H.R. 21 1

THE ONTARIO ENERGY BOARD 2

IN THE MATTER OF the Ontario Energy Board Act, R.S.O. 1990, Chapter 0.13; 3

AND IN THE MATTER of a reference to the Ontario Energy Board by the Minister of Energy in respect of the proposed bulk power rates or charges of Ontario Hydro for 1993. 4

Hearing held at 2300 Yonge Street, 25th Floor, Hearing Room No. 2, Toronto, Ontario on Thursday, June 18th, 1992 commencing at 9:00 a.m. 5

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VOLUME 14

B E F O R E : 7

O.J. COOK THE VICE-CHAIR/PRESIDING MEMBER

C.W. DARLING MEMBER

R.R. PERDUE, Q.C. MEMBER

E.J. ROBERTSON MEMBER

(i) 8

A P P E A R A N C E S 9

10

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PAUL ROULEAU)	ONTARIO HYDRO
BRUCE CAMPBELL)	
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PETER BUDD) JOHN LOWE) ROBERT T. BOOTH)	NORTH CANADIAN POWER; LAKE SUPERIOR POWER

I N D E X o f P R O C E E D I N G S

Page No.

- Borrowing Panel -

FELIX CHEE;

BRUCE BOLAND; Sworn. 2708 [21]

Direct Examination by Mr. Rouleau 2708 [21]

Cross-Examination by Mr. Goudge 2717 [74]

Cross-Examination by Mr. Mondrow 2795 [558]

Cross-Examination by Mr. Anshan 2802 [605]

Cross-Examination by Mr. Smith 2811 [663]

Examination by Mr. Perdue 2850 [896]

Examination by The Vice-Chair 2853 [914]

L I S T o f U N D E R T A K I N G S

No. Description Page No.

8.3.1 The Borrowing Panel undertakes to provide an analysis of the cost for reducing the threshold to $45 million and $30 million on a scenario of no upward advantage to Hydro and of some upward advantage to Hydro. 2824 [744]

20

Was page 2708 21

---Upon commencing at 9:04 a.m.

THE VICE-CHAIR: Please be seated. Good morning ladies and gentlemen. Any matters to be dealt with before we get to the new panel? 22

MR. GOUDGE: None that I know of, Mr. Chairman. 23

MR. ROULEAU: None, Mr. Chairman. 24

THE VICE-CHAIR: All right. Mr. Rouleau, will you call your next panel and they should come forward and be sworn by Mr. Perdue. 25

MR. ROULEAU: Thank you, Mr. Chairman. 26

If you could go forward and be sworn starting with Mr. Felix Chee, C-h-e-e, who is the Treasurer for Ontario Hydro. 27

And now being sworn is Bruce Boland, B-o-l-a-n-d, who is the Section Head, Financial Forecasts of the Short-Term Financial Planning Department of Hydro. 28

FELIX CHEE; 29

BRUCE BOLAND; Sworn 30

THE VICE-CHAIR: Go ahead with your direct examination, Mr. Rouleau. 31

MR. ROULEAU: Thank you, Mr. Chairman. DIRECT EXAMINTION BY MR. ROULEAU: 32

Q. If I could start with you, Mr. Chee, and ask you to tell me how Hydro plans to meet its borrowing requirements in 1992 and '93 and, also, to advise if there are any major differences in the borrowing plans between this time and a year ago at this time? 33

Was page 2709 34

MR. CHEE: A. The financing strategy for 1992 is filed as Exhibit 8.1.3. The update of the strategy can be found in Exhibit 8.1.5. In 1991 capital market conditions were generally favorable and the Canadian dollar was relatively strong. These favorable market conditions permitted Hydro to complete four global Canadian dollar issues totalling four and a quarter billion in 1991.

35 At the time of preparing the 1992 Corporate Financing Strategy, we anticipated more difficult capital market conditions in 1992 relative to that experience in 1991. The less favorable market environment was expected as a result of uncertainties about government deficits, about the Canadian constitution, and the outlook for the Canadian dollar. Such conditions did, indeed, exist throughout most of the first quarter of 1992 and on to the end of April of this year.

36 Since then the Canadian dollar has stablized around 1.2 Canadian dollars per dollar U.S. or about 83.3 U.S. cents per Canadian dollar. The market has generally received government expenditure controls favourably and constitutionally, negotiations have not been the focus of the market particularly overseas.

Was page 2710

37 As a result, the demand for Canadian securities is now more favourable than we anticipated at the time that the strategy was being prepared. This more favourable environment has allowed Hydro to substantially complete its 1992 borrowing program. To date in 1992 Hydro has completed about 4.1 billion or about 90 per cent of its 1992 requirements.

38 We continue to view the strategy of being ahead of pace but while at the same time being prepared to employ a flexible approach, if necessary, as one that is both appropriate and prudent.

39 The close co-ordination between Hydro and the provinces borrowing programs and the extensive monitoring of major capital markets will continue accordingly.

40 At this point the financing strategy for 1993 has not yet been developed. This will be done in the fall of this year.

41 Q. Mr. Chee, has your borrowing plan been changed since the release of the Ontario budget on April 30th, 1992?

Was page 2711

42 A. Our basic approach to borrowings in terms of accessing capital markets in 1992 remains unchanged. However, the favourable reception of our latest global Canadian dollar issue and that of the provinces global U.S. dollar issue each for $2 billion suggests that Hydro's 1992 requirements will be met comfortably.

43 Q. And what is your plan for managing the cost of borrowing?

44 A. As in 1991, we will continue to use delayed and advanced rate setting techniques to separate the timing of bringing new issues to the market, from setting the interest rates on these new issues.

45 In an uncertain interest rate environment these techniques permit us to diversify interest rate risks associated with large size bond issues.

For 1992 our basic strategy is to set the interest costs on the '92 borrowings more or less evenly over 46
a five quarter period starting from the last quarter of 1991 ending, obviously, in the last quarter of 1992.

However, this does not preclude our taking advantage of some unusual opportunities to set rates at 47
a lower level if market conditions prove to be better than expected and more predictable.

Was page 2712

Q. I could turn to the question of bond calls, Mr. Chee. As I understand it Hydro calls some of its 48
existing bond issues when they meet a certain criteria of cost savings. How many issues did you call in 1991 and how many to date in '92?

A. Hydro exercises its call options on the callable bonds when a significant fall in interest rates 49
provides a cost savings greater than 50 basis points or half a per cent, and if the refinancing of the calls is not expected to adversely affect the successful overall completion of the borrowing program.

In 1991, five U.S. issues totalling U.S. 543 million were called and refinanced achieving a total 50
savings of $23 million in present value terms.

To date, in 1992, Hydro has called a total amount of about 126 million, which consist of an issue 51
of U.S. 66 million, and a 46 million Canadian issue, producing a total estimated savings of approximately 4 million in present value terms.

Q. Now, Mr. Chee, turning to the Foreign Exchange program, can you tell us how Hydro plans to 52
manage its foreign exchange exposure in 1992 and 1993?

A. The 1992 and '93 foreign exchange strategy is filed as Exhibit 8.1.6. Our foreign exchange 53
management strategy for '92 and '93 is similar to that of '91, based on the foreign exchange management policy, which was filed as Exhibit 8.1.6 of HR 20.

Was page 2713

The main focus of our foreign exchange program is to protect the Corporation's net income and 54
balance sheet from a significant decline in the Canadian dollar. To do this, Hydro has established tolerance levels, or thresholds, which are levels of adverse impact on both the net income and balance sheet of a falling Canadian dollar that Hydro is prepared to accept.

Exhibit 8.1.6 provides a strategy to hedge the 1992 and '93 exposures. The 1992 net income hedging 55
was completed in the fall last year and has produced a positive variance of $20 million from the rate finalization forecast at that time. Hedging activities, notably through break-even hedging during 1991, bring the total U.S. dollar principle hedge to approximately one-third of the U.S. debt principle at the end of 1992.

In addition, Hydro actively reduces its foreign exchange exposure on existing foreign debt by 56
swapping all foreign currency issues into Canadian dollar liabilities.

Was page 2714 57

By the end of 1992, Hydro's foreign currency debt is expected to decline to about 16 per cent of total debt compared to 21 per cent at the end of 1991. If we include hedged foreign debt, Hydro's net unhedged foreign currency debt is estimated to represent only about 10 per cent of Hydro's debt at the end of 1992.

58

Q. And if I can just cover one last area with you, Mr. Chee, and that relates to performance measures. And could you advise the Board how you measure and report the performance of your borrowing in foreign exchange programs?

59

A. The performance of the borrowing program is expressed in terms of the impact of Hydro's debt service costs when compared against the benchmark of borrowing in the Canadian public market at what we call an even pace.

60

Performance is also measured against the pace defined by the strategy. Performance is reported daily within the Treasury Division. The performance of the foreign exchange program evaluates how the actual hedging was done against the approved hedging strategies. As such, it measures how well the Corporation was protected within the improved parameters of the strategy.

Was page 2715 61

During 1991, work was carried out focusing on two key areas. One on Program Management concentrating on what products are needed and, therefore, what work should be done. And, secondly, on the Treasury Management system which emphasizes improving the efficiency of the process for each product of program.

62

The work in these two areas is moving ahead with dedicated teams.

63

Q. Thank you, very much, Mr. Chee.

64

If I could turn to you briefly, Mr. Boland, and ask you to comment on the 1993 borrowing level as it appears in the rate submission.

65

MR. BOLAND: A. Ontario Hydro's forecast borrowing requirements in the rate submission for 1993 is about $4.3 billion. The refinancing of maturing debt represents over 70 per cent of this borrowing requirement in 1993. And the remainder, about 1.3 billion, reflects the requirement for new financing.

66

The requirement for new financing is primarily due to capital expenditures and is offset by internally-generated funds. The requirement for capital program costs has been addressed by the OM&A and Capital Panel.

Was page 2716 67

Q. And has this borrowing level changed with the updated outlook?

68
A. Yes. The changes to borrowing are outlined in the supporting schedules of the update document filed on May 25th. That is Exhibit 1.1.4, table 1-2. A further update was filed on June 12th, and the borrowing impacts were provided on page E-1.

69
As a result of these updates, the 1993 borrowing level is essentially unchanged from the rate proposal, decreasing about $7 million. It is reflecting a lower net income contribution, which increases borrowing, offset by lower capital program costs.

70
Q. Now, could you compare expected borrowing in '92 to the level forecast for 1993?

71
A. Based on the June 12th updated outlook, the borrowing requirement for 1993 is expected to decline from the 1992 level by about $342 million. This is primarily due to lower capital program costs and increased funds from operations offset by a higher level of maturing debt.

72
MR. ROULEAU: Thank you, Mr. Boland. Mr. Chairman, those are my questions.

73
THE VICE-CHAIR: Thank you, Mr. Rouleau. Mr. Goudge?

Was page 2717 74

75
CROSS-EXAMINATION BY MR. GOUDGE:

76
Q. Mr. Boland, just to put a precise number on the June update, the figure on page E-1 of Exhibit 1.1.4, the June 12 update, shows borrowing declining by $239 million in 1992. That, I take it, is the product of the most recent change?

77
MR. BOLAND: A. Yes, in 1992 a decline of 239 million for the June update.

78
Q. That leaves us back virtually where we were at the time of filing for the total borrowing? I haven't done the math, but --

79
A. It leads us in that direction. We are down about $141 million from the time of the main submission filing.

80
Q. So you went up in the May filing and went down in the June filing?

81
A. That's correct.

Q. Yes. Now, dealing with the pace of the program, Mr. Chee, you spoke of that in your evidence in chief, and I understand you to say that as a result of the major issue that you did last week, you are now about 90 per cent complete on your current year's program; is that right? 82

MR. CHEE: A. In terms of issuance, in other words, in terms of bond issues done, certainly we are 90 per cent complete in meeting those requirements. But ratesetting, in other words setting the cost of the program, continues to be at approximately an even pace, based on the strategy of averaging over five quarters. 83

Was page 2718

Q. Okay. I will come to that, because I am not sure I understand that. But certainly in terms of the face value of the debt you have placed, it must be around $4 billion about now; is that right? 84

A. That's correct, $4.1 billion. Sorry, in terms of the debt issued, yes, $4.1 billion. Sorry. 85

Q. And I understand, and I understand it only from the newspaper I am afraid, but the issue that you did last week was expanded from your plan when you went to the market by about half billion dollars; is that right? 86

A. That is correct. 87

Q. And I take it, that was due to the reception of the issue? 88

A. The demand for the issue was better than we expected, as when we went into it, yes. 89

Q. So that when you went into the market last week, your intention was to get your program up to about 3.5 billion, on its way to completion. And you ended up at about 4 billion; is that right? 90

A. When we went into the specifics of launching that issue, the estimate from the market was that a size of 1.5 billion at a minimum could be done. There was always a recognition that if the reception to the issue was more favourable than was expected, a higher size could be done. 91

Was page 2719

We had incorporated that outcome, or that potential outcome, as we went into the launch, so that $2 billion that was finally done was not a surprise; we knew that there was a fair probability that that might happen. 92

Q. That leaves you with, and I haven't done the math, but something under half a billion dollars to do during the remainder of the year; is that right? 93

A. About approximately half a billion. That is correct. 94

Q. Do you have a single issue planned to take up that difference? 95

A. The program of borrowing, as we have indicated, basically tries and gets the issues done ahead of pace. To complete the '92 program, we anticipate that one issue will complete the program. 96

Having said that, it is likely that further issuance would be done in 1992, primarily, therefore, at that time to meet '93 needs, if indeed the strategy is to remain ahead of pace. 97

Was page 2720

Q. I am going to come to getting ahead of pace in a moment, but let's just deal with how you would get to your 1992 target. I take it, you are contemplating one further issue, and let me guess, it will be a global Canadian dollar issue? 98

A. For 500 million, it will not likely be a global Canadian dollar issue. In that market, we feel that the minimum size that needs to be done now is about a billion dollars. So it is more likely to be a domestic issue, or a Euro Canadian issue, or some other issue, but certainly not -- 99

Q. Not global? 100

A. -- likely to be a global Canadian. 101

Q. I see. Now, you spoke a little as to your evidence in chief as to why it was that you are really quite ahead of pace, as of this point in the year. And I take it that you attribute that to three factors: the stabilizing of the Canadian dollar; a marketplace analysis of government attitudes towards deficits; and a constitutional -- either nobody noticing the constitutional discussion, or not caring about them. 102

Do I understand your evidence in chief to essentially earmark those three factors as the factors that allow you to get ahead of pace? 103

Was page 2721

A. Those three factors have certainly contributed to markets, both domestically and internationally, being more favourable or being more constructive, in terms of their demand and their reception to Canadian dollar securities. 104

I might add one other factor, which probably I didn't cite, is that there is a growing recognition by the market that the inflation performance of the Canadian economy has been good, and that if that continues to sustain itself, the market is -- and the market anticipates that, and therefore they are much more constructive about their reception for Canadian dollar denominated securities. 105

Q. Now, to back up to your general approach to pace, the Corporation's philosophy on the borrowing side that you have enunciated is to try to get ahead of pace, or be ahead of pace, as much as possible; and as I understand it, recognizing that you have got to be responsible. That in a nutshell, I take it, is your approach? 106

A. That is correct. 107

108 Q. Now, can I try it this way? Would it be your policy to try and move as much ahead of pace as the market will permit? That is, given that you want to be ahead of pace as a norm, will you push the market always as far as you can?

Was page 2722

109 A. I am not quite sure I understand your question, in terms of --

110 Q. Well, you go to market with a $1 1/2 billion issue and the market tells you, we will take 2 billion. If they told you, we will take 2 1/2, would you have done 2 1/2?

111 A. For this specific bond issue that we did a week ago, we set the maximum that we will do at 2. So in other words, if the market could have done 2 1/2, we would have still capped it off at 2.

112 Q. What holds you back?

113 A. It is not so much as holding back as one of the tactics that we will use is that it is always better to leave some demand unsatisfied. So in other words, if the market is demanding 2 1/2, or the market can take 2 1/2, tactically what we would do is to say, we will raise the issue size from 1 1/2 to 2, but we will not fill that 2 1/2 demand, because what that does is ensure that, in fact, supply is less than demand; that the takeup of the bonds would be good, and that we can therefore do it at the lower end of the indicated pricing range.

114 Q. Suppose I could change the numbers on you, and I don't know whether this changes the analysis at all, but if the market told you, we will take a great deal more than 2, we really like this issue, so that you could have done more than 2 and still left unfulfilled demand, is there anything else that would have held you back at 2?

Was page 2723

115 A. Yes. As I said, we separate between doing the issue and setting the rates. Setting the rates means that we have to hedge the issues, so that we can defer ratesetting, in this particular case; the cost of when we actually fix the cost of this issue.

116 There are going to be limitations, in terms of market capacity, to get the hedging done. So, for example, following along the lines of what you just said, let's say the market could take 3 billion, and we could say, well, if we did 2 1/2 billion, there were still be unsatisfied demand. It might be very problematical to try and hedge that kind of size. So we have to be cognizant at any point in time, in terms of what the market demand is, what we want to do, and how we can actually hedge the issue out.

117 Q. Just to be sure I understand, the hedging you are speaking of is the hedging you need because you haven't yet fixed the precise premium on the bond. You do that in the five quarter mechanism that we are going to talk about in a few minutes?

Was page 2724

118 A. The hedging that we do is in order to be able to set the ratesetting on this bond, the cost of this bond--

Q. After you issue it? 119

A. --after we issue it, as opposed to at the time of issue. 120

Q. Right. Now, let me come to the preborrowing; that is, the borrowing against 1993's program, that you raised a minute ago. I take it that the company has, in the back of its head at least, borrowing in 1992 against the 1993 program? 121

A. It is certainly an option that can be exercised. 122

Q. It is referred to in your material, and I don't ask you to turn to this but just for the record, at 8.1.5, attachment B-1 and B-2, where you enunciate a couple of strategies; both of which show you borrowing a billion dollars in calendar '92 against the 1993 program. I take it that it is that order of magnitude that your strategies contemplate? 123

A. Could you repeat that, please? 124

Q. 8.1.5, attachment B-1 or B-2. 125

A. Got that now, yes. Thank you. 126

Q. Both those strategies, Mr. Chee, show as I read them, a billion dollars preborrowing for 1993, shown in your 1992 borrowing plan strategies. It is the number in the box, in each case, in the upper righthand part of the page? 127

A. That's correct. Was page 2725 128

Q. I mean, that is the order of magnitude, I take it, you would contemplate getting ahead and getting into 1993's program. 129

A. The general planning assumption is that we would probably preborrow, or we plan as a planning assumption, to preborrow about a quarter ahead. 130

Q. And I take it, that is driven by your assessment that market conditions, including current premium prices, are pretty advantageous; is that right? 131

A. No. I come back again to what I said earlier. By using advance and deferred ratesetting, we have separated timing or issuance from costs. So we are able to set the costs of the issue quite separately from when the issue was done. 132

133 The strategy remaining a quarter ahead in terms of issuance is simply to be prudent and make sure that issues get done, and when markets allow these issues to get done because to avoid getting into situations where either because of political issues, other market factors, government deficits, for example, coming back again, that we find that we in fact end up over a period where no issuance can be done.

Was page 2726 134 Q. And your rule of thumb would be to get ahead by a quarter of a program if you could, but no more?

135 A. I think if you look at the strategy, it allows for a range of either being further ahead or at even pace because it has to take into account what the outlook is and what the anticipated conditions of capital markets are going to be. So we could move as far as two quarters ahead, for example.

136 Q. Have you ever done that?

137 A. Well right now we would be almost two quarters ahead.

138 Q. Well, I mean, my simple mind thinks of it as not being into 1993 yet, although I concede that you would be two quarters ahead, and you just treat advances on 1993 borrowing as a continuum of the 1992 borrowing, and so you might be at the end of 1992 two quarters ahead if the present pace of borrowing continued?

139 A. It is possible if that was the appropriate thing to do, yes.

140 Q. Is there any ceiling that the Corporation has on how far ahead they would get?

Was page 2727 141 A. If one gets ahead then rates, as I said, have to be deferred, to be set later.

142 Q. Mm-hmm.

143 A. There is going to be a holding cost or a hedging cost associated with putting those hedges in to defer the rate set. And we have to take the nature of those costs and the size of those costs into account so that if the holding cost was felt to be too high that would certainly impact on how far you want to get ahead.

144 Q. In reality, Mr. Chee, it would be really unlikely that you would ever get much more than two quarters ahead in your borrowing program; isn't that fair?

145 A. As a practical outcome two quarters ahead would be a reasonable estimate of where we might end up in a kind of maximum range sense, yes.

146

Q. Now the philosophy you're enunciating for us is one where the pace you're at, the percentage of your program that you have accomplished is differentiated or that issue has been separated from the pricing issue; fair enough?

147

A. That's fair.

148

Q. Let me suggest to you another philosophy, Mr. Chee. Suppose I were to assume that long-term rates generally in 1992 and 1993 were at a cyclical low point that would not be achieved for several, for a number of years after 1992-93. If rates were a driver of the amount of issue that you put into the market, isn't it conceivable that you would engage in a much more aggressive pre-borrowing program than the one you have enunciated?

Was page 2728 149

In other words, you might be out there borrowing well into your 1993 or 1994 program in order to take advantage of historically low rates? Is that a philosophy, an alternative philosophy that the Corporation has ever considered?

150

A. I will come back again and make the point that we separate and have delink rate setting. In other words, setting the cost of the borrowing program separately from issuance. So issuance per se does not necessarily set rates. It's a rate setting strategy and the execution of that strategy that sets the rates.

151

One could, of course, take a rate setting strategy on the basis that you have just articulated which is let me set the rates at the time that I feel rates are at their lowest. That is certainly an option that can be done. It is certainly an option that we would have some difficulty with.

Was page 2729 152

If you look at the financing strategy that we have filed, there is some flexibility to get away from a even pace based on an outlook or anticipated changes in outlook for the markets.

153

At this point in time, as I think we have indicated, we are not deviating from setting rates on an even basis. There is just no build-up or there is no -- we haven't reached a stage of confidence in terms of your particular thesis that rates are, indeed, at their cyclical lowest that we are prepared to make that kind of bet at this point.

154

Q. Are you looking at that philosophy though, Mr. Chee, because if one took the view that we are at a historical low point in the cycle, and we may not see this level of rate again for a number of years, it would be certainly to the Corporation's advantage knowing that you will need a regular four or five billion dollars a year? I mean that is the Corporate borrowing program into the future.

155

It would certainly be to the Corporation's advantage to advance your pre-borrowing program very aggressively to take advantage of these low rates whether you set the rate at the time the issue went to market or whether you used a five quarter average. If you assumed that we're in let's say a two year low point, wouldn't that be a strategy that might produce some immediate impacts of a negative kind, but would have very substantial long-term cost savings for the Corporation if my prediction in the hypothesis about long-term rates is correct?

Was page 2730 156

A. If I had the same confidence and, as you seem to be suggesting, we know that rates are at a cyclical low and therefore felt that the risk of making a huge bet on an interest rate call at one point in time was a sensible one from a risk point of view of the Corporation, then that conceivably could be considered.

157

As I said, any bet as you have suggested, will carry with itself a risk. Therefore we have to look at both sides of the equation. In a sense if we could be so confident that we know that rates are going to be at a cyclical low, in your terms, for many years from now, I would suggest that if I had people who could do that they would not be sitting in the summer in Hydro. (Laughter)

158

Q. No, but Mr. Chee do you have any doubt that three years from now rates are going to be higher than they are now?

159

A. I don't know.

Was page 2731 160

Q. What do your economic people say? Are they as uncertain as that?

161

A. I think the economics people have provided a forecast and would say that rates in 1993 might be a tad higher. But I think what you --

162

Q. But I -- sorry, you finish.

163

A. Sorry?

164

Q. I didn't mean to interrupt you. You finish.

165

A. But I think what is important in looking at the forecast is that the forecast is not an absolute forecast. It is one that is framed by a number of assumptions, framed by a number of anticipated events which may or may not occur.

166

Q. So I take it you would not look favourably on my philosophy because you see it to be too risky?

167

A. At this point in time that would be my judgment.

168

Q. If you did come to the view that you had a prediction about long-term rates that you felt confident about, would you reconsider your approach presuming the prediction was that long terms rates are going to be higher than tomorrow's rates? Take a minute for that.

Was page 2732 169

A. If we were more confident about the direction of interest rates then as I said the strategy does allow for some flexibility to kind of get away or deviate away from an even rate setting, and rate set more in quarters where the rates were felt to be lower.

170

If you look at the strategy it has put some bounds on how big a bet in fact can been done, regardless of what the confidence of the outlook was. And that's just prudent risk management.

171

Q. And that is strategy is the strategy that sort of delinks rate setting from issuance and sets rates over the five quarter average?

172

A. Yes, what I'm saying is if you look at that strategy, it does make some allowance to deviate from the even pace of five quarters, but it certainly puts some bounds of what the levels of deviation can be. Thank you.

173

Q. But I mean it is a very, very cautious conservative strategy, Mr. Chee; isn't it, in this sense? First it's major premise, recognizing that you can depart from it, is that the issuance decision is delinked from the cost decision, from the premium you pay. And, secondly, that premium is one that is itself fixed over an average, over a five quarter average. I mean both elements of the policy are very conservative, aren't they?

Was page 2733 174

A. I'm sorry, first of all, you have used the word 'premium' a number of times.

175

Q. Well the premium you fix on the issue is fixed by averaging the rates over five quarters. That's your major policy insofar as fixing the price of an issue is concerned, isn't it?

176

A. I am just having problems with the word 'premium' because I don't quite understand what you mean by 'premium.'

177

Q. Well, the rates you pay?

178

A. The rate that I pay is eventually is going to be set by the rate setting strategy.

179

Q. Which is the five quarter average? That's all I'm talking about.

180

A. Fine.

181

Q. Okay. And all I'm saying is that you have a very conservative approach because it delinks the rate you're going to pay from the issuance decision and the philosophy for setting the rate is itself one built on an average?

182

A. The delinking approach -- in other words delinking the rate setting from the issuance -- was developed because it was recognized that as we went into very large issues like these globals, which were done to in fact expand the investor's base for Canadian dollar securities, that it was very risky to have the rate set on the time of the issue for a large issue.

In other words, if we did not do this rate setting and we did a $2 billion issue like we did last week, Was page 2734 183
the whole rate would have been set on one day for $2 billion worth of debt last week. And that was recognized to be a very risky proposition.

Rate setting or the delinking was developed to diversify and manage this risk prudently. If one wants 184
to call it conservative -- my preference would be that that is prudent risk management.

Q. Just let me close this discussion, Mr. Chee, by asking you whether the borrowing panel has a 185
view on whether interest rates have bottomed out now or whether they are likely to decline even further over the next 12 to 18 months?

A. Relative to the view that we put forward in the '92 strategy , as I said in my evidence- -in-chief, 186
obviously capital markets, particularly in terms of the demand for Canadian dollar securities, is more positive and constructive than we had first envisioned.

However, we feel that the outlook in terms of where interest rates might eventually end up is still 187
uncertain enough that we have not advocated changing or shifting away from an averaging strategy at this time. There well could be if the right things happen or the appropriate things happen that rates would in fact come down later on this year.

What we do in terms of managing the program is to recognize that there's an expected scenario, as Was page 2735 188
we outlined in the strategy, that there are possibilities of other scenarios, and what we do is to try and monitor when we think we may have shifted into another scenario.

What the strategy document or the strategies approves tries to do is to be pro-active in the sense that 189
if in fact there is a shift into another scenario, the action items are already in place and approved so that we can execute the appropriate actions under the change scenarios quickly and efficiently.

Q. So if I said to you in capsule form do you agree that rates are lower now than they have been in 190
quite awhile, and they may at least go lower, I take it you would say yes and we have got strategies that could be put in play if that happens?

A. That's correct. 191

Q. Now, let me move to the rate setting process you used and just make sure I understand it. 192

Would you would turn with me please to 8.1.3, Attachment 1, page 9? Was page 2736 193

A. Yes. 194

Q. Do you have that? At the top of the page, Mr. Chee, the first bullet point sets out the strategy you have talked about a number of times this morning, that interest rates on new borrowings will be set evenly over the next five quarters beginning in the fourth quarter of 1991. 195

Just so I'll understand technically how that works, if you take last week's bond issue, I take it you issue the bond without a rate being attached to it, but with a promise that you will attach a rate at the end of 1992 based on your five quarter average? Is that the way it works? 196

A. No. As far as the buyer of the bond is concerned, he has a fixed rate from us. He has a 9 per cent coupon. The bond was -- 197

Q. Oh, I see. So that is what you are hedging? You hedge in order to -- 198

A. So as far as the buyer is concerned, he has got a fixed contract of a rate from us. 199

Q. Okay. 200

A. What we do is we will go into the marketplace, and basically buy Canada Bonds. By buying Canada Bonds, we basically unlock this fixed rate that we have given to the buyer; because on one hand, when we did the bond issue, if you imagine the balance sheet, we have created a liability on the balance sheet because the bond issue now represents a liability that we have incurred. 201

Was page 2737

By taking the proceeds, in a sense, and using those proceeds and buying an equivalent portfolio of Canada Bonds, we have now created an offsetting asset on the balance sheet. So that we have liability, now completely offset by Canada Bonds on the asset side. 202

Since Canada Bonds and Hydro Bonds will move with the direction of interest rates in price terms, then we are effectively hedged; since a decline in the asset value on one side, would be offset by an increase or decrease in the liability, on the other side. That is what hedging is. 203

We will eventually unwind the hedge, by selling off the Canadas. 204

Q. When do you do that? 205

A. According to the ratesetting strategy of unwinding it evenly over time. 206

Q. Over five quarters? 207

A. Over five quarters. So some of it has already been set by what we call advanced ratesetting. 208

Q. Those are Canadas that you bought in the last quarter of '91? Was page 2738 209

A. No, those would be Canadas that we sold. 210

Q. That you sold, sorry. Right. 211

A. Because, essentially you either set rates ahead of the issue, or you set rates after the issue. If you try to set rates ahead of the issue, you have to start off by selling Canadas because you haven't done the issue yet. And then what you do is you buy and close out the hedge at the time of issue. 212

I think we explained that in H-R 20. I think something was filed in H-R 20, which explained the mechanics of that particular process. 213

Q. I wasn't here for that, and I perhaps don't ever need to understand it, but let me just ask the question this way. 214

The mechanism of using a five quarter average to effectively set the rate, recognizing that the purchaser gets the bond with a coupon on it at a fixed rate, the process of using the five quarter average, do the same five quarters provide the average for all the issues that you put out in 1992? 215

A. Could you repeat that question, please? Does the same...? Was page 2739 216

Q. Do you use the same five quarters, last quarter of '91 and four quarters in '92, to set the interest rates on all your borrowings in 1992, whether they happen early in '92 or late in '92? 217

A. That's correct. 218

THE VICE-CHAIR: Excuse me, Mr. Goudge. Could I ask, Mr. Chee: The coupon rate on your bond would be nine per cent. What would you earn on the Canada Savings Bonds? 219

MR. CHEE: On Government of Canada Bonds. 220

THE VICE-CHAIR: I'm sorry, Government of Canada Bonds. 221

MR. CHEE: We would have earned about 65 basis points less; in other words, .65 basis points less. And that is why there is a holding cost. The holding cost of the hedge is indeed the difference between our issuance rate and the investment rate that we earn on the offsetting hedge. 222

THE VICE-CHAIR: All right. Thank you. 223

MR. GOUDGE: Q. So that 65 basis points really is the hedge cost; isn't it? Apart from whatever transaction cost there is? 224

MR. CHEE: A. Right. The 65 basis points would be a holding cost over the life of the hedge, and the life of the hedge basically would be -- 225

Was page 2740 226
Q. It is five months?

A. On average 2 1/2 quarters; if you are hedging evenly over five quarters. 227

Q. I see. Okay. 228

A. On average. Again, I think if you look at our '92 strategy, which is Exhibit...I believe 8.1.3, there is an analysis there which says that over the life of the issue, or over the average term of the issuance, that holding cost translates into about a 2 to 3 basis points premium or cost. And, therefore, the judgment that is made is that to be able to diversify risk by doing ratesetting and paying over the life of the issue, about 2 to 3 basis points is in fact a cost-effective and reasonable amount of holding cost or hedging cost to pay. 229

So it is not -- the hedging cost has to be taken into context of what it costs over the life of the issue and not simply over the period of hedging. 230

Q. Can you explain that for me? That is, one other way of looking at it would be to take the hedging cost and say it is all incurred in the five quarters over which we hedge. It is 65 basis points. If we hedge on an even basis, then it is effectively 2 231

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Was page 2741 233
1/2 months, at 65 basis points on the whole issue; which is a pretty substantial cost.

Why would you measure that hedging cost over the full life of the issue? 234

A. Because really what you want to compare is what your costs of the issue is, over its whole life, versus what in fact the cost of the issue is over its whole life having done the hedge. 235

Q. Fair enough. Now, one of the consequences of this program of ratesetting, Mr. Chee, is that if it is used, you aren't able to set the rate at a point where you are confident you have hit the low point in the rate cycle; that is, it is a cautious not an aggressive strategy because you don't bet on the rate at any single point in time? 236

237
A. I come back, and I think I have said this before, that we do have the flexibility. And if we felt that, in fact, we need -- we can -- we want to deviate from the averaging strategy, we can. And one of the devices that we can use, if we want to deviate from the averaging strategy, is to simply not hedge a portion of the issue at the time; if in fact, at that time it was felt that that was a good rate to get locked in.

238
Q. I take it you have hedged the issues you have done this year?

Was page 2742 239
A. We have followed, as I indicated in my evidence in chief, this strategy of dollar averaging over five quarters.

240
Q. What would you to depart from that, and not hedge? And in other words, simply say, well, we will undertake to directly undertake the interest cost that the purchaser gets at the date of issue?

241
A. I think if the professionals working within my division, who are monitoring markets in conjunction with, say, the Treasury Department and myself, come to a collective view that we in fact are confident that we should deviate from this ratesetting strategy.

242
Q. Have you ever done that?

243
A. We did that to some extent in 1991. I think there was a long global, a 30 year global issue, in 1991. Based on the outlook and a collective, as I said, discussion and analysis, it was felt that that was not a bad time to perhaps rate set without the hedge; in other words, lock some of those costs in because it was felt to be low. So we have deviated.

244
Q. I take it those decisions, Mr. Chee, are very much matters of judgment?

245
A. Absolutely.

Was page 2743 246
Q. Yes. Like what we all go through when we say, should we have a two year mortgage or a four year mortgage?

247
A. That would not be a bad analogy, or a bad...

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Q. I hope it has got more of a -- less of a guess to it, than when people I know do it, but...

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Now, let me move, if I can, to Exhibit 8.4.10.

250
A. Yes?

251
Q. I want to explore with you the point that is made in the last paragraph of that response, where you say that:

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The benefit of cyclical lows in interest rates can be extracted most efficiently, by extending the term to maturity of new debt issues, rather than by the timing of ratesetting.

253
We have just talked about the timing of ratesetting and the various ways you could do it. Can you explain to me how the cyclical low is captured by extenting the term of the new debt? I don't understand what that means.

254
A. Okay. When we borrow, we have a choice of what maturities to borrow, or at least -- I am hesitating here because the choice in the end has to be tempered by what the market really wants to do. But we could issue 5 year debt, we could issue 10 year debt, we could issue 30 year debt.

Was page 2744 255
If we felt that rates generally are low, rather than pretending that we have the precision to do the issues at the range where it is at the lowest; in other words, a timing decision or a timing kind of execution -- what would be more efficient would be to say that when rates are generally felt to be in the range that are reasonably low, then we should go longer-term maturities, rather than shorter.

256
And, in fact, our performance measure, which looks at the debt service cost, would put that weight on; saying, did you in fact try and get an appropriate mix of maturities? If rates were low, then you would get more benefit, if in fact you did more long-term issues than short-term issues.

257
So again, if you look at our strategy for 1992, we said, whilst we are not confident about exactly when the time is, so we want to diversify the ratesetting over five quarters, generally we feel that rates are reasonably low. Therefore, we will focus on longer-term maturities, 10 years and out, rather than shorter-term maturities.

Was page 2745 258
It is a more strategic approach, rather than what I would say would be a market type of approach, in trying to get the timing exactly right.

259
Q. You could do both if you were prepared to throw caution to the winds, as you would say; and use the timing approach for ratesetting, as well as taking into account the low point to lengthen your maturities?

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A. If we threw caution to the wind, then I think I would be trying to say that we have to take a more prudent approach.

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Q. You and I might use -- I am putting those words in your mouth rather than my own, Mr. Chee, and I understand why you are saying that. But I just wanted to suggest to you that, at least theoretically, it would be possible for the Corporation to try to capture the advantages of low points in the interest cycle, by both lengthening the maturity and by using low rates as a strategy to dictate when you would issue; in other words, trying to guess the low point and issue on that day?

A. It is a bit like standing on top of a cliff looking down. There is a fog at the bottom of the cliff, and you are trying to ascertain whether in fact you fall in the water or fall on the rocks. 262

I think if you are that -- your propensity of risk was that high, then I suppose you could take a leap off the cliff. Was page 2746 263

Q. Now, let's talk a little about the length of issue philosophy that the Corporation uses. You have been candid to say that as a general strategy, low points in the cycle perhaps don't dictate, but certainly encourage, longer-term issues. Fair enough? 264

A. That's correct. 265

Q. What about the recent example; that is, the $2 billion issue of last week? Doesn't that to some degree -- that was a 10 year issue, as I read the paper? 266

A. That's correct. 267

Q. Doesn't that to some degree run counter to that philosophy, Mr. Chee? Because I think we both agree that we do seem to be at relatively low point in the interest cycle. 268

A. That was -- the question that you have just posed was indeed actively considered at the time of designing the issue. We had a choice of doing a 10 year, and the other alternative maturity that could have been done, was a 30 year. We had to consider as to which would be better received, and a number of factors impacted on finally going with the 10 years. 269

One was, that subsequent to the budgets being announced, basically spreads across the yield curve, spreads between Hydro's or the Ontario credit versus Canadas, had started to tighten up or come in. Was page 2747 270

The one area where it hasn't come in is the 30 year area. The 10 year issue that was done last week was done at 68 basis points over the 10 year Canada issue. A long-term issue would have required a spread of about 85 basis points. 271

Therefore that particular sector or that particular maturity had not yet tightened in like everything else. 272

Secondly, the estimated size of the issue that could have been done was somewhat lower. It was thought that the maximum that perhaps could be extracted was in the region of a billion to a billion and a quarter. The trade-off therefore was between do we go out and do at least with confidence a minimum of a billion and a half or do we go out and do what we thought at this point would have been a relatively expensive 30 year issue in terms of spread? 273

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What we decided to do was to say let's go and take the size now because whilst markets are more constructive than what we anticipated, the basis of the constructive outlook is still quite fragile.

Was page 2748 275

It is based on people's perceptions about what constitutional issues are. I just came back at that point from an investor relations visit in the Far East where people told me that whilst they were pleased with the way that the budget had been evolved, they were going to monitor with great interest as to whether in fact the expenditure controls would come to pass. In other words, were these numbers soft or were these numbers indeed going to come to pass?

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Thirdly, there were concerns about whether in fact the Canadian dollar whilst seemingly stable at 83+ cents, would remain that way. So whilst people were constructive there was an underlying feeling that that could be quite fragile and that could flitter away quite quickly.

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Thirdly, at the time of launch one of the things that provided for market conditions which was very positive for the launch was in fact the Danish Referendum and the rejection of Maastricht which then focused people back on to saying the dollar sector is more stable because this rejection poses problems in terms of economic union in Europe.

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So these were all kinds of market factors hanging around that said whilst the market is positive it is probably prudent to go and take the size out now, rather than risk not being able to take the kind of size. And therefore completion of the program, bearing in mind that we have to co-ordinate this with the province, are given the fragility that is underlying the positive tone.

Was page 2749 279

What we felt that we still had an alternative to come back with that 30 year issue, as I indicated to you, later and therefore would still be able to extract if in fact rates generally became at these levels. The effectiveness of doing longer term maturities.

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Q. By later, do you mean --

281

A. In the late summer or early fall.

282

Q. Of 1992?

283

A. Right. For example, we felt that if indeed the constructive attitude of the market continued then there was a reasonable chance that a 30 year sector may in fact proove somewhat more attractive later in the fall -- or later in the summer.

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Q. And you might with pre-borrowing do a $2 billion in the fall at 30 years?

285

A. That's correct.

Q. I would have thought, Mr. Chee, that if you were confident that interest rates were very low now by comparison with the 30 year cycle, that that factor alone would have outweighed the immediate market considerations that you outlined. I take it the corporation's view was to weigh the balance the other way? 286

Was page 2750

A. The judgment call that we made was that we felt that the markets are more positive than we had anticipated, that there was a reasonable chance or a better chance that in fact rates would actually come down. 287

However, there was, as I said, this underlying fragility about it. So the risk judgment was to take the larger issue size in that maturity, that's what the market wants at this point. If in fact the kind of factors which have made the market constructive continue, we will then be able to also gain the benefit of lower 30 year rates. So we were covering both sides. 288

In other words, there was a small but clearly directional bet that markets were going to continue to be positive, but there was also a risk management factor in saying that if that was not the case we have at least managed to maximize taking out of the market the kind of funding requirements we need by going into the 10 year sector at that time. 289

Was page 2751

Q. Again I take it Mr. Chee, erring on the side of caution, that as you say, rather than -- well we're going to take as much as we can and we get that in the shorter 10 year market just to make sure we get these rates; is that right? 290

A. Sorry? We -- 291

Q. Just to make sure we get as much as possible at this cost, recognizing that the cost will be set with the five quarter average you recited? 292

A. Yes. Well, in a nutshell we think we fell on the side of size and therefore went for the 10 year sector. But we were reasonably positive that in fact, that 30 year rate, we might have a chance to do it at better levels than today. 293

Q. Now Hydro Quebec, a related utility, I take it just went to market a few days ago with the 30 year issue. 294

A. Mm-hmm. 295

MR. ROULEAU: I'm sorry 'related utility?' (Laughter) 296

THE VICE-CHAIR: You might want to clarify that. 297

MR. GOUDGE: Don't be so nervous about it. 298

MR. ROULEAU: They maybe aware of something I don't know. There have been a lot of behind-the-scenes conversations. 299

Was page 2752

MR. GOUDGE: Another big utility -- another big utility in what for the moment is a sister province; how is that? 300

MR. ROULEAU: That is fine, that is quite a... 301

MR. GOUDGE: Okay. 302

Q. They went to market following you with a very substantial 30 year issue; that's right I take it, Mr. Chee? 303

MR. CHEE: A. Yes, they went to market with a 30 year issue of $1.2 billion; that's correct. 304

Q. And, is it, I don't want to ask you to speculate, but isn't it fair to say that they probably came down on the other side of the debate that you had internally and favoured getting the shorter terms for the longer period rather than perhaps going for a higher quantity in a shorter term? 305

A. We knew at the time that we launced our 10 year issue that one other provincial issuer, and we pretty well know who that is, was in fact con- templating doing the same thing. What we did was in fact to get in first or went to market first. We also knew that there were only two maturities available, 10 and 30. So I would tend from my perspective to couch that they took what was left. 306

Was page 2753

Q. So you would like to think that their first choice would have been the 10 year corner of the market, too? 307

A. I don't know what -- I do not know what their first choice is. I do know that given our participation in the launch of our issue and knowing what we know about the market at that time, there were only two maturities that could be done and we had taken up one of them. 308

Q. So I take it you would say that your people would tell you there was very little left over at the 10 year end of the market once you had done your issue? 309

A. Having done the issue, my judgment was that 2 billion was basically just about spot on. 310

Q. Now we have talked a lot about market factors in determining the length of the issue, Mr. Chee. Does the corporation have as another factor, which has influence on the length of the maturities they issue, a kind of matching schedule, matching the long-term debt against the asset life of the corporation? 311

A. No it doesn't. The other factor, and again I think it's provided in the strategy document, would say that when we plan the borrowing program we will take a look at future borrowing requirements. 312

Was page 2754

One of the things we try and do is to try and smooth out the borrowing requirements into the future. Borrowing requirements as you know are a function of two things. They are a function of how the debt matures, so the maturity profile of the debt, and new debt that needs to be issued. 313

What we try and do, and I have testified on this in previous years, is that we try and make it in a theoretical sense or in a target sense, a one note organ pipe. We try and fill in the values and therefore not have to go and have very peaky borrowing requirements. 314

There are really two strategic reasons to do this. One is that by having a smooth borrowing requirement as we can over time we diversify our interest rate risk. We don't claim to be able to predict with any great degree of precision long-term directions of interest rates. So by smoothing it out again we diversify and manage that risk. 315

Secondly, by smoothing out the borrowing requirements we don't present lumpy situations to the market, where we go from $2 billion one year to $5 billion the next year. What the market doesn't like is volatility in supply of bonds. And therefore, as you can see from some of the effects of having applied the strategy now for some years, borrowing requirements tend to be fairly smooth. 316

Was page 2755

Q. So that really the repayment schedule becomes one of the dominating factors in terms of your issue length at any point in time? 317

A. It's a combination of the repayment profile and what is required for new capital. Those are the two major items that make up what some particular future years' borrowing requirement is going to be. 318

Q. When you were contemplating the recent issue, for example, you must have said to yourself, our repayment schedule could be served either by a 10 year issue or by a 30 year issue? That is, there will be retirements coming along at the 10 year mark, there will be retirements coming along in the 30 year mark and this serves both purposes? 319

A. Again, as I said, we look at all of these things at the time or just about when we want to launch the issue. In other words, what is our maturity preference from one dimension versus another dimension. 320

At the time of this particular issue, simply based on looking at the borrowing profile the preference really would have been the five year. The five year was in fact -- 1997 was in fact a year of very light borrowings. And the other recognition was in 1992, if you don't do any five year issues, 1997 as a slot disappeared. 321

Four year issues are not typical in the marketplace, so in 1993 a five year -- trying to fill a '97 slot was much more difficult. So one of the considerations was in fact 1992 was one of the last practical opportunities left to do a five year. Was page 2756 322

But other things, such as we said in the document, trying to maximize size, trying to, as I said, extract from the term selection decisions, the level of rates at this point overrode that particular consideration. And finally the five year maturity was the least favoured maturity by the market. 323

Q. To what degree then, if at all, do things like the delay in the Darlington program have any impact on the length of issues that you bring to market? Let me try and rephrase that, so I can make my point clear. 324

To my simple minded way of looking at it, the ideal world would have your length of maturities match the life of the assets that you have in the corporation and if you take a major asset like Darlington and delay it coming into service and, therefore, delay the start of its life, that says something about the life of the assets against which you are attempting to match the length of your debt. 325

Does the delay in Darlington coming into service, for example, carry any impact on your maturities and the length of the issues that you put out? Was page 2757 326

A. As I said earlier, we don't attempt to do asset/liability matching. What we tend to do is try and manage the liability side as efficiently and effectively as we can. 327

Asset liability matching is a concept or an approach that is more, at this point in our judgment, suited to financial institutions. You need to match assets and liabilities because financial institutions are basically trying to earn a spread between what they receive, for example, as deposits and what they put out as loans. What we are trying to do here is borrow money for investing in fixed assets that produces revenues. 328

So asset/liability matching you will find as a general rule is not the way that most corporations would manage their liability/asset structure. 329

The delays in Darlington would have an impact in terms of borrowings, and Mr. Boland can speak to this a lot better than I can in terms of changing the requirements. But other things change the requirements so we will simply take the requirements that are required in totality and evolve a borrowing program from there. Was page 2758 330

Q. No, I understand how it would change your requirements. What I was really speaking to was how it would affect if at all the length of the issues that you put out. You have answered that, I think. 331

Let me canvass a little with you, Mr. Chee, the borrowing programs, the dimension of the borrowing program that is affected by the relationship with the province. 332

Obviously, from your evidence-in-chief the provincial deficit position is an important marketplace factor that impacts upon your borrowing program? You have no doubt about that, do you? 333

A. I think, as we have said, the market's perception and reaction to the provincial situation impacts on how the market views the Ontario credit as a whole and however it views the Ontario credit as a whole certainly will have an impact on Ontario Hydro. 334

Was page 2759

Q. Certainly in terms of the credit rating of Ontario Hydro, given the provincial guarantee of the debt there's no doubt about that. So, I take it that the Corporation has to be concerned about the provincial debt management program. Not that there's a whole lot you can do about it. Obviously it has an impact on you, doesn't it? 335

A. The province's debt program certainly can have an impact on us. Yes. 336

Q. In other words, as your trip to the Far East demonstrates, if the marketplace takes the view that the deficit control projections of the province are not likely to be fulfilled, that's going to have an impact on your ability to borrow in those markets, isn't it? 337

A. That would be correct. 338

Q. Obviously, if the marketplace lowers the rating, lowers the credit rating of the province, again, as a result of deficit control not coming up to scratch, your credit rating is lowered in lock step, isn't it. So in terms of the rates you pay it has a very direct impact, doesn't it? 339

A. The rating agencies would rate us together with the province. So the rating really, as I said, is one of the Ontario credit as opposed to either specifically Hydro or the province. 340

Was page 2760

So in that particular regard, if there are changes in ratings that will impact certainly on ourselves, it will impact on the province. I think, again, as we have indicated in a number of interrogatories that is one factor that might cause borrowing costs to change; it's not the only factor. 341

Q. I understand that. I ask this not because I think there's going to be a positive answer, but I'm curious. I mean in a age when -- 342

The province's guarantee and the province's high credit rating in times past obviously has been something that the corporation has benefitted from? There's no doubt about that, is there? Its been beneficial in your general historical borrowing programs, hasn't it? 343

A. Both the provincial guarantee and the credit rating of the Ontario credit? 344

Q. Yes. 345

A. Certainly. 346

Q. We have now evolved to a situation where on both those scores the province is to a degree a 347
problem for Hydro, in the sense that its deficit is a matter of at least watchful care on the part of the marketplace and its credit rating is maintained, but only with great effort. So it's gone from being sort of a real benefit to the corporation's borrowing program to being something the Corporation has to worry about. Isn't that a fair analysis of the last few years of history?

A. You could say the same for the federal deficit. Was page 2761 348

Q. I mean all governments are in a box. I don't mean to single out Ontario. This is not a political 349
forum.

I am just asking you whether or not it isn't so that the corporation's borrowing group would have 350
changed its - I am not articulating this very well - but would have gone from treating the provincial relationship as one that was entirely one of benefit to the corporation to the point where now there is concern in the corporation as to whether the province will continue to control its deficit as predicted and whether the rating agencies will continue to sustain the provincial and therefore the corporation's credit rating?

A. I think 'concern' puts the wrong colour. 351

Certainly we are aware that the provincial deficit, the market's reception to its expenditures and 352
control plans, how it manages its affairs will have an impact on us, but to say that we therefore become concerned I think is to put too strong a word on it.

I think we are sensitive to it. We talked to them about it. They obviously are more concerned, and Was page 2762 353
rightfully so, than we are because that is a problem that only they can deal with.

Our interest basically is recognizing that that potentially has an impact and what we do is to say, 354
well, if this happens how do we cope, how do we manage? If that happens how do we manage? And that is what you see in the strategy document, recognizing that there is possibility of a number or variety of outcomes.

Q. And I take it you might even go beyond simply asking them how they are doing on these scores 355
to encouraging them or wishing them God speed in achieving their objectives, because they obviously impact on you in a very substantial and direct way?

A. Well I think at least I can share to some extent so you get a sense of what I am saying, it is not 356
so much concern as trying to in a joint fashion see how we can find actions or strategies which are beneficial to both the province and ourselves.

Was page 2763 357

In January of this year when the Premier announced that if nothing was done the deficit might be as high as $14-odd billion. Certainly between ourselves and the province we sat down and said if you assume that kind of scenario and you conclude that Hydro's borrowings and our requirements are very large, how would we together as a credit be able to satisfy your requirements and ours in a manner that makes sense?

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So we sat down and went through a number of planning sessions based on that number.

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Q. How you would co-ordinate your borrowing if that came to pass?

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A. That's correct. We don't make the decisions, and, you know, obviously -- and have any impact or insight or even any information about what that number is going to be.

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All we can do is to take what publicly is available, sit down with the provincial people and say, assuming that that happens, how do we conduct our borrowing program? I mean, our focus is to get the borrowings done in the best manner that we can, given the requirements and given the overall contacts, including the province.

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Q. But recognizing that another dimension of your relationship to the province is that you have to co-ordinate your borrowing programs, and if you are both hit by, as you would be, let's say a $14 billion deficit, you would have to co-ordinate the negative impact of that on your borrowing and the province's borrowing; fair enough?

Was page 2764 363

A. Oh, I think there is certainly a recognition, and a strong one, between ourselves and the province that if they are in the market and we are in the market, and it doesn't matter whether it is a $14 billion program that we are running or a $9 billion program that they are running, that there has to be good co-ordination in terms of accessing markets, that markets do not like to see the province coming one week and Hydro coming into the same market the other week. I mean, in between ourselves and the province we have a term for this, is how do we run the air traffic control?

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Q. You speak to that in 8.4.30, if I could get you to turn to that?

365

A. Yes.

366

Q. Where you say that -- I am reading from the B response, that -- again, this is a hypothetical circumstance, but I took from your response that if there was an anticipated downgrade in

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Was page 2765 368

the provincial credit rating Hydro would never go to market just ahead of that because of investor linkage of Hydro and province, and that being seen as dirty pool, so to speak?

A. That's correct. I mean, basically the way we sort of understood the question was that we will never do that as that would be -- the analogy of that would be doing some insider trading. 369

Q. So here again we have, viewed from one perspective at least, Mr. Chee, a constraint posed on Hydro's borrowing program because of the province? 370

A. I am not following the connection. 371

Q. Well, the connection is you can't go to market whenever you want. There is at least one hypothetical when you would feel that you couldn't, and that is just in advance of a provincial downgrade because it would be perceived as insider trading, as you say? 372

I recognize it is a hypothetical, but doesn't it suggest that there is a linkage in when you can go to market posed, a limitation on when you can go to market posed because of this relationship with the province? 373

A. I think the observation is simplistic. And to indicate why is that the province in terms of the Power Corporation Act always has a say in terms of whether or not we go to market. Every single bond issue has to be approved by the province. 374

Was page 2766

So for whatever the reason, whether it is in fact they are in the market or for some other reason, we will indeed have to seek concurrence with them before we go to market. 375

My experience and observation would be that in recent years the degree of co-operation with the province is probably at its best kind of level that I have known for many, many years. 376

Q. A co-operation though, Mr. Chee, that is necessary because of the market's linkage of the two borrowers? 377

A. The market has always linked the two borrowers. 378

Q. I understand that. I mean, given this set of impacts, that is, that the potential impacts at least of the provincial deficit, of the provincial rating, of the need to co-operate in when you go to market, does that say any - and those things are all to some degree at least arguably constraints of one form or another - does that say anything to the Corporation about whether the provincial guarantee and the price you pay for it, Mr. Chee, ought to be re-examined? That is, is the province as valuable a partner now as they were several years ago? 379

Was page 2767

A. That is something that I would prefer that you pose to the Policy Panel or you pose to Mr. Eliesen. The only comment that I would make is that we couldn't borrow without the guarantees so it's a bit of a moot point. 380

Q. Couldn't borrow in the sense that you just couldn't raise any dough? 381

A. No, it is a provincial policy that we have to borrow with the provincial guarantee. 382

Q. I see. So when you say couldn't borrow, you are not speaking of the reaction of the marketplace, you are just speaking of a legal reality, that there is a guarantee? 383

A. That is one. And secondly, even if we did borrow without the guarantee we are just going to find that there are a whole bunch of complications because then you will have guaranteed debt and non-guaranteed debt, and I really... 384

Q. You could accommodate that, Mr. Chee? 385

A. I have no sense of where that would lead us. 386

Q. Well, it would be a new world, and I am not suggesting that. 387

Was page 2768 388

What I am really suggesting, and I am quite prepared to put this question over to Mr. Eliesen if you are more comfortable with that, is that at least arguably, I recognize you don't fully agree with me, there are negative tendancies in the implications that this relationship between province and Hydro carries for Hydro?

I have tried to outline them. I am simply saying, isn't it worth re-examining the price you pay for that linkage, which is really what you pay for the provincial guarantee? 389

Now if you would rather I asked that of Mr. Eliesen, don't hesitate to say so and I will. 390

A. I would prefer that you ask the Policy Panel on that. I think that is a policy issue as opposed to a funding issue. 391

Q. Okay. Now, let's turn to another subject, if we may, for a few minutes. I want to go with you to 8.4.7. 392

The response to this interrogatory, as I understand it, Mr. Chee, sort of matches the actual borrowing against the rate proposal projected borrowing over a series of years. 393

Do you have that in front of you? 394

MR. BOLAND: A. I have it. 395

Q. Okay. This may be to you, Mr. Boland. Was page 2769 396

What I am getting at is this. If you look, for example, at 1991, and I am talking here about actual borrowing, that is, the first half of the page, the top half of the page, I take it we see that if we looked to the rate proposal for 1991 we would have seen a projected borrowing program of $3,209 million and that the actual program undertaken was some $3,339 million greater than that? 397

A. That's correct. 398

Q. And the numbers for the other years are read in the same fashion, so that if you took 1990 and 1991 in both years, your program ended up being substantially more aggressive than you had anticipated, in the rate proposal, at least? 399

A. Requirements were higher than forecast. 400

Q. And if you take 1991 in particular, I take it that excess, which is very substantial, required the use of some sort of contingency borrowing plan? 401

Sorry, Mr. Chee, this may be a question for you. 402

What I want to get at is this. I am trying to get at this issue. What happens if the actual borrowing requirement comes in at a number very substantially in excess of what your program calls for, as happened in 1991? What sort of contingencies do you have in place to accommodate that very substantially increased borrowing requirement? 403

MR. CHEE: A. For 1992 I think, as we have indicated, there is a provision in the borrowing program strategy that if the requirements are going to exceed $5 billion there has to be an explicit assessment of the potential costs and risks of getting above $5 billion. That has to be presented to the Finance Committee. There is a checkpoint, in essence, if borrowing requirements for 1992 -- Was page 2770 404

Q. I will come to that in a minute. What I really wanted to address was not so much what internal checks and balances there were, but let's assume that whatever checks and balances there were in 1991 were met internally, as I am sure they were, and the Corporation approved the need to go to $6 billion in its borrowing program. 405

Presumably, the Corporation, the borrowing people, have to have in place contingency programs to access the market for an amount that is about twice what they were planning? 406

That is, it is a substantial difference in what you have to do on the ground and I just want to get some sense of how easy it is for you, given that the Corporation has dictated this proposal, to move in that direction. Was page 2771 407

408 A. Okay. In any year there will always be inherent in the program or inherent in terms of our debt borrowing ability some ability to borrow more than what is required simply because our borrowing focus is to concentrate on being able to source the requirements by and large out of what we call the core Canadian markets, which is the domestic market here, the Euro-Canadian market, and then more recently the Global-Canadian market.

409 So we know, again as you saw in the '92 strategy, a number of other fall-back markets or optional markets that we can go to, and there is a whole range of options that we have outlined.

410 We, for example, have the ability to issue up to $2.5 billion in short-term commercial paper, which can temporarily bridge finance any requirement increase until they can be termed out or replaced with longer-term borrowings later.

411 Q. When you say you have that ability, do you mean that that is an internal parameter that you can go to if you have to?

Was page 2772

412 A. We have approved both by the Board and by the province the ability to issue at this point $2.5 billion in short-term notes. Additionally, we have for example lines of credit available at the bank that we can use.

413 Q. To what sort of order of magnitude?

414 A. The line of credit limit right now outstanding would be 600 million.

415 Q. Now --

416 MR. ROULEAU: Mr. Chairman, if this is a convenient time for a break, I think the witnesses would appreciate the opportunity for a break at this point.

417 MR. GOUDGE: Fine.

418 THE VICE-CHAIR: Yes, we will take a 20 minute recess now.

419 ---Recess at 10:40 a.m.

420 ---Upon resuming at 11:06 a.m.

421 THE VICE-CHAIR: Please be seated.

Mr. Goudge, the Board would like to rise today at 12:25, reconvene at 2:00. I understand that this will be a relatively short day compared to yesterday. About how much more time do you think you'll need, Mr. Goudge? 422

MR. GOUDGE: I would think 20 minutes would do, Mr. Chairman. Was page 2773 423

THE VICE-CHAIR: And Mr. Smith? 424

MR. SMITH: I think an hour to an hour and 20 minutes. I'll certainly try tp keep it to an hour. 425

THE VICE-CHAIR: Mr. Alati? 426

MR. ALATI: I will probably have no questions, Mr. Chairman. 427

THE VICE-CHAIR: Mr. Mondrow, will you have some questions of this panel? 428

MR. MONDROW: I have a question or two, Mr. Chairman. A couple of minutes. 429

THE VICE-CHAIR: All right, I think we will proceed as planned and we will adjourn for lunch at 12:25 as I have indicated. 430

MR. GOUDGE: If we really go quickly we might finish before lunch. 431

THE VICE-CHAIR: Let's go. 432

MR. GOUDGE: Okay, Mr. Chee, one sentence answers and one sentence questions. How's that? 433

MR. ROULEAU: Do they have to match? 434

MR. GOUDGE: That's right. 435

Q. We were talking just before the break about the $5 billion ceiling on your borrowing program that could be exceeded in 1992 by Board approval. That as I understand is your 1992 rule of thumb? 436

A. That's correct. Was page 2774 437

Q. Does that ceiling vary year to year? 438

A. It's the first year that we have in fact explicitly made that ceiling. 439

Q. I see. Is that something that is now going to be built into the Corporation's borrowing program each year? 440

A. I suspect so. Yes. 441

Q. How is the amount determined? 442

A. If you will just bear with me a second? The rationale is actually given in 8.1.3. 443

Q. No need to turn to that if you're satisfied with that rationale. We can leave it at that. 444

A. Thank you. 445

Q. I take it there is a process that would go on as the borrowing program was required to get close to that sort of ceiling where you would be indicating to the line people that the borrowing limits were getting close and please don't push us over the limit unless you absolutely have to. I mean that is obviously that is going to go on within the Corporation? 446

Was page 2775

A. I think both the executive management know that particular limit and certainly also the duty forecast people who co-ordinate the input in terms of coming up with updates on the borrowing number. 447

Q. Is the limit set with any eye to whether there's any absolute limit in what the marketplace will absorb from Hydro in a given year? 448

A. The judgment on the limit is to make sure that we don't push the market to an extent that would be felt to be imprudent. Now, how that translates itself into an absolute number really would depend on the kind of market conditions that prevail at that time. 449

Q. I want to give you an opportunity to comment on something Mr. Rothman said when he was here. We've talked with him about capital markets globally and the degree to which they're under pressure as a result of capital demands from Eastern Europe, and so on. And he was prepared to venture a view that this increased general pressure on capital markets might add permanently something like 50 basis points to Hydro's borrowing costs. Do you share that view? 450

A. No. 451

Q. What is your view on the subject? Is there any upward pressure on rates from increased capital pressures around the world? 452

Was page 2776 453

A. The observation that I would have would be back in 1991, for example, with Germany reunification, the rebuilding of Kuwait, and I think we spoke to that last year, we felt that in fact the demand for capital is high, and that certainly in a general sense would put pressures on rates, but we also saw that some of these demands did not materialize.

454

I would agree with Mr. Rothman in a sense that if in fact everything happened at once, and there was a surge of demand, then yes it would put an upward pressure on rates. Would it be 50 basis points? I don't know. It depends on the supply side as well and it depends in fact on how big the surge might be. So it is difficult for me to say that it will be 50 basis points, or it might be 50 basis points, but I think as a general proposition if there was more demand than anticipated by the market, rates will be subject to upper pressure, yes.

455

Q. Now, let me go to your hedging philosophy. In 8.1.6 - that is Schedule "A", page 6 and I don't need you to turn to it - you enunciate the 1993 trigger point for your hedging at $75 million?

456

A. That's correct.

457

Q. I take it that's a change from the past where it was a rather lower trigger point of some $15 million; is that right?

Was page 2777 458

A. That is correct, 75 million is the number, was higher than the previous trigger points, or previous threshold levels. That's correct.

459

Q. Why the change?

460

A. Again, if you refer to the foreign exchange policy that was filed last year and to 8.1.6, the establishment of the threshold in terms of protecting the Corporation's net income is really a judgment based on what the Corporation feels it can withstand in terms of exchange rate moving adversely and impacting on the bottom line.

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So there is, in part, an assessment of what the projected net income level is so the higher the net income level, in general, the more adverse impact can be absorbed.

462

There is also a consideration of foreign exchange as a potential adverse factor relative to other potential adverse factors that may impact on the bottom line. So that if, for example, the expected volatility of risk of other operational factors are felt to be higher but potentially impact on the bottom line in a more adverse way, one may be relative to foreign exchange as a variable, one may then err on the side of a threshold for foreign exchange perhaps somewhat tighter so that one can accommodate other operational risks that might impact on the Corporation's bottom line.

Was page 2778 463

So it is an assessment of one risk factors versus other risk factors as an assessment of what the projected net income line looks like, so it will vary depending on these projections.

Q. I guess what puzzles me, Mr. Chee, is that we seem to be, from all reports, in an era where net income is under siege and declining, if anything, and yet your trigger point for foreign exchange hedging has gone up. That seems to be rather a contrary result. 464

A. I am trying to find an interrogatory where we did indicate that it provides the rationale as to the threshold levels. I think at the time that the threshold levels were set for, say, last year, and the year previous, 1991 and 1990, net income levels projected, say, for 1991 were significantly lower than the 1992. 465

Q. As the projected net income for 1992 has declined over time, as we know it has, have you considered changing your threshold so that it is a little more sensitive to the directional movement of net income? 466

Was page 2779

A. We have certainly in the - I think again it's filed in an interrogatory - taken a review of whether in fact that threshold level should change. The recommendation is to leave it there as it is because it is felt that the trigger level at which the threshold will be triggered, I think there is still some room before the dollar reaches that level. The decision was made by the Finance Committee that the threshold level at this point not be changed, so there has been an explicit consideration given changes in the net income projection for 1993, for example, as to whether we should change that threshold. 467

Q. I take it that is based almost entirely on the room that exists between where the Canadian dollar is now and what your budget assumed it would go to? You have got some room for the Canadian dollar to decline before you're hedging strategy as per budget would kick in? 468

A. I think if you look at the update, the second quarter update on the foreign exchange strategy, the considerations would be, yes, that income is not projected to be more under pressure, but it also recognizes, and we have said this before, that this approach to managing the exchange is like insurance. It is a matter of finding out the threshold of pain that one is willing to tolerate. 469

Was page 2780

The threshold is in a sense a deductible level beyond which we don't want to incur any more pain, while the net income levels are under the pressure. If one reduces the threshold; in other words, one moves the threshold from 75 to a lower threshold, like any other form of insurance, it is going to cost us some money and, therefore, the consideration has to be whether in fact moving that threshold down and the costs required to incur that is sensible. And the judgment at this point is that it is not felt to be cost-effective to move that deductible down. 470

Q. What is the order of magnitude of cost to move your insurance from a $15 million deductible, as you put it, to a $75 million deductible? 471

A. I think if I reference Exhibit 8.1.5, which is second quarter strategies and borrowing authority which also includes an update for the second quarter of the foreign exchange management program, we show in Attachment B, for example, the kinds of costs and outcomes for a threshold down to $45 million. I think we also made mention that there is no efficient combination both in terms of 472 costs, of option costs, or exchange rates that we can reasonably try and achieve at this point to get thresholds below $45 million. So to answer your question, that 15 million dollars --

Q. You couldn't have done it? Was page 2781 473

A. -- it is prohibitively expensive. It would not be sensible. 474

Q. Now what about the balance sheet threshold level, if I can put it that way, at $750 million? Is that a figure that is new to this year or is that a figure that has been in place before? 475

A. That was a figure that really was -- it is the same figure as was put in place in 1991. 476

Q. Is that a higher figure, therefore, than we have had previously? 477

A. No. The way this particular program is managed was first introduced in 1991 and 750 for balancing hedging or where the balance in hedging might be considered was established at that point. We took a review of it for 1992; I didn't see any particular reason to change that level. 478

Q. Now one other minor point. At 1.1.4 in Table 2.1, it shows - this is in the May update - it shows the long-term debt going year-over-year from some 34 billion to some 35 billion due to changes in net or owing and lower Canadian dollar. 479

Can you break out for me how much of that change is due to which of those two factors? Do you know that, Mr. Boland? Was page 2782 480

MR. BOLAND: A. Net borrowing was up about 93 million in '92 and down about 4 million in '93. So approximately 90 million of that would therefore be on the books at the end of '93. So the difference between the total change and that change in net borrowing would be the foreign exchange component. 481

Q. I see. And how much of that is unhedged exposure? Do you know? Or is it possible? 482

A. I think the question doesn't quite fit, just looking at that one line because that line is showing long-term debt. 483

Q. You can't match it? 484

A. There is an offset on the asset side. 485

Q. I understand. And what is the offset, just to get it on the record? 486

A. It would be in unamortized debt costs. 487

Q. Now, in terms of the foreign exchange management program and the hedging against -- the hedging that goes with it, the thresholds we have talked about, Mr. Chee, are really as against -- certainly the $75 million is as against, sort of, income statement loss; isn't it? 488

MR. CHEE: A. That's correct. Was page 2783 489

Q. Has the Corporation given any thought to a sort of different sort of foreign exchange management program that wouldn't focus so much on the income statement impact but, rather, might focus on long-term predictions of where the Canadian dollar was going? That is, if long-term you felt the Canadian dollar was going to drop substantially, you might engage in a very aggressive hedging program? 490

A. I think we went through that at length in HR 20 in terms of our views on that particular subject. And just to kind of summarize them here, this exchange management program and policy that came in in 1991 is based on the fundamental thesis that there is again no particular value or no particular -- or we should not be betting again on our ability to forecast exchange rates in the long run. 491

What we should be doing, given the nature of our business, is to minimize the amount of exchange exposure that the Corporation faces. 492

Q. In any given year? In any given year? 493

A. No. in fact, not just for any given year, but that we should reduce the amount of exchange exposure as reasonably, as quickly as we can. And that what we have done in terms of a strategy to try to effect that reduction, is not to have incurred any additional exposure in borrowing on the foreign exchange side since 1985. And that has proven to be the most effective way of getting down the proportion of exchange exposure that we had. 494

In 1985, if my memory serves me correctly, foreign exchange or debt denominated in foreign currencies was approximately 50 per cent, or thereabouts, of debt outstanding, and as I think we indicated this year, we are down to about 16 per cent of debt outstanding and when you take the hedge portion we are really at an effective 10 per cent of debt outstanding. Was page 2784 495

Q. So I take it, it's sort of the same kind of debate you and I had about long-term interest rates and the degree to which one is prepared to speculate on whether they're at a low point today or not. The Corporation's view is what you would call responsible, to what I might call conservative? 496

A. The Corporation's position on exchange rates, as I said, was formulated in 1985. It basically said no more; we will not add any more. We will not add any more because we are basically a domestic Canadian based utility with assets that are almost wholly in Canada or in Ontario. Our revenues are predominantly in Canadian dollars and that over the years our income from secondary revenue sales 497 are now quite small. And, therefore, we do not have natural hedges against foreign exchange. And we took the position in '85 that we should minimize that component of risk for the Corporation.

Was page 2785 498
Q. Okay. Let me move with you to the recall provisions that you have. You have indicated that you have this 50 basis points trigger. That is you'll call bonds if there is a saving of over 50 basis points to be made.

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And, I take it, the fact that in 1992 that's resulted in a much smaller recall than in 1991 simply is a dictate of the fact that there have been fewer circumstances in 1992 where the 50 basis point saving was available?

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A. To date, that's correct.

501
Q. What is your anticipation for the remainder of 1992? I don't need a precise amount, Mr. Chee. What is your sense of what is going to happen? Is it going to be a continued sort of low-opportunity-to-recall world, or is it likely to change at all?

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A. Again, without -- I think our estimate in the annual strategy was that there might be an option to call about 75-odd million. Correct me if I am wrong on this number here.

Was page 2786 503
In an operational way, these calls get done in fact if the interest rates, actual interest rates, come into the levels at which the 50 basis points can be realized. In other words, we know that interest rates have got to a level where the call would in fact meet the 50 basis points test.

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So we don't, in a sense, put in a lot of resources to try and estimate, using forecast, what the volumes of these calls might be. We do have in the annual plan, I think, a range that is shown that if rates fell by 50 basis points, by 100 basis points, what the call levels might look like.

505
What I think we are more concerned about is - when the call levels are reached - is whether we feel comfortable, as we said that we should be issuing more debt at that time and whether that has any impact, in terms of completing that year's program's net of calls.

506
I think again, I said last year that given the requirements of ourselves and the province, the first priority is to get the borrowings completed. And that if there is opportunity to call, then we will call, but we will not call if it jeopardizes the completion of the program or the way the program is going to be viewed in the marketplace.

Was page 2787 507
Q. Is it at all a consideration, Mr. Chee, in urging you to reduce that threshold, that rates are at a cyclical low?

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A. I think, again, we have answered that by saying that we need to cover certain administrative costs associated with bond calls. The market, from a reception standpoint, does not particularly like calls

for financial advantage by the issuer, particularly when the financial advantage is perceived to be very small.

This 50 basis points test or criteria has been in place for a very long time. And we have effected the calls on that, and had virtually no adverse reaction as that is -- in other words, we have to reasonably conclude that that is an acceptable criteria, in terms of the market, for saying that that is a fair financial advantage for Hydro to effect the call. 509

We need to recognize that with the ongoing borrowing program, we need to be balanced in our approach of taking into account what investors expect. So while they expect that we will call for financial advantage, they do not expect that we call it for 10 basis points, for example. 510

Was page 2788

Q. Now, in 8.4.11 you describe one occasion this year when in a call situation you used something called the 'synthetic financing'? 511

A. That's correct. 512

Q. Just give us in a nutshell what a synthetic financing is? 513

A. Well, in early April, which is what the reference is in 8.4.11, the call was for a fairly small size. Again, without holding me to a number, I think it was around $40- or $50 million. That was the size of the bond issue. It was too small a size to do a bond issue. 514

We could probably have done a note issuance. In other words, we could have issued a note to fund the call. I think it was a two year remaining term to maturity. 515

That was the time in early April, prior to the provincial budget, that both ourselves and the province felt that we should be out of the market, until the budget was announced. But in order to take advantage of the fact that the call rate or the call target had been met, what we did was to issue some short-term commercial paper and do an interest rate 516

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Was page 2789

swap, which converted that short-term rate - floating rate - to a fixed cost. 518

So we synthesized, in a sense, fixed rate financing by starting off with issuing floating rate financing. 519

Q. I take it, this is simply another vehicle that allows you to engage in a recall of an issue, without doing a new issue yourself. 520

A. That's correct. It basically gives us a little bit more flexibility. 521

Q. And I take it, this is a vehicle you will continue to use as the opportunity arises? 522

A. Particularly in situations where, in fact, the bond issue to be called is quite small. 523

MR. BOLAND: A. I would just like to clarify an earlier remark of Mr. Chee's. 524

When we were heading into this discussion, he said "subject to check", that the level of calls in 1992, he thought, was somewhere around 70 million. 525

Just to clarify, it is around 210 million in 1992. And that compares to a level of about 636 million in 1991. 526

Q. You might just give us the reference for that, so the record will have it, Mr. Boland. 527

A. It is in the May -- it is in 8.1.0, table 8.1. Was page 2790 528

Q. Thank you. 529

Do you have any preference, Mr. Chee, as to whether in a call situation, you actually reissue a new bond, or whether you use the synthetic mechanism you told us about? 530

MR. CHEE: A. All things being equal, we will probably do whichever is cheaper. From time to time, the synthetic can in fact be lower in cost, than issuing a new bond. So all other things being equal, if that is the case, we will issue the synthetic. 531

On the other hand -- you know, as I said, these things are never as black and white as that. Synthetics, as I said, require that we issue commercial paper, short-term notes, and then convert it through a swap into fixed rates. 532

You asked earlier a question about what contingency sources do we have in case borrowing requirements get unexpectedly high, and I said, well, there was this $2.5 billion capacity that we had in short-term commercial paper. 533

So certainly we don't want to tie up all that capacity because part of its objective of being there is in fact to cater to contingency. 534

Q. Now, I want to turn, as my second last thing, to something that was said in the Decision in HR 20, where at page 151 in the Decision, the Board said that it -- and I am just going to read a short quote here, that: Was page 2791 535

536

It expects Hydro to complete the implementation of the CRESAP recommendations expeditiously, and to present updated evidence in this regard in HR 21.

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Can you tell us, Mr. Chee, whether Hydro has in fact completed the CRESAP recommendations?

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A. Just bear with me for a moment. I am trying to find the reference for you.

539

Q. It is at paragraph 8.5.5 of last year's Decision -- report, sorry.

540

A. Let me refer you to Interrogatory 8.6.2.

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That particular interrogatory asks us to update the status of CRESAP, in terms of its -- in terms of Treasury Division since HR 20. And just to summarize the response in the interrogatory, we said that we have finalized our direct reporting on CRESAP. We gave an attachment which indicated all the items in CRESAP, and what has been achieved to date. And I believe in the attachment there is also a recommendation from me to Mr. Burdette that that completes our reporting on the CRESAP initiative. And you will find also, I think, in the package, his concurrence in that regard.

Was page 2792 542

Q. I am sure this will be dealt with by the MEA, so I won't go too far into this. But does this response address the issue, Mr. Chee, of performance measures for the Treasury Division that might be based on minimizing the cost of funds on a long-term basis?

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I have this awful sense, Mr. Chee, that we are in a transition mode here, and next year I may simply see the laptop. (Laughter)

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A. You might be right, except I have to improve my typing.

545

I think what I was going to try and tell you, and I am trying to find the reference again, is that while there are existing performance measures for the funding program, there is, I think we indicated, an overall project; I think I said in my direct evidence in chief, in terms of looking at each program and making sure that we are doing the right things.

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And arising out of that, once we reconfigure what products or services the Treasury Division provide, there has to be correspondingly adjustments in performance, or result measures, to correspond to the change in the product configuration. So on one hand, while existing measures are achieved, they could very well be subject to change.

Was page 2793 547

Q. Then at 8.4.13, I just have two short questions for you, of which this is one. In the second paragraph you say:

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Hydro in 1992 hasn't undertaken any private placement opportunities because the opportunity didn't arise.

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Was Hydro out actively looking for private placement opportunities? Is that something you do, or do you just simply wait to have them come to you?

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A. I think in 8.4.13, you would have -- there is an attachment which gives the criteria that is jointly used by ourselves and the province, in terms of conditions under which private placements would be considered.

551
As indicated in the response, we have provided that to our underwriters; we have provided that to the Canadian syndicate; we have provided that to our global advisory panel; and said, if you have private placement opportunities that meet this criteria, we would like to know about it.

Was page 2794 552
Q. I guess it is really a question of degree of aggressivity, Mr. Chee. Do you tell them, go out and try to find some that meet these criteria; or do you just say to them, these are our criteria, we will be happy to talk to you if one comes along?

553
A. As I said, No. 1, we have given them the criteria, so we get them focused on what we will accept and what we will not accept.

554
Q. Right.

555
A. No. 2, for example, I think now every May, we hold an in-house session where the underwriters, both on our international side and the domestic side, comes in. We go over the borrowing strategy, both with the province, and ourselves with them. We tell them that we are in fact in the market to look at private placement opportunities that will meet the criteria.

556
In terms of evaluating the performance of the underwriters, we will take into account, in fact, whether they have shown us any opportunities and whether these opportunities fitted the criteria and whether they matched up with the kind of strategy considerations that we have outlined to them.

557
I think I also, in a response, indicated that as part of the investor relations that we do, I have asked investors directly what their criteria are, and what their appetite is for direct private placements with Hydro.

Was page 2795 558
Q. And lastly, Mr. Chee, your bond issues, for example, the last one that you did last week, do they ever carry covenants about things like your interest coverage ratios?

559
A. No.

560
Q. That has never been required by the marketplace?

561
A. No.

MR. GOUDGE: Thanks, Mr. Chee and Mr. Boland. Those are my questions. 562

THE VICE-CHAIR: Thank you, Mr. Goudge. 563

Mr. Alati, you indicated you had no questions. 564

MR. ALATI: That's correct, Mr. Chairman. 565

THE VICE-CHAIR: Energy Probe is not here. 566

Mr. Mondrow? 567

MR. MONDROW: Thank you, Mr. Chairman. 568

569

CROSS-EXAMINATION BY MR. MONDROW: 570

Q. Mr. Chee, I would just like to touch on one topic that was raised by Mr. Goudge, having to do with the provincial guarantee. 571

Was page 2796 572

I won't ask you to answer this from a policy perspective - I understand your deferral to Mr. Eliesen for that kind of question - but as the expert on borrowing in the markets, from a practical perspective, would it be advantageous -- could Ontario Hydro decouple itself from the provincial guarantee, and go into the markets and do at least as well, or perhaps better, than with the guarantee?

MR. CHEE: A. At the time that the guarantee fee was introduced by the province, we indeed -- and I think, again, we have filed this in evidence. Take a look at that. 573

And again, just going from memory here, I think we said that it seemed at that time that we could have probably got some third party, like an insurance company or a Triple A bank, to have guaranteed our debt on the same basis as the province, for something around 25 basis points; and in some occasions even cheaper. 574

I think we also said that having said that there was a finite capacity in the market, and my observation would be that trying to get a third party financial institution today to provide that kind of guarantee at less than 50 basis points would be difficult. Financial institutions, particularly banks, all around the world are being increasingly subject to new regulations, like the BIS. And having to clean up their balance sheets, and therefore, their capacity to do these kinds of products is greatly diminished. 575

So yes, we might be able to get some, but I don't think we could get it for the whole program. Was page 2797 576

Q. Can you go into the markets without a guarantee? Can you self-insure? 577

A. Again, this becomes a bit of a catch -- a bit of a -- well, I don't want to use the word 'meaningless'. 578
We can't, because the province says we can't.

Q. No, I understand that, but I am asking you not from a policy perspective or a legal perspective. 579
From a practical perspective is that something you could do?

A. Abstracting away from the legal requirements, yes, we could -- we could issue debt on our own 580
basis, sure.

Q. And if you were to do that, if you were to decouple from the provincial guarantee and go into 581
the markets and issue debt on your own basis, could you do at least as well and perhaps better than with the provincial guarantee in place?

A. I think my general conclusion would be that we would have to pay a higher cost. 582

Q. So then can I take it that as bad as the provincial situation is, with respect to capital markets, Was page 2798 583
Ontario Hydro's is worse?

A. No, I don't think that would be a fair conclusion. 584

I think the utility has been capitalized in a particular fashion because of the policy of the province 585
providing that guarantee. And, therefore, it is not a question of whether in fact the utility is financially more sound or less sound. It is the fact, that in fact the funding of the utility, its debt structure, and so on, has evolved on the premise that the guarantee is always there.

Q. Yes, but Mr. Goudge asked you because of the current financial situation of a provincial 586
government, and in fact, as you pointed out, a lot of governments, the guarantee was becoming more of a handicap than an asset. And a minute ago, I think you answered me that if you went into the market without the guarantee you might be able to do as well, or perhaps even better.

A. And I would say that -- No. I said that we would be able to get funding without the guarantee, 587
but I also said that the funding would probably be high in cost. And I will also make that remark to extend to -- whether in fact one viewed provincial finances as being positive or negative, in terms of their impact on Hydro - given the nature of our debt structure, given the premise that we finance with the guarantee - any time that we try and do something assuming from the legal standpoint and from a policy standpoint that we can, we will end up paying more.

Was page 2799 588

Q. Yes. I'm sorry. I was incorrect in restating what you had told me. In fact, what you said is that you could do it, but you would pay more. And I am going to ask you again because I wasn't clear about your answer. That suggested to me that if you went into the markets on your own, you would have to pay more. That the markets had more confidence in the government, than in Ontario Hydro. And I will ask you, please, to restate your answer for me as to why you don't agree with that.

589

A. All right. Let me take another run at it.

590

The fact that we would pay more without the guarantee is not, to me, a reflection of whether Hydro is worse than the province. It is a reflection of the fact that that's the way Hydro has been financed through the years. And that if you tell an investor, "I'm now going to do a bond issue and give you a product that is less in terms of a risk protection for you than the one you had before." I would think that regardless of Hydro's financial situation, he would say, "I'm getting something less than what I had before; therefore, I have got to charge you more for it."

Was page 2800 591

Q. Okay. Can you explain to me then why self-insuring, in essence, would offer less protection than going into the markets with the provincial guarantee -- from the lender's perspective?

592

A. Because at the time that we were looking at self-insurance -- it isn't self-insurance. It is insurance provided by some other party. Therefore, what is simply being reflected is that at that time, certain banks were willing to provide that kind of guarantee for something less than the province wanted. That's all it reflected.

593

Q. Mr. Chee, I am asking you now about going into the market without a third party guarantee.

594

A. Okay.

595

Q. And if I understood your answer - to paraphrase - you're saying, in essence, the markets would have less confidence relying simply on Ontario Hydro, than it would in relying on Ontario Hydro as supported by the Ontario government?

Was page 2801 596

A. That is not what I said. I said that the markets have always received a Hydro bond with a provincial guarantee on it, abstracting away from, as I said, the performance of Hydro; whether it's good, bad, or whatever -- whatever judgment you want to pass on it. If we went back to the market and said, "I am now going to give you something and take away a component that you used to have", all other things being equal, they would say, "You pay me more for it."

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MR. MONDROW: Thank you, Mr. Chee.

598

Mr. Chairman, those are my questions.

599

THE VICE-CHAIR: Thank you, Mr. Mondrow.

Mr. Anshan, I neglected to consult with you about your questions of this panel. Do you have any questions for the panel? 600

MR. ANSHAN: Yes, Mr. Chairman. I have probably about four or five questions. 601

THE VICE-CHAIR: Mr. Smith, would you object if he went ahead of you, since he has only got a few? 602

MR. SMITH: Not at all. 603

THE VICE-CHAIR: Thank you. 604

Was page 2802 605

CROSS-EXAMINATION BY MR. ANSHAN: 606

Q. Mr. Chee, I would just like to follow up on the questions that my friend was asking on the provincial guarantee, just to try to get a little bit more clarification. 607

Did I hear you say that Ontario Hydro has always been borrowing with the provincial guarantee in place? 608

MR. CHEE: A. As far as I can remember, yes. 609

Q. Just for the record, when did the government introduce this provincial guarantee requirement? 610

MR. BOLAND: A. I believe it was May, 1989 -- 611

MR. CHEE: A. For the guarantee requirement -- yes. 612

Q. The guarantee fee. 613

A. The guarantee requirement, or the guarentee fee requirement? 614

MR. BOLAND: The guarantee fee requirement. 615

Q. In the '89 budget. 616

A. Yeah. Subject to check, I believe it was 1989. 617

MR. ROULEAU: I think the fee is part of -- the guarantee is part of the, sort of tied into the guarantee fee, but I don't know that that's a legal requirement that we issue with a guarantee. I just want to avoid that confusion. Was page 2803 618

MR. CHEE: The legal requirement is that all issues be approved by the Lieutenant Governor and Council. The policy requirement for the province to get that particular approval is that they be issued with the guarantee. 619

MR. ANSHAN: Q. Has that always been the case? 620

MR. CHEE: A. As far as I know. 621

Q. So it was only in 1989 that a fee was -- 622

A. That's correct. 623

Q. Do you have any evidence or any indication from the market that there is a lack of consumer confidence in Ontario Hydro's ability to repay its debt? 624

A. No. 625

Q. Has Ontario Hydro ever defaulted on the payment of any of its debts? 626

Q. So could we say that over time, if the fee were to be removed and if the guarantee were to be removed, that within a certain period of time, a number of years -- I don't know how many -- the increased cost that you just mentioned earlier, associated without a guarantee, could be overcome? 627

A. Are you saying that the additional cost of borrowing without the guarantee could be overcome? Was page 2804 628

Q. Well, let me try to clarify. You mentioned that lenders would be saying now they would be getting something less without the guarantee, and therefore, they would have to charge you more for that because they're getting something less, right? Take that as a given. But over time, perhaps one could argue that they might still be getting something less, but in place of that, they would be getting increased confidence that you're going to continue to repay your debt, and therefore, the associated increased cost could be forgiven. Would that not be a practical possibility in terms of -- 629

A. I am trying to understand -- because you mention in your question that they don't have to guarantee, or they'll transit out of the guarantee, but in return they'll get increased confidence that we will repay our debt. I am just trying to understand how that arose. Not that there is no confidence. I am just saying, increase implies a change. I am not sure what you meant by that. 630

Was page 2805 631

Q. I guess what I'm trying to suggest is that if you're always repaying your debt consistently, never defaulting, the value of that guarantee to the lender -- there is really very little value to it because they never have to rely on it.

632

A. I think if you were a lender, you would say that that may be the case; but if I have got it, I am not going to give it back to you.

633

Q. Sorry? I didn't hear that last --

634

A. I would suggest that if you were a lender, and I think this is what a lender would say, is that, "I know you have always paid your debts but to the extent you have always provided me with a guarantee, I am not going to let you not provide a guarantee."

635

Q. Except that in the next year, next two or three years, without a guarantee, they would say to you, "We're going to charge you a little bit more for this.", right? So for the next couple of years, you might have to pay a little bit more, but in the long-term you might end up paying less because the lenders would be realizing that in order to continue doing business with you, they're not going to get a guarantee. And they're sure going to want to do business with you.

Was page 2806 636

A. Again, like all propositions, this one kind of becomes distilled to a level of simplicity. It is difficult to give you a short answer.

637

We have to view issuing of debt similar to selling a product; while as from an issuing side, or Hydro viewing it as borrowing money.

638

In terms of what goes on in the marketplace, we're basically selling a security. We're selling a product. We're selling it to a potential buyer. Like everything else that you sell in the market, you subject it to comparative pressures; so if B.C. Hydro sells debt with a guarantee, and Hydro Quebec sells debt with a guarantee, and so on and so forth, there is not only a price factor, but there is also going to be a size factor, or an availability factor, if you want to put it that way, when your product gets perceived to be less attractive.

639

Q. However, given the economic situation today, there aren't too many borrowers of the size of Ontario Hydro out in the marketplace. Is that correct?

640

A. The other thing I should have said is that we don't just compete in this market. We compete in markets all around the world. And we compete with the likes of the World Bank; we compete with the likes of the Republic of Italy; with some of the European states; with the European investment bank. These are all very large borrowers, issuing product, i.e. securities in the marketplace. And people will make up their minds as to whether the total package of the product that you provide -- in other words, price -- as in anything else, price is only one component of that product. And, in fact, it is comparative relative to all the other products out there.

Was page 2807 641

Q. You're still providing a pretty good product though, to the market? In your direct evidence, you indicated the uptake of --

642

A. Obviously -- I mean at all times, within the context of what we do, and the kind of policies that we have to follow, all we do is to try and produce the best product that we can.

643

Q. Your preference, of course, would be to function without that guarantee, I would presume?

644

A. I did not say that. I am just saying that within the bounds of the constraints of the policies that we have to follow, we produce the best product that we conceivably can.

645

Q. The Corporation would prefer not to pay a guarantee fee, I would assume?

Was page 2808 646

A. I think, again, I would prefer that you --

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THE VICE-CHAIR: Mr. Anshan, I think you are going a bit beyond the capability of this witness to answer some of these policy-type questions.

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MR. ANSHAN: We'll leave it for Mr. Eliesen then, Mr. Chairman.

649

THE VICE-CHAIR: All right. Thank you.

650

MR. ANSHAN: I just wanted to ask two more questions.

651

Q. In your direct evidence with Mr. Rouleau, you indicated that one of the factors you utilized in determining when to borrow is based on sort of the political environment at the time. This is when you referred to the constitutional situation. I was just going to ask you, who in your unit, or who in the Corporation, does the political analysis for you to help you decide when to go into the market?

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MR. CHEE: A. Again, just to be accurate. When I made mention of the constitutions and of government deficits, that was in relation to trying to formulate a plan, or a strategy for the year; and not in terms of exactly when to borrow -- you know, a particular issue, or some other issue. So it's more in terms of evolving an outlook for capital markets, given factors that conceivably impact on capital markets.

Was page 2809 653

The person primarily that would look at these issues would be our Treasury Economist, who would do that in consultation with, and taps into, the Chief Economist unit; who do forecasting in terms of interest rates, in terms of financial market conditions, dollars, and so on, and that's who the Treasury Economist would tap into. And he also would tap into forecast outlooks, commentary, and so on, provided by a wide variety of sources, from professional economic forecasters to investment dealers, to banks, and so on.

Q. Well, is there anybody within your division or within the Corporation who helps with the factors, with respect to political considerations? 654

A. If you're asking whether we have a political specialist within the Corporation, the answer is no. I think what I have sighted in my evidence in-chief is that political events certainly impact on capital markets. And we have to be aware of the political environment, in terms of its potential impact on capital markets, so we will monitor that. We will get information on that. 655

Q. I think that is very fair, but what I'm trying to determine is who helps you anaylyze those political factors so that they fit into your equation? 656

A. And I told you they come in from a variety of sources. I think the Treasury Economist will do that as part of his job, in conjunction with the Chief Economist unit. He will also get input from a wide variety of commentators. Was page 2810 657

Q. Political commentators? People who like -- 658

A. Well, there will be commentators -- commentary on political impacts on capital markets is quite typical in, for example, in forecasts or outlooks at capital market, provided by investment banks. 659

Q. Would you rely upon the provincial government officials that offer this kind of political input from any of the government ministries? 660

A. The input that we want, or the essence that we want, is not the political event per se, but the impact of the outcome of that political event, one way or the other, on capital markets. So there is no judgment passed about whether, in fact, about the political events. What we really want to know is that if it comes in one way or the other, how do markets tend to react? And that will depend primarily on financial sources. 661

MR. ANSHAN: Thank you very much. 662

THE VICE-CHAIR: Thank you, Mr. Anshan. Was page 2811 663

Mr. Smith, I think what we'll do in terms of timing here is to adjourn at about 20 after the hour. Could you go ahead? 664

MR. SMITH: Thank you, sir. 665

666

CROSS-EXAMINATION BY MR. SMITH: 667

Q. I just would turn you, Mr. Chee, to the concept of the hedging program, the foreign exchange management strategy. As I understand it, just to capsulate the thought, this is essentially a strategy which would cap Hydro's potential foreign exchange loss or cost in a particular year; is that fair? 668

MR. CHEE: A. That's the impact on income. Yes. 669

Q. Right. And for 1993, that cap from your strategy would be $75 million; is that right? 670

A. That's correct. 671

Q. And I take it, sir, that that $75 million threshold was chosen at a time when the projected net income for '93 was about 570 million; is that fair? 672

MR. BOLAND: A. That's correct. 673

MR. CHEE: A. That's correct. 674

Q. All right. So I take it that figure then, if we did the proportion - the allowable threshold versus the projected net income was about 13 per cent of projected net income; is that right? 675

Was page 2812

MR. BOLAND: A. That works out. 676

Q. Now that figure, taking roughly 13 per cent of net income as a threshold or an acceptable risk factor, isn't that about the same range that was deemed acceptable for 1992 and probably the year prior? 677

MR. CHEE: A. Sorry. Can you -- 678

Q. Sure. What I'm asking is whether that percentage figure, the threshold figure, or the cap, or the risk factor vis-a-vis net income was about the same percentage? 13 per cent? 12 per cent? 679

A. As in previous years you're saying? 680

Q. Right. 681

A. As a general rule, that is looked at. In other words, if in previous years the threshold has been set, we will say that if in fact you express the same risk preference in the linear sense, then given a new level of net income, that would be a threshold. But other considerations go in. And as you can see in the 1992 program, we basically said, given the outlook, given what we can do in the market, we will set the threshold in fact at zero and simply go out and hedge the thing because we can actually 682 lock up a $20 million gain, versus what was in the rate finalization forecast at that time. So we didn't take -- in that particular instance, we didn't simply take a linear proportion of what that threshold was. We sort of said it made sense to get it locked up when the market gave you the opportunity to actually lock it up in a positive sense.

Was page 2813 683

Q. All right. Isn't the concept of maintaining that kind of flexibility, so that you could in fact profit from the hedging program -- Isn't that a bit inconsistent with the concept of it being strictly an insurance type of policy?

684

A. The primary focus is to protect, as I said, the Corporation's bottom line from a certain threshold that management judges it doesn't want to go beyond.

685

In doing it, it has a number of options. It can go in -- as we have done in 1993, simply leave it at a trigger. At a particular level we will put it in. It can actually go out and hedge in the forward market.

686

What has to be recognized is that every time you take a hedging action, you will incur some costs, and you potentially will have some opportunity costs. And, therefore, it's recognized that a certain degree of flexibility ought to get put in place, and not get everything -- it is as risky to lock things up as it is not to lock it up, and therefore, we have to allow a certain degree of flexibility to say,"at what point do we want the insurance to fall in"?

Was page 2814 687

Q. Does having that degree of flexibility reduce the assurance that that threshold can be met? That you're going to be able to cap it at whatever figure you have picked?

688

A. The threshold -- the establishment of the level of the threshold is -- or the considerations going into the establishment of the threshold are solely focused on what is an unacceptable level of net income loss, caused by a change of fluctuations beyond which you don't want to go.

689

There is no consideration in establishing the threshold or no weight of any significance given to what the upside potential might be. The upside potential really is the next piece that comes in and says, well, what kind of flexibility do we want to have?

690

So the threshold level is set quite independently, as I said, by looking at net income levels, by looking at other elements that impact on net income relative to just foreign exchange.

691

Q. So if I understand it, the bottom line of what you are saying now, Mr. Chee, is that if we hear from Hydro that for a particular year it has a threshold or an acceptable cap on risk of say $75 million, that is not in fact the case because the policy is so flexible that it is not going to guarantee a cap of that magnitude; is that fair? In other words --

Was page 2815 692

A. Oh, the cap -- we will -- regardless of what we put in as flexibility we will not have an impact on net income higher than 75.

Q. Regardless of the degree of flexi- bility you are maintaining? 693

A. The flexibility that is allowed in the policy basically would say you will have no worse an impact than 75. As I said, that is in fact the management judgment on what I call the deductible of the policy beyond which I am covered. Clearly there is not going to be an impact beyond 75. 694

What the flexibility allows essentially is that we might in fact if exchange rates result in in fact the dollar appreciating, not to have got locked in so that we can take the benefit of an upside in exchange rates. And that is why the word 'threshold' is used. It is a level at which we do not cross. 695

If the exchange rate hits this threshold level, we will in fact get locked into a $75 million worst case position. 696

Q. And the threshold that you are maintaining for 1993 of $75 million, if you compare that to the now projected net income for 1993 it is about 30 per cent of the projected net income; isn't that fair? Or just slightly below 30 per cent? Was page 2816 697

A. Yes, approximately that's correct. 698

Q. And I take it you would agree with me that the lower the threshold relative to forecast net income the more conducive it is to the objective of strengthening Hydro's financial position; isn't that fair? 699

A. You are saying that if we kept the threshold smaller we wouldn't be potentially as adversely hit by a decline in exchange rates? You are correct. 700

But there is a cost that has to be met to pay for that. It is like -- again, I come back to this insurance example. If you took an insurance policy out where you pay the first $500 it is going to be cheaper than if you took an insurance policy out where you don't pay anything. 701

Q. Does it give you any concern that now we have a threshold for the 1993 year equal to 30 per cent of the projected net income? 702

Doesn't that fact in and of itself give you some concern that perhaps the threshold shouldn't be maintained at that high a level, that it should be reduced, that you should be being a little more conservative in this policy? Was page 2817 703

A. I think if I refer you to 8.1.5 that consideration was indeed made at the time that we looked at -- at the time that we reviewed the foreign exchange strategy for the second quarter. 704

And on page -- in schedule C of that exhibit we went through the factors about net income. We recognized the fact that net income has gone -- has now been revised from 570 to 318. 705

We looked at lowering the threshold levels and we looked at the costs. We indicated that there was no constructive hedge that could be cost- -effectively put together for a threshold as low as 45. 706

We looked at the risk of remaining at 75 and decided that at least for now we would be comfortable at staying there. And we, like the annual strategy says, that we will again take a look, another review of it in the third quarter. 707

Q. Is it true that you in fact were not able to go down to a $45 million threshold? 708

A. I am taking a look at attachment B here, which is the last page of that particular exhibit. Was page 2818 709

We could have done a $45 million threshold. For example, we could have constructed a range forward with a $45 million threshold, but we had to live with the Canadian dollar appreciation that was something less than 86 cents. 710

I think we answered that in Interrogatory 8.6.16 where we said we could not construct a hedge on the range forward with a $45 million threshold and having upside potential to 86 cents. 711

What that also suggests is that we could have probably constructed a hedge with a $45 million threshold with upside potential something less than 86 cents. 712

Q. Let me ask you in sort of a generic sense, if Hydro were to decide or if this Board were to recommend that the acceptable threshold or the acceptable risk factor for 1993 should be something less than 30 per cent of the projected net income, can anything be done in practical terms to achieve a lower cap? 713

A. Provided that the Board also -- or the recommendation also included what kind of cost you wanted to pay to achieve that lower cap. I think both go hand-in-hand. 714

Again, as I said, I used the example if you took a $500 deductible on your insurance policy you pay X. If you want to recommend that we go down to a $100 deductible I think it is also fair to say how much would you be willing to pay for that? Was page 2819 715

Q. Just to follow up on that last answer, is there a clear spelling out in the materials somewhere of the approximate cost of obtaining different thresholds so that the Board could indeed consider the flip side of recommending a lower threshold? 716

A. As I said, I refer you to attachment B, which is the chart at the last page of Exhibit 8.1.5. What we have shown there is a range of outcomes using a number of strategies versus locking it with forwards, and we show there the costs. 717

For example, if you look at the top line, it says at a $60 million threshold we could buy -- we could protect that with buying put options, but the cash cost would be 15 million. 718

Now, the way that table is constructed the 15 million is part of the threshold. In other words, conceptually if you had to spend 15 million to protect yourself at 60, it is 75 that you spent. So when we define the threshold as 60 and the cost to do it is 15, the effective threshold is actually 45. The way we construct it 60 is the total cash cost plus the downside that would come up. 719

Was page 2820

Q. All right. And just finally on this chart, then, could you just describe for me what line E represents, exactly what that means in narrative terms? 720

A. E means that we can construct what we call a range forward hedge, which will have a threshold no worse than 45 on the adverse side and will give us an appreciation, allow us to participate in appreciation to 82 cents. 721

Now, this is the one that I alluded to, that we couldn't construct one for 45 million and 86 cents. Market pricing said you can construct one at no cost for 45 million to 82 cents, which never made any sense because what it in fact guaranteed, if you look at that bar chart there, was your worst case was minus 45 relative to the reference point, which is the forecast net income level, and your best case was minus 19. 722

So you are going to put a hedge in which at best you were going to be minus 20, at worst you were going to be minus 45. 723

Was page 2821

And if you look at that bar chart there are not a lot of opportunities to get to the plus side of that chart. 724

MR. SMITH: Mr. Chairman, would it be appropriate to break now? 725

THE VICE-CHAIR: Yes, it would be convenient and appropriate. We will adjourn, then, until two o'clock. Thank you. 726

---Luncheon recess at 12:20 p.m. 727

---On resuming at 2:03 p.m. 728

THE VICE-CHAIR: Be seated, please. 729

Now, Mr. Smith? 730

MR. SMITH: Thanks, Mr. Chairman. 731

Q. Mr. Chee, if you would just forgive me, if I can revisit this just for a moment. 732

Can you give us specifically why Hydro did not choose the lower threshold of $45 million for foreign exchange loss for 1993? Is there a relatively simple way to answer that question? 733

MR. CHEE: A. The simple answer would be that we considered lowering that threshold -- as I said, it is like lowering the deductible. 734

We looked at the costs that were required to bring us there and felt it was not cost-effective, again, without holding hard to the numbers to move from a $75 to a $45 million threshold. In other words, we reduced the potential size of the adverse impact by 30 million. The cost was somewhere around about $9, $10 million and it was felt that to spend a dollar to potentially reduce the loss by $3 that may or may not happen. In other words, while it was not -- not a cost-effective investment. 735

Q. I appreciate that you answered that in a simple way. That is helpful. Was page 2822 736

Do we understand then from the chart that you last referred us to before the break in Exhibit 8.1.5 that the approximate cost of maintaining a $45 million hedge under your analysis was about $19 million? Am I reading that correctly? 737

A. Where do you see the 19? Oh, okay. No, no. Under E, the option there is to put in a no-cost range forward. That means we protect on the downside, but we give up a certain amount of upside appreciation by selling an option that funds the cost of the option that we have to purchase so that in fact no net outlay is done by Hydro. 738

That will protect us at 45. So to buy the option that protects us at 45 costs a certain amount of money, and we have to sell an option on the other side to fund this purchase. 739

What it says there is that the option that we buy on the upside can only give us appreciation potential to 82 cents, which didn't make any sense, as I said, because at 82 cents -- in other words, if we only could have the benefit of an appreciation dollar to 82 cents relative to what is in the rate forecast we would be locking in a $19 million loss relative to rate forecast. That is what that 19 means. Was page 2823 740

Q. If this Board were to consider recommending that Hydro seriously look at maintaining a lower threshold than $75 million for 1993, is there some fairly simple information the Board could look at to know what the flip side is, in other words, what the cost of maintaining a threshold of 'X' million dollars might be? 741

Is Hydro able to produce something like that using assumptions I guess of the dollar being where it is today, for example? Is there some correlation or chart that Hydro could produce for this Board if it were to consider that? 742

A. I think I would be prepared to make an attempt, an undertaking that would look at moving the threshold from 75 say to 45 and show the incremental costs that would be required to move it that amount by today's rates. And we could do it for a number of strategies, which is, we could simply go out and protect 45 with unlimited upside. We could go out and put a range forward with limited upside. I think we can do that. 743

MR. SMITH: Mr. Chairman, if it pleases the Board, and I suppose Mr. Rouleau, we would like an undertaking of that nature. I would anticipate Mr. Rouleau might want the parameters more defined than they might have been. Was page 2824 744

I guess we would ask if it can be done with reasonable effort that an analysis be done of the cost for reducing the threshold to 45 million and, say, $30 million on a scenario, I guess, of no upward advantage to Hydro and then I guess of some upward advantage to Hydro. 745

THE VICE-CHAIR: Mr. Chee, do you understand the request? 746

MR. CHEE: I understand the request. I know what Mr. Smith is looking for. We will make our best efforts to provide that kind of sensitivity analysis for the Board. 747

THE VICE-CHAIR: All right. We will make that Undertaking No. 8.3.1. 748

---UNDERTAKING NO. 8.3.1 The Borrowing Panelundertakes to provide an analysis of thecost for reducing the threshold to $45million and $30 million on a scenario ofno upward advantage to Hydro and of someupward advantage to Hydro. 749

MR. SMITH: Thanks, Mr. Chairman. Was page 2825 750

Thanks, Mr. Chee. 751

Q. If I could, sir, have you turn to Interrogatory 8.6.17, please. There in the answer is a reference to the Treasurer requesting a further review focusing on the whip-saw risk. 752

Can you just elaborate for us, please, what you have in mind regarding that risk, what it is? 753

MR. CHEE: A. When you establish a threshold, and in this particular case for '93, it was at $75 million, and equate it to a rate at which you would trigger it, which was below 80 cents. I think one thing we pointed out in the strategy documents is that one of the - if you want to put it - disadvantages of using a trigger strategy is that once it is triggered you lock yourself into that particular level. 754

755 There is always the risk that the dollar declines, triggers in fact -- the trigger in fact gets executed and the dollar comes -- appreciates back.

756 So you get this what we call a whip-saw effect of getting triggered and then finding out that subsequently you really didn't have to get triggered.

757 If the dollar kept on declining, then you would protect it. If the dollar came back up again, then you really got -- you locked in when you didn't really want to lock in.

Was page 2826 758 At the time that we did the '93 strategy, if you recall, the dollar was up around about 87-88 cents, and we felt that the whipsaw risk was removed. We're now looking at a dollar at about between -- a tad over 83 cents. It has been harbouring around the high 82s to the 83-and-a-halfs. And when the Finance Committee approved that we simply stay at a $75 million trigger, my request to the staff was that: What does it cost to prevent the whipsaw risk, since we are now closer to the threshold level? Instead of simply leaving it alone and saying we'll trigger it at $75 million. So that's what's being looked at.

759 Again, without being completely firm about the number, I think the indication is that it will cost us about $4 million to get rid of that whipsaw risk. And therefore, the determination that needs to be made now is, is it worth spending $4 million to remove that risk?

760 Q. Thank you.

761 Part of the interrogatory question was whether Encor had been consulted, regarding their recommendations in the foreign exchange management strategy. I don't think it was answered there. I am wondering if you could advise us today if they were consulted?

Was page 2827 762 A. In this particular interrogatory?

763 Q. I believe in 8.6.17.

764 A. My own reference will tell me that maybe you're referring to 8.4.21?

765 Q. Well certainly our copy of 8.6.17 has it.

766 A. Can you give me a reference in -- Oh, 8.4.17. Sorry.

767 MR. DARLING: 8.6.17.

768 MR. CHEE: Can you give me a reference at 8.6.17?

MR. SMITH: Q. It will be the last question. 769

MR. CHEE: A. No, Encor was not consulted with reference to 8.15, but certainly the recommendations in 8.15 are within the context of the framework and policy that Encor helped put in place in 1991. 770

Q. Mr. Chee, I take it, you would agree that Encor suggested that Hydro's net income hedging strategy should cover a two-year horizon. Do you agree with that? 771

A. That's correct. Was page 2828 772

Q. When do you see the 1994 strategy then, being formulated and presented for approval? 773

A. We would look at it toward the fall of this year and we will be looking at '93, revisiting '93 and '94 at that time. 774

Q. Are there any long-term foreign issues that are foreseen now that give you concern from the hedging aspect? Is there likely to be any significant new unhedged exposure? 775

A. I think as I indicated this morning, unhedged foreign exposure on debt principles outstanding is about 10 per cent. Given our policy of not increasing the exchange risk, that should keep on declining. We still have the policy in place, that if we cannot fund everything directly in Canadian dollars, we will do foreign issues, but they have to be swapped into Canadian. We might have to pay a bit of a premium cost, and that is recognized again in the exhibit contained in the funding strategy. So all in all, I do not foresee that the exchange exposure of Hydro would increase from present levels. 776

Q. Thank you. If you could, sir, turn to Interrogatory 8.4.26? 777

A. Yes. 778

Q. You refer, in answer (a) to six Hydro issues, totaling about 900 million U.S. dollars, that are outstanding under the special circumstances policy. Was page 2829 779

A. Yes. 780

Q. We were wondering what that policy is? Is it a new policy, or is it an old one under a new name? Could you just elaborate on it a bit more? 781

A. No. In the 1991 exchange policy that was filed in HR 20, there is a section in that policy, under the section called "Special Circumstances". What it says, in that section of the policy, is that if at any time we could hedge an existing issue, such that the Canadian cost after hedging - including the cost in Canadian dollars prior to the hedge - resulted in an overall cost for that issue which would 782 be less or equal to what otherwise would have been the cost on the original date of the issue in Canadian dollars, then we should proceed and hedge that remaining life of the issue.

In simple terms, if we do that under that test, then we would have in effect issued, or serviced, the debt at a cost no higher than had we funded in Canadian dollars in the first place. 783

Q. Mr. Chee, you might recall your earlier evidence, where you indicated that -- in the memorandum to the Finance Committee of April 10, 1992, you said that the capital markets during the second quarter of '92 were expected to be worse than described in the 1992 corporate financing strategy. And I think you quite candidly pointed out that your view now has changed somewhat, or significantly, and that you're now quite a bit more optimistic about capital availability in the medium term and the long-term; is that fair? 784

A. I think the view is more positive, yes. Was page 2830 785

Q. When you wrote the report of April 10, 1992 though, you said a higher than expected Ontario deficit -- this is 8.1.5 on the executive summary. Just a couple of pages in. 786

Under Item 2, you stated that a higher than expected Ontario deficit might adversely affect Ontario credit rating, and make access to capital markets more difficult and expensive. And it seems to be now that your view is quite different. In the space of a couple of months, your view has changed quite a bit. 787

It would seem to me though, that when you discussed in April, a higher than expected Ontario deficit, that is a significant factor that hasn't changed. Is it the case that you were simply mistaken in making that observation in April, or is it a case of capital availability is something that simply cannot be talked about with any degree of accuracy? 788

A. Well, I think the latter statement that you just made, which is that it is difficult to get a precision about capital availability, in general, is true. Was page 2831 789

In the context of the statement, or the sentence that you have referenced in 8.15 -- if you notice the memorandum was dated April the 10th. It was probably prepared and finalized about 10 days before April the 10th, so it was right at the beginning of April. And the provincial budget did not get released until April the 30th. At that time, all that we had to work on was, in fact, the announcement made in January, that under a no change scenario in the province, the deficit could be as high -- I think the number was 14.3 billion. 790

And as I said earlier this morning, we had sat down with the province and said, "Look, we know that we are not going to be privy to what happens in the budget, but we need to sit down and co-ordinate how we'll actually do things if it was at 14.3." That's the number that we know, and the rest of the world knows. And so the statement made in the executive summary is based on that January release, which certainly the market at that time took as a higher than expected Ontario deficit. 791

Q. I would like to ask you on quite different topic -- It is just a follow-up on one of your interrogatory responses, where you indicated that Hydro is investigating possible changes to the Power Corporation Act, to permit Hydro to issue bonds in the European currency unit market. Are you familiar with that? Was page 2832 792

A. Yes. 793

Q. Can you just tell us, Mr. Chee, whether any representations have been made to the government with respect to that? And whether you foresee that necessary changes are forthcoming? 794

A. The application has gone through the Committee stage, and is simply awaiting scheduling for when in fact the act can be changed. 795

Q. And with respect to non-conventional, possible sources of funds for Hydro, can you tell us whether Hydro has taken any initiative, with respect to accessing the funds which the municipal utilities receive but, as I understand it now, don't remit to Hydro until the middle of the month? Have you looked at the possibility of whether Hydro can access those funds earlier and whether that will be beneficial? In other words, whether you can take them out of the hands of the municipal utilities earlier than you're getting them? 796

A. Can you be maybe a little bit more precise? I know we bill the municipal utilities. And then there is a period by that -- that is there before the funds are remitted to us. Was page 2833 797

Q. Yes. As I understand it, the due date of the power bill -- the monthly power bills is the 16th of each month; and that's when the funds are remitted to you, is my understanding. But that the funds are actually in the hands of the municipal utilities well before that, the funds that are actually used to make that remittance. Has Hydro ever looked at whether more productive use can be made of those funds? 798

A. Essentially, again if I understand your proposition, the way to get at that - or the way to get it into practice - is to change our billing cycle to the municipal utilities. And my sense is that that is something that if you want to try, would have to be discussed with the municipal utilities. So I have no sense at this point whether, in fact, that is an issue in which they are open to discussion. 799

Q. All right. 800

I wanted to clarify a couple of terms. I think Mr. Goudge focused on one, synthetic financing; and you explained what that was about. There's a couple of references in the filed evidence to "plain vanilla issues". And although I have an idea of what that is, I was speculating. I am wondering if you could just elaborate on that for us, so that we can read the evidence quite the way it should be read? Was page 2834 801

802
A. A "plain vanilla issue" is simply the most conventional bond issue that you can do. A fixed rate bond issue for a maturity that is standard in the marketplace.

803
Q. Callable?

804
A. I would say 10 years ago, plain vanilla would include a callable feature. Today, a callable will not be a plain vanilla issue.

805
Q. Speaking of callable issues. When you say that a Hydro issue is "callable", I take it that Hydro's issues don't have any restrictions on callability. They may have time periods when they can't be called -- I'm not sure -- but there is no financial advantage limitations in them. There is no condition that Hydro has, to be borrowing at certain other rates before it can call.

806
A. For the issues which are callable,

807

Was page 2835 808
and as I said, a call feature on a bond issue, today, is not present. The market just will not accept a call issue. So for the older issues, which have the callable feature, yes, we can call them at any time, with or without financial advantage, although, obviously, the call feature is and -- it's at our option, so we will likely only call them for financial advantage.

809
The only other circumstance which will still be present today, where a call feature would be in, is that we have the ability to call back the bonds if -- for example, if withholding tax is imposed. If withholding tax is imposed on a provincial bond, or a Hydro bond, the feature now is that we can either agree to gross up the coupon, so that we keep the investor whole, in terms of his original contract, or if we choose not to do that, we can call back the issue.

810
Q. Thank you.

811
Can you tell us, sir, whether you foresee any situation where a callable bond, which might meet the 50 basis point criteria that you have, would not be called at the first opportunity, during the rest of this year or 1993? Is there any reason such a bond would not be called? And do you forsee that happening?

812
A. The circumstance under which that would happen, as we indicated in the strategy, was if we felt that calling that bond which therefore requires that we go out in the market and borrow additional monies to finance that call would have a negative impact in terms of either completing the borrowing program or adversely impacting in some sense how, for example, the market viewed the program.

Was page 2836 813
A likely scenario in this particular instance would be that the call was going to be very large. In other words, it was a large bond issue. Markets were much less constructive for -- than we face

today. And we felt that there was going to be difficulty to complete the program in a conventional sense and had to move to some of the riskier or non-preferable alternatives that we have listed as items that we might consider under less positive market conditions. Then I think we have to carefully debate that point, whether adding onto to the bond requirements would be sensible. At that time, part of the consideration also would be whether we felt that in the near future the bond could again be a candidate for call.

MR. SMITH: Mr. Chairman, if I can just have a moment? I think I might be able to shorten this a little bit. 814

THE VICE-CHAIR: Certainly. Was page 2837 815

MR. SMITH: Thank you. 816

Q. Sir, could you turn, please, to Interrogatory 8.6.3, and I am going to be asking you if this relates to another table. You could also turn up at 8.1.3. It is Table 8.5.1 which is almost at the very end of 8.1.3. Are you looking for 8.5.1? It's a table almost at the end of 8.1.3. 817

MR. CHEE: A. Yes, I see that. 818

Q. All right. 819

What we wanted to check was whether our wording is consistent here. In the interrogatory, you said the most likely scenario probability was 60 per cent; the high interest rate scenario is 25 per cent, and the low interest rate scenario was 15 per cent, right? 820

A. That's correct. 821

Q. Now we just wanted to correlate that to Table 8.5.1 just so we know we're comparing apples with apples. I take it the most likely scenario would correspond to the expected market scenario in 8.5.1? 822

A. That's correct. 823

Q. All right. And the high interest rate scenario correlates to the worst market scenario? 824

A. That's correct. 825

Q. All right. And the low interest rate scenario corresponds to the better market scenario? Was page 2838 826

A. Correct. 827

828

Q. I just wanted to clarify that.

829

And I take it, sir, that table 8.5.1 sets out different scenarios using different timings for borrowings, to simplify it; is that fair? Is that what it's showing us?

830

A. I'm sorry, can you say that again? The difference scenarios?

831

Q. Right. It sets out different scenarios, I should say applying different techniques for borrowing or different options, if you will.

832

A. The table shows the three scenarios and shows the impact or the outcome of following any one of the three ratesetting schedules.

833

Q. All right. Can you tell us what the term in the upper righthand corner -- it is repeated three times, a dollar sign, 'MIN', what exactly is that referring to?

834

A. I think that is actually M-L-N, millions.

835

Q. All right. Now, if you apply the probabilities that you set out in the interrogatory of this scenario -- first of all, let me ask, is that something you would have done?

Was page 2839 836

A. That is something I know that -- and I am casting my memory back. That is something that at the time we prepared this schedule I think there was an attempt at applying the probabilities to the result.

837

Q. Right. Well, it seems to me that if you do that, if you take the probabilities that you have established in the Interrogatory 8.6.3 and you multiply them into the scenarios in this table, 8.5.1, the best net figure or overall result, if you will, would be from schedule 1, but I take it you have concluded that schedule 2 is preferable; is that fair?

838

A. That's correct.

839

Q. So your frame of reference for judging which schedule is most preferable is not simply to take a probability analysis of each of these scenarios and see what the best ultimate net number is; is that fair?

840

A. Yes. As I said, I know we made an attempt, we did apply the probability numbers and say that if you took the probability numbers and you took the rate schedules what is the one with the most attractive expected value.

841

But I think if you turn the page to the page previous, which is page 2 of appendix 5, we give the rationale as to why we chose schedule 2. There are four reasons that we gave in terms of choosing schedule 2.

Was page 2840 842

Q. Right. And I take it that for some reason you decided that the schedule or the scenario which would give you the least variance between its projected results is not necessarily the most preferable. That wasn't your criterion for choosing, was it.

843

A. I know if you go through there we pointed out that schedule 1 had the most variance. We recognized that schedule 3 had the least variance, but it also -- and then we said that for schedule 2 that is the largest forecast cost under the market scenario. It does have the potential for significant gains under the next most likely scenario, the worst market.

844

So what we had to do was to make a judgement call; that was, we had an expected scenario, we always recognized that in reality things will tend one way or the other.

845

These scenarios are, I think, a kind of simple way of trying to compartmentalize between things, but these are not discreet, and so we felt that we wanted to cover off by and large the most likely scenario and the next one that was most likely at that point. The judgment was, in fact, the worst market or the higher cost.

Was page 2841 846

Q. All right. Obviously, then, judgment choices have to be made for this type of thing. Are these type of decisions evaluated after the fact? Are there any performance measures as such for this type of decision?

847

A. What we do is, as I said, we set the framework here where we look at -- where we look at a spectrum or in this case we defined three discreet outcomes, but I said in reality there is a spectrum.

848

The focus here is to be able to ensure that there is a continuous process of questioning that in fact if the assumptions have changed, if market conditions are such that we feel that the original assumptions are not coming to bear, that there is a process and a framework that makes us cognizant of the key things that have changed, and therefore try and focus on where the scenarios are evolving to, and to have, as I said earlier on, in place actions that can be put forward fairly quickly.

849

So in terms of the review, as you have asked, we do this once every two weeks. Once every two weeks I will sit down with the staff and basically go through a process of due diligence, if you want to put it that way, as to whether we should be kicking in some other part of the plan, and we make an explicit decision as to whether in fact, for example, on the ratesetting whether we should move away from the recommended schedule of dollar averaging.

Was page 2842 850

A more thorough review is done at each quarter when we have to submit an update or a recommended change in strategy to the Vice-President of Finance. So that should be coming up fairly shortly.

851
Q. Thank you. Is there a performance appraisal policy as such for the Treasurer?

852
A. I certainly have a performance contract, yes.

853
Q. Who would perform the performance appraisal?

854
A. The Vice-President, Finance.

855
Q. Mr. Chee, if you could please turn to Interrogatory 8.6.14? The attachment to your answer is what I am looking at.

856
A. Yes.

857
Q. Looking at that, if you had to pick a course strategy or I suppose a combination of strategies from that what would you pick and why, and would your answer be any different today as opposed to the period when this chart might reflect?

Was page 2843 858
A. If you simply look at this chart - and this chart, I may add, was not done at the time that the strategy was undertaken - if you simply took the information on this chart and if we look at the shaded portion of the different strategies as opposed to the combination portion, simplistically you would have said why would I -- I should have done a hundred per cent no-cost range forwards because at no cost I would have put a hedge in which under the different scenarios ranging from most likely to high inflation, low inflation, strong and weak dollar the worst that I could have done was zero -- or, sorry, was minus 5.7, the best that I would have done would have been $67 million.

859
And that is no worse off than doing 100 per cent triggers, which was in fact the recommended strategy. The best that the trigger strategy could do, in other words if it was not triggered, was exactly as the range forward, but the trigger carried this risk that if in fact you got triggered you were locked in at 75.

860
So one could, just looking at this table, say that the superior strategy would have been simply putting a no-cost range forward in.

861
Why we did not go for that route was that when in fact we did the strategy we felt that at that level of the dollar at that time, as I think I indicated earlier, the trigger level was so far away that we felt that -- we did not think that we were going to get triggered.

Was page 2844 862
Secondly, we also felt that under conditions where conceivably the exchange markets changed, the pricing of options are somewhat changed, we may have an opportunity to change the threshold to a tighter one with no increase in costs, so that the trigger strategy provided an ability or flexibility to change the threshold level. Once we did the range forward we basically were into a more costly exercise if we wanted to change the threshold level.

So at that time the whip-saw risk, which I think I talked about, was not felt to be a particularly significant one, and we felt that we just wanted to retain the flexibility at that time to have an opportunity to change the threshold if the opportunity arose. 863

Q. Thanks, Mr. Chee. If you could now just turn to Interrogatory 8.6.6, this is just to follow up on some questioning from Mr. Goudge earlier. This is about the ratesetting over five quarters. There is a discussion obviously about diversifying the risk. 864

Part of the question was asking you whether you could advise the estimated parameters of risk associated with delaying setting interest rates. Was page 2845 865

Is it possible for you to give us a more specific answer than is set out there? 866

A. I recall that this interrogatory was one where we had some problem trying to ascertain precisely what is being asked. So I think we did the best that we can in terms of answering that risk question. 867

Deferred ratesetting or advance ratesetting is simply a technique, as I said, used to implement the particular strategy in this particular case, the strategy of dollar averaging. The strategy of dollar averaging is simply predicated currently on the fact that the directions of rates are so uncertain that we don't want to make a bet, a big bet one way or the other. 868

So to me, the risk of this particular approach is that in fact we should have made a bet one way or the other with hindsight. 869

Q. Actually, that is a bit helpful. I guess there is no analysis really done in dollar terms, if you will. 870

A. Well, the performance measure which measures how well we have done relative to an even pace would basically throw up that if we are following the strategy then by and large we would end up with something close to, very close to benchmark performance because benchmark performance is in fact even paced. Was page 2846 871

Well, for '92 it is a little bit more complicated because our benchmark or our strategy was to have dollar averaging over five quarters. The benchmark performance measure is in fact even paced over the whole of '92, which is four quarters. 872

If we had followed that strategy -- as I said, if we followed the strategy perfectly, executed it perfectly, we would come out at benchmark performance. 873

The only thing that would show up that in fact we should have followed something else would have been to say what would it have been if we had locked everything up at the lowest quartile versus what it would have been if we had locked everything up at the highest quartile and how far would 874 we have been away? So that would have shown the opportunity cost or loss or gain of deviating away from a dollar averaging strategy.

Q. That is helpful. Is that something that has been done and that is -- 875

A. That is something that is under the program management initiative which, as I said, will lead to a refinement in terms of -- our performance measures will be looked at. Was page 2847 876

I think we are going past the stage of simply one performance measure, and I prefer to call them a results measure because we are really trying to measure the results against a particular strategy, but also try and get more structured information in terms of answering the question, how good was the strategy. 877

We can always measure how well we executed the strategy. We want to get to the next level, which is in harder terms, how good was the strategy. 878

Q. Sure. When might that type of analysis or review be available? 879

A. The initiative is on its way now, and the current timetable says that the whole review - and this does not just include funding, but it includes a whole range of activities in the division - is targeted for the end of this year. 880

Q. Thank you. I would also like to just follow up on one of Mr. Goudge's questions where I think you described the process of deciding whether you choose to go for, let's say, a 10 year versus a 30 year maturity on an issue. 881

Are there any specific performance measures in place to capture or to analyse that kind of decision? Was page 2848 882

A. I think last year, both I think in the final submission I think and during the hearing, we said that what we don't do is try and measure. In fact, for the life of the issue the maturity decision was correct. 883

What we do try and measure is that during the year that we execute the program, did we tend to do the longer-term issues when rates were relatively lower in the year as opposed to when they were higher? 884

The overall performance measure that is done now is done -- is built up from looking at each maturity, and the dollar savings or the dollar increases from each maturity are calculated over the life of the issue in present value terms. 885

Therefore, if we manage to do the longer-term issues at periods during the year or rate set it when rates were relatively low we would capture the benefit because the term of the issues is longer. 886

That would happen in the course of the year when the strategy in fact was not dollar averaging. In other words, you would in fact be trying to time when you rate set. For 1992, as I said, if we perfectly executed the strategy we would end up right on the benchmark. 887

Q. Thank you. That was a very full answer. Was page 2849 888

Could you please just comment on the exposure draft on financial instruments that the Canadian Institute of Chartered Accountants has issued? I take it you are in some sense familiar with that? 889

A. I am cognizant of that, I have scanned that, but I am certainly not the right person to provide any commentary on that. I think that question should be put to the Accounting Policy Panel. 890

Q. All right. My question, just so you know it and see if your answer stays the same, is what effect Hydro might see it having on the financial reporting and also whether Treasury had any input into comments on the exposure draft? 891

Would you still defer the answer? 892

A. I would still defer the answer. 893

MR. SMITH: Gentlemen, thank you very much. Thanks, Mr. Chairman. 894

THE VICE-CHAIR: Thank you, Mr. Smith. Mr. Perdue? 895

Was page 2850 896

EXAMINATION BY MR. PERDUE: 897

Q. Mr. Chee, just a couple of questions for my edification. 898

The global Canadian dollar market and the Euro Canadian dollar market, I just want to make certain I have got a clear understanding of what they are. 899

What I gather they are, sir, is a pool of Canadian dollars that are situated off shore for investment in Canada and they are essentially not converted to the currency of the country in which they are held. They are normally always held in some form of Canadian currency, GICs, short-term investments, Hydro bonds, treasury bonds, et cetera? 900

MR. CHEE: A. Both the Euro Canadian market and the global Canadian market, you are correct, that the buyer of instruments in these two markets hold them in Canadian dollars. 901

Q. And -- 902

A. But they are -- almost exclusively the instruments are simply bonds. So when the market uses the term 'Euro Canadian' or 'global Canadian' we are talking about bonds that are held by investors in Canadian dollars. 903

Q. And the reason they are ascribed that particular title, the global Canadian bond market for example, is because of the apparently fairly recent acceptance by Canadian investment securities abroad; is that correct? 904

A. Okay. I suppose a little bit of a history. Was page 2851 905

Q. That is really what I am looking for. Thank you. 906

A. The market in Canadian securities obviously started off domestically here. It then grew particularly in Europe when foreigners wanted to hold Canadian paper, and that was when the Euro Canadian market kind of evolved. 907

At that time or even until today most of the holders were retail investors, in other words individuals. 908

Over time as the market matured more and more institutional holders invested in this paper. In more recent years, with the high yields of the Canadian -- available in Canadian dollars and a perception that the Canadian currency was stable, the market grew. 909

The global Canadian market was an initiative that Hydro took to try and expand the world-wide market for Canadian dollars and not have it segmented as domestic or as international. So the global Canadian dollar bond is an initiative to simultaneously issue the bond around the world. Typically the issue is launched simultaneously in the Far East, in Europe, and in North America. 910

An additional feature of the global bond, unlike either the domestic bond or the Euro-Canadian bond, is that it has in it the facility for buyers to sell purchases, buy and sell world-wide. In other words, there are linkages in the set of mechanisms that have been built-in and contracted for by us -- for Japanese investor to settle as efficiently as a Canadian investor. So that facilitates the trading or the liquidity of the bonds world-wide. In fact, they are handled by depositories in Canada, depositories in the U.S., and depositories in Europe. So it is a natural extension. It really is an evolution of combining both the domestic market and a Euro-Canadian market and making an instrument that has wider appeal. Was page 2852 911

Q. I presume the main advantage to Hydro is you don't have to hedge these? 912

A. Well we will still hedge them. In fact, it was the evolution of this particular bond which is a fairly large size that brought to our attention that we had to now start hedging it. 913

Was page 2853 914

The smallest issue we ever did in a global is a billion dollars. If we did not try to hedge out the cost we would have been setting the cost of that global of a billion dollars in one day. So if you think about a $4 billion program, you simply needed 4 global issues to complete them. If you did not try to spread out when these costs get fixed, essentially the cost would be the market cost of four days in the year which we thought was very risky.

915

Q. I appreciate that. What I meant was that all the borrowings are in Canadian dollars?

916

A. That's right. We didn't have to hedge on the foreign exchange side. That's correct.

917

Q. That's what I meant. And the Euro-Canadian market started approximately when?

918

A. Euro-Canadian markets started in the early '80s.

919

Q. And the global one is --

920

A. And the global was an initiative we took at the end of 1990.

921

MR. PERDUE: Thank you, sir. Those are my questions. Thank you, sir.

922

THE VICE-CHAIR: Thank you, Mr. Perdue.

923

924

EXAMINATION BY THE VICE-CHAIR:

925

Q. Mr. Chee, just a couple of questions relating to the guarantee fee. A number of counsel have questioned you on the value of the fee, and I was wondering if you could remind us how the fee is calculated. Am I right that half of one per cent of the guaranteed debt of Hydro by the province for the preceding year -- Is that the way it works?

Was page 2854 926

MR. CHEE: A. Right. The fee that we pay in 1992 is calculated as half a per cent on the outstanding debt that Hydro has at the end of 1991. It is not just a guarantee debt. There is some debt that was issued in the U.S. market that was issued in the name of the province, that it was for Hydro purposes, that is also included in the base for the guarantee fee.

927

Q. I see.

A. So that the simplest thing is if you take the debt and the balance sheet at the end of the year outstanding, and multiply that by half a per cent, that would be the fee that we paid in the forthcoming year. 928

Q. But the total amount of debt or total percentage of debt guaranteed by the province is not 100 per cent? It is something less; is that right? 929

A. I'm saying if you look at all the issues we have outstanding, there are certain issues that actually technically do not have a guarantee. There were issues done in the U.S. market that were done by the province and the proceeds were transferred to us. Basically what happened was they did the issue in the U.S. market in their name and we issued to them a private bond on a back-to-back basis. So technically the issue is their issue, but the proceeds were for Hydro's purposes; therefore, there is technically or legally no guarantee. They really passed on the funds to us. They count that debt too as part of the base for the guarantee fee. 930

Q. And you would not disagree with that or would you? Was page 2855 931

A. No because, in all fairness, the alternative was for us to have gone to the U.S. market in our own name and they would have guaranteed that debt. 932

Q. Now this fee has been in place now since 1989, I understand. 933

A. That's correct. In 1989 we made a partial payment because the thing was introduced in the '89 budget so we paid I think from when it was effective, I think from May onwards. 934

Q. Right. And for the rate year 1993 it represents a $177 million? 935

MR. BOLAND: A. That's correct. Was page 2856 936

Perhaps just to clarify how you can actually derive at 177, if you were to look at the financial statements, the statement of financial position, which is in the main submission, Table A2-2, page 84, and if you look under the long-term debt for 1992, "Bonds and notes payable plus other long-term debt", that adds to 354333 million. That times the 50 basis points would give you the 177 million that you're seeing as the amount forecast in the 1993 proposal. 937

Q. Thank you, Mr. Boland. That is helpful as well. 938

This may be a silly question but I will ask it in any event. 939

I take it this guarantee fee has now been in place since '89, as we have indicated, and pretty soon the amount on an annual basis will be approaching a quarter of a billion dollars, I presume? 940

MR. CHEE: A. Yes. 941

Q. Does Hydro ever consider -- would they ever consider asking for an adjustment in the rate, or 942
would it do you no good? I realize it is a legislative --

A. We have not raised it at this point. 943

Q. -- item. 944

Was page 2857

A. We have not raised the issue of say it's growing and, therefore, could we have an adjustment in 945
the rate at this point. We have not raised that with the province.

Q. Or perhaps the value of it is maybe not as great as it was back in 1989, I suppose? 946

A. We have not raised that issue either. 947

THE VICE-CHAIR: All right. Thnk you, gentlemen. Those are our questions. 948

On behalf of the Board, thank you very much for your evidence, testimony. You may now be 949
excused.

Oh, Mr. Rouleau, any re-direct before I have done that? 950

MR. ROULEAU: No, Mr. Chairman. 951

THE VICE-CHAIR: That is good. You have been excused, gentlemen. 952

---Panel withdraws 953

THE VICE-CHAIR: Anything else before we adjourn for the day? 954

Tomorrow, I understand, we are getting into depreciation. 955

MR. GOUDGE: I don't think there's anything more for today, sir. We have depreciation on the list for 956
tomorrow which I think, again, may be a rather long day but we'll do our best.

Was page 2858

THE VICE-CHAIR: All right. We will adjourn until 9:00 o'clock in the morning. 957

MR. ROULEAU: Mr. Chairman, just to let you know, the transcript extracts I referred to yesterday morning, which will be put in through the direct of Mr. Penn, have been filed just for the information of the Board. 958

THE VICE-CHAIR: All right. Thank you. 959

---Whereupon the hearing adjourned at 3:03 p.m., to be reconvened at 9:00 a.m. on Friday, June 19th, 1992. 960

RR/JA [c. copy right 1985] 961