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Undertakings

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New Brunswick Board of Commissioners of Public Utilities

In the Matter of an application by NB Power dated January 8, 2002 in connection with a proposal for Refurbishment of its facility at Point Lepreau.

Delta Hotel, Saint John, N.B.
June 11th 2002, 9:30 a.m.

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CHAIRMAN: David C. Nicholson, Q.C.

COMMISSIONERS: Ken F. Sollows
Jacques Dumont
H. Brian Tingley

BOARD COUNSEL: Peter MacNutt, Q.C.

BOARD SECRETARY: Lorraine Légère

....

CHAIRMAN: Good morning, ladies and gentlemen. Any preliminary matters?

MR. MORRISON: Mr. Chairman, there were a number of undertakings given yesterday. We are in a position to respond to several of those.

The first dealt with audited financial statements. And I have a number of copies here that I will give to the Secretary.

CHAIRMAN: Yes. We might as well give that an exhibit number.

MR. MORRISON: Yes, Mr. Chairman.

CHAIRMAN: My records indicate that the next exhibit number is A-22. And that will be the exhibit which is headed with an NB Power sheet stating "The attached information is a response to the Public Utilities Board request of June 10, 2002. Included in the information is the following." And lists down a number of things. So that is A-22.

MR. MORRISON: Mr. Chairman, there was also another undertaking given yesterday relating to the generation shortfall and how much of that was related to in-province load.

I believe Mr. Marshall is in a position to respond to that undertaking.

MR. MARSHALL: Yes. It was a question from Mr. Coon. The load resource deficit for 2007/8 was 304 megawatts. And the question was how much of that was for export contracts.

There were 20 megawatts of contracts, the Dalhousie unit to PEI, 200 megawatts from the Millbank sale to Hydro Quebec. So the total export piece of that was 220 megawatts.

CHAIRMAN: Thank you.

MR. MORRISON: Mr. Chairman, there was also an undertaking dealing with exhibit A-13, CCNB supplemental 18 related to the $823.6 million that was referred to in that undertaking.

And I think the undertaking was, where does that come from? And I believe Mr. Marshall is in a position to respond to that as well.

CHAIRMAN: Yes.

MR. MARSHALL: Yes. That -- the costs for all of the analyses done for the screening analyses were all in January 2006 dollars.

So the 823' is made up of the incremental Lepreau refurbishment of 785' deescalated two years to get to 757.6.

And the replacement contract which should be about 67 million deescalated one year gets to 66 million. The two add up to 823.6.

MR. MORRISON: And the final undertaking that we are in a position to answer at this time is really -- there were two parts.

There was one I think that Commissioner Sollows had asked for some information. We are still working on that. But there was another part to that dealing with exhibit 21. I believe Mr. Coon was looking for the cost of generation.

I think Mr. Marshall is also in a position to respond to that part of the undertaking.

MR. MARSHALL: Yes. The question was the generation component cost of the industrial rate. That is about 4.5 cents a kilowatt hour. And the generation supply cost component of the residential rate, that is about 5.8 cents a kilowatt hour.

MR. MORRISON: I believe we will be in a position to answer the balance of the undertakings sometime later this morning.

CHAIRMAN: Thank you, Mr. Morrison.

Intervenors, any preliminary matters? Mr. Hyslop?

MR. HYSLOP: Mr. Chairman, we spoke with Mr. Craik last night. And he advised he could not be present this morning. But he has requested the right to complete not a lengthy cross-examination of Panel B.

The Province as an Intervenor who would normally come after is prepared to permit Mr. Craik to come later. And we would request that on his behalf.

CHAIRMAN: Thank you, Mr. Hyslop. The Board sees no problem with doing it that way. Thank you. Any other matters?

Mr. Adams is not here. So Mr. Gillis?

CROSS-EXAMINATION BY MR. GILLIS:

Q. - Mr. Marshall, I gather the thrust of your evidence here basically relates to running a computer program to determine various options with respect to generating facilities for NB Power, looking prospectively forward some six years.

Would that be an overview of your testimony?

MR. MARSHALL: That would be a component. The six years would be incorrect. We run the model out to 2032.

Q. - Okay. Looking at the options that you had considered, where do I find tidal power?

MR. MARSHALL: It has not been considered in the evidence.

Q. - I see. And now tidal power would be a renewable resource on a daily basis?

MR. MARSHALL: Yes.

Q. - Tidal power would be a non-polluting resource. You don't have any CO_2, SO_2, NO_2 emissions, correct?

MR. MARSHALL: That is correct.

Q. - Tidal power basically is a low-technology type of energy, is it not, in the sense that it is really the dams that would be required?

MR. MARSHALL: That is a matter of opinion, whether it is a small project or a large project.

Q. - Well, I'm thinking a project that would replace Lepreau?

MR. MARSHALL: That would be a very large project. I would say it is a high-technology issue to build --

Q. - I see.

MR. MARSHALL: -- construct that type of dam.

Q. - Basically it is a dam going out around part of Deer Island or to Campobello and some generators that use a low head, correct?

MR. MARSHALL: The -- that is one possible site for tidal power. Whether it is sufficient to replace Lepreau or not I do not believe has been determined.

Q. - I see. Well, let's say another place would be the Petitcodiac River up off Cape Enrage, in that area, another place for tidal power, large volume of water?

MR. MARSHALL: That -- again that wouldn't be sufficient to replace Lepreau.

Q. - So you have done a study to determine what amount of power could be generated from tidal power in both of the areas that I have talked about?

MR. MARSHALL: There were studies done back in the late 1970s. They were --

Q. - I see.

MR. MARSHALL: -- reviewed again in the late '80s. So there have been detailed studies done on Fundy tidal power, locating possible tidal sites around the Bay of Fundy.

Q. - And what was the total amount of power that could be generated, from your recollection of these studies, that you haven't revisited in the past decade?

MR. MARSHALL: I think about 2,000 megawatts.

Q. - 2,000 megawatts. And all we are talking about here in Lepreau is what, 435 megawatts?

MR. MARSHALL: I believe the number -- the deficit for 2010 is 428.

Q. - 428? Okay. Now the construction of a tidal plant basically is mainly a cut and fill to a large extent with some concrete, is that right?

MR. MARSHALL: I'm not a civil engineer, sir.

Q. - I see.

MR. MARSHALL: I couldn't comment on the construction technique.

Q. - I see. It would certainly be a make-work project, put a lot of people to work in this province, wouldn't it, Mr. Marshall?

MR. MARSHALL: Again I'm not qualified to make that statement.

Q. - I see. All right. So you didn't even bother to plug that one that you had some old studies into your computer model to run a simulation to see what it came up at, did you?

MR. MARSHALL: We looked at that in the past. And the economics of it were such that it didn't muster additional --

Q. - I see.

MR. MARSHALL: -- consideration.

Q. - Could you advise me of the particulars of the economics please?

MR. MARSHALL: I -- it would take some undertaking to review that. I can't do that at this time.

Q. - All right. I will take the undertaking. And provide me with the two reviews that were done in the late '70s and the late '80s.

Would that be okay, Mr. Marshall?

MR. MARSHALL: I believe we can find those studies.

Q. - Now who in their wisdom decided not to consider that over the past decade or the past dozen years again?

Was it Mr. White and his group that are working at Lepreau? Or is it senior management above you? Or is it you?

MR. MARSHALL: It would be -- I think everybody included in the power utility business on the whole east coast of North America and Canada have not considered it.

Q. - I see. So you have talked with them all and you know that? Thank you.

I just want to get a little of your background. Your background, professional background is what?

MR. MARSHALL: I'm a Professional Engineer.

Q. - I see. All right. And you have a Ph.D. and a doctorate?

MR. MARSHALL: No. I have a Master's degree in power system engineering, a Bachelor's degree in education --

Q. - I see.

MR. MARSHALL: -- and a number of courses in finance and economics and accounting.

Q. - That is great. I have taken courses in making wine.

MR. MARSHALL: I do that too.

Q. - Oh. We will compare notes.

Ms. MacFarlane, your background is what?

MS. MACFARLANE: I'm a Chartered Accountant.

Q. - I see. And I gather you being the finance panel are quite familiar with some of the exhibits here, the flip charts that you had at the beginning? You are familiar with that?

MS. MACFARLANE: I'm sorry. I don't know which flip charts you are referring to.

Q. - A-16.

MS. MACFARLANE: A-16. This is the presentation?

Q. - Yes.

MS. MACFARLANE: Yes, I am.

Q. - I call it the show and tell presentation?

MS. MACFARLANE: I'm familiar with A-16.

Q. - And naturally you are familiar with the Dominion Bond rating publication you have referred to in that A-16?

MS. MACFARLANE: Yes, I am.

Q. - And I gather you are familiar with the financial statements of NB Power, in particular A-22 that we have just marked?

MS. MACFARLANE: Yes, I am.

Q. - And the same with you, Mr. Marshall?

MR. MARSHALL: The financial statements, no that is Ms. MacFarlane's area.

Q. - So you have never read A-21, the Dominion Bond Rating Service Limited statement concerning NB Power. Is that right Mr. Marshall?

MR. MARSHALL: I have looked at it. I have not gone through it in absolute detail.

Q. - My question is, did you read it?

MR. MARSHALL: I have read parts of it.

Q. - So you have only read selective pages?

MR. MARSHALL: Yes.

Q. - Okay. In A-22 the financial statements, have you read that, Mr. Marshall?

MS. MACFARLANE: Mr. Marshall would not have had access to those financial statements because they have not been approved by our Board yet and not released. He would not have seen A-22 prior to it.

Q. - He can answer for himself, you know, Ms. MacFarlane. Did you read it Mr. Marshall?

MR. MARSHALL: A-22, no.

Q. - Okay. Now, Mr. Marshall, are you familiar with the agreements that are really the heart of this matter, in a general way?

MR. MARSHALL: The risk sharing agreement on payments above and below 80 percent capacity factor, yes. We have modeled those in our analysis.

Q. - What about you, Ms. MacFarlane?

MS. MACFARLANE: I am aware of them in the same sense. We used the numbers in the financial forecast.

Q. - So which agreements are you referring to, Mr. Marshall?

MR. MARSHALL: The performance agreement.

Q. - All right. What about the other agreements?

MR. MARSHALL: I have not gone through the other agreements.

Q. - You have never read any of the other agreements, the retube agreement, the refurbishment agreement or the supply agreement. Is that right, Mr. Marshall?

MR. MARSHALL: No. I have discussed with the people that did those agreements to get any data output from them that would need to put into the assessment process. I have collected that information. That is it.

I have not read the agreements in detail other than that.

Q. - Have you read the agreements at all? It is a simple question.

MR. MARSHALL: No, I have not read the agreements. I have talked to the people who did them to get the information necessary to do my analysis.

Q. - So your analysis has a foundation based upon the information that was provided to you by other people. And you haven't gone back to the source document. Correct?

MR. MARSHALL: That is correct.

Q. - And the other people that provided you that information were the previous panel. Is that correct?

MR. MARSHALL: The previous panel and some others who worked on the agreements.

Q. - And the previous panel I think have already testified that if Point Lepreau is not refurbished, a number of them wouldn't have a job. Are you aware of that?

MR. HASHEY: I don't believe they have testified to that.

MR. GILLIS: They did, Mr. Hashey. It was Mr. Eagles that --

CHAIRMAN: Counsel says that he doesn't believe that occurred, therefore read it from the transcript, sir.

MR. GILLIS: I don't have the transcript typed. But I will dig it out later on. And I will put it back to him.

CHAIRMAN: All right.

Q. - Now, Mr. Marshall, what is your understanding of the extent, the dollar extent of the guarantee under the four agreements as you were advised by these individuals and their advice I gather for on the basis of your calculation. What was the extent of the guarantee, as you understood it?

MR. MARSHALL: I would have to go back to check the maximum quantity.

Q. - Go right ahead. The documents are behind you, or are you looking at some other document?

MR. HASHEY: Mr. Chairman, again, I believe this is a Panel A issue that was dealt with and canvasses by Mr. Gillis with Panel A in detail.

I don't think it really reflects itself into the testimony given by Panel B.

MR. GILLIS: Mr. Chairman --

MR. HASHEY: Now maybe Mr. Gillis can indicate to me why -- why I am wrong on that.

CHAIRMAN: Could you do that, Mr. Gillis.

MR. GILLIS: Mr. Chairman, this witness has just indicated the basis of the foundation upon which he prepared his projections, which later on Ms. MacFarlane deals with, came from oral statements or information that were provided by individuals.

Now, I would have gone to the source document. But obviously this fellow believes that the people that told him were giving him the facts. I want to understand the foundation upon which he based his projections or his computer modelling. And what his understanding was. And he may have something completely different than what Panel A told us. And then we have a real problem.

CHAIRMAN: Well I think if it goes -- the question goes to what Mr. Marshall based his analysis on then that is very appropriate, Mr. Gillis.

But I wanted to say one thing is that the witness has indicated to us however that he has in particular reviewed at least one of the contracts. So it is not a broad brush.

Go ahead Mr. Marshall, can you answer Mr. Gillis?

MR. GILLIS: It is a performance one I think he reviewed and I think my questions now were probably be more focused on the retube and refurbishment.

CHAIRMAN: Okay. Those two?

MR. GILLIS: Well, I will put all three there, so I am not caught by surprise later.

MR. MARSHALL: In our modelling the guarantees of those agreements do not come into play. We have modeled the plant at 89 percent capacity factor. We have done sensitivities down to I believe 74 percent capacity factor.

The only thing that comes into play in the modelling that we have done would be the performance agreement payments above and below 80 percent.

Q. - All right. And what is your understanding of those from your review of the agreements and the performance agreement?

MR. MARSHALL: There is a payment of $15 a megawatt hour above and below. And a change in the payment I believe to $12 after a period of time. And I can review the details.

We have modeled that exactly as it is in the agreements in our modelling analysis.

Q. - Now the guarantee, and I have got to deal with bigger numbers because I don't understand this 12 and $15 too well, the guarantee was the guarantee of AECL in the performance agreement?

MR. MARSHALL: That is my understanding.

Q. - And the guarantee was that the plant would work at 80 percent capacity. Is that right?

MR. MARSHALL: There is a performance sharing agreement above and below 80 percent. It is the base line on which the sharing agreement is founded.

Q. - Right.

MR. MARSHALL: There is no guarantee at 80 percent.

Q. - No. If it falls below 80 percent AECL pays you money. If it goes above 80 percent you pay AECL some money?

MR. MARSHALL: That is correct.

Q. - So naturally if the base is 80 percent, you must have made some modelling using the base at 80 percent. Is that correct?

MR. MARSHALL: Yes, we have run a sensitivity at 80 percent and it is provided in the evidence.

Q. - And which page would I look at for that?

MR. MARSHALL: You can go to the evidence, appendix B-1.

CHAIRMAN: That is volume A-1, is it?

MR. MARSHALL: Yes.

Q. - It is right after his evidence.

MR. MARSHALL: Page 32, appendix B-1, table 4-4 gives the results of all of the sensitivity evaluations.

Q. - And how do I read this?

MR. MARSHALL: The last line in that table, Reduced Capacity Factor 80 percent. And in response to the interrogatory we point out a correction to that analysis. When we reduce it to 80 percent there was a -- we found a change in running through some additional analyses. That bottom line should be the 6810 should be changed to 6758. And the 325 should be changed to 377.

That was provided in response to previous interrogatory by CCNB-95, I believe it was.

Q. - This is all based upon the fact that the thing works at 80 percent?

MR. MARSHALL: Yes.

Q. - Now, you factored in the cost of replacement power for the period of time that it doesn't work?

MR. MARSHALL: We modelled the entire system in order to meet our obligations for in-province load and export contracts.

Q. - So you factored in the cost of replacement power in the event Point Lepreau refurbishment didn't work?

MR. MARSHALL: Yes. We modelled the cost of providing the power that we need whether it comes from Lepreau or some other source.

Q. - And what was the dollar figure on a yearly basis of replacement power that you would have modelled?

MR. MARSHALL: I believe the cost of replacement power during the outage period that Lepreau is out under construction is provided in appendix B-2.

Q. - I just need the dollar figure on a yearly basis.

MR. MARSHALL: It is -- it shows there it's about $200 million.

Q. - 200 million.

MR. MARSHALL: For a 12 month year.

Q. - And how much did you understand AECL would pay under the performance guarantee if Lepreau is down after it starts up for a year, of the $200 million?

MR. MARSHALL: I don't believe they -- they take on the responsibility of replacement energy, but that's subject to check.

Q. - I see. Would that bother you, Ms. MacFarlane?

MS. MACFARLANE: In what sense?

Q. - Well you fellows use the word, risk. You used it this morning on your testimony. It's throughout the financial statement of NB Power A-22. The fact that there is a risk there that if Lepreau doesn't work after it's refurbished, it's going to cost 200 million a year to replace that energy. Did that bother you?

MS. MACFARLANE: There are risks associated with both the Lepreau project and with the alternative. In fact there are risks associated with any major power project. To that end, we believe on the Lepreau project that we have undertaken significant work to mitigate that risk. And we believe it will be a successful project.

Q. - You believe that. Still getting a general feel for this, as you understand it, Ms. MacFarlane, what is the total dollar value that is earmarked for the Refurbishment Retubing Plant Performance Agreement and the Supply Agreement of Point Lepreau with escalation let's say as of today's date?

MS. MACFARLANE: In interrogatory PNB-84 there is a project breakdown of the 845 million. And it would suggest that the retube contract without escalation is 309 million. The refurbishment contract without escalation is 180 million. And the escalation on the whole direct costs or overnight cost is 65 million.

Q. - So that overnight cost of 65 million, that includes the escalation on the retube and the refurbishment?

MS. MACFARLANE: The 65 million is escalation on the retube, the refurbishment NB Power's overnight costs, the contingency and the Phase 1 costs.

Q. - And how did you calculate that escalation?

MS. MACFARLANE: Are you referring to me personally?

Q. - Yes, on the retube refurbishment.

MS. MACFARLANE: I did not calculate.

Q. - Who did?

MS. MACFARLANE: The project team calculated the escalation.

Q. - Oh, that's Panel 1?

MS. MACFARLANE: That's true.

Q. - Okay. Have you read the contract and figured out how they calculated the escalation?

MS. MACFARLANE: Up until this hearing those contracts were subject to a confidentiality agreement. And only those people involved in the negotiation of the contract were -- were a party to it.

My group would have received briefing notes detailing what the financial issues were that needed to be included in the financial forecast, including the escalation.

Q. - Did you read the contract, a simple question. We are into the middle of the hearing. The contracts are in the public forum. And I questioned last week Panel A the clause, I think it's 4.1?

MS. MACFARLANE: I have read the performance --

Q. - All right.

MS. MACFARLANE: -- the performance agreement. I have not read the retube contract. I have not read the refurb contract. I have read briefing notes related to both of those.

Q. - And you read them with respect to the -- with respect to escalation?

MS. MACFARLANE: The escalation clause was in the briefing notes, yes.

Q. - Yes. And could you tell me how much is escalated from your recollection of these briefing notes?

MS. MACFARLANE: I would have to go back and check that.

Q. - All right. If I suggest to you 17 percent over the past two years, would that seem excessive?

MS. MACFARLANE: The escalation has two components to it. One is the CPI component. But the other is a labour component related to collective agreements from AE -- that AECL have negotiated, as I understand it. And from that perspective given -- I believe it was in the transcript I read that the market conditions in the nuclear industry are such that AECL has had significant increases in their collective agreement and those are reflected in the escalation costs.

Q. - That's a long answer to get to 17 percent, isn't it, Ms. MacFarlane. You have read the transcript. You know it's 17 percent.

MS. MACFARLANE: I answered the question.

Q. - You show me the transcript you read, please?

MS. MACFARLANE: I would have to do that as an undertaking.

Q. - Good. I will take it as an undertaking. And I will throw this question open to either one of you. From your understanding as a result of this hearing process, as a result of briefing notes, as a result of reading the contracts, as a result of looking at the exhibits that are before this hearing, what is the total amount of money that AECL would have to pay under all agreements, assuming that the plant just doesn't operate after it's finished?

MS. MACFARLANE: We do not have the details with us. But we have access to those details and can find them out.

Q. - All right. If you would, by way of an undertaking. And the figure that I am estimating is about $187 million.

Now if the plant doesn't work, Ms. MacFarlane, you would have to find that replacement energy, wouldn't you, until you had a replacement plant?

MS. MACFARLANE: That would be true of any project.

Q. - Right. And the cost of replacement energy -- let's say it take four years to build a plant, would be some $800 million? Four times 200?

MR. MARSHALL: I will answer that question. The cost of replacement energy at $200 million a year is in actual fact very close to the -- to the cost of the gas alternative option. So the -- as I said before, the cost is what it is to run the system to meet our obligations to supply customers with load.

Q. - I'm a simple man, Mr. Marshall. If the plant doesn't work for four years, and the cost of replacement energy is 200 million a year, what would the total cost of replacement energy be over those four years? Are you capable of answering it?

MR. MARSHALL: The cost would be about $200 million. But it's not a cost of the project. It's a cost of meeting our obligations to supply load. And it's similar to the cost of the alternative, of the gas plant.

Q. - Mr. Marshall, four times 200 gives you what?

MR. MARSHALL: It gives us 800.

Q. - $800 million --

MR. MARSHALL: Yes.

Q. - -- Mr. Marshall?

MR. MARSHALL: Yes.

Q. - Thank you. Now the estimated cost to build Lepreau, Ms. MacFarlane, is -- or refurbish it is about 850 million?

MS. MACFARLANE: That's correct.

Q. - If we believe you or believe NB Power. If the plant just doesn't work, the worst case scenario, somebody has to repay that $850 million, don't they?

MS. MACFARLANE: That would be true of any power project.

Q. - All right. So if it doesn't work, worst case scenario we are looking at $850 million capital cost, plus 800 million of replacement energy for the four year period it may take to build a gas plant or whatever else. What would the total of those two figures be, Ms. MacFarlane?

MS. MACFARLANE: I believe 800 and 800 is 1,600.

Q. - Is $1.6 billion?

MS. MACFARLANE: That is the total of those two figures. It is not an accurate answer necessarily to the question that you have asked.

Q. - And the total guarantee that you folks have got is about -- and you are going to check it, less than $200 million. Is that correct, you are going to check that for me, Ms. MacFarlane?

MS. MACFARLANE: I will check that, yes.

MR. MARSHALL: I would like to point out again the cost --

Q. - I didn't ask you a question, but you are welcome to talk.

MR. MARSHALL: The -- the concept of $1.6 billion is grossly inflated. If you want to do a comparison, you have to do the comparison against the alternative and what the costs of the alternatives are. And the cost of the alternative will be over $200 million for the two years that the plant is out, plus the four years as well. And that would have to be subtracted from the 1.6.

Q. - Are you aware that Mr. White testified here that it would take four years to build a gas plant of capacity of Lepreau?

MR. HASHEY: I think he indicated in the evidence, as we remember it, that it could be done within four years --

MR. GILLIS: Okay. I will accept the word --

MR. HASHEY: -- not that it would take four years.

MR. GILLIS: The way NB Power builds it might take eight. But I'm assuming that it's four, Mr. Hashey.

Assume that it's four, Mr. Marshall. Were you aware that Mr. White said that?

MR. MARSHALL: You had cross-examined Mr. White with reference to the gas plant, and my understanding is, as Mr. Hashey has said, his commentary was it could be constructed within four years, and that's consistent with the evidence we were asked as an alternative if Lepreau didn't go forward, could we construct a gas plant by 2006, and we have responded yes, subject to gas availability. We possibly could be able to do it in less time than that.

So I think four years is the outside number.

Q. - I see. I'm glad you said that. And when you built Lepreau, how many years was it to take to build Lepreau when you started, Mr. Marshall?

MR. MARSHALL: I was not involved in the construction of Lepreau.

Q. - Oh, but you looked at the history, Mr. Marshall, didn't you?

MR. MARSHALL: I have some understanding of the --

Q. - What is your understanding of how long it was estimated when Lepreau was first proposed? How long would it take to build?

MR. MARSHALL: I don't know. I would have to check what was proposed at the time. I was not involved in those studies.

Q. - I see. And afterwards it took much longer, didn't it, Mr. Marshall?

MR. MARSHALL: I believe there were delays in the in-service projected, yes.

Q. - It took several years longer, didn't it, Mr. Marshall?

MR. MARSHALL: I think possibly it was two years, but that's subject to --

Q. - Mr. Marshall, I think you should check by way of undertaking. It was three, according to the previous panel. Now that's the track record of NB Power with respect to Lepreau to date. You understand that now, Mr. Marshall?

MR. HASHEY: What is the question? I don't think that's a fair question.

Q. - All right. Ms. MacFarlane, I have got a simple question here. Again it deals with risk. I'm looking at the worst case scenario. I have got to -- maybe I should preface it by telling you I think Lepreau, when it works, works great. If you could refurbish it with proper guarantees, with somebody that's solvent, I'm in favour of it. But your agreement I disagree with, and the guarantees I think are worth little but $187 million. That's where I'm coming from.

Now my question simply is this. Worst case scenario. AECL finishes, leaves the site, you turn the switch on, the plant don't work. Worst case about a billion-six is down the drain until you get a replacement plant.

Now if AECL's obligation was only 200 million or 187 million, who would have to pay back the $1.4 billion? NB Power?

MS. MACFARLANE: To begin with, the difference is not $1.6 billion and Mr. Marshall will speak to that issue.

As it goes to what the difference is in that highly unlikely worst case scenario, as I say, we believe that we have undertaken sound and sufficient risk management to ensure a successful project, but in the unlikely event of that, that would be considered a cost of NB Power.

Q. - All right. So if it's a cost of NB Power, where does NB Power get the money to pay it back?

MS. MACFARLANE: NB Power earns its revenues through the sale of power and recovers its cost to the customers it sells power to.

Q. - Okay. So what you are saying is that the ratepayers in this province would have to dig into their pocket for, using the worst case scenario that I have of $1.4 billion, because of a Lepreau fiasco.

MS. MACFARLANE: In order to answer that I would like to start by asking Mr. Marshall to clarify the number that we should be talking about, because it is not 1.4 billion.

Q. - I'm really more interested in who is going to bear the risk and ultimately it's the ratepayer. That's what I'm trying to get you to acknowledge?

MS. MACFARLANE: That would be the case in any power project in any undertaking that NB Power pursued. It is equally likely that there could be difficulties with any alternative or I might say with no construction project and buying that power off the market. In all cases the cost at the end of the day would be covered through our revenue sources which is customer rates.

Q. - And what is the total amount of money that NB Power received last year in their financial statement from customers within the province?

MS. MACFARLANE: Just over 900 million.

Q. - Just over 900 million. So what you are saying to pick up a loss of let's say $1.4 billion, the rates would have to double. Everybody's power rate would have to double for over a year.

MS. MACFARLANE: That is not correct because the amount we are talking about in the highly unlikely event of your worst case scenario would not be 1.4 billion, and I would as Mr. Marshall to clarify that.

Q. - Now you weren't here for the in-camera session, were you?

MS. MACFARLANE: I was not.

Q. - I see. Before we got to the in-camera session I had Mr. Eagles go through a number of dollar figures with respect to the worst case scenarios for different things not working out during the refurbishment. Are you aware of those dollar figures?

MS. MACFARLANE: I am aware of the risks that were presented to the Board and the dollar figures attached to them.

Q. - And I think Mr. Hyslop has indicated to me that the total of all of them is slightly under a billion dollars. Would that be your recollection?

MS. MACFARLANE: I would have to go back and check.

Q. - All right. If you would. Now that would be on top of the $1.4 billion that I'm already talking about, isn't it?

MR. MARSHALL: And again that $1.4 billion is not a valid cost in this case.

Q. - I know why you don't want to recognize it. I'm looking at the risk, the worst risk, and who is going to pay for it.

I will change my line of questioning for a moment, Ms. MacFarlane. We got these financial statements here.

Could you tell me whether or not different -- are there internal statements of different generating facilities?

MS. MACFARLANE: We collect our cost by generating facility. The operations, maintenance and administrative expenses, we collect that by operating facility.

Q. - All right. I gather then each generating facility has its own internal set of statements.

MS. MACFARLANE: Generating facilities do not have a set of financial statements per se. What they have is a budget for their direct operating, maintenance and administrative expenses, and their capital expenses, and we collect the actuals compared to that budget.

Q. - So there is a budget for each generating facility?

MS. MACFARLANE: That's correct.

Q. - And in that budget you have the OMA account?

MS. MACFARLANE: That's correct.

Q. - And the OMA account in relation to Point Lepreau is the largest of all the OMA accounts in generating facilities?

MS. MACFARLANE: That's correct.

Q. - About 40 percent of the total OMA account in your financial statements would be attributed to Point Lepreau?

MS. MACFARLANE: I think it's a lower number than that. It's in the vicinity of a hundred million.

Q. - Now I just -- from an accounting perspective, during the refurbishment, if it does go ahead, and the retube, it's the intention of NB Power to capitalize interest?

MS. MACFARLANE: Interest during construction will be applied to the capital cost.

Q. - And depreciation, what are you going to do with that during construction?

MS. MACFARLANE: Depreciation on the existing assets will be expensed as it normally is.

Q. - Okay. And with respect to the OMA account, what are you going to do with that during --

MS. MACFARLANE: OM&A is largely salaries. Those people who are assigned to work on the refurbishment project will be charged to the capital project. Those people who are doing regular work, training, ongoing maintenance, et cetera, will be charged to operations.

Q. - Okay. Well what regular work if the place is shut down while you are retubing and refurbishing? You mean like the janitors?

MS. MACFARLANE: When the plant -- even when the plant is shut down if it's operating under its operations license, as I understand it, there are significant things that need to be attended to to ensure it is in a safe state. During this period of time as well, as is in Mr. Pilkington's evidence, there is significant training to be undertaken.

There are any number of other exercises. Of the hundred million I believe it's somewhere between 15 and 20 million of the OM&A that will be assigned to the refurbishment project. The rest of it is for ongoing work.

During that 18 month period, I think it's in Mr. Pilkington's evidence, they intend to undertake -- catch-up with both backlog maintenance and maintenance of other issues that will take them well into the future.

Q. - Okay. So of the hundred million, 80 million is going to continue to flow through as an expense item and about 20 million is going to be capitalized during the 18 month period, is that the bottom line?

MS. MACFARLANE: Subject to check, it's in that vicinity.

Q. - Now is there any portion of the head office expense buried in that OMA account that's attributed to the various generating facilities?

MS. MACFARLANE: No, there is not.

Q. - I wanted to ask you where NB Power is going to come up with the 850 million to retube and refurbish Point Lepreau?

MS. MACFARLANE: The eight year financial forecast which accommodates both the Coleson Cove project and the Point Lepreau project would indicate that over that period of time, though we are spending some 1.6 billion on the two projects our debt increases by some 800 million.

In direct answer to your question then, we intend to finance both projects approximately 50 percent through operating cash flow and the other 50 percent through borrowing through the Province of New Brunswick.

Q. - What do you mean, borrowing through the Province of New Brunswick?

MS. MACFARLANE: At the time of the evidence being submitted NB Power does not borrow in its own name.

Q. - Right.

MS. MACFARLANE: It borrows in the name of the Province of New Brunswick and then the Province assigns that debt to NB Power.

Q. - I'm concerned with your testimony here in cross-examination. On today's date what is your understanding?

MR. HASHEY: Mr. Chairman, again we are straying into the new issue.

CHAIRMAN: Yes. The Board has ruled that the only way that we can deal with this hearing and the matters before it is on the basis of the way things are today, not based upon statements of government intentions. In other words, they become the law of the province when the changes are enacted, et cetera, et cetera. Therefore we are dealing with it on that basis.

MR. GILLIS: I appreciate that, Mr. Chairman. And I was here for that ruling and I'm not trying to go around that ruling. But I guess what I am focused on, we are here today, NB Power has provided projections off into the future, various scenarios, and some scenarios I'm presenting, and I'm saying hypothetically if the province were not to provide the guarantee, as a hypothetical question, again forecasting into the future, I would look to what effect that has on the bottom line with respect to the borrowing on this project. And I think I can look at the financial statements until --

CHAIRMAN: Mr. Gillis, I think it's appropriate if you say on a hypothetical basis if the Province refuses to guarantee or float your loan for you, what would the results be? I would be all right with that.

Q. - So, Ms. MacFarlane, on a hypothetical basis, assume that there is no provincial government guarantee, what effect would that have on the borrowing of NB Power?

MS. MACFARLANE: The effect it would have is to change the interest rate at which we are able to borrow. And in Mr. Marshall's evidence he tested the sensitivity of this project to a private corporate borrowing rate. In fact we used Nova Scotia Power's borrowing discount rate, or what we calculated Nova Scotia Power's discount rate, as the proxy for that. In that sensitivity analysis Lepreau was still the least cost option, even using a private borrowing rate.

Q. - All right. Now this brings me to something else and I wanted to ask you a question about, Nova Scotia's borrowing rate, and really the financing of Nova Scotia compared to New Brunswick, first of all, you would agree with me that NB Power is debt financed?

MS. MACFARLANE: Yes.

Q. - To the tune of some 99.7 percent?

MS. MACFARLANE: I believe it is actually greater than that in the latest financial statements.

Q. - And what is it now?

MS. MACFARLANE: I don't have the number with me but it is approximately 104 percent.

Q. - So what you are saying, if it is like somebody having a house, what you have got here is a mortgage on the house for more than the cost of the house? Right?

MS. MACFARLANE: If you would like me to give my views as to why it is reasonable for a crown corporation to be 100 percent debt financed, I would certainly be willing to do that.

Q. - I am a simple person, I have got to relate to somebody having a house. You own a house, don't you, Ms.

MacFarlane?

MS. MACFARLANE: Yes, I do.

Q. - Is it financed to 104 percent?

MS. MACFARLANE: No, it is not.

Q. - Is it financed to 95 percent?

MS. MACFARLANE: It is not, but I am also not a crown corporation. I am not backed by the Province of New Brunswick. So consequently it is a very different issue for me. The reason why corporations have debt-equity structures is in order to ensure a financial flexibility. The reason why debtholders look for share capital is in order to reduce their risk and it affects the credit rating.

NB Power, as a crown corporation, takes advantage of the Province's credit rating and therefore a provincial borrowing rate, without having to have share capital. And that provides the least overall cost of borrowing to the Province and to the provincial economy through the ratepayers of New Brunswick.

Q. - Well I am dealing with a hypothetical. I am assuming that the Province, and I want you to assume that the Province won't provide a guarantee. With that assumption. You are already financed for more than all your assets put together at 104 percent. Is that right?

MS. MACFARLANE: Hypothetically if the Province were not to provide a guarantee, hypothetically they would probably ensure that NB Power began its new life without that guarantee with an appropriate debt-equity structure.

Q. - So what you are saying from an accounting point of view, working for NB Power, that hypothetically if the Province didn't provide a guarantee, the Province would inject a half a billion or a billion dollars or maybe a billion and a half dollars into NB Power?

MS. MACFARLANE: Hypothetically, if NB Power is going to be able to borrow without the Provincial guarantee, it will have to have an appropriate debt-equity structure. And I am using as an example what happened in Ontario, when Ontario Hydro was corporatized and in fact began its new life as a borrowing operation with the appropriate debt-equity structure.

Q. - I am a simple person. I have got to bring it back.

CHAIRMAN: Mr. Gillis, I thing we have got to stop the hypotheticals. We could go on forever. And that is the whole point of the Board making the rulings that it did. I think you have gotten as far as --

MR. GILLIS: I may come back to it, Mr. Chairman. But I will move on.

CHAIRMAN: All right. Move on to something else.

Q. - With respect to the borrowing rate in Nova Scotia that you used, what is the debt to equity ratio at NS Power?

MS. MACFARLANE: I believe it is 65, 35.

Q. - 65, 35, so that means 65 percent borrowing, 35 percent equity.

MS. MACFARLANE: That is correct.

Q. - And on the same basis with NB Power, if it were a 65, 35 split, what would that 35 percent equal to in dollars today?

MS. MACFARLANE: It would be over a billion dollars.

Q. - Over a billion dollars?

MS. MACFARLANE: Yes.

Q. - And not to revisit my hypothetical, but one last time, that means if you want to use the rates, Mr. Marshall, in Nova Scotia, you are looking for the Province of New Brunswick to inject a billion dollars into NB Power if there is no provincial government guarantee? Isn't that right?

MR. MARSHALL: The -- as Ms. MacFarlane said, the debt-equity structure for Nova Scotia, I believe, is 65, 35. That is what their particular rates are. We calculated their cost of capital and used that as a sensitivity for an equivalent private corporation. Exactly what the debt-equity structure will be under the new proposals going forward that the government is considering, we will have to wait and see what those are, Mr. Gillis.

Q. - No, I am not into that.

MR. MARSHALL: Well we are into hypotheticals here.

Q. - Mr. Marshall, what I am getting at is you have misled me. You said you used the rate of interest that Nova Scotia Power used. They had 35 percent equity. Until I asked the questions and found out that you ain't got any equity, matter of fact you are in the hole by 4 percent, you couldn't even borrow at that rate. Nobody would loan you the money.

MR. HASHEY: Mr. Gillis is giving speeches. I don't think -- if he has questions, I take issue with Mr. Marshall misleading him. That is not what Mr. Marshall did.

Q. - Well Mr. Marshall --

CHAIRMAN: Mr. Gillis, I am going to ask you to try a new line of questioning please. And what you are -- a lot of what you are doing right now could be saved for argument.

MR. GILLIS: I will get to Mr. Marshall in argument, Mr. Chairman. But I do have one more question only in relation to the borrowing.

Q. - Mr. Marshall or Ms. MacFarlane, could you tell me, if there is no provincial guarantee, a private corporation, and it had 104 percent debt, what would the rate of borrowing be or what would the interest rate charged by any lender?

MS. MACFARLANE: I cannot tell you the exact interest rate. I can tell you it would be classified as junk bond status.

Q. - Junk bond. Thank you. Now Ms. MacFarlane, if we go forward from that, you are financed at 104 percent debt now. Using my scenario, worst case scenario, Lepreau doesn't work and we are out another $1.4 billion, could you tell me at what point that would be with respect to financing by way of debt?

MS. MACFARLANE: Hypothetically, NB Power would not be financed 100 percent by debt under a different regime. As I said before, NB Power would likely not be able to borrow with its existing debt-equity structure. And were it to no longer have the Provincial guarantee, it would in all likelihood hypothetically start out with an appropriate debt-equity structure that would give it an A rating equivalent to Nova Scotia Power and able to borrow at the rates that we have used in the sensitivity analysis.

Q. - And I gather you have made that statement to the Board of NB Power, that look, if there is any change with respect to the Province of New Brunswick here, you have got to hit the Province up for a billion dollars to inject in NB

Power?

MS. MACFARLANE: I have not made that statement to the Board because we are only talking about a hypothetical situation.

Q. - I see. Assuming that NB Power's plan to refurbish Point Lepreau doesn't work, worst case scenario, and assume there is still a Provincial government guarantee, at that point if you spent $1.4 billion in the hypothetical that I put out, what is the debt of NB Power percent wise? If you got nothing for the $1.4 billion?

MS. MACFARLANE: I am sorry but I don't understand your question well enough to provide you with an answer. I don't agree with using 1.4 billion in your analysis. And therefore, I cannot answer the question.

Q. - I want you to assume that it doesn't work and assume that after you recover all the money you can from AECL, there is only $1.4 billion that NB Power is now out as a result of the stale venture. With that, with the existing debt structure, what does that take it to as a percent? I can do the calculation, but if you are not able to calculate.

MR. HASHEY: Mr. Chairman, I think it was repeated over and over again that we don't agree with the hypothetical. And surely at some point there has to be an end to -- I mean it is simple addition. I mean, that is not an issue. I don't think that is where the difficulty is.

CHAIRMAN: I would sustain that and I think it is a good time that we take a break, 15 minute.

MR. GILLIS: Thank you.

(Recess)

CHAIRMAN: If there are no preliminary matters, go ahead, Mr. Gillis.

Q. - Ms. MacFarlane, I am going to change my line of question. Do you own a car. What year and make?

MS. MACFARLANE: 2000 Taurus.

Q. - I see. And the warranty you got from Ford on you Taurus was how long?

MS. MACFARLANE: 60,000 kilometres or five years, I believe.

Q. - And what is the warranty we have with respect to the refurbishment, retubing of Point Lepreau, as you understand it?

MS. MACFARLANE: That is part of Panel A evidence.

Q. - I see. So you don't know. You would expect it is going to be longer than five years?

MR. HASHEY: I don't think the --

Q. - I withdraw the question, Mr. Hashey, don't worry. Dealing with risk and that is what you deal with, there is a risk with respect to completing on time. Isn't that true, Ms. MacFarlane?

MS. MACFARLANE: That is true of every construction project.

Q. - And you can deal with that risk by getting a guarantee or a performance bond from the contractor?

MS. MACFARLANE: That is one way of dealing with it.

Q. - And if you wanted a performance bond for 50 percent of the risk, that increases the contract price somewhat. You understand that?

MS. MACFARLANE: As I say, that is one way of dealing with that particular risk.

Q. - And if after the plant were finished here, and we are dealing with the performance guarantee to cover replacement power, you would perhaps pay more money for a performance guarantee that would cover replacement power?

MS. MACFARLANE: That would be one way of dealing with it.

Q. - I see. Now did you quantify or are aware of anybody at NB Power trying to quantify what the additional cost would be to have AECL be responsible for the cost of replacement power during the period of the performance guarantee?

MS. MACFARLANE: I am sorry. I was not privy to the negotiations. I do not know what analysis the negotiating team did.

MR. HASHEY: Mr. Chairman, those questions were directed, the same questions to Panel A.

Q. - I am only dealing with the financial side to see whether Panel A provided the information to Ms. MacFarlane to work in the projections with respect to the cost to compare a performance guarantee of providing for replacement power, versus what they have actually got?

MS. MACFARLANE: The projections that were done in my evidence were based on capacity factors that the plant provided given that the project is expected to be successful. So from that perspective, performance guarantees did not come into my analysis.

Any sensitivity analysis about those capacity factors not being met was done by Mr. Marshall.

Q. - Okay. Then maybe I should put the question to Mr. Marshall rather than Panel A?

MS. MACFARLANE: In his evidence you see that the sensitivities were done at 80 percent and at 74 percent.

Q. - I see. I am more concerned -- you know, sensitivity is a big word for me. I just want to know how much it would have cost to get an insurance policy for the cost of replacement power from AECL? How much was it, Mr. Marshall, on a yearly basis?

MR. MARSHALL: I don't know.

Q. - Did you think to inquire of AECL?

MR. HASHEY: Mr. Chairman, again, this is not the panel that negotiated with AECL. That panel has been here. They were questioned extensively by my learned friend Mr.

Gillis and others.

MR. GILLIS: I withdraw that question, Mr. Chairman.

CHAIRMAN: I would agree. But I would ask the panel if it is a Panel A question then say so, please.

Q. - I withdraw the question, Mr. Marshall. Did you think to ask Panel A before you prepared your analysis what would it take to get a guarantee to pay for replacement power during the period of the performance guarantee?

MR. MARSHALL: Again, as I said earlier, the replacement power cost, whether the Lepreau is refurbished to not, and if you go forward with the gas plant, those replacement power costs are similar in both cases and are not relevant for this line of questioning.

So on that basis, on that understanding, I did not ask for the cost of insurance policy to cover it off because I didn't see as relevant.

Q. - Okay. Mr. Marshall, I have looked at some of the stuff here. The integrated resource plan, you are responsible for that document?

MR. MARSHALL: Yes.

Q. - And if I look at the plan itself, which is appendix B-1, Integrated Resource Plan to your evidence, at page 5.

MR. MARSHALL: Yes.

Q. - And if I look at the top line there, I am just trying to understand this. We have the years at the bottom, 2002, 2003 and '04 and '05. Do you see that?

MR. MARSHALL: Yes.

Q. - And then we have lines at the top and it steps down, Courtenay Bay 2 retired. And then it steps down?

MR. MARSHALL: Yes.

Q. - And then you have an arrow, Grand Lake 8 retired. I am just trying to figure out that is retired I gather about mid-2004, 2005?

MR. MARSHALL: Yes, 2004.

Q. - 2004. I see. Could you tell me why NB Power has made a request of the Department of Environment for an air quality approval to operate that thermal generating station until November 30th 2007?

MR. MARSHALL: That has occurred after this evidence was prepared. The projections in the load resource balance are done based on the economic life of the units projected at 40 years.

Grand Lake was assumed to be retired in 2004. And that has been our plans all along. They have changed recently. And that is a result of that application.

Q. - Okay. I understand. I have got your evidence here. It is filed the 25th of February 2002. That is the evidence you are talking about?

MR. MARSHALL: This evidence was filed on that date, yes.

Q. - You know, I have some difficulty with your answer. I don't think you are correct. Can you tell me why NB Power applied to the Department of the Environment for an air quality approval to operate the Grand Lake thermal generating station until November 30th 2007 by a letter dated the 5th of February 2002?

MR. MARSHALL: The evidence is consistent with the data that was submitted in the generic hearing last year and consistent with the evidence submitted in the Coleson Cove hearing.

I was not party to those discussions for an application of Grand Lake at that point in time. We prepared all of this evidence consistent to what we did in the Coleson case and all the way through.

The load resource and the load forecast used in this evidence was the same forecast applied last year, so we have done it on that consistent basis.

Q. - Well basically what you are saying is you didn't update your evidence when you filed it to what really was taking place with NB Power. Isn't that right?

MR. MARSHALL: The evidence was not updated to account for that February application.

MS. MACFARLANE: If I might -- if I could interject, Mr.

Gillis.

MR. GILLIS: Go ahead.

MS. MACFARLANE: For some time NB Power has been looking at ending Grand Lake resources and NB Coal at the time of the retirement of the -- or the end of the economic life of the Grand Lake resources.

Work has been done by NB Power to look at what it would cost to extend the life of Grand Lake. And an analysis was done some time ago and determined that that was uneconomic.

At a recent Board meeting a presentation was made to determine that it may well be economic to extend the life through to the end of the refurbishment so as to provide replacement power during the refurbishment. And no decision has yet been made.

The Board has asked management to pursue that study to make a recommendation. No decision has been made. However, it is not unlikely for NB Power to ask for an environmental approval for some period that would give it the flexibility if the economic decision is made to extend the life of the plant so that it can do that without further seeking of environmental approval.

The fact that we ask for it does not mean there has been a decision one way or another with respect to Grand

Lake.

Q. - I know. I know. And I am not worried about that. What I am concerned about is, I went to the trouble of reading this evidence and this appendix and I assumed that it was factually correct on the date of the filing the 25th, and it is not true.

MS. MACFARLANE: It is factually correct.

Q. - It is not true.

MS. MACFARLANE: As I say, a presentation has been made to our Board that there may be an economic reason to invest in Grand Lake and extend the life. However, that decision has not been made. And therefore at this time the plan is to close Grand Lake when the plant assets are fully expired.

There has been no decision made to make an investment to take it beyond 2004.

Q. - Ms. MacFarlane, the easy thing for Mr. Marshall to have done would have been to say, my evidence I filed it and I stated it as approved by the Board of Directors of NB Power.

Now, I feel that I have been somewhat misled. Because I spent all my time reading and understanding this material. And it is quite obvious that NB Power has its own agenda.

MR. HASHEY: Is it time for argument?

MR. GILLIS: No, no. Well maybe I will just show her this letter and I will file it with the Board.

MR. HASHEY: There is no argument about the letter and I think it has been clearly answered. I don't know why he has to harass the witness further on that. He can argue the point later.

CHAIRMAN: Mr. Gillis, do you have another question?

MR. GILLIS: Yes. I would like to file this letter with the Board

CHAIRMAN: Show it to Mr. Hashey.

MR. GILLIS: It is on NB Power's letterhead.

MR. HASHEY: Nobody has any issue that there was an application, it has been fully explained. I don't see where the issue is here at all.

CHAIRMAN: All right. Mr. Gillis, do you have any copies of that for the parties?

I have in front of me a letter on NB Power letterhead addressed to Mr. Mark L. Glynn, P. Engineering dated February 5, 2002 from Jim Samms, the Environmental Affairs Department of NB Power.

Mr. Gillis wants to put it in as an exhibit. Any objections?

MR. HASHEY: No.

CHAIRMAN: That will be Gillis-1. Go ahead, Mr. Gillis.

Q. - Ms. MacFarlane, are you familiar with the financial statements that have been filed here with this -- at this hearing?

MS. MACFARLANE: Yes, I am.

Q. - Would you agree with me that the financial statements of a corporation -- and I'm looking here at AECL's as an example -- you have on the balance sheet assets on one side and on the other side liabilities and shareholders equity, retained earnings, one item?

Is that generally what a balance sheet looks like?

MS. MACFARLANE: Yes.

Q. - And when the assets exceed the liabilities then we have shareholders equity?

MS. MACFARLANE: That is correct.

Q. - And when the liabilities exceed the assets, what do we have?

MS. MACFARLANE: You have a deficit.

Q. - I see. And that is when a company is insolvent?

MS. MACFARLANE: That may be the case. It is not the case for NB Power.

Q. - Oh, I didn't think of NB Power. But you are right. Your liabilities exceed your assets, don't they? By how much?

MS. MACFARLANE: The financial statements, draft financial statements for the year ended March 31st 2002, the deficit at the end of the year is 144 million.

Q. - 144 million?

MS. MACFARLANE: That results as a -- that is a result of two accounting adjustments, an accounting writeoff of 450 million of the Lepreau plant in 1999 and a change in accounting policy for how foreign exchange is treated that was put into place this year which occasioned a writeoff of 172 million.

Q. - I have difficulty reading financial statements. You fellows changed your accounting policies and you come up with a loss?

MS. MACFARLANE: The CICA, which is the body that makes pronouncements on accounting policy in Canada, issued a new standard for the treatment of foreign exchange on longterm assets and longterm liabilities.

Approximately one-third of NB Power's debt is denominated in US dollars. And on our balance sheet was a foreign exchange deferred charge that the previous standard allowed amortization over the life of the debt. That amount was 172 million.

The new standard required that that amount be written off and changes year to year in the Canadian dollar would be reflected through net income in the future.

Q. - That is, you know, interesting. I don't quite understand. The accountants that -- the external accountants that you used, was it Arthur Anderson?

MS. MACFARLANE: I'm sorry. I don't understand your question.

Q. - Well, the external accountants NB Power has used in the past, has it included Arthur Anderson?

MS. MACFARLANE: NB Power's auditors are -- external auditors are Deloitte & Touche. And the internal auditors are Ernst & Young, if that is your question.

But this was not directed by auditors. This was directed by the Canadian Institute of Chartered Accountants in their accounting pronouncements.

Q. - My question was a simple one, but okay.

With respect to -- and really what I'm focused here upon is the issue of risk to NB Power, how much -- maybe I should get you to define risk.

You used the word "risk" this morning. It appears a number of times in the financial statements that have been filed today, the word "risk".

What is risk from an accounting perspective?

MS. MACFARLANE: We use the definition of risk as risk of not meeting our objectives. And from a financial perspective, that would be risk of not meeting financial objectives.

Q. - And just looking at NB Power, it has lost money in the last five of six years?

MS. MACFARLANE: If you include the accounting adjustments, the writeoff of the deferred cost in 1998, '99 as a loss then yes, that is correct.

Q. - And in each of those five of six years NB Power has had a budget where it set out its objectives for the following year?

MS. MACFARLANE: That is correct.

Q. - And did the budgets indicate that NB Power, let's say you go back to 1997, NB Power plans to lose or budgets a loss year after year for the next five of six years?

MS. MACFARLANE: No, they did not.

Q. - I see. So that is an example of risk that came to pass. You failed to meet your objective?

MS. MACFARLANE: You will notice in the annual reports that NB Power issues that particularly in the last three years NB Power has taken measures to deal with the financial risks it faces through such measures as hedging.

It has taken measures to deal with the operating risks it faces, and those are primarily operating risks from our largest generating station, Point Lepreau, by putting into place a performance improvement program.

We are aware that we are subject to items such as weather, rainfalls, commodity prices, fuel -- pardon me, foreign exchange, et cetera. Those that there are financial or other instruments that we can use to control our risk, we now use.

And as I say, as it goes to the other operating risk, we have put in place performance improvement measures to try and reduce our operating risk.

Q. - So what you are telling me, up to five years ago, NB Power didn't have in place anything to deal with risks? I'm surprised.

MS. MACFARLANE: NB Power did not use financial market instruments in order to deal with the risk that it was exposed to for foreign exchange commodities or interest --

Q. - I see.

MS. MACFARLANE: -- prior to that period.

Q. - And that was a shortcoming, as you look back now?

MS. MACFARLANE: I wasn't at NB Power at the time. So I was not --

Q. - I appreciate it.

MS. MACFARLANE: -- in a position --

Q. - Retrospectively, looking at the financial statements and knowing what takes places now, is it your assessment that would have been a shortcoming?

MS. MACFARLANE: I would not be able to make that assessment retrospectively. I would have had to have been in the situation and assessed it at the time in order to determine whether it was a shortcoming.

Q. - All right. So last year, and we got the financial statement here now, when you started the year, March of 2001 or April 1st 2001, what was the objective of NB Power with respect to making money? Were you going to make money?

MS. MACFARLANE: NB Power had a planned budget in the vicinity of $30 million.

Q. - That you would make?

MS. MACFARLANE: That is correct.

Q. - And how much did you make?

MS. MACFARLANE: The net income loss for the year for 2002 was $20 million.

Q. - So over a one-year period you went from a positive 30 million to a negative 20 million -- $50 million?

MS. MACFARLANE: It was a net -- I'm sorry if I said a loss. I meant to say it was a net income of $20 million.

Q. - Okay. So you were short by some $10 million?

MS. MACFARLANE: I would like to point out that we are running a business with annual revenues and expenses in excess of $1 billion.

Q. - Why don't you point out how much debt you got? And a lot of it is in US dollars. And it fluctuates with the US exchange rate.

MS. MACFARLANE: It does no longer fluctuate with the US exchange rate because --

Q. - Because you hedge?

MS. MACFARLANE: -- as indicated in the financial statements, in early April we have had hedged our US dollar exposure for that longterm debt.

Q. - Now why didn't somebody do that the previous year, previous two years, five years, 10 years? Because you have had US debt all along.

MS. MACFARLANE: The principal portion of US debt was under CICA guidelines, able to be accounted for in the sense that any changes in the US dollar could be amortized over the life of the debt.

So the real exposure only applied when in fact that debt came due. And in our case it is in 2011 and I believe 2022. The rest of it was dealt with as an accounting issue and amortized over that life.

When the CICA guidelines changed, and those are applicable for the current fiscal year, we now are in a situation where those changes in the debt, the US dollar denominated debt would flow through net income. And that caused us therefore to hedge, where we previously did not have a reason to do that.

Q. - I'm still dealing with these contracts that on the one side NB Power has. And NB Power has lost money the last five of the six years.

On the other side we have AECL who has put up a guarantee, correct?

MS. MACFARLANE: That is correct.

Q. - And it is your understanding that AECL, over the last five years, had only made less than $50 million over five years. You are aware of that?

MS. MACFARLANE: AECL is a crown corporation. And its obligations are the obligations of the Government of Canada, as is indicated in their annual reports.

Q. - Show me that please, where the Government of Canada would be responsible for the obligations of AECL?

And I do appreciate the contributed surplus by the Government of Canada from time to time. But I want to see the legal obligation.

MR. HASHEY: I think Mr. Gillis is getting into a legal question. I believe it will be addressed by AECL. And we will be certainly arguing that.

If he has counter arguments he is certainly welcome to make them. But this witness obviously can't give legal opinions.

MR. GILLIS: I'm not after a legal opinion from this witness. But she says it is founded -- or you find it in the financial statement.

CHAIRMAN: In fairness to Mr. Gillis, I think the witness did respond something to that effect. Now if she in fact can't provide that, then that is one thing, but --

MR. HASHEY: I will let her continue.

MS. MACFARLANE: Let me clarify and say that in the annual report -- and I can certainly at the next break find the reference to it.

In the annual report it states that AECL is an agent of the crown of -- or pardon me, is a crown corporation of the Government of Canada, just as NB Power is a crown organization owned by the Province of New Brunswick. And our obligations are the obligations of the Province of New Brunswick.

So I will find the reference that says it is a crown corporation if you would like me to do that.

Q. - It is not necessary. I can find that.

MS. MACFARLANE: Okay.

Q. - But with respect to the analogy you have just given to me, that NB Power is a crown corporation, it still requires a guarantee from the Province of New Brunswick to borrow money, correct?

MS. MACFARLANE: As it goes to borrowing money, that is correct. But as it goes to normal day-to-day operations and our contracts with our counter parties, we expect our counter parties to recognize that we are a crown corporation and that our obligations are the obligations of the Province of New Brunswick at the end of the day.

Even as it goes to our debt, yes, we do have a provincial guarantee. But the Province expects our debt to be self-supporting. And that is evidenced.

The fact that it is self-supporting is evidenced in DBRS reports and Standard & Poor's reports in the fact that the Province's credit rating is not affected by NB Power's debt.

Q. - I'm going to deal with the DBRS momentarily. But with respect to AECL -- and I can show you the reference in your financial statement where there is a guarantee by the Province.

Can you show me any guarantee by the Government of Canada to AECL in their financial statements?

MS. MACFARLANE: AECL, as I understand it, does not borrow in their own name. Any borrowing for any of their obligations, as I understand it, is done through the Treasury Board. So no, I cannot show you that.

Q. - When you looked at the financial statements of AECL -- and I don't assume you have got an answer to the previous undertaking you have given to me with respect to the maximum exposure of AECL of about $187 million under all their contracts -- what is the total amount of money that AECL has, the assets minus the liabilities, all the retained earnings, to satisfy any of the guarantees that are the subject matter of this hearing?

MS. MACFARLANE: As I say, it is my understanding and was part of the discussions with the management team at AECL that their obligations become the obligations of the Government of Canada. Though their financial statements may not indicate that they would of their own accord have the wherewithal, their financial statements -- to support that, their financial statements do indicate that a good portion of the revenues come through treasury board in the form of government grants. If their obligations are increased, it is my understanding that they would receive that -- they would have that increased obligation covered through treasury board.

Q. - So what you are telling me, that if NB Power had have gone to AECL and said, we want you to put a performance guarantee up for 100 percent the cost of replacement power, we want you to guarantee the plant for five years, like your Ford Taurus, that's the construction of it, that it wouldn't cost anything, that the Government of Canada would stand behind it and be responsible?

MS. MACFARLANE: I didn't say it wouldn't cost anything. Of course it would cost something.

Q. - How much?

MS. MACFARLANE: I don't know how much it would cost.

Q. - Well you seem to have a fair amount of understanding with respect to AECL and that the Government of Canada would support them. What is the basis of that understanding? Just reading their financial statements, or is that negotiations or discussions with AECL?

MS. MACFARLANE: Reading their financial statements and I asked the question myself of the president of AECL.

Q. - And he said that we could -- whatever the guarantee is the Government of Canada is behind it.

MS. MACFARLANE: It's my understanding that the obligations of that crown corporation, just as is the case with NB Power, if they cannot be met by the crown corporation they are met by the crown. That's my understanding.

Q. - In your review of the financial statements of AECL did you determine whether there was any unfunded nuclear waste liability?

MS. MACFARLANE: I believe there is and I believe there is a reference to a plan to begin funding of that liability.

Q. - And with respect to unfunded liabilities, I'm looking at document A-22, are there unfunded liabilities with respect to NB Power?

MS. MACFARLANE: On page 3 of exhibit A-22, which is part of the consolidated balance sheet, you will see a reference to deferred liabilities, and you see plant decommissioning and used nuclear fuel management, which is referenced in note 12, 234 million.

Q. - Okay. So when you use the word "deferred liabilities", that means you put it off into the future, right?

MS. MACFARLANE: It is a liability that will occur in the future.

Q. - Okay. So what is the total of the deferred liability with respect to plant decommissioning and used nuclear fuel management concerning Lepreau?

MS. MACFARLANE: The account on the balance sheet represents an accumulation of amounts that NB Power has collected for this purpose through rates and interest that it has attributed on those amounts that it has collected through rates. That is what is shown on the financial statements.

If in fact NB Power were to fund the liabilities it would have to set aside a smaller amount than that as an investment, and that investment would accrue over time to be able to meet the obligations as detailed in appendix 5 and 6. I believe the obligations are somewhere in the $800 million range. The net present value of that amount is -- pardon me -- the obligation, if we were to refurbish --

Q. - I'm not interested in refurbishing. I'm dealing with apples today. If you were not to refurbish that obligation is how much?

MS. MACFARLANE: Okay. Is somewhere in the vicinity of $107 million.

Q. - So the total cost of decommissioning the deferred liability portion concerning Point Lepreau and used nuclear fuel management is only another $107 million?

MS. MACFARLANE: The cost would occur well in the future. If those costs are to be funded by setting aside money today, that money would earn interest and --

Q. - I know that.

MS. MACFARLANE: -- were we to set aside somewhere in the vicinity of $100 million today, it would accrue interest such that those obligations could be met when they are required to be met in the future.

Q. - So what you are telling me is that your financial statements are somewhat understated and if you had to totally fund today the cost of the decommissioning and nuclear fuel management concerning Point Lepreau with no refurbishment, you are only understating the figures by $107 million?

MS. MACFARLANE: The financial statements are not understated. I believe I'm indicating the liability is overstated in the sense that were you to have to undertake those costs in the future and invest for them today, you would invest a smaller amount. What is represented on the financial statements is an accumulation of amounts we have collected from customers plus interest earned on those amounts.

Q. - I guess I am losing you and I apologize.

MS. MACFARLANE: Okay. Perhaps we could go --

Q. - We go back to -- let's go back to the basics. You got a -- you don't get approval to go ahead with Lepreau, the Province says no way. At this point you have got to look at the decommissioning of Point Lepreau, which would include dealing with the waste management.

MS. MACFARLANE: That's correct.

Q. - Now the decommissioning costs I thought I got from a witness the last hearing was about $450 million.

MS. MACFARLANE: That's correct.

Q. - And I'm trying to get a handle. He said we have only funded a hundred million of it, we are short about 350 million.

MS. MACFARLANE: Mr. Gillis, the $400 million number that you refer to is in appendix A-5. Appendix A-5 gives a schedule of when the cash outlays would occur that would accumulate --

Q. - So you do a present value calculation --

MS. MACFARLANE: -- in 2001 to $450 -- 450 million. So you net present those amounts back, net present value them back.

Q. - Yes. So the amount that I would be short -- or that NB Power would be short right now if you invested the dollars today is about $100 million?

MS. MACFARLANE: If you turn to the interrogatory PNB-60, and that's in appendix A-5 -- pardon me -- in exhibit A-5 -- and with that in exhibit -- this response PNB-60 talks about the amounts that would be in the liability account for used fuel management at March 31st, 2001, in the event of no refurbishment and refurbishment on a net present value basis. So in the event of no refurbishment we should have $60 million in the account for IFM. And in fact on our financial statements for IFM at March 01 we had 113 million.

In PNB supplemental 16, which is in exhibit A-16 -- A-13 -- the equivalent numbers for decommissioning are there. A-13, PNB supplemental 16.

Q. - And the figure for the non-refurbishment was 156.3 million --

MS. MACFARLANE: It's 156, that's right. So in the amount -- in the event of no refurbishment the IFM would be 60 million, the decom. should have 156 million, the total is 216 million, and at March 31st, 02, in the account is 215 million. In fact in the event of refurbishment the obligation of those two added together is 107 million and the account is overfunded.

Q. - But these are the NPV as of the 31st of March, 2001.

MS. MACFARLANE: That's correct.

Q. - We are now in the 2002 and you are looking at the 2002 statement. What would the figure be March 31, 2002, the NPV for the non-refurbishment both with respect to decommissioning and the fuel waste management?

MS. MACFARLANE: I don't have that but it would be slightly different. It would be different by one year.

Q. - Yes.

MS. MACFARLANE: So if you want to speak entirely in terms of March 31st, 2001, IFM the net present value obligation was 60 million decommissioning was 156, the total is 216. In our financial statements at March 31st, 2001, we had 205 million.

I might mention while we are on the topic that there is a new CICA exposure draft out that if it is pronounced will direct utilities to account for their liability on a net present value basis, not on the basis of the amounts they have collected and accrued interest for.

So assuming that pronouncement is made, our liability would be adjusted to reflect the net present value amount.

Q. - Now the figure that you carry on your sheet here of $234 million?

MS. MACFARLANE: Yes.

Q. - Do you have that?

MS. MACFARLANE: Yes.

Q. - Have cash funds been set aside to meet this future obligation?

MS. MACFARLANE: No, they have not.

Q. - So what that means is although you have it on the sheet here you spent the money for something else. Is that what it means?

MS. MACFARLANE: No, it doesn't mean that.

Q. - All right. What does having no cash funds to meet this future obligation mean?

MS. MACFARLANE: If you will give me a moment, I will find the reference to the interrogatory that explains that.

Q. - Maybe I could help you. If I could refer you to exhibit

A-21, which is the Dominion Bond Rating Service document.

And at the second page under challenges it's item 1 --

MR. HASHEY: Excuse me, she should be able to respond in whatever way she wishes.

Q. - She can respond whatever way she wants, then I will ask my question afterwards. If she wants to just give a statement.

MS. MACFARLANE: If you would just give me a moment to find the interrogatory that explains the issue related to funding of IFM.

If you would turn to PUB-35, please, in exhibit A-5. I was not at NB Power when the decision was made to deal with this this way. But I understand the logic behind the economic argument for not funding IFM and decommissioning.

And I -- let me explain it as follows. The amounts are collected through rates. The amounts are then to be invested. In looking for a place to invest those funds, management determined that a good investment was to avoid operational borrowing at NB Power and accrue what would have been the cost of borrowing to investment. And in so doing, the costs that were avoided were the cost of investment fees on the one hand, and underwriting fees on the other hand. However, as it goes to the customer there has been a full recognition of the charges for irradiated fuel management and decommissioning and the cost of operational borrowing.

So when, in fact, these amounts are funded, there will be no impact on customers. There will be no impact on NB Power's income statement. There will only be a change in the assets and liabilities on the balance sheet.

Q. - But if I subtracted your liabilities from your assets you are in a negative position?

MS. MACFARLANE: Why is that relevant to this issue?

Q. - I see. Well it's just a further adjustment on the balance sheet. We are going to go deeper in the hole.

MS. MACFARLANE: The liabilities are already recognized on the balance sheet.

Q. - Right. And what you are saying here is you spent this money that you set aside and you are going to, in effect, go out to the marketplace and borrow the money to replace it, which puts you deeper in a hole?

MS. MACFARLANE: It does not put us deeper in the hole. The liabilities are already recognized on the balance sheet.

Q. - I see.

MS. MACFARLANE: They will move from one line to another on the balance sheet, but they are already there and recognized and taken into consideration by debt rating agencies when they look at NB Power's financial statements.

Q. - Yes. You know, they are. Maybe I will put this statement to you and ask whether you agree. Accounting reserves of 221 million have been recorded to date to finance the decommissioning of nuclear facilities and the disposal of waste fuels. But no cash funds have been set aside to meet this future obligation. This is in contrast to US nuclear operators which establish cash reserves. Do you agree with that statement?

MS. MACFARLANE: Could you tell me the source of that statement, please?

Q. - That's that Dominion Bond Rating Service Limited's document you just referred to, page 2 that I tried to take you to. Do you agree with the statement?

MS. MACFARLANE: I do agree with the statement. I believe it's a legislated requirement in the US to fund these liabilities. It is not a legislated requirement in Canada.

Q. - So this is another example of your accounting that you accountants do?

MS. MACFARLANE: This is not an accounting issue. This is a financing issue.

Q. - A finance issue, that's right. Okay. I remember now. Would you agree that the excessively high debt levels of

NB Power contribute to consistently weak profitability and key debt ratios?

MS. MACFARLANE: I believe that's a statement in the DBRS report.

Q. - Do you agree with it is my question?

MS. MACFARLANE: That is the opinion of DBRS.

Q. - Do you agree with it is my question?

MS. MACFARLANE: I don't agree with it or disagree with it. It's an opinion of DBRS and it's stated in that report.

Q. - Do you agree with that opinion?

MS. MACFARLANE: I don't agree or disagree.

Q. - Well what does that mean, you can't make up your mind or you --

MS. MACFARLANE: It means --

Q. - -- don't want to answer the question?

MS. MACFARLANE: It means I don't have an opinion on that particular item.

Q. - Well are there excessively high debt levels at NB Power?

MS. MACFARLANE: It depends upon your definition. From an investor point of view -- as I pointed out in the presentation that was made on the first day of the hearings, from an investor point of view, it -- our capital structure is not attractive. From a crown corporation perspective, it is manageable for the reasons that I told you earlier. The credit rating of the Province flows through to the crown corporation and therefore it becomes the least expensive capital structure for a crown corporation to be fully debt financed.

Q. - I see.

MS. MACFARLANE: Now DBRS in that report and in other reports also maintains that as it goes to what they refer to as excessively high debt levels, that NB Power is in a -- a particular situation as it goes to being a utility in the Canadian marketplace in that it does not have access to equity markets in that it has a regulatory, at the top of page 2 it says, "NB Power is regulated by the Board of Commissioners of Public Utilities of the Province of New Brunswick, and is governed by applicable guidelines as set out in the provincial government's energy policy. As these directives also incorporate an economic agenda, i.e., maintaining low rates to sustain provincial economic growth, NB Power's allowable earnings are restricted to 1.25 times interest coverage. This is far below what regulated utilities in the private sector are allowed to earn."

So if our only equity, because we do not have access to equity markets can come from earnings, and we have what DBRS believe is an interest coverage cap dictated by the provincial economic agenda that is far below what regulated utilities in the private sector are allowed to earn, it is not unusual that we would have a hundred percent debt.

Q. - Anything else you want to add?

MS. MACFARLANE: Not at this moment.

Q. - Okay. Let's look across the country. How many other utilities across this country are crown corporations?

CHAIRMAN: Would you limit that to this particular industry, Mr. Gillis?

Q. - Yes, to the electric power industry.

MS. MACFARLANE: I don't have the exact number, but a number of them.

Q. - Yes. And could you tell me what their debt levels are compared to NB Power's?

MS. MACFARLANE: I can't tell you that off the top of my head. But I can certainly get the information.

Q. - All right. If you would undertake to provide that.

MS. MACFARLANE: Are you looking for the dollar number of debt or are you looking for the capital structure --

Q. - It's easier for me with percent.

MS. MACFARLANE: Okay. I can provide that.

Q. - Now with respect to investor owned utilities the debt level is historically 55 percent. Would you agree with that statement?

MS. MACFARLANE: I'm sorry, could you repeat it?

Q. - Would you agree with me that other than crown corporations, that investor owned utilities in the electric generating business you typically have debt to capital ratios of 55 percent?

MS. MACFARLANE: That statistic is readily available through DBRS. I don't have it at hand, but I can certainly get it.

Q. - Well it's at page 4 of DBRS, left-hand column, half-way down.

MS. MACFARLANE: Okay.

Q. - It starts with the word, "Despite continued efforts to reduce the debt, the capital to debt ratio remains high at 99.7 percent, compared to investor owned utilities typically in the area of 55 percent."

MS. MACFARLANE: Okay.

Q. - And DBRS, when they wrote this in -- I can't make out when they wrote it, September 18, 2001, they didn't know that it wasn't 99.7 percent, in fact it was 104 percent debt to equity. Is that right?

MS. MACFARLANE: They would not have known that at that time. The Provincial Department of Finance did discuss with them the accounting adjustment to write off the foreign exchange deferred liability. And they, having been exposed to that in other Canadian utilities, as this practice applied to all of them, were very much aware of it and tended to look through it as an accounting adjustment only.

Q. - I want to go back. You would agree with me that 104 percent is an excessively high debt except for crown utilities. But you are going to give me the rest of them in the country to see what theirs are?

MS. MACFARLANE: That's correct.

Q. - And would you agree with me, and I'm still going through DBRS. This is at page 2 where I have put to you excessively high debt levels contribute to consistently weak profitability and key debt ratios.

Assuming that there is an excessively high debt level, would you agree that it consistently contributes to weak profitability of NB Power?

MS. MACFARLANE: Certainly the fact that NB Power is 100 percent debt and has finance charges --

Q. - 104 percent you told me.

MS. MACFARLANE: -- has finance charges accompanying that, that is part of the cost structure of NB Power. I might --

Q. - Is there something else you want to add --

MS. MACFARLANE: Yes, there is.

Q. - -- I haven't asked you? Okay. Look, go right ahead. I have got all week.

MS. MACFARLANE: Since we are looking at the DBRS report and looking at their view of NB Power, on page 4 in the column under financial profile, the left-hand column where it talks about -- two-thirds of the way down it says, EBIT interest coverage remains weak compared to the 2.5, to three times typical of the private sector. It goes on to say, however, since it is a crown corporation, NB Power faces certain restrictions that investor owned utilities do not face, such as the lack of access to equity markets. Further, given that its sole shareholder is the New Brunswick government which has non financial objectives, its dividend payout structure can be significantly different than investor owned utilities. DBRS recognizes that when they are looking at NB Power's ratios relative to other utilities investor owned or crown owned.

Q. - And I have read the earlier DBRS reports. I know what you are saying. Ultimately what it is saying is that the tax payers in the province of New Brunswick are the ones that are responsible?

MS. MACFARLANE: NB Power's debt is self-sustaining.

Q. - I see.

MS. MACFARLANE: It does not affect the credit rating of the Province. It does not affect the taxpayers of the Province. Our cash flows more than support our debt.

Q. - I would disagree with your statement. And I would ask what is your opinion if NB Power's debt were not guaranteed by the Province, would the Province's credit rating increase?

MS. MACFARLANE: NB Power's debt is guaranteed by the Province of New Brunswick.

Q. - If it were not, would the Province's credit rating increase and they could borrow at a lower rate of interest?

MS. MACFARLANE: I would like to listen to that one more time. Could you ask the question again?

Q. - All right. If NB Power's debt were not guaranteed by the province, I would suggest to you that the province would have a better credit rating and its borrowings would be at a lower rate of interest?

MS. MACFARLANE: I do not believe that to be the case.

Q. - I see.

MS. MACFARLANE: I have sat in on many, many reviews with Standard and Poor's and with DBRS. And they view NB Power's debt as self-sustaining and therefore not affecting the credit rating of the Province of New

Brunswick.

Q. - I see. So what you are saying, both Standard and Poor's in these inner meetings that you sat in on would also suggest that if NB Power were to carve -- be carved out and not be a crown corporation, its debt would be self-sustaining. And its creditworthiness would be the same as it is with or without the provincial guarantee?

MS. MACFARLANE: That conclusion is not one that can be drawn from the statement that I made.

Q. - I have just got a few very short questions on a number of topics. NB Power's debt will increase if the refurbishment goes ahead, correct?

MS. MACFARLANE: Correct.

Q. - Significantly or substantially?

MS. MACFARLANE: Over the eight year forecast period for both the Coleson Cove project and the Point Lepreau refurbishment NB Power's debt would be projected to peak at 3.6 billion, and at the end of the eight year period to end at something in the vicinity of 3.4 or '5 billion. It will increase something like 800 million for the two projects.

Q. - And I used the word substantial. Would that be a good way to describe the increased debt? Significant or substantial.

MS. MACFARLANE: We have shown in the evidence in our financial forecast that the increased debt will be able to be supported by the cash flow. So I don't know whether that means it's substantial or not.

Q. - I see. Would you agree with me that the debt and the other obligations of NB Power contribute to both current and future rates?

MS. MACFARLANE: Yes.

Q. - And what has been NB Power's track record with respect to the payment down of its debt let's say over the year 2000/2001? It had a debt of about 3 billion, did it? I'm just looking at your statements.

MS. MACFARLANE: Yes. For the year 2000/2001 the operating cash flow for NB Power was 214 million, capital expenditures were paid out of that of 118 million. There were a few other items related to working capital and customer contributions, but the free cash flow that was applied to the debt in that year was 114 million.

Q. - And in the same years was there additional borrowings?

MS. MACFARLANE: There were additional borrowings --

Q. - What is the amount of the additional borrowing?

MS. MACFARLANE: The 114 million free cash flow, by the way, would have been the net cash applied. This is the net of amounts coming due and new borrowings.

So longterm obligations issued in 2001 were 291 million.

Q. - So they paid down their longterm by you say 110 million?

MS. MACFARLANE: The 114 is a net number. The 114 is when you look at the amount of cash that was available to apply toward debt, and that is after issues come due and they are refinanced, which ones did we not have to refinance? At the end of the day we did not have to refinance 114 million worth of those debts because of our free cash flow. A number of issues come due, many of those issues are refinanced, but at the end of the day there is 114 million less in issues refinanced than came due, and that includes sinking funds and so on.

Now the actual debt number on the financial statements, only reduced by I believe it was 23 million and that's because in that year foreign exchange dropped from 66 cents to 62 cents and we had to adjust the US dollar value of the US debt and that was an $82 million charge.

Q. - Would it be fair to say that over the five year period '97 to 2001 that NB Power in fact hadn't, if you averaged it out, paid anything down on its debt?

MS. MACFARLANE: That's not true.

Q. - I see. Well I'm just looking at this Dominion Bond

Rating document A-21, the second to last page. Right at the very bottom. Here we have all the things you have been talking about, your capital expenditure, operating cash flow, your free cash flow, plus net financing, and we come up to the figure that you just talked about, net change in cash 23 million for the year ending March 31, 2001. You see that? You see that? Maybe --

MS. MACFARLANE: That is not the 23 million I was referring to.

Q. - I see. Well look, I can understand this better than the financial statements that you fellows produced. It appears that -- do you understand what net change in cash means --

MS. MACFARLANE: I understand --

Q. - -- in this DBRS?

MS. MACFARLANE: I understand what this table means, yes.

Q. - And what does net change in cash mean from your understanding of this DBRS statement?

MS. MACFARLANE: From this DBRS statement net change in cash is the operating cash flows after capital expenditures to give cash flow before working capital and adjustment for working capital and adjustment for other investments.

Q. - Right.

MS. MACFARLANE: And then an adjustment for net financing of

91 million.

Q. - And then you come up with net cash at the end of the day?

MS. MACFARLANE: That's right.

Q. - And over the previous five years if you averaged them altogether you had zero net cash at the end of the day, would that be a fair statement?

MS. MACFARLANE: NB Power keeps its cash balances very low intentionally.

Q. - Yes. You don't have any money. That's for argument, Mr. Hashey.

MS. MACFARLANE: I think you will find that most utilities would keep their cash -- most businesses would keep their cash on hand very low and instead put those dollars into assets that actually earn for them.

Q. - I'm going to ask some other specific questions. Have you worked out what NB Power's debt would equal as a result -- as of the provincial economy with the both of these refurbishments taking place?

MS. MACFARLANE: No, I have not.

Q. - Be in the range of about 20 percent?

MS. MACFARLANE: I have not calculated it, so I don't know.

Q. - In order of magnitude are we talking two percent, 20 percent?

MS. MACFARLANE: I'm sorry, Mr. Gillis. I don't know.

Q. - Would you be able to calculate that by way of an undertaking?

MS. MACFARLANE: If you were to ask again?

Q. - I want to know assuming the two refurbishments take place NB Power's debt would equal what percent of the provincial economy.

MS. MACFARLANE: What aspect of the provincial economy?

MR. HASHEY: I think maybe this is just going too far.

MR. GILLIS: No. The questions I'm asking here, if I understand this panel dealt with at the opening day Mr. Adams' report, or his statement.

MR. HASHEY: Not that.

MR. GILLIS: No, no. You dealt with the report. Once he deals with Mr. Adams, commenting upon Mr. Adams' report, I can ask questions.

CHAIRMAN: Really you mean the rebuttal evidence.

MR. GILLIS: The rebuttal evidence that came through Mr. Morrison, as my understanding, he raised some questions with respect to the statements made by Mr. Adams.

CHAIRMAN: Who raised questions?

MR. GILLIS: I believe Mr. Morrison did on this panel.

CHAIRMAN: He presented re-direct evidence, Mr. Gillis, yes. I'm trying to tie it in to the question you are putting to the witness.

MR. GILLIS: Okay. And the questions I'm asking now, some of them come from what Mr. Adams had put out in his statement, and since they commented on the statement on their rebuttal evidence, I would think I would be entitled to have them comment upon other portions of Mr. Adams' statement. It's the factual parts that I'm bringing out, not the opinions of Mr. Adams.

CHAIRMAN: Mr. Hashey, what do you have to say about that?

MR. HASHEY: I don't have a problem with a specific reference to something of Mr. Adams. If they have information that counters it, obviously they should say that they have that information. If it's something that's there stated by Mr. Adams that we haven't commented on, then I see that a bit differently, particularly if it's an opinion of Mr. Adams. That's -- I don't think really, Mr. Gillis is here to enforce that probably.

CHAIRMAN: What are we doing, Mr. Gillis? Are we attempting to prove or lay the groundwork for Mr. Adams through your cross of this witness. I just don't understand where you are going.

MR. GILLIS: No. Mr. Adams made certain statements and --

CHAIRMAN: He certainly did.

MR. GILLIS: -- and I'm really focused at this point at page 3 of 13 of Mr. Adams where he --

CHAIRMAN: But, number 1, it's not in evidence yet.

MR. GILLIS: I know, but what I'm getting at it's a document that everybody has, marked for identification, and NB Power has been free to comment upon that document, or this panel has commented upon portions or selected portions of that document that they saw fit. My questions here, and I'm still concerned with risk -- my questions here to a certain extent will be some of the statements made by Mr. Adams about -- well the one I just put. Mr. Adams does state NB Power's debt equals 16 percent of the provincial economy, whereas the old Ontario Hydro debt defined more broadly than NB Power's debt equals nine percent of the provincial economy. I'm laying my question through my groundwork, I'm asking this witness to provide the calculation of the NB Power debt as a percent of the provincial economy if the refurbishment went ahead, and then my next question would be, is it 16 percent without the refurbishment going ahead. And that's all I'm trying to do, Mr. Chairman.

CHAIRMAN: Well that's a specific question.

MR. HASHEY: I don't know what Mr. Adams' basis is. That's not something we commented on. I don't really know what the basis of his statement is. We know that a lot of his information was based on 1994, 1995 information, but --\ -

CHAIRMAN: Mr. Gillis, provincial economy doesn't very much to me. I mean you can be talking about the provincial gross domestic product, you can be talking about any number of different statistical indices, and if you want to put that kind of accurate question to the witness, then we will see whether or not the witness is able to answer it. But that's a very broad, general who-knows-what-it-is statement.

Q. - All right. Maybe I should start asking the witness, first of all, witness, do you know what provincial economy is in New Brunswick?

MS. MACFARLANE: There are many factors to the provincial economy.

Q. - And each of these factors total together to come up with the provincial economy, or there are different provincials economy?

MS. MACFARLANE: I'm sorry, Mr. Gillis. I don't know what you mean.

Q. - All right. Is there -- I will come back to it after lunch, Mr. Chairman, that aspect. I will pick it up through DBRS.

Could you tell me of any other major utilities in Canada in the past several years that have generated net income except for Ontario Hydro. Can you tell me of any.

MS. MACFARLANE: I'm sorry. I don't have that information with me.

Q. - Are you familiar with the running costs of NB Power's compared with other utilities in Canada?

MS. MACFARLANE: I know that's the statistics that DBRS reports on.

Q. - And would you agree with me that NB Power has the highest running cost of any comparable utility in Canada?

MS. MACFARLANE: I believe we commented on that on the first day. Many of the other utilities in Canada have access to vast hydro resources and are for that reason able to avoid fuel costs that those regions of the country that do not have access to those resources have. NB Power's semi-variable and variable costs on a per kilowatt hour basis are lower than Saskatchewan power which has a similar resource base as we do and lower than Nova Scotia Power and that has a similar resource base that we have. It is NB Power's semi-variable and variable costs are higher than those regions of the country that have access to hydro resources.

Q. - Would you agree with me -- again you say Nova Scotia and Saskatchewan, they do not have nuclear generating capacity?

MS. MACFARLANE: That's true.

Q. - And 40 percent of your variable -- no, that wouldn't be right. That's the OM&A. What percent of the variable and semi-variable costs would relate to nuclear generation?

MS. MACFARLANE: Assuming variable and variable costs would be considered fuel and purchase power and OM&A, Lepreau's fuel costs are minimal --

Q. - I know that. That's why I asked the percentage.

MS. MACFARLANE: -- their OM&A costs are about 100 to 120 million, so it's about 15 percent of the total of our fuel costs and our OM&A costs combined. They are about 30 percent of our OM&A but they are a very small percent, it's something like two percent of our total fuel costs.

Q. - Well that's why I favor Lepreau when it works. I wanted to ask you a question about the proposed rate increase budgeted for 2002/2003?

MS. MACFARLANE: Yes.

Q. - What rate increase percent wise are you proposing?

MS. MACFARLANE: I'm sorry, it's not proposed. It's already in place.

Q. - Oh I see. My mistake.

MR. HASHEY: You haven't had your bill.

Q. - What is the total income you anticipate from the proposed rate increase?

MS. MACFARLANE: I believe it was 19 million.

Q. - What I had difficulty understanding was that the rate increase went into effect, when April?

MS. MACFARLANE: April 1st, yes.

Q. - Now have there been any discussions that you are aware of within NB Power of additional rate increases that would be required the next 12 to 24 months over the standard increase that you have been having year over year?

MS. MACFARLANE: Could you ask that question again, please?

Q. - Are you aware of any discussions within NB Power of additional rate increases that one would look forward to or you have discussed putting in place over the next two years?

MS. MACFARLANE: Let me just say that setting aside the recent announcement by government which has some implication for rate increases but is not subject to discussion at that hearing -- this hearing, the plan as is indicated in the evidence, was to over the course of this summer update our longterm projections once we understood what the decision would be on refurbishment and at that point in time look at a longterm rate plan.

So there has been no specific discussion about any particular rate increase. There has been discussion to the effect that we need to determine a longterm rate plan.

Q. - So the longterm rate plan would be a plan that would be on top of the increases that you have been picking up year over year for the past 10 years?

MS. MACFARLANE: It may be the same as those increases. There are --

Q. - Are you suggesting --

MS. MACFARLANE: -- various approaches that one could take. One could have one rate increase that would require coming to this Board or one could have a series of rate increases under the cap that our price cap regulation allows NB Power to have. It could be no rate increases if they are not required by the projections. Could be any number of things. We were directed by our Board to put together a longterm rate plan for their review. That has not happened yet.

Q. - So NB Power has in the past 10 years not had any longterm rate plan except the one that you are talking about now that the Board has asked you to put together?

MS. MACFARLANE: There has not been a longterm rate plan at NB Power since I have been there, and I have been there for five years. The rate issues are assessed on a year by year basis when we put together the budget for the coming year.

Q. - Okay. So maybe you could help me with A-22, your financial statement. Do you have that? And this was prepared, I gather, and put to the audit committee on the 24th of May 2002? A couple of weeks ago?

MS. MACFARLANE: Yes.

Q. - If you go to the third to the last page, the income statement. Do you have that?

MS. MACFARLANE: Did you say the third to the last page?

Q. - Yes. Well it is the third page from the last is what I have. Now they are double sided. There is no number on it. And it says income statement.

MS. MACFARLANE: Is it a document that says on the top, Budget '02-'03 projection '01-'02, favorable, unfavorable?

Q. - Yes.

MS. MACFARLANE: Is that what that document says?

Q. - That's right.

MS. MACFARLANE: That is not part of our audited financial statement. That is in response to the interrogatory we were also asked to show that the data we had provided earlier was in fact the '02-'03 budget as provided by the Board. What you are looking at is an excerpt from documents that were given to the Board and attached to it are the minutes from the Board meeting that tie into these numbers showing that in fact the Board did approve this amount.

Q. - So what date was this presented to the Board, the 6th of

March 2002?

MS. MACFARLANE: That's correct.

Q. - And so if I read this correctly it shows that for '01-'02 that the net income was $19 million, is that right?

MS. MACFARLANE: That was the amount that was projected at the time that we put the budget together. The actual net income, which is in the earlier part of that submission on the draft financial statements, was 20 million.

Q. - And the -- if I go over to the budget column, if I read it right for '02-'03 that after you accountants did all your things, on revenues of over a billion dollars, NB Power was going to make $9 million?

MS. MACFARLANE: That's correct.

Q. - And then you add to that the rate increase that you are putting upon the ratepayers in the province to suddenly say well, we will probably now make 28 million this year?

MS. MACFARLANE: That's correct.

Q. - What I'm focused upon here is that the income of NB Power is so close to the line if it's going to make a profit or lose money year over year depends upon ever increasing rates, would you agree with that statement?

MS. MACFARLANE: No, I don't agree with that statement.

Q. - I see.

MS. MACFARLANE: I do agree with the fact that NB Power's net income is very close to breakeven on a year by year basis and is budgeted that way.

Q. - I want to change my line of questioning now and deal with this panel's understanding of what I would call the high risk of investing and refurbishing this reactor.

Now from an accounting perspective --

CHAIRMAN: Excuse me. Is this a good time to break for lunch?

MR. GILLIS: Yes, that would be fine.

CHAIRMAN: Why don't we and we will come back at 1:30.

(Recess - 12:10 p.m. - 1:30 p.m.)

CHAIRMAN: Any preliminary matters?

MR. MORRISON: Yes, Mr. Chairman.

CHAIRMAN: Yes, Mr. Morrison.

MR. MORRISON: Some undertakings that were given yesterday, Mr. Chairman, I think we are in a position to answer some of those.

One of them dealt with -- I guess it was identification number 9 which was prepared by Mr. Coon. And he asked the panel to fill in numbers.

For what it is worth we have done that and have them I guess admitted as an exhibit. It was a document for identification to begin with. I don't know exactly how you want to proceed with it.

CHAIRMAN: Good question.

MR. MORRISON: Or we can read them --

CHAIRMAN: It is Mr. Coon's exhibit. And I'm trying to remember. What was it, exhibit 9?

MR. MORRISON: It was marked for identification 9, I believe.

CHAIRMAN: Oh, all right.

MR. MORRISON: Yes. "25-year Financial Commitment" it is entitled.

CHAIRMAN: All right. So it would be on the right-hand side New combined gas cycle, the capital cost, replacement power, et cetera, et cetera, et cetera, those?

MR. MORRISON: Yes. And those blanks have been filled in now.

CHAIRMAN: Okay. Well, can one of the witnesses simply refer to "marked for identification number 9"?

MR. MORRISON: Certainly. That would be the easiest way to deal with it.

CHAIRMAN: I think so.

MR. MORRISON: Perhaps Mr. Marshall, if you would deal with that document?

MR. MARSHALL: Yes. The numbers that -- to go down the right-hand column under "New combined cycle gas", for capital costs would be 399 million. For replacement power would be one thousand 985 million. For ongoing capital 10 million. For operating and maintenance 14' --

CHAIRMAN: Slow down. Your shorthand is better than mine.

MR. MARSHALL: All right.

MR. SOLLOWS: Ongoing capital costs would be?

MR. MARSHALL: Ongoing capital would be 10 million. The ongoing capital costs, line number 3, would be 10 million. Line number 4, "Operating and maintenance costs", where it says 14.3 million today, is only one year. The number would be 330 million. So you strike the 14.3 and replace it with 330 million. For fuel purchase the number is 2 billion 393 million. So it is 2,393 million.

The used fuel management, there is no number there. The total, when you add them up in comparison numbers, is 5.1 billion.

MR. MORRISON: Thank you, Mr. Marshall.

CHAIRMAN: Could I just ask you to go back, Mr. Marshall, to the replacement power figure again was 1,900' and --

MR. MARSHALL: 1,985 million.

CHAIRMAN: Okay.

MR. SOLLOWS: Are those present values?

MR. MARSHALL: No, they are not. That is the point we made yesterday. These are 2001 dollar values as requested by Mr. Coon. We do not believe them to be relevant but --

CHAIRMAN: All right.

MR. MARSHALL: -- this is what our response is.

CHAIRMAN: Okay. That is good. Don't ask any more questions please. Mr. Morrison?

MR. MORRISON: There was another undertaking yesterday that dealt with -- we undertook to find out whether the decommissioning could be delayed if Lepreau was closed down in 2006. I believe Ms. MacFarlane can answer that question.

MS. MACFARLANE: Yes. We undertook to get that information from Panel A. And the information I have is from Mr. Stuart Groom on Panel A.

He indicated that during -- you recall that appendix A-5 in exhibit A-1 is the decommissioning plan. It was submitted to the CNSC for their review in 2001.

And as a consequence of that review the CNSC requested that NB Power, and this is a quote, "Provide a statement that indicates decommissioning will begin when the reactor at Point Lepreau is shut down with no intention to restart", end quote.

In response to that CNSC request, the decommissioning plan is being revised to incorporate that statement. And Mr. Groom goes on to say that this plan, that statement and the undertaking between NB Power and CNSC is premised upon the logic that the permanent shutdown in preparation for dormancy, decommissioning activities are best performed by the operating staff who are licenced to operate the plant and are familiar with the equipment and operating practices of Point Lepreau. Therefore for purposes of longterm planning and cost estimation it is assumed that the transition from operation to dormancy and the beginning of decommissioning will be completed with the operating staff of Point Lepreau working there at the time of its permanent shutdown.

MR. MORRISON: Thank you. And there was a question on an undertaking that arose from questions from Commissioner Sollows dealing with DBRS, residential, wholesale and industrial costs, I believe.

And I believe Ms. MacFarlane can respond to that.

MS. MACFARLANE: Yes. We have copies of that for the Board. You will recall this was from table 3 in the September 18th 2001 DBRS report. And what we did was get the DBRS information back to 1989 on that same basis.

CHAIRMAN: Mr. Morrison, is it appropriate we give it an exhibit number?

MR. MORRISON: I believe that would be appropriate, Mr. Chairman.

CHAIRMAN: Do you want to assume it as your exhibit? Or do you want me to put "PUB" on it?

MR. MORRISON: I think it can be an NB Power exhibit.

CHAIRMAN: Well, the PUB is kind of shy on exhibits. So we will put it in there.

MR. MACNUTT: Mr. Chairman, you are marking that as exhibit what?

CHAIRMAN: I haven't got there yet.

MR. MACNUTT: Oh, sorry.

CHAIRMAN: Mr. MacNutt, I just decided that rather than having to go to a second page for the PUB at anytime we would use up our first page.

So it is a PUB exhibit. And it is PUB-2. And it is a two-page exhibit.

How would we characterize that?

MR. SOLLOWS: Revenues and costs, 1989 to 2000.

CHAIRMAN: Good. Thank you, Mr. Morrison.

MR. MORRISON: There is a few more undertakings arising from Mr. Gillis' cross-examination this morning.

CHAIRMAN: Yes.

MR. MORRISON: The first one dealt with provision of the tidal power studies. They have been located in Fredericton. And they are being sent down this afternoon. So we should have them late this afternoon.

It is our intention -- the document is quite large.

It is several inches thick. It would be our intention to provide that to Mr. Gillis without making copies. He is the only person that has requested it.

So that would be our intention at this point, Mr. Chairman. But subject to your guidance on that.

CHAIRMAN: Mr. Gillis, you can keep it in the room. So that if other intervenors wish to review it they can look at it. And if they desire a copy, then we will go from there. Would that be fair?

MR. GILLIS: There would be no problem with that.

CHAIRMAN: Okay. Thank you. Yes. That is fine, Mr. Morrison.

MR. MORRISON: Also arising from Mr. Gillis' questioning this morning, he had a question to Ms. MacFarlane regarding -- I think it was the 17 percent escalation.

And I believe Ms. MacFarlane is in a position to respond to that.

MS. MACFARLANE: Yes. I was asked where in the transcript this was discussed by Panel A. And on the transcript of June 3rd beginning on page 756 Mr. Gillis is questioning Mr. White on the escalation clause.

And it goes on for three pages -- four pages, and ends on page 759. And the discussion of the 17 percent is in the transcript at that spot.

MR. MORRISON: Another undertaking arising this morning. Mr. Gillis wanted confirmation that the total amount payable by AECL in the event that Lepreau doesn't work was $187 million.

And I believe the panel can respond to that as well.

MS. MACFARLANE: Yes. In response to that undertaking, we have reviewed the documents. And the guarantees, in the event that the plant is not able to be commissioned, are 50 percent of the retube contract and 30 percent of the refurbishment contract. And the total of those is 187 million.

MR. MORRISON: Mr. Chairman, there are three other undertakings to Mr. Gillis that we are currently working on and which we hope to have later this afternoon.

Those deal with the construction time for Point Lepreau initially, assignment of dollar figures to those risks I think that Mr. Eagles identified in his evidence, and the percentage debt of crown utilities.

And we are working on that. And hopefully before the day is out we will have answers to those as well.

CHAIRMAN: Good. Thank you, Mr. Morrison.

Any other preliminary matters? Mr. Coon?

MR. COON: Yes, Mr. Chairman. Am I able to ask questions on a couple of these undertakings that were returned to us?

CHAIRMAN: It is unusual. But if the applicant has no problem with it, then no problem. I would suggest if they say okay, that we wait until Mr. Gillis is through his and then you pop in for that. Would that be all right?

MR. COON: It sounds reasonable enough.

CHAIRMAN: Good.

MR. COON: Thank you.

CHAIRMAN: Any other matters? The Board has a couple of quick comments it wants to make. Over the lunch time this panel asked me to make a couple of comments.

And Ms. MacFarlane, you referred to the fact that NB Power was under price cap regulation. It is not price cap regulation by any stretch of the imagination.

What it is is a legislature-imposed permission of NB Power to raise its rates up to 3 percent in each fiscal period without having to appear before the Board and be subjected to regulation.

MS. MACFARLANE: Yes.

CHAIRMAN: Okay. All right.

MS. MACFARLANE: I was using a loose term. I apologize.

CHAIRMAN: All right. Thank you. It sticks in our craw, I guess.

The other thing is that you have mentioned 1.25 interest coverage a couple of times. And I thought it would be good if we just explored that for a couple of questions so that everybody is clear on it.

That, if my memory serves me correctly, that was introduced into the Public Utilities Act probably around 1994. And you are able to earn in excess of 1.25 interest coverage. But if you do it goes into a fund that would be used in the future to keep rates down.

MS. MACFARLANE: Yes.

CHAIRMAN: Is that fair?

MS. MACFARLANE: Yes.

CHAIRMAN: And have you since its introduction ever managed to meet that 1.25 interest coverage?

MS. MACFARLANE: No.

CHAIRMAN: No? Okay. And lastly, again the Commissioners have asked me to indicate to both witnesses that we are completely cognizant of your position in reference to any number of questions that have been put by the intervenors.

And so it is not necessary for you each and every time that you respond to one of those that you disagree with the premise of those questions. I'm just thinking of us getting out of here at a reasonable time.

So if you just answer the question. I mean, you have able counsel representing you. And I'm sure that will be brought forth in argument.

Okay. Mr. Gillis?

Q. - Ms. MacFarlane, I just want to ask you a few more questions about rates. A three percent rate increase, as the Chairman has mentioned, would amount to about what $19 million a year to NB Power?

MS. MACFARLANE: If three percent were applied across all classes it would be about $27 million a year.

Q. - 27 million. Now, for 20 years, and that is the estimated life you hope to get out of the refurbished Lepreau -- I know it is longer than that -- but it is a minimum of 20 years. Is that right?

MS. MACFARLANE: The projections are done on 25 years.

Q. - So 20 years at 27 million would equal what, 540 million?

MS. MACFARLANE: There would be a compounding effect if rate increases were applied each year.

Q. - I am just doing it simple without compounding. It is at least 540 million?

MS. MACFARLANE: It would be more than that.

Q. - It would be more than that. And the present -- net present value of 540 million, 20 years, is what, approximately 300 million dollars?

MS. MACFARLANE: I am sorry, I don't know that. I would have to calculate it.

Q. - Could you calculate it for me?

MS. MACFARLANE: Yes.

Q. - The net present value?

MS. MACFARLANE: Obviously, we need more information, what year this is in, what interest rate would you like --

Q. - Let's say today, this year and the interest rate, well, pick a rate that is a reasonable rate. I just want to determine what the net present value of that kind of money would be?

MS. MACFARLANE: Okay. And this is a straight 27 million in each one of those years in nominal dollars of the year?

Q. - Yes. My suggestion to you, it is more than $300 million. Do you want to give it to me by way of any undertaking?

MS. MACFARLANE: Certainly.

Q. - Okay. Now, what I am getting at here is what is the net present value differential between natural gas combined cycle versus the refurbishment of Point Lepreau?

MR. MARSHALL: 235 million -- 234, I believe, in the evidence.

Q. - Yes. That is in your schedule B-1 at page 23, 234 million?

MR. MARSHALL: Yes, in 2001 net present value dollars.

Q. - All right. Why don't we move those over to today's dollars. So when she gives me the figure, you can give me the figure, Mr. Marshall, of that 234 million dollars on today's date so I can compare apples to apples?

MR. MARSHALL: That is the figures 234 million net present value in 2001. Do you want it moved to 2002?

Q. - I want it moved to the same date that Ms. MacFarlane is going to make the calculations I just had her do so I am comparing apples to apples.

MR. MARSHALL: Okay.

Q. - I will have that by an undertaking. And I just got one other question or two, I guess. I am scratching my head here on exhibit A-22, the third to the last page where it has the income statement you said that was presented to the Board. In the second to the last bullet there is something there, change in the estimated life of Point Lepreau?

MS. MACFARLANE: Yes.

Q. - What was that change?

MS. MACFARLANE: That is included in my evidence that if the refurbishment project proceeds and this Board makes a positive recommendation and our own Board approves that, then the life of the generating station will be extended to 2032 and the amortization on certain assets that exist today and will last through to that period of time will be extended.

The budget was built on the premise that the refurbishment project would be approved.

Q. - Yes. That is what I thought it meant. And you know what that tells me what the Board of NB Power has ruled or decided upon that, look if refurbishment doesn't go ahead, next year NB Power is only going to have net income after the rate increase of $2 million. Is that right?

MS. MACFARLANE: We would not make that accounting adjustment if refurbishment is not approved.

Q. - And when you will make that accounting adjustment that means on revenues of over 1 billion 173 million, NB Power is only going to make $2 million. Is that right?

MS. MACFARLANE: If you take the budgeted net income and you remove that accounting adjustment the difference would be two million dollars. But I would suggest that that there would be other consequences of the decision not to proceed with refurbishment.

Q. - And that is assuming that Lepreau continues to operate over the next year, you don't have any problems, like you have had historically year over year. And you are only going to make two million bucks. Is that right?

MS. MACFARLANE: As I say, I think there would also be other consequences of a decision not to refurbish that might make that number different. I am not suggesting it would make it more. It may well make it less. But that would not be the only financial adjustment that would come from a decision not to refurbish.

Q. - Well what you are saying is what you and the other accountants do with NB Power is that you change the rules, you change the figures, and when I pin you down and come up with a two million dollar net income next year, you are going to change the rules again, come up with a different figure. Is that what you are telling me?

MS. MACFARLANE: Mr. Gillis, there may well be other -- if the refurbishment decision is not approved, there may well be other things that have to proceed that may cost money, such that the implications to our financial statements may be more than just not changing the depreciable life. That is all I am trying to say.

Q. - I am just trying to quantify that. Is there any document I can have where we can quantify all of that?

MS. MACFARLANE: No, there is not. That budget is based on the assumption that the refurbishment project will proceed. If it doesn't proceed then we take action from there.

Q. - Did you grow up in this province?

MS. MACFARLANE: I did.

MR. GILLIS: I have no further questions.

CHAIRMAN: Does JD Irving have any questions of this panel?

MR. MOSHER: Yes.

CHAIRMAN: You do. Okay. Then you move up front, if you wouldn't mind.

This might be the appropriate time for Mr. Coon to ask his couple of follow-up questions. You can do that from where you are. Mike number 15.

CROSS-EXAMINATION BY MR. COON:

Q. - Thank you. Mr. Marshall, this has to do with the -- the first one has to do with the undertaking around what percentage of the generating resources when we were looking at the gap, how much was allocated to exports, you indicated that about a -- when Lepreau was shut down about a 300 megawatt shortfall in generating capacity to supply in-province load. And then you indicated with the undertaking that 220 megawatts of generating capacities at that time would be dedicated to supplying Quebec 200 megawatts, 20 megawatts to PEI. Is that my understanding of what you said?

MR. MARSHALL: That's correct. The shortfall is our shortfall against our total contracted obligations, which is in-province plus firm export contracts. The shortfall for 2007 winter is 304 megawatts. And at that point in time the export firm contracts were 220 megawatts.

Q. - Okay. So that's shortfall when we look at total in-province load plus the firm export contracts?

MR. MARSHALL: That's absolutely correct.

Q. - When does the Hydro Quebec contract terminate?

MR. MARSHALL: 2011.

Q. - And the PEI contract, when does that terminate?

MR. MARSHALL: End of life of Dalhousie plant.

Q. - And have you looked at what it would cost to buy the Hydro Quebec contract out --

MR. MARSHALL: Yes, we have.

Q. - -- in 2007?

MR. MARSHALL: Yes, we have looked at that.

Q. - And what would that cost be?

MR. MARSHALL: We considered that. I think it was dealt with in the Coleson Cove hearing as in the evidence of Coleson Cove. And it was found to be more expensive than the other alternatives.

Q. - And the cost of buying out the PEI contract, have you looked at that?

MR. MARSHALL: I do not -- I'm not aware that we have looked at buying out the PEI contract.

Q. - And then on the -- on the supply side, if Grand Lake continues on, and this may happen if its approval is granted, how many megawatts does that provide that currently you are not counting for?

MR. MARSHALL: I believe Grand Lake 8 is 57 megawatts.

Q. - Thank you. And then with respect to my undertakings to provide deescalated costs for three things. I asked for the deescalated costs for capital costs, of the natural gas plant, ongoing capital costs on fuel purchases. I just want to confirm those three figures.

The deescalated costs for the capital costs of the new combined cycle gas plant you said was 399 million?

MR. MARSHALL: That's correct.

Q. - And the deescalated costs for ongoing capital is 10 million?

MR. MARSHALL: That's correct.

Q. - And the deescalated costs for fuel purchases was 2.39 billion?

MR. MARSHALL: Yes, that's correct.

MR. COON: Thank you. Those were the three I asked for. The other things I didn't ask for and don't require. But thank you very much for your eagerness to please. Thank you.

CHAIRMAN: Thank you, Mr. Coon. Okay. Mr. Wolfe?

MR. MOSHER: Mosher.

CHAIRMAN: I'm sorry. I beg your pardon. And I should know you. You have been in that chair before. My apologies, go ahead, sir.

CROSS-EXAMINATION BY MR. MOSHER:

Q. - Not a problem. The first group of questions, if you would turn to exhibit A-16, slide number 25.

MR. DUMONT: Which slide?

Q. - 25. It states that the average -- or it doesn't say average. It says, the variable costs of 3.9 cents per kilowatt hour. Is that the NB Power's 2001 average variable cost of energy generation?

MS. MACFARLANE: That quote is taken from the DBRS report that is marked exhibit A-21. And therefore the number 3.9 cents would have come from the way that DBRS calculates variable costs.

It's on page 6 of the report. Do you have a copy there?

Q. - I don't have the report with me.

CHAIRMAN: What exhibit is that?

MS. MACFARLANE: This is exhibit A-21.

CHAIRMAN: Thank you.

MR. MOSHER: Which page?

MS. MACFARLANE: A-21.

MR. MOSHER: No, which page of the report?

MS. MACFARLANE: Oh, which page, I'm sorry, page 6.

MR. MOSHER: Okay.

MS. MACFARLANE: At the very bottom you can see in the table that DBRS includes a self-generation cost structure for variable costs OM&A and fuel. And that is where the 3.9 cent per kilowatt hour numbers come from.

Q. - Okay. So does NB Power on an ongoing basis calculate their average variable costs of generation?

MS. MACFARLANE: Yes.

Q. - And would it be close to the 3.9 cents as a reference point? Within some error -- or margin of error.

MR. MARSHALL: Yes. Again, it would vary from year to year depending upon hydro production --

Q. - That's fine.

MR. MARSHALL: -- nuclear production, different power plant output. But generally these -- this information is from actual data for 2001.

Q. - Okay. And that's fair. All I'm looking for is an order of magnitude, like a range of costs.

If Point Lepreau was taking -- taken out of the mix today, what would that average cost look like?

MR. MARSHALL: The variable cost?

Q. - Yes, for the rest of your generation.

MR. MARSHALL: That number would likely increase if Lepreau was not operating.

Q. - Do you know roughly by how much?

MR. MARSHALL: Not at this time. I couldn't give it right off the top of my head. We would have to do some calculations.

Q. - Would that be a very difficult calculation or --

MS. MACFARLANE: I can just add if it helps, that Lepreau's variable costs are in the range of 2 to 2 and a half cents. And they provide about 30 percent of the power mix. So if you were to take that out of the mix and replace it with natural gas or some other thermal generation or purchases, you would see that in fact the costs would go up. It's not a difficult calculation to do.

MR. MARSHALL: The question is though, we need to know -- in order to do the calculation we need to know what assumptions to make for the additional power.

Q. - I'm just looking at your current generation mix. Forgetting about any purchase replacement energy. If you just specifically took Point Lepreau out of the mix and made up whatever capacity -- or with whatever capacity you have left to meet in-province load, what would your average variable cost be, forgetting about any purchases?

MR. MARSHALL: Okay.

Q. - Just to get an indication of what the impact on the electricity rate could be with Lepreau out of the mix.

MR. MARSHALL: If you want an impact on electricity rate, then you also want inclusion of lost export opportunities in that calculation?

Q. - That's one of my future questions.

MR. MARSHALL: Do you want it in this calculation or not?

Q. - No.

MR. MARSHALL: Strictly in-province resources to meet the requirements?

Q. - Correct. I guess the next question is similar. You might not have the answer. But if we were to look at -- roll the clock forward a few years and put the Coleson Cove upgrade into the mix, where would that rate look like -- or what would that rate look like?

MR. MARSHALL: That should lower the impact and help the variable cost. Again, we don't have that number available right here. We would have to do an undertaking to confirm that.

Q. - Okay. And then the next question is the combination of the two going forward to the 2006, 2008 period of the shutdown. Assuming that Coleson Cove upgrade is complete, and Point Lepreau is put out of the mix, what is the average variable cost of generation?

MR. MARSHALL: Okay. That's a third undertaking.

Q. - The next question is relating to document I-9, which was brought forward by CCNB.

MR. MARSHALL: Yes.

Q. - Which shows a rebuilt Lepreau with quite a number of numbers down the column, which comes up to a total cost of about 4 and a half billion or around $7 million per megawatt.

You never got a chance to explain the relevance of these. Can you make those numbers relevant? Can you explain to me what in here is irrelevant and what those numbers would look like?

MR. MARSHALL: The issue that we have with this -- this chart is that they are in 2001 dollars. And there is no consideration of the time that the expenditures occur. And that simply taking 2001 dollars and taking everything in 2001 dollars using escalation of 1.8 percent, getting it back to 2001 is not the proper way to do it.

The only proper way to do a comparison in a total cost is on a net present value basis. You have to take into account the time value of money so that, for example, the used fuel management costs of 414 million, like Ms. MacFarlane explained this morning, that will occur out at some distant point in the future for a rebuilt Point Lepreau.

The amount of money that you need today to put aside to fund that project out at that point in time is only about $100 million, not $400 million. You have to account for the time value of money so that you are comparing what is the total equivalent value of the money you have today for each of the projects, so you are comparing apples and apples. That's the concern that we have with -- with doing this analysis.

And with the data that we just provided to Mr. Coon, if you use all of the numbers on the righthand side that I just went through, you get to a total of 5.1 billion. Even though the 5.1 billion is more costly by 600 million than the Lepreau case, this is still not the right way to do it. It's not what is favorable -- the project or not. It's that the analysis is wrong as a methodology. It should be done in net present value dollars, not nominal dollars.

Q. - So have you calculated those numbers?

CHAIRMAN: Mr. Mosher, I am going to characterize yours as friendly cross if you carry on this way.

MR. MOSHER: Well, actually, I'm trying to get a bit of an understanding. We have got some numbers down here that show about $7 million per megawatt which seems extremely high based on some of the projects that we have looked at. And I'm trying to get an understanding of what this final number does look like.

CHAIRMAN: Go ahead.

MR. MARSHALL: We could provide you the equivalent numbers here on a net present value basis. They actually are pretty much done in appendix B-2. And we could take the numbers that Mr. Coon has requested and put them in in a -- each one as equivalent net present value number so you see the component pieces of all of those to get to the total. That would be the correct way to do it.

Q. - So I guess then to just get right to the bottom line, have you calculated a cost per megawatt installed for each of the two options in present value dollars?

MR. MARSHALL: I think we have. I think my associate actually in trying to respond to this yesterday, started out that way. And we -- that wasn't what Mr. Coon asked for, so we didn't submit it. But I could get it.

Q. - Okay.

MR. MARSHALL: That's an undertaking?

Q. - Please.

MR. MARSHALL: Okay.

Q. - The next is exhibit A-1, appendix B-1, page 5.

MR. MARSHALL: Yes.

Q. - The statement says that exports maintained NB Power -- or New Brunswick's rates at up to 15 percent lower than they would be if no -- if there were no export benefits. And it gets into one of my first questions that you talked about was if over the past 25 years Point Lepreau did not exist, what would the export capabilities look like and what impact would that have had on the variable cost component of our energy?

CHAIRMAN: We having some difficulty with this line of questioning because we have never been allowed to test the 15 percent that is referred to in this evidence because t's beyond our jurisdiction. And I don't know where you are going or coming from in reference to that question.

MR. MOSHER: Very straightforward. As the largest energy consumer in the province, we have a lot of concern over the impact of rates, whether Lepreau is refurbished or whether it isn't. So I'm just trying to get a little better understanding of the potential impacts if it does not go ahead or if it does go ahead.

CHAIRMAN: Mr. Hashey, do you have any problems? I mean, this is opening up a whole -- where I'm sitting and I haven't talked to my fellow Commissioners -- but we are opening up a whole separate question here as to what -- how much has actually been derived from exports, and is 15 percent an appropriate figure to use or isn't it? And that surely, if we are going to get into that, is going to be -- have to be tested.

I mean -- and I -- subject to what the intervenors have to say, we are dealing with in-province and the economic impact and we are trying to assess it with a recommendation to the Board of Directors based upon in-province.

MR. MOSHER: Again this is directly taken out of the evidence.

CHAIRMAN: Well --

MR. MOSHER: The statement is made that 15 -- the rates have been held 15 percent lower. I'm assuming that if Point Lepreau did not exist or would not exist into the future, that the export capabilities would be significantly reduced. And then that would have some impact on the rate structure as we see it today.

CHAIRMAN: Frankly, the Board simply ignores that, because we have never been able to test it. All right. And what we are getting into right now is something that's dealing with that and we will -- if the other intervenors don't want to, we will start questioning whether or not the 15 percent or whatever the answers to the questions might be. I'm going to take -- I'm going to ask counsel around the room if they would give their input into this, as to whether or not this questioning should be allowed to continue or not, and the Board will adjourn and make a ruling on it.

MR. MOSHER: Can I ask just one clarification question. Is it just on the export percentage that you are having difficulties with?

CHAIRMAN: I don't know where you are going -- well, I think we are all having some difficulties with this. And certainly this particular question we have difficulty with.

MR. MOSHER: Just the one about the impact of taking Lepreau out and what that would have on the export capabilities?

CHAIRMAN: We have difficulty with dealing with the export market, because we are not -- that is not within this Board's jurisdiction by the statute. And we have never tested it and we don't want to get into that area. As simple as that.

MR. MOSHER: Okay. Well then you can strike that one from the record.

CHAIRMAN: Okay.

Q. - The next is exhibit A-5, JDI interrogatory number 11. response C. It says, interruptible energy is provided from NB Power resources and/or purchases and that during the outage its availability and price will likely be affected. Can you comment on what the term "likely be affected" and based on your studies what the impact will be?

MR. MARSHALL: The -- for the -- everybody's understanding, interruptible energy is supplied after firm load energy to in-province resources, and firm contracts. It is priced based on the cost of that incremental dispatch of generation that would be used to supply it at that point in the dispatch. Plus an adder of $9 a megawatt hour in the on peak hours and $3 a megawatt hour in the off peak hours. Under that pricing arrangement the cost of that energy to an industrial customer is subject to what is available on the NB Power system to produce that slice of the dispatch.

If Point Lepreau is not available then the resources that would be dispatched on the system to meet in-province load would be more expensive than the slice that's left over to meet that interruptible energy slice would be from higher priced resources. That would affect the price and it would likely increase.

Q. - It says the availability and price. So you have discussed the pricing?

MR. MARSHALL: The availability issue is -- that interruptible energy is, as I say, subject to interruptibility. It's not a firm product, so it is not available to be delivered to the customer from any resources. NB Power does not normally go out and buy emergency energy in order to supply that product. And so that if there is a situation where the system, to meet reliability requirements, to meet the firm load for the next day, that particular energy notice would usually be given to those customers that it's likely that their load may be curtailed the next day.

If Point Lepreau is not available, then the amount of resources on the system are lower, there is a higher probability that that energy would be curtailed and interrupted.

Q. - Okay. So carrying on to JDI interrogatory number 15. It gets around the availability of Courtenay Bay number 4. And the answer is that Courtenay Bay will be available during this period, but in the integrated resource plan it shows Courtenay Bay number 4 going down in 2007, which is pretty much in the middle of the Point Lepreau refurbishment?

MR. MARSHALL: No, it's -- it would be -- it would stay on through the refurbishment and go down after the refurbishment is complete.

Q. - Okay. So the plans are to run it, if necessary, during that period of time?

MR. MARSHALL: It would be to keep it available and run it if necessary to keep the supply of power to in-province customers.

Q. - The next question is JDI interrogatory number 16. It says that a four month delay in the project is estimated to decrease the net present value of the project by 63 million. Can you explain what costs are in that 63 million?

MR. MARSHALL: Yes. I think they were given also -- and it said refer to PNB-14, if we could look at that at the same time we may have the answer.

The -- to evaluate the 63 million for this four month delay it was taken from our modelling of the PROVIEW analysis. We modelled what the cost -- we delayed the input of Lepreau by the four months, calculated the additional replacement cost for that four months and also added in the -- I would say subject -- I better check on this just with the analyst who actually did it.

It includes the IDC costs on -- increased IDC costs on the project, which would continue on for four months. And I believe it includes the replacement power cost, and then it's net present valued back to 2001. But again to get -- to make sure we have those numbers correct, I would prefer to take it as an undertaking and then give you a detailed calculation.

Q. - Okay. And my question is around -- if I just take the replacement energy at $500,000 per day times the five months, I get close to 60 million, so I'm just curious about the numbers.

MR. MARSHALL: As we responded in PNB-14 the sources are the incremental interest during construction which is about $5 million a month. So that would be 20 million. The -- plus the replacement power costs and then you have to net present value that back to 2001.

Q. - Okay.

MR. MARSHALL: The other point I think -- also in the replacement power costs in this model because we would be moving into the next winter period -- and in our modelling, as we explained to Mr. Coon yesterday, in the detailed PROVIEW modelling we had a capacity contract for five months and an energy purchase as part of the replacement, that contract would have to be continued for months through that winter as well, and that's included in the purchase power price. So that's included in the modelling.

Q. - Okay. Well my next number of questions are all around replacement power or replacement energy. Can you explain to me the details and the methodology, I believe I understand it going through the evidence, but in how you calculate that 500' to $750,000 a day?

MR. MARSHALL: I think Ms. MacFarlane can do that. That was done based on actual budget numbers I believe in the next year or two out of PROMOD.

MS. MACFARLANE: I believe that's in PNB 10, response to PNB 10.

Q. - I went through PNB 10. So if I understand it really, when you say replacement energy you mean just a shift from Point Lepreau to your marginal energy. So it does not include the cost of purchasing energy to meet in-province energy requirements during the winter period?

MS. MACFARLANE: That's correct.

MR. MARSHALL: This calculation does not. It includes the re-dispatch of other in-province resources plus a reduction in export sales in order to divert those export sales back to meet in-province requirements and the lost profits on those export sales.

Q. - So during --

MR. MARSHALL: So in that way by diverting it from export sales you lose the revenue in the export sale. It's similar to going out to purchasing it in the export market at the market price.

Q. - So in the previous Panel we heard that NB Power had enough capacity to meet all necessary in-province requirements during the spring, summer and fall periods but not in the winter. So does that mean that during this 18 month outage where we are going through at least one winter, that NB Power can meet all of their in-province demands as long as it curtails its export sales, or will you have to go out and purchase?

MR. MARSHALL: We -- the rules on capacity availability are that -- at least the current rules through Northeast Power Co-ordinating Council are that you can have an outage of a generator up to 18 months and it's still considered as a credited capacity. So we do not need to go out and contract firm capacity to offset the requirement.

However, to be assured of having enough energy and capacity to meet in-province load, it would be prudent that we would go out and enter into some purchase contracts, whether it be for firm energy or capacity and energy, to some degree. And in the modelling for the -- all of the PROVIEW analysis we entered into a 300 megawatt contract for five months in the winter at about 85 percent capacity factor energy which we used to simulate that type of a block. And it's essentially priced at market prices as if we go and buy it in the market place.

Q. - So in your analysis you have taken into account that you may have to go out and contract for --

MR. MARSHALL: In the analysis of the modelling on PROVIEW comparing the gas case against the Orimulsion case, and all of the simulation of all of the option plans out in time, we did that. This is -- this calculation here is based on the current system operations with -- and I believe this is with Coleson Cove on oil, so these calculations are the current situation of replacement energy with Coleson Cove on oil. They are not the future calculations of what they would be with -- on Coleson and Orimulsion which is what is the basis of the PROVIEW analysis.

Q. - So I guess just to follow-up on that a little bit. And do you believe that NB Power has to go out and contract -- physically contract for a capacity and energy component during the winter period?

MR. MARSHALL: We -- again I said, there is no mandatory requirement under the reliability rules to do so. It's a question of a decision we will have to make based on market conditions and availability of energy as we move to that point in time how we would do that. I think we would want to enter into some type of contracts to be assured that we get energy at a reasonable price. Exactly how we do it we have not -- we have not pursued that as yet.

Q. - Do you have any idea -- is that something that you would have to do a number of months before that winter, a year before that winter, or --

MR. MARSHALL: I think it's -- you wold look at it, you know, one to two years in advance moving up and looking at the market place and reviewing what is in the market, and you may contract some up to two years ahead and some a year ahead. It's a matter of, you know, how the -- viewing where the market is and what is prudent.

Q. - So if that's the case, if you have to go out and potentially look a year to two years in advance, Point Lepreau is scheduled to come back on line October, I believe, of 2008?

MR. MARSHALL: 2007.

Q. - 2007, sorry. So if there is a delay in the start-up of Point Lepreau which takes it directly into the winter period, does NB Power have any plans to contract for some energy in the eventuality that that does run over?

MR. MARSHALL: We would review that as the construction is proceeding and we would have information from the construction team and projected in-service completion dates. If it looked like it was going to run over, then I'm sure that our generation marketing people would then be looking at what are the opportunities to purchase energy and how are they going to meet that requirement.

So they would then be looking at that as soon as they were aware of that situation.

Q. - Okay. And one more question on that. You alluded to the fact that because it's only an 18 month shutdown it has some impact on your reserve margin. Are you required to maintain a reserve margin on that capacity during the shutdown?

MR. MARSHALL: No. That's my point. Under the rules the 20 percent reserve criteria for accredited capacity is only when capacity goes beyond an 18 month.

Q. - Okay. And during the shutdown the inter-tie between New Brunswick and Maine is capable of carrying 700 megawatts.

MR. MARSHALL: 700 megawatts south into Maine.

Q. - South. During that shutdown period because the -- obviously your reserve margins will be impacted by Point Lepreau being off line, will there be availability to bring power north across that inter-tie?

MR. MARSHALL: They have just completed a review and studies to the effect of how much power can come north. And it's my understanding now that if Lepreau is not on line there is potential to bring up to 300 megawatts north, again dependent on the operating conditions in the State of Maine. Whether the unit at Veazie is operating, what the load is in Maine and other conditions in the State of

Maine, affect that. So it's the maximum number is 300 and it would be normally somewhat less than that depending upon conditions.

Q. - Okay. So I guess looking at the suppliers, is it fair to say that today the only potential suppliers of that energy during the winter would be Hydro Quebec or Nova Scotia Power?

MR. MARSHALL: Until this recent study to determine the minimal tie requirements and the reverse tie flows from Maine, that was clearly the case. Now there is some additional opportunity to get something out of the New England market.

Q. - Okay. Exhibit A-1.

MR. MARSHALL: Oh yes. It's just I might point out that we are not restricted to just Nova Scotia Power and Hydro Quebec. We would be restricted to sources flowing from the Hydro Quebec system into New Brunswick. That does not mean it has to be Hydro Quebec. Hydro Quebec have an open access transmission tariff that we were successful in intervening in and rates have actually been lowered in Quebec. With the Ontario market open, with other private producers in Quebec, like McLaren's Energy for instance, we would be able to bring energy either from Ontario, McLaren's, Alcan or even out of New Your State or New

England back up the tie in order to get it through Quebec into New Brunswick. We are not totally dependent on Hydro Quebec.

Q. - Okay. This next question may get me in trouble. Exhibit A-1, appendix B-1, page 19.

MR. MARSHALL: Yes, I have it.

Q. - The levelized life cycle annual cost of a refurbished Point Lepreau is in here as 5.01 cents per kilowatt hour?

MR. MARSHALL: Yes.

Q. - If Point Lepreau would have been a stand alone entity during the last 25 years or the current life of Point Lepreau, what would that cost have looked like? Have you calculated that?

MR. MARSHALL: I have not calculated that cost recently. I might have calculated it about 20 years ago, but on a perspective basis. But we have not done it on a similar calculation like this at all.

Q. - So generally do you believe it's higher or lower than what the previous 25 years would have looked like on a net present value basis?

MR. MARSHALL: I believe it would be similar. The cost of Point Lepreau -- what is it? I don't know, I would have to review. The capital cost of Lepreau when it went in service was around 1.4 billion. The O&M costs were lower than they are today. So O&M costs have escalated. So on this basis the capital would be higher than this piece. The O&M would be lower, the fuelling costs would be pretty much the same, so the two may trade off and it may be similar to this.

Q. - Okay. And then the next one is on page 4 of that exhibit, appendix B-1. Again, it gets back to the estimate of upwards of 150 megawatts of surplus or interruptible energy leaving the system.

MR. MARSHALL: Yes. Where exactly is that?

Q. - Page 4, line 23, I believe.

MR. MARSHALL: Okay.

Q. - If none of that 150 megawatts leaves the system what impact does that have, or does it have any impact on the NPV calculation of Lepreau? First is the natural gas option.

MR. MARSHALL: The 153 megawatts on line 23 of page 4 is the current interruptible surplus energy load. It is not projected to leave the system. We have included that in the modelling all the way through. The 150 megawatts that we have projected to leave the system is 150 megawatts of firm load that would result from some 150 megawatts of self-generation, cogeneration projects what would be constructed by 2005. The two are not connected.

Q. - No. I understand that. So if -- I guess my question is if that 150 megawatts does not leave the system to self-generate, does it have any impact on your NPV calculation of the gas versus Point LePreau? Does it make it better or worse?

MR. MARSHALL: If the 150 megawatts does not leave the system it would increase the supply requirement by 150 megawatts. It would increase the amount of energy that would have to be supplied and it would improve the economics of Lepreau relative to the gas case.

Q. - How does that work?

MR. MARSHALL: Well the -- it -- in 2007 instead of requiring only 300 megawatts of additional capacity we would require 450 megawatts of additional capacity in 2007. So the gas plant that we are constructing is only a 400 megawatt unit, wouldn't be sufficient. So you would need a bigger gas plant to compare to Lepreau. A bigger gas plant will cost more money. So that the economics of the Lepreau option relative to the gas option will be favorable towards Lepreau with a higher load.

MR. MOSHER: Okay. I think I will save my last two questions. That's the end of my questions.

CHAIRMAN: Is Mr. LeBlanc here today? Anyone -- any of the intervenors heard from Mr. LeBlanc?

All right. We will take a 15-minute recess now and give Mr. Hyslop an opportunity to come forward to mike 13.

(2:40 p.m. - 3:00 p.m. - Recess)

CHAIRMAN: Any preliminary matters?

MR. HASHEY: Mr. Chairman --

CHAIRMAN: Mr. Hashey?

MR. HASHEY: -- one document that I think was asked that my learned friend would like to use, and I have tried to determine whether it needed to be confidential or not, was the question that was asked last week, where the Panel B was requested to do calculations of the maximum cost of risk.

CHAIRMAN: Yes.

MR. HASHEY: And in that regard I do have a number of copies of this. I think my friends would have some additional ones.

But I did speak at the break to Mr. Hyslop. I was able to contact the people. And we aren't claiming confidentiality on this. This can go with the public record.

CHAIRMAN: Just a little background for the sake of the record is that this is a document which has come out of the in-camera hearing.

And in an effort to save Mr. Hyslop 15 minutes of cross-examination time, why NB Power has produced this document. And we will put it in the public record now.

MR. HASHEY: Thank you, Mr. Chairman.

CHAIRMAN: This will be A-23. It is a single-sheet exhibit headed "NB Power, Point Lepreau Refurbishment, 25 High Risks."

Anything else, Mr. Hashey?

MR. HASHEY: Mr. Morrison, I believe can deal with a couple of undertakings. We are doing our best to keep current on those.

MR. MORRISON: Mr. Chairman, I believe Ms. MacFarlane is in a position to answer two undertakings. I think the first dealt with the percentage of debt of other Crown utilities.

MS. MACFARLANE: Yes. We would like to submit as an exhibit a document or a copy out of the DBRS, Canadian Electricity Industry Study 2001, that indicates the debt -- percent debt in the capital structure for both government-owned and investor-owned utilities.

MR. MORRISON: Do you have it?

CHAIRMAN: Yes. The single-page exhibit will be A-24.

MR. MORRISON: And I believe, Mr. Chairman, Ms. MacFarlane can answer one other undertaking --

CHAIRMAN: Yes.

MR. MORRISON: -- the subject of which escapes me at the moment.

MS. MACFARLANE: Mr. Gillis asked us to clarify the amount of OM & A that would be capitalized during the Refurbishment Project. Included in the financial projections for fiscal 2006, 2007 is 20.3 million. And in fiscal '07, '08 is 10.6 million.

CHAIRMAN: Is that it, Mr. Morrison?

MR. MORRISON: Apparently there is one more, Mr. Chairman.

CHAIRMAN: That is two out of four, Mr. Morrison.

MR. MARSHALL: Mr. Gillis had asked about whether I would confirm the in service date of Lepreau relative to the planned date.

The planned in service was November 1979. The actual in service was February 1983. So the delay was three years and three months.

CHAIRMAN: Okay. Mr. Hyslop?

<u>CROSS-EXAMINATION BY MR. HYSLOP</u>:

MR. HYSLOP: Mr. Chairman, if I might speak briefly to exhibit A-23, just so it is understood. There are I believe four items on A-23 that have been marked zero dollars with an asterisk at the bottom, "excludes risks already mitigated."

We -- with regard to the main turbine inspection, I think Mr. White covered that in his evidence. And we would accept that that is an accurate number.

We would reserve the right to review the evidence with regard to the three asterisks under "Project Management" and at least not be seen as accepting the numbers. Because the numbers under tab 4 of the confidential exhibit C-1 would have indicated worst case scenario numbers quite a bit different.

And in the case for example of the staffing, I believe it was $300 million. And I don't want to be seen as accepting that that is necessary. The risk has been mitigated at this time.

We would accept I think what was pretty well established in Mr. White's evidence on the main turbine.

CHAIRMAN: Okay. Certainly you can't tell whether we are going to approve or not approve on time, can you?

MR. HYSLOP: That is right. Also, because I was planning on using it in my cross-examination, there was an undertaking given to Mr. Gillis relating to the calculation of the net present value of a 3 percent increase in rates over a 20-year period puts back the net present value.

And I was wondering if for purposes of my cross-examination whether or not that number may or may not come available in the next very short while.

MR. MORRISON: It is being conducted as we speak, Mr. Chairman. I expect I will have it in the next 10 or 15 minutes.

MR. HYSLOP: Very well. I can start.

CHAIRMAN: Good.

MR. HYSLOP: Thank you, Mr. Chairman, panel.

Q. - Just briefly, and I'm sure some of this has been covered, Mr. Marshall, I understand that you are in charge of the strategic planning with NB Power, is that correct?

MR. MARSHALL: Yes.

Q. - Yes. And Ms. MacFarlane, you are a chartered accountant and have been the chief financial officer for almost five years now with New Brunswick Power, is that correct?

MS. MACFARLANE: That is correct.

Q. - And as the chief financial officer in charge of financial affairs, I also understand you are a member of NB Power's management committee and Board of Directors, is that correct?

MS. MACFARLANE: I'm considered a member of the executive though I don't know if you would consider that a formal title. I'm not a member of the Board of Directors, but I do sit in on the meetings.

Q. - And amongst your duties I understand are to ensure that there is sufficient funds to pay the liabilities as they come due of New Brunswick Power in the normal course of business?

MS. MACFARLANE: That is correct.

Q. - And just -- and I don't want to get into a lot of detail. But just a couple of things in the evidence I want to make sure I don't have misunderstood.

I do understand that in the last five years New Brunswick Power Corporation has not had any major capital borrowings for large-scale capital projects, is that correct?

MS. MACFARLANE: That is correct.

Q. - And if borrowings of that nature had to be done they would have been done on the strength of the Province of New Brunswick's credit facilities, is that correct?

MS. MACFARLANE: That is correct.

Q. - And from Mr. Gillis' cross-examination this morning, I understand the current debt to equity ratio as such of New Brunswick Power is 1.04 to 1?

MS. MACFARLANE: It is in that vicinity, yes.

Q. - Right. Which would indicate that at the present time there has been -- there is a deficit in terms of the attempts or the ability to build a surplus through the profitability of New Brunswick Power?

MS. MACFARLANE: As I had indicated this morning, the deficit on our balance sheet arises from two accounting adjustments, one in 1999 and one in this past fiscal year.

The one in the past fiscal year related to a change in CICA standards for foreign exchange.

Q. - Right. And as I understand that, because of the fact that the value of our dollar had weakened against American dollars, the amount of Canadian dollars that would be needed to pay the interest and pay the obligations has gone up. And you have treated that as an expense?

MS. MACFARLANE: That is not quite accurate. Would you like me to clarify?

Q. - Sure.

MS. MACFARLANE: Okay. The way the accounting worked in the past, the CICA standard was to at each year-end adjust the debt based on the year-end rate for the Canadian dollar versus the U. S. dollar, and to take that difference and put it on the balance sheet as a deferred charge, and then to amortize that over the life of the debt issue. So that adjustment would be made annually.

But the -- the amount at the end of day we wrote off was not a one-year adjustment. It was an accumulated amount that would have occurred over the life of the U. S. issues as the dollar went up, as the dollar went down, net of amortization over those 20 years.

Q. - Okay. And not to beat this to death. But simply put, you were creating your statements and reporting your accounts in accordance with the current standards set out by the Canadian Institute of Chartered Accountants?

MS. MACFARLANE: That is correct.

Q. - Right. And when they changed the standard, that particular change in standard did result in an unexpected adjustment on your year-end statements. That would be your evidence, Ms. MacFarlane?

MS. MACFARLANE: That is correct.

Q. - Okay. I want to go on and discuss if I could the scope of the project. And in this regard I refer the panel to the integrated resource plan, which I believe is in exhibit A-1 and in particular page 8 at 23. Appendix B-1, yes.

CHAIRMAN: What page?

Q. - 23. Exhibit A-1, appendix B-1 at page 23. Do you have it, Panel?

MR. MARSHALL: Yes.

Q. - Yes. And I went through this briefly the other day, but I do understand that the total net present value in 2001 dollars of the Point Lepreau refurbishment in the context of the total system is $6,541,000,000?

MR. MARSHALL: That's correct.

Q. - And I understand by comparison the natural gas combined cycle, the net present value of that option in terms of the total systems cost over the life of the project to be 6,775,000,000?

MR. MARSHALL: That's correct.

Q. - And that leaves, according to your column, a difference of $234 million?

MR. MARSHALL: Correct.

Q. - And that would be the difference in the present value of the two projects in 2001 dollars?

MR. MARSHALL: It would be the difference in present value of the two projects integrated with the rest of the system.

Q. - Yes.

MR. MARSHALL: In 2001.

Q. - Now this is obviously a calculation that has been done after -- a great deal of time and effort has been put in to making projections into the future. That would be a correct statement, Mr. Marshall?

MR. MARSHALL: There are projections of the future in these calculations, yes, out to 2030.

Q. - Right. And you have to make a number of assumptions to go through the exercise of creating and completing these calculations, correct?

MR. MARSHALL: Yes. All the assumptions are documented in the -- in this report.

Q. - That's correct. And the source of this information -- a lot of this information would be provided to you from the members of Panel A, is that correct?

MR. MARSHALL: The costing data on Lepreau, the decommissioning cost data and all of the data around the Lepreau project, were provided essentially by Panel A.

Q. - And you would agree with me that that's a big piece of the equation in terms of the Point Lepreau refurbishment itself?

MR. MARSHALL: Yes.

Q. - Yes. Now I would like to refer you to back, if I might -- first, I guess, I would like to maybe make a suggestion to you that given the difference -- or the size of the net present value numbers, 234 on the face of it would strike me as being a pretty marginal case in favour of Point Lepreau, would you tend to agree with that, Mr. Marshall?

MR. MARSHALL: The -- it's in favor of Point Lepreau. I think when you look at these numbers you get a tendency to think it's a smaller margin than it really is. Because there is a significant amount of common costs of the existing system in both analyses, you -- it looks like a smaller piece on a percentage basis. In actual fact when you look at the decision to be made and the costs associated with the decision, it's a much larger component.

Q. - Well maybe what we could do is try to bring the differences here in comparison perhaps with some of the numbers we were dealing with with Coleson Cove. You did an integrated resource plan for Coleson Cove, Mr. Marshall?

MR. MARSHALL: Yes.

Q. - Yes. And as I recall the evidence on that, and maybe you can correct me if I'm wrong, but as I understand it the net present value calculation in terms of the Orimulsion conversion versus the oil blend natural gas, was 503 million in that case, does that number sound familiar?

MR. MARSHALL: It sounds familiar, yes.

Q. - Okay. And in this case it is less than half of that at 234 million, is that correct?

MR. MARSHALL: Yes.

Q. - Okay. And to go a little further with that, I understand that as part of doing an analysis of net present value and testing the strengths of the economic case, you do a number of sensitivity analysis, is that correct?

MR. MARSHALL: Yes.

Q. - And in fact those sensitivity analysis were also done in the case of Point Lepreau, weren't they?

MR. MARSHALL: Yes.

Q. - Or I'm sorry, in the case of Coleson Cove?

MR. MARSHALL: Yes.

Q. - Right. And again, I will test your memory, but I can refresh it if you are not sure, my understanding is that one of the strengths of the Coleson Cove case was that even if we put all the known factors in favor of the gas blend option, that at the end of the day the Orimulsion solution proved to be the most advantageous, is that correct, Mr. Marshall?

MR. MARSHALL: I don't know if you put all of them together, but the economics of the Coleson Cove project are very compelling and it is the lowest cost case for all of the sensitivities that were run for the stress case and for many of the stress cases that were put forward by interrogatories.

Q. - Yes. And I'm referring -- well perhaps I will have a document marked and put it to you.

CHAIRMAN: You just want this marked, Mr. Hyslop?

MR. HYSLOP: Thank you.

CHAIRMAN: This single sheet will be marked for identification number 12.

Q. - Now this -- I didn't catch the number you marked it for identification.

CHAIRMAN: 12.

Q. - Thank you, Mr. Chairman. I refer you to a document marked for identification number 12. And this is table 4-14 from the Coleson Cove evidence, Mr. Marshall. Does it look familiar to you?

MR. MARSHALL: Yes.

Q. - And this was a stress case analysis that was performed by you and giving all the major variables going against you Orimulsion still had $173 million net present value advantage over the oil blend natural gas combination, is that correct?

MR. MARSHALL: That's correct.

Q. - I refer you to exhibit A-5 and in particular interrogatory CCNB 95?

MR. MARSHALL: Yes.

Q. - Yes. And I'm referring to the response that was given to CCNB and in particular the table stress case without CO_2. And it's my understanding that given the stress case that was put to you in this example, that in fact the natural gas would have had a $332 million advantage on a net present value of the basis over the refurbishment proposal. Would that be the correct interpretation of your statement, Mr. Marshall?

MR. MARSHALL: Yes.

Q. - Yes. So that given the fact that the stress case in the Coleson Cove no matter how bad we made it Orimulsion was still better. I suggest to you that that was a strong economic case, is that -- would you agree with that characterization, Mr. Marshall?

MR. MARSHALL: Yes.

Q. - Yes. And vis-a-vis that strong economic case given the stress case performance here, would it be fair to say that this case is -- we will start out by suggesting it's certainly not as strong as the Coleson Cove case, is it?

MR. MARSHALL: No, it's not. And we pointed that out to the Board. I think the Coleson Cove case is exceptional economics and is not the normal situation.

Q. - Sure. And in fact, I would say that in view of the stress case example and given the advantage on the front end, it's a pretty marginal case, or would I be going too far with that?

MR. MARSHALL: I would say -- you pointed out it's less -- the economics are less favorable than the Coleson Cove case. It's still $234 million lower cost than the alternative.

Q. - Well then we will move on and go a little further if we can. Going back to exhibit A-1, and in particular in this case under the integrated resource plan, which is appendix B -- I'm getting A and B -- B-1 and page 31.

MR. MARSHALL: Yes.

Q. - Yes. Now I understand this is a summary of the various sensitivity analyses that you undertook with regard to the Point Lepreau proposal.

MR. MARSHALL: Yes.

Q. - Yes. Now there was some discussion this morning about the discount rate and Mr. Gillis put hypothetically to you if you had to use the rate that say Nova Scotia Power used, that would be 9.33 percent.

MR. MARSHALL: We based that rate on what we thought their cost of capital would be, yes.

Q. - Yes. Approximately. It may not --

MR. MARSHALL: Approximately.

Q. - Yes. And as I understand table 4-3, if you had to borrow at 9.33 percent the result of that would be to reduce the advantage of Point Lepreau over natural gas by $98 million, is that correct?

MR. MARSHALL: Well it's 134. I would do the calculation, but --

Q. - Well the result would be 136.

MR. MARSHALL: 234, yes. 98 million less.

Q. - That's right. And also under this you have a high capital cost of 25 percent overrun in terms of the project. And if that were to occur, then by my calculations 234 less 111, that would be roughly $123 million, is that correct?

MR. MARSHALL: 123 million less, yes.

Q. - Yes. So am I correct in stating that if you had to borrow at 9.33 percent and you ran into a high capital cost of a 25 percent overrun, if those two things were to occur, the net result would be that we would use up most of the $234 million advantage in favour of Point Lepreau on the base case?

MR. MARSHALL: Yes.

Q. - Yes. Now just so that we know, that 25 percent cost overrun, that would be 25 percent over and above the $850 million roughly we are dealing with, or is that based on just the two contracts that -- with regard to the refurbishment and retubing?

MR. MARSHALL: No. That would be 25 percent cost overrun on the $785 million yet to be spent that was done on the evaluation.

Q. - Okay. So if I work off 25 percent, and because it's getting hard with my mental math, I am going to round the 785 up to 800, and 25 percent of that would be 200 million. Would that calculation be approximately correct?

MR. HYSLOP: Yes. 200 million in-service out in 2007.

Q. - Yes. So the issue would be that we would run this capital cost disadvantage if the project costs went over by $200 million, is that correct?

MR. MARSHALL: Just rephrase that again, please.

Q. - Okay. If the total overrun on the construction of the Point Lepreau refurbishment was $200 million then the result would be as indicated in the third column of table 4-3 which would be that the advantage would be reduced to $111 million?

MR. MARSHALL: That's correct.

Q. - Now I would like to refer if I could briefly to exhibit A-23. By the way, just so that we are clear, in your costs of $785 million, I do understand in fact that there is a contingency of I think $35 million built in, Mr. Marshall?

MR. MARSHALL: Yes, there is a contingency in that.

Q. - Yes. Okay. Now this is -- this is Murphy & Gillis' law I suppose, the worst case scenarios, and this has been drawn out of what was originally exhibit C-1, which was the Ernst & Young -- are you familiar with that document, Mr. Marshall, the Ernst & Young report?

MR. MARSHALL: No.

Q. - Are you familiar with these different 24 risks that are associated to the project?

MR. MARSHALL: No.

Q. - Would you be familiar with them, Mrs. MacFarlane?

MS. MACFARLANE: I have not read the report. I was an attendee at the Board meeting where the risk assessment was discussed.

Q. - Okay. Well let's put it this way. If for example, as part of the licensing requirement it was necessary to relocate the steam lines on the main control room, my understanding of exhibit A-23 is that would cost another $80 million. Is that your understanding of that document, Mrs. MacFarlane?

MS. MACFARLANE: Yes.

Q. - So $80 million, if you incurred that one expense, I would suggest that's 45 million in the contingency you have set aside for extra problems that may come about in this project, would that be correct?

MS. MACFARLANE: The $80 million would come out of the project contingency. There may be other things in the project changed to try to accommodate this, but if that were not possible then the project would be over-budget.

Q. - Sure. Also I look down and I see something for the environmental qualification of all PVC cables and the number there is $100 million, is that correct?

MS. MACFARLANE: Yes.

Q. - And that would be the cost if -- and I appreciate that these are low risk items, but if it was necessary to replace these cables there would be an extra hundred million dollars incurred, is that correct?

MS. MACFARLANE: That's correct.

Q. - And similarly if there is an extra problem that we get into once we open the reactor up with the pressure tube and feeder, there would be a hundred million dollars there, is that correct?

MS. MACFARLANE: That one I'm less familiar with, but that is what it says on this report.

Q. - Sure. So what I'm getting at is there are items on this report, if they occur, we're going to -- that one item could mean your contingency is way understated as far as the construction costs of this project, if that were to occur, is that correct?

MS. MACFARLANE: If that were to occur, yes.

Q. - Yes. Thank you. Now put those things as the risk of going over budget -- I mean Mr. Gillis was saying that if the thing -- you flipped the switch and it didn't work, there would be -- but I hope it will work, I'm just worried about what the cost is. The next thing I want to worry about a little bit is the time to construct, and we are on an 18 month period shut-down to complete this refurbishment, that's the proposal by New Brunswick Power, am I correct?

MR. MARSHALL: My understanding is that it would be 16 to 17 months, but the -- we have modelled it as 18.

Q. - Yes. Okay. And just something that came up in your evidence with Mr. Mosher, Mr. Marshall. I understand if the scheduled plant shut down 18 months that you don't have to -- I will back up a little. You spoke about this contingency requirement to have a reserve for the biggest component of your energy -- energy grid.

MR. MARSHALL: Under Northeast Power Co-ordinating Council rules you can have capacity as a credited capacity to meet your capacity requirements for longterm reliability. You can have a major outage of a unit up to 18 months and that capacity is still a credited capacity under those rules.

Q. - Okay. So what would you have had to do different if we had decided or your engineers had come back and said, we are going to need 20 months to complete this. What steps would NB Power have had to take to in short met its obligations under the Northeast Energy Producers -- Co-ordinators?

MR. MARSHALL: Under the NEPC rules we would have to demonstrate capacity contracts through the winter period to ensure that we could reliably meet our obligations.

Q. - Okay.

MR. MARSHALL: And in actual fact in the modelling that we have done we have done that and included that in our assessment.

Q. - Okay. So the fact this is an 18 month outage, you have taken the same steps that you would have taken had you been into a 24 month outage?

MR. MARSHALL: That's correct.

Q. - Okay. I understand. I just didn't know how that impacted. Now as I understand the evidence, if this project goes over in time and it doesn't get constructed in 18 months, we would have replacement fuel costs of between half a million and three-quarter million dollars per day?

MR. MARSHALL: No. Well I'm not quite sure about that. The half a million to three-quarters a million per day were calculated in response to interrogatories and done on the basis of current situation in the system, not on the basis assuming Coleson Cove is refurbished and goes forward as Orimulsion. We would expect them to be lower cost with Coleson Cove on Orimulsion

Q. - Okay. Well then to bring it simply back, if you are four months over I believe you have calculated that there would an increased $63 million to the net present value.

MR. MARSHALL: That's correct.

Q. - And just to use some simple math, if we went a year over could I multiply three by 63 and get 189 and say we are pretty close to $190 million change in NPV?

MR. MARSHALL: No.

Q. - I couldn't do that?

MR. MARSHALL: No. The contract capacity costs are only through the winter. If you are a year later -- you only need to go four to six months later to incur that capacity cost through the winter. Then you are into differential energy costs through the system when the in-province load is lower. So you have to look and model the effect month by month through the system.

Q. - Okay. So the winter months at least would cost you $63 million and it would be a little cheaper once we got back into the spring and summer.

MR. MARSHALL: That's correct.

Q. - I see. Just for the sake of clarity, what do you consider the winter months as far as New Brunswick Power, Mr. Marshall?

MR. MARSHALL: We consider November to March as winter months.

Q. - Is that inclusive of the full month, so there would be five months there?

MR. MARSHALL: We use five months. That's the standard in our large industrial contracts and most contracts that we have done, that's the winter period.

Q. - Sure. Okay. So if this project went a year over we would be at least $63 million plus something for the other seven months, or the other eight months.

MR. MARSHALL: Yes.

Q. - So depending on what probability you would put on for being over your construction period, again, it would appear to me that a sizeable portion of the $234 million could be used up if we get into a one year overrun. Would I be correct on that, Mr. Marshall?

MR. MARSHALL: I would say, well, at least 63 million of it.

Q. - Yes. Well you think -- I think you told me there would be something a little extra for the summer months?

MR. MARSHALL: Yes.

Q. - Yes.

MR. MARSHALL: Well I said at least.

Q. - Okay. Now I might pass on to something. The capacity at Point Lepreau is 635 megawatts of which 605 we use for our own use?

MR. MARSHALL: That's correct.

Q. - Okay. And does that make Point Lepreau the biggest unit in the New Brunswick system as far as generation?

MR. MARSHALL: Yes.

Q. - Yes. So one of the issues that I want to try to find out about is if we redid this as a 400 megawatt gas unit, what would then be the largest unit in our system?

MR. MARSHALL: The Belledune station at 450 megawatts.

Q. - I see. So one of the questions I have is, is the need to maintain a source of power to fill in for Point Lepreau -- was there any expense attached to that in the New Brunswick system, Mr. Marshall?

MR. MARSHALL: The capacity reserve criteria is modelled on 20 percent of the reserve or the largest unit. Point Lepreau reliance for New Brunswick in-province use is essentially at the 20 percent reserve. So the two of them are awash, and there is no impact from that.

Q. - Okay. I'm a little concerned and maybe -- Ms. MacFarlane, you indicated that you are in charge of the finances and making sure the bills get paid. And when we talked to the Panel last week, they indicated -- there was a mention of the Hagler Bailly report. And they suggested a cost of refurbishment in the area of $550 million a few years ago. Do you recall that, Ms. MacFarlane?

MS. MACFARLANE: I recall the report, yes.

Q. - Yes. And do you recall the specific suggestion that refurbishment might be in the area of $550 million?

MS. MACFARLANE: I don't recall the specific suggestion. I know it was less than what our current projection is. And I also read the 550 million in the testimony from last week.

Q. - Sure. And also at some point in time I heard the number of $690 million to do this refurbishment being bantered about. Do you know the context of that number, Ms. MacFarlane?

MS. MACFARLANE: Yes, I do. I believe that is in PNB 84.

Q. - Yes.

MS. MACFARLANE: The 690 million was a preliminary estimate done early on before the condition assessment was done. And there is a description there of the differences. And the largest part, as I understand it, was in the calculation of IDC which was done incorrectly at the time.

Q. - Sure. And now we have got the price up to $840 million approximately. Is that correct?

MS. MACFARLANE: That's correct.

Q. - And as the chief financial officer there is a pace of -- a space of maybe five years where we have gone from a suggestion of 550 to a rough estimate of 690 to 843 million. What concerns did you have as this number kept going up?

MS. MACFARLANE: I believe the entire management team and the Board as the projections became clearer continued to be concerned with finding the least cost option for a supply of energy into the future.

Q. - I see. But from a financial position as opposed to the economic position, did you start having concerns how this large a project might impact on the financial position of New Brunswick Power?

MS. MACFARLANE: I did not in the sense that if it is the best -- the least cost economic option, recognizing that NB Power has an obligation to serve, then it would be the option of choice regardless of its impact.

Q. - Okay. So you really -- the financial results of these decisions are kind of in the regardless category. Would I be correct there, Ms. MacFarlane?

MS. MACFARLANE: It was our intention, and we have done that, to put together a business case that would support that this was the least cost option. And that NB Power at current rates could support the cash flow to support the debt. We have done that in the evidence. It is our intention to do that going forward to our Board. And our Board was satisfied that they were ready for us to take it to this Board.

Q. - I guess my question is, as the person that's ultimately responsible for the shape of the financial statements, what price would it be where you would put up your hands and say no, we can't do this? When would you say that? What number would be the number that you don't go forward with this?

MS. MACFARLANE: There would be a number of considerations. One of the things that we looked at was the break even between this project and the next least cost option.

Another issue we would look at is whether, in fact, any of the options would move NB Power's rates to a point where they would be uncompetitive, which might require action beyond supplying the least cost option. It might require suggesting, in fact, looking at our mandate and how our mandate and our rates affected the province.

There would be issues -- many issues that you might look at as the cost of providing that least cost option became larger and larger.

Q. - And I was wondering as this cost went up, these preliminary estimates became more detailed and they consistently were going up did you, as the chief financial officer and responsible for the finances of Point Lepreau, did you make a suggestion that perhaps we should get a complete third party assessment of this project?

MS. MACFARLANE: There were many third party -- third parties involved. And I believe that's detailed quite significantly in Panel A evidence.

Q. - I'm aware that you consulted with a number of people outside of the company from time to time. But did you engage any engineering firm and just say to them please study this and give us an independent second opinion at any time?

MS. MACFARLANE: I believe that's in Panel A evidence.

Q. - Okay. You are not aware of one personally though, where you -- where you had a completely independent assessment? And I will allow you to check back with Panel A if necessary.

MS. MACFARLANE: We can check back with Panel A.

Q. - Thank you. Now I appreciate that this is hypothetical. And you may have had your fair share of those already. But this is important. Can you give me a scenario of what the price would be and the length of the outage at Point Lepreau if you knew that they might occur where you would be prepared to say we are not going to go there. We are not going to do this project. Can you give me any feeling on that at all, Ms. MacFarlane or Mr. Marshall?

MS. MACFARLANE: Well certainly in the first instance, if we were not able to meet the objectives that we set out to in looking at these options, that being meeting the reliability, ensuring we are complying with the environmental regulations now and in the future. And ensuring that we have the least cost option, all under the understanding that we have an obligation to serve, so we must provide that load.

Q. - Now some of these options -- and maybe Mr. Marshall might be able to help here a little more. Panel A we had a discussion of -- it was NUCO, which was a proposal to lease Point Lepreau, have them refurbish it and then sell the power back to New Brunswick Power. Are you familiar with that at all, Mr. Marshall?

MR. MARSHALL: I'm aware there were discussions with NUCO. I do not have all the details of the -- specific details of those discussions. But I'm aware generally of the discussions.

Q. - Okay. Well maybe we will ask a few questions. And if you don't know, you can indicate that.

As I understand it, the first step in this would be to lease Point Lepreau to a private business. Is that correct?

MR. MARSHALL: That would be one possibility.

Q. - Yes. And they would undertake all or part of the refurbishment of Point Lepreau in order to have it continue to be able to supply electricity?

MR. MARSHALL: That's a possibility.

Q. - Right. Did you get into how much the cost of them doing the refurbishment might be?

MR. MARSHALL: My understanding was they had costs that -- they didn't lay out the costs. They would do it and sell the power back to NB Power and wanted a commitment for what we would purchase the power for.

Q. - Okay.

MR. MARSHALL: And the assessment of purchasing the power was more expensive at the time than our projections of the natural gas power plants, and more expensive than our projections of refurbishment being done by NB Power.

Q. - What was the capital cost that you would have had at that time with regard to the refurbishment, do you recall, Mr. Marshall?

MR. MARSHALL: I'm not sure right now. It would have been one of the two earlier numbers that you just referred to.

Q. - Okay. It was either the 550 or the 690?

MR. MARSHALL: I think so.

Q. - Okay. And the problem here was -- the price they wanted to sell electricity back was apparently in excess of the price per kilowatt hour for gas. Is that correct?

MR. MARSHALL: That's correct.

Q. - Did you present any of that evidence in your screening? Was that called the B-1 or in the integrated resource plan?

MR. MARSHALL: No.

Q. - How recent were these discussions?

MR. MARSHALL: I believe it was about three years ago.

Q. - Three years ago?

MR. MARSHALL: Subject to check.

Q. - Subject to check is fine. And since that time have you done any further RFP's for the private sector to look at the possible use of Point Lepreau and supplying power back to New Brunswick Hydro?

MR. MARSHALL: I am not aware of any from Lepreau since that time. But I think that we are going to be looking at that in the near future.

Q. - I asked for that one maybe but anyhow. In any event, this NUCO -- the NUCO concept that was discussed, that never went anywhere after three years ago, it was -- who made the -- would you have been involved in the decision to dismiss it, Ms. MacFarlane?

MS. MACFARLANE: No, I was not.

Q. - No. Would you have been involved in the decision to dismiss it, Mr. Marshall?

MR. MARSHALL: No. I was aware of some of the data. And it would have gone to a higher level that -- in terms of the final decision. So I'm not aware of who exactly made the decision or how it was made.

Q. - I want to just refer back to the transcript. I'm referring to the transcript of June 4th, page 851. It's my cross-examination of Panel A. I asked Mr. White a few questions. And at the bottom of the page, line 24 I asked, So that would imply the net present value of the NUCO was greater than the 234 million or more. That was the gas proposal. And Mr. White said, I'm sure Panel B will give the answers in detail to that.

I was wondering, Mr. Marshall, can you provide me the details with respect to the cost per kilowatt hour of the NUCO proposal?

MR. MARSHALL: I can review -- subject to review, that may be a confidential document. I would have to check.

Q. - Can you provide me with the details of the capital investment NUCO was prepared to put into Point Lepreau?

MR. MARSHALL: Again, subject to check with the contract term.

Q. - Perhaps either of you could help me with this. Was the discussions with NUCO at any time put before me or the Board of Directors of NB Power for consideration?

MS. MACFARLANE: My recollection is that in the -- in each

Board meeting there was a report from each of the major areas of the corporation. One of those reports comes from the corporate planning group. And certainly there were updates on the discussion with NUCO in the reports given by Mr. McPherson as head of the corporate planning group at that time.

Q. - Can you -- would you like to give that answer subject to check, Ms. MacFarlane, and perhaps identify specific meetings where this may have occurred?

MS. MACFARLANE: All right.

Q. - Thank you. There was discussion the other day with panel A of the something called a next generation nuclear reactor. Are you familiar at all with that concept, Mr. Marshall?

MR. MARSHALL: Yes.

Q. - And I undertook to ask questions with regard to that. And there may be a point of clarification. But Mr. White in his evidence indicated that he felt that the next generation reactors would be ready in about 2005. Are you aware of that and would you agree with that, Mr. Marshall?

MR. MARSHALL: No, I don't agree with that. The intent of AECL is that the design for the next generation of the reactor would have CNSE approval by 2005. That is AECL's target.

It would take another five or six years after that to get one constructed. So they would not be available as a viable power supply source until after 2010.

Q. - Okay. And that also was my understanding of Mr. White's evidence in its total. And do you have any idea what the projected costs of -- for kilowatt year of the power -- kilowatt hour for power produced by next generation reactor might be at this time, Mr. Marshall?

MR. MARSHALL: My understanding of the costs were the costs -- target costs of AECL were $1,000 a kilowatt US for a two unit plant. And if you unbundle that into a single unit plant, that number probably increases to 13 or $1,400 a kilowatt.

Converting it to canadian dollars would be close to $2,000 a kilowatt. And comparing it to Point Lepreau refurbishment, which is at about $1,300 a kilowatt, it is more expensive than the current proposal that we have before this Board.

Q. - What is the capacity of the next generation nuclear plants?

MR. MARSHALL: I believe it was a similar capacity to Point Lepreau. There may be some minor differences in capacity, but a similar range.

Q. - Approximately 600 megawatts give or take?

MR. MARSHALL: Yes. And times two. For their intent the pricing was for two of those. So it would be 12 to 1,300 megawatts.

Q. - Is there any reason why you wouldn't have modelled the next generation nuclear reactor instead of the CANDU-6 in your integrated resource plan, Mr. Marshall?

MR. MARSHALL: Because we didn't have information on it. And because it is also not the least cost nuclear unit compared to Lepreau.

But we did not have information on it. It was not a viable option for 2006 so thus we didn't model it.

Q. - Now, has any consideration been given to options less than a full refurbishment? And in particular I am suggesting that a refurbishment either spread out over several years or alternatively to only completing of pressure tube replacement, Mr. Marshall. Have those costs or are those proposals been costs into your integrated resource plan?

MR. MARSHALL: No.

Q. - So you have done no calculations on whether or not those may or may not be viable options?

MR. MARSHALL: That is correct.

Q. - Thank you. Now if we were to develop -- just one second.

Would one of the advantages of being -- to doing a major or larger repairs during the normal down time periods for Point Lepreau over a number of years, would that not have the advantage of not incurring a large block of debt all at once, Mr. Marshall, in theory?

MR. MARSHALL: In theory, yes.

Q. - Yes. And that would tend to improve your net present value to some extent. Would it not?

MR. MARSHALL: It depends on the quantity of dollars expended and the time of the dollars expended, and the length of time of outages in order to expend them.

Q. - Sure. Would another advantage be if you were able to do a series of repairs during scheduled shut down periods in the summer months, would one of the advantages of that be that you would not incur a substantial cost of replacement fuel for having to go through it at least one winter and part of another?

MR. MARSHALL: It would lower the cost of replacement through the winter.

Q. - Yes. Thank you. Have you made inquiries of your engineers or outside engineers about the possibilities of completing a series of repairs over a number of years to Point Lepreau?

MR. MARSHALL: It is my understanding that the engineers on Panel A have considered those alternatives as an approach to retube Lepreau and have found them wanting.

Q. - Well, as I understand it, you are the guy that takes all the input and creates the cost curves. That is normally part of your function, Mr. Marshall?

MR. MARSHALL: I take the -- any project results costing integrated with the existing system to determine the overall longterm economics.

Q. - Yes. And you weren't given a series of numbers or possibilities and were able to take them and create a cost curve of different type of maintenance operations for this project. You haven't done that?

MR. MARSHALL: No, I have not.

Q. - Thank you. In connection with that, and this may be a little -- there was evidence by Mr. White as a result of the repairs being made during the shutdown now it is possible that the life of Point Lepreau could be good or margined out until 2009. Are you aware of that evidence, of either of the witnesses?

MR. MARSHALL: Yes.

Q. - And if we were able to spread some of these repairs out down the road, would I be correct from a cash flow point of view, Ms. MacFarlane, the somewhat strong cash flows that you have had in the past few years could then be built up to pay for this at the end of the day? Would that be correct?

MS. MACFARLANE: Assuming that in spreading that out the plant was actually able to operate. I believe the assessment of Panel A is that the risk of going beyond 2006 of in fact a total failure is high enough that NB Power has chosen not to pursue that option.

Q. - Sure. Okay. A couple of other questions that came up. There is one dealing with the issue of Point Lepreau depreciation after refurbishment. And in particular I refer you to exhibit A-5, the Province of New Brunswick interrogatory 78. And I also believe there was a reference in the evidence -- I'm just trying to find my -- I believe it may be in exhibit A-1 under question 7 of your evidence, Ms. MacFarlane, page 8.

And my concern goes back to the $450 million that Point Lepreau had to write off a couple of years ago, in 1999.

And my question is that if this refurbishment goes ahead, have you as the chief financial officer made a decision as to how the depreciation of the refurbished Point Lepreau will be handled for accounting purposes?

MS. MACFARLANE: That is not entirely my decision. That is the decision of the audit committee of the Board. We have worked very closely with the audit committee of the Board in looking at what the implications of the refurbishment decision would be and have made recommendations as to how the accounting for amortization would change.

Q. - Okay. What were those recommendations?

MS. MACFARLANE: The recommendations were that we would, based on the condition assessment, identify those assets that will be replaced during the refurbishment. And we would change the depreciable life of those assets to 2006.

Secondly, we would look at those assets that are not at all affected by refurbishment and will in fact last to 2032. We would extend the life of those assets.

Everything else we would have written off by the time the new plant comes back on line in April -- or pardon me, October 2007.

Q. - And after the plant goes back on how will you be appreciating? On a straight line basis? Or would it be on a -- a straight line basis of depreciation or some type of accelerated formula?

MS. MACFARLANE: No. It would be on a straight line basis.

Q. - That is the intention?

MS. MACFARLANE: Yes.

MR. HYSLOP: I'm wondering, Mr. Morrison, do you have that undertaking as yet?

Do you want to put the question, Mr. Morrison or me --

MR. MORRISON: There was an undertaking this morning which was given to -- in response to a question by Mr. Gillis regarding the net present value of a rate increase of 3 percent over 20 years.

And I believe Ms. MacFarlane has that response.

MS. MACFARLANE: Yes. I just wanted to clarify. Mr. Gillis did not ask for a 3 percent rate increase. He specifically asked for a $27 million rate increase per year, which obviously makes a difference because there is no compounding.

And the net present value, using a discount rate of 7.15 percent, is 282.7 million.

Q. - Okay. So the net present value of a $27 million rate increase this year over the next 20 years would be $281 million.

Would that be my correct understanding of that number?

MS. MACFARLANE: 282.7.

Q. - Okay. Can I say 280?

MS. MACFARLANE: Yes.

Q. - Thank you. And so we have $280 million as a result of this rate increase.

And the 27 million, I believe that was directly related to a 3 percent rate increase across the board, is that correct?

MS. MACFARLANE: 27 million would be a 3 percent rate increase on our current in-province rates --

Q. - Yes.

MS. MACFARLANE: -- on all classes.

Q. - Okay.

MS. MACFARLANE: Approximately.

Q. - Now Mr. Marshall, I want to go back to my theory that this is a pretty marginal case.

The -- as I understand the evidence, it is $234 million advantage for the refurbishment of Point Lepreau, and I'm negating all the other risks and things I have talked about, over the gas assumption, is that correct?

MR. MARSHALL: That is correct.

Q. - And the evidence of Ms. MacFarlane a minute ago was that the 3 percent rate increase or the $27 million increase in rate would result in a net present value of 280 million, is that correct?

MR. MARSHALL: Yes.

Q. - And my suggestion to you, just to put the difference in the marginality of this case in perspective hypothetically, is that you could cover the difference in the cost between gas and Point Lepreau with a rate increase that you would not even have to come before this

Board to do, am I correct?

MR. MARSHALL: Basically, yes.

MR. HYSLOP: Thank you. I would like to thank the Panel as always for your cooperation and thank the Board. That is our questions, Mr. Chairman.

CHAIRMAN: Thank you, Mr. Hyslop. Except the way you characterized your last question. Everybody does that. In other words, it is the difference between something being easy and difficult is coming before this Board.

I mean, the Premier did it three years ago. Do you remember that? I'm sure you do.

Okay. Thank you, Mr. Hyslop.

Mr. Dalzell? Not here. Saint John Energy?

MR. YOUNG: No questions, Mr. Chairman.

CHAIRMAN: No questions. Subject to what the applicant and Intervenors have to say, what we are going to do is break until 2:00 o'clock tomorrow afternoon.

Mr. Craik can have his questions prior to Board counsel. But again I think it serves a real purpose if we take a break of at least a half a day between the time the Intervenors have finished their cross and Mr. MacNutt finishes the record and the Board asks its questions.

Anybody any problem with doing that? No? All right. Sorry, Mr. Hashey?

MR. HASHEY: What then happens, Mr. Chairman, on Thursday and next week? Just so far planning on witness examination?

CHAIRMAN: We would finish with this panel tomorrow --

MR. HASHEY: Yes.

CHAIRMAN: -- by mid afternoon, I would think. I don't know how many questions Mr. MacNutt has now. But let's say we did.

Then we have two Intervenors who have evidence they wish to or have said they wish to call evidence, AECL and Mr. Adams.

My understanding is the Union of New Brunswick Indians, and Mr. MacNutt will correct me if I'm wrong, simply want to make sure that the evidence that they file will be on the record as far as the Board is concerned, and that is all they wish to do.

Is that your understanding, Mr. MacNutt?

MR. MACNUTT: Yes. That is my understanding, Mr. Chairman, and be advised so that they can appear and make a submission at the informal Intervenor submission date.

CHAIRMAN: Yes. So then Mr. Hashey, that would be the end of the evidence with the exception of the presentation from the informal Intervenors.

And we will take a look at that tomorrow and see when we go ahead. But it probably could be the first part of next week with summation, say Tuesday or something like that.

MR. HASHEY: Of next week?

CHAIRMAN: Yes.

MR. HASHEY: Give us a day maybe. But yes, next week is great actually. That is fine.

CHAIRMAN: Well, no. What I'm thinking is that you would have -- I mean, the informal Intervenors would make their presentations, Mr. Hashey.

And that would -- that might take an hour or two, but that would be all. And then we could --

MR. HASHEY: Sure.

CHAIRMAN: -- have summation-in-chief say on Tuesday and then a break and do the rebuttal on Wednesday.

The Board likes to have a break between the time that all the parties make their summation to us, and if there are questions that are raised in that summation, that we have an opportunity to consider them and then put the questions back to all of the parties, and they have their input before we complete the record.

MR. HASHEY: No. I don't have a problem with that, Mr. Chairman. I just didn't want to have to move right into summation after cross-examination.

CHAIRMAN: Oh, no, no, no.

MR. HASHEY: If we could have a little bit of a break to --

CHAIRMAN: Oh, absolutely. Yes.

MR. HASHEY: -- prepare our thoughts on that, it would be appreciated.

CHAIRMAN: Yes. Absolutely. Okay. Well, we will break --

MR. HASHEY: So we will look at AECL tomorrow? Is that what seems to be --

CHAIRMAN: Well, either tomorrow or first thing on Thursday morning. Likewise -- the Board has -- we didn't want to be in a position of having to inform any of the parties as to when we thought things would happen.

But we did yesterday at this time inform Mr. Adams that the best guess would be if his time slot would come up tomorrow afternoon or Thursday morning. I don't know what he has done as a result of that.

Mr. MacNutt -- well, of course Mr. Miller is here for AECL. I don't know what their plans are. Can you inform us, Mr. Miller?

MR. MILLER: Yes, Mr. Chairman. During the break I took the opportunity to advise my client Dr. Kugler of the breakneck speed that things were moving on.

And he has made arrangements to fly here tomorrow. And with the schedule that you have just announced, he will be available to give evidence in his time slot.

CHAIRMAN: Yes. So that would be tomorrow after' -- could be tomorrow afternoon then?

MR. MILLER: It could be tomorrow afternoon. And he is certainly prepared to stay over for Thursday if necessary.

CHAIRMAN: Okay. Great. All right. Well, we will rise then until 2:00 tomorrow afternoon.

(Hearing)

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