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Wednesday, April 25, 2007

Chair

Mr. Lee Richardson

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● (1535)

[*English*]

The Chair (Mr. Lee Richardson (Calgary Centre, CPC)): Ladies and gentlemen, I think we shall begin. We have a couple of late arrivals expected, but we will commence the 45th meeting of the Standing Committee on Natural Resources.

We're pleased today to welcome our witnesses in our study of the greening of electricity consumption in Canada, electricity distribution and integrated networks. From the Northeast Power Coordinating Council, we have Philip A. Fedora, who is the assistant vice-president, reliability services.

I should say for the record that the Northeast Power Coordinating Council is a not-for-profit New York corporation acting as the international regional reliability organization for northeastern North America. Its purpose is to promote the reliable and efficient operation of international interconnected bulk power systems in northeastern North America. I'm sure we'll get into it in your testimony, Mr. Fedora, but the total population served is about 56 million people, covering approximately a million square miles, so that will be fascinating to hear about. We welcome you from New York City.

We also have Ed Martin, president and chief executive officer of Newfoundland and Labrador Hydro. As you are aware, we are visiting your facility at Churchill Falls, and looking forward to that in the coming week, I believe—next Monday.

Without further ado, our standard procedure is to have you make a brief presentation—I'm sure you've been so instructed by the clerk—to give us a bit of background on your organization and responsibilities, and then we will move to questioning by the committee. I suggest maybe a 10-minute opening each. We'll hear both of you, and then go to questions.

Mr. Fedora, would you like to begin?

Mr. Philip A. Fedora (Assistant Vice-President, Reliability Services, Northeast Power Coordinating Council): Certainly. Thank you very much for asking me to appear today.

I do have a brief write-up that I've submitted, so it can be translated and distributed later.

You mentioned some of the statistics. From an electric load perspective, about 20% of the eastern interconnected load is served within the NPCC, and with respect to Canada, that represents about 70% of the Canadian load. This is based on the net energy flow within the NPCC region.

NPCC consists of five geographic areas: the six New England states—Massachusetts, Connecticut, Rhode Island, Vermont, New Hampshire, and Maine—the state of New York; the provinces of Ontario and Quebec; and the maritime provinces of New Brunswick, Nova Scotia, and Prince Edward Island.

In response to the U.S. energy legislation, and in preparation for the certification of North American Electric Reliability Corporation as the electric reliability organization, NPCC began restructuring in 2006. The membership interests in NPCC were transferred to a regional reliability assurance, not-for-profit corporation, now known as the Northeast Power Coordinating Council Inc.; and a separate and independent affiliated not-for-profit corporation was created, the Northeast Power Coordinating Council: Cross-Border Regional Entity Inc., or CBRE.

NPCC Inc. provides its members with regional reliability assurance services and acts as the vehicle through which states and provinces can fulfill their political mandates with respect to resource adequacy, as well as overseeing the northeastern North American electric infrastructure through development, assessment, and enforcement of regionally specific reliability criteria, the coordination of system planning, design and operations, and assessment of reliability.

The purpose of NPCC's cross-border regional entity is to enhance the reliability of the international interconnected bulk power systems in northeastern North America through the development of regional reliability standards and compliance assessment and enforcement of continent-wide and regional reliability standards pursuant to the execution and implementation of a regional delegation agreement with the ERO and Canadian provincial memoranda of understanding, backstopped through the ERO by the FERC and the Canadian provincial authorities.

On our website at www.npcc.org, you can find our business plans for 2007. They outline a comprehensive and flexible strategy for NPCC Inc. and NPCC CBRE to be able to respond to emerging reliability and organizational issues. For instance, during 2007 the electrical reliability assurance structure will continue to be refined, and we will continue to transition as FERC compliance orders and Canadian memoranda of understanding are implemented.

The reliability standards activity planned for 2007 include developing a regional reliability standards development process that conforms with the statutory requirements and takes a design basis approach to the establishment of reliability requirements; and promoting and facilitating open process review and balloting of regional reliability standards.

Entity registration and compliance enforcement activities planned for 2007 include registration of all users, owners and operators of elements of the bulk power system within northeastern North America, determined using NPCC's reliability impact-based methodology; and implementation of the NERC compliance monitoring and enforcement program within the United States, and with the compliance programs within Canada, consistent with the memoranda of understanding with the provincial regulatory and governmental authorities.

● (1540)

NPCC Inc. has a comprehensive set of regional reliability criteria developed and periodically revised and published on our publicly accessible website. These criteria represent over 40 years of experience and technical expertise specific to northeastern North America and, along with NPCC guidelines and procedures, state what is required to ensure the reliable operation and adequacy of the international bulk power system. The development and continual review of NPCC criteria is done by technical groups of experts in an open, inclusive, and transparent process that allows participation through a web-based comment forum.

The criteria have been developed to be consistent with the former NERC operating policies, planning standards, and subsequently, the NERC reliability standards recently filed and approved by FERC. Our criteria in some cases represent more stringent and more specific requirements, which the NPCC membership has agreed to, that are necessary to meet all northeast reliability objectives. NPCC Inc.'s membership is currently bound, through the execution of its bylaws, to adhere to these criteria. Enforcement of compliance with the criteria is achieved through the NPCC enforceable compliance program, with the support of the state and provincial authorities.

The NERC reliability standards define the reliability requirements for planning and operating the North American bulk power system. NERC's ANSI-accredited standards development process is defined in its reliability standards development procedure and is guided by reliability and market interface principles. The reliability functional model defines the functions that need to be performed to ensure that the bulk electric system operates reliably and is the foundation upon which the reliability standards are based.

NPCC has a mapping of its of more stringent regionally specific NPCC criteria that indicates where NPCC has more stringent requirements than the NERC reliability standards, or in the case of resource adequacy, for example, where we have criteria that exist with no related NERC reliability standards requirements. This mapping document will serve us as the foundation on which NPCC Inc.'s future compliance will rest. It will be a critical source of information in determining the need to revise our documents to be consistent with the standards as we move forward.

Thank you very much.

● (1545)

The Chair: Thank you, Mr. Fedora.

Now we'll hear from Ed Martin.

Mr. Ed Martin (President and Chief Executive Officer, Newfoundland and Labrador Hydro): Good afternoon. It's my pleasure to join you here today for this discussion on the greening of energy consumption in Canada.

I can assure you that Newfoundland and Labrador Hydro fully supports this concept, given the abundance of clean energy resources the province has to offer the rest of the country. I believe our goals and objectives are very much aligned, and I would hope that after this discussion we can work together to achieve greener energy consumption in Canada.

I'll begin today by providing you with some information as to who we are at Newfoundland and Labrador Hydro. Hydro is a crown corporation with a mandate to deliver reliable, least-cost energy to residents and industry in Newfoundland and Labrador. We generate, transmit, and distribute electric power and energy to utility, residential, and industrial customers throughout the province. In addition, NLH is currently in the process of expanding its mandate to take advantage of emerging opportunities in oil and gas developments and alternate green energy sources, including wind energy, and research and development.

The company is responsible for leading development of the significant untapped renewable and non-renewable energy resources of Newfoundland and Labrador and is leading the development of the 2,824-megawatt lower Churchill hydroelectric development in Labrador.

Conditions for hydroelectric development in Canada have never been better. The Government of Canada is in a position to take steps to help facilitate these large-scale projects and create a made-in-Canada solution to GHG emissions in the electricity sector that will also assist in building a greener economy and reducing electricity prices for all Canadians.

The lower Churchill project is a significant national investment that can displace an estimated 16 megatonnes of GHG emissions from comparable coal generation. To put that in perspective, that's enough clean electricity to power all of the private dwellings in Pickering, Ajax, Whitby, Oshawa, and Calgary, with enough power left over to power up the provinces of Saskatchewan and New Brunswick in total.

Hydro power fuels the Canadian economy by creating tens of thousands of jobs annually in Canada; by supporting industry, agriculture, and businesses; and by enabling Canadians to take advantage of the many comforts arising from an affordable and clean source of electricity. With an abundance of hydroelectric, wind, and petroleum resources, Newfoundland and Labrador is positioned to be a strategic long-term supplier of energy to meet the growing demands in all of eastern North America. The lower Churchill River hydroelectric resource is one of the key elements of the province's energy warehouse.

The potential of the lower Churchill resource, one of the most highly valued undeveloped hydro resource projects in North America, is immense. Combined, Gull Island, with a magnitude of 2,000 megawatts, and Muskrat Falls, with an additional 824 megawatts, have the capacity to power 1.5 million homes. Combined with the existing Churchill Falls generating station that you're going to visit next week, the three developments—the upper Churchill, Gull, and Muskrat together—have the ability to produce the electrical equivalent of 225,000 barrels of oil per day, forever. This much-needed source of clean, cost-efficient renewable energy will allow Newfoundland and Labrador to play an important part in meeting Canada's growing energy demand and reducing the country's greenhouse gas emissions.

In addition to lowering greenhouse gas and air emissions and enhancing the national economic landscape, the lower Churchill project can reduce dependency on fossil-fuel-based generation, resulting in Canadians' experiencing fewer increases in electricity prices as a direct impact from fuel supply shortages. The impact of gas prices on the cost of electricity was clearly demonstrated by Hurricane Katrina in 2005, contributing to an average market price in Ontario in September 2005 of $99.70 per megawatt-hour, a significant increase from Ontario's average price in 2004 of $52 per megawatt-hour, an increase that was directly felt by every homeowner in Ontario.

Thanks to hydro power, Canada has the lowest cost of electricity production and one of the most reliable generating systems in the world, providing Canadians with a clean, affordable, dependable electrical supply.

● (1550)

To say I'm excited about the opportunity the potential development of the lower Churchill presents for our province and Canada is an absolute understatement. We have an opportunity to develop a product from which our province and our country will reap benefits for many generations to come. We have an opportunity to assist our neighbours to the west and south in meeting their growing needs for energy demand. We have an opportunity to provide long-term renewable, predictably priced electricity supply in eastern North America. This clean, sustainable, secure power is in high demand, and it's a demand that will only continue to grow as time passes.

Currently, the lower Churchill project team is vigorously pursuing the project development on multiple fronts. It is building on project planning and execution experience gained from the development of large hydro projects within Newfoundland and Labrador Hydro as well as megaprojects that have been completed successfully in the province, including Hibernia, Terra Nova, White Rose, and Voisey's Bay.

A comprehensive planning schedule is in place, leading to project sanction in 2009, with first power expected in 2015—and we're on schedule. As with any development project of this magnitude, there are many components being addressed. These include the environmental assessment process, the review of previous engineering design work and preparation for further studies and field work, negotiations for an impact and benefits agreement with the Innu Nation of Labrador, analysis of market access options and market destinations, development of a financing strategy, and determination of the optimum project configuration.

As I'm sure you are aware, the development of the lower Churchill project has been under consideration for quite some time. Therefore, significant engineering and environmental studies have already been completed. To build on the work already done, we are moving the project along on several fronts.

A considerable amount of effort this year has led to the completion of a variety of baseline environmental studies in preparation for the environmental assessment process. These studies complement and update the previous ones conducted.

In December we registered the project with the required federal and provincial environmental regulatory agencies, and that has kick-started a considerable amount of consultation on the project, which is leading us to the filing of an environmental impact statement most likely later this year.

Our negotiations are continuing with the Innu Nation of Labrador towards an impact and benefits agreement, and these talks are progressing well.

Also ongoing is the overall project execution strategy and engineering work, including the review of previous engineering design work, along with the determination of labour force requirements, which by the way, are expected to be, at peak construction of the lower Churchill, an average of 2,000 persons on site.

Last month we announced the award of preliminary engineering service contracts to three firms: Hatch Energy, SNC-Lavalin, and Fugro Jacques. This preliminary engineering work will allow hydro to prepare for environmental and engineering activities leading to project sanction. These external resources will assist the internal hydro engineering team in completing the field work, optimization, and engineering studies necessary to prepare for front-end engineering and design work to begin in 2008. As well, work continues to develop a financing strategy, assess market access, and analyze market destinations.

In terms of market access options, a variety of market opportunities exist, including Ontario, Quebec, the maritime provinces, and the northeast United States. Several options remain under consideration, including both the maritime submarine route from Newfoundland on through to New Brunswick and into the U. S., and the transmission through Hydro-Québec's transmission system. There are two routes under consideration. Transmission service requests have been submitted to Hydro-Québec and the New Brunswick system operator under their open access transmission tariffs in Quebec and New Brunswick, respectively.

The New Brunswick request involves two delivery points: one via the Hydro-Québec system and the other via a subsea, high-voltage direct cable system. In other words, in New Brunswick we have two applications in, one application to bring in megawatts through Quebec, and the other application bringing in the megawatts from the subsea link. In addition, a request for an interconnection assessment has also been filed in Ontario with the IESO.

● (1555)

Several of the resulting system impact studies are now being completed, which will provide us with information on the impacts of releasing lower Churchill power into the markets and the costs of any upgrades required. We have received the first of our system impact study information from Hydro-Québec. A second one is expected this week, and the remainder are on schedule throughout 2007.

In addition to the transmission service requests in New Brunswick and in Quebec, we are engaging expertise in the study of the HVDC —the high-voltage direct current—subsea system from Labrador to the island portion of the province and then into New Brunswick. So to get from the lower Churchill through to New Brunswick, step one is to come from Labrador onto the island portion of the province, and then we cross over and go subsea from there. So there are two subsea links: a small link from Labrador connecting the island, and then a larger link going from the island to New Brunswick.

We know the maritime subsea route is technically feasible; there's no question about that. We have several examples of situations in Europe—two key examples from many. One is a line called NorNed, which connects Norway and the Netherlands; and a second example is the Baltic Cable, which connects Germany and Sweden—similar distances, similar capacity.

We have more barriers to energy trade in Canada than in the United States. While physical interconnections exist, an open, transparent interprovincial electricity market has not been encouraged or developed in Canada. This issue should be addressed in order to effectively meet central Canada's energy supply needs, in particular with a renewable source such as ours. If we do not address the development of a robust interprovincial market and the creation of an effective east-west transmission grid, we will continue to encourage a situation where Canada's electricity continues to follow the path of least resistance, into a receptive market in the United States.

While we wish to be good neighbours with our U.S. friends, unless we address this issue, Canada stands to minimize or lose a distinct competitive advantage in North America and the world. The Churchill River development is the equivalent of 225,000 barrels of oil a day: clean, stable, secure energy, forever. The value of this development cannot be understated in the current global and regional context, and it is certainly one of the most attractive and economic hydroelectric developments left in North America today. The lower Churchill will significantly contribute to the country becoming a clean energy superpower. The project has the potential to generate significant financial rewards and investment returns, in addition to being a key contributor to Canada's increased concern regarding greenhouse gas emissions.

In conclusion, I'd just like to note that we're looking forward to seeing everyone next week in Churchill Falls. Gilbert Bennett, our vice-president of the project, is at home, working hard and getting ready, and we hope to show you a good time. If anyone wants to stay overnight for a little extra fun, I just want to extend that invitation. We can look after that as well. We're certainly looking forward to seeing everybody, and we really do appreciate your coming down to see our project. It's great for us to be able to have the opportunity to showcase what Newfoundland and Labrador Hydro can do and what Newfoundland and Labrador can do.

Take the upper Churchill project. It's the eighth largest in the world. We operate it at a world-class standard. For the last two months of winter, availability has actually been 100%, and we are so proud of the fact that we are operating such a huge facility and doing such a great job. It's a chance for us to showcase that, plus we can give you a bit more information on the lower Churchill and give you the feeling that we're coming and we're going to do a good job of this project, and we can take all the help we can get.

So thank you very much.

The Chair: Thank you very much, Mr. Martin and Mr. Fedora.

I think we're all looking forward to it. We had the opportunity, in a recent study, to visit the oil sands, and in that we got an idea of the magnitude of it. So I think we're all looking forward to doing the same thing in terms of it being very difficult to take what we're about to see off a page, I'm sure. So thank you for your invitation to come, and we'll look forward to it.

With that, I'm going to start questioning. I think our resident expert is going to begin the questioning today.

Mr. Russell.

● (1600)

Mr. Todd Russell (Labrador, Lib.): It was resident, anyway. Thank you, Mr. Chair.

Welcome to our witnesses.

Of course, Mr. Martin, it's good to see you again and talk about a potential and exciting project right in the heart of my particular riding, Labrador. I want to thank you as well for the work that you and your staff have done in helping us organize the tour. All of my colleagues are looking forward to spending the day in Churchill Falls. It was probably one of the greatest engineering feats of its time. So you'll get a chance to see that. One of the biggest underground power-generating stations in the world is in Churchill Falls. And you'll get a little taste of Labrador as well.

I tried to get them to stay overnight and they said they didn't like to rough it. I said, “For God's sake, man, we're staying in a hotel.” So you wonder where some of these guys and gals come from.

I have a couple of questions on this particular project. Of course, it has particular interest to us in Labrador.

Very quickly, on the environmental process, you registered it through both the federal government and the provincial government. Where is the federal process right now in terms of the environmental process?

Mr. Ed Martin: The two processes, as you are probably well aware, are different.

In Newfoundland, the process is time driven. It's built into the legislation that certain things have to happen on certain days, and it's very tight, timing-wise. It has moved along more quickly just because they have deadlines to meet legislatively.

On the federal side, the submission has been made, and we're waiting to hear—we expect imminently to hear—where they are. The next step in the process is for the federal government to come back and say that they understand and that this is what they recommend. They will sit then with the province and do a harmonization. That would be the obvious thing—they would agree to do this together and merge both processes. After that they will instruct us as to timelines.

Right now we're waiting, but I think we're still within the timeframes we've expected. Hopefully over the next week or two we're going to get some answers and we'll be able to maintain our schedule.

Mr. Todd Russell: They haven't responded yet.

Mr. Ed Martin: They haven't responded yet, but as I said, in our understanding, there's dialogue going on between the province and the federal government. We understand that dialogue is happening; we're just not sure of the timing yet.

Mr. Todd Russell: I raised this issue with you before, and that is that when the project was submitted they talked about the generation of power, but they didn't talk about the transmission of power. I thought that might be problematic from a project splitting perspective, which is not applicable under federal law. So I'll just make that comment.

In terms of the relationship between the lower Churchill and reducing dependence on diesel generating stations, particularly on the coast of Labrador, what do you anticipate there? We have a lot of small communities that depend solely on diesel. It's expensive, you know. It's a fossil fuel burner. Is there any link between the coast of Labrador getting off that dependence and the lower Churchill project? We're talking about reducing greenhouse gas emissions with this green energy.

Mr. Ed Martin: Well, I have two pieces to answer that.

With respect to the link between the lower Churchill and the coastal communities of Labrador with respect to diesel, we've done extensive studies in terms of what it would cost to run transmission lines up the north and south coasts of Labrador. And we have compared that with what it costs to operate diesel generation. There's such a huge disparity in cost with respect to this that it's not something, essentially, that is feasible for us from a cost perspective. We can't defend that. That being said, it doesn't mean we're not looking at that kind of thing, not only for the remote communities in Labrador but also for the island portion of the province.

Newfoundland and Labrador Hydro has been successful recently in putting together a consortium of two universities, Memorial University and University of New Brunswick, with Newfoundland and Labrador Hydro in the lead, and we've brought in some private partners. We're doing a research and development project, a pilot project we started several years ago, in a remote community called Ramea. It was and still is being driven by diesel, similar to some of the communities on the coast of Labrador.

Several years ago we brought in wind and hired someone to come in and put up a pilot project to marry wind with diesel. Naturally, when the wind blows, you are providing cleaner power; and when the wind isn't blowing, diesel kicks in. We've perfected the technology to make that happen in a manner that gives the customer reasonable reliability.

In this most recent study, we've introduced a new piece, and that is hydrogen storage. This is a research project we're leading in which we've brought hydrogen into the mix. What we want to do now is that when the wind is blowing, even if we need diesel for voltage support, we want to take the excess power that's being generated by the wind, which we can't control, and store it in hydrogen. It's a five-year project, and we're hoping to commercialize that process. We're sinking a lot of time, effort, and money into it. Not only are we hoping it will benefit our own remote communities, from a greening perspective and potentially from a reliability perspective, but if we get this right, we think we may be able to patent something we can market to the rest of the world—in places such as Australia and Greenland and other areas where they have a situation similar to what we have.

● (1605)

Mr. Todd Russell: Thank you for that.

On the financing side, the province said that it may go it alone. I don't know what that actually means. Are they going to totally assume the risk of this? During the last election, the premier asked the Prime Minister of Canada if he would consider a loan guarantee for the development of the lower Churchill. The premier has been quoted as saying that this is a done deal, or it is very close to being a done deal, or something in that particular vein—I can get the quotes. I know the request has been made.

What has the response of the Prime Minister been to that particular request from the province?

Mr. Ed Martin: I can't speak on behalf of the province. We're obviously running the lower Churchill project as a business, and I'm sitting back from that situation.

At the request of our shareholder I've been asked, from a business commercial perspective, to take this project and come together with two or three combinations of options to produce financing and give us a reasonable return, as well as protect our upside in the long haul with respect to what we could make on this project.

Our job is to bring those pieces forward, lay them in front of the province, and give them two to three options to hopefully say, this works, this works, and this works; which one suits you from a policy perspective? At that point we'll be indifferent, because hopefully we will put together a business case where all of those options will be financeable and will provide reasonable returns.

As far as the loan guarantees go, that is a discussion between the province and the federal government. I think it has been publicized. The papers have been pretty clear. There has been a request by the province. The Prime Minister indicated he would support the project in that fashion. As far as Newfoundland and Labrador Hydro goes, that's a piece of business we've incorporated into our business case. There's no question about that.

As far as pulling the trigger on that piece of it goes, it's there and we're incorporating it, but it's not something we're saying must be signed right now. I need to get these business cases together and be able to demonstrate to the federal government that there's a loan guarantee commitment there. We appreciate that, but this is the type of project that's a tremendous investment. It's a tremendous investment for Newfoundland, but it's also a tremendous investment for the country. We want to make the business case and show why it's good for the country. We want to say that this is not a situation where we're looking for a handout or assistance. This is a huge investment opportunity for the country, and we want to present it in that fashion.

We hope and expect that the federal government and financiers and anyone else who is constantly knocking on our doors to invest in this project because it's such a good project, are going to look at this and say it's something they want to invest in because it just makes so much sense.

The Chair: Thank you.

Monsieur Ouellet.

[*Translation*]

Mr. Christian Ouellet (Brome—Missisquoi, BQ): Thank you, Mr. Chairman.

The map you gave us does not show Lower Churchill, but I can see Churchill Falls. Where is Lower Churchill? Is it the same thing as Churchill Falls? If I understand correctly, the dams are lower down at Churchill Falls and there may not be any hydroelectric facilities there. Is that correct?

[*English*]

Mr. Ed Martin:

[*Translation*]

Mr. Christian Ouellet: From Lower Churchill and the other place, what is the voltage of your electrical transmission lines?

[*English*]

Mr. Ed Martin: I apologize, I missed the first part of the question.

[*Translation*]

Mr. Christian Ouellet: I'm referring to transmission line voltage.

[*English*]

I'm sorry, I'll have to ask you in French.

[*Translation*]

What is the voltage for the high-tension wires?

● (1610)

[*English*]

Mr. Ed Martin: The lines from the upper Churchill into Quebec right now are transmitting 735 kilovolts. If you come down the river from the upper Churchill, Gull Island is first and then Muskrat Falls. We'll connect Muskrat and Gull most likely with 230 kilovolt lines. The plan is to do a 735-kilovolt connection to upper Churchill. Then there will likely be a 735-kilovolt connection, but which direction we go is still under study.

So there'll be a link from Muskrat to Gull, and from Gull to upper Churchill. But there'll also be a redundancy of a new link, which will be a 735-kilovolt link into Quebec, if that's the way we choose to go. If we choose to go south, it'll be another 735-kilovolt link to the island and through.

[*Translation*]

Mr. Christian Ouellet: In the House of Commons, we must speak French, so that is what I'm doing, although I more comfortable in English here.

If you use a 735 kV link is there less power loss? Is that the reason why you use 735 kV rather than 230 kV?

[*English*]

Mr. Ed Martin: Yes, that's the optimum configuration for the amount of power that we will be transmitting.

From an engineering perspective, because there's less at Muskrat Falls, with 824 megawatts of capacity, the 230-kilovolt lines are sized in such a fashion that this is the most efficient, most cost-effective transfer to Gull. At Gull they'll take that and merge it with the Gull power. The engineers have determined that the size of lines —technically and most cost-effectively, would be the 735s, moving on from there.

[*Translation*]

Mr. Christian Ouellet: Do you know how much power is lost per line kilometre on 735 kV wires?

[*English*]

Mr. Ed Martin: It ranges, but as a rule of thumb we're probably looking at anywhere from 3% to 4% to 7% line losses over the distance to market. Naturally we understand that. Our engineers have given us the ranges, and we've put that into our economic modelling. For any type of return that we are showing, any type of market analysis, we incorporate all that.

It's pretty normal for a project of this size.

[*Translation*]

Mr. Christian Ouellet: You sell a significant amount of power to Montreal. I would like to know what the line loss is between Churchill Falls and Montreal. Ten per cent, 15% or more?

[*English*]

Mr. Ed Martin: Approximately 5%, or around 5% to 7%.

[*Translation*]

Mr. Christian Ouellet: And to Toronto, it would be another 5%, and if it is Vancouver, you'd have nothing left ?

[*English*]

Mr. Ed Martin: I think that's why I was using the range of 3% to 7%, roughly speaking, because it does depend on the distances.

To be frank, when it comes to exact line losses from upper Churchill or lower Churchill into Montreal or into Toronto, I don't have those at my fingertips. But from the economics that my business people and engineers are providing, I know that the ranges, as I've mentioned, are built in properly to match the distances we're using to estimate.

To be honest, I don't have the exact distances and lines losses. I just know that we have incorporated what is right and reasonable.

[*Translation*]

Mr. Christian Ouellet: You are considering a possible subsea line towards New Brunswick. Would there be as much line loss there as in an overhead line?

[*English*]

Mr. Ed Martin: The short answer is yes.

As to direct comparison, that's the answer I've been provided, because naturally I've asked the same thing. About four months ago I put together a small team of engineers. I asked them to provide me with the updated economics and technical considerations of a subsea line from Newfoundland and Labrador to New Brunswick. I wanted them to give me the feasibility of it, high-level. They came back and told me it was feasible, and gave me the research. In northeastern and northwestern Europe there's a predominance of these types of lines, as there is in Australia. Connecting Australia and Tasmania is a line called Basslink.

So I asked them if it looked reasonable in the preliminary, and when they said yes, I asked for some numbers on how much it cost. They numbers they provided me with came within a window such that, from a commercial engineering perspective, I wanted to pursue this further. I asked this team of engineers to go to Europe and investigate it further. They visited some of the key engineering firms as well as some of the big projects. NorNed is a good example, as I mentioned; it's connecting Norway and the Netherlands.

The team came back with some interesting results. The Europeans think differently from Canadians with respect to this. I find the Americans actually a lot more aggressive than we are as well. The Europeans are doing this all the time. They think long term. They think infrastructure investment. Their response was, “Here are the numbers, let me look at what you have, this looks interesting—we'll come over next month and let's start.”

All of that said, from what they brought back I have enough information that has continued to show that this is a viable alternative. So before I can answer your questions directly, I will tell you that, as I mentioned, we've hired three engineering firms. One of those, a large Norwegian firm with engineering expertise, is to come over and—

● (1615)

[*Translation*]

Mr. Christian Ouellet: You can tell me that next week. I'd like to ask you one other question. I have very limited time. Earlier on you were referring to power exports towards jurisdictions like the United States, New Brunswick and Ontario, possibly. Do you not have an exclusive contract with Quebec?

[*English*]

Mr. Ed Martin: Upper Churchill, yes—exclusive contract with Quebec. Our intention, from Newfoundland and Labrador Hydro's perspective as a business entity, is no change.

Lower Churchill, no—entirely separate. Whatever we do there is separate from that entirely.

[*Translation*]

Mr. Christian Ouellet: When it comes to energy efficiency in the transmission of electrical power, you're telling me that you get the best results from 735 kV wires. Would it not be more effective to diversify your sources through interconnection, so that power is used as close as possible to where you generate it, by using hydrogen, as you mentioned, or other means?

[*English*]

Mr. Ed Martin: Well, I guess we look at it in terms of power obviously just being the movement of electrons. So if we are moving power over long distances, depending on the type of system you have, it doesn't necessarily have to be the exact same electron starting here and ending up over there. We may end up selling power and going through a transmission route where some of our power—if we could ever identify it—may be pulled off earlier and replaced with power coming from other sources farther down the line.

So we don't really look at it in terms of—That's why with the line losses, we just don't start with our electrons and end up in Montreal or Toronto; there are a whole bunch of things that happen in between, and that is the premise of open access, to allow that to happen in an efficient manner so everybody wins.

[*Translation*]

The Chair: Thank you, Mr. Ouellet.

Ms. Bell.

[*English*]

Ms. Catherine Bell (Vancouver Island North, NDP): Thank you.

Thank you both for your presentations.

Mr. Fedora, no one has asked you a question yet. I wish you'd had a handout; maybe you did and I didn't get it.

Mr. Philip A. Fedora: I distributed it. You'll get it later, I guess.

Ms. Catherine Bell: Okay, because there was a lot of information in your presentation and lots of figures.

One of the things I want to touch on is the reliability of electricity in the context of sustainability. For me, sustainable is good for the economy, community, and the environment. So when you talk about criteria for reliability, do they negate anything that would be seen as sustainable, such as wind and solar—because they're not always seen as reliable? I'm just wondering if you could comment on that.

Mr. Philip A. Fedora: I just want to say that when we talk about reliability, we're talking about the reliability of the bulk power system, so that no disturbances cascade into outages that could cause region-wide blackouts, not just local events. We're talking of the size of the northeast.

These criteria are planning and operating criteria put in place to protect the system for the benefit of all users, so you can have a robust marketplace and can sell power from point A to point B in a reliable system that remains operable under a variety of system conditions. The operators will follow these guidelines and procedures, as well as the planning aspects.

There's a lot of wind power being proposed for the future—a lot of projects in the United States and Canada—as well as demand-side programs. When we develop the criteria through our committees and experts, we are very careful to make sure these are technologically neutral, so that the requirements are purely for the reliability of the system. That's taken into account.

Normally when projects come before us, before they can be implemented, they need a signed purchase power agreement or they have to enter into something with their local utility. Within those agreements come the conditions they must adhere to, including mandatory NERC standards now, as well as any more strict criteria the region has. So this is done at a planning stage before the project's even interconnected. It goes into the design of the projects, whether it's wind, or hydro, or a nuclear unit, for that matter. It's taken into account. The reliability is in the best interest of everyone.

● (1620)

Ms. Catherine Bell: Thank you.

I want to touch on the east-west power corridor issue that we've been talking about for some time. I see on the little map you have in your package, there's a lot of back and forth, up and down, and a little bit of east and west between a few provinces. While I understand that each province developed their own power based on their own needs at the time, some of the provinces are using not so clean methods of power generation—such as coal. Nuclear, as far as I'm concerned, is not a sustainable form of power generation, although it is reliable and, I guess, cost-efficient.

So I'm just wondering, with respect to an east-west power grid, what it would take to make that a reality in Canada, politically and between the provinces. What effect would that have on our north-south sales or purchases?

Mr. Ed Martin: Times have changed. If you look at the very interconnections that are occurring north-south and east-west at this point, for the most part we're keeping the lights on, although there have been indications of problems. We're at a point where we need to address those one way or another, to meet Ontario's needs in particular. They have announced the closing of the coal generation... plus they have growing demand. Steps have to be taken to meet the demand and the issue that's going to occur 10 or 12 years hence. That's the nature of big projects.

I'd like to say that we feel we're doing our part in Newfoundland and Labrador with respect to the east-west grid. We have invested money in Hydro-Québec and used an open access transmission process, which Hydro-Québec has been very open in providing us. It's their process and they've opened the door to us. We've asked them what to do, they told us, and we've applied that. But we're spending money to fund those studies—Newfoundland and Labrador alone. So we're making our best effort.

From an east-west grid perspective, we're saying we have an issue that has to be dealt with and we're asking how we can improve that. How can we help that from a federal government perspective? I turn to our friends in the U.S., who I think have been ahead of us with respect to this kind of thing. If you look at the structure of our Canadian markets and where we're headed and compare it to the U. S., the U.S. government, through the Federal Energy Regulatory Commission, FERC, has taken a stand that they are going to be the holders of the open access rules, regulations, and appeal processes. I think that makes a lot of sense. I think the various state jurisdictions in the U.S. got to a point where they felt that, for open competition and the good of the consumer, if the federal government put an element of fairness across the country over this thing, that most importantly is going to drive this freer flow of energy across Canada. I suggest we are probably at a stage where we need to consider that.

With respect to the jurisdictions that are impacted, whether you're coming through Manitoba, Saskatchewan, Quebec or anywhere, one of the key bases of open access is to ensure you pay a fair tariff. The jurisdictions that currently own the transmission have invested good money in that transmission. They made good investments, strong investments, and there is value attached to that. From a federal perspective, an understanding that those jurisdictions have to be protected to get a fair return on the assets that will be utilized by others is critical.

You have to have something that works for everybody. That's the way we're looking at it with respect to our relationships with New Brunswick and the Province of Quebec. We see this as good for both of those jurisdictions. In a tariff situation, which we'll be paying, we understand the numbers. Any tariff that's being paid is cash that goes into the systems in New Brunswick and in Quebec. It provides extra revenue to those jurisdictions for transmission capacity that is not being currently used, which has the result of making their systems more effective, with lower cost to their consumers. There is a return built into that.

That's how we're working with these folks. We understand and we are prepared to pay a fair tariff to use those assets. But if you look at the structure and how this happens, I think the time has come for the federal government to make that work and make sure it is fair for everybody.

● (1625)

The Chair: Thank you, Ms. Bell.

We will now hear from the Parliamentary Secretary to the Minister of Natural Resources, Monsieur Gourde.

[*Translation*]

Mr. Jacques Gourde (Lotbinière—Chutes-de-la-Chaudière, CPC): Thank you very much, Mr. Chairman.

My question is for both witnesses. We are discussing the transmission of electrical power, a subject which I find very interesting. These nice big power plants, in Churchill Falls and James Bay, are, in my opinion, the foundation of our power supply. Moreover, they provide clean energy.

From Churchill Falls, are the easiest markets to reach down south or in Quebec? It may not be all that significant. What route does power take between Churchill Falls and Quebec? Is it mainly to supply eastern Quebec, to allow the James Bay plant to provide more power to Ontario? Unless it is all interconnected.

Thanks to Churchill Falls, additional electricity will enter into the system. Can you tell me whether the distribution grid has the capacity for integration? Could you also comment on the role of small hydroelectric plants and wind farms? Do they work with the system or could they cause a problem?

[*English*]

Mr. Ed Martin: In answer to the first part of that question, with respect to the availability of excess capacity in Quebec, we know there is some, but in actual fact that's the purpose of the open access transmission request and the system impact studies. We've asked them to study that and to identify exactly what the excess is. If we need more, then there will have to be an investment to build more infrastructure or upgrade infrastructure.

The way the tariff works is that up to a certain point, some increased infrastructure is allowed within the tariff, and after a certain point, the tariff would be increased by the amount that it would take to do the extra upgrades.

That's the purpose of the impact studies, and that's the information we're getting this year. We will be able to answer that question better when we get the information.

You mentioned small hydro and wind. I think if you look at it, once again, not only from Canada's perspective but from Newfoundland and Labrador's perspective, Newfoundland and Labrador have what we call an energy warehouse. The federal government has talked about an energy superpower for Canada, but we believe we have an energy warehouse.

This relates to small hydro in that if you look at our resources, look past the lower Churchill and the upper Churchill, add to that the extra potential for further hydro development in Newfoundland and Labrador, and add to that the wind potential, which is second to none. We've just displaced North Dakota as the best wind regime in North America, and we have the statistics to prove it. They were talking about a 40% capacity. In fact, we're at 43% to 45%. I don't think I have to tell that to anyone who has visited Newfoundland. We may not need scientific data to prove that, but we have it in any event.

If you look at small hydro and wind and the massive resource we have there, and an energy warehouse, that only goes to show why it is so important, from a transmission perspective, for Newfoundland and Labrador to be able to grow our economy and stand on our own two feet over the next 25 to 30 years. We have to get this transmission situation sorted out.

It's good for the country. It's good for the rest of the provinces, but also we have all this extra energy that's sitting there waiting to meet the growing demands of central Canada. So anything we do here is going to enable continued development for Newfoundland and Labrador.

We need a lot of power for ourselves, but to be frank, I can't envision a situation in which the amount of power we have available to export.... I don't know if we'll ever be able to consume the huge amount that we have. We're talking thousands and thousands of megawatts. We are going to look after our own needs first, no question, but I know, just from the numbers we're running, that we have the answer for a lot of this country, and it's sitting there waiting to be developed. Any transmission work we do is only going to enable the rest of that.

You also asked a question, I think, about enabling wind. Another competitive advantage we have in Canada—we have it in Newfoundland and Labrador, and other jurisdictions have it—is that if you marry hydro with wind, it's a true marriage made in heaven. When the wind is blowing, you just let it blow and use all that power, and you store your water in the reservoir. That's basically storing cash. And when the wind stops blowing, you have enough extra water to start running your turbines instantly, and you blow it down.

What you do, in essence, is take wind, which is intermittent, and you make it firm. You make it like a hydro project by marrying those two together. Any jurisdictions that have lots of hydro and good reservoirs are able to take this wind energy and make it really firm.

● (1630)

[*Translation*]

Mr. Jacques Gourde: Thank you.

There is one thing that I have more or less understood. Labrador will be exporting energy. In fact, you will have more than enough to meet your needs. At the end of the day, you want to export some to maintain your project's and the province's economic viability.

To have access to part of the Quebec market, is it really necessary for the province of Quebec to partner with you or could you simply send your power from Labrador to Toronto or New York? Is that an issue at all?

[*English*]

Mr. Ed Martin: When we first step back and talk directly about Quebec, from Newfoundland and Labrador Hydro's perspective, we partner with Hydro-Québec every day, and we do it very effectively, and we have for 40 years. We have a tremendous working relationship. I have to say that. You look at the upper Churchill Falls, a 5,500-megawatt facility. We operate it. They're our customer, and daily there is constant interaction. And there are really very good, solid relationships there. That's number one.

Number two is that the same relationship has spilled over into our applications into Hydro-Québec TransÉnergie. Typically Hydro-Québec is very professional; so is Newfoundland and Labrador Hydro, and we're continuing to work at that. As far as partnering with Hydro-Québec or Quebec on anything, we do it all the time, and it works effectively for us.

But as far as the actual destination goes, we will go to the destination, in the final analysis, that provides us with our best returns. We've made that clear before. We see this as a Canadian opportunity and a tremendous investment for the country, and naturally our preference would be to do a fully Canadian project. But I think we've also been clear that in the final analysis, we have to do the best business deal, and that's what we're in the process of putting together, and that's where we'll go.

Mr. Philip A. Fedora: Could I add something to that?

The way the systems work, predominantly the northern provinces peak in the winter; their highest load level is experienced during the winter. Ad that's not the case in the United States, where the summer peaks are the highest.

So there's this load diversity between north and south, and that's why there is a lot of trade of electricity between Canada and the United States. Because you're normally in excess in the summer period in the northern places that aren't peaking. They do their maintenance and they still have excess power left over that can be sold to a market that is eagerly waiting for it, because that market is peaking, opposite to the north.

Mr. Ed Martin: I couldn't agree more. The only thing I could add is that what we're seeing is that there's been a turnaround in the Ontario marketplace only. Ontario has become a summer-peaking market over the past several years and it's continuing to grow that way, as we've seen with some of the issues they've had. So now we have a U.S. and an Ontario summer-peaking market.

The Chair: We'll make another round, Mr. Harris, to get back to you, because we did want to hear from Mr. Tonks.

Mr. Alan Tonks (York South—Weston, Lib.): Thank you very much, Mr. Chairman.

Thank you to both of you for being here. Not being resident of the area, and being in Toronto, I must admit we do have the problems that Mr. Martin just talked about in terms of the summer peaking for air conditioning; we had our experience with the ice storm issues; we have the issues related to the coal-fired plants; and there's a raging controversy, even though the premier seems to have been able to circumvent it for the moment, on nuclear.

Is it necessary, based on your production of electricity from Churchill Falls, for the lower Churchill to develop before any probability can be met with respect to the evolving dynamic of the Ontario energy requirements? Why can't you satisfy them now? Why can't an agreement be worked out? As I understand it—perhaps my premise is wrong—that lower development is related more to export and developing a new service area, if you will, which is the newly emerging needs of Ontario and New Brunswick.

● (1635)

Mr. Ed Martin: First, I'd like to make this point, and I think Mr. Russell will understand why. It's been crystal clear as well that Newfoundland and Labrador's needs are to be met first. We just think we have excess power. Labrador is going to be first on the list, and the island is going to be looked after as well. So it's the excess we're talking about.

As for the time constraints that we have right now, looking at our project plan, why are we picking 2009 to put shovels in the ground? Well, the environmental process is the critical path on that. So we looked at everything that we're doing now with respect to project planning, the engineering, the market access work, the discussions with the Innu Nation—all the work that's going on—and we added the environmental piece of that. The environmental process has to be completed, and we respect that fully. We want to do an extensive analysis. That's the piece that has to be completed. That's what's driving us to 2009.

Following 2009, assuming we get through that process, we think everything else will be in place so that we will be in a position to put shovels in the ground, commit the big dollars. At that point, our project planning shows us that it will be a six-year timeframe, which is not that long for a project of this magnitude. It's in 2015 that we'll be counting first power, but actually the first units would be on in 2014.

From our discussions with Ontario and the U.S. markets, I know many of these places have experience with these big projects and they're looking at those timeframes as well. And actually, if you look at the load curves we were talking about and you look at the potential shortfalls of power, both in New England and throughout Canada, you'll see we are actually marrying up quite nicely on that schedule as to when these things really have to be met.

Mr. Alan Tonks: In terms of that timeframe and together in your strategic plan, does wind play a major role or is it a local treatment?

You've described the coastal situation and the cost-effectiveness. I certainly would accept that, although if I go back to your comment about putting Newfoundland and Labrador objectives first, if I were living on some of those coasts, I'd wonder why that higher priority would be given. But I accept your argument on cost-effectiveness. But is wind a major part or is it just for local treatment?

In Ontario we're really just starting to strategically place wind and co-generation with respect to the grid and trying to off-load some of the traditional energy sources.

So in that equation, could you indicate how large that massing of wind projects is? The committee is attempting to understand those kinds of applications across the country and then work them into some sort of a green energy strategic plan.

Mr. Ed Martin: From hydro's perspective, we've done a similar process. Strategically, we look at in two pieces. Because the island portion of the province is not connected to the Labrador portion, we have to look at two different problems here.

I like to refer to the island as the only other isolated system in North America other than North America, because we have to run a separate system on the island. So on the island I think you're finding, like in many jurisdictions across the country, we are limited as to what we can incorporate into the current system on wind. There are voltage regulation issues, issues of location. The way we are on the island, we have a spider system. We have a central large core of generation in some of our large hydro deep in the island, and it comes out and spreads out like that to various jurisdictions. Most of our best wind is on the tips of those legs, so pushing power back in causes a lot of system limitations. That limits us right now to about 75 megawatts of wind on the island. So we have 50 in the works right now and we're considering moving ahead with more.

If you look at the Labrador situation, provided we stay not connected, the wind resource there is in the many thousands, but strategically we've looked at that and said that we have to be realistic. I mean, I could sit here and say we have tens of thousands of megawatts of wind up there, but to be realistic, we've pulled back and said no, we need to maximize the value of this wind for the province, because after we satisfy the province's needs there are still going to be large amounts available for export.

So we've tailored that back to a point where we're looking at some staged developments. We haven't landed on the number, but in a range you're talking about 1,500 to 2,500 over a longer period of time, maybe in 200- or 300-megawatt increments. We want to marry that up, as I mentioned, with the hydro and resources we have to make sure we firm that up. That's how you're going to maximize the value of this wind over the long run.

Where is it in the queue? It's behind lower Churchill. The lower Churchill is reliable. Environmentally, greenhouse gas emissions are extremely friendly, and the cost of it is significantly less than wind. So it's a very natural first, but we are planning in behind that in terms of how we're going to do a sequential development. You'll see one coming after the other in staged perspectives.

That's a broad overview. Naturally there are lots of questions in terms of how that is intended to be developed. There are lots of interesting developers in the country active in Labrador. We have deferred that decision until the energy plan of the province comes out, because that tends to be more of a policy discussion of government, more so than a Newfoundland and Labrador hydro issue, but we are not sitting back. We're doing the analysis. We're putting the plans together. Whichever way the province decides to go, we're going to be ready to execute that.

● (1640)

The Chair: Thank you.

[*Translation*]

Welcome, Mr. André. From what I gather, you're going to be splitting your time with Mr. Ouellet.

Mr. Guy André (Berthier—Maskinongé, BQ): Yes, I will be splitting my five minutes with Mr. Ouellet.

Are there many submerged forests within your hydro-electric development? As you know, these forests produce methane and therefore greenhouse gases.

You are currently experimenting with a number of energy-efficiency programs. What are the most energy-efficient programs you have implemented over the last few years? What recommendations would you have for our various regions on that point?

You have asked for much support from the federal government to help you develop this relatively clean type of energy, hydro-electricity. What are you currently asking for? Do you find that the government is supporting you, in the shift towards a greener economy? Are you getting support in comparison with the oil sector, for instance? I would like your comments on that point.

[*English*]

Mr. Ed Martin: On the first point, with respect to the vegetation in the trees that may be flooded, with respect to the developments, I have just a couple of quick points.

Regarding the size of the reservoir, you can look in comparison to, say, the upper Churchill, which I think was in around the 5,000- to 6,000-square-kilometre reservoir up there, many years ago. The order of magnitude we're into is a 50- to 80-square-kilometre reservoir size, so it's very much smaller compared to what's up north. Why are we limited to that? Down river, where Gull and Muskrat are, they're in essence in a valley kind of arrangement. So what's happening is that you're filling up a valley, it's not spreading this way, it's coming up. What limits us, then, is that eventually you push back to the tailrace of the upper Churchill. So we're limited in how far we can go because you would end up flooding lower Churchill if you did more. Engineering-wise, we are limited to a much smaller environmental footprint. There is an environmental footprint with respect to the flooding, we admit that.

With respect to how we're going to handle the vegetation piece, that is part of what is under study this summer. There are obviously two ways to do it. You could cut the vegetation, cut the trees, and harvest the trees and vegetation, or potentially leave them there, depending on what the emissions situation looked like. That's what's being investigated. I don't have an answer for that just yet, but it will come out in the environmental process. One thing we have to consider in addition is safety. A lot of these trees are on very steep banks, so part of the analysis is what we will do with respect to trading off the safety of people who may be involved in cutting this as opposed to what would be acceptable from an environmental perspective. It's under heavy study, but we don't have all of the answers on that just yet.

With respect to energy savings, there have been a number of initiatives, and it depends on jurisdiction, I think. We've had some success, primarily with some programs aimed at lighting replacement and encouraging energy-efficient appliances. On the lighting side, we did a pilot project, in one of our remote communities again, where we handed out CFLs to everyone in the community. It was a pilot case, and I can't really project this to every jurisdiction, but we had a payback of less than one year on that program. Everyone took us up on it; it was displacing the expensive diesel, but our analysis showed us we had a payback of less than a year. So we're very excited about pursuing that on the rest of the coastal areas.

Newfoundland and Labrador has stepped up to the plate over the last year, and we've realized in our province that we're doing lots of things in various entities, government and private. We took a look at all of that and said, look, there's lots of good work, lots of great people, and lots of money in different pockets, and we've taken an approach that we've invested half a million dollars this year to bring all those groups together, taking the lead to say we don't want to control this, we just want to coordinate our efforts. And that's in the process of being done.

In addition to that, we've commissioned a study to learn something from many of our neighbours who have been much more successful at this than we have, because we know from our basic research that some things work very well and some things have been wasted. We've also learned that apparently there's a limit to how far it can go. Apparently, everyone seems to get the first 5% to 7% of savings, and we're finding in our studies that as people pour more money into it after that, it's harder to get to the next level.

From Newfoundland and Labrador Hydro's perspective, we are saying that we want a study to itemize the learnings from everywhere else—that's due in September—and based upon that study, we're going to put together a program that's very targeted, and coordinate everybody and come up with something where we hope we can learn from others. That's in the works as well.

You mentioned federal support. What are we looking for? With all respect, we don't like the term “federal support”. As I mentioned earlier, we believe that this is such a great project that it's an investment opportunity for the federal government. We welcome discussions, but as I said before, there's a tremendous amount of companies, individuals, funds looking to invest in this project for financial reasons. I think the federal government has—as you mentioned—an added benefit in that they're looking to invest in greenhouse gas emission reductions, and this is a gift. It's a gift. It's there. It's 2,800 megawatts. It could displace 50% of the GHG emissions created by Ontario's electricity generation sector. Ontario creates about 29 to 30 tonnes of GHG emissions from electricity generation every year. If you look at our project from a coal perspective, we can take 16 to 17 tonnes of that out of it immediately, as soon as we flick the switch.

● (1645)

So this is an investment opportunity. There's no question about it. What do we want? Basically we want the federal government to take a look at our business case and see how well it benefits them and to say to us that this is an opportunity they can't avoid and that they would like to invest. At that point, having shown them the business case, having indicated to them where we may have some suggestions —I haven't built that yet, but when we build it—on how they can maximize their investment, when we come up, we'd like to give the federal government some investment options. Hopefully they'll be excited about that at that time.

We haven't got the business case sorted out in such a way that we can sell our product in the best fashion, but that's what we're intending to do, and it won't be very long. We're very close.

● (1650)

[*Translation*]

Mr. Christian Ouellet: Is there any time left?

The Chair: Yes, go ahead.

Mr. Christian Ouellet: You're saying to Mr. Tonks that a great deal of power is used to provide air conditioning in homes and other buildings over the summer. It was true in the past it remains true and it will be the case for another five or ten years. However, that won't be the case for very long. The leadership in energy and environmental design or LEED, is a Canadian program that will make air conditioning obsolete, because forced air systems will be installed and it will be possible to cool the air through other means. Currently in Quebec, some movie theatres are not air conditioned. We are moving away from air conditioning, which will change the electricity pattern.

This committee is quite focused on energy efficiency in buildings. You stated that the summer peaks will disappear quite quickly, even though summers may get hotter?

[*English*]

The Chair: Mr. Harris, do you have a question?

Mr. Richard Harris (Cariboo—Prince George, CPC): Thank you, Mr. Chairman.

Mr. Martin, welcome.

I've just been trying to understand this. NLH is a crown corporation, right? And there are some private companies in that group of hydro companies that I see here, such as Churchill Falls, etc.?

Mr. Ed Martin: The way we're structured is that every company listed there is a subsidiary of Newfoundland and Labrador Hydro. Two of the companies are partially owned by Newfoundland and Labrador Hydro. When Iron Ore Company of Canada first started, there was no upper Churchill, and they were getting their power from Twin Falls. Because we could divert the water from Twin Falls and make more money at the upper Churchill many years ago, they closed Twin Falls and sent the water to the upper Churchill. But that company stays in place because the upper Churchill sells power to TwinCo, which goes to IOC. But it's a subsidiary company that we have an ownership in.

CFLCo is a company of which we own 65%. Hydro-Québec owns the other 35%. Newfoundland and Labrador Hydro operates the company.

Mr. Richard Harris: Let me rephrase that. Is there any private investment in the existing structure or the plans that you have for the lower Churchill?

Mr. Ed Martin: Right now there's no private capital.

Mr. Richard Harris: So it's all either provincial or, if you can interest the feds, federal investment? As far as capital investment goes, that is where the money would come from?

Mr. Ed Martin: Well, as far as the lower Churchill goes, not necessarily. Right now our base case is 100% ownership of the lower Churchill development by the Province of Newfoundland and Labrador through Newfoundland and Labrador Hydro. That's the base case.

That being said, as I mentioned, we're going through these business cases, and if the financing can support that, that's our preferred option. If we have to do something in some form of a mix of investment where we retain full control but still do something different from an equity perspective, we're open to that. But we haven't made our decisions yet.

Mr. Richard Harris: Now, you mentioned that you're working on getting the business plan together now, and I understand that. But you made mention that you're hoping the business plan could show the federal government some significant benefits from an investment position in this project, but you don't have those on paper yet.

What would be an example? Are we talking about a return on their cash investment? Give me a couple of examples.

● (1655)

Mr. Ed Martin: I'm hesitating only because I always try to make the difference between the political situation in relationships and the business situation. I think you're touching somewhere in the middle right now and I don't want—

Mr. Richard Harris: I'm interested because you mentioned possibly looking for investment from the federal government. In that case you would want to look at your business plans so it could clearly see that there would be a significant benefit if it made an investment. I'm just wondering what type of benefit you're talking about if the feds put some cash into that.

Mr. Ed Martin: There are three possibilities. There has been discussion already of a loan guarantee, and that's a form of investment. We've talked about the fact that the federal government highly values GHG emission reduction. There's no question about that, so there's a high value there for the federal government that we could provide. Any type of direct cash infusion to realize the value it is seeking there would be an obvious opportunity.

As far as investment in the actual project itself goes, all of it is an opportunity, but once again you're touching on a policy situation with the province. We honestly haven't structured how it's going to be, but we're working on it as a 100% ownership case at this point, running our economics. We do our cycle. Obviously the financial advisers are in with us. At that point we'll start saying, here is the structure that will work for us in the longer term.

Mr. Richard Harris: I'm not trying to put you on the spot; I'm just trying to get some clarity.

In British Columbia we have some crown corporations, and at the end of the year if they have any surplus they either pass it on to their customers in the form of lower rates, such as ICBC, or they turn a cheque over to the provincial government. I guess that's what I'm asking here. Under your program, now and in the future, is it anticipated that if any cash surpluses are generated they will be turned over to the Province of Newfoundland exclusively, if not the hydro customers?

Mr. Ed Martin: For many years Newfoundland and Labrador Hydro has been a regulated utility. In addition to everything else, we've been asked by our shareholders to expand it into an energy company that will include things such as the lower Churchill, and investments in wind, oil and gas, etc.

Corporately, the regulated utility will have to be protected—from the perspectives of risk and low-cost reliability—from any other types of investments we make separate from the regulated utility. In that structure the company overall expects to generate returns, and obviously you have the opportunity for a dividend. But like any other company, we are going to be looking at our debt equity structure—what's best suited for each of our businesses from a debt equity and financing perspective. Then we'll look at the best mix of dividends to the shareholder. We'll look at reinvestment opportunities in wind, oil and gas, and other things. We'll be doing that structured in the fashion of what is good for the business in conjunction with the shareholder.

It remains to be seen, but it will be a combination of making sure the regulated utility is protected in terms of low-cost reliability, making sure the returns are structured properly on our balance sheet, and then splitting what remains between investment opportunities and potential dividends that may be accrued to the shareholder.

● (1700)

Mr. Richard Harris: In the event that you exported some of that power to the States, would the free trade agreement demand that you could not sell that electricity in Canada at a lower price than what you were selling it for in the U.S.? Would the free trade agreement enter into that?

Mr. Ed Martin: Because we're getting aggressive in many markets right now, including the United States, those very questions are being answered for us. Before we got aggressive in the market, I wanted to see both routes and make sure we could get through to a certain point and that there was a reasonable program that we were going to get through in either system. I'm at that point now.

We are in the U.S. as well as other markets, We've engaged legal advice in both countries. We're investigating those very questions now to make sure we structure properly before we make our next move.

We're moving aggressively, but within our company we also talk about not being afraid to go slow to go fast. We like to get these things to a certain point and then jump. That's what we're in the process of doing right now.

So the questions you ask are very pertinent ones. We're right at the heart of asking those types of questions. Wherever we are trading, we are asking questions about the tax implications, the free trade implications, etc. All of that is being structured as we speak.

Mr. Richard Harris: The only reason I asked is that in the province of British Columbia, it's a provincially owned utility—or at least it was at last sight. It changes so much. They were exempt from the free trade agreement, and that was a good thing for a while. If that were the case with a crown corporation like Newfoundland and Labrador Hydro and they were unencumbered by a free trade agreement, I expect it would enhance the benefit.

Mr. Ed Martin: I think what you're seeing in Newfoundland and Labrador Hydro is an awakening in terms of how we're approaching our business. There is no question about that. I think the province itself is probably approaching things differently at this point.

We have looked at hydro over the last many years probably more internally, being more focused on just providing the utility service and being inward looking. But we're changing that right now, and we have the support of the shareholders.

Regarding many of the things that may have been experienced and learned in B.C., I think we're playing a little catch-up, not only in this situation but also in other things, whether they be operational safety or operational excellence and stuff. We've taken an approach of talking to New Brunswick Power. We always talked to Hydro-Québec. I know we've been out to visit some folks in B.C. and others out west. We are in the process of being a learning organization and trying to learn as we go, and you're seeing a change in us.

Mr. Richard Harris: Thanks for your indulgence, Mr. Chairman.

The Chair: Well, you're on a roll there, Mr. Harris.

We're just going to ask the committee's indulgence for three more minutes, I'm told. We let you start and we'll let you wrap it up, Mr. Russell. This will be the last question.

Mr. Todd Russell: I think we all appreciate your expertise and frankness today, Mr. Martin. It's been refreshing to have you here, there's no doubt.

I just have a specific question relating to Labrador. I understand your consultation with the Innu Nation; that's clear and transparent. But what is your company's position regarding consultations with the Labrador Métis Nation? The company has obligations to it.

My second question is about a project for 1,000 megawatts of wind energy that never went anywhere. What was your company's position regarding that particular project from a private developer?

Mr. Ed Martin: On the first question with respect to the Innu Nation discussions, some of this, Mr. Russell, you obviously know, so I'm only saying it for the benefit of some of the others.

From the Innu perspective, as I said earlier, they have a recognized land claim. That's under negotiation with the federal government, the province, and the Innu Nation. Obviously an impact benefits agreement is part of our project. We have started that in parallel because we know that's where it's going. It's just a fact, and we want to be ahead of that.

With respect to the Métis Nation, we respect them; there's no question about that, as they're such a large part of Labrador. But from an official company position—this is for Newfoundland and Labrador Hydro, I'm not speaking for the province—as a business we are looking at it in the sense that without a recognized land claim —I know it is being pursued, but there's not a recognized land claim there. In that particular event, we are looking at the Métis as another highly valued group of interest that we're going to consult with as much as possible, whatever is required. But as for doing anything more in depth than we would for other interested groups that we highly value as well, they'll be in that category.

That being said, we're open all the time to talk, to consult, to do as much as we can. We obviously make an effort to keep in contact with the Métis and to give them an understanding of what's going on. I'll say it here, and I'll say it again: the door is always open to consultation with anyone, at any time, including the Métis.

With respect to the thousand-megawatt proposal, it's an interesting situation. That's one of many proposals, let me start with that. All these companies that we are talking to appear to be sound and have some expertise. One particular company was in and was very vocal and public about how they wished to develop something. Several other companies came in and were not as vocal, and they visited Newfoundland and Labrador Hydro separately. So be it. Either way, all of those companies have received the same message. The energy plan is coming out. How these wind developments will be handled is a government policy question, and that has to be resolved before we can move ahead.

In any event, the question is, will the private companies handle it, or will hydro handle it, or will someone else? We don't know yet. But I know one thing. No matter what happens and how that question is resolved, the placement of a wind farm in any place in this country, whether it be Labrador, the island, or Ontario, is not a difficult business.

If you come out from that wind farm or any generation piece and you talk about integration with the rest of the electrical system, you talk about transmission through to market, and you talk about market development and sales, that's value-added with wind projects. That is where Newfoundland and Labrador Hydro has to be involved, in any event, with respect to the generation piece, because we are responsible for maintaining the reliability of the system, we're responsible for getting it to market, and we're responsible for providing low-cost reliable power to the rest of the province. This is the easy part.

There's no wonder everyone is interested, and so they should be. It's good business. We will be involved, in any event, because the power has to be transmitted.

● (1705)

[*Translation*]

Mr. Christian Ouellet: May I ask another quick question, Mr. Chairman?

[*English*]

The Chair: Why should we change this week?

[*Translation*]

Mr. Christian Ouellet: We are seeing drastic changes in the weather. Do you have an action plan to guarantee the safety of transmission lines? We know full well that in a couple of years' time, there will be violent winds, great droughts and freezing rain. Do you have a plan to protect power transmission?

[*English*]

Mr. Ed Martin: I'm not sure of the events that will occur over time, but that being said, the short answer is yes, we have a long-term plan for maintenance of all of our assets. The way that works is that we take all of the considerations that you mentioned, the possibilities of that, plus others, including the age of the assets, manufacturers' specifications, and our own reliability standards, which on the island is higher than in many jurisdictions in the rest of the country because we are isolated. We have a very strong group of planning engineers that takes all of that data and produces long-term plans, not only for transmission; we also have long-term maintenance plans for our thermal generating stations, our hydro generating stations, and our diesel plants. It's very well documented, and what drives our maintenance work every year is a long-term plan.

In addition to that, at Churchill Falls, the upper Churchill, these plants will last forever if you maintain them properly, and that's our responsibility. Apart from the fact that we are committed to operational excellence and we're committed to delivering power to our customers, including Hydro-Québec, in an effective fashion, that contract will be up at a point in time, and when that contract comes up, naturally the intention and our responsibility are that we have a 100%-operating facility that's going to go on for a long time after the contract is up. From a CFLCo perspective, they also do long-range planning to cover all those eventualities.

The Chair: Thank you again.

I think that wraps it up. Are there any further questions?

I'm going to ask the committee to just to hang on for a minute. I have a couple points of committee business. But before that, we'll excuse our witnesses.

Thank you very much again, Mr. Martin, for coming down, and Mr. Fedora as well for your generous time in coming up from New York. I think in the spirit of reciprocity I should give you fair warning that there are some Ottawa Senators headed your way tomorrow night to turn your lights out.

Thank you very much, gentlemen, for being with us. We look forward to a visit. I understand Mr. Bennett is going to take care of us when we get there.

● (1710)

Mr. Ed Martin: Yes, and I apologize that I won't be able to make it. That's why I came here today. He's not here today to say thank you very much, but he'll look after you. And if he doesn't, just let me know.

The Chair: Thank you very much.

We have a couple of orders of business. One recently circulated to you in both official languages is a request from Madame DeBellefeuille regarding additional witnesses.

Did you want to speak briefly to that, Mr. Ouellet?

[*Translation*]

Mr. Christian Ouellet: Certainly, Mr. Chairman.

We've noticed that several of the witnesses we have heard from were generalists. They did not produce concrete facts, but rather a broad-based and horizontal approach to the matter. These people are fine, like the representative from the National Research Centre and the chair of the Canadian Electricity Association.

We thought it appropriate to suggest certain people who have specialized knowledge in the field of energy efficiency. Mr. Gilles Jean worked on extraordinary projects within the federal government, with CANMET. Mr. Vachon is an engineer who has travelled the world. He worked in Australia and Germany and now has expertise in pre-heating air which is unique in Canada. Mr. André Vinet is an engineer specializing in geothermics.

The committee did not have much of an in-depth discussion regarding geothermics. We do not know Mr. Luc Gagnon, but he is apparently very competent specifically with respect to power transmission and energy efficiency through interconnection. Finally, there's Mr. Guy Simard, who is a specialist in outdoor lighting.

I already mentioned that a great deal of power is lost because of poor outdoor lighting. Canada wastes more energy than any other country on outdoor lighting, far more than the United States and, obviously, far more than Europe.

If it were possible to hear from these people over two additional meetings, it would seem to me we could gain a better understanding of this subject.

[*English*]

The Chair: I don't think there's any doubt that adding additional witnesses of this calibre would certainly benefit the committee. My only concern is the time. We have done some juggling recently to add the municipal people, as suggested I think by Mr. Tonks. As well as the minister, we're having the National Energy Board and the Forest Products Association on the ninth. So we really are booked solidly through May until the break week.

I have to ask the committee whether you would want one more week of witnesses before we do our first draft report. Perhaps I could suggest that we go to the break week with the current schedule. In terms of the research, I would ask that you start to put a draft together without these witnesses, and then we can maybe have a week and add their comments at the end. That might speed it up.

I think we could probably still get it done. It hasn't been particularly controversial, and I don't expect we're going to have a lot of controversy with the report. Of course Mr. Holland is not here, so I can't say that for sure.

I would ask the committee members for your thoughts. We could maybe add two meetings and a few more witnesses at the end. In the course of our discussions through May, there may be one or two more you want to add. Are you all right with one more week after the break?

● (1715)

Mr. Alan Tonks: I like your suggestion, Mr. Chairman.

The Chair: Okay. Fine. I'll leave it with the clerk. We'll see how many we can get, and if there are others, we'll fill them in.

In the week after the break we'll have witnesses on the Monday and the Wednesday, and then we'll go into consideration of the first draft. Okay. *C'est tout.*

Now, I also want to have a quick run over the schedule for next Monday. We're going at 6:30 in the morning. It's Bearskin Airlines at Esso Avitat. Directions have been sent to your offices. I just want to remind you that if you take taxis or anything to Avitat, I need receipts.

Mr. Alan Tonks: I take it that comes out of our $17, Mr. Chair.

The Chair: No, no. We'll take care of that for you. I think everything is covered.

Because Mr. Russell got his last question in, he has agreed to provide Screech on the way home from Labrador and Newfoundland.

We still have to work out the time there. We gave Mr. Russell an agreement that we would hear from some of the local people while we're on the ground.

If you could keep that to a couple of hours, I think we'd be back before 9:30. I think that's reasonable for the committee. It's a long day, in any event. Can I ask you to do that?

Mr. Todd Russell: Yes, we will.

The Chair: Are there any other questions? Do we have any other business that we need to wrap up? The minister is appearing on the ninth. We have confirmed that with the department. Is there anything else? Good.

We'll see you Monday morning at 6:30. Thank you.

We're adjourned.

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