tonks and members of the committee.

The purpose of the briefing this morning is to provide the committee with information and a forward-looking perspective on the topic of research and development on CO_2 monitoring and storage at EnCana's Weyburn oil field near Regina, Saskatchewan.

[*Translation*]

We are excited about the prospects for this technology since it offers a very promising pathway towards making significant gains in reducing the emissions of CO_2 in the near future.

There has been a concerted effort on the part of industry, government and academia, at an increasing pace over the last decade. This work has been focused on solving the remaining technical, scientific and regulatory challenges so that this technology attains international recognition and acceptance as an economically-viable and safe mitigation pathway.

● (1220)

[*English*]

So what's involved in CO_2 capture, use, and storage?

In general terms, CO_2 capture and storage technology involves a series of interconnected components. First is the capture, treatment, transportation, and injection of carbon dioxide into suitable deep geological formations. This is followed by the use of technologies to track the movement of CO_2 in the subsurface and to verify the quantity stored and the integrity of the storage over the long term. Also included is the proper accounting of the stored volumes for compliance purposes and to monitor leakage to the surface.

[*Translation*]

Estimates of the total theoretical storage capacity are impressive—up to 450 megatonnes in oil fields where CO_2 is used for enhanced oil recovery, and over 5,000 megatonnes in deep brine formations.

Why is CO_2 capture and monitoring important?

First of all, this is a promising technology pathway for mitigating emissions arising from the production and use of fossil fuels.

Secondly, research and activities associated with the monitoring, measurement and verification of CO_2 which has been injected and stored is critical to establishing the credibility of this technique.

Finally, it is important to note that we see CO_2 capture and storage as but one component of a suite of actions to achieve the sustainable development and responsible end-use of our energy resources. It will work in tandem with measures to reduce energy demand, to increase energy efficiency, and to diversify Canada's fuel mix to a greater degree by introducing widespread use of renewables.

[*English*]

Research issues remain. These include: reducing the cost of capturing CO_2; demonstrating the safety and long-term security of geological storage; identifying the regulatory factors that should be considered for the operation, abandonment, and long-term monitoring of geological storage sites; determining capabilities and requirements for monitoring to manage long-term liability for industry and the public sector; and finally, ensuring that the public understands this technology and its implications as a step towards comfortable public acceptance.

To assist in the identification of needs and priorities for further research, work is under way on the preparation of a CO_2 capture and storage technology road map, which will be used as a planning document. This road map will reflect the advice and recommendations received from industry, government, and academic stakeholders at large through a series of workshops and special studies that commenced in August 2002. Publication is expected in June 2005.

With this brief background in place, I'd like to move on to the Weyburn project itself. I'll start with a description of the commercial oil field project and then talk about R and D and geological storage and monitoring.

The Weyburn field began production in 1964. Production was followed by significant field redevelopment using a number of new technologies, such as infill drilling, water injection, and horizontal well technologies. In 2000, EnCana Corporation launched a project to enhance oil recovery by injecting CO_2 into the reservoir. The operation is expected to continue until 2030, by which time some 130 million barrels of additional crude oil will have been produced and up to 20 megatonnes of CO_2 will have been stored in the reservoir. This increase in production is worth noting—an increase of roughly one-third in comparison with the recovery anticipated using the previous techniques.

Such EOR projects also provide an ideal platform for geological study and for monitoring of the subsurface movement of CO_2. This is done to assess the permanent potential for storage and secure sequestration in the subsurface. The IAE Weyburn CO_2 monitoring and storage project was launched in July 2000 as an integral part of EnCana's oil field development. Partnership has been a hallmark of the project from the outset. Expertise in funding was provided by 15 sponsors from government and industry. The project would not have been possible without the excellent cooperation of over 20 research organizations and a significant in-kind contribution by EnCana. Total investment over the four-year period was $41 million in cash and in-kind combined.

The research called for a fully multidisciplinary approach. Research activities in the project were divided into four broad themes that brought together leading-edge science and engineering expertise. The first theme is analysis of the local and regional geology. A sound picture of the geological setting in the reservoir was essential. The principal aim was to assess the integrity of the geological container for effective, long-term storage. The main conclusion of the geological analysis was that the setting at Weyburn appears to be highly suitable for long-term storage.

The second phase of the work was prediction, monitoring, and verification of CO_2 movements in the subsurface. This part of the project involved research into how the injected CO_2 spreads underground through the reservoir and how it interacts with the reservoir rock and the reservoir fluid it meets. Scientists here use chemistry, computer simulations, and geophysical surveys, which look into the subsurface, to track the movement of the CO_2 through the reservoir. The results included a series of maps, which show how the CO_2 moved from the injection wells through the reservoir. A significant positive observation was that there was no evidence that detectable amounts of CO_2 were moving into adjacent geological layers, or above the reservoir, or to the surface.

Third, storage capacity analysis focuses on making an estimate of the maximum storage achievable at a storage site.

The fourth and final phase of the work was a risk assessment. This was undertaken to evaluate and identify the risks associated with geological storage and to assess the reservoir's ability to securely store CO_2. The timeframe chosen for this analysis was 5,000 years.

The general conclusion of the risk assessment was that the geological setting at the Weyburn field is highly suitable for long-term storage of CO_2.

● (1225)

[*Translation*]

The first phase of the Weyburn Monitoring and Storage project ended upon the release of a summary report in September 2004.

The project achieved very encouraging results. A suite of leading-edge monitoring and verification technologies were developed and successfully applied.

Canada has achieved a world-leading position in the field of monitoring and verification. The project has fostered the development of Canadian expertise.

The technologies may be applicable to many sites around the world.

Effective integration of all elements of the project within and between technical disciplines and EnCana's high level of cooperation were critical to the successful outcome of the project.

The leading sponsors from industry and governments involved in Phase I have developed the ingredients for the next phase.

A key question remains unanswered: what are the key barriers to more widespread application of geological CO_2 storage? This will require a broadening of the scope of the project to cover business, regulatory, technical and public communication issues.

In parallel to the leading sponsors planning, the Petroleum Technology Research Centre, the PTRC, in Regina, is working with research scientists involved in the first phase of the project to develop a technical portfolio of projects to meet the needs expressed by the sponsors.

The final phase of the project will be launched shortly.

[*English*]

The environmental and economic benefits of CO_2 capture and storage will only come as a result of widespread and safe application of the technology. Our vision is a CO_2 system in Canada integrating capture from point sources in industrial plants and fossil fuel generation; transportation between source and point of use by a network of CO_2 pipelines; economic use and application of the CO_2; and a secure and quantifiable storage protocol that is publicly accepted, appropriately regulated, and internationally recognized. This activity would start in EOR projects, which help recover more oil and gas from today's reservoirs and possibly also storage in deep brine formations in the near future.

The research and development programs at Weyburn and those described in the technology road map—soon to be published—and parallel work on regulatory frameworks and public awareness are designed explicitly to help make this vision a reality.

I hope these opening remarks and the briefing material we provided earlier have addressed the areas of interest to the committee. We would welcome any questions you may have this morning.

With your permission, Mr. Tonks, I'll call on my colleagues to help with the answers. I'll introduce Dr. Carolyn Preston, the manager of strategic planning and special programs at the CANMET Energy Technology Centre in Devon, Alberta; Mr. Mondher BenHassine, the senior adviser on CO_2capture and storage at the energy policy branch; and Dr. Bill Pearson, the engineering group manager at the CANMET Energy Technology Centre here in Ottawa.

● (1230)

The Chair: Thank you, Mr. Campbell. When we go to the questions, perhaps you can help to redirect the questions as appropriate to your colleagues.

Mr. Mills.

Mr. Bob Mills: I guess CO_2 sequestering and capture and so on are what I see as a major part of any environmental plan and certainly a clean air plan we might have.

I'm quite interested to know, first of all.... I'll just ask a series of questions and you can probably fit the answers together.

I wonder about the technology for capture of CO_2. I know the Alberta Research Council has done some work on it. I'm sure you are aware of that. I've talked to them about the feasibility, for instance, in our tar sands of the capture of CO_2, of pipelining it to.... In my area we take water out of the river to increase oil and gas recovery. That's fresh water gone down the hole.

I wonder what kind of technology...where we are in terms of some major pipelining of CO_2, some major capture from our coal-fired generating plants—all of those things.

Is it true that using CO_2 is 30%—that's the figure I've been given—better than using water? I know it must vary by where you are and the nature of the bed and so on, but is that a reasonable figure? That's what they say in Wyoming, I believe, in a study that I read down there.

I wonder about the economics. What does the price of oil and gas have to be to make it economical to use that as a sequestering project? Am I correct in saying that the western geological formations are better for storage of CO_2 and that that is not possible in eastern Canada because of the geological formations, because they're fractured and so on?

I've asked a whole bunch of questions. I am obviously pretty interested in CO_2 sequestering.

The Chair: Mr. Campbell, would you like to answer?

Mr. Graham Campbell: Thank you very much, Mr. Mills. Those are interesting questions.

Perhaps I'll turn for the technology related to capture to my colleague, Dr. Bill Pearson, and with respect to oil recovery and what you can expect from CO_2versus water, perhaps Carolyn Preston can help.

With respect to the most favourable geological sites, what we're really referring to here and relying on so far is parts of our country that have a fixed section of sedimentary rock, and that's certainly true in western Canada. Starting at the shield and heading into the mountains, we have tremendous thicknesses there, and what we're hoping to show with this research is that CO_2 could be put away permanently, with the assurance that it will stay put, and we can measure the volumes going in.

In the central part of the country in proximity to the Canadian Shield, usually the sedimentary section is not that thick, so you don't have the luxury of being able to put it away in that fashion. However, there are a number of industrial operations in the heartland where you might be able to use the CO_2 for industrial purposes, rather than having to worry about putting it away. So there's some balancing there.

Continuing eastward, certainly in the maritime provinces there's interest in using the CO_2 to get coal-bed methane out of the coal measures that exist in the province of Nova Scotia, for example. There's been research done in that area. And then farther offshore, of course, we pick up the thick sedimentary section again, and there may well be opportunities there.

What it boils down to, though, is that you really need proximity between source and storage site. You can't afford to move it across the country, nor do we have the transportation infrastructure to do so.

So in western Canada, Saskatchewan and Alberta, we have the happy circumstance of not only a thick sedimentary section that we can work with, but we also have fields that could produce more oil as a result of injecting CO_2 into them, and you've got sites there from either coal-fired plants, oil sands operations, or industrial sites, etc., that can be very usefully put away in that sense.

Let's turn to the technical points. Bill, I wonder if you could speak to the technical question about the capture costs and what some of the major capture technologies are.

● (1235)

Mr. Bill Pearson (CANMET Energy Technology Centre, Department of Natural Resources): Thank you, Graham.

Capture is one of the biggest challenges in the initiative for CO_2 capture and storage. It represents the major cost. As a result of that we did undertake a road map called CO_2 capture and storage. We've been consulting with industry and academia, including the Alberta Research Council, on what technologies are needed, what the costs are, what new technologies could be put into place to improve it, and what research and development and demonstration work is required to keep this opportunity in the portfolio for climate change.

In that respect there are basically three fundamental technologies that are being looked at. One is a pre-combustion technology, and in the literature you'll see it defined as gasification facilities. What one is trying to do is in terms of taking solid fuels and turning it into gas. Once that fuel is turned into a gas, one can then clean it up. There are add-on technologies that can be put onto that gas stream to, in essence, change the gas into two products: hydrogen and CO_2. Once you have the hydrogen and you use that as your energy source, the byproduct of hydrogen is water, so it's a very environmentally friendly outcome. The other byproduct is CO_2 in a relatively pure stream. Then you can basically take that CO_2, compress it, and use it in opportunities like EOR, or coal-bed methane production, or just store it in saline aquifers.

The other technology we're looking at is a post-combustion technology. This primarily looks at retrofitting existing facilities. What happens when you burn any fossil fuel is you're oxidizing that fuel with air, and air comprises about 79% nitrogen. You can see that any flue-gas stream that comes off anything you burn is roughly 20% CO_2 and 80% nitrogen. There are solvents that will go in and selectively attach themselves to the CO_2, which will allow you to have the nitrogen stream come off. Then you can regenerate those solvents with heat and push the captured CO_2 off into a pure stream.

The last one is oxy-fuel combustion. As I mentioned, most of our combustion processes now use air for an oxidant. The other approach is to say, why don't we separate the oxygen from the air before we combust, and then we'll end up burning the hydrocarbon, which is either hydrogen or carbon molecules, and you end up with basically water and CO_2 coming off that stream.

The Chair: That line is up, but I do want to allow Ms. Preston the opportunity to answer your other question on the economics.

If we could finish that, Mr. Pearson, we'll go to Ms. Preston.

Mr. Bill Pearson: Those are the three technologies we're looking at. The biggest constraint is cost. We have a research program under way, a cloud of research across the country, to reduce that cost to make this economically attractive.

The Chair: Ms. Preston, did you want to add something?

Ms. Carolyn Preston (CANMET Energy Technology Centre, Department of Natural Resources): To paraphrase, I think your question was whether CO_2-enhanced oil recovery is 30% better than any other recovery method. That depends on two things: the nature of the oil reservoir itself and the past operating history of the field.

In the case of Weyburn, the primary recovery used the natural reservoir pressure to recover oil all on its own, and after two or three years of operation they used water to increase the pressure in the reservoir and enhance recovery. That would be a secondary recovery mechanism.

In 2000 the production was dropping, and they decided to use CO_2 to enhance oil recovery. CO_2 not only increases the pressure of the reservoir, but it also dissolves in the oil and makes it flow a little better to the production wells.

In the case of Weyburn, the production is predicted to be 30% better using CO_2. If you were to use CO_2 right off the bat in primary recovery, you may or may not be successful in improving recovery versus water flood. It all depends on how miscible the oil in the ground is with the CO_2, whether the CO_2 will dissolve in the reservoir, whether the CO_2 will dissolve the reservoir rock—a number of variables.

So it all depends on past operating history.

● (1240)

The Chair: I have to interrupt at that point, Mr. Mills. We're out of time.

We'll go to Mr. Simard.

Thank you.

[*Translation*]

Mr. Christian Simard: These technologies are certainly fascinating. It reminds me of the Ducks Unlimited principle for wildlife conservation. It is an association of hunters who are involved in development and conservation in order to continue killing ducks. For some people, that is morally questionable, but for others, it is interesting. I find this technology interesting, but it raises several questions. First of all, is it very long term? Do we have any guarantees that this CO_2 will not leak to the surface, even if it is in sealed geological formations?

Secondly, the end of your text, Mr. Campbell, contains the key ingredients: relatively pure CO_2 not very far from the place where it is stored, as well as a conjunction in oil prices and the regulatory obligations of the Kyoto Protocol as an incentive to use CO_2 and to capture it. In the first phase of the Kyoto Protocol, will this technology help Canada meet its objective, or will it still be at the research and development stage, unable to really participate significantly in the success or failure of the Kyoto Protocol?

[*English*]

Mr. Graham Campbell: Thank you very much.

On looking ahead, if you like, we are looking over the long term in terms of our research, but it's very important that we find applications, places, and sites where we can put this technology to work.

For example, we're monitoring at Weyburn to try to develop the techniques that will form the basis of how we can monitor it, track it, and account for it in the long term. I would say there's a balance between the long-term work we're doing and the immediate point of application techniques that we can use right away.

In terms of the use of the technology, I think you were almost referring to how we could continue using fossil fuels in the longer term. We see this as a transition technology that will certainly help us get there, and it would be a means to ensure that emissions are significantly reduced in the long term.

With respect to the conditions, I think my colleague, Mondher BenHassine, may be able to address conditions related to what's required to make this happen. He has been doing some studies on the realization of this technology in western Canada.

Mr. Mondher BenHassine (Energy Policy Sector, Department of Natural Resources): Yes, if I understand your question correctly —

[*Translation*]

Mr. Christian Simard: Before you answer, I want to clarify that my first question dealt with the first phase of the Kyoto Protocol. Thank you.

[*English*]

Mr. Graham Campbell: I believe Mr. BenHassine will speak to that.

Thank you.

Mr. Mondher BenHassine: Yes. In terms of the short-term potential, first of all, the main potential of capturing storage technologies is in the longer term; however, there are opportunities for some immediate reductions. Those are primarily projects that source fairly pure sources of CO_2. For example, I guess the largest sources would be in the oil sands areas with hydrogen production and using those in enhanced schemes for oil recovery.

The projects are fairly close to being economical. There are a couple of commercial projects ongoing now, and four pilot projects have recently been announced in Alberta. These projects are going to start getting some momentum in the 2008 to 2012 time period. We will have some immediate reductions in that time period; however, the largest share of emissions reductions will be farther away. There are some immediate opportunities with respect to enhanced oil recovery.

● (1245)

[*Translation*]

Mr. Christian Simard: I want to make sure that I really understand. For the period from 2008 to 2012, do you have a specific objective for net gains in terms of CO_2 emissions, be it through storage or reinjection into oil fields? I am talking about net gains once you have deducted the normal emissions created by the oil or oil sands. Do you have an objective in megatonnes or tonnes for the first phase of the Kyoto Protocol? I would like to know what that objective is.

[*English*]

Mr. Mondher BenHassine: In the first commitment period, that will depend upon industry confidence in terms of investments in EOR projects as well. This is a new activity, and industry is moving fairly cautiously on that.

Some conservative estimates suggest that in 2008, or perhaps by 2012, one could cumulatively store somewhere between six and eight megatonnes of CO_2 if the conditions were right for investment in those projects.

[*Translation*]

Mr. Christian Simard: I do not recall having seen that figure in Mr. Dion's plan. As part of the Weyburn Monitoring and Storage Project, is there a storage objective that is included in the government's Project Green?

[*English*]

Mr. Mondher BenHassine: I believe so. I haven't seen all of the accounting for Project Green, but some advice we have provided in the development of the plan I think does take the use of that technology into consideration.

[*Translation*]

Mr. Christian Simard: I am going to try and find it too.

Now, let us take a more general look at things.

I do understand the idea of using CO_2 to facilitate oil extraction and storing it in appropriate places. Unfortunately, it does not seem to be possible to do that in Quebec. The Canadian Shield has potential for nuclear technology, but not for CO_2.

I would like you to put on your teacher's hat for a moment so that I can gain a better understanding. When CO_2 is injected into oil without capturing it definitively, how does that improve performance in terms of final CO_2 emissions, or in terms of net gains?

I admit that I do not have a very good grasp of this aspect of the issue, and I would like to understand.

[*English*]

Mr. Graham Campbell: Thank you.

Carolyn, would you like to address that?

Ms. Carolyn Preston: Yes. I'm sorry I don't speak French.

The CO_2 not only dissolves in the oil in the reservoir, it also dissolves in the water. It dissolves on the reservoir rock. It goes into spaces in the reservoir that have been previously vacated by oil.

So you end up putting more CO_2 in the ground than you recycle when you produce the oil. You end up leaving a net amount of CO_2 behind.

And in the case of Weyburn, they've predicted they would leave 20 megatonnes of CO_2 underground.

The Chair: We have one minute.

[*Translation*]

Mr. Christian Simard: That is good, I understand.

The oil sands are not underground reserves. How can we use...? I clearly understand the principle behind the Weyburn project, but in this specific case...

[*English*]

Mr. Graham Campbell: Perhaps I could help on that one. In the oil sands operations, for example, there's a good deal of CO_2 produced as a result of preparing hydrogen for upgrading the oil itself to make it lighter and more amenable to refining.

The CO_2 produced in that operation would have to be moved from that location to a site where it could be used for EOR for economic return or to a site where you could dispose of it in the subsurface in a deep saline formation. This implies, as we mentioned in our paper, that you'd need some type of transportation system.

The same sort of story applies to fossil-fired power plants. They generate CO_2 and flue gas. It can be captured, as Dr. Pearson has mentioned. It would then have to be assembled and moved to a site where it could be profitably used.

So it's not all sites that can both digest and store CO_2. Some produce—

● (1250)

[*Translation*]

Mr. Christian Simard: Okay. There are no gains, I understand now. In fact, we know that extracting oil sands produces considerable amounts of CO_2. That can become a major source of CO_2, that can be subsequently stored.

However, there are no gains in the production of oil sands. We cannot make CO_2 disappear by removing oil sands. It is a source of CO_2 to be captured, as in projects like the Weyburn project.

Is that what I need to understand?

[*English*]

Mr. Graham Campbell: It has to be captured there and moved to a site where it could be stored safely or used for enhanced recovery, or come from a coal scene perhaps.

The Chair: Thank you for clarifying that, Mr. Simard. I wasn't following that either. I'm sure the committee appreciates that line of questioning and the extracting of the answer.

We're going to Mr. McGuinty now.

Mr. McGuinty, go ahead, please.

Mr. David McGuinty: Thanks, Mr. Chairman.

I just reread your presentation, your brief. Thank you very much. I'm looking at EnCana's Weyburn field operation and the R and D around that operation, and the question I want to raise with you relates to subterranean water and water aquifers.

It's well known that southern Alberta is feeling the effects of massive use of fresh water in the extraction of other fossil fuels in other parts of the province. As I understand it, that is chiefly in the northern part of the province.

It's also fairly well known that as a country we really don't have a lot of detailed understanding of our hydrogeological systems—not that other countries do, but it's been well pointed out by other witnesses, such as the International Joint Commission, for example—that we really don't have a lot of detailed understanding. As a country we probably need to invest more in that knowledge, given that one of the world's really pressing environmental challenges is fresh water.

I wanted to get a sense if you can help us understand, for example, if enhanced oil recovery has implications for fresh water. If we're using carbon dioxide as a potential substitute for fresh water in the extraction of fossil fuels, is that of benefit? Do we know anything about that? Have I misunderstood this completely?

Second, are you doing any research, in your four research themes, on this question of water, and the potential impacts and the risk management around water?

You talk about verification. You talk about monitoring the movement of the carbon dioxide once it's in a pocket of one form or another. What is the impact? How does this interface with freshwater challenges?

Mr. Graham Campbell: It's an excellent question.

We believe the CO_2, once it's deposited in the reservoir, will largely stay put in the reservoir. It will either just be captured there the way the oil was originally or it will be transformed into minerals, which are benign and just stay put.

You referred to the large water system, if you like, that exists in western Canada. Our colleagues in the Alberta Energy and Utilities Board, for example, or the Alberta Geological Survey have studied these basins extensively in terms of how water moves through the formations, what the pace of flow is, which direction it flows, etc. Their conclusion, as a result of these studies, is that it is a viable proposition to consider putting the CO_2 in those layers. It will transform in the course of its history there. It will probably be mineralized, and in fact it will be secure and stable when put into that sort of configuration.

As to the use of fresh water for production purposes, I think that was part of your question as well, Mr. McGuinty. Perhaps Carolyn Preston could help us with that one.

Ms. Carolyn Preston: The oil industry is very sensitive to the fact that a lot of fresh water is being used to inject and recover oil. They're looking at options to start using unpotable, deeper water that has salt in it. Of course there are corrosion issues they have to deal with, but they're sensitive to the fact that there's a shortage of water in Alberta and Saskatchewan.

You also asked if we considered, in the research at Weyburn, the risk to water resources. We actually hydrogeologically mapped the area 100 kilometres by 100 kilometres around the reservoir and included that in the risk assessment. We looked at the flow pattern and looked at the salinity of all of the formations. You have to understand that the Weyburn reservoir is 1.5 kilometres down below the surface. The water down there is not really water; it's brine. It's not potable; it's not drinkable. We showed, through very rigorous probabilistic and deterministic risk assessment, that any CO_2 that would escape—and it would be less than 3%—would actually go down further. It would not come back up to the ground, and it certainly would not go into any potable aquifers.

● (1255)

Mr. David McGuinty: Mr. Chairman, it picks up on the question Mr. Mills asked, which was a really good probative question about the economics of this. I think he referred to the economics of this in the present-day structure of our economic system and the markets within which we're operating.

I want to talk a little bit about the changing dynamic and the economics of this as we begin to put a dollar value on carbon. Perhaps as we begin...I don't know the policy of the Province of Alberta on this. In Ontario, the whole notion of abstraction licensing is forthcoming. Ontario is looking at serious water-pricing issues to prevent, for example, the notion that someone can drill a hole in the ground, bottle as much water as they like, pay nothing for it, and sell it in markets—or abstract it from the river Tay, for example, here in the Ottawa Valley, for a large factory to use in producing an important part of cement.

There are changes forthcoming that will change the economics of both water and carbon dioxide. You talk about the general effect of economic factors, including incentives and taxes. Are you casting out here with the implementation of Kyoto, looking at the new economics as we begin to value carbon dioxide and perhaps even the use of water differently?

Mr. Mondher BenHassine: There may have been some preliminary testing of that water, although there is a fairly high degree of uncertainty in trying to attach a price to any of these factors. For now, with respect to crunching the economics, finding out what prices these factors could work at, they are generally cast in today's economics, today's commodity prices. This is how industry would be evaluating their investments. It is still early to start entering these factors into the economic equation. It hasn't yet been done with any rigour.

Mr. David McGuinty: Our government is examining all kinds of possibilities when it comes to the economics of resource extraction. The Kyoto Protocol is much like the old Sesame Street riddle, "One of these things is not like the others". What's not like the others in this case is that we're changing the economics. In the private market model we all live in, we're stopping a fundamental fiction, which is that you can continue to draw water without cost in order to exploit more fossil fuel. I don't think that's going to be the case in several years. I know it will not be the case in my province of Ontario, where the government is for the first time bringing in a completely revamped system of water pricing. That'll change the economics of it.

Corporate bodies like EnCana are going to have to start changing the economics of their own operations. They will be paying for the right to emit greenhouse gases into the atmosphere. We who signed Kyoto believe that the atmosphere is not a free container in which to put greenhouse gases. We need to start monetizing and quantifying it.

I would make a plea that your economics become a bit more robust and outward-looking. Start considering the implications now, because the economics of GHG sequestration are going to change.

● (1300)

Mr. Graham Campbell: We note your point. Many companies, those that you've mentioned and others in power generation, for example, are taking this very seriously, anticipating that there will be a price on carbon. They're reacting accordingly as they make their plans.

The Chair: Thank you, Mr. McGuinty.

Mr. Campbell, that's an excellent direction in policy development associated with the CO_2 sequestering.

Mr. Cullen.

Mr. Nathan Cullen: Thank you, Mr. Chair, Mr. Campbell, and associates.

Not being overly familiar with the inter-workings of NRCan, I don't know at which policy level you folks operate. If you're unable to answer some of my questions, let me know.

I have a quick question with respect to the technology fund that's been created. I'm wondering how familiar you are with it, within the construct of the Kyoto plan. This is a fund to which industry can contribute, and receive carbon credits for investment, in a pool to be dispensed for technology research.

Mr. Graham Campbell: I believe you're referring to the fund contemplated in the large final emitters part of the plan. I am familiar with it, but we're at a premature stage in deciding how it might work. I don't believe there are mechanisms established yet.

The legislation that was tabled has a provision on the technology investment fund. I'd refer you to that.

Mr. Nathan Cullen: With regard to the research and the spending that you folks do, how much is done solely with federal money and how much of it includes contributions from industry?

Mr. Graham Campbell: As a global average, we achieve three to three and a half times our own federal investment in the leverage we get. Our partnerships are with other federal departments, industry, and academia. As revealed in this project, we work with international partners as well. So in the future we would anticipate getting something like that ratio from our present investment.

Mr. Nathan Cullen: With your familiarity of the present suggested Kyoto plan, are you aware of any accounting that's gone into the plan, which is assuming carbon sequestration as part of the greenhouse gas reductions that Canada is estimating?

Mr. Graham Campbell: I'll share the answer with Mr. BenHassine, but I don't think there's an explicit reference there. There is a reference in the plan to some of the CO_2 infrastructure that will be needed. I believe it's referred to under the Partnership Fund; there's a reference there to this infrastructure I've talked about this morning.

Mr. Nathan Cullen: But to your awareness, there are no specific tonnes of carbon that are meant to be allocated.

Mr. Graham Campbell: I think that's correct.

Mr. Mondher BenHassine: Not in the plan, to my knowledge. There's no specific reference to this is how much we'll get from this.

Mr. Nathan Cullen: I have a broader, taking a step back kind of question. It's something I've asked your minister about and I'm still not satisfied with the answer I got. With respect to the general purpose and mandate of NRCan, there seems to be a dual mandate. At one time, as we enter into this Kyoto era, one is the promotion of fossil fuel extraction and energy production in Canada, and at the other time and on the other hand, seeking to reduce the amount of intensive carbon use we use for that energy production.

You folks seem to be on the latter. How does that internal...? I'm finding it difficult to believe that what appear to be two opposing mandates do not create some sort of tension within any organization. How does that manifest itself in the work you do?

Mr. Graham Campbell: Thank you.

The highest level vision statement for the department is the sustainable development and responsible end use of Canada's energy resources. So we recognize that coal will continue to be a useful commodity for power generation in some parts of our country. In fact, it may be the most economic. So given that trend, or given that practice, how best do we manage sustainable development of that resource?

We think about capture of the CO_2 as it comes off that resource. We think about the mercury and the NOx and so on that are emitted during that operation and try to find ways to capture it efficiently, economically, and safely in the context of making it work, if you like, for the exploitation of that part of Canada's resource endowment.

Mr. Nathan Cullen: I suppose the deeper question therein lies, is it simply making...? What takes priority? There's only so much funding. There's only so much research available. Is it making carbon-based energy production more efficient, or capturing some of the NOx, and SOx, etc., that come off, or moving away from a carbon-based energy economy, which seems to be where some parts of the world have taken the Kyoto movement, if you will?

● (1305)

Mr. Graham Campbell: Our programs, the ones I'm responsible for, at least, are balanced between what you might call supply technologies, whether they're oil sands, or coal, or coal-bed methane, whatever it might be, and end-use technologies, which is how energy is used in either industry, transportation, or buildings.

So if you look at our numbers, they're roughly a fifty-fifty balance between supply and end use. Part of the supply side is trying to integrate renewables where they make sense into the energy mix. We've done a fair amount of work recently on wind energy, for example, or the use of wind together with diesel generation in a hybrid sort of system.

So we're cognizant of the resource distribution in the country, where the economic wealth and activity takes place. We take account of what we need to do to diversify and to achieve energy security. In many cases, that's bringing on different sources such as renewable energy, for example, and to try to find a way forward to achieve this tough challenge of making Canada's energy system more diverse, secure, and sustainable over the long term.

We have a plural agenda. It's not just fossil fuel. It's not just buildings. It's a very plural agenda.

Mr. Nathan Cullen: I'm trying to understand where the emphasis in the department goes. So of this fifty-fifty split between end use and supply diversification, how much of that 50%, just as a rough estimate, goes towards the promotion or enhancement of the non-traditional energy sources?

Mr. Graham Campbell: It would be the smaller fraction, I would think. Some of the ones we're working on now involve coal-bed methane. It's a coming technology in western Canada, but we're trying to enhance that production. We're looking at gas hydrates in the far northern part of the country. So it would be relatively a fraction that would be on the small scale for diverse sources.

Yes.

Mr. Nathan Cullen: I think I need to clarify my question. We know there's a proven energy sector in some nascent sectors, like coal-bed methane, for the use of fossil fuel-based energy sources to produce energy. My question is, on the non-fossil, how much of what you've described as 50% of the research money or budget is given over to those source diversifications?

Mr. Graham Campbell: I don't have a precise number for you this morning, but I think it would be in the order of 15% to 20%.

Mr. Nathan Cullen: Of the 50%?

Mr. Graham Campbell: Yes.

Mr. Nathan Cullen: Would someone in your department know? It would be good to have that submitted.

Mr. Graham Campbell: Sure. I'd be happy to come back to you with that, sir.

Mr. Nathan Cullen: In my region of northwestern British Columbia, coal-bed methane has been proposed as a potential source of revenue and energy, yet there's a great deal of uncertainty and concern, particularly with some experiences in the U.S. There seems to be a great deal of misinformation on both sides of the issue, I would suggest.

Has your department done much—not so much on whether you can do this—on the positive and negative effects on the water table and the quality that remains, which Mr. McGuinty was referring to earlier?

Mr. Graham Campbell: Yes, we have. We have a coal-bed methane program inserted in our work now. It turns out that the early stages of exploitation of coal-bed methane in western Canada have taken place in reservoirs, through which there's not a lot of water, so that process is continuing apace now, with not a lot of water production coming out of it.

Looking ahead, this is a major issue, so what you start to look at in that context is either the disposal of the water or the cleanup for productive use, finding a way to regulate it, such that it's disposed in a way that it doesn't affect the environment negatively, etc.

Mr. Nathan Cullen: This is my last question.

One proposed site—which I think is actually symbolic in some way—is in a very sensitive area with respect to major rivers in British Columbia.

Do we know enough right now to go ahead with projects, knowing what the risk factors are in terms of water contamination?

Mr. Graham Campbell: I think we do have the basic knowledge, but anything we would do at a particular site would have to be based on an evaluation or an environmental assessment of the project as a whole: What would be the volumes? What would be the chemistry of the water, and would it be of any use for local purposes, for example? And what would it take to make that work profitably?

Mr. Nathan Cullen: Your department considers it a serious issue?

Mr. Graham Campbell: Yes, we do. Again, we recognize that the resource potential is significant, but to get at it and to exploit it in a sustainable way has its challenges, and that's exactly where we orient our research program.

Mr. Nathan Cullen: All right. Thank you.

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

Mr. Campbell, as the chair, I'm allowed some flexibility from time to time with respect to making observations. My observation is that you've come here with an extremely innovative approach with respect to CO_2 sequestering and storage.

I compliment you and your colleagues for your handling of the questions. Also, if I may say, I think you can appreciate that the questioning has been extremely apropos and extremely informed.

As the chair, I have that somewhat liberal licence, if you will, to make observations. I thank the committee for the questioning, and we thank you for helping us to understand that.

● (1310)

Mr. Graham Campbell: It's been a great pleasure, Mr. Tonks, to appear before you this morning. There's a wealth of detail behind any one of the topics that we've touched on briefly, and we'd be more than happy to support the committee's work and explore any of them in more detail.

The Chair: With respect to the question Mr. Cullen asked on the percentage of the budget or research allocated to the various categories, it would be helpful for the committee to know the answer.

Mr. Graham Campbell: We'll arrange with your clerk to get that information back to the committee.

The Chair: Good. Thank you very much.

Thank you, members of the committee.

We're adjourned.

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