THE END OF FOSSIL FUELS?
A FORUM ON MITIGATING THE FOSSIL FUEL DECLINE IN CANADA

Room 306 West Block
February 7, 2008
08:30 hrs to 10:30 hrs

TRANSCRIPTION OF PROCEEDINGS

Hon. Dennis Bevington, M.P. Moderator

APPEARANCES:

Hon. Catherine Bell, M.P. Vancouver Island North
Jeff Berg, Post Carbon Toronto
Tony Clarke, Polaris Institute
David Delaney
Duncan Gillis, Caucus Services
Richard Heinberg, New College of California (by telephone)
Dr. Larry Hughes, Dalhousie University (by telephone)
Hon. Peter Julian, M.P., Federal NDP International Trade Critic
Dr. Gordon Laxer, Parklands Institute (by telephone)
Rick Munro, National Farmers Union

APPEARANCES (Cont'd):

Joy Newton, Special Assistant to Office of Dennis Bevington, M.P.
Hon. Christian Ouellette, M.P., Bloc Québécois
Gina Petrakas
Paul Sears
Steven Staples, Rideau Institute
Henri Sader
Peter Tabuns, Ontario NDP Energy Critic

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--- Upon commencing at 8:41 a.m.

THE MODERATOR: We should get started here. Around the table here we have Mr. David Delaney. We have our Caucus Services ---

MR. GILLIS: Duncan Gillis.

THE MODERATOR: Duncan Gillis and Catherine Bell, who is the Natural Resources critic. We have Jeff Berg and myself, Dennis Bevington.

We are looking forward to having some other people join us in the next while. It may be a while due to weather conditions. I know people have called in indicating that they're still caught in traffic, and it is early, I guess, for participants, but certainly earlier for some of our people on the phone.

Thank you for joining us, Gordon Laxer from Edmonton.

DR. LAXER: Hi.

THE MODERATOR: And, of course, Larry Hughes from Halifax.

MR. HUGHES: Good morning.

MR. HEINBERG: And Richard Heinberg here from California.

THE MODERATOR: Hi, Richard. It's good to hear you and certainly thank you for getting up at

5:30 in the morning ---

MR. HEINBERG: Sure.

THE MODERATOR: --- and making this effort.

We'll proceed then. My concern about this issue, as Energy critic, started out really a number of years ago with the recognition that we were in a very difficult situation with natural gas in Canada, one that was not presented in the common media.

And I think since that time, 2003, I was working with the Government of the Northwest Territories as an energy specialist on natural gas issues, including the Mackenzie Valley Pipeline.

Well, I mean, the gas issue has got to the point now where the National Energy Board energy outlook in November this year has indicated that by 2020 we'll be in a net import situation with natural gas, with nothing available for exports to meet our NAFTA commitments that we have right now.

So that's a serious movement over even the years that I've been -- when I saw the crisis coming in 2003, it didn't seem as bad as that. So we've moved from there to there in that short time.

What has also happened is that there

has become a very clear realization that we've entered a period of peak oil production, and I think whether the jury's in or out on the state of the world supply of oil, it's quite clear that the world's ability, the oil industry's ability to increase the supply to match the continuing increase in demand is just simply not there.

You know, in one respect, something struck home to me very strongly the other day when I read I read a report, the Bloomberg Report, that talked about the fact that the multinationals were now buying up their own stocks.

Exxon had invested $30 billion last year in purchasing its own stocks, and rather than going out and looking for more oil, I think the Board of Directors came to the realization that their best investment was simply to take charge of their own assets that they had now. And that's where peak oil production is really, I think, hitting home.

Shell has done the same thing, 500 million shares in the last number of years that they've bought back. The investment is better in what they have already than going out in the field and trying to find more.

And that's a very alarming issue, when

you consider that overall energy requirements in North America in the next 25 years, according to the Canadian Electrical Institute, are about $4.1 trillion of investment in order to meet the demand to hold the supply in place. That's the kind of investment that's required.

And what we're seeing in the oil and gas industry that the preferred investment right now is simply to take up the existing reserves.

Prime Minister Harper's website indicates that we're in a North American energy security initiative. There's no mention of a Canadian energy security initiative. I think that's part of the problem that we have right now in Canada. We can't move forward with energy policy because we've made decisions in the past that have linked us so tightly with this North American direction.

And that certainly has played out here in the two years that I've been in Parliament, the frustration as a Member of Parliament who sees what's coming but can't get this issue forward in the agenda. It needs that. We need to move forward with that.

And I'm certainly glad to see the kind of development that's coming forward from academics, from some of our energy institutes that are pushing

this discussion forward on the nature of the future of the oil and gas industry in the world.

So what we need, the situation needs interaction. We need discussion. We need debate. We need to bring this -- we need to make this part of the national consciousness to a greater extent. Out of that will come the eventual coming together of the Canadian nation to respond to the challenge.

So we're the canaries here. We've got to sing loudly and make sure that this message gets out and gets the attention that's required.

Having said that, I'll now swing over to some of our speakers, and I would ask, Dr. Hughes, if you could give a presentation?

DR. HUGHES: First, I sent a small pile of documents yesterday. Was it received and was it distributed?

THE MODERATOR: That's correct.

DR. HUGHES: It has been?

THE MODERATOR: Yes.

DR. HUGHES: Great. Thank you.

Was it sent electronically to Richard and Gordon?

MR. HEINBERG: I didn't receive it.

DR. LAXER: No, I didn't receive it

either.

DR. HUGHES: Well, I'll continue on and I'm afraid -- unless you can distribute it now, I'll just continue.

Is that all right?

THE MODERATOR: Yes.

DR. HUGHES: Okay. What the presentation is, and I'll just give a sort of quick summary for Gordon and Richard, is it's entitled "The Maritime Provinces: The Energy Superpower's Poor Relations". And our research here in Halifax, at Dalhousie, is on primarily energy security. We're not so much interested in peak oil.

And I think Dennis has alluded to that in the respect that it used to be natural gas was the fear; it's now more oil, even in what Stephen Harper calls "The bastion of energy security".

Our work in energy security deals essentially with looking at how we can maintain a supply of regular or uninterrupted supply of energy at an affordable price. Now, some people get this confused. They think affordable means cheap, and our argument is that it should be affordable.

And the arguments for this, at least presented by the World Bank, are for economic growth,

poverty reduction and something that we've observed over the past two years is political stability. And we've seen that, for example, in Burma, the riots in Burma last summer, August-September, weren't being driven by necessarily a demand for democracy but more due to the fact that people were unable to purchase fuel because the Junta had raised the cost of fuel by 20 percent.

Now, if we're going to have energy security, it really requires two components. One is supply and the other is infrastructure. If you're missing either of these, you cannot attain energy security.

And there's some very quick examples. Of course, probably the best known is the Ukraine, in Christmas of 2005...

(TECHNICAL DIFFICULTIES)

DR. HUGHES: ...a couple of things, one of which is the -- we are, in many respects, fairly secure and that we import -- or we appear to be very secure and that we import very little crude oil and very little coal. And, surprisingly, we are somewhat of a low carbon based upon the fact that we use a great deal of biomass, hydroelectricity, natural gas and nuclear to meet our energy requirement.

But by just looking at Canada, it does mask the fact that behind the scenes, separate jurisdictions, separate provinces, are certainly potentially in trouble, and Gordon alluded to this in his recent document on proposing an FPR for Eastern Canada that was in today's Globe and Mail.

And to give you an example of how energy insecure parts of Canada are, if you go to the next slide, which is the Security-emissions graph for the Maritimes, what you see is unlike the rest of Canada, we have very little secure supplies of either coal, electricity, natural gas or renewables down here. Most of our energy is insecure in effect to its refined petroleum products and coal, almost 80 percent of our energy is either imported in the form of coal or refined petroleum products.

A misleading view by many people down here is the assumption that Irving has one of the biggest refineries in North America and they're doubling the size of it, therefore, we're secure, and Irving is also bringing in liquefied natural gas and will be making this available through the Brunswick natural gas pipeline to the United States.

Of course, what they fail to realize is that without a supply of crude oil or a supply of

liquefied natural gas, we are not secure. So once again, just because we have a refinery or liquefied natural gas or a pipeline doesn't necessarily mean that we're going to be secure.

So what we're looking at or what we've been trying to encourage people to do is we've modified the three "R"s, the reduce, reuse and recycle into the three "R"s of energy security, and we've called this review, reduce and replace.

And, briefly, what we do is unless you know what your energy consumption is, you're really in a very difficult position to be able to decide what to do to improve your energy security.

So the first review is to essentially just -- your end-use energy requirements, where are you using your energy and how is it being used?

Second is reduce. This is to reduce demand through conservation and energy efficiency measures. What we're trying to do is improve the energy intensity or reduce the energy intensity.

And the final "R" -- there's actually four "R"s, but the final "R", as far as we're concerned, is to replace the existing insecure energy sources with sources that are secure. Now, they don't have to be national sources, but they probably would

be, preferably.

And an interesting example, going back to Harper and what Dennis was talking about a moment ago, is the underlying assumption that we've made North America -- well, really the United States is energy secure in part to our Tar Sands or they're gaining their security through our Tar Sands.

The final slide is just some replacement opportunities that I wanted to touch on to show essentially how precarious things are down here. The replacement opportunities, and just touching on a couple of them, for example, biomass, in the case of Nova Scotia at least and P.E.I. for that matter, there is biomass. Most of it is spoken for at present and even if we could gain access to more of it, we would only be able to meet, for example, our heating demands -- probably about 20-25 percent of our heating demands, which is clearly an inroad, but when you are relying so heavily on imported oil, as we are for space heating purposes, we are potentially in a great deal of trouble.

And I'll just mention a couple of others. In the case of natural gas, we do have natural gas offshore Nova Scotia and a little bit coal-bed methane onshore, but most of this is being

shipped south. About 90 percent of it is being shipped out of Nova Scotia. A little bit is being taken in New Brunswick, but most of it is going to New England. And we do have title or we have the potential for title, but there are so many unknowns with title, for example, that it simply isn't worth considering.

And perhaps the most worrying part is the last line there. And with respect to Canada, the Maritimes have no major energy conduits to Canada. We do have the natural gas pipeline going south, but the chances of the United States ever shipping natural gas north to us, I would say, are extremely rare. We do have a single high-voltage DC line between Quebec Hydro and New Brunswick Power, but this is essentially a drop in the ocean.

So if we were hoping to gain access to larger electricity markets in the rest of Canada, that's highly unlikely as well.

So that is essentially the view from the Maritimes, and I'm trying to show why we are worried more than just about peak oil. We're looking more, as I said, at energy security.

Thank you.

THE MODERATOR: Thank you very much,

Larry. I have to admit we did have some technical difficulties in the middle of your presentation and we did lose you for approximately two minutes.

DR. HUGHES: Oh, dear.

THE MODERATOR: But it came towards -- it was within a minute after you started. So we got the rest of the presentation and I'm sure that we'll get you another opportunity to maybe reassert some of that stuff as we move along.

DR. LAXER: I was certainly able to hear all of it.

THE MODERATOR: Yes, it was only at our end or only around the table here that it happened.

DR. LAXER: I see.

THE MODERATOR: And it was due to the fact that I guess we're on the closed-circuit system and they tried to take us off that -- the House of Commons closed-circuit system.

But anyhow, we've had some people join us. Stephen Staples has joined us and the Natural Resources Committee member for the Bloc, Christian ---

HON. MR. OUELLETTE: Ouellette.

THE MODERATOR: --- Ouellette has joined us as well.

So we will then proceed with Mr.

Staples, if you could?

MR. STAPLES: As an introduction?

THE MODERATOR: As an introduction, and we're hoping that you would have a small presentation for us.

MR. STAPLES: Well, good morning, everyone. I'm very happy to be here.

I am here more to learn, I think, than I am to present as part of this and I'm looking forward to hearing Gordon's presentation.

Is Gordon on the line?

DR. LAXER: Yes, I am. Hi, Stephen.

MR. STAPLES: Yes, good morning, Gordon.

And I just wondered, Larry mentioned Gordon's op ed in the Globe this morning, and I just maybe mention to one of the staff, if they were able to make some copies, that would be helpful because I didn't get a chance to look at it this morning.

Our interest in this is -- I mean, we primarily work in areas of foreign policy and security policy. So I'm very interested in hearing Larry's comments about definitions of energy security and the one point where he mentioned the secure supply and the experience of the Ukraine having some of their energy

shut off. And I think, Larry, that was just before we lost you, but that was a point that we're interested in.

And certainly the increased dependence on fossil fuels is -- as a conflict and greater use of military force is certainly an area of interest of ours and even, in fact, is an interest to the Pentagon, which is experimenting with alternative fuel sources because of the massive reliance on energy for their operations. Particularly aircraft is the major consumer of fuel.

Also, some of the work that we are doing is in collaboration with other organizations. We've worked with the Communication, Energy & Paperworkers Union on the issue of the Keystone Pipeline, which Gordon is very familiar with, of course, and this is the first of a series of pipelines that's being developed and using that as an issue to challenge the Energy Board to live up to its obligations in dealing with issues of energy security for the country, which it neglects.

We've had some success, some initial interest in that, the fact that these pipelines are just exporting essentially 18,000 jobs to the United States, the missed opportunities for extra refinement

capacity and value-added processing of natural resources in particular areas of Montreal and Sarnia and other areas where we're losing those jobs and we're just sending them down the pipeline. That's certainly an area of concern.

The other interesting area of connection that we have on this is that we've been working with development organizations and a group of scientists called Science for Peace in Toronto at building a critique around biofuels, which is fascinating work, something that most people hadn't even contemplated.

You know, if you see the commercials on TV, you think cars driving around on ethanol just leave a trail of blue skies and chirping birds, you know, like the thing actually makes the air purer as you drive around.

But the emerging critique of biofuels as diverting crops out of the food supply into the energy supply, the consumption of water and fertilizer and all the inputs that we need for food production being moved over to biomass.

And some of the scientists that we've been working with, including a number of the Canadian members of the scientific group that won the Nobel

Prize along with Al Gore this year and we're trying to get their voices heard more, you know, these guys, I mean, it's actually possible to do modelling on the amount of available sunlight on the planet and then you can calculate the inputs it requires to actually figure out whether you could actually physically replace all of the fossil fuels with sources of biofuels, and it's just physically impossible.

And the conclusions that they're coming up with is that solar, of course, and wind are much preferable to biomass. They started getting into this.

This was confirmed in Bali where they did a survey of scientists from around the world, looking at the various options for alternative fuel sources and biofuels. Actually, first generation, I guess, is more specific. First-generation biofuels was right at the bottom of the list.

These scientists are also quite critical of nuclear energy, and I notice that Larry has nuclear there and it has the -- you know, it's in the secure column and low carbon emission, but I think there were other aspects of nuclear energy that we may, like biofuels, have to look at closely in terms of being a viable alternative to fossil fuels.

So that's just a bit of a mapping of some of the areas that we're interested in here, and I'm looking forward to hearing from more of the experts as the morning goes on and engaging in the discussion.

Thanks for inviting me.

THE MODERATOR: Thank you, Stephen.

Next on our list is Jeff Berg.

MR. BERG: I have a prepared statement to read.

Je veux commencer aujourd'hui par dire "Kwey", which is "Hello" in Algonquin, and by acknowledging that where we sit today in West Block is their land.

Et comme genuflection à mes racines québécoises, je veux vous dire, mes amis, je suis très enchanté de faire votre connaissance.

La question devant nous aujourd'hui c'est l'énergie; that is, energy and energy security and all that this means to human services in Canada. And the answer I have come up with for these challenges is wise use. Point final.

By this I mean that I love hydrocarbons and all that they do for us. Canada's natural gas? Love it. The Tar Sands? Love 'em. Why?

Because we are very much going to need the embedded energy in those molecules to power the renewable energy infrastructure that can carry us forward happily.

And what I mean by wise use is the use of the one-time molecular gift of hydrocarbons to help us to build the bridge to sustainability over the carbon chasm that is yawing before us.

Penses-y. Quelle meilleure utilité is there for the Tar Sands than the greening of Alberta? Using the embedded energy in the Tar Sand molecules for making Alberta the first district in North America to achieve genuine sustainability? This has the added benefit of putting them most quickly into the position of being able to expert even more energy to the rest of us so that we can do the same thing, and so on.

If Canadians and Albertans want to be heroes to the world and justify the development of the Tar Sands, could there be a better way?

Genuine sustainability I define as follows: 95 percent renewables and wise use, and 5 percent fossil fuels in the mix needed to deliver the human services necessary to pass on happily a world and society that our children will hopefully enjoy.

By wise use I also mean not using this

molecular patrimony for the purpose of keeping business-as-usual going for as long as we are technically able.

And by wise use I also mean setting up a strategic petroleum reserve.

The 5 percent use of fossil fuels is the level of cheating that I think we are going to have to allow ourselves for some time because we have left things rather late.

Remember “The Limits to Growth” was published in 1972. The first oil shock was in ’73. The second was in ’79.

Je suis ici représentant la recherche d’un groupe appelé Post Carbon Toronto. We are an officially constituted citizens group and we have to date 289 citizens who have signed up to receive our monthly lecture series alerts.

To name just a few among the speakers we have presented: Greg Allen; Dr. Richard Gilbert, who is coming out with a co-authored book titled “Transport Revolutions” in March; Dr. Jim Lemon; IPCC climatologist, Dr. Danny Harvey; wind energy expert Paul Gipe; Peter Tabuns. Bonjour, Pierre. Is he here yet? Pas encore. And Canadian film director Greg Green, director of “The End of Suburbia” and “Escape

from Suburbia".

In fact, Post Carbon Toronto's very first public outreach events were the screening of "The End of Suburbia" held at the Moses Znaimer Television Museum on December 5th, 2004.

And while "The End of Suburbia" may have been the beginning in some ways for the Post Carbon Toronto story, it is very much not the beginning of the scientific inquiry denoted by the term "peak oil" theory, a theory properly described by one of the Canadian scientists sharing in the IPCC and Al Gore's Nobel Prize glory as a theory in the same sense that round earth is a theory.

The origins of the information discovery denoted by the term "peak oil" theory lies in the hands of pretty much one person; in this case that person being Dr. Marion King Hubbert who released his seminal research analysis on oil field depletion and its relationship to oil production in a paper that was presented to resource geologists, mining engineers and oil and gas industry experts in 1956.

From the research of a lifetime and the reasonable supposition that oil is finite, he concluded that the U.S. lower 48 states would begin to experience an irreversible decline in oil production

starting somewhere in the late ‘60s to early ‘70s.

This notion was widely derided as ridiculous by the business and political communities. The other shoe, however, dropped when the U.S. did in fact peak in terms of oil production at about 10 million barrels a day in December, 1970. Today, the U.S. is producing somewhere on the order of 5 million barrels a day of crude oil.

I think all of us assembled here today can agree that oil and natural gas, and coal and uranium for that matter, are finite substances and that it is no stretch to assert that at some point the easy stuff; that is, the most economic, easily accessible and largest fields of the sweetest fossil fuels will be depleted; depletion being a resource geology term for the production profile that accompanies the emptying of a resource reservoir.

Furthermore, I think it is essential to point out that the consensus among resource geologists is in point of fact that this has already happened in a great many of the world’s oil fields. In fact, the data shows that 65 percent of today’s oil supply comes from countries that are in the throes of depletion and declining production.

Et c’est pour cette raison that the

Alberta Tar Sands, and the Orinoco, and Artic and deep water oil are today economic. This is also why Jack II and the recent Brazilian find, and talk about drilling in the ANWR are now so ballyhooed by some. By the by, the Jack II discovery represents about a week's supply of oil at current global rates of consumption.

As to when the planet will experience its peak in production, it is quite frankly impossible to say exactly, but I am here to tell you that the consensus now among resource geologists and many oil industry experts, and even energy company CEOs and executives, is that we will likely never see 100 million barrels per day. The current supply of all liquid fuels on the planet today is at about 85 million barrels.

I am also here to tell you that this consensus is every bit as strong as the consensus among climate science that the burning of hydrocarbons is having a marked effect on the planet's climate. This is science, people.

And the irony is that the peak of hydrocarbons is just as necessary as it is inevitable because of climate change, and I can only hope that the environmental movement will soon see the advantage

that this issue can present to our ecological challenges.

The most recent global oil production data shows that we have actually been on a slight decline ever since hitting the global record crude oil extraction rate on September, 2006.

So what does this mean for Canada as a nation and Canadians as a people, you ask? Good question. Glad you asked.

Canada, contrary to popular belief, imports almost half of its supply from the global oil market.

Here in North America we have become a continentally integrated energy market and, as a result, we send to the U.S. over half of our oil and natural gas production. Despite this, the U.S. still must import over 10 million barrels a day of what I call “OPO”; that is, other people’s oil.

Imports, in fact, account for over two-thirds of U.S. supply. This is also oil that these very same exporting nations are increasingly finding more useful than American dollars. Why? Well, for one, demographics.

In many OPEC countries, for example, the population is very young and growing, and growing

quickly. For another, they can produce their oil and gas so much more cheaply than we; it gives them better margins for all sorts of economic activities.

I would now like to switch to the part of the story which gets much less play in the media; natural gas.

Alberta, to date, has not in fact been an oil giant but a natural gas one. About 90 percent of Canada's natural gas production comes from the Western Sedimentary Basin. Furthermore, about seven out of the eight dollars that sit in the Alberta Heritage Fund have come from the sale of natural gas; a fund, by the by, that sits at under $15 billion.

Norway's fund, by contrast, a nation that has been at the hydrocarbon extraction business for much less time than we and has nowhere close to our endowment, has a fund that is over $200 billion. In addition, because of their handling of these monies, they have also largely been immune to the economic malaise that is bedevilling our manufacturing sector.

Compounding this economic problem is the fact that natural gas has peaked in terms of production here in North America. This occurred in 2001-2002 and is why prices are triple what they were

in the ‘90s. And it is also why, despite tar sand oil and royalty changes, Albertans are expecting less, not more, revenue for their provincial treasury from oil and gas extraction.

Which brings up an interesting state of affairs, informationally speaking. That is, on October 10th of this year, the NEB’s Energy Market Assessment Report indicated that we Canadians can “look forward to” -- and you do have to put that one in quotation marks -- to a 7 to 15 percent drop in natural gas production between now and 2009.

What this means numerically is that we will experience a drop from 6.5 trillion cubic feet to an extraction level somewhere around 6 to 5.5.

Given that we have been exporting 3.5 and consuming 3 and that 6.5 is greater than 6, this means that something is going to have to give. And so will it be Canadian or American consumption?

Given that this is the reality that our scientists have projected for us begs another fascinating question. How is it then that on November 15th, 2007 the NEB followed this up with a press release quoting political appointee Gaetan Caron, the NEB Chair, as saying essentially, “Canadians will be consuming ever more energy between now and 2030, but

there will be no problem with supply".

This also sheds an interesting light on why our current government has just recently abolished the position of National Science Advisor, a move perhaps best described by Jim Travers in a Toronto Star article this week titled "Dumbing Down the Government".

One final point in an issue that seems to be on no one but NRCan and Sheila Fraser's radar screen; to wit, how is it that our Energy Emergency Preparedness Plan does not factor the possibility of supply disruptions?

For I would venture to say that if we were to take a national poll on the following question, it might be the first poll in Canadian history to score a 100 percent unanimity of opinion.

That question being, "Do you think it possible that the Middle East situation might take a turn that could interfere with global oil supply? And given this possibility, should we in Canada have a national plan to deal with this contingency?"

I would now like to close with a quote from Ms. Fraser. Sheila Fraser, Auditor General, November 3rd, 2005:

> "We noted that the Department had

good plans in place for offshore oil and gas. However, operating sectors did not use a coherent framework for assessing risk, and the Department did not have appropriate emergency plans in place for all its responsibility areas.

Mr. Chairman, NRCan's responsibilities for emergency preparedness are spelled out in the *Emergency Preparedness Act*, and the government has had a policy in place since 1995 on NRCan's lead role. The Department informed us that the policy is outdated, however, Canadians cannot wait for further changes to the policy to have appropriate plans. Our audit recommended that the Department, in collaboration with other stakeholders, should ensure that appropriate plans are completed without delay."

To which one can only say, "Amen to

that!”

I thank you for your kind attention. Je vous remercie pour votre attention. And “Megwech” is what I would like to say to Dan Wilson for his help with this presentation.

Thank you.

THE MODERATOR: “Macecho”. Thank you very much.

We’ll now move to Dr. Gordon Laxer.

DR. LAXER: Yes. Thanks for this.

THE MODERATOR: I might add that our MP for International Trade, Peter Julian, has just joined us.

DR. LAXER: Very good. Hi, Peter.

HON. MR. JULIAN: Hi, Gordon. Good to hear your voice.

DR. LAXER: Yes. The Parkland Institute has been working on a Canadian energy security strategy for two or three years now and we have a comprehensive plan to work on different aspects of it.

We certainly recognize that Canadians, like other people in the world, must cut fossil fuel consumption both for the reasons of peak oil and for greenhouse gases.

And we also recognize that to move to a post carbon society, we're not going to be just replacing fossil fuels with alternative energy and still burning the same amount of energy. We're going to have to move to a lower energy society and emphasize the important things of life rather than this incredible consumption of energy.

But in Canada, we have policy impediments -- this is my main message that I want to bring today -- to substantially cutting fossil fuel consumption in Canada because rather than what the government calls Canada's energy superpower status, Canada is a resource satellite of the United States, and this makes it very difficult to cut consumption the way we should.

Here is the perversity of the Canadian situation versus the American one. If the United States cuts fossil fuel consumption, they increase their energy independence and cut their dependence on Middle East oil.

In contrast, if Canadians cut consumption, all we do is increase exports to the United States.

The reason we do that is threefold. There's NAFTA, the proportionality clause which only

applies to Canada -- Mexico wouldn't sign this -- which says that Canada must continue to export the same percentage of energy as we have in the last three years even if we have shortages in Canada.

So we're now exporting two-thirds of our oil and 60 percent of our natural gas.

The second reason is that we're building pipelines, five new pipelines to the United States. We don't even have enough pipelines to go to Eastern Canada.

Premier Stelmach, Premier of Alberta, was in Washington a couple of weeks ago saying, "Well, if the Americans won't buy our dirty oil from the Tar Sands, we'll sell to India and China." Well, we don't even have any pipelines to go to Oceanside, so that's an idle and silly threat. We are locked into that.

And third is the ownership structure. Most of the oil and gas industry is transnationals and largely U.S. based. So any kind of consumption savings that we did in Canada, the surplus would just be exported to the United States.

So it's going to be hard to convince Canadians that we should be cycling or walking or buying Smart cars so that more Americans can drive SUVs and Hummers.

What is the solution to the Canadian situation? What we said in the short run that we need strategic petroleum reserves. Canada is the only industrial country that doesn't have strategic petroleum reserves. The government says, "Well, we don't need them because we're an exporting country and we've got all this oil and the Tar Sands." Well, that doesn't do us any good because we can't get that western oil to eastern Canada. We don't have enough pipeline capacity.

So every European Union country has strategic petroleum reserves. Every country in the International Energy Agency except for Canada has SPRs. Even an increasing number of oil-exporting countries have them, including Saudi Arabia, Norway, Iran, Britain -- well, Britain is just moving from the status of being an exporting country to being an importing one -- Mexico. So our two other NAFTA partners have strategic petroleum reserves. All the Anglo sphere countries other than Canada, Britain, Australia, New Zealand, the United States, have strategic petroleum reserves.

And usually Canada is an avid joiner -- this is something from Stephen Staples -- in these international conventions. Here, we are the odd

country out and we have put ourselves, even though we export more oil than we import, we have put ourselves into an importing position country because we import 40 percent of our oil from foreign countries, and that supplies 90 percent of the oil in Atlantic Canada and Quebec and over a third in Ontario.

That is because we are so focussed in Canada on helping to mitigate the American insecurity of supply. So we have now put ourselves as dependent upon Middle East oil as the United States when we have no need to be doing this. We could be an energy-secure country.

The long-term solution is to go back to the situation before 1989, the Free Trade Agreement, which said that Canada will not export energy unless we have a 25-year supply, proven supply of oil and natural gas, and that would apply to electricity as well.

So the long-term solution is to move towards a Canada-first -- move back to a Canada-first energy strategy, and then when that happens we can then cut -- if we cut consumption in this country, then that will cut production. That is the big problem that doesn’t exist now, the relationship between Canadian consumption and Canadian production.

And the reason why production is so important is that this is the largest single source of increases in greenhouse gases; is in actually the production of energy in Canada, not in its consumption.

So the Tar Sands, as in Alberta, as conventional oil is being depleted, we are ramping up the Tar Sands production and that produces almost three times the amount of greenhouse gases. It does other incredible environmental damage in terms of water, tailing ponds, loss of species, health effects for native people; there are all kinds of things.

But the other thing it does is it uses an incredible amount of energy to produce energy.

So we're going through our last supplies of natural gas in Canada, as Dennis Bevington started off with this presentation, in order to produce. So we're taking the cleanest of the fossil fuels to produce one of the dirtiest, the Tar Sands oil.

So what can we do with it? So we can export 75 percent of it to the United States. That is the insanity of this thing.

So you have to burn one-eighth the energy equivalent in natural gas to produce oil in the

surface means, but we're going more and more to the *in situ* which is the deep Tar Sands, and that, you have to burn a quarter as much natural gas to produce an equivalent barrel of oil.

So we need to bring back consumption and production and get control of it. We have to move to a Canada-first policy in order to meet our international obligations on climate change so we don't increase greenhouse gases.

And I agree with Larry Hughes that energy security is the big question around which we should frame this and tie that in to the environment because the interesting thing is in Canada, when you say energy security for Canadians, you're actually saying energy independence.

When the Americans talk about energy security, they're not talking about that. Very often they're talking about going and getting other people's oil.

But in Canada, we who have been economic nationalists in the past have used certain terminology when we fought the Free Trade Agreement, but when you get into the question of security -- and it is a real question for Canadians anyways because we live in this northern country where people can

actually die in winter if there's energy supply cuts. People can freeze in the dark. When you use the term security, it's a language which the right wing and the Conservatives and the mainstream sort of use, and it's very difficult for them to counter our arguments when we put this in terms of security.

So the Parkland Institute is developing a Canadian energy security strategy. We just came out with this report on strategic petroleum reserves. We are going to be coming out with a report on the proportionality clause and also on the whole pipeline situation.

So thank you for this opportunity.

THE MODERATOR: We've had a few people join us. If we could perhaps get them to introduce themselves.

MR. SEARS: My name is Paul Sears. I'm with Natural Resources Canada, but I'm not here in any official capacity.

THE MODERATOR: Okay. Thank you.

MR. SUDER: Henri Suder. I am Peter Julian's legislative assistant.

MS. PETRAKAS: Gina Petrakas. I'm Alex Atamanenko's legislative assistant.

THE MODERATOR: Okay. Thanks.

MS. PETRAKAS: He's the NDP Agriculture critic.

THE MODERATOR: And working on the renewable fuels issue right now which is, of course, in front of Parliament, the $2 billion investment.

Okay. We'll move on then to Richard Heinberg. If you could go ahead with your presentation?

MR. HEINBERG: Sure. First of all, I appreciate and agree with all of the sensible comments that have been made so far by Jeff Berg and Dr. Laxer.

As a Californian, I'd like to underscore the importance of the proportionality clause of NAFTA. Until Canada can change that, it's going to be very, very difficult to deal with the very severe energy problems that are in the future for all of us.

From the supply standpoint, of course, Canada has oil, gas, the bitumen or Tar Sands of Alberta, coal, uranium. All of these are non-renewable resources and we're accustomed to thinking of them in terms of what's called the reserve-to-production ratio. In other words, how much is being produced on an annual basis as a fraction of how much is left to extract.

And it’s extremely important that we stop thinking of our resources that way because reserve-to-production ratios are never accurate forecasts of future supply.

Just one example, in Great Britain the reserve-to-production ratio forecast for coal, the first one was done in 1865 and it showed that Great Britain had 1,000 years worth of coal. Today, Britain’s coal industry is practically gone. So the reserve-to-production ratio for coal in Britain collapsed from 1,000 years to just a few years in the course of just a little over a century.

We’re going to see, I think, the same thing with resources like the Tar Sands. An enormous amount of the resource is there. However, it’s in varying qualities, varying levels of accessibility, and so even though at current rates of production it looks as though we have many decades, even centuries of supply ahead of us, in fact, production from the Tar Sands could peak in only a few years.

And this peaking analysis that we’ve been talking about is really how we should be approaching all non-renewable resources, particularly energy resources, because it’s not the far-off date when the resource will run out that we have to worry

about, it's the time when the rate of extraction can no longer increase but can only decrease.

And as has already been said, we've already seen that in North America with conventional oil production and natural gas production.

So supply shortfalls are inevitable. So how do we then deal with that? Well, obviously, we have to look at where we use energy, which means transport, agriculture, space heating, particularly. Obviously, there are other areas, but in terms of fossil fuels, these are the places we need to look first.

Transportation. Trucks and cars are our least efficient forms of transportation. Transport by water and rail are far more efficient. So, clearly, we need to be prioritizing transportation by water and rail. Cease building highways altogether and begin discouraging transport by car and truck and subsidizing transport by water and rail wherever possible and building new infrastructure to make that possible.

With agriculture, production of grains is almost inevitably dependent upon fuels. We can't go to producing grains with hand labour. It's just not feasible. So whether we're using fossil fuels or

biofuels, that’s almost a given.

But everything else, fruits, vegetables, all the other elements of our diet, we can begin to prioritize smaller-scale production for local consumption, and that means more agricultural labour needed, therefore, more jobs in agriculture. We need more education for farmers. We need, in fact, in North America, a new generation of small-scale farmers growing for local consumption, and that needs to be our agricultural priority.

Space heating. Canada’s mix is currently about 70 percent natural gas for space heating, and under the proportionality clause of NAFTA, that means that Canadians will be freezing in the dark unless there’s a deliberate effort to change that situation, both the proportionality clause and the dependence on natural gas for space heating.

The only good alternative there is ground-source heat pumps, geothermal heating, and it’s expensive to install.

So that means that unless the government assists with this conversion, it’s probably going to go very slowly.

We need to redesign our cities so that less transportation of people is necessary and so that

whatever transportation does take place can take place by public transportation, and that urban re-design process is one, of course, that takes time.

All of this requires time and investment, so policy has to be out 10, 20, 30 years ahead of the goal. We've left this far too late, in fact, because the idea that we have 20 or 30 years of a secure supply of fossil fuels during which to make the transition, that is not a secure assumption.

So the level of priority of what we're talking about is absolutely top level. In fact, I don't think that there has been a set of policies with equivalent priority in modern times.

So I'm delighted to participate in this call, even though I'm not a Canadian. Maybe I'll just leave my comments there.

Thank you.

THE MODERATOR: Thank you.

We'll continue now with a presentation from Catherine Bell, who is an NDP critic for Natural Resources.

HON. MS. BELL: Thanks, Dennis.

Thanks for organizing this forum this morning. I just want to thank everyone so far for their presentations.

I wouldn’t call what I have to say actually a presentation. I’m more like Stephen, who is here to learn.

As the Natural Resources critic for the NDP, I’ve been immersed in discussions on the Tar Sands and a little bit of oil and gas and with my colleague from the Bloc, Christian Ouellette, who is also here, we undertook initially a study of the Tar Sands and interviewed many witnesses, and I think some of them are actually on this call this morning.

I’m still in a learning process about all this energy, but I’m really interested in hearing what other people say.

What I really appreciate is putting it into context of our energy security, and I think that’s really important and something that we need to continue. We want to continue the discussion of the oil sands at some point. We’ve got a lot of topics that we discuss at Natural Resources, but I think energy security is the next logical step in what we’ve discussed so far.

We’ve done a report. That report was presented to the House and has been answered by the government. The response was probably longer than the report, but it really didn’t say anything except that

the government believes that everything is going just fine in the Tar Sands. Development is happening and they're happy about that, and they don't see that there's any problem.

Unfortunately, what is happening there is unsustainable and it's something that Canadians don't really have a lot of control over because, of course, we don't own the production. We don't own the resources anymore. It's pretty much owned by multinationals and Americans.

And so with the insatiable appetite down south, the expansion is growing and pipelines, as I think Stephen mentioned, the Keystone pipelines that are being built are going to send that resource directly south, and that doesn't help the security of the resource for Canada.

I also come to this position as a Member for Vancouver Island North, which is on the West Coast of British Columbia. And so for anybody in California, I feel your pain for having to get up so early.

We have just off our coast some reserves of natural gas and oil that right now there is a moratorium on for development. The provincial government is interested in having that lifted,

although it doesn't seem that any of the oil companies or gas companies at this point are interested in developing that. They want to do maybe some exploration, which is harmful for the environment.

This is also an area of very sensitive ecosystems for salmon habitat, for a lot of different species off the coast. It's prime whale-watching territory for anyone who is interested in tourism around the world. So there are some real dangers in upsetting the balance of this ecosystem off the coast of B.C.

The other interesting piece of it that I heard from one of the previous speakers, I think, was that what is at stake here is that the easy oil has already been gotten and what we're looking at here is some of the more inaccessible, more expensive developments.

So there's a whole lot of problems with it, and I'm really concerned about the insane search that seems to be going on for the last little bits of oil, and once we get to that point where the companies who are amassing great wealth by reinvesting in themselves will have the means, have the financial means, to go after those last little bits of oil, will be disrupting the environment in ways that we just

can’t imagine. So there’s a whole lot of environmental issues around it for that as well as what’s happening in the Tar Sands.

So I just want to leave it at that and maybe get into the discussion later because I have some questions for people on where we go from here.

And I think what I’m hearing so far is that we need an energy security policy for Canada, one that really is a security, not like the U.S. one, because I think that what Gordon said makes a lot of sense and that there really is no incentive for Canadians to reduce if they don’t see any benefit for Canada.

Thank you.

THE MODERATOR: Peter Julian, if you want to say a few words here on the subject?

HON. MR. JULIAN: Politicians always want to say a few words.

THE MODERATOR: Yes. Well, I think it was the few I was referring to.

HON. MR. JULIAN: You put the emphasis on “a few”.

THE MODERATOR: No.

HON. MR. JULIAN: Okay. So I can’t give my 45-minute presentation on the impact of the

SPP and energy supply.

I appreciate everyone being on the line, everyone being here today and I'd like to thank Dennis for setting up this meeting.

My interest is more on the public policy side of the whole question about energy supply in Canada; in other words, how the public reacts to what we have done with our energy resources.

And the context I'd like to set in the couple of minutes I have is to talk about the current tour that we're doing across the country, the "Stop SPP" tour. Now, this is an NDP-initiated campaign to stop the security and prosperity partnership, so-called security and prosperity partnership.

And what I found interesting about this as we've gone across the country, we've had crowds as small as 70 or 80 in certain places and as large as over 400 in others. So we've had, I think, a relative level of interest right across the country.

Gordon Laxer participated in two of the forums. Thank you very much, Gordon.

DR. LAXER: Yes, that's right.

HON. MR. JULIAN: Yes.

And what's interesting is people are profoundly interested in what we've done to energy

security in Canada. If there's any element that galvanizes people, any element where there is a strong reaction, it's when we start talking about what we've done with energy under NAFTA and what conceivably we'll do under the SPP.

So I see it as a real mobilizing tool in the sense that Canadians, not having heard about what we've done, become extremely interested when they do find out.

Now, we do have a major obstacle, of course, and that's the National Press Gallery. None of the journalists who were told about this would come today because they tend to give substantive coverage to what is superficial and superficial coverage to what is substantive.

This is a substantive issue and there's no doubt as Canadians find out about this that they'll be more and more interested in what we've done.

So I won't cover NAFTA and proportionality. I think Gordon covered that very effectively, but when Canadians learn about proportionality, which really hasn't received the press coverage that it deserves, they're appalled that Canada has given up more energy sovereignty than any other country on the planet. It's something that

appals Canadians.

When we talk about the implications of SPP, which moves us a step further from proportionality where we're obliged to share with the United States at fixed amounts even if Canadians literally freeze in the dark, to a further step where those decisions around energy supply are made in Washington, Canadians, particularly younger Canadians, react in a very strong way.

So that certainly comforts me, that in an upcoming federal election, if there is more discussion around energy security, more discussion around energy sovereignty, more Canadians will be engaged in the political process and see this as an important public policy issue.

So that's really the context to what we're discussing today. It's moving this from something that we're all aware of, an issue that interests each and every one of us, to moving it out in the public domain where the Canadian public can get active on the issue and see the implications for the country of the very dangerous road that we're travelling down.

Now, as far as the NDP is concerned, I mentioned that we're pushing to stop the SPP. We're

also putting forward motions around a strategic reserve. So we're certainly taking the issue on.

We want to take it to the next level, which is getting it out very clearly in the public domain.

Et j'aimerais dire juste quelques mots pour terminer. Moi, je n'ai aucun doute que dans la prochaine élection fédérale il va y avoir de plus en plus de canadiens qui vont voter ou qui vont être mobilisés autour de cette question de souveraineté énergétique et la sécurité énergétique au Canada.

Alors, ça c'est un élément qui va être, à mon avis, crucial parce qu'on voit chez les canadiens une réaction de plus en plus forte à toutes ces ventes aux enchères qu'on a subies depuis des années.

Alors, on va voir ça, je pense, dans les prochaines années, dans la prochaine année surtout, dans une élection fédérale qui s'en vient. Cette question, plus qu'on peut sortir ça dans le domaine public, plus il va y avoir une réaction du public.

Alors, ça c'est les quelques minutes que Dennis m'a accordées, mais j'attends avec impatience la réaction des gens et sur l'appel

téléphonique mais aussi dans la salle.

Merci, Dennis.

THE MODERATOR: Thank you very much, Peter.

Before we go to the -- I just wanted to offer up to the other people here in the room if they would like to make an opening statement.

Mr. Delaney?

MR. DELANEY: Yes, David Delaney.

I guess the thing that I would like most to contribute to the conversation is a perspective on the inevitability of the need to live with reduced energy consumption in Canada and, indeed, everywhere in the world.

The idea that we can solve our problems, we must very conscientiously avoid the idea that we can solve our problems by changing our relationship with the United States so that we can use more of our own energy, for two reasons.

It wouldn’t solve our problem even if we could change our relationship with the United States. We will still be faced with the requirement to decline our energy usage.

Secondly, it seems to me, and I would think to most people who think about it objectively,

very unlikely that the relationship between Canada and the U.S. with respect to Canadian energy resources is going to change substantially in the timeframe in which these questions will be decided.

And even if you're objective, even if you think as an objective that it would be useful to find a way to change that relationship, it would seem to me that the very best way of doing that would be pursue with the Canadian public and with the Canadian government the idea and the reality that we have to cope with substantial reduction of our energy use.

You may very well point out that that task might be eased by having a greater control of our own resources, but the task is necessary and the mere fact that we approach it and approach the extremely difficult tradeoffs that will be required by it would, in fact, serve your other objective of raising consciousness of the inappropriateness of NAFTA as well.

But the primary thing is preparing Canadians and Canadian infrastructure for a fairly rapid decline in the availability of oil and gas.

Thank you.

THE MODERATOR: Monsieur Ouellette?

HON. MR. OUELLETTE: Oui, merci.

I think you had better get your thing to listen to the translation because the Bloc always asks me to speak in French.

THE MODERATOR: C'est correct.

HON. MR. OUELLETTE: Ça va.

Alors, je vous remercie beaucoup d'avoir organisé ce genre de rencontre que moi je trouve effectivement très importante et je sens qu'il y a des choses qui se disent autour de la table qui sont très intéressantes.

Le fait qu'effectivement ça va être dans la prochaine campagne électorale, de notre côté c'est sûr, puis nous c'est déjà dans notre programme de dire qu'au Québec on doit réduire de 25 pourcent notre usage du pétrole d'ici 15 ans. Au début c'était 25 ans. Là c'est 15 ans.

Mais ça, c'est beau mais ça reflète pas la réalité de ce qui va se passer.

Moi je trouve ça dommage qu'on aille regarder l'ensemble de la situation à cause qu'on est au peak oil. C'est pas ça. C'est qu'actuellement on est en train de gaspiller notre terre avec les émissions de CO_2 qu'on fait. C'est pour ça qu'il faut arrêter.

Et ce que j'ai bien aimé de Jeff Berg

tout à l'heure c'est qu'il a dit qu'on avait besoin du pétrole pour être capable d'aller vers les alternatives. Ça c'est fondamental parce que pour aller créer des équipements qui vont aller chercher le soleil, qui vont aller chercher la géothermie, qui vont faire tous les autres, des éoliennes, et cetera, il faut avoir le pétrole parce que la plupart de ces produits-là sont faits à base de matériaux maintenant qui ont besoin du pétrole pour être produits.

On a besoin du pétrole pour faire fondre les métaux précieux qui rentrent dans ces choses-là. On a besoin du pétrole pour faire tous les plastiques qui rentrent dans la création des éoliennes, et cetera.

Donc, le pétrole ne devrait plus être gaspillé pour le brûler, pour chauffer des maisons ou pour faire rouler des voitures. Ça c'est pas dans le 40 ans. C'est demain matin.

Si on le fait pas, on va avoir des problèmes.

Quand on parle de l'entente entre les Etats-Unis puis le Canada, écoutez, d'ici bientôt on va sentir qu'il n'y aura plus d'entente. Il va y avoir des pressions et la pression va venir entre les pays. Ça veut pas dire qu'elle va commencer entre le

Canada et les Etats-Unis. Elle peut commencer ailleurs.

Mais cette pression-là va venir militairement. Militairement, on va venir aller chercher le pétrole où il va être et il va y avoir des conflits et ces conflits-là vont être réellement épouvantables parce qu'au moment où on va commencer à avoir un manque de pétrole dans un pays, qu'est-ce qui va empêcher un despote, une personne qui a le goût de la dictature, un démagogue, de dire, "Moi, je vais vous le procurer votre énergie."

Et là, fini la démocratie dans tel ou tel pays. Et on le sait; il y a eu des conflits mondiaux pour moins que ça. La plus grosse chose sur la terre ça va être le pétrole.

Donc, il faut se préparer maintenant à éliminer le pétrole parce que ça va être une source de conflit mondial qui va annuler, en plus des changements climatiques, qui de toute façon va rendre la situation extrêmement difficile pour la survie. On va être dans une situation qu'il faut attaquer maintenant.

Vous allez me dire, "Oui, mais à ce moment-là on saute à quoi?" On saute au nucléaire? Absolument pas. Absolument pas. Le nucléaire ne peut

pas être remplacé.

D’une part, les changements climatiques vont faire que le nucléaire, il va y avoir des rivières plus chaudes. Il va manquer d’eau. On ne peut pas physiquement s’en aller vers le nucléaire, en plus de ça que la ressource en uranium est trop petite pour dire qu’on va même penser de faire 15 ou 20 pourcent de l’énergie nucléaire sur la terre. On en fait 5 pourcent à peu près actuellement.

Donc, il faut aller avec l’étude qui a été faite à MIT qui démontre qu’on pourrait tout produire l’électricité nécessaire dans l’ensemble de nos pays -- eux, ils l’ont démontré pour les Etats-Unis -- mais l’ensemble des pays sur la terre par la géothermie en grande profondeur -- la géothermie de moyenne à grande profondeur, entre un et deux et trois kilomètres en profondeur.

On a les techniques maintenant qui ont été développées par, justement, les puits de pétrole pour creuser très profondément et on est capable d’aller chercher de la chaleur partout, même sur le cap de neige de l’Arctique et de l’Antarctique de la chaleur, aller chercher cette chaleur-là et faire de l’électricité avec, en plus, beaucoup plus localisée, et c’est la seule façon.

Il faut se sortir -- et c'est pas l'économie d'énergie. Oui, c'est sûr qu'il faut réduire nos voyages en avion. Oui, il faut réduire tout ça. Il faut faire nos jardins. Ça c'est important. Mais c'est pas en ayant de l'efficacité énergétique qu'on va être capable d'arriver.

L'efficacité énergétique ça fait 35 ans qu'on en fait. Moi, ça fait 35 ans que je suis là-dedans et on a rien fait. On n'a pas avancé. On continue à utiliser plus d'énergie dans tout le monde de plus en plus. On utilise de plus en plus d'énergie.

Comment faire à ce moment-là? C'est certainement pas des lois. Il y a jamais un gouvernement qui va être assez courageux pour dire "Maintenant on arrête d'utiliser l'énergie." Ça va prendre une hausse des prix. C'est la seule chose qui va arrêter les gens d'utiliser l'huile, le mazoute, le pétrole. Il faut que le litre soit à 5,00$. C'est la seule solution.

THE MODERATOR: Thank you, Mr. Ouellette.

I don't know if you would like to speak, sir?

MR. SEARS: I'd like to agree

wholeheartedly with what David was saying and a good deal of what everyone was saying.

But I would also like to add that my main concern right now is that the public perception of this problem may become lost in a series of financial crises which are, of course, related to the eco phenomenon.

But if the message gets lost about this fundamental problem and people focus on the financial side of things, we may well lose the focus on the necessity of reduction. I see that as being a major danger in the near future.

THE MODERATOR: Okay. What we're really here for is to understand where we can move to mitigate this issue, where we can make progress right now to move forward on it.

We've had a number of suggestions of, you know, sort of short-term political instruments, one being a federal election, the other being the opportunity within Parliament to talk about this.

Is there a general sense that -- well, I would say that the Canadian energy system is in some ways difficult to deal with as well too because, of course, under our Constitution, provinces have so much say over the development of energy, and that has led

to a situation where energy systems are not nationwide but they are very focussed in individual areas.

So within that context I see there is a call to bring together the federal/provincial discussions to deal with it.

Is there a sense that that is the first step here, that we need to get that relationship going between the federal and provincial governments in order to actually accomplish something, to actually get this into a perspective where people will actually agree to accomplish something?

I don’t know if anybody has got any comments on that?

Mr. Berg?

MR. BERG: The provincial responsibility, we have to make it in the self-interest of the provinces. The people that are producing the energy have to benefit first.

And like I said in my presentation, it has the added benefit of benefiting us, right? Because the sooner they get off of fossil fuels and use those fossil fuels to build a renewable energy infrastructure, the more of those molecules that they’ll have to transport to us so that we can do the same.

So it’s really essential that the Albertans -- and I spoke at the Parkland conference on November 17th as did Mr. Heinberg -- and obviously Gordon Laxer is the Director of the Parkland Institute, the founder of the Parkland Institute -- and there was 400 people in the audience and Mr. Heinberg’s presentation and my presentation were extremely well received.

The Albertans have one of the strongest green movements in the country. They’ve come the closest to electing an MP, and the reason for that, of course, is that they’re feeling the ecological pain because they’re right in the heart of it. So they understand the ecological consequences to what they’re doing and they would like nothing more than to be heroes to the world. They would like nothing more to be greener than Sweden or Denmark. There is nothing the Albertans would like more.

Now, of course, there’s things standing in their way. We can’t say there’s no obstructions. We can’t say there’s no “saboteurs”. We can’t say that the problems are not difficult.

But if you think what’s politically possible is difficult, if you think changing the old classical economic theory is difficult, try sometime

changing the laws of physics by using technology. That's real hard.

So of course it's a tough nut to crack the political thing, but if we bring it to the Albertan people that it's in their interest to get off of fossil fuels first and that they can then sit back like Kuwaitis and just export to the rest of us and lollygag about while we have to build our infrastructure, I think that's a winning argument.

DR. LAXER: If I could jump in here? This is Gordon Laxer.

I think we need federal/provincial partnerships on this, obviously, because the provinces own most of the energy resources. The resources under the ground are owned by the provinces and, yes, you have to talk about the owners benefiting, but also we have to foster both a Canadian and a much stronger international consciousness as well.

It's very good to hear Jeff talking about Albertans. The usual stereotype is that Albertans are all right wing and selfish and just interested in making money and not the environment.

I think he's slightly exaggerated the situation though. There is a progressive community in Alberta; I think it's growing, but a lot of people are

dependent upon the energy industry as well and there still is a fairly strong feeling that what's good for the oil industry is good for Alberta. I think that's weakening, but there still is a sense of that.

What we at Parkland are saying is we should be producing less fossil fuel energy and we should be getting much more value out of each unit. We should be upgrading, refining, making petrochemicals and making final products here, but we should also be getting much higher royalties so that we can put in a fund to start to replace, to start to move to a post-carbon society and post-carbon industry, use the last remaining amounts of fossil fuel to transition us that way, or else Alberta is going to become like the rust belt. We will be the fossil fuel belt of declining industries in the next 20 or 30 years when the rest of the world has moved to other means of energy and a different kind of society.

And it was the fight between Alberta and the federal government 25 years ago that led us into this resource satellite role. Alberta certainly was and the oil industry here is very much the Trojan Horse for American power in Canada to get us away from what we used to have as more a Canadian energy strategy.

I certainly agree with the sentiment that we cannot just talk about this relationship with the United States and not cut consumption here. The whole idea is we have to cut consumption of fossil fuels for all the reasons that people have been saying.

And the reason for introducing the Canadian-American relationship is not to say, “Okay, we can’t do anything until then”. The whole focus has to be we have to cut consumption. This is going to increase energy security for Canadians. It’s going to help the planet. It’s going to help us move to a post-carbon society. Yes, we must redesign cities, do all the kinds of things that Richard Heinberg said and that Mr. Ouellette said and Delaney, and yes, we have to do that, but at the same time, we do have these impediments.

So I don’t think it’s an either/or question, talking about the Canadian-American relationship or talking about cutting consumption. We have to do both at the same time.

THE MODERATOR: So is it simply about cutting consumption that we should be talking about here or is there some sense that as well we should be cutting production of fossil fuels? Is there a

downside in the long-term to Canadians cutting production of fossil fuels, of a limited resource that we have in the country? Intrinsically, is it better in the long-term for the economy to cut production, see fossil fuel prices rise throughout the world? Does that make more sense than what we're doing today? Dr. Laxer?

DR. LAXER: Well, there are big calls in Alberta for no new approvals of the Tar Sands. There's a growing movement as the environmentalists, much of the progressive political movement are calling for that. And basically, if you have no new approvals and you put in very tough environmental regulations, you could not, in today's technology -- you would actually not have more new Tar Sands plants in the future.

Tar Sands plants last 20 or 30 years. So basically, we don't put it quite in these terms, but you're really talking about phasing out the Tar Sands.

That, of course, is a huge fight. There are incredibly strong vested interests that would try and prevent that, but that's the way we have to go.

In terms of the price increases, I

agree with Mr. Ouellette that that's probably what is going to cut consumption a lot, but I think we have to do it a lot through regulation as well because the chief kind of fuel efficiency standards, there's all kinds of ways we have to deal with that because we have such unequal societies where the poor are going to suffer the most.

If we just allow price rise to do this, the rich are not going to change their behaviour at all. The military is still going to get the energy and it's going to be the poor who are going to get none and they're going to be sitting in their homes, freezing in the dark. And the middle income people who have bought houses way out in the suburbs and have to drive in, and they could only afford those houses, they're going to suffer tremendously too.

So we have to figure out ways of mitigating that, doing a kind of step-wise pricing, for example, where for heating you pay a somewhat low price for a basic amount and then you increase that incredibly (sic) as your usage goes up. We have to figure out ways so that the poorest people in our society do not suffer the most from these cuts in energy consumption.

THE MODERATOR: Mr. Ouellette.

HON. M. OUELLETTE: Merci, Dennis.

Je pense que c'est très important ce qui vient d'être dit qu'il faut pas que les pauvres en souffrent.

Je pense qu'actuellement ce qui va arriver de toute façon c'est qu'on va en manquer du pétrole. Donc, ça va sûrement être les riches, mais les riches c'est 5 pourcent de la population qui vont continuer à l'utiliser, puis l'armée, ça c'est net ça. Ça va être toutes les armées du monde qui vont continuer à les utiliser.

Pour ce qui est de la transition entre notre monde du pétrole vers un monde de d'autres sources d'énergie, il faut éviter justement que les pauvres en soient les premiers affectés par ça.

Un exemple, nous, on a proposé et on espère éventuellement qu'Hydro-Québec -- et c'est là que les relations avec les provinces sont importantes, j'en conviens très bien -- que l'Hydro-Québec mette de côté ce qu'on appelle la production patrimoniale à bas prix pour l'ensemble de la population à très, très, très bas prix et que, par contre, aussitôt qu'on dépasse la consommation de base qui serait fixée pour tout le monde, que les prix montent très rapidement du kilowattage pour chauffer les maisons, pour la

quantité d’eau qu’on utilise.

Donc, dans tous les cas il devrait y avoir avec toutes les sortes d’énergies une base donnée à chaque personne, un prix pour l’utilisation de base de façon à ce que les pauvres ne soient pas pris en otage dans ce genre de transition qui va être nécessaire de toute façon.

Ou bien on attend qu’il n’y en ait plus de pétrole et là on va avoir de la difficulté parce que, justement comme Monsieur Berg a dit tout à l’heure, on a besoin de cette énergie-là du pétrole pour faire de l’énergie à l’alternative ou bien on attend. Là, tout le monde va souffrir, ou bien on prévoit maintenant en disant -- on n’a pas besoin d’attendre que la Chine se décide, que les autres pays -- chaque pays, chaque province peut se décider à dire, “Nous, on sort du pétrole” et prend des mesures de sortir du pétrole en protégeant sa population pauvre pour la transition.

Il va y en avoir une transition de toute façon. On la fait maintenant ou on la fait dans 30 ans, il va y en avoir une.

THE MODERATOR: Well, that’s interesting because actually in the Northwest Territories, with electricity we have, for the

communities that are outside the hydroelectric grid, we have a price structure for each home that's under 700 kilowatt/hours a month, you get it at $0.20 kilowatt/hour, which seems very high by southern standards but is a real bargain for people in some of these remote locations. And after that, then they pay the full economic price.

And if you look, it absolutely works. The numbers that you see projected in each of those homes match up almost precisely with the limit that's established at the lower price.

But there is a very large cost differentiation between that lower price and the higher price.

So if you want a small model of that system, that one is available. I think it's unique across the country. No one else does this. But intrinsically, that's a consumption model.

Now, on the production side, once again, because we're facing huge capital investments in this country over the next 25 years in energy, how do we determine the relative merits of those investments? How do we determine that we should invest in carbon capture and storage, where they're talking about a billion dollars a megaton to reduce

carbon capture and storage in the oil and gas industry versus investing in renewable energy?

How do we change the investment structure in this country on the production side? Does anyone have anything they want to throw into that?

Mr. Berg?

MR. BERG: Well, I think one of the major problems facing us is the fact that nobody really knows. That's a really big problem. Nobody really knows. That doesn't mean we don't have people who can't figure it out. We've got lots of people that can figure it out.

So I very much hesitate to call a Royal Commission on anything because it's another book on a shelf, but we need some kind of blue ribbon panel. We need to get the finest minds in the country and we need to give them the attention that they require. We need to make a television broadcast. Web broadcasting is incredibly cheap these days.

As a matter of fact, I'm going to be starting a web broadcast station this year which will have as a component the fact that geology is cool. Resource geology is cool. Energy is cool. And it dovetails with the environment.

The fact that we are going to inevitably be forced to do this anyway is a perfect answer for the environmental movement to advance their agenda much more quickly than they otherwise could.

But the fact of the matter is we don't know the answer to those questions yet. It's not like we can't figure them out. It's not really all that difficult to figure them out. It's basic arithmetic. But we have to do the work and we have to do it quickly.

So we need to have groups like the NDP, the Bloc Québécois. Mr. Ouellette has made very good sense to me today.

And what Mr. Bevington just said about the fact that the First Nation communities have already created models that reflect what we need to do in a macro sense in this nation, and it's not like the First Nations haven't been telling us ever since the very beginning of our introduction to them, "I'm pretty sure you're not going to like the end result if you keep up that behaviour".

THE MODERATOR: Just a technical issue. If people on the phone could either mute or close off their mouthpiece when they're not talking because we're getting a little feedback for the translators,

and I will certainly remember to turn my microphone off as well.

And when we talk about production of energy, are there some investments and characteristics of energy investments that we should be promoting right now? And that's another question that I want us to look at.

MR. SEARS: Well, it might be a while before we sort out all the details, but I think the broad picture is already clear, and that is that the number one priority has to be to get the demand down. We're not talking about a 5 or 10 percent reduction. We're talking about a factor of 10 reduction.

When we get the demand down much lower than it currently is, then we have a reasonable chance of meeting it with renewable sources without things becoming technically very, very difficult. But the number one priority has to be demand reduction.

THE MODERATOR: And I don't disagree with you, but we are facing enormous capital investment decisions every day in energy.

If we're going to invest -- and we're talking about half a trillion dollars in Canada likely over the next 25 years, the decisions to make those capital investments, whether they be LNG terminals,

whether they be pipelines, whether they be transmission systems across the country, whether they be hydroelectric plants, are going on right now.

So if we say that we're in a situation of energy security, I don't disagree with you that the demand cycle is important, but we do have to recognize that these investment decisions are being made all the time that actually move us in one direction very quickly and force us in a direction. The capital investment forces us to follow a pattern.

So we can talk about demand and we can keep working -- demand is a subject that we can keep working on every single day, but capital investments are made in very clear points. They are points of a decision that have to be taken into account as well.

MR. SEARS: I think you have to look very carefully at the assumptions that are being made that form the basis of these capital investments.

I keep reading documents where considerable growth is projected for the next 30, 40, 50 years. I read a draft EIA document just the other day in which there was no limitation in fuel supply before 2050 and made all these projections for what was going to happen, and then said, "Okay, we'll do it this way, by having all this technology".

But even in that document you can see the people who wrote it had doubts about whether it's feasible.

So I think we have to look very, very carefully at what the broad picture of what we think our society will be like. We have to look at what our projections are because if they make no sense, then we will not make sensible decisions.

DR. HUGHES: This is Larry Hughes in Halifax, if I may?

I would just like to echo the previous speaker, whose name I'm afraid I didn't get, about reduction or reducing demand and the seemingly apparent argument against it, saying that major capital projects will require serious capital investments.

Well, the same argument can be made for end use. If we start building buildings incorrectly, if we keep building cars or whatever incorrectly, we are painting ourselves into a corner, producing more buildings that will be a problem in the future.

So what we should be doing is focussing on solving that problem now, and the only way we can do that is draw the proverbial line in the sand and say, "From this point onwards, our buildings will meet

minimum energy intensity standards".

THE MODERATOR: Rick Munro has just entered the room. I know he was very anxious to be here but, of course, the weather intervened.

MR. MUNRO: I got up at 4:00 in the morning which I thought was lots of time, but I guess not.

I'm Rick Munro from the National Farmers Union.

Speaking of infrastructure, that's sort of where we began with this thing, the NFU, wondering of course about our own. Collectively, farmers in Canada would own millions of dollars of equipment, tractors and the compatible implements and all of that, and we began to wonder.

I mean, obviously it's a finite resource. I'll just show this little book here which was published in '86. I've had it for many years. It's called "Beyond Oil: Threat to Food and Fuel in the Coming Decade". So we've known about this for a long time, but nothing, as far as I can see, is being done, particularly in the area of research.

So I began to sort of investigate this thing and that's what I've been doing for the National Farmers Union for the last two.

I won't say too much about the farming end, the actual agricultural end of it. To me, that should be fairly obvious. Farmers have invested in this machinery. It all runs on diesel fuel. The proportion of fuel that farmers use compared to the overall food system for trucking and processing and delivery and all of that is relatively minor.

Of course, there's fertilizer in there, other agrichemicals and so on, but my point here, I guess, is as I began to investigate, I sort of stumbled across, of course, Simmons and Heinberg and David Strahan and all these analysts, saw the documentaries. To me, they seemed absolutely credible people.

I then began to sort of check out National Defence because there are obviously security issues here, food security obviously among them, but it became apparent very quickly that the U.S. Military is taking this thing very seriously, and despite the official position of industry and government in the States, they cite heavily from the ASPO literature.

And then, of course, I came across the Hirsch Report, and I'm sure everybody here is familiar with it. It's 91 pages long, thoroughly sourced. The U.S. did the right thing, which Canada has not. They

hired three objective researchers and asked them to check it out. And I'm sure they were quite stunned when the first line of this document reads that what we have here is that peak oil presents the U.S. and the world with an unprecedented risk management problem.

Then I wondered what our own agency, our own government had done, and Natural Resources Canada is the lead agency in this country. They have undertaken no formal research in this at all. I do have a copy of their departmental briefing note written less than two years ago, April '06, which borders, I would say, on being derogatory really. There's a tone there which is very dismissive of the peak oil analysts, the peak oil concerns. It's 14 pages long. It has no footnotes or documentations except where they got their graphs from.

And I've had ongoing communications with Oil Division and they are absolutely adamant -- I've got it in my binder there -- there is no imminent peak oil crisis. Canada is good for 200 years. I was told verbally 400 years. "Why on earth, sir, would you be worrying about this?"

Then I got back to agriculture and thought, well, okay, fine. I'll see what sort of

research is being done to advise farmers about this upcoming issue.

So I sent out emails to the four university Ag programs, Guelph, MacDonald at McGill, Saskatchewan and Truro. I also contacted Cornell in the States. Same answer from every one of them, “We’re doing some stuff on biofuels”. A few had some stuff on hydrogen fuel cell, but nothing that would advise farmers, nothing that tells us are we going back to horses or what.

So then I contacted OMAFRA here in Ontario. Same deal. I mean, I’ve sent out multiple sort of, you know, “Try so and so. Try so and so.” There’s nothing.

Same with Ag Canada. The answer I have had back from Ag Canada, I’ve got it right here. I’ve had it several times over from them is, like almost, “You must have the wrong Ministry here. NRCan is the lead agency for petroleum. Any research that we undertake would be done in conjunction with them.”

So NRCan has a clear responsibility. They are the lead agency, and in my opinion, not only are they not investigating, they said they have no intention of investigating it. They’re holding other ministries up like our food system, who need to get on

this, but they are holding back because of NRCan's position, and I find that really alarming.

And if I can just conclude here, Roscoe Bartlett -- bless his soul -- most people are probably familiar with his efforts in the States. And, Dennis, I'm really pleased to see you've taken a lead here in our country. This is what he said.

Again, part of the U.S. Military, this is a talk given in April 24th, '06 as part of the Naval Postgraduate School down in the States. They had a bunch of seminars, and this is what he said:

> "You know, our great-grandchildren are going to look back and ask how could the monsters have done that? When we found this incredible wealth under the ground, we should have stopped and said, "Gee, what are we going to do with this so that we can get the most good for the most people for the longest time?" That's not what we did. Like kids who found the cookie jar, we just pigged out."

And I think he's absolutely right and he's worked very hard, and he's just one of the many

credible people who are on this peak oil thing, and again, why NRCan finds them so unbelievable, I do not know.

That's all I've got to say.

THE MODERATOR: Thank you, Mr. Munro.

Do we have others on the line?

Peter Julian?

HON. MR. JULIAN: Thanks, Dennis.

I wanted to get back to the public policy decisions that lead us to where we are today because my colleague from the NFU is absolutely right that what we essentially have is decisions right now that use up the resource without putting into place any sort of strategy for long-term development, any sort of long-term environmental strategy.

In fact, what we're doing with the federal government resources now is we're actually subsidizing continued growth, the sort of logic of a cancer cell, just growth in the development of the Tar Sands and development of other oil and gas resources without any understanding of what the long-term implications are.

Now, I'm fortunate, along with Catherine, in coming from the environmental centre of Canada, which is British Columbia, of course. It's

where Greenpeace originated, a whole host of other environmental organizations. Steve knows this very well. In a very real sense, the environmental movement is integrated into the NDP and integrated into the culture in British Columbia in a way that makes decisions largely made differently, not under Gordon Campbell, of course, but generally decisions are made with more attention to the environment and to sustainability. The development of offshore oil and gas resources is just one example of that.

I guess what I'm saying is this, that our public policy has to change not just in relation to energy resources but in a whole variety of other areas: in our infrastructure; the development of our cities. We have there again the urban environmental logic of unlimited growth. And we've seen in Toronto what that means and in other parts of the country.

So federal government funding and federal government incentives around building much more sustainable communities, so that in a very real sense the energy drain will be less, we won't have as much of the Calgary type of development. We'll have much more of the type of development that is sustainable and linked by public transportation.

Food security issues as well are

intrinsically linked to the whole issue of energy. What we've seen over the past few years is essentially a pressure on family farms, a closure of processing facilities here in Canada of food that is produced here in Canada.

So, essentially, what we're doing is limiting our choices in the future by assuring that we have to import food from outside Canada.

So the public policy choices are far beyond that of simply the question of where we invest infrastructure dollars in development for energy production. It involves a whole host of issues around urban planning, food security and others that simply need to be put in place. We need to plan for the future.

My point in my initial comments that I'll come back to now, is what is the starting point? And the starting point, I believe profoundly, is having energy sovereignty because right now we have a logic of unlimited growth because our energy resources are being developed for the interests of American oil companies rather than in Canadian domestic interests.

So until we get that energy sovereignty back, until we put in place that plan for energy sovereignty and energy security in Canada, we can't

take those following steps.

Otherwise, essentially what we're doing is planning, but continuing the process of unlimited development of the Tar Sands. And that is why the first step has to be energy sovereignty for us to achieve the following steps.

Dennis?

SPEAKER: I realize we're coming to the end, and I have four questions. I realize they may be rhetorical at this point because we're coming to the end of that, and I wanted to pick up on some of the ideas that Peter had.

My first question is our colleague from NRCan focussed on absolute need to reduce our consumption. I was very struck though by Gordon's comment that even if we do reduce consumption under proportional sharing arrangements with the U.S., the exports would just increase. So, in fact, we would miss a net savings from reducing our consumption here, which was an interesting prospect.

The second point would be around this, you know, you keep butting up against NAFTA and proportional sharing. It's interesting that I think that the elephant in the room in international trade negotiations is that so much of the jurisdictions that

international trade agreements impact are actually the purview of the provinces.

And I don't know if we've actually adequately explored the contradictions of that, the constitutional contradictions in terms of whether that's a leverage point that we can use to force open some of these arrangements, because we do have occasionally a number of progressive provinces that maybe we can get some motion on on this.

So I'm very interested in that dynamic, the provincial-federal relationship and whether that can be used to open up trade agreements. That's my second point.

My third is the National Energy Board, and we are working with the Communications, Energy and Paperworkers Union in trying to confront the absolute rejection of the responsibility of the Board in preserving the energy security needs of Canada and, you know, is it viable?

And maybe Gordon can think about this or maybe we can talk offline. Is the NEB something worth pressuring, to use as a pressure point to try to force it somehow or take it over or demand or expose the fact that it's not acting in the interest -- when it rejects CEP's arguments that 18,000 jobs would be

lost by a pipeline, that's something that's irrelevant to the NEB's considerations. I think every worker in Montreal and Sarnia and other places need to be concerned about that.

And my fourth point -- my last question is maybe for Larry and also for Dennis in terms of investment -- have there been serious considerations made to a Canadian east-west pipeline? Is there anything on the books? Has any real serious work been done as to whether this is viable enough -- a viable alternative in terms of the opportunities for investment, for Canadian investment infrastructure, Canadian industry and jobs, and at the same time, promoting energy security?

Sometimes it's these big ideas that get the ball rolling at least in the right direction.

And I just want to finally say thank you very much for organizing today's incredibly illuminating panel.

THE MODERATOR: Okay.

DR. LAXER: I wonder if I could jump in here? This is Gordon. I wonder if I could jump in to answer some of these questions.

We have been thinking about the pipeline question. Let me just bring up the last

question about east-west pipeline to Atlantic Canada.

Canada imports 850,000 barrels of oil a day. We think that, in fact, we probably don't need to build a new oil pipeline through Canada. That's one of the alternatives is to build it through Northern Ontario, have an all-Canadian route, but I think that instead of doing that, we could do three things.

First, is that there is a pipeline from Sarnia to Montreal that was built in the 1970s. It used to bring 250,000 barrels of oil. Western oil actually goes through Wisconsin and Michigan through to Sarnia. Until 1999, that brought western oil to Montreal. In the last eight years, it has been bringing foreign oil through Southern Ontario. That should be reversed. That should be a demand. Reverse that pipeline.

Secondly, a lot of Newfoundland's oil is exported. That should all be redirected to Atlantic Canada.

And the third thing is that we should be cutting consumption across the country and Eastern Canada's needs could be met by cutting consumption substantially in conjunction with a reversal of the pipeline and of redirecting Newfoundland's oil.

The second thing I want to talk about was the National Energy Board. I agree totally that it is shirking its responsibilities to be...

(TECHNICAL DIFFICULTIES)

THE MODERATOR: Perhaps if you go to your handset rather than speakerphone?

DR. LAXER: On this discussion about pipelines moving -- if the plan is to move and if the direction is to move to a renewable energy economy, the only real investment that will move it in that direction is electrical transmission systems.

The electrical transmission grid is the only delivery system for renewable energy that we're likely to use in this country. So any investment that we make in pipelines will continue to increase the requirement for fossil fuels.

Investment in transmission systems, however, does open up the opportunities for what the Canadian Wind Association calls the 100,000 megawatts of existing wind capacity near transmission sites right across the country.

So if you want to reduce fossil fuel use in this country, you have to find ways to deliver energy to people that are not fossil fuels.

THE MODERATOR: Mr. Delaney.

MR. DELANEY: I would like to give my perspective on the question of the necessity of reducing fossil fuel use and the solutions that might be aimed towards that.

First of all, sometime between 20 and 30 years from now, Canadians will be using less than half of the fossil fuel energy they're using today. It doesn't matter whether they want to or not. They will be.

THE MODERATOR: Yes.

MR. DELANEY: So sometime between now and then, and possibly quite earlier for parts of the country in the eventuality that there's some disruption in the Middle East, we will have to deal with those problems.

Now, that's a pretty radical perspective on the problem we face, but it is not a shared one. I mean, that simple statement that somehow or other in 20 or 30 years we have to get down -- we will get down, not we have to get down; we will get down to using less than half the oil and less than half the natural gas, that is not a shared perspective.

And I would suggest that most of the solutions that have been mentioned in this room are in

themselves sufficiently radical that without some kind of fairly radical justification, some fairly radical understanding of the necessity of solving the problem, they're not going to go anywhere.

The idea of achieving sovereignty, for example, in energy use will be attractive up to a point, but will it be attractive up to the point of having to severely impact the interests of multinationals and the interests of the Government and the people of Alberta.

MR. BERG: Well, I think the fact that we're having hurricanes and twisters in the wintertime is fairly severe.

MR. DELANEY: Absolutely.

MR. BERG: And an indication of the level of thermal activity that we've put into the system and that the climate change argument is one that dovetails perfectly with the things that you're talking about in terms of being able to convince people.

MR. DELANEY: Right.

But let me continue. The point is that the necessity of the energy problem is a distinct problem that requires being addressed.

The idea, for example, that we can

solve the climate problem by having clean energy, well, guess what? We're not going to have enough clean energy to keep using even half as much energy as we're using now for the next 20 years.

So whether or not you consider the climate problem a serious problem, there's an independently serious problem about energy consumption and energy availability.

If you think you can base some of these solutions on climate change, fair enough. Maybe you can. Maybe you can pursue all of your objectives through the necessity to reduce emissions, but I don't think so because I think that the problem will be dealt with as one of decreasing emissions, not decreasing energy use.

So where do you get the radical perspective? I think the problem with NRCan is crucial. The fact is that there's actual suppression of the opinion within NRCan, and there's substantial opinion within experts in NRCan that there are very serious problems with the oil and natural gas supply.

These concerns cannot get out of NRCan because of the unacceptability of that point-of-view to politicians who know that they don't have any neat solutions for it.

So the main problem is how do we get a shared perspective that these are real problems? I mean, that's the main problem.

The idea that we can address that by addressing small solutions, pipelines, energy sovereignty, any solution that is going to require a radical perspective to actually be carried forward is not going to be useful unless we independently pursue the establishment of that radical perspective.

THE MODERATOR: So what we might see as very important right now is to get this in front of the Natural Resources Committee to get some examination of the work that's being done in that department. If we've had these kinds of criticisms come forward, I think that's incumbent upon us as parliamentarians to see that it moves forward and has a complete examination as soon as possible in front of the Committee. I think that's obviously the first step here for us that are in this room here today.

MR. BERG: I can tell you, David, that on Friday, January 25th, at the Canadian Geological Survey, David Hughes gave an hour and fifteen-minute presentation. It was a Logan talk. So this information is getting out. There is a book by Julian Darley called High Noon for Natural Gas; the book over

there, Richard Heinberg's Oil Depletion Protocol.

It's not like the information isn't getting out. It's just that the information getting out into the general public isn't as good as you guys getting the scientists to show the politicians the difference between politically possible and scientifically necessary.

THE MODERATOR: Mr. Munro?

MR. MUNRO: If I could just comment on that?

Jeff is quite right, and where David was speaking on the 25th, it was, I believe, right across the street from NRCan Oil Division and why no one troubled themselves to walk across the street to hear the other point-of-view, I do not know.

Secondly, I mean, I agree absolutely and I think we'll be spinning our wheels. I'm pleased to see you addressing it within Parliament. I've tried very hard and I know other people have too to get the media on it. CBC's Fifth Estate seems to be the logical spot. I wish they would pick up on it.

I think our military has some interest in all of this, not only for their own purposes, of course, but the potential for public unrest for just the unsettling, the economic damage, the whole fuel

poverty issue, which is a big concern in the U.K. The fallback for a lot of those things is our military.

Anyway, that's all I have to say on that.

THE MODERATOR: Thank you.

Anybody else?

HON. MR. JULIAN: There's a few things I just wanted to mention.

First, this study that was done by the Polaris Institute and Parkland came out last week, "Freezing in the Dark: Why Canada Needs Strategic Petroleum Reserves" done by Gordon Laxer and Tony Clarke at least released it here in Ottawa. So it's an excellent study for those who want more information on the idea behind strategic petroleum reserves.

Secondly, an interesting point from my colleague, being a radical socialist in Parliament, it's the first time I've ever had anyone sort of accuse us of not being radical enough.

We are fighting, essentially, a battle with establishments from the Liberal and Conservative Party that are hand-in-hand with the petroleum companies. That's how things work around here. We have corporate lobbyists who have in their pockets two major political parties and a national media that

essentially is tied in with that corporate agenda as well.

So the way to get around what is essentially a blackout of the kind of substantive issues that we're talking about is essentially political activism at the base level. That's why we do these national tours. That's why we're speaking to the public. That's why we use independent media and the mobilization of the labour movement and civil society organizations, because it gets around what is essentially a blackout of issues that are substantive: poverty issues; homelessness; the erosion of our public healthcare system; appalling conditions of Aboriginal peoples and people with disabilities; energy.

Energy sovereignty and the environment generally are issues that do not get a fair hearing. So it's something that I know Dennis has been pushing in the House, along with Catherine. It's something that we continue to struggle against and, as an activist, I think I always like to make the point that when folks say, "Well, you know, it's over to you, you politicians. You get the job done", it's something that we as activists here in Parliament and as environmentalists here in Parliament fight against

every day.

And the only way to get around it is by having more activists on the ground fighting with us to make sure these issues get out in the public domain through other ways than the national media, because the national media, for a wide variety of reasons that we can't go into now, aren't going to cover those stories.

So we have to get to the Canadian public in other ways.

THE MODERATOR: Any wrap-up comments?

MR. BERG: I would just like to point out that I provided a couple of documents that are included here.

The first one is "This piece is dedicated to the proposition that global warming or no global warming, Canada and Xmas are a whole lot more fun when your thermal envelope keeps the winter out". And it's called "The Chapter Every Canadian Should Read" and, of course, it's about Chapter Six.

And the other one is "Handy North American Energy Facts", and I think you guys would like to see this fact sheet because it gives you some ammunition for your tasks before you.

And I thank you again. Megwech.

MR. DELANEY: There’s an issue that I don’t think is mentioned here.

The problem with viewing the oil and gas companies as being even part of the source of the problem is related to the measures that have to be -- related to the degree of effectiveness of the measures that are needed to address peak oil and climate change.

It is simply unreasonable to suppose that either peak oil or climate change can be addressed without substantially contracting the Canadian economy.

I mean, just the mere fact that we’re going to be using half the energy we’re using in 20 years tells you that.

The problem with being radical enough is that when you don’t acknowledge this and you attack the oil and gas companies or corporate interests or whatever and they come back with a valid and true argument that your proposals and your solutions are going to impact economic growth and cause hardship in Canada, unfortunately, they are absolutely correct.

If you keep ignoring the fact that they’re correct and sort of just keep pushing your solutions without accepting the validity of their

argument, saying, “You’re right; that’s what the cost is going to be,” you’re stuck in a stasis where you can’t go forward.

A sufficient number of people are going to continue to be convinced by the other side’s arguments that their interests are going to be impacted because they are going to be impacted. Ordinary Canadians are going to have their interests impacted by the solutions necessary for both of these problems. And as long as our side refuses to acknowledge that, nothing is going to happen.

MR. SEARS: I would just add that I agree completely with that.

MR. SADER: There is a compelling need to work within the existing paradigm and also at the borders of the existing paradigm. If you don’t bet on the improbable, then the likely will happen anyway. We’re going towards that crisis anyway. So we have to work at all levels, including the level where we fight against the odds.

MR. DELANEY: If one refuses to acknowledge the most probable case can happen ---

MR. SADER: That’s not the major; that’s part of the mix.

MR. DELANEY: I agree, but ---

THE MODERATOR: Well, in our search for solutions for humanity, we fight many battles and we fight them generally one at a time. I mean, we're not allowed the luxury of that sort of overview that allows you to say, "Okay, this is the way the world is going to turn".

So there's battle points all the way along in this.

And, yes, I agree with you entirely; we have to have that sense of where this economy is going. I made a speech in Victoria to businessmen, trying to explain to them what it actually meant to be a green business. In this day and age, that means that you have to reduce consumption among your customers, not increase it.

And how does that business model work in today's world if your successful business is the one that actually causes a decline in consumption? And that's truly what we need, and I agree with you 100 percent.

But along the way, every step of the way we're making decisions whether it's for the development of LNG terminals or the export of bitumen or the types of things that we're doing in this world that are going to be hard to undo later on and which

are directed towards consumption.

When you talk about renewable fuels, renewable fuels are a device to ensure that consumption continues for a little bit longer. That's the device of renewable fuels.

If it was energy efficiency, we would be putting the $2 billion we're putting in renewable fuels into new cars or new technology that would direct the consumer into less consumption.

Rather, we're taking a pathway that says no, we'll keep the consumption going by adding -- we'll be turning food into fuel.

MR. DELANEY: Right. But unless you're prepared to argue that you will have to undo those things and that you will have to consume less, at some point you're going to have very weak arguments unless you're prepared to ---

THE MODERATOR: And it is radical because you're changing the whole business paradigm, and that is -- try to sell it. I tried to sell it in Victoria a few months ago in a speech, and I tell you, people just walked away, "What's this guy talking about?"

Go ahead, Peter.

HON. MR. JULIAN: This raises an

interesting point and I think David and I may agree very much on what happens next, but what is the economy here in Canada?

Well, if we look at the last 20 years and what's actually happened in terms of our economic development, we now have a situation where the wealthiest 20 percent of Canadian families take half of all income every year and hold three-quarters of all wealth.

So when we say that the impact is going to be primarily on the poor and we say that there's going to be an impact on the economy as social democrats, then we look at what are the ways we can mitigate the impact on poor and middle-class families and make sure that the impacts are lessened there, and essentially those that have profited the most from this abuse of our natural resources are the ones that essentially will have to make the biggest adjustments.

So we have this huge income inequality in Canada. This is another issue that's not covered by the National Press Gallery, but our income inequality now is the same level it was in the 1930s, prior to the whole array of social programs that were set up in order to protect Canadians.

So we've turned the clock back to the

1930s and there were radical solutions that were envisaged then for the economic turmoil that we were living through. We are now looking and facing environmental turmoil, and we have to take substantive steps, but the impacts are going to have to be felt with those who profited from the past 20 years. And when 75 percent of the wealth is concentrated in the hands of 20 percent of the population, that’s where we’re going to have to go.

THE MODERATOR: Well, I want to thank you all for participating, including the interpreters that I know have to head off to another engagement and have been very patient with us here going past our timeframe. Thank you very much.

We will get copies of these transcripts back to you and we will all continue to work on this.

We must make this an issue that resonates in this country. It’s truly one of the most demanding changes that we need in our political system, a full address of this issue.

--- Upon adjourning at 10:51 a.m.