New Brunswick Board of Commissioners of Public Utilities

Hearing

In the Matter of an application by New Brunswick Power Corporation dated June 21, 2002 in connection with an Open Access Transmission Tariff

Delta Hotel, Saint John, N.B.
December 12th 2002, 9:30 a.m.

CHAIRMAN: David C. Nicholson, Q.C.

COMMISSIONERS: J. Cowan-McGuigan
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BOARD COUNSEL: Peter MacNutt, Q.C.

BOARD SECRETARY: Lorraine Légère

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

MR. HASHEY: Mr. Chairman, we have -- or I have here three answers to undertakings. Maybe it would be appropriate to enter them into the record.

CHAIRMAN: Yes, sir.

MR. HASHEY: The first one -- and they are available for distribution. The first one is an undertaking given on November 20th. This is back on the Panel D issues. And there was a follow-up. It deals with the ancillary revenue requirement comparison. It was requested by Mr. Young of Saint John Energy to do a comparison to the Maine utilities.

CHAIRMAN: Yes.

MR. HASHEY: Yes. And that's available.

CHAIRMAN: Why don't we put it in as an exhibit, Mr. Hashey, that is probably the --

MR. HASHEY: Good idea.

CHAIRMAN: -- simplest way.

MR. HASHEY: That really doesn't apply to this panel You know, this came from the other panel. Yes. Actually the --

CHAIRMAN: A-23.

MR. HASHEY: Mr. Chairman, it was felt if there were any follow-up questions that were necessary, undoubtedly Panel C could deal with those on that. And similarly, the next one that I would offer, it again arises from the earlier panel. And it is the undertaking November 19th 2001 at page 320. It is the unbundling of the bill and it was requested by Saint John Energy, Mr. Young. And we have that statistical information here.

CHAIRMAN: So that is comparison of transmission bill to current bundled bill, and that is A-24.

MR. HASHEY: Thank you. Again if there is follow-up probably Panel C or Mr. Marshall could help on those.

The final one this morning is the undertaking given yesterday by Ms. MacFarlane when she was questioning and responding to questions of Mr. Smellie. It is at page 109 of the transcript. And it is a revision to Saint John Energy supplemental 8, which is the response on the issues of the cost of service, open access tariff difference. And I have supplied a copy of that to Mr. Smellie a short while ago, so he is aware of that one. As well as, I'm sorry, Mr. Young, of course was the original.

CHAIRMAN: And that will be A-25.

MR. HASHEY: Thank you. There are no other answers. I'm hoping to have another one today at some point and we will hopefully complete them all, all the outstanding ones by Monday morning.

CHAIRMAN: Good.

MR. HASHEY: And on that point Mr. Smellie has indicated that he does have another question. So for the panel that he would ask, I have no objection to that.

CHAIRMAN: Okay, fine. Thank you, Mr. Hashey. Go ahead, Mr. Smellie.

MR. SMELLIE: Firstly by way of preliminary, Mr. Chairman, I just wanted -- and I have spoken to Mr. Morrison about this. This relates to Panel C. And it concerns material that my colleague, Mr. Nettleton, will have for that panel. And what I wanted to do was to alert New Brunswick Power through you, that Mr. Nettleton will likely have occasion to make reference to the following decisions of the PUB concerning New Brunswick Power and its predecessor.

Firstly, the May 22nd 1991 decision concerning generic accounting -- a generic hearing concerning accounting and financial policies. Secondly, the July 16th 1991 decision of this Board concerning depreciation policies. Thirdly, the December 6th 1991 decision of this Board concerning rates. Fourthly, the April the 15th 1992 decision in the generic hearing concerning cost allocation and rate design process. And lastly, the April 23rd 1993 decision concerning rates.

And secondly on that point, Mr. Chairman, Mr. Nettleton tells me that he may wish to use certain aids to cross examination, particularly since we are into the world of numbers. And those are in preparation. He assures me they are few in number. And what I have said to Mr. Morrison, and he seems to be content with it, is that we will undertake to ensure that those pieces of paper, however many they are, are sent electronically both to Ms. Tracy and to Mr. Morrison not later than Saturday, if that is satisfactory with you?

CHAIRMAN: Mr. Morrison?

MR. MORRISON: Fine.

CHAIRMAN: Yes, that's fine. We were busy, weren't we?

MR. SMELLIE: And just on the last point, Mr. Chairman, there was one question that I omitted to ask. It is a fairly straight forward one, when I was cross examining yesterday, but I do have some follow-up questions on exhibit A-25, which is the response to the undertaking that Ms. MacFarlane gave to me yesterday. So when it is appropriate to do that maybe I could ask both of those questions.

CHAIRMAN: Well I think now is the time, Mr. Smellie. Go ahead, sir.

<u>CROSS EXAMINATION BY MR. SMELLIE</u>:

Q. - Dr. Morin, could you get before you exhibit A-22, which is your presentation, and turn to slide 31? Slide 31, Mr. Chairman. As I understood the purpose of this slide and your associated comments, Doctor, when you made your presentation, it was to the effect that in your opinion the most efficient capital structure is one that produces an A rated, if not slightly higher, bond, is that correct?

DR. MORIN: That is correct.

Q. - And can you tell me, sir, what empirical evidence you have that this is in fact the case, and if so where I should find it in the application materials?

DR. MORIN: Two sources. Number 1, most electric utilities strive for a true investment grade capital structure, meaning the single A capital structure.

If you look around at the various bond ratings of various utilities, the majority, the vast majority, the average bond rating in the industry is a single A.

Number 2, and this is a little bit more technical, there is a capital structure simulation model that appears in chapter 21, or excuse me, chapter 19 of my book "Regulatory Finance" which demonstrates that the single A bond rating will lead to the lowest ratepayer burden.

It will produce the best tradeoff between risk and return that I discussed in my presentation.

Q. - Thank you. Forgive me, Chairman. I'm not -- I know that there are one or two chapters of Dr. Morin's text in the record. And I'm just not certain as to whether chapter 19 is one of them.

DR. MORIN: I'm fairly certain that it is.

Q. - If it isn't --

DR. MORIN: I will make it available.

Q. - Thank you. Ms. MacFarlane, could you get before you please the exhibit that has just been filed, exhibit A-25?

MS. MACFARLANE: Yes.

Q. - The original response to Saint John Energy's Interrogatory -- sorry, supplemental Interrogatory was filed on September 30th. Is that your recollection?

MS. MACFARLANE: Okay.

Q. - Intervenor evidence was filed towards the end of October, is that your recollection?

MS. MACFARLANE: Yes.

Q. - Including the evidence of J.D. Irving?

MS. MACFARLANE: Yes.

MR. SMELLIE: I'm sorry. Could you turn Ms. MacFarlane's microphone on please?

Q. - And is it your understanding and recollection that the JDI evidence specifically pointed out an increase of 15 percent based upon the original response to the Saint John Energy undertaking?

MS. MACFARLANE: Yes.

Q. - And yesterday you told us in evidence that this response should be revised?

MS. MACFARLANE: Yes.

Q. - And the revision, as I understand it and as you described it yesterday, is that you wish to include in the current transmission cost of service, as shown on exhibit A-25, a component on account of 1.25 interest times coverage?

MS. MACFARLANE: Yes.

Q. - Is it the case, Ms. MacFarlane, that that component of the cost of transmission services for a wholesale and industrial customer over and above actual interest cost is in fact charged to those customers today?

MS. MACFARLANE: In theory it is. And I say in theory --

Q. - That is not my question, Ms. MacFarlane.

MS. MACFARLANE: I say in theory because when we set our budgets we adjust rates so that in fact we are producing a net income that gives us an interest coverage.

The fact though that NB Power is very subject to risks outside of its control, commodity risk for an exchange risk, weather risk, hydro risk, et cetera has meant that in the last few years we have not been able to -- the rates have not been sufficient to cover costs that were unexpected.

And so I say in theory it is in there. But in actual fact we have been incurring either net losses or net incomes that have not been sufficient to give us interest coverage.

Q. - And from the ratepayers' point of view, in fact it is not charged today, correct?

MS. MACFARLANE: It depends on how you look at it, Mr. Smellie. As I say, the intent when we set rates is that it is included. The unfortunate reality is our budgets have not sufficiently foreseen some of the difficulties that we have had either on world markets or with our operation of Point Lepreau. So the rates have not been covering our cost.

Q. - And just to be clear, the original version of Saint John Energy supplemental interrogatory 8 showed a difference, which I think you agreed with me yesterday, was in the order of 15 percent?

MS. MACFARLANE: That is correct.

Q. - And today's version, exhibit A-25 shows a difference that is in the order of 6 percent?

MS. MACFARLANE: That is correct.

MR. SMELLIE: I think that is about as far as I can take this, Mr. Chairman. Thank you. Thank you, Ms. MacFarlane. Thank you, Dr. Morin.

CHAIRMAN: Mr. Smellie. It is my understanding that it is just Board counsel left. Saint John Energy might have a couple.

But you are going to cover them, Mr. MacNutt, is that correct?

MR. MACNUTT: Well, just to clarify that, Mr. Chairman, we have talked to Saint John Energy. And we feel --

CHAIRMAN: Bring your mike in, Mr. MacNutt. I can't hear you.

MR. MACNUTT: We have spoken to Saint John Energy. And we feel that our line of questioning will cover the points they wish us to raise. So I think we will have covered everything they wish to address. Thank you.

CHAIRMAN: Go ahead, Mr. MacNutt.

<u>CROSS EXAMINATION BY MR. MACNUTT</u>:

Q. - Dr. Morin, you have heard Ms. MacFarlane's evidence and read her evidence. Do you agree with all parts of Ms. MacFarlane's evidence? And if not please describe what portions you disagree with.

DR. MORIN: I did not read Panel C evidence.

Q. - Okay.

DR. MORIN: This was outside my province of expertise.

Q. - But you did read her Panel A evidence?

DR. MORIN: Of course I read it.

MS. MACFARLANE: Panel B.

DR. MORIN: Panel B evidence.

Q. - Panel B. I have got to remember where I am. Yes.

Do you have any disagreement with anything Ms. MacFarlane has said in her Panel B evidence?

DR. MORIN: Yes. I agree with the evidence.

Q. - Now Ms. MacFarlane, have you read all of Dr. Morin's evidence?

MS. MACFARLANE: Yes, I have.

Q. - And do you agree with all of Dr. Morin's evidence? And if not would you please describe what portions you disagree with?

MS. MACFARLANE: I agree with Dr. Morin's evidence.

Q. - Now Ms. MacFarlane, yesterday you mentioned that upon the reorganization of NB Power, the newly-formed transmission subsidiary would likely be capitalized by some form of what you described as a debt to equity swap, is that correct?

MS. MACFARLANE: Yes.

Q. - Would it be your understanding that the equity component of the swap would be in the form of share capital or some other form of capital contribution?

MS. MACFARLANE: Yes.

Q. - Then the balance sheet of the subsidiary would include an item described as capital?

MS. MACFARLANE: Yes.

Q. - It would not be described as retained earnings?

MS. MACFARLANE: We anticipate over time there will be retained earnings earned by the subsidiaries. But at startup it will be share capital.

Q. - Now do you agree that the subsidiary would only be able to pay dividends to its parent company out of its earnings?

MS. MACFARLANE: Yes.

Q. - Now you would agree with me that based on the NB Power annual report, which is in the exhibits filed by NB Power as part of its application, that as of March 31, 2002 the consolidated balance sheet of NB Power showed a deficit of 144 million?

MS. MACFARLANE: Yes.

Q. - Do you agree with me that in normal circumstances the company may not pay a dividend when it has a deficit?

MS. MACFARLANE: Yes.

CHAIRMAN: Mr. MacNutt, those at the back of the room are asking that you bring the mike in a little closer to you, sir.

MR. MACNUTT: You want me to turn it up another notch. Okay.

Q. - Then NB Power would be precluded from paying dividends to its owner until the company has converted the deficit to retained earnings?

MS. MACFARLANE: The debt equity swap will effectively eliminate the deficit. I can describe to you how they work if it would be helpful.

Q. - Yes.

MS. MACFARLANE: All right. The intent is -- and these are standard debt equity swaps as utilities are corporatized. So it is the way they are all done, shall we say.

The current assets of the existing company will move to a holding company at book value. They will then move from the holding company down into the individual subs at book value in exchange for shares.

The debt -- pardon me, the entire shareholders' equity section, the debt and the retained earnings -- pardon me, the entire bottom part of the balance sheet, will move over to what the Chairman referred to as debtco. And what will come back is a combination of debt and equity sufficient to match the assets that have been moved to the subs.

Now as the Chairman pointed out yesterday, today our debt and equity exceeds the amount of the assets by virtue of the fact that we have a deficit.

But when the debt and equity goes over, the debt and the deficit goes over, what will come back is a combination of debt and equity only sufficient to capitalize the assets.

So effectively the deficit stays in Debtco and becomes part of the investment in NB Power and will be repaid over time through earnings out of these new companies.

Q. - Thank you.

DR. MORIN: I may add one thing to this. It is common practice for the dividend policy of an operating subsidiary to be such as to maintain the debt equity proportions to let us say 65/35.

Or if the Board decides on 70/30, the dividend policy will be such that the proportions of debt and equity will be maintained at 70/30 or 65/35, however the Board rules.

So the dividends to the parent become sort of a plugged figure, in a sense, so as to maintain the capital structure proportions.

Q. - Thank you, Dr. Morin.

MS. MACFARLANE: I might just add, Mr. MacNutt, if I could, when I say the debt and equity that comes back as sufficient to capitalize the assets, it will capitalize the assets in each of the subs in the appropriate debt equity ratio.

It will come through Holdco, that debt equity swap, and then will be sent down to the subs to match their assets with the appropriate capital structure.

Q. - Where is the equity portion of the capital additions to come from?

MS. MACFARLANE: Effectively it is coming from the Province of New Brunswick as shareholder.

Q. - Now if in 2003/2004 fiscal year Transco is to make additional capital expenditures on assets, where would those funds come from?

MS. MACFARLANE: That is still being developed. The current thinking, as I understand it, to the extent that I can talk about this is that capital expenditures that exceed depreciation and therefore require some sort of capital infusion, certainly some portion of that will come through debt borrowed directly by the subsidiary in its own name without a government guarantee. The equity portion, discussions are that the Debtco will continue to form -- to form a body that can be an equity infuser into the subsidiary companies for capital expenditures that are in the owner's interest.

CHAIRMAN: Would you explain that another way?

MS. MACFARLANE: Okay. If the capital structure is let's say 50/50, capital expenditure is in excess of depreciation because depreciation is held there as a non-cash item so that you have the cash to invest in your plant. But if your capital expenditures exceed depreciation you need other capital. You need to get it from some combination of debt and equity.

Well since your capital structure is 50/50, you get 50 percent of it from debt, the question becomes where do you get the other 50 percent from. And the discussions that have been held have been such that the Province will continue for projects that meet its needs and interests, or it believes are in its interest. It will continue to, as any shareholder would, infuse equity as required.

Did that help?

MR. SOLLOWS: Through the holding company or the debt company?

MS. MACFARLANE: The debt company.

MR. SOLLOWS: Not the holding company?

MS. MACFARLANE: The debt company to the holding company to the subsidiary.

MR. SOLLOWS: So there is no intent that the debt company is not to be -- just exist until the accumulated debt is paid off. It is going to be an ongoing thing, is it?

MS. MACFARLANE: As I say, the discussions aren't complete yet. But the only other source of equity would be to allow the corporation to go into the equity market and dilute the Province's ownership. And that -- that does not seem to be on the table. So --

CHAIRMAN: Who floats the debt? I'm sorry, Mr. MacNutt, I am marching right in here. But who floats the debt? For instance, if it is a transmission line?

MS. MACFARLANE: Yes. The transmission company would.

CHAIRMAN: At present, I don't know this for certain, but your counsel can probably tell me, that I would imagine that all of the assets of NB Power are pledged as security for the bond issues that have -- the debt issues that have been issued by the Province of New Brunswick up to this point in time.

MS. MACFARLANE: No, they are not.

CHAIRMAN: They haven't?

MS. MACFARLANE: No. They have been issued on the Province's credit.

CHAIRMAN: So there has been no security taken on the assets of NB Power?

MS. MACFARLANE: That's right.

CHAIRMAN: There are some bond issues outstanding still that you floated the issues yourselves though?

MS. MACFARLANE: There is one.

CHAIRMAN: Yes.

MS. MACFARLANE: That is an NB Power issue that is left, but it too has a provincial guarantee. So it is only on the credit of the Province. None of the assets are pledged.

CHAIRMAN: I see. All right. Thank you. Go ahead, Mr. MacNutt. Sorry to interrupt.

MR. MACNUTT: Thank you, Mr. Chairman.

Q. - Dr. Morin, in your evidence, which is in volume exhibit A-2, at page 7, lines 5 to 7, you state that you have been asked to recommend "a price cap regulatory framework for NB Power Transmission". Is this not correct?

DR. MORIN: Yes.

Q. - And then further on page 7 at lines 21 to 23, you state and I quote "The price cap framework for NB Power Transmission substitutes a price cap regulatory mechanism for traditional rate of return regulation (RORR) constrained by an earnings mechanism". Is that not correct?

DR. MORIN: Yes, sir.

Q. - Page 9, lines 22 to 23, you state "There is no direct linkage between rates and return under price cap framework". IS that correct?

DR. MORIN: That is correct. There is no connection between the tariffs on the transmission company and rate of return. Because the rates are determined according to the price cap formula.

Q. - Now at page 18, lines 1 to 2, you list the benefits of the price cap framework relative to the traditional RORR and state in paragraph 3 "The incentive for cross-subsidization disappears as well because the plan breaks any linkage between rates and company cost of service". Is that not correct?

DR. MORIN: Yes, sir.

Q. - Now you would agree with me that NB Power has applied to this Board for approval of its proposed tariff by virtue of Part 3 of the Public Utilities Act?

DR. MORIN: Yes, sir.

Q. - I am going to read to you subsection 62(1) in Part 3 of the Public Utilities Act. "62(1) The Board shall, when considering an application by a public utility in respect of an approval of a tariff pertaining to transmission services, base its order or decision respecting the tariff on all of the projected revenues and all of the projected costs of the provision of transmission services."

Now would you please explain how your recommendation that NB Power Transmission adopt a price cap framework is consistent with the directions given the Board in subsection 62(1) of Part 3 of the Public Utilities Act, which I just read?

MR. HASHEY: To have a lay witness interpret a statute may not be quite fair, you know, subject to the issue that this could be a matter of some legal discussion. I don't have a problem with him answering, but I want that caveat on that answer.

CHAIRMAN: Well it certainly will be a question of some legal argument. Go ahead and answer, Dr. Morin.

DR. MORIN: Well I can give you a very brief answer. There is some reference in the Act to performance based ratemaking. And the price cap proposal in front of the Board fits under the category of performance based ratemaking.

MS. MACFARLANE: We can provide that reference to you, Mr. MacNutt, as an undertaking, if you would like.

Q. - What the reference to performance -- yes --

MS. MACFARLANE: The reference to alternative ratemaking.

Q. - Yes, it is one of the section 8 subsidiaries.

MS. MACFARLANE: Okay. But certainly the reference that you have pointed to does speak to Dr. Morin's continual references over the last two days to approving going in rates prior to moving forward with the price cap mechanism.

Q. - Yes, you just identified that it might be -- that the going in rates would be established in accordance with subsection 62(1), but I have a problem with what happens in subsequent years.

MS. MACFARLANE: And as I say, our understanding is that the Act covers that through making reference to alternative ratemaking. But I am a lay person, not a lawyer.

Q. - Now Dr. Morin, you can turn it up if you like, but I am going to quote from your evidence in exhibit A-2, page 8, lines 24 to 28, where you state with respect to the price cap formula.

And I quote "The mechanism also imposes an important penalty for inefficient operation. If the company's costs increase by more than the target rate for whatever reason, the output price growth allowed by the cap will not cover the actual costs incurred by the company. This shortfall is a penalty for inefficient operation which the company has a strong incentive to avoid."

Again at your evidence page 9, lines 20 to 22, you state "This is because under price cap regulation, rates are adjusted from the previous year's level for inflation, productivity and exogenous factors and are not tied to the rate of return."

Now in light of these statements, please comment on why the company should be allowed to increase rates by the full amount of inflation whenever the return on equity is below 10 percent as per your proposal as described in NB Power's response in exhibit A-4 PUB IR-67, which is at page 439?

MR. HASHEY: What is that again?

MR. MACNUTT: A-4, PUB IR-67 at page 439.

DR. MORIN: If you refer to page 46 of the slide presentation.

Q. - That would be the slides on A-22?

DR. MORIN: On A-22, page 46. If the company's actual ROE is within a range of 10 to 12 percent, there is no sharing. And if the company earns between 12 and 14 they split or share 50/50 with customers. On the other hand, on the downside, if the company earns between 9 and 10 percent they share 50/50 with customers, on the downside as well. And if the company earned below 10 percent, the rate adjustment is the full CPI index in order to maintain interest coverages and in order to maintain an ability to attract capital in capital markets.

Q. - Thank you. Now you would agree with me that such an approach appears to have the possibility for unreasonable consequences?

DR. MORIN: I disagree with that. I think the price cap leads to very, very positive and very desirable consequences. Because as far as ratepayers are concerned, they will never see a rate increase beyond half of the rate of inflation. So in real terms they will see their bills decline from year to year.

Q. - Well I'm going to put to you --

DR. MORIN: And that's desirable.

Q. - -- a hypothetical just to see how -- and work it through your price cap formula as shown. Now I want you to assume that inflation is 3 percent and productivity is 1.5

percent. Now if the return on equity is 10.1 percent, would you not agree that prices can rise 1.5 percent?

DR. MORIN: If inflation is 3 percent, therefore the X factor will be half of that of 1.5 percent, therefore the maximum rate increase that is allowable is 1.5 percent. And then you had a proviso that the ROE is --

Q. - Okay. And if the return on equity is 9.9 percent, prices can increase 3 percent?

DR. MORIN: That is correct. Because blow that threshold of 10 percent -- or excuse me -- yes, 10 percent you are endangering your interest coverages and your ability to borrow on capital markets. And hence the rate adjustment being 100 percent of the CPI index.

Q. - So the additional 1.5 percent on revenues with no associated increase in costs, could raise the return on equity by over 1 percent to 11 percent or greater, is that not correct?

DR. MORIN: That could be. But it also works in the opposite direction. If the company can raise rates by half of inflation, that is 1.5 percent in your example, and they are earning 12.1, if that is possible, they will have to share that with customers and the rate increase will be even less than 1 and a half percent. So it works in both directions. And the idea is that the incentive is to try get to the top of these boxes on page 46 and not to the bottom.

Q. - Now under such an approach, where is the incentive for the company to reduce costs if the company anticipates that the return on equity will be in the range of 10 percent?

DR. MORIN: The company can raise rates to a maximum of 1.5 percent. If they are able to reduce costs by more than inflation and/or they are able to raise productivity by more than 1.5 percent, they will reap the reward of their performance. If they are unable to match those thresholds, the 1.5 inflation factor and the 1.5 productivity factor, they will suffer the penalty.

And that is really the core of the whole price cap. These indices are external to the company and therefore the incentive to surpass exceed those thresholds and reap the rewards.

Q. - But if the company in practical matters during the course of the year sees that they are going to have a return of around 10 percent, why would they make an effort to reduce costs and thereby get it to 10.1 percent?

DR. MORIN: Because the rate increase is dictated by a formula which will apply regardless of the company's performance. The maximum allowable rate increase under our example is 1.5 percent. So the company has an incentive to beat that. To surpass the inflation and productivity thresholds that I have specified in order to earn returns that are above the threshold. You are trying to move upward in that graph on page 46, hence the incentive to cut costs and increase productivity and be efficient, do the right thing.

And if you go upwards in the box here, you share 50/50 with customers above 12. And 100 percent above 14.

Q. - But if they allow the ROE to drop to 9.9 percent, then they can double their price increase for the next year?

DR. MORIN: Yes, but the company is only going to earn 9.9 percent. The company has an incentive to earn as high a return as possible. That's its duty to its shareholders, the government in this case.

Q. - But it is the doubling of the prices in the next year that I'm looking at?

DR. MORIN: Why doubling? It increases by the CPI index if you earn below 10 percent. So the incentives really work in the opposite direction. The company wants to move upward in the graph.

Q. - My concern is the practical application of the formula by the company if it is running along and it can see that it's going to have an ROE of 10.1 to 9.9 towards the end of the year, would not there be an incentive on the company to allow it to drop to 9.9 to -- so that it could advantageously in the subsequent year increase its prices by much more than it could than if it had achieved 10.1 in the first year?

DR. MORIN: But then it gets corrected in the following year by virtue of the fact that the ROE will be higher and they will be in that atched area on page 46 of the graph there.

Q. - But how does that address the incentive in the first year of the two years we are talking about?

DR. MORIN: Well I cannot imagine the company having an incentive to earn 9.9 percent. I imagine the company having an incentive to earn as far -- as high a return as they possibly can. And 10 to 12, no sharing. Above 12, half and half sharing. And above 14 everything goes back to the ratepayer. That's the incentive.

Q. - Now, Dr. Morin, still on your evidence, and I want you to go to page 11, lines 10 to 11, where you state in paragraph 3, when summarizing your recommendations. Quote, "Earnings in excess of a cap set at 300 basis point above the MROE, that is 14 percent a return to customers".

Do you see that?

DR. MORIN: Yes.

Q. - What will happen to make sure the cap is not exceeded in the following year?

DR. MORIN: Well as soon as you bump against the 14 percent, immediately the customers see their bills credited with the excess over 14 percent. All of it.

Q. - How does that prevent the cap from being exceeded in the year following that?

DR. MORIN: Well in the following year if you are still above 14 percent, you keep returning it to the customers. All of it. The excess.

Q. - If in fact prices are not reduced, what assurance is there that the cost will not be increased to eliminate the excess return on equity?

DR. MORIN: Ask me that again? I missed a part of it there.

Q. - If in fact prices are not reduced, what assurances is there that cost will not be increased to eliminate the excess return on equity?

DR. MORIN: If prices are not reduced. Well the pricing mechanism is formulaic, it is completely determined outside of the company's premises. It is determined by the formula, the 1.5 percent. This is the allowable increase. That's cast in stone. If the resulting ROE that results from that is above 14, all of that excess is returned to customers. If it's between 12 and 14, customers get half.

If it produces an ROE between 10 and 12, the company keeps it. If it's between 9 and 10, there is a 50 sharing with the customers as well on the downside. That's formulaic. That's -- and that's external to the company's performance.

Q. - Now assuming that the existing prices are producing the ROE of 14 percent or greater, would you not expect the prices to be reduced so that there is not continual excess surplus?

DR. MORIN: Again, my answer is the same. The rates have nothing to do with the company's return. The rates are dictated by the consumer price index minus half of that consumer price index. In the example that you and I are working with, the maximum allowable price increase is 1.5 percent regardless of the company's ROE.

MS. MACFARLANE: Mr. -- go ahead. Mr. MacNutt, if I could just add. When you get above 14 percent you are asking should rates not come down? Well effectively they are returned to the customer as a refund. And another way of dealing with it would be to adjust the rates. It's one in the same.

Q. - But you can have the situation whereby leaving the price the same you could increase the costs by taking that surplus money and investing it in the company and thereby have the rates --

Q. - The upshot of it is -- let me try to rephrase the question. If in a given year you exceed 14 percent ROE and in a subsequent year you see you are going to get to 15 percent, what incentive is there to return to excess to the customers rather than simply spending the excess in the business in the subsequent year, therefore maintaining your 14 percent?

DR. MORIN: Is what you are asking the following Machiavellian scheme, where if the company is earning 14.0001 it will do everything that it can to keep it below 14 so as not to share the whole thing with customers? Is that what you are asking?

Q. - I'm really saying does your formula allow that to happen regardless of the attitude of the company?

DR. MORIN: No. Because anything above 14 percent the customer sees the rate going down in effect through a credit on the bill.

Anything above 14 percent is credited back to the customer. We can do it through a rate decrease or through a credit on the monthly bill.

Q. - You say this then. It is totally -- the formula is totally detached from management viewing its progress during the year and deliberately avoiding by expenditures or price increases or allocation of cost or expenditures, that management would have no opportunity to direct how the result for that year and possibly the next year would be affected?

DR. MORIN: Well, under this sort of perverse scenario you are hypothesizing, you are saying if the companies see their return at 14.0001 they will start making unwise investment decisions or they will begin to incur unnecessary costs, so as to keep their return below 14?

Q. - Yes. In other words, you would agree that that could happen?

DR. MORIN: But that is irresponsible. Because this is going to be a commercially -- on the part of the company that would be irresponsible.

Q. - So regardless of whether it is responsible or irresponsible, you agree --

DR. MORIN: It would be irresponsible.

Q. - -- that it could happen? Yes or no?

DR. MORIN: No. Because the company is now a commercially viable business that is responsible to its shareholders. And it is certainly not maximizing value to the shareholder by indulging in such behavior.

Q. - But if they were perverse it could happen?

DR. MORIN: Well, don't forget they are responsible to their shareholders. And then there is also another sort of a safety net which is the quality standards and performance standards that could be enforced by the Board in terms of service quality.

Q. - So the shareholders will still get their 14 percent in your example. And they are not impacted?

DR. MORIN: Well, above 14 they don't get anything. So the shareholders' return can never exceed 14.

Q. - So if the company perversely expended more money it wouldn't impact the shareholders. Because the shareholders' maximum return is 14 percent, is that not correct?

DR. MORIN: That is correct. But there is a 50/50 sharing below that too at 13.9.

CHAIRMAN: Try take our break. But just before we do I have one question that follows up from yours.

Dr. Morin, why in that circumstance -- I mean, you go for symmetry. And you allow the company, as the return falls below 9 percent, to have the option of coming back in before the Board to have things adjusted.

Why would you not do the same thing if in fact the company were to make, in your case, 14 percent?

DR. MORIN: I think that would be a fine proposal from the Board. I wouldn't have any problem with that at all. To make it perfectly symmetrical the Board can review the whole process above 14 or below 9. That would be fine with me.

CHAIRMAN: We will take our 15-minute break.

(Recess)

CHAIRMAN: Go ahead, Mr. MacNutt.

MR. MACNUTT: Thank you.

DR. MORIN: Mr. Chairman, before the break you asked me about another possible way of circumventing that perverse Machiavellian type of behavior around the 14 percent return.

And of course I agree with you. One way of doing that is to say well, at 9 percent or at 14 it triggers an automatic review by the Board. That is certainly one acceptable way of doing it.

Another way would be to say well, beyond 14 percent there is a little bit of sharing, let's say 10 percent to the company, 90 percent to the ratepayer. And that way the company always has an incentive to do the best that it can. So both acceptable I think.

CHAIRMAN: Dr. Morin, you have been in this business for a long time. So have I. Have you ever had to deal with a rebate to customers? It is a nightmare. Because you get into the equities of the thing. And he who was a customer then is not now, et cetera, et cetera, et cetera.

So from my perspective, if there is any way to avoid, on a practical basis, getting into rebates, I would do it. But that is just my own personal feeling.

DR. MORIN: And as a practical matter, given the profitability currently of the company over the next three years, the possibility of earning such high returns is rather remote, I would think. And it is only for three years anyway.

CHAIRMAN: Go ahead, Mr. MacNutt.

DR. MORIN: You raised a good point, Mr. MacNutt.

Q. - Dr. Morin, would you please turn to your evidence A-2 at page 11, lines 17 to 19. And I'm going to quote. So it may not be necessary to turn it up. Where you state in paragraph 4 when summarizing your recommendations.

"If yields on long-term Canada bonds fall outside a range of 4 percent to 8 percent, alterations to the return components may be sought by the company or the Board."

My question of you is what type of alterations are you referring to?

DR. MORIN: The parameters of the price cap can be reset or requestioned or recalibrated. The possibility of long-term Canadas going as low as 4 percent or as high as 8 percent is sort of a doomsday scenario, if you wish.

And if long-term Canadas ever reach those boundaries, the company or the Board can simply review or recalibrate or requestion the whole price cap plan.

Q. - Well, what parameters are you talking about?

DR. MORIN: The trigger points, the indices, the productivity threshold of 1/2 of CPI. CPI means consumer price index.

Q. - And what specific process would you recommend for making such alterations? We are talking process here.

DR. MORIN: A review by the Board.

Q. - And how would such alterations affect the results for a particular year in terms of determining any sharing?

DR. MORIN: Well, the clock would stop the moment that the review is triggered by either the company or by the Board.

Q. - So if that change was made during the course of a year, how would it affect your mechanism? What rates would apply? Would you have one set of -- one formula for the start of the year, another for the --

DR. MORIN: Well, wherever you are --

Q. - -- second half of the year?

DR. MORIN: -- at that point of the year on a prorata basis the clock stops. And if you are halfway through the year, six months of the customers' bills have been either debited or credited depending on performance. And we start anew from the seventh month on.

Q. - Now --

DR. MORIN: And the 4 to 8 percent safety net -- long-term Canada bonds have to be outside of this zone for 20 working days. That is about a month.

So there sufficient time to perform the accounting and the crediting and the debiting of customer bills and so forth. Yes. That is a long time.

Q. - Okay. Now you have referred to long-term Canada bond yields. What are you suggesting to use? 10-year or 30-year Canadas?

DR. MORIN: I would suggest 30 years. Because long-term Canadas 30 years are used to determine the cost of equity. It is sort of a benchmark in the business. So I would suggest 30-year bonds.

Q. - Now should actual or forecast yields be used?

DR. MORIN: Actual have to be outside the 4 to 8 zone for 20 working business days. That is a month, actuals.

Q. - Why actuals?

DR. MORIN: Well, I don't want to deal with forecasts. Given the track record of economic forecasts I do not wish to upset the balance of the plan based on a forecast.

And as a practical matter, the consensus forecast that is published by Consensus Economics comes out the 18th of every month approximately. And it could be a happenstance. It could be a bad forecast.

I think my suggestion of having actuals for 20 consecutive days outside of the zone, we are on more solid grounds.

Q. - Thank you. Now Ms. MacFarlane, would you please comment on the reliability of the forecast for 2003 and 2004 in light of the fact that the market structure is expected to change on April 1, 2003?

MS. MACFARLANE: Which forecast are you referring to, Mr. MacNutt?

Q. - Sales and costs?

MS. MACFARLANE: I'm sorry. Are you referring to the forecast that is in the testimony or the forecast --

Q. - Yes.

MS. MACFARLANE: -- for the corporation that was filed in the last hearing?

Q. - The forecast for the transmission company?

MS. MACFARLANE: For the transmission company?

Q. - Yes.

MS. MACFARLANE: The forecast was done on the basis of the assumption that the debt equity structure would be 65/35.

Q. - How reliable do you consider your forecast for the income statement to be for the transmission company?

MS. MACFARLANE: The costs are reasonably determinable and stable, have been for a number of years. The OM&A costs in that area of our business, we have a good handle on those.

The assets, we have detailed fixed asset records, therefore we feel comfortable with the depreciation forecast.

The fixed -- the interest number, again we have detailed records on our debt. In fact the calculations for it are in the -- in the evidence. So the interest portion of the income statement we feel very comfortable with.

The only number that is left really is revenue and it is dependant upon two things. One being load and there is risk in that revenue number on account of load forecast.

I think I mentioned yesterday that this tariff does not, like other tariffs do, recover automatically all costs from distribution. There is no true-up of costs. So if there is a problem with the load, transmission has risk there.

Two, there is risk in the miscellaneous revenue number and I think Mr. Marshall will speak to that tomorrow, that the short-term non-firm sales, that number is at risk. And then of course the revenue numbers based on the proposed tariff. So if the proposed tariff is not accepted, the revenue number will not be the right one.

Q. - What are the chances that revenues will be higher than forecast?

MS. MACFARLANE: I think the chances of revenue being lower than forecast are much higher than the chances of revenue being higher than forecast.

Q. - Why?

MS. MACFARLANE: The load forecast is relatively flat and as I say, it is the load forecast that we used with the assumption that Coleson would be converting to Orimulsion and NB Power would own it and have significant export benefits out of it, all of which attract transmission tariff.

The miscellaneous revenues, the short-term and firm sales, there are no contracts behind those short-term non-firm sales. And to that end it is an estimate and we believe they are at risk. And by the way, those revenues, the costs associated with them are not variable. So were we -- there is 8.1 million in miscellaneous revenues, were those sales not to occur, that doesn't mean our costs reduce. Thats mean our net income reduces. And on a 13 million dollar net income, any change in that short-term miscellaneous revenue has a significant impact on the bottom line.

We are much more concerned about the downside than we are about having too much revenue. The possibility of that is much lower than the possibility of not reaching our revenue targets. Mr. Marshall can speak more to that tomorrow -- not tomorrow, I'm sorry, Monday in Panel C evidence.

Q. - Pardon, what was that last --

MS. MACFARLANE: I said we are in Panel C evidence and as it goes to the load forecast, Mr. Marshall can speak to it very much more capably than I can.

Q. - Thank you. Now Dr. Morin, I am going to quote from your evidence which is at A-2, appendix A, price cap regulation at page 26, lines 21 to 26, where you state "Z factor adjustments do not occur automatically, but require separate filings. Filings can be made anually and will address developments in previous -- in the previous fiscal year."

Later at page 28, lines 9 to 12, you state "All data necessary to update the PCI's and the API's will be submitted to the Board at least 45 days before the commencement of a new indexing year." Is that a fair quote?

DR. MORIN: Yes.

Q. - In those statements am I correct in assuming that PCI stands for price cap index?

DR. MORIN: Correct.

Q. - And API stands for actual price index?

DR. MORIN: Correct.

Q. - Thank you. Is there any reason why Z factor adjustments cannot be made anytime during the year?

DR. MORIN: Repeat that please?

Q. - Is there any reason why Z factor adjustments cannot be made anytime during the year? This is as opposed to first of the year, at the end of the year?

DR. MORIN: Well the idea is to avoid regulatory lag consequences of these exogenous facets. Suppose there is a change in federal tax laws or accounting rules, I wouldn't want the company to have to wait six months, nine months, twelve months before resolution of those issues. Then the company would be exposed to regulatory lag.

And of course it works both positively and negatively. So the idea is to try to incorporate those changes as quickly as possible in much the same way that the private sector, that in the free market a company would react immediately to exogenous changes and pass on the consequences to the customers, good or bad.

Q. - So you are agreeing with me then, it could be done at any time during the year?

DR. MORIN: It could be, yes, sir. Just like in the free market.

Q. - Now in its response to PUB IR-66 at page -- in exhibit A-4, which is page 438, NB Power advised the Board that NB Power would report positive and negative influences on the Z factor once a year and said that other parties should be able to request/suggest adjustments based on Z factors.

Now what do you consider to be an appropriate time after the event for notification to the Board by NB Power on the first hand and by others on the second hand?

DR. MORIN: 30 days.

Q. - Is it your intention --

DR. MORIN: That would give the company sufficient time to digest let's say a federal tax law change or an accounting rule change.

Q. - Now is it your intention that the Z factor be adjusted only once a year or could it be adjusted several times a year?

DR. MORIN: It could be adjusted several times a year, but those are really in the realm of almost like acts of God. They are very, very unusual, extraordinary, exogenous circumstances that are not likely to occur very often, if at all over the next three years.

Q. - Now with respect to adjustments to the Z factor, do you recommend that they be based on actual costs and savings or on forecasts?

DR. MORIN: I prefer actual costs because of the veracity of the data.

Q. - Since Z factor adjustments are for events beyond the company's control, do you agree that they should be done on a breakeven basis?

DR. MORIN: Yes, I do.

Q. - Would it be necessary for price escalation to apply to Z factor items in that circumstance?

DR. MORIN: No.

Q. - Why?

DR. MORIN: Because they are exogenous factors. They are outside the normal privy of doing business day to day.

Q. - Now Dr. Morin, Mr. Marshall, when giving evidence as a member of Panel A, indicated that there is only in the range of about 2 megawatts capacity available for wheeling through. You have indicated that the potential for competition in generation is from natural gas industry. I think that is an accurate cite of --

DR. MORIN: Yes, the penetration of natural gas can have a negative influence on the company's revenue forecast.

Q. - Now in light of these factors it would appear that sales volume will not increase in the foreseeable future.

DR. MORIN: That is correct.

Q. - Would you generally agree with this statement?

DR. MORIN: Yes, I think I would, yes.

Q. - You just did, thank you. Now in A -- exhibit A-4, response to PNB IR-7, a question was raised with respect to your response to question 7 in your evidence given at A-2 page 7.

The IR asked why is price cap adopted rather than revenue cap. In the response to the IR, NB Power stated at the end of the second paragraph "The key difference between revenue caps and price caps is that price caps reward sales growth and productivity improvements while revenue caps reward only productivity improvements." Do you agree with that statement?

DR. MORIN: Yes, I do.

Q. - Why would a revenue cap not be more appropriate initially?

DR. MORIN: Because then there is no incentive to increase sales volume. And given the very high capital intensity of this business, the very, very high fixed costs, it is in the interest of everybody that the company can increase sales volume to spread the fixed costs on as large a base of customers as possible.

Q. - But if they are not expecting to increase initially, why would not revenue cap be appropriate?

DR. MORIN: Because there would be no incentive to increase volume. Total revenues would be capped. So there is no incentive at all to increase volumes.

Q. - Now Dr. Morin, in your response to PUB IR-28, which is in exhibit A-4, page 398, NB Power was asked why the use of a producer price index was not recommended to reduce index risk in your price cap plan. In the response, NB Power said, among other things, at the end of the second paragraph on page 399, and I quote. "In short, Dr. Morin views the fixed GDP-PI as the most suitable measure of inflation for inclusion in the price cap formula, with the CPI a close second."

Do you adopt that statement in that response as part of your evidence?

DR. MORIN: Yes. I have a very slight preference towards the gross domestic product price deflator index that is published by Statistics Canada because --

Q. - Yes, well just to clarify for the assistance of the Board, we are going to be talking about a bunch of acronyms. What is GDP-PI as used in that quote?

DR. MORIN: Gross domestic product price index. It is a measure of economy-wide inflation. And it is a very, very broad-based measure of inflation. My second and close preference would be the traditional consumer price index, because the Board has some familiarity with that index and they use it in other contexts as well.

Q. - Now just for the assistance of the Board, it is ny understanding that in your price -- your -- in your formula, that you in fact have used CPI as the appropriate measure of inflation for NB Power transmission?

DR. MORIN: Yes. But I would not have any problems if the Board were to decide on the gross domestic product price index as an alternative. The two are extremely highly correlated, particularly over short time periods. For the next three years, for example.

Q. - Now do you consider that the productivity index for the business sector of the economy as produced by Statistics Canada would be an appropriate measure of productivity for use by NB Power transmission?

DR. MORIN: Well it is already imbedded in the inflation index. The inflation index, whether it is the consumer price index or the GDP price index already embodies -- already reflects the productivity gains of the Canadian economy.

The X factor is intended conceptually to reflect the difference between the Canadian economy's productivity and the electricity industry's productivity, which I have measured or gauged or assumed to be one-half of the inflation level, the CPI. Which is a very, very aggressive assumption. It is going to be very, very hard for the company to beat that. I have set the bar really high by virtue of the fact that the studies that I know that have been done throughout the world on productivity show productivity in the energy business to be somewhere in the 1 percent range. And here I am suggesting half the CPI index. And if we believe the forecast for the next several years of 3 percent consumer price index, half of that would be 1.5 percent. It is going to be pretty tough for the company to beat that. So -- well I think that answers your question on productivity.

Q. - Thank you. Now again, Dr. Morin, your evidence in exhibit A-2 at page 9 at line 12, when responding to question 7, in which you describe the salient points of NB Power Transmission's price cap framework, you use the phrase "The limited upside returns/unlimited downside returns."

We are just citing one paragraph --

DR. MORIN: Yes.

Q. - -- to look at that phrase. Would you please comment on what is meant by unlimited downside returns in light of the fact that the company can file a rate application if return on equity goes below 9 percent?

DR. MORIN: This is the so-called asymmetry problem that is inherent in rate of return regulation whereby on the upside, profitability is constrained by returns being equal to the cost of capital, and whereas on the downside there is no really ceiling, other than the fact that you can certainly apply for rate relief, but there is the regulatory lag issue. So you are always sort of playing catch-up.

If you think of an investor looking at utility stock returns, I think there is much more downside to those returns than there is upside by virtue of the fact that on the upside you always constrain profitability to the cost of capital. And on the downside it is relatively unlimited until the next rate case.

So the problem of regulatory lag creates this inherent heads I win, tails you lose type of situation.

Q. - Now what are your thoughts about a range of 2 percent above and 2 percent below the benchmark return on equity? You perhaps touched on that in response to the Chairman. But would you respond to the suggestion of 2 percent above and 2 percent below?

DR. MORIN: Are we discussing the graph on page 42 of my presentation? Page 46?

Q. - Yes. Slide -- or page 46 in exhibit A-22, yes. It also appears in your evidence.

DR. MORIN: Well those are largely judgmental. And the idea is that there has to be enough of a range to constitute a sufficient incentive, but not too much that it gives a free ride to the company. So the tradeoff, if you wish, the compromise is 200 basis points.

But I certainly would not violently object if the Board were to say well, let's use 150 basis points instead of 200 basis points without gutting, you know, the spirit of the price cap proposal.

Q. - Now we are looking at as your -- the diagram shows 1 percent on the upside -- 2 percent -- I can't add. 2 percent on the upside and 1 percent on the downside. Would you consider 2 percent on the upside and 2 percent on the downside?

DR. MORIN: Yes. I would not object to that.

Q. - Now what are you thoughts on a 50/50 sharing throughout such a range?

DR. MORIN: Yes, I would. I recommend 50/50.

Q. - Now --

DR. MORIN: But not within the no-sharing zone. I don't think I understood the question. If you look at the graph, the shaded area between 10 and 12, I don't think there should be sharing. Because that would sort of destroy the incentive feature of the program in my view. So there has to be a zone of no sharing to constitute a valid incentive.

Q. - Why would it destroy the incentive?

DR. MORIN: Well, it is just less of an incentive for the company to perform if it loses half of the benefits immediately.

Q. - Well, we are really talking -- would it totally destroy it? Or would it just reduce?

DR. MORIN: It wouldn't destroy the price cap plan. It would certainly tarnish the incentive feature.

Q. - No, no, no. I'm sorry, Dr. Morin. I'm talking would it destroy the incentive feature or just reduce the incentive feature?

DR. MORIN: It would severely reduce it.

Q. - Now, Ms. MacFarlane, what recommendations would you make with respect to monitoring the effectiveness of the price cap plan during a particular year to ensure that the return on equity does not reach an excessive level?

MS. MACFARLANE: On a prospective basis -- and I recognize that our transmission tariff was submitted in the absence of restructuring, but with the reality of restructuring we will be producing financial statements on a quarterly basis for external consumption. And they will be subjected to auditor review as defined by CICA guidelines for that purpose.

The ROE's will be demonstrated in that on a quarterly basis so they can be monitored throughout the year. And then of course there is our existing ongoing budgeting and reporting that we do internally on a monthly basis to our management teams and to our board.

Now the plan calls for us to formally report that to this Board once a year, based on the annual audited financial statements. But again we can certainly -- we could certainly provide interim reports if that is something that the Board would find useful.

Q. - Would that be at the end of each fiscal year?

MS. MACFARLANE: The plan as proposed would suggest reporting at the end of each fiscal year with an audited financial statement.

Q. - That would be NB Transco's fiscal year?

MS. MACFARLANE: That is correct.

Q. - Now with respect to a review of any price cap plan, what information does NB Power consider would be appropriate to file with the Board?

DR. MORIN: Well, you would need the latest CPI or consumer price index report filed by Statistics Canada at the end of the year. And usually they are about two months behind.

And if your fiscal year is April 1st, the December 31st report would be sufficient as a measure of inflation. Then rate increases are mandated to be half of that, no more. And, you know, the ROE, return on equity, published year-end by the company. And the formula takes care of the rest.

Q. - Now --

DR. MORIN: Were you talking about the three-year review at the end of the whole thing, or --

Q. - Yes. Now either --

DR. MORIN: Oh in three years from now, everything is up in the air. The Board can simply order a hearing such as this one and recalibrate and revisit the entire tariff.

Q. - Okay. At that time what information would you recommend NB Power Transmission file with the Board to assist it in this review?

DR. MORIN: Well, it would depend on what the Board wants to do, if they want to re-examine the price cap, or they want to fine-tune the indices, or they want to redefine their measure of return on equity or do they want to review the entire cost structure of the company. Do they want to do a traditional rate based rate of return hearing like we are doing right now. It would depend on the --

Q. - Would you not believe that traditional cost of service revenue requirement information would be filed?

DR. MORIN: If the Board wants to re-examine the going -- or the regoing-in tariffs, that would be the case.

Q. - And a cost allocation study, would that -- information to support that, would that be appropriate?

DR. MORIN: Well, if that is what the Board wants, yes, the company would have to submit it. But I think the Board will be so happy with the results of the price cap system not to have to face all these issues with, you know, cost of service and rate base and adjusted betas and all that kind of stuff.

My own feeling is that they will revisit and fine-tune the price cap system without a full-fledged complete overhaul of the same issues we are debating today. I mean, that's the --

Q. - If your --

DR. MORIN: -- that is the point of the price cap. We are trying to avoid all these direct costs.

Q. - If your price cap framework were accepted what would you expect NB Transco to do at the end of the first year?

DR. MORIN: At the end of the first year?

Q. - Yes.

DR. MORIN: Oh, to simply file its ROE results with the Board and perhaps even on a quarterly basis to establish the sharing mechanism. And the Board can certainly scrutinize quality and service issues if it wishes to do so.

Q. - Dr. Morin, I had earlier provided to your counsel and provided to you two pages extracted from your book which is entitled "Regulatory Finance, Utilities' Cost of Capital, 1994 Public Utilities Reports."

And I have provided a copy to the Secretary. And it has been circulated to all the parties. And I just want to look at that three-page document that is so entitled "Regulatory Finance". Are those extracts from your book?

DR. MORIN: I have it.

Q. - Yes. Thank you. Those are extracts from your book?

DR. MORIN: Yes, sir.

MR. MACNUTT: Now I would move to introduce the document just identified by the witness as an exhibit, Mr. Chairman. I believe the Secretary is handing those to you now.

CHAIRMAN: That will be PUB-1.

Q. - Now, Dr. Morin, I would like you to turn to the first page following the cover page, which is prefaced (xiii).

And you state that the purpose of this book is to provide a complete, accurate and easily understandable explanation of the contribution of financial theory towards solving the problem of estimating a company's cost of capital, particularly that of a regulated utility.

Do you see that there?

DR. MORIN: Yes, sir.

Q. - Now I want you to turn to page 83, which is the third page in that package. And would you just read for us outloud the first paragraph under the heading "Quality of Earnings" at the top of page 83?

DR. MORIN: Yes. "A major factor influencing the quality of earnings particularly, in the electrical utility industry is the accounting for construction work in progress." And the acronym (CWUIP) is inserted. "When the latter is included in the rate base, the current construction financing costs are realized in cash. When (CWUIP) is not included in the rate base, an allowance for funds used under construction," and the acryonym is (AFUDC), " -- is estimated and added to income. And this lets public utilities capitalize the costs of debt and equity funds used in building new facilities".

Q. - Thank you. Now do you agree that this statement implies that a utility may choose either to capitalize its cost of debt and equity funds as AFUDC or include CWIP in its rate base?

DR. MORIN: Yes. The choice is either -- whenever assets are not used and useful and are being constructed are nevertheless put into rate base because they still have to be financed. And that way of course the utility receives cold cash to sustain and service the capital that's being used in constructing these new assets.

The other alternative is to not to put these new constriction in the rate base and accrue the financing costs. And when the plant is finally put into rate base, not only are the capital costs included in the rate base, but also the accrued financing costs, so called AFUDC, and then you are made whole, so to speak. You are on a deferred basis. These are the two choices. And the two choices have consequences in terms of risk.

If you put the construction work in progress in rate base, you will get cold hard cash to service the capital that's being consumed. If you do it AFUDC, you are sort of -- it's sort of an accounting accrual technique. It's what I call monopoly money in a sense. And you will not be made whole until the plant is put into rate base. And investors are a little reticent with the latter mode rather than the former that I describe.

So, yes, the answer to your -- a very quick answer to your question is yes, you can choose one or the other.

Q. - And you consider your comments applicable to NB Transco -- New Brunswick Power Transmission as per the evidence filed in this hearing?

DR. MORIN: Yes. My comments apply to any electric utility including Transco.

MR. MACNUTT: Thank you. That concludes the questions from the Board, Mr. Chairman. In saying that, Mr. Chairman, I didn't want to preclude the panel from obviously asking whatever questions they propose to ask.

CHAIRMAN: That was understood, Mr. MacNutt.

MR. MACNUTT: Thank you, Mr. Chairman.

CHAIRMAN: Go ahead, Commissioner Bremner.

BY MR. BREMNER:

Q. - Yes. I have a couple of questions of Ms. MacFarlane if I may. We have been talking the last time about -- the last while about butterflies?

MS. MACFARLANE: Yes.

Q. - In a ballpark figure can you give us any idea -- and this is probably a repeat, but I would like to hear it from you because it says right here that you are, and I'm impressed, in charge of the finance and the information person here?

MS. MACFARLANE: Yes.

Q. - Could you have had the idea of what the administration costs would be for all of these butterflies, including the Hasheys and the Littles and all these people first and second row, and the Board and the Chairperson and all these people, but never mind the working people like myself out there, but the administration costs for all these butterflies. What would they be? Have you any idea?

MS. MACFARLANE: No, but I can determine it quite easily, so I can come back to you with that on Monday, is that all right? We can include that in Panel C.

Q. - Well maybe this is a wrong time to ask this question but what I'm concerned about as one Commissioner is we are going to take one butterfly apart from all these butterflies. And we are going to single out this one butterfly. What are we going to do about the administration of this one butterfly? And who is going to be the ultimate boss of this butterfly?

Are we going to have another Board with Chairperson and bonuses and all these things, and the Hasheys and the Littles and all these people in the first and second row? And in three years time when we come back to meet with this Board will we be bringing all these people back?

I'm a bit concerned about that cost. Now maybe it's been in all these binders that we have here, but I would like to hear it from you if that's possible, as the accountant in the firm.

MS. MACFARLANE: Yes. It has been a very real area of focus particularly with NB Power's Board to ensure in this restructuring that there is not a burden of loss of economies of scale or additional unnecessary administration. In fact that is one of the reasons for there being a Holdco is to provide common services, shared services across the four butterflies and ensure that we do retain economies of scale wherever possible.

It is the case that all the companies will under the Business Corporation's Act have their own board and there are costs associated with that. As it goes to the regulatory costs in transmission, we would presume that if there are people in the Holdco who can provide services like Mr. Bhutani, as an example, then that portion of his costs would be charged to the subsidiary, or in fact perhaps those people would be moved right in to that business unit.

The intent here is not to hire more people as we go into this new structure. It's to allocate people to the business units to the extent that that's possible. And where people have special skills like Mr. Bhutani or Mr. Marshall as an example, that all business units can benefit from to leave them in the Holdco and charge them out on a shared service basis.

Q. - So then this transmission will really not be a stand alone corporation?

MS. MACFARLANE: It will be legally a stand alone corporation. And its board will have all the powers of a company as granted under the Business Corporation's Act. But it will buy services from its parent, Holdco. And it will also be subject to its shareholder, Holdco Board in ensuring that it's not making uneconomic decisions and cost shifting costs to the other units or vice versa. The Holdco Board, the intent is for it to be almost a referee or an overseer to ensure that decisions are not being made that are going to add -- destroy value by breaking up the company. It's been a very real concern and a real topic of debate.

Q. - Well it's my concern. And, you know, as one Commissioner here I sit back and hear all these things and I say well, all these butterflies, now we are going to take one away. But is it going to save money? And I think that's what we are after, is it not? Pardon?

MS. MACFARLANE: Yes, that's what we are after. And the intent of the transition into these new company formats is to as much as possible ensure that we continue to retain value and do not add extra costs. The intent as I understand it from the Minister's statement of the shareholder, is they believe that if these companies are given individual mandates in their individual industries and given targets of return on equity, that they will be -- these companies will be driven to find cost efficiencies that perhaps they aren't today as being part of a whole.

Now that concept being -- let's accept that for a moment. There is also the risk of additional costs coming from the loss of economy of scales or from one company making a decision to the detriment of another company. And that's where Holdco comes in by providing shared services and by ensuring those decisions aren't made that would perhaps benefit one company in the short run but destroy value for the shareholder and the ratepayer across all of the divisions.

Q. - So that would be another butterfly?

MS. MACFARLANE: The Holdco?

Q. - Yes.

MS. MACFARLANE: The Holdco is, as I understand it -- and again the legislation is presented yet -- but as I understand it NB Power as it currently exists will simply be continued under the Business Corporation's Act with a new name, NB Power Holdco.

Q. - Thank you very much.

DR. MORIN: In the United States, Mr. Chairman, the usual format for unbundling an electrical utility -- and I will give an example of where I live. The Georgia Power Company is a separate entity, but it's still a member of the Southern Company family. So Southern Company will provide services that are common to all its butterflies, regulatory services, accounting services, corporate financial simulation models. Particularly the regulatory services. So whether it's Alabama Power or Georgia Power or Florida or Gulf or Mississippi Power, they use a common pool of services from Southern Services Company. So they can benefit from scale economy is not to have to replicate costs and have, you know, five separate regulatory teams and five separate corporate modelling type people, so that's the way they handle it.

Q. - And you say this is what's going to take place here?

MS. MACFARLANE: That's the intent.

Q. - Basically?

DR. MORIN: Basically, yes.

MR. BREMNER: Okay. Thank you. Thank you, Mr. Chairman.

BY MR. RICHARDSON:

Q. - Thank you, Mr. Chairman. Good morning, Panel. Doctor, I want to make sure that we are on the same wave length as we start into a couple of questions I have here this morning.

And it is my understanding, and I think I have heard it enough in the last couple of days, that under the new structure the transmission company is to be commercially viable on a stand alone basis. There will be no life line to the province and the success or failure will be on the basis of performance.

That is as I understand it. That's -- I understand the White Paper. And that's what I believe I have heard here and this is your concept?

DR. MORIN: This is my premise as well, sir.

Q. - In light of this then, Doctor, would you say that we have one shot at setting this company up and doing it right, so as it moves into this commercially viable world we are going to be in, that it will be adequately capitalized so it can withstand the new world that it will operate in and succeed. Would that be correct?

DR. MORIN: That is correct. It's a golden opportunity to start from scratch on a brand new slate, so to speak. And do it right right from the beginning.

Q. - Adequate capitalization is one of the most critical elements in setting up any company and to make sure that that success will carry on. Would you agree to that? it's not the only thing, but capitalization is critical?

DR. MORIN: Ability to attract capital under reasonable costs and terms is crucial to an electric utility that is very capital intensive.

Q. - In your presentation you have used formulas and then you used a lot of averages from a lot of different companies. And I believe they were prepared or your -- as I understand your slides were prepared some six months ago. When was your work all prepared? Was it all at that time? Prior to that time? In other words is your information that you have dealing in the real world as we see it today not six months ago?

DR. MORIN: This is about the best that we can do here. The -- I think you are referring to page 32 of the slide presentation where we examine the capitalization of all these other comparable groups. This was prepared in mid-year 2002. And these were year end results at the time. So I'm not sure we would have that much more fresher data, so to speak, until a year has elapsed. Because this is based on year end data. The deemed capital structures that you see here were based on the latest regulatory decisions at the time. And there is really not much that has happened since that would change those numbers.

So in other words this information is still reliable. It's not stale.

Q. - It's reliable from what is available but does it relate to the real world as of today? And I'm thinking what has taken place in the electrical markets over the last three to six months. And some of it hasn't been very pleasant. There has been a lot of price fluctuations. And we are still living with some things that has happened over the past two years.

And my concern is that we are not dealing in an abstract way and not dealing with the real world. I'm a great believer that you deal in the real world. And that's what I'm concerned that we get this company started and we start it right.

DR. MORIN: I agree with you completely. Right now the investment community is extremely nervous about the electrical utility industry in light of some of the experiences in the US and in light of the uncertainties that have been brought about by restructuring. And the real world -- proof of that is when you look at bond yield spreads between the electric utility bonds and long term Canada's. They have reached a very, very high level that I haven't seen for a very, very long time. So there is a lot of jitteriness. A lot of nervousness about the electric utilities. And my prescription for that would be that if you have to make a judgment about capital structure, about rate of return you should make it more on the conservative side of things. I would much rather see a stronger electric utility rather than a weaker electric utility --

Q. - Exactly. That's my point.

DR. MORIN: -- to confront the new world that you are discussing.

Q. - That's what I'm getting at. That's right. Are -- I guess your review looked at deregulation, the deregulated companies as much as you could --

DR. MORIN: Yes.

Q. - -- because they are -- it's moving around pretty fast.

DR. MORIN: Yes.

Q. - And again my concern is that we are dealing with apples and apples here. And I understand NB Transmission, there is nothing like it around particularly in Canada, is that correct?

DR. MORIN: That is correct. We have some close proxies, but there is nobody quite like NB Power Transmission as a separate entity yet.

Q. - You are satisfied then that in your slide 32 you have done an external review and that you have then taken that external review and have you moved it into the real world of NB Transco, Transmission?

In other words I see your numbers on the slide. And have you taken and come with your analysis and said look, this is NB Transmission and this is how it relates to the world that I have done this analysis on?

And is there a chance that we may have some variation here, particularly where this is unique? And on your analysis you have done an average of a lot of companies doing a lot of different things than what NB Transmission is going to meet?

DR. MORIN: Yes. This data on page 32 is about as close as it gets to NB Transmission. I was careful in my testimony to do a fairly thorough analysis of business risk of NB Transmission.

And they are not as high as some other utilities such as distribution or certainly generation. So I was careful to try to position the company's business risk at the proper end of the risk spectrum. And of course the deemed equity ratio or the capitalization implications of that were to me pretty clear, around the 35 percent.

I did give less weight to the US data because I don't think the situation in Canada is as risky or unsettled as it is in the US. So you see those numbers on page 32, and if I was looking at those numbers I would be tempted to say well, you know, 35 to 40 percent seems to be indicated here. But I think one should discount a little bit the US situation because of the Enrons and the California deregulation and so on.

And, you know, the numbers are pretty solid here for 35 percent. And I know it is hard to believe from a company rate of return witness, but I have always tried to be a little bit conservative myself. When I looked at those numbers I was tempted to say 35 to 40 percent.

But I opted for 35 percent because I think NB Power's transmission business risks are not as severe as some of those electric utilities that have generation activities.

And my focus here -- it is crucial that this company obtains a single A bond rating. And what are the benchmarks by bond rating agencies that will be conducive to that singe A threshold? And I think a 35 percent equity ratio will do that.

Q. - One of the key elements of a commercially viable company is its management. And I haven't heard you talk about management. And have you considered management in your analysis?

DR. MORIN: Not really directly. But it is my understanding that the track record of the company in the last several years has been one of, you know, reducing costs, improving service, quality and reliability.

And I was fairly satisfied that this company's management was quite competent in my own meetings and exchanges.

And long exchanges with company management have convinced me about the fact that they are extremely competent and have a lot of insight into what is going on and what we need to do here in the next couple of years and are able to meet the challenge. But I did not do a study in terms of measurement or anything like that.

Q. - And the reason I'm coming at that -- and I'm coming at it from an investor's standpoint. You look at the balance sheet of NB Power, it is not a pretty sight.

DR. MORIN: It is a very, very, very bad sight.

Q. - It is quite frankly a hell of a mess?

DR. MORIN: Yes, it is. I agree with you.

Q. - Management has to accept some of that responsibility. And if you look -- looking from outside in, would the investor not say, hmmm, maybe there is just a credibility of management there, maybe they haven't proved themselves.

And this is looking -- a perception perhaps more than anything else. But perception sometimes is reality. And how do you mitigate that kind of a thing?

DR. MORIN: Well, I too was a little bit astonished when I looked at the balance sheet and the performance results and the profitability results. Hence we need to give them a kick in their pants so to speak. And this is our option to do that.

And I think the price caps will be the final wake-up call in the battle or the search for efficiency and productivity. And I think that will do it.

The incentive -- part of the price cap plans will stimulate the free market juices, you know, that are conducive to quality, reliability, efficiency and cutting costs, and slightly change the culture which perhaps has been a little bit tainted by the fact that they were a crown corporation or sort of a bureaucratic government type of organization. That is no longer true.

But I think this company can meet the challenge. And I think the price cap plan would be the necessary stimulus in that direction, to give more of a free market culture and a cost-cutting culture.

Q. - I hear what you are saying. But that is on an ongoing operation. We have some bonds to sell right up front.

DR. MORIN: Mmmm.

Q. - And how do you mitigate that type of problem? Because

I'm sure the first thing the investment bankers did was take a look at that situation.

Would you not -- and I'm just inquiring here -- would you not consider making sure that the capitalization would be just a little bit higher to offset any of this --

DR. MORIN: Well, again I would repeat what I said. I would err on the upside of the equity ratio rather than on the low side.

When this company comes to market for the first time, and given its track record, the first thing the investment banker is going to look at is, what about your equity ratio? What about your balance sheet? How solid is it?

And perhaps that is why the investment bankers that have taken a preliminary look at this have suggested more 40 percent versus my 35 percent, perhaps because of what you suggest.

And I think the Board has a crucial role to play here in changing all of that by approving a decent rate of return and a decent equity ratio and a price cap plan that would simulate a free market mentality or culture in the company.

That would make -- by the way, investment community, investment bankers are really enamoured with performance-based regulation. Anf they see it as a very, very positive sign to change the culture that I was talking about.

Q. - Now would you also agree with me that moving from a regulated crown corporation to a commercially viable company takes a different mindset?

DR. MORIN: Yes. I agree with that.

\Q. - One that can be very costly if the right decisions aren't made as they go forward?

DR. MORIN: Yes. I think one of the greatest hurdles in all the deregulation stories in North America, whether it is airlines or banks or telecommunications and now electric utility industry is how do you change your culture or your mindset --

Q. - Exactly.

DR. MORIN: -- from a bureaucracy to that of a --

Q. - Exactly.

DR. MORIN: -- free market competitive economy? And that is why I'm so insistent on that price cap. That will provoke that change. That will give the company the stimulus, the push that they need to --

Q. - I understand, Doctor. But that is down the road a little bit. I'm talking from day one. And should we not then consider perhaps mitigating some of that concern with a real strong capitalized company?

DR. MORIN: Well, I'm a great supporter of strong balance sheets. And another implication of that would be that if you decide that, you know, perhaps 40 percent is more appropriate, the company is therefore less risky. And that has a consequence on the rate of return.

Q. - Yes.

DR. MORIN: It could go lower, down to 10 percent.

Q. - Yes.

DR. MORIN: Or you can go as low as even 9.75 with an even stronger capital structure. That is another possibility which is attractive as well.

Q. - What is the dividend policy for this new company? Did anybody relate that to you? I didn't see a dividend policy stated in any of the information and evidence that I have read.

MS. MACFARLANE: You didn't see it stated because of course the submission was on the basis of -- it was submitted before consideration of a restructured company.

But the intent of the dividend policy would be such that dividends would be declared in an amount that would allow the debt equity ratio to remain the same.

Q. - I understand. Looking at your evidence, Ms. MacFarlane, page 4 on A-2, you show a dividend the first year. Is that a good commercial practice, Doctor, to start paying out dividends in year one when you haven't yet really proven yourself?

DR. MORIN: The standard wisdom on dividend policy, it is based on normalized structural earnings and not the sort of episodic or one year's earnings.

Q. - That is right.

DR. MORIN: You wait and see until the earnings or the earning possibility of the company has been proven at least a couple of years. And then commit to a dividend.

Q. - That is exactly right.

DR. MORIN: And then you put your money where your mouth is, so to speak?

Q. - Exactly.

DR. MORIN: So the dividend policy probably is a little bit premature until we have a couple of years under our belt. And then I would return any surplus earnings that would materialize to the parent company.

Q. - That is --

DR. MORIN: And the dividend is sort of a residual that is sort of a fudged or adjustment factor so as to keep the debt equity proportions to 60/40 or 65/35.

Q. - But it wouldn't hurt anybody to have the equity in the company built up for two or three years while everybody proves that they can run it? Because there is going to be a learning curve.

DR. MORIN: A young emerging company does not pay dividends.

Q. - That's exactly right.

DR. MORIN: Only a mature company that pays dividends. I agree with that proposition.

MS. MACFARLANE: If I could just add though -- and I'm sorry, you had mentioned that it won't hurt anyone. Unfortunately the reality is that there is this other company called Debtco which has assumed the debt in exchange for share capital and still has to service that debt.

And the intent of the dividends and taxes is that it will provide a cash flow to service it. I agree with you conceptually. I just wanted to add that.

Q. - I understand that. And that is nice from a theory standpoint. But we are dealing in reality here. And the one thing I don't want to see happen is the transmission company get running with a thin capitalization, start paying dividends and the first thing it is in the tank. You don't have a lifeline anymore. Although I'm going to talk a bit about that, because I heard something this morning that interests me.

But if that in fact is the case, and you stub your toe -- and it is going to get stubbed. The hope sheets that you do are hope sheets. They are wonderful things. But you did admit that the costs are fixed.

And if the revenue side doesn't work then if you stub your toe a couple of times out there you could be bankrupt. And we sure don't want that to happen. It is my tax dollars that's going into your company.

MS. MACFARLANE: Yes. Very much so.

Q. - So Debtco may have to sit out there a couple of years before anything happens to it. I mean, we have a bad apple now in the balance sheet of NB Power. Because you slice it four ways doesn't make it any better.

You have now to start proving yourself and use good business practices that is going to make that company solid. Would you agree?

MS. MACFARLANE: I would absolutely agree. And not that I'm here to defend the management of NB Power, but I might just add that part of -- there are two reasons that contribute -- two issues that contribute to our balance sheet that I just would like to put on the table.

That being that in the current structure, with a government guarantee on the debt, this curve on page 31 of Dr. Morin's table would imply that in order to get the most efficient cost of debt for your company, you must balance your equity and your debt in order to get a strong credit rating.

Well, NB Power gets a strong credit rating by virtue of the government at no cost. It saves the guarantee fee. So we are able to benefit from low cost debt while at the same time having no equity because we have the guarantee of the government.

So 100 percent debt as the capital structure in the current setting is not unreasonable or uncostly. In fact it is probably the most economic capital structure in the current setting.

Q. - Exactly.

MS. MACFARLANE: So that is part of the reason why the balance sheet looks uncommercial. The other reason is that NB Power has in the past had accounting policies that were, shall we say, very liberal or, depending upon your viewpoint, conservative or aggressive, on the regulatory side. Capitalizing and deferring costs into the future in order to ensure spreading of costs over ratepayers that benefitted from assets was followed very aggressively.

A witness -- for example on Point Lepreau, the escalated depreciation, where at the early life, when the asset is earning a lot, its depreciation is very low. But later in life when in fact its productivity is less, all of a sudden the depreciation charges are very high.

And that is what I would call a regulatory type of accounting that is very, very aggressive. In the last five to six years NB Power has moved away from those accounting policies to ones that are more commercial, and in the meantime has taken some significant writeoffs. The $450 million writeoff of the net book value. And that contributes in large measure as well to why our balance sheet looks as it does.

There has been significant movement, especially under Mr. Hankinson's leadership, to move the corporation to commercial practices both in its management, in its financing -- shall we say in its investment decisions and in its operational practices.

I agree with you there is going to be a huge learning curve. And this capitalization or this beginning of the new companies provides a burning platform that is going to ramp up change, a significant change in attitude, much more dramatically than has happened over the last five years under Mr. Hankinson's leadership.

But we are believing that we are getting ready for it. And we are trying to make recommendations to government as they take us through this that would ensure that this doesn't fail. Our Board is very, very concerned about this.

Q. - I fully agree with what you are saying. I felt it important that you get this on the table at this hearing but I think it is more important that you are prepared to answer to the investors out there and explain to them what really has taken place.

Because again, I go back to the perception side of this. I look at the balance sheet and say, holy mackerel. Who is doing what in Fredericton? Have they gone to sleep completely?

And you have got no other way to come to that conclusion because when you look at the raw numbers, it is a mess.

MS. MACFARLANE: We have been very fortunate that in our DBRS reviews that happen annually, they have pointed to the -- they have pointed to the fact that our owner has had certain interests that have had an impact, shall we say, on the utility in the past.

And that too is something that will change under this new legislation. The fact that the string is being cut works both ways.

Q. - That is good. Now let's talk a bit -- and I heard this morning, Ms. MacFarlane, when you said there is a real risk on the load factor for the transmission company. I like to look at the transmission company as a railroad and the transmission is the railroad line. You got to have the train running on the track in order to make any money.

I am a bit concerned about the sales in New England. And I know the doctor has touched on it in some of his evidence. But what is happening in the last 30, 90 days? I am concerned that there is a lot of, as they say, New England is going to be awash in capacity from new construction as it comes onstream. What effect is that going to have on NB Power?

MS. MACFARLANE: One of the -- it is a concern to NB Power and certainly in the last year we have seen lower margins accrue to the company than has been the case in the last two years.

One of the reasons why NB Power wanted to move so aggressively forward with the Coleson Cove operation is because we believed it would put our cost structure in a very competitive position vis-a-vis New England. Lower cost structure than gas.

And that is a big part of how we believe we will be able to move forward and ensure that we still have the train running on those tracks in providing revenue.

Q. - How have your sales been this year?

MS. MACFARLANE: The volumes are down, the prices are about -- pardon me, the volumes are up because we have been selling more into the overnight type market, but the prices are down on all fronts.

And I say that subject to check. I would appreciate being able to come back at the beginning of Panel C and speck to that more fully, if that is all right.

Q. - Would it be -- surprise you that the end of December you are down about 98 million?

MS. MACFARLANE: In sales or in margin?

Q. - In sales.

MS. MACFARLANE: I am trying to picture our latest financial statement in my mind. I know that for the fiscal year last year we had margins of 170 million. That is added directly to the bottom line. And this year our forecast is that it will be below 100 million.

And that is for two reasons. Part of it is the market. But part of it too is we haven't had the energy to export because our hydro levels have been so low. Last year there was -- last year was the lowest -- the lowest hydro since the 1950s and we are at about the same levels this year.

It has been extremely little water, which means that Coleson has to run for in-province and we have less to export.

Q. - If your sales dried up down there -- and they won't dry up completely -- but if we got into a situation where they are only 50 percent of what they are today, what impact does that have on the transmission company?

MS. MACFARLANE: It has an impact in two ways. And you will see in the presentation this afternoon on Panel C, Mr. Marshall will go into this -- it will have an impact on the short-term and non-firm sales, the miscellaneous revenue there. And as I mentioned earlier, there aren't a lot of variable costs attached to that. So that will go directly to the bottom line.

And then it may have too some impact on the -- over the long-term into the point-to-point, most of that -- most of that amount is tied up in contracts. But there is some portion of it expiring and it would have an impact on that as well.

Q. - So it is all the more important that we have an adequately capitalized company going in and that we don't pay out any profits just for the sake of paying out to Debtco that those profits are retained until we have a good track record and feel comfortable. Because we don't want to be in the soup, do we?

MS. MACFARLANE: I would agree with that.

Q. - You are certainly comfortable still, Doctor, with the 65/35? I saw you wavering just a little bit maybe?

DR. MORIN: Yes, I would be more comfortable with 40 percent.

Q. - Now we are coming. Boys oh boys, if I can keep on here, we might just get this up a little bit more.

DR. MORIN: No, I don't want it higher than that.

Q. - See, I am a firm believer on adequate capitalization.

DR. MORIN: I am too.

Q. - I lived and died with it for every day for years. And any time you don't do it right, you pay a price. And without that lifeline that is not going to be available as of April 1st, we better be right.

So I would rather start high and give it back. Maybe that is the wrong philosophy.

DR. MORIN: Like I said, you are better off erring on the conservative side than at the risk of, you know, authorizing a lower rate of return because you have a stronger equity ratio that would be --

Q. - We will talk some more. Maybe I will get you up a little higher.

DR. MORIN: No, I don't think so.

Q. - As I understand this morning, the new company is going to be issuing the bonds?

MS. MACFARLANE: That is correct.

Q. - When will they be issued and what will the terms be?

MS. MACFARLANE: We have a little bit of flexibility there. In the debt equity swap, obviously all the debt goes over to Debtco and what comes back is a combination of issues with terms and rates that will match the pool. So that there is no inequity there in the allocation of the portion of debt that comes back.

There is only one issue that NB Power has that comes due next year that would require refinancing. And our preliminary discussions with Debtco -- and again, none of this has been agreed -- is that they would -- the Province would keep that issue. So that would mean in the first year none of these new companies would have to go to market, other than for short-term borrowing.

Q. - Will they be 30 year bonds when you issue them? Because I think there is a trend right now certainly south of the border, of putting the issues out longer so they can save their capital and so on as they go forward. Or maybe it is an acceptability in the marketplace, I am not sure yet. Any comments on that, Doctor?

DR. MORIN: Yes. Are you trying to lengthen the maturity of your bonds and take advantage of the low interest rate environment right now that is prevailing. But you do have this problem of the high spreads right now. There is some bad odor associated with electric utility bond issues.

Q. - That is right. Again, all the reason we have good capitalization.

DR. MORIN: Okay. Let's go to 40. That's it, not higher than that.

Q. - You are a great negotiator. You have had some meetings with investment bankers. Have you had -- you indicated with -- in conjunction with the Province. Have you had any on your own or is it this has been the only meetings that you have had?

MS. MACFARLANE: These have been the only meetings that we have had.

Q. - Have they indicated any rates if they came to the table or came to the market today? Have they indicated any rates that you could expect to pay on your bonds?

MS. MACFARLANE: Yes. And the rates that we have submitted in here are not inconsistent with what they have been indicating to us.

Q. - Have those meetings been held in the past 90 days?

MS. MACFARLANE: Yes.

Q. - They have, okay.

We have your balance sheet -- NB Power's balance sheet for 2002. Do you have a business plan? Has that been updated?

MS. MACFARLANE: That has --

Q. - There was some discussion on that plan at the last hearing.

MS. MACFARLANE: Could I just -- could I just return to the previous question. One thing that has changed is the credit spreads over Government of Canada's. We, I think, have 91 basis points in here.

Q. - Yes.

MS. MACFARLANE: For the spread over the Province of New Brunswick. And our most recent data would indicate that that is up by somewhere between 30 and 40 basis points. So that part of it has changed.

Q. - So that would put the rate at what today roughly?

DR. MORIN: The long-term Canada's right now are yielding 5.5 percent and I would think that if tomorrow NBP Transmission were to borrow money, it would cost them 130 basis points above that. So that would be approximately 6.8.

MS. MACFARLANE: Now the second question, what is the business plan. The business plan, to the extent that we issued a document that was available for public consumption in the past, we have not done that. And on certain areas of the business we will not be doing that.

But we have built a 10 and a much less rigorous 30 year model in order to allow us to look at the future of these companies. What the capitalization will mean, what risk we have in earnings, what risk we have in expenses, how much tolerance there is to absorb that risk. How the dividend policies will be exhibited, et cetera.

Q. - Is that available to us?

MS. MACFARLANE: Can I find out if it is? I don't know. Could we make it available under confidential circumstances?

Q. - I don't know. Mr. Chairman?

MS. MACFARLANE: This is advice to the Minister that is forming part of the recommendations on a go forward basis.

MR. HASHEY: I anticipate, Mr. Chairman, Mr. Richardson, that that probably isn't something that we could release on the advice to the Minister basis, at the moment. I think the best we could do is probably get an answer back to you at the first of the week, if we could.

CHAIRMAN: All right. If you would do that, Mr. Hashey, that would be fine.

MR. HASHEY: Yes.

Q. - It was interesting, this morning, your comments regarding that funding of new capital expenditures where increased equity had to be made available, that the new I guess it was Debtco or the Holdco or whatever you got it there, is prepared to add a little more capital to the function.

That is as I understood that.

MS. MACFARLANE: That decision hasn't been made yet. But that is certainly where the discussions are leading. Because as I say, in the absence of that, the only alternative is to dilute the provincial ownership.

Q. - Yes.

MS. MACFARLANE: By allowing the utility to go to the equity markets. Or to change the -- to weaken the balance sheet by funding with more debt.

Q. - That begs the question then, from my point of view, that if by chance Transco started losing money in the first couple of years, is this Holdco, Debtco, whatever, prepared to add more capital to it?

In other words, are you really getting an indirect lifeline? The lifeline, I understood, was going to be cut off. But maybe it is not cut off.

MS. MACFARLANE: Well I -- I will say two things to that. There is every expectation on all parties -- all stakeholders behalf, that these companies will be staffed with management that will meet those targets and that what you are suggesting won't happen.

And secondly, if it does happen, that it won't be a lifeline extended. It will be that the management will be replaced. That is how the discussions have ensued so far.

Q. - Yes, in the commercially viable world we live in, that is exactly what happens. It is not pretty. And that is again, get it right. Any movement yet, Doctor?

DR. MORIN: No.

Q. - Okay. As I understand it, you are going to have a quarterly statement made public on the new company?

MS. MACFARLANE: We are going to have a quarterly statement that will be at a level such that it can be made available to external parties. The -- it's the thinking that these borrowings will likely be private placements and so the external parties will be limited. It's not necessarily something we would put before the standing committee on crown corporations, for example, but we could submit it to this body.

Q. - Yes.

MS. MACFARLANE: We could submit it to our banks, et cetera.

Q. - You of course would continue to do monthly and updated --

MS. MACFARLANE: Absolutely.

Q. - -- inhouse.

MR. RICHARDSON: Thank you very much. I have no more questions, Mr. Chairman.

BY MR. SOLLOWS:

Q. - Good morning -- or good afternoon. I just have a few questions arising from your presentation over the last few days. And then maybe some questions arising from your filed evidence. But I know when we were being taken on a tour through some of your exhibits, Dr. Morin, I noted in RAM- 4 the data from 1998 to 2000' --

CHAIRMAN: Where is that?

MR. SOLLOWS: That would be A-2.

CHAIRMAN: A-2.

Q. - The appendix -- exhibits, Dr. Roger Morin.

DR. MORIN: Yes, RAM-4.

Q. - RAM-4. It goes to '97 and I'm just wondering if you could update that for us to include --

CHAIRMAN: What page is that?

MR. SOLLOWS: There are no page numbers.

DR. MORIN: Yes. Exhibit RAM-4 can be updated. But the reason for stopping at 1997 is following that was the effective restructuring in the United States and I didn't want to contaminate the data for that but, sure.

Q. - And I think you had indicated that there was a lot of uncertainty associated with the restructuring that should lead -- should show an increase in these betas, I would imagine?

DR. MORIN: Yes. Actually what happened is it was a big shock with the California crisis and there was a complete disconnect between the electric utility stocks and the overall market as a result of the fallout from California. And the beta started going way down because there is a disconnect. There is no relationship between the company and the market. And now they have started to go back up on a fairly steady course. But I will give you that information --

Q. - Thank you.

DR. MORIN: -- as an undertaking.

Q. - Now, Ms. MacFarlane, you mentioned -- and I think my colleague indicated some concern that there -- the forecast for export revenues for the tariff -- from the tariff might be a little optimistic. And if this relates to what you will be giving in the next panel we can just leave it till then, but I guess the direct question that I have is if instead of 8 million net income from exports you had 4 million, what would be the effect on your return on equity?

MS. MACFARLANE: If you are prepared to, I would prefer to discuss this in Panel C.

Q. - Fair enough.

MS. MACFARLANE: And I don't think I said they were optimistic. I think I said they were at risk.

Q. - Yes.

MS. MACFARLANE: And significantly at risk, yes.

Q. - Dr. Morin, just a little while ago you indicated that one of the big benefits of this rate structure or this approach to performance based ratemaking would be -- it would give the -- create an incentive for the company to increase its sales?

DR. MORIN: Correct.

Q. - Practically how can a transmission company increase its sales? They would seem to be driven by their wholesale and large industrial customers.

DR. MORIN: By being cost competitive in terms of exports.

Q. - Could you elaborate?

DR. MORIN: By lowering its costs they can be more competitive and secure some of the -- the higher penetration in the New England market, for example.

Q. - Oh I see. So you are bundling -- the total thing in the New England market if the transmission costs are lower --

DR. MORIN: Lower.

Q. - -- then they will probably sell more in the New England market?

DR. MORIN: That's correct.

Q. - Fair enough. In terms of the domestic market you are not talking about the transmission company actively trying to increase the consumption of electricity in the domestic market?

DR. MORIN: No, not at all.

Q. - You also referred to -- when discussing the impact of your productivity adjustment, that the productivity in the energy business was around 1 percent?

DR. MORIN: Well there is lots of studies that have been around throughout the world about energy industry productivity. And it's a very difficult challenge to measure that, because it depends on the historical period over which you measure productivity. It depends how you measure outputs versus measures of inputs. There is a lot of discretionary aspects to this exercise of trying to measure productivity. But the results that I have seen particularly in the distribution side of things suggests somewhere between 1 and 2 percent X factors.

And I don't want this company or this Board to be embroiled in the whole business of measuring and benchmarking productivity and at the end of the day we say well, here is the result but, you know, NB Power is a little bit different because of their rural density, because of their radial nature of their territory there productivity threshold should be a little bit lower. Instead of getting embroiled with all of that, which represents a tremendous burden to both the Board and the company, I said, well, why don't we make the productivity threshold half of inflation, which in itself is ambitious.

If we think of inflation as being 3 percent in the next several years, the X that would be implied, the productivity factor that would be implied is 1 and a half percent, which I think is a very, very ambitious threshold for the company to pursue.

The bar has been set pretty high I think with my --

Q. - I guess the concern that I had is that you referred to it as the energy business, but it was mainly the distribution business that was the reference for that?

DR. MORIN: It was mainly the distribution business. And the reason for that is because we have an abundance of companies in a distribution business. We have large samples to do studies, but very few transmission companies. That's another reason for suggesting half of inflation as a productivity threshold.

Q. - I think just a while ago, Ms. MacFarlane, you indicated that -- and I think you indicated it was also standard practice, Dr. Morin, in the United States that the transmission company would buy common services from the holding company. Now I guess my question is how are the costs of provision of those services regulated?

MS. MACFARLANE: They are -- in the present tariff we have made an allocation of corporate costs which frankly will not be that dissimilar from what will happen in the new regime with corporate services. And it's subject then to on a going in basis review by this Board.

Q. - So we would then have access to the holding company's records in order to see that they -- the charges reflect their costs?

MS. MACFARLANE: I would have to assume that at the times that you do review costs you would have to have that.

DR. MORIN: That's standard practice --

Q. - Okay. Thank you.

DR. MORIN: -- when utilizing the services of the service company. It's pretty standard to scrutinize those costs to make sure that they are efficient.

Q. - Fair enough. Now looking at again the -- I think the graph is in your presentation. And I see it also here on page 439 of IR-67, that's volume 4, I suspect. I think it's the same graph, so if you want to flip up your presentation. Page 41 you might have said it was before.

CHAIRMAN: 46.

Q. - 46. Yes. Now this illustrates fairly well that your target is 11 percent and you are -- the intent here is to allow higher returns on equity. And I -- if I understand the theory correctly, the theory is that in a publically traded company the management is expected to maximize shareholder value and the shareholders will want -- will tend to want a higher return on their equity.

In this particular case do we have any evidence on the table that the shareholder, and there is only one, wants more than 11 percent return on their equity?

DR. MORIN: Well my testimony is an attempt to capture the expected returns that would prevail in a competitive market for the kind of business that NBP Transmission will get in to. The opportunity costs of investors would be, in my view, about 11 percent for an enterprise or an investment of that risk. That's what my testimony is about if I understand the question.

Q. - This I understand. But I guess my question was in this case we aren't talking about a publically traded company with the shareholders all with different attitudes and risk aversions. We have a single shareholder that wants -- presumably wants a return on their equity. But do I interpret your evidence as indicating that this shareholder would really rather have a 14 percent return on their equity? Or would they be just as happy with 11 percent and if it went above that they might return it to their customers?

DR. MORIN: Under traditional rate base rate of return regulation the investor would be content with a return of

11 percent. That would match their risks. But the whole rest of the apparatus is to -- is designed to go hand in hand with a price cap regime. The only role that rate of return plays in a price cap regime is to determine trigger points for sharing, because there is no connection anymore between rates and costs and rate of return and rate base.

The only reason we even have this graph is to determine where the trigger points are going to be for sharing with ratepayers. That is the only role played by --

MS. MACFARLANE: Can I just -- if I could just add to that.

Q. - Yes.

MS. MACFARLANE: The application was filed of course in the absence of restructuring and I think Dr. Morin has said in it it is irrelevant who the investor is. And what we were trying to do was to ensure that non New Brunswick users of the transmission tariff paid all costs so that in some form they could get back to the people of New Brunswick. Under restructuring, the ministerial statements have indicated that they are expecting a market based return. And certainly the credit rating agencies who are giving us our credit rating for our debt holdings will be looking for market based returns.

And it's also the case that the more returns the company is able to generate and pay in dividends, or pay in taxes, the faster the legacy debt will attrit and that too is an objective of government, is to get out from under the guarantee on the existing debt, which will be there until it's paid off. So I just add that.

Q. - Thank you. I guess the next question I have about this figure is that -- and I look at this from the perspective of control, you know, like control. This looks like a dead band control to me with --

DR. MORIN: Upper limits and lower limits.

Q. - -- upper limits and then high limit and very low stop limits. I guess from that technical perspective it's a fairly crude way to control something in the sense that if I were to design a control system that wanted to come closer to 11 percent, I might not do it in this way. I might use maybe a proportional band or something like that.

DR. MORIN: Yes. There are different ways --

Q. - Why would they not do that sort of thing in this approach?

DR. MORIN: There is a -- there are several different ways to manage the sharing system. One way is the so-called funnel approach. And the argument here is that the first one percent extra return is fairly easy to obtain, so we should give most of that to ratepayers. But each successive one percent improvement is tougher and tougher and tougher and tougher to get. And therefore more and more and more and more should be shared by the company and less and less by shareholders. Diminishing returns if you wish.

MS. MACFARLANE: Shared by ratepayers.

DR. MORIN: Shared by ratepayers, yes, excuse me. And that's called a funnel approach. And you -- and I agree with you you can devise these triangular or funnel types of approaches but I had in mind here for the next three years -- and one of my objectives and criteria is that of administrative simplicity, so I opted for a simple 50/50 system. But we can certainly devise a funnel type of approach.

Q. - And certainly we use this technique for controlling temperatures for exactly the same reason, it's simple.

DR. MORIN: Yes.

Q. - That's fair enough. I guess I would like to at this stage ask you to look at your exhibit RAM-7. And that's in your volume A-2 of your exhibits. And it's -- there are three pages to it and we can just look at the first page, I guess.

DR. MORIN: I have it.

Q. - And first off I want to thank you for providing such extensive documentation for your advice. For someone like me, you know, I like to have data to dig into and look at and it's been very helpful for me.

Now this I guess you used to estimate the risk premium or the risk margin for Moody's Electric Utility stocks. And you took the 20-year bond maturity and total bond return and compared that to that stock index from 1932 on to 1990?

DR. MORIN: That's correct, yes. Starting in 1931 all the way up to 2000, what have been the historical returns between stocks of utilities and the government risk free rate. And on average, as you can see on page 3, the stocks of electric utilities have outperformed the bonds, the risk free bonds by about 5.7 percent.

Q. - Yes. And I did plug the numbers into a spreadsheet and check it. I guess my concern here is that when I do that and I begin to plot the data it appears to me that there is a change in the data around the mid-1960s. And prior to 1965 they seemed relatively uncorrelated and therefore I would accept your average for that time period.

But after 1965 it appears that they are correlated, the stock returns seem to be correlated with bond returns. And that would lead me to a different estimate for your risk premium, that is somewhere in the range of four to maybe -- three to four percent depending upon the probability that I assign to pre-1965 behaviour versus post 1965 behaviour.

So I guess I -- what I'm really looking for is if in my mind my analysis of that data is more representative how would that adjust your overall advice to us --

DR. MORIN: Well --

Q. - -- in terms of what the risk margin should be?

DR. MORIN: Well if you -- if one performs your analysis and concludes that the risk is let's say 4 and a half percent, that would change page in my direct testimony. It would change page 59 where the table on page 59 recapitulates the results from all the technologies that I have utilized.

And the one that is labeled "Electric utility historical", 5.7, that number would then become what, 4.5.

Q. - Whatever that range is. 3 to 4 is what it came to.

DR. MORIN: Yes.

Q. - Yes.

DR. MORIN: But I did run the serial corelation test to see to what extent are the successive risk premiums corelated over time. And I found very, very little corelation. In other words this series sort of behaves like a random walk.

Q. - I confirmed that actually for the serial corelation on the bonds and the stocks individually. But what I'm talking about here is a corelation between stock performance and bond performance. It is really quite clear at post '65.

DR. MORIN: Okay. Well --

Q. - Yes. And that means that subject to your advice that the risk-free rate should be 6 percent, it implies a risk premium of somewhere around 3 percent for that data.

And then depending on how much I -- weight I give to the post '65 data, it would be somewhere between 3 and 4 percent maybe?

DR. MORIN: Yes. One of the problems with historical data is one has a choice of periods.

Q. - I know. Yes.

DR. MORIN: And I rather don't make -- prefer not to make judgments on this and just look at the data when it is available.

Q. - It is a judgment call?

DR. MORIN: And it is a judgment call. And for reasons that I had indicated yesterday, the longer the historical period, the more that expectations converge with realizations, the better the estimates, statistically speaking.

So that is why I always prefer to use long periods when dealing with historical data.

Q. - So basically I would look at this and substitute for 5.7 something between 3 and 4. And then I would just adjust your average appropriately?

DR. MORIN: That is correct. You can do that.

Q. - And you would happy with that, subject to --

DR. MORIN: No. I would not be --

Q. - -- subject to checking my --

DR. MORIN: I wouldn't be happy with it.

Q. - No. But subject to my making an arithmetic mistake or something really --

DR. MORIN: I wouldn't be happy with it. But I don't think you should chop periods of time. Because I could take 1970 to 2000 and find a negative risk premium. But that is not what investors expected. So when you are dealing with realizations --

Q. - On this data you would find a negative?

DR. MORIN: Well, I think if you look in the last couple of years there is a lot of negative numbers there. I'm not sure it would be negative. No, probably not.

Q. - I don't think it would be.

DR. MORIN: But it would be very small. And I don't think it would indicative because expectations don't always get realized year to year.

Q. - And frankly --

DR. MORIN: That is why I like a long period.

Q. - And that is true. But I'm using all of your data in the assessment. I'm just doing -- applying sort of a Bayesian probability that recent experience is more probable than the pre 1965 experience. That is sort of the approach.

DR. MORIN: But it is not as reliable. As you chop the periods off you are losing data.

Q. - No. I haven't lost any data. I have just modeled the prior date as an average as --

DR. MORIN: Something I understand, yes.

Q. - -- you would and then applied a probability that it will likely arise.

DR. MORIN: Okay. I understand.

Q. - So I really haven't lost any data.

DR. MORIN: Okay.

Q. - And come to that number. And so in that case it wouldn't -- I could just substitute a 3 and redo the average. And that is the way I would approach it. Thank you. That is it.

BY THE CHAIRMAN:

Q. - Doctor, I think I know the answer to this. But if this

Board were not to accept your rate cap or your proposal on rate caps, et cetera, that you would recommend 10.5 percent?

DR. MORIN: Yes.

Q. - Ms. MacFarlane, when we regulated the New Brunswick Telephone Company Limited, that company filed with us each month the accounting statements that they produced for their management. Is there any reason that NB Power wouldn't do that for Transmission for this Board?

MS. MACFARLANE: We could certainly do that. I might just add, subject to check that -- and I don't know what period you are talking of for NB Tel. But the CICA guidelines on requirements for externally produced statements have changed significantly.

And there is a much higher standard for rigor and much higher demands for accountant review, auditor review than was the case some years ago. Those standards changed about a year ago.

Q. - Our approach always with NB Tel was that if there is something that was produced for management's benefit, that if it came close to doing what the regulator needed, then don't recreate the wheel, sort of thing.

In other words we will use what you already produced. However, if you would look into that I would appreciate it.

MS. MACFARLANE: I certainly will.

DR. MORIN: It would be a good way of monitoring the price cap system month to month.

Q. - From your questions -- or excuse me, your answers to Commissioner Sollows, I take it then that with the holding company, your loaned -- or your personnel shared services, et cetera, you are not a taker as far as this Board is concerned of the price?

We will be able to look into what exorbitant price is being charged for Mr. Bhutani's time or something of that nature I guess?

MS. MACFARLANE: That is right. And I might add that the ministerial statement that was made in May indicated that those services would be provided at cost.

Q. - Now has it posed any difficulty as to the level playing field for all users of your transmission services to have some people like Mr. Bhutani or otherwise who would be providing services to you but also presumably to NB Power Generation?

MS. MACFARLANE: In the sense that there are economies of scale, we didn't look at it, yes.

Q. - What I'm looking at is that they would be privy to your --

MS. MACFARLANE: Oh I see what you mean,

CHAIRMAN: -- information, management information as well as that of the generation company?

MS. MACFARLANE: That's right. Yes. And those issues as being looked at as well as the composition of the boards of these companies, what issues arise from those. All of those are part of what we need to settle between now and April 1st to ensure that there are no problems.

Today in an integrated utility we handle it through a code of conduct and sign statements to that effect.

Q. - Now this is just a little background. And I can't be terribly accurate on it. But the last time you appeared before this Board in reference to a rate review was 1993. And this is 2002.

You mentioned aggressive regulatory accounting for instance in the context of Point Lepreau depreciation and deferring the depreciation off till later in the purportedly useful life of that asset.

But on the other side of things, when that was done there was also the generation equalization account that was set up so that during the early years of the running of Point Lepreau, that anything over a certain amount by way of a capacity factor and I believe, stand to correction, it was 85 percent, and you were running in the

90s --

MS. MACFARLANE: Yes.

Q. - -- you put money into this equalization account so that later on in the life of that asset, if it didn't perform to the 85 percent, then you would be able to draw those funds down?

MS. MACFARLANE: Sir, I certainly did not intend to be questioning any policy that the Board would have reviewed and found reasonable. They were reasonable in the day.

From a perspective of a commercial entity they are perhaps less reasonable. From a perspective of a regulated utility where intergenerational equity is very, very important, I believe those policies were effective.

In fact I wish by days we could bring back the generation equalization account.

Q. - And that leads me to a point, that subsequent to 1993 you in fact collapsed that equalization -- generation equalization account.

You collapsed the account dealing with the 31, 32 year average for hydro. There were a number of accounts. And I stand to be corrected. But some were in the vicinity of let's say 200 million to $250 million were collapsed in that period of 1993 through to '96, '97, '98.

And this is all in the context of something I want to put to Dr. Morin. The legislative assembly has in its wisdom at last turned to this Board and said, for the purposes of NB Power Transmission the Public Utilities Board of this province will be given what is more normal regulatory jurisdiction over NB Power Transmission.

Having in your mind, Doctor, what has happened since we last reviewed the rates of NB Power in 1993 and how they have gone from a balance sheet reflecting 80/20 debt to equity to where it is in the situation it is in today, and you knowing as I know that a regulator's responsibility is twofold, one to ensure that the rates are just and reasonable, but on the other side that the utility will perform financially in a fashion that they will be able to raise capital. Would we be remiss in our duty as a regulator and allowing NB Power Transmission to come before us, have the rate set and not be -- the Board have no authority over it for a period of three years?

DR. MORIN: No, I think -- I still think you have authority over this company and should have authority over the company. And even in the price cap regime there is all kinds of filings that have to be made before the Board.

The Board has to monitor the performance quarter to quarter, see where the ROE is. The X factors if any -- excuse me, the Z factors if any have to be filed before the Board. And you can certainly monitor service, quality, reliability and performance.

And I think there is a huge role to play by the Board. And then you got to get ready for the review in three years from now as well. So there is still a lot of food on your plate. And I think the Board should -- I mean, I don't want to get involved with politics here. I know absolutely nothing --

Q. - Nor do I.

DR. MORIN: -- about the political implications. But my view is that it is the Board's responsibility to adjudicate between the interests of shareholders or investors and the interests of ratepayers. That is fundamental to me. And that should be the purview of this Board.

CHAIRMAN: Thank you, Doctor. Mr. Hashey, redirect?

MR. HASHEY: Yes, I have, Mr. Chairman. Thank you.

<u>REDIRECT BY MR. HASHEY</u>:

Q. - First of all, Ms. MacFarlane, I believe there is one undertaking that you have indicated to me you could now answer, before I get into redirect?

MS. MACFARLANE: Okay. Yes. This was an undertaking for JDI, Mr. Smellie. It was an undertaking of December 8th I believe. It was yesterday in any event.

And the question was related to the incentive pay program that NB Power has. There are currently -- for the last fiscal year there were 104 people on this program, that would be from director level and up in the corporation.

The incentive payout for 2001, 2002 was $700,000. That represented per person, though various people earned various amounts depending upon their ability to achieve their objectives. It represented an average of 7.3 percent across those people, because their salaries totaled 9.6 million before the incentive payment.

Total salaries for the corporation including incentive for the year ended March 31st 2002 --

MR. SMELLIE: I'm sorry, Ms. MacFarlane. Can you slow down just a bit.

MS. MACFARLANE: Certainly.

MR. SMELLIE: Go ahead.

MS. MACFARLANE: Total salaries including incentive for the year March 31st 2002, were 169.9 million. So the percent salary, including incentives of the individuals who received incentive, was 5.7 percent of that total.

Now if one were to look at total salaries and benefits, including incentives, that number is 197.2 million. So the percent of the participant salary of that total is 4.9 percent. And because perhaps I was speaking too quickly, I would be happy to repeat any of those numbers.

MR. SMELLIE: Can I have just two minutes, Mr. Chairman. since my friend is introducing an undertaking response on redirect, I am assuming if I have a question or two, I can ask them.

MR. HASHEY: Yes.

CHAIRMAN: That is a yes, Mr. Hashey?

MR. HASHEY: Certainly.

MR. SMELLIE: Mr. Chairman, I don't want to take your valuable time on this. Ms. MacFarlane is coming back. And maybe if I do have any questions arising out of this undertaking response we can put them to her next week.

Is that acceptable, Ms. MacFarlane?

MS. MACFARLANE: Yes.

MR. SMELLIE: Thank you for the response.

MR. HASHEY: That would be fine. I will be very short.

CHAIRMAN: Good. Go ahead, Mr. Hashey.

MR. HASHEY: I'm not here to ask a lot of redirect. I have one clarification and four short questions. So it won't be long.

Q. - Dr. Morin, yesterday you indicated there was a typo I believe in your evidence. Would you please clarify that and make the necessary correction?

DR. MORIN: In my direct evidence on page 44 in the table at the bottom of the page, the second number of .63 should read .64. The third number of .68 should read .70. The unlevered/levered data should read .63 to .73. And that is my correction.

Q. - What would that do to the average?

DR. MORIN: The average, instead of .67, becomes .6634. So the statement on line 16 and 18 still stands.

Q. - Thank you, sir. Now leading into my questions, during the extensive examination by my friend Mr. Smellie, you have been provided with a number of papers on pipelines and questioned on TQM.

Could you give a brief comment please on the business risks of this type of industry in comparison to NB Power Transmission?

DR. MORIN: Yes. When we speak of pipelines like Trans Quebec Maritime, by virtue of their ratemaking methodology, they have much less business risk than a company like NB Power Transmission would have.

That is because in the pipeline business the demand charge, the so-called demand charge, captures 100 percent or recovers 100 percent of the costs incurred by the pipeline. And that is certainly not the case for NB Power Transmission.

So from a pure business perspective, by virtue of ratemaking, pipelines typically have less business risk than a company like NB Power Transmission would have. And therefore you can have a less equity-rich company if you have less business risk.

But to the extent that NB Power Transmission has more business risk than the pipelines do, because of that difference in ratemaking, this warrants a higher equity ratio.

Q. - Thank you. Then my next question I think is a relatively simple one. Yesterday my friend mentioned Maritime & Northeast and suggested a 75/25 percent debt equity ratio award that had been given.

Do you know what was given in respect to ROE?

DR. MORIN: Yes. Because of the thin equity ratio they were awarded -- and the risk of course -- they were awarded a 13 percent ROE.

Q. - The next issue relates to the reference to Dr. Evans. My learned friend made a brief reference to one portion of a report that he apparently has filed in relation to AltaLink in Alberta, is that correct?

DR. MORIN: That is correct. Yes. AltaLink in Alberta is a very recently created entity which has purchased all the transmission assets, the electric transmission assets from TransAlta.

And it is essentially a consortium of three large groups of investors, one of them being SNC Lavallin which owns about 50 percent of the AltaLink. And the other 25 percent is owned by the Ontario Public Pension Fund. And they are also the ones that have supplied the debt component of that entity.

So in view of the fact that this is a very recent entity that has just been created, there was not sufficient data or historical data or stock price or bond yields or anything like that, because it is a private consortium, it makes it unusable for analysis in terms of comparing it the NB Power Transmission.

And Dr. Evans has just filed a rate application on behalf of AltaLink requesting a 37.5 equity ratio. That will make you happy over there. And with an ROE of 10.5 percent. That is inclusive of floatation costs. If you want to compare apples with apples, that would be something like 10 1/4 for NB Power Transmission.

Q. - You know Dr. Evans, do you?

DR. MORIN: Yes. Dr. Evans is born in Georgia but resides in Canada. And I'm born in Canada. And I'm a Canadian.

And I reside in Georgia. So it is kind of an interesting --

Q. - You worked generally --

DR. MORIN: It is kind of like the Reversing Falls, you know. So I know him as a colleague in this business, yes.

Q. - I must say that we do have a copy of that report. If there is a desire to have it filed or to be discussed further, I would be pleased to file that.

We have been able to access that from the Internet. I wouldn't do it unless my friend or somebody requests it.

MR. SMELLIE: I'm not requesting it.

MR. HASHEY: Okay.

Q. - Now the final question, sir, is there has been a lot of questioning and a lot of documents filed in relation to the Hydro Quebec application in Quebec and including documentation that you were questioned on concerning your own testimony. And you did testify in the hearing in Hydro Quebec, I take it?

DR. MORIN: Yes, I did.

Q. - And what was allowed there? Do you remember?

DR. MORIN: I believe it was 9.72 percent and a 30 percent common equity ratio.

Q. - Can you comment on the business risk that you would have been looking at in Hydro Quebec compared to NB

Transmission?

DR. MORIN: Yes. During the deliberations of that case we sort of made an agreement with all the participants that were in the audience, the various Intervenors, that TransEnergie had very, very low business risks.

And we all agreed on that. So we just settled that and went on from there. And that is because of that toll-making methodology that I alluded to earlier in the case of pipeline companies.

TransEnergie essentially passes the bill to the distribution component of Hydro Quebec and is virtually guaranteeing recovery of all its costs that way. So it incurs very little business risk by virtue of that toll-making, that ratemaking policy. And that is not the case here for NBP Transmission.

And the other point I would make is that Hydro Quebec has very, very, very little risk in terms of short-run contracts. It is something less than 1 percent if my memory is correct.

In the case of NB Power Transmission it is more the order of 10 percent that is at risk. And that is a rather significant difference.

Then, of course, NB Power Transmission has much more interconnection points than Hydro Quebec does, which again accentuates its risk relative to TransEnergie.

And one of the big, big factors on capital markets, we were talking earlier with the Commission -- with the Board about bond ratings and access to capital markets -- size is going to be a very, very important determinant of bond rating.

Everything else being constant, a smaller issue will have a riskier or a less attractive bond rating than a very large entity, because of diversification and size and the liquidity requirements of the bond issue and so forth.

So for all these reasons, when we look at Hydro Quebec, TransEnergie, we have to position TransEnergie as a sort of less risky entity, for all these reasons, than NB Power Transmission.

MR. HASHEY: Thank you, Dr. Morin. Thank you, Mr. Chairman, Board members. That completes my redirect.

CHAIRMAN: The Board wants to thank the panel for their testimony. And may you have a safe journey home to Georgia. We are getting some northeast U.S. weather out there I understand.

We will recess and come back at 2:15. Is that --

MR. HASHEY: That is fine. The only plan this afternoon is to, as I understand it, have a presentation. I spoke to my friend Mr. Gillis last evening and asked him if he would be intending to cross examine this panel, knowing he was first generally.

And he indicated he would not be doing cross examination of this panel and asked me to convey that to the Board, which I indicated I would do.

CHAIRMAN: Okay.

MR. HASHEY: So I don't see that anyone is in line to start cross examination this afternoon. But we certainly would proceed with the presentation.

CHAIRMAN: Good. All right.

MR. HASHEY: It will be a short one.

CHAIRMAN: Back at 2:15 then.

MR. HASHEY: Thank you, Mr. Chairman.

(Recess)

CHAIRMAN: Good afternoon. Any preliminary matters?

MR. HASHEY: No preliminary matters.

CHAIRMAN: Mr. Hashey.

MR. HASHEY: I would call Panel C, Mr. Chairman. Oh, there they are.

CHAIRMAN: Have you lost your panel? There is four of them on it, Mr. Hashey.

MR. HASHEY: They want to be intervenors.

(DAVID LAVIGNE, BILL MARSHALL, SHARON MACFARLANE, GEORGE PORTER, sworn)

MR. HASHEY: Thank you, Mr. Chairman. As agreed there would be -- this afternoon we would deal with the presentation of Panel C. For that purpose I believe it would be Mr. Marshall.

I don't know that this has been marked as an exhibit yet?

CHAIRMAN: It hasn't, no.

MR. HASHEY: Maybe we should first mark it.

CHAIRMAN: That will be A-26. The secretary is making a confession here I should share with you. She doesn't know where her copies of this are. The Commissioners are quite disturbed with her.

MR. SOLLOWS: Oh, no, we are in the dark.

CHAIRMAN: So your presentation better be good, Mr. Marshall.

MR. HASHEY: Do you just have the one copy, Mr. Chairman?

CHAIRMAN: Yes, it appears that.

MS. LEGERE: I am just not sure where they are.

CHAIRMAN: Here comes Ms. Tracy with a backup. I am going to watch it -- I am just going to watch it.

MR. HASHEY: No problem. I do have one here that I would be pleased if anybody wants it.

CHAIRMAN: Thanks, Mr. Hashey. I think we are fine.

MR. HASHEY: Mr. Marshall, would you come forward, please.

MR. MARSHALL: Well since you are watching the screen, Mr. Chairman, you should be able to see it clearly.

Good afternoon, Mr. Chairman, Board members. My name is Bill Marshall, Director of Strategic Planning. And I will be doing the presentation. This is for Panel C on revenue requirement and rate design. And on this panel along with me are Mr. Lavigne, Ms. MacFarlane and Mr. Porter.

The presentation that I will run through deals with the rate design process to develop the transmission tariff. And it's a seven step process. And then in addition to that we will look at the rate design for the generation-related ancillaries and then I will sum up at the end with a summary.

Now the rate design process, as I said, is a seven-step process. And the presentation is geared to this outline. The first step is defining the principles we are trying to achieve in designing the rates. The second step is determining all the transmission assets that are -- that have to be dealt with in the tariff. Then calculating the revenue requirement associated with all of those assets, defining the services that are to be offered through the transmission tariff, and then allocating revenue requirements to those specific services. Then defining billing determinants, any by billing determinants we are talking about what is the means by which we are going to bill for the service. Is it energy in kilowatt hours? Is it demand in kilowatts? That's what we mean by the billing determinant. Then once we do all of that we are then able to design what the actual rate would be. So that's the process.

So step one in defining the principles, we have principles here to -- that we have laid out that we are trying to achieve in designing this tariff.

First of all, transmission is a regulated cost of service business, so we want to ensure recovery of the revenue requirement, which is essentially the cost of providing that service. We want rates that are just and reasonable without any undue discrimination. We want the rates and the tariff to support the New Brunswick electricity market. Indeed open access transmission is the foundation of a marketplace in order to connect generators that are sellers in the market to loads which should be the buyers in the market.

And in doing -- in meeting those first three, we also want to ensure compatibility in the design of the tariff with the industry standard FERC Order 889, which again is consistent with the recommendations of the market design committee.

MR. HASHEY: For the record, Mr. Marshall, is that not 888?

MR. MARSHALL: Excuse me, did I say 889?

MR. HASHEY: Yes.

MR. MARSHALL: Well 888 in the design of the tariff. 889 in the delivery of the service of the tariff as dealt with through Code of Conduct and OASIS.

So to begin with then, once we have outlined those principles, we are looking at what are the actual transmission assets.

Now we look at the transmission system and we define it as the transmission assets or that system between generation and distribution. Now actually here what we are talking about are what are the assets that are owned by the transmission business unit that are used to deliver services to customers. Those are the assets that we are identifying as transmission. And included in all of those assets are some assets that in actual fact connect generators, maybe radial lines, synchronized breakers. And we can see in this next slide the diagram -- a simple diagram of the system. And you can see here that that transmission assets that we are talking about that are owned and controlled by the transmission business unit are all of the things in the diagram marked in blue. They include this step-up transformer of the generator. They include this synchronizing breaker of the generator and any transmission line inbetween.

Over on the distribution side, they go down to the disconnect switch between the -- on the high voltage side of the distribution substation transformers and everything inbetween that distribution point and this generation point and all interconnection points, including the energy control centre.

So those are the transmission assets that we are dealing with to determine the revenue requirement.

So having identified those assets, we then want to determine what is the revenue requirement to provide for those assets.

So here we have a pie chart outlining what the revenue requirement component pieces are. It's important to note that the total revenue requirement is $98.4 million made up proportionately of these pieces. Operating, maintenance and administration, amortization or depreciation, finance charges, a return on equity that we spent a few days discussing, and payment in lieu of taxes.

So these are the component pieces of the revenue requirement. And just a little more detail, the operating and maintenance and administration costs are the total costs to operate, maintain and administer the transmission business unit in providing service. Inherent in that, it includes an allocation of corporate OM&A costs net of services provided between the business units. And Ms. MacFarlane spoke about that this morning in response to Mr. Bremner.

The amortization, or more colloquially referred to as depreciation is the expired transmission service costs of assets. And in the calculations provided it's done on a straight-line depreciation basis with varying asset lives.

The finance charges are based on NB Power's total existing debt and new debt. And they include in it a consideration of foreign exchange, differentials on past debts in order to get them to the equivalent rate today. And Ms. MacFarlane can talk about that in greater detail.

The return on equity, 11 percent based on 65/35 debt equity ratio. And again, we have heard plenty of that in Panel B's evidence.

And then payments in lieu of taxes, which has been some discussion on and Ms. MacFarlane can deal with more, are equivalent to the taxes that would be levied for a for-profit corporation.

So again that adds up to $98.4 million. So we want to collect that $98.4 million. To do so, then we have to look at what are the services that the transmission unit provides to customers.

Well we have outlined here five services. First of all, generators need to be connected to the system. So there is some service to actually provide that only connects generators to the system, they should pay those particular costs.

The two main transmission services, point-to-point service or network integration service are the two major transmission services. But in addition, we have scheduling, system control and dispatch, which really relates to the energy control centre operation of the system and the OASIS management and the delivery of service. And ancillary services that come from generation sources, which are all the reliability-based ancillary services, which we will talk about later.

Now this slide I know you have seen before. But being an old school teacher, I know that a little bit repetition doesn't hurt. And I am sure Dr. Sollows will agree with me on that.

So just to run through the two key services of transmission are point-to-point. And really point-to-point service means you inject into the system at one point, you take it out at the other. It's essentially a pipeline through the system without any variation.

Network integration service on the other hand allows multiple inputs to get to some level of input you need, and multiple exit points out of the system. And the totals of the two have to be in balance, but you can inject at any point in the system and take it out at any point in the system. And again, I want to reiterate, and it's very important relative to some of the evidence that we will be going through in the next few days next week, that these two services are at the discretion of the customer to choose. It's not obligatory that you take one or the other. It's the choice of the customer which service best fits their load and their requirements.

Now once we defined the total revenue requirement, we then need to then allocate a share of that revenue requirement to each of the services. And this is the issue of cost causation. Which portion of the revenue requirement is caused by which services and is a reasonable allocation for that service.

Now to do that, the first major step then is we identify the revenue requirement for specific physical assets and asset categories. I'm giving you an example. A transmission line, we have the information on each specific line, what the costs of that line are. So amortization is specific to a particular transmission line. But operating, maintenance and administration costs are not accounted for for each specific individual transmission line. So they need to then be allocated some way to the different lines, because lines may be used for different things.

So to do that we allocate the total OM&A costs to each specific asset based on the gross book value of that asset. So this is just an allocation method to get a share of OM&A to the assets.

Now the reason we use gross book value is that older lines may require higher maintenance, so that using the gross book value is a better indication of allocating costs to those lines than net book value would be.

The next point, finance charges and rate of return, payment in lieu of taxes. These things are allocated based on the net book value. Now again, considering that amortization can be charged directly to an asset, finance charges being the interest and return on the amount of book value of the asset is reasonable that it be allocated then on the net book value.

Given that we have done all of that, we now have the revenue requirement associated with all of the different assets in the system. We then need to then associate those revenue requirements for assets to the specific services. In other words which assets are used to provide a particular type of service.

So on that basis some of the assets can directly assigned to certain services. For instance, the energy control centre costs are used specifically for operating the system. So they are assigned to the scheduling system control and dispatch ancillary service.

There are some generation connection costs again which could be allocated as direct charges to generators. Now we can see in this next slide we are back to our diagram which is the -- again, the diagram of the system we started with earlier.

And here we can look at that particular generation substation transformer really connects the generator to the system. It's not used by anybody else in the system. It's only used by that generator to get its power into the system. That the costs and the causation of it is to get the generator connected. The charges of it should be charged to the generator. So the generator step up transformer costs, the synchronizing breaker costs on that line in between that gets the generator to the system are then allocated directly to the generator connection function.

Now having done that the remaining blue portion of this transmission system then is the transmission system assets and revenue requirement which are -- then provide the transmission services, point to point and network service.

Now that's the total revenue requirement for point to point and network services. But in order to determine a rate, we need to do a couple of things first. We net out miscellaneous revenues and we determine the usage of point to point and net worth, and then we can allocate this between the two. And this is best explained on the next slide.

Now we start with the 98.4 total -- million total revenue requirement, the cost to the energy control centre of 4.4 million is assigned directly to the scheduling system control and dispatch.

The generation related connection assets, the generation step up transformers, the synchronizing breaker and that line, are allocated and assigned directly to the generator connection function. That's $9.6 million. We take those off the 98.4 and it leaves us with 84.4 million being the cost of that transmission system on the previous slide.

Next slide. Now the 84.4 million is the amount -- the revenue requirement of the transmission system for point to point and network services. But there is different types of point to point and network services. So that the standard FERC Order 888 pro forma allocation process is that you take the miscellaneous revenues from short term point to point, whether it's firm or non firm, whether it is short term revenues that you don't have any assurance of long term value on. And they may change year to year. You do a projection of those and you subtract them first from the 84.4 million to get to 76.3 million to be allocated between the two.

Now this 8.1 million is the point that Ms. MacFarlane spoke about this morning that there is significant risk in that $8.1 million. And as a fixed cost system that is -- doesn't change with variation or usage on the system. If there is a reduction of that, it comes strictly out of net income which is only about 13 million, which gives you an indication of the risk associated here.

Now given that we then get a net. We have $76.3 million now left to be assigned between long term firm point to point and network integration service. So how do we do the allocation between those two?

Well we do it based on the usage of those two types of services. Now here in this slide we look at and we see that the total usage of the system is 2,820 megawatts. It's made up of the actual reservations for long term point to point. So this is the reservation capacity that has to be set aside for those contracts.

The network usage or the inprovince load on the system is the average of the 12 monthly coincident peaks across the system. That's the 2,100 megawatts. So the total usage 2,820, 720 for point to point, 2,100 for network. That's what the usage is.

What we can then do is allocate the 76.3 million proportionately between those two services based on those usages. So 720 divided by the 2,820 gives us a long term firm revenue requirement of 19.5. The 2,100 divided by the 2,820 megawatts gives us a network integration revenue requirement of 56.8.

Now on a risk point of view there are a number of long term contracts here. Although there is some risk associated with the request of Emera to open that up to an open season, that some of these contracts may not exist for as long a term as they currently are under, so there is an issue here. On this one, on the network integration there is a risk associated with that in that there is load variation risk in the system.

And that's different than the FERC pro forma, I might add. In the FERC pro forma you -- and as was done in Hydro Quebec, as Dr. Morin explained, the 56.6 million would be a direct pass-on to all customers. And the rate may change each month slightly. You collect the amount of money you require and the usage is immaterial. So it changes. So the actual rate would change month to month. You collect the amount of money that you need.

What we are doing is determining a rate. And the risk of collection of it rests with the transmission corporation. Customers then clearly see and know what they are going to pay for what usage they have.

And then we have to define a billing determinant. Now, again, as I have said, the billing determinant is what is the metric you use to measure the usage of the system. And for transmission it's a demand they service, so we are using kilowatts of demand as the billing determinant.

For point to point reservations, customers reserve a space to deliver a certain amount of power across that system. So there the billing determinant is the amount of reservation capacity. So they are expected to pay for that capacity whether they schedule energy across it or not. Because it has been set aside for their use, specifically for them. So they pay based on the reservation.

For network load we are using non coincident peaks. And the non coincident peak demand is in actual fact recommended by market design as the metric to be used. It is the same metric that's used today to bill all customers that are eligible to take service under this tariff. Large industrial customers are billed based on their non coincident peak demand.

Saint John Energy and the other municipal customers are billed based on their non coincident peak demand. Now the point though I want to make is that the allocation of costs is done based on the coincident peak numbers. But the actual billing because it's based on non coincident peak, the sum of all of these non coincident peaks adds up to more than the 2,100. In fact it adds up to 2,571.

So we now have our billing determinant then of the firm reservation 720 and the monthly net non coincident demands at 2,571. We are now ready to calculate rates.

Now the rate design under the standard FERC pro forma tariff is a postage stamp rate design. And by postage stamp what we mean is there is an analogy to the postal system where you buy a stamp, you put it on a letter. And whether the letter is being delivered to somebody else in the neighbourhood a few blocks over, or whether it's being delivered across town, or it's being delivered from Saint John to Edmundston, or Saint John to Moncton, the same stamp covers the rate. So that all customers in the system pay the same rate regardless of where they are located in the system on the transmission system.

Now to calculate those rates we simply need the total revenue requirement for that service which we have now determined divided by the billing determinant. So for point-to-point it's 19 and a half million divided by the 720. So we get $27.04 a kilowatt year. And if we break that down to monthly, it's $2.25 kilowatt month.

For network integration, the total revenue requirement of 56.8 million divided by the 2,571 megawatts, we get $22.08 a kilowatt year, or a $1.84 a kilowatt month. It's a simple calculation.

Now that gets us to the annual rates for the two services. But point-to-point service does not require an annual subscription. Point-to-point can be reserved under a shorter term basis. So to accommodate that, monthly point-to-point service and weekly point-to-point service are simply prorated from the annual. That means monthly service is the annual rate divided by 12. The weekly rate is the annual rate divided by 52 weeks in a year. For daily and hourly services, however, there is a premium included in the rates. And that premium is there to reflect the value of on-peak usage of the system. And to discourage the fact that if you can wait and just reserve the transmission at a very short period, you could cherry pick the right times if it's on a average basis. So you need to reflect that and avoid -- discourage cherry picking and reflect the value.

So we use the FERC approved Appalachian approach of allocating daily and hourly with this premium. And that approach is that the daily on peak rate essentially is the weekly rate divided by five. And that reflects the fact that there are five business days in the week and that there are five days where the loads are higher, demands may be slightly higher, so that a daily one is then reflected as five days -- business days in a week as opposed to seven.

And then on an hourly basis you take the daily rate and for on peak hours you divide the daily rate by 16. And again that reflects the fact that most electrical systems the on peak period is from 7:00, 8:00 o'clock in the morning until 11:00, 12:00 o'clock at night. The eight hours when everybody is sleeping and usage is lower is considered off peak. So it reflects the on peak value of the service.

Now having designed all of our rates this slide shows the comparison of rates, and this was responded to in an interrogatory that compares rates with others, and you can see here the rates range from -- this is Hydro-Quebec's old rate which they are still operating under. And we go from the $71 down to a low rate of 23. You can see NB Power's rate application before this Board at 27.04 is a very attractive rate providing for a very economical and reasonable service to customers, certainly in comparison to these other systems.

Now that's the first part of the presentation which is the detailed process, the seven step process that we go through. I'm not going to repeat this whole process for the generation related ancillaries, but I do want to give you some of the specifics that differentiate it from the others.

We really use the same process but the key is how do we determine the revenue requirement for these generation related ancillaries?

First of all I want to just summarize what they are. The -- and there has been some discussion of these in Panel D I believe, it went through. But there is reactive supply and voltage control, this is in order to be able to keep voltages on the system well at the right point, so that our furnace motors don't burn out and our TVs work and our computers all work. So this is about quality of voltage on the system. And generators have to respond to be able to do that.

The remaining services all relate to capacity of generators, supplying capacity to the system. So they are the ones that are the capacity based generation services.

The regulation is the AGC or automatic generation control to keep the frequency in line. Load following is to change and vary the load through the hour to track the load. Operating reserve, that is spinning and attached to the system. And then the two supplemental reserves that have to respond in 10 minutes or 30 minutes.

All of these services really are the glue that hold the power system together so that it can operate reliably to provide reliable service to customers. And they come from generators.

Now there are different methodologies we could use to look at pricing these services. One would be embedded costs. And embedded costs could over or under value the resource depending upon the nature of the generating resources that exist in a system.

Also the issue with embedded costs is that it requires confidential data of -- from the generators which in a market place is of significant commercial value.

You could use short-run marginal costs. And people have talked about this. This would simply be what is the incremental energy cost or the cost just on the margin of providing the service. The difficulty here, these are difficult to measure, they are highly variable and they provide inadequate incentives in order to operate the system. One of the other issues with this is that short-run marginal costs will under value the service because they will not give a contribution to capital costs of the system, which is important.

You could go to market based prices, where if you have an efficient market suppliers could simply bid a price, say, I'm willing to provide this service at that price. And then you take the lowest price who is willing to provide in the market.

The issue here is that in New Brunswick, NB Power having the majority of the generation, and in particular most of these services being supplied from the Mactaquac station and the Coleson Cove station, just the owners of those two stations, even if all the generators are sold off separately in New Brunswick, there is still an issue for market power here because there is a very thin market and not a lot of competitive suppliers to participate.

So then we come down to long run marginal costs being what are they -- or proxy units, what are reasonable units that could provide these services and what are the costs of those particular units and can you line those up with services?

Now we have in this application have submitted a methodology using long run marginal costs or proxy units. We think that that approach provides an adequate compensation to the supplier which is going to be predominantly -- in this case the regulated supplier is NB Power Generation who are going to have to back stop the resources for this ancillary service. It provides an adequate compensation to NB Power Generation. It will mitigate the market power that NB Power Generation has in supply these services because the pricing of ancillary services that would be approved by this Board is a maximum. It's a cap on what those services can be charged. It's not a final rate. It's a cap at which the services can be charged. And we will talk about that later.

It's transparent. It will give -- everybody will see what the numbers are. You can see what the rates are. So you have transparent charges. It's not site or system specific. It's predictable. It provides reasonable rates so customers see what they are.

So in determining this then we -- if we are using a proxy method, we need to determine what proxy units actually will provide the service.

Reactive supply and voltage control comes from the ability of synchronous generators to vary their reactive power output. They influence voltage. So it comes from having outfitted as -- first of all as being a synchronous generator and having a voltage regulator and voltage control so that they can vary their var output to regulate on the system.

Now as a proxy unit a portion of generators all are built with these costs in, but if you want to supply this service as a separate service you would do it with a synchronous condenser, which is just a synchronized -- a synchronous generator essentially just operating to provide vars to the system.

The other services are all the capacity based services. Regulation, load following and spinning reserve require that a generator be synchronized and operating on line in the system to provide those services, because they are instantaneous services that are provided that are there.

So a combined cycle gas turbine power plant today is the most reasonable power type generator that would be on line and operating and in the power system on the margin.

That type of unit then is a reasonable proxy to provide these services.

For supplemental reserve that can be synchronized within 10 minutes or 30 minutes, simple cycle gas turbines that have quick start capabilities, they can be off line and not operating but they can be started up and loaded up within 10 minutes or 30 minutes. They are reasonably proxy for that type of service.

Now in setting up those proxies they simply determine what is a reasonable proxy to provide the service. My question is what are the revenue requirements associated with the service? We need two things. We need to determine the revenue requirement of a proxy unit. So we start with determining the total revenue requirement, and then we reduce that revenue requirement from different contributions. Because all generators have voltage regulators and can provide some source they are going to get paid some value for providing reactive supply and voltage control. So we don't want to double count any money that they are going to get paid. So we take out any credits they are going to have for reactive supply and voltage control from the total costs of the proxy unit.

We also take out any credits that they would get from installed capacity of being able to provide capacity to the market place under installed requirements. That's subtracted from their total revenue requirement.

And in addition we subtract a portion of their total revenue requirement because these proxy units would not be built solely to provide ancillary services but will be built to operate in the market place and provide energy, a reasonable period of time and maybe some ancillary services. We again reduce the total revenue requirement by a portion of energy production to simulate what they reasonably would expect in a market place. Because at high load periods we would expect we would need near their full costs, but in low load periods there are multiple generators that would be available to provide these. So you would expect a lower portion of costs at that time. So we have reduced it for this portion.

Now that gets you to what the revenue requirement is for each of the proxy units. We then need to know what the total requirement in megawatts is for each service, and you multiply the rate from one by the other to get a total revenue requirement for providing the service.

That total revenue requirement then can be divided by the billing determinants, which are the same billing determinants that we have used for the other services, for the basic transmission services. And you get ancillary service rates.

In here we see a summary of the rates and these are all provided in the evidence. Each individual rate is available. Customers can -- and the reason that each of the individual rates are provided in the tariff is that again it is customer's choice whether they want to take all of the services or part of the services. They can self-supply some. They could contract independently with others to supply them.

These are the default prices of the services as provided from the transmission provider. In other words, these are the default prices for the services that NB Power generation will be obligated to provide to customers in the marketplace.

And again it is very important that these rates specify the maximum charge. If a customer can self supply and wants to self supply the services, then there is the opportunity for the transmission provider to discount say one of these services, let's say supplemental reserve at 74 cents, to discount that service to a lower value in order to compete then with somebody who could self supply. So again these are caps in the marketplace.

So in summary, what we have in our tariff proposal is that we have designed rates that recover the revenue requirement, that produce just and reasonable rates without undue discrimination. They are -- they will support implementation of the market. They are just and reasonable, not just for customers inside New Brunswick. They are just and reasonable for customers outside of New Brunswick. And they are compatible with the industry standard FERC pro forma tariff which was the recommendation of the market design committee.

And in summary the point-to-point service at $27 a kilowatt year, the network service at $1.84 a kilowatt month, and the network service with all of the ancillaries included, assuming a customer takes all of the services, would be $3.11 a kilowatt month.

And that concludes my presentation. Thank you very much.

CHAIRMAN: Thank you, Mr. Marshall.

MR. HASHEY: Mr. Chairman, I have one -- only one additional item. I have, as you could see to your left, a steps of design process which is no more than what is on 4. But I thought it is good to have it here. It really focuses I believe us all on what really we are trying to do with this panel. And it outlines it. It is identical to the wording on 4. If it is permissible, I would like to have that present here. And I have copies. If you would like it I would even ask to have them marked if it would be required. There is nothing new in it. It is just a good focus I think.

CHAIRMAN: Well if you want to mark it, Mr. Hashey, that's fine.

MR. HASHEY: Could we do that? I have copies and I could distribute copies. There are lots for everybody.

CHAIRMAN: Sure.

MR. HASHEY: There are additional copies at the back of the room but we will circulate them as well, Mr. Chair.

CHAIRMAN: And that will be A-27. Well unless there is something else my understanding was that we would have this presentation and then we would adjourn to Monday. Is that correct, Mr. Hashey?

MR. HASHEY: That is correct, Mr. Chairman.

CHAIRMAN: All right. I wish you all a good weekend and hopefully the storm will abate and we will see you Monday morning at 9:30.

(Adjourned)

Certified to be a true transcript of the proceedings of this hearing as recorded by me, to the best of my ability.

Reporter