

Information Responses – Hydro Communities (HC)

To Information Requests From:

Northwest Territories Power Corporation

2006/07 and 2007/08 General Rate Application

April 6, 2007

NTPC.HC-1 Reference

Page 32 and Schedule 3.5

Preamble

“As a check on our calculations we examine the equity ratios allowed by various Canadian regulatory bodies for the companies in our sample for which we obtained data from past decisions.”

Request

- a. Please explain why Drs. Kryzanowski and Roberts did not include the allowed equity ratios of the two Fortis subsidiaries Newfoundland Power and Maritime Electric?
- b. Would Drs. Kryzanowski and Roberts please confirm that the most recent allowed common equity ratios for these two utilities were 44.55% and 42.69% respectively?
- c. Would Drs. Kryzanowski and Roberts please confirm that TransCanada Pipelines announced on February 26, 2007 that it had reached a settlement with its shippers that would increase its allowed common equity ratio to 40%?
- d. Would Drs. Kryzanowski and Roberts please confirm that in December 2006 the Ontario Energy Board allowed a common equity ratio of 40% for all of the electricity distribution utilities that it regulates?
- e. Please confirm that the NSUARB determined in Decision 2002 NSUARB 59 (October 23, 2002) that Nova Scotia Power could increase its regulated common equity ratio to 40%.
- f. Please confirm that Nova Scotia Power’s regulated capital structure includes approximately 9% preferred shares.

- g. Please confirm that in Decision 2006-100 (October 11, 2006), the EUB concluded that the ATCO Utilities could maintain a preferred share ratio of approximately 6%.

Response a.-g.

All of these statements regarding regulatory decisions on allowed capital structures are confirmed. At least one of the above is based on a negotiated settlement where the tradeoffs made by each of the parties is not known.

- h. Please confirm that FortisBC is allowed a return on common equity 40 basis points higher than that of the benchmark low risk utility.

Response

This statement is confirmed. Drs. Kryzanowski and Roberts note that in Order C-22-06, the BCUC awarded Terasen Energy Services Ltd. a return on equity of 60 basis points higher than the benchmark low-risk utility. At the same time the BCUC mandated a capital structure for Terasen of 35% equity. Recognizing that in our evidence, the benchmark is an average-risk (as opposed to a low-risk) utility, this suggests that the BCUC regards the 42% equity level recommended by Drs. Kryzanowski and Roberts for NTPC as suitable for a utility of considerably higher risk.

- i. Please confirm that Pacific Northern Gas is allowed a return on common equity 65 basis points higher than that of the benchmark low risk utility.

Response

Confirmed. We note that Pacific Northern Gas serves a relatively concentrated service area in west-central and northern BC. Further, the BCUC uses a low-risk utility as its benchmark. In their evidence, Drs. Kryzanowski and Roberts employ an average-risk utility as their benchmark.

NTPC.HC-2

Reference

Page 32

Preamble

“The sample includes Atco Electric Transmission and Distribution Atco Gas and Pipelines, Enbridge Gas Distribution, Emera (Nova Scotia Power), Fortis Alberta, Fortis British Columbia, Pacific Northern Gas, TransAlta, and TransCanada Pipelines and is displayed in Schedule 3.5....The analysis in Schedule 3.5 reinforces our conclusion that

the average 'generous' equity ratio for an integrated electric or gas utility is around 38%."

Request

- a. Please define what constitutes an integrated electric utility.
- b. Which of the utilities listed on page 32 are integrated electric utilities?

Response

An integrated electric utility participates in production, transmission and distribution of electricity. In *Canadian Electricity Industry 2004* (Table 6, page 63, Binder 2 of this Hearing), DBRS lists the following as integrated, investor owned, electric utilities: FortisBC, CU Inc., EPCOR, Brascan Power, Nova Scotia Power, OPG and Trans Alta Utilities. Of these Nova Scotia Power, FortisBC and TransAlta appear on page 32 of the evidence of Drs. Kryzanowski and Roberts.

NTPC.HC-3

Reference

Page 24, Application of the Stand-Alone Principle

Preamble

"Q. Your discussion shows that the typical Canadian utility in your sample has a bond rating between A (low) and BBB (high) from DBRS or A- from S&P. Further, a number of companies have BBB ratings. What is the relevance of this sample for NTPC which enjoys a higher bond rating of Aa3 from Moody's?

A. The bond rating of NTPC is based on the Government of the Northwest Territories. Under the stand-alone principle of regulation, we must set aside the impact of government ownership of NTPC and assess a fair capital structure from the standpoint of an investor-owned utility of comparable risk. This standard is provided by our sample in Schedule 3.1. Our analysis establishes that the sample represents a group of companies which, with appropriate adjustment discussed below, can proxy for the risk that would be faced by NTPC if it were investor owned. Applying the stand-alone principle, we use this sample to establish an appropriate capital structure for NTPC."

Request

- a. Please confirm that NTPC's ratepayers receive the benefit of the GNWT's debt rating in the cost of debt to NTPC.

Response

Confirmed. We also note that in addition to receiving these benefits, the ratepayers must bear the costs associated with NTPC's substandard sinking fund arrangements and in particular, the costs associated with its substandard sinking fund investment program. Furthermore, given that the Federal Government sets the statutory borrowing authority for GNWT and determines to a large extent other fiscal arrangements such as the formula financing arrangement, there is a strong argument that GNWT in turn benefits from an implicit guarantee from the Federal Government. In both cases no fee is charged for the debt guarantee.

- b. Please confirm that those benefits include a lower cost of debt and less restrictive debt covenants than NTPC would incur on a stand-alone basis.

Response

It is confirmed that the cost of debt is lowered by the GNWT debt rating subject to the caveats in the response to part a. above. We would expect that NTPC's debt covenants would also be less restrictive and it should have been able to borrow without including sinking fund features. However, we cannot confirm the former expectation as we have no detailed information on the covenants in NTPC's debt. Furthermore, this does not appear to have been the case in the past.

- c. What would NTPC's stand-alone debt ratings be in Drs. Kryzanowski and Roberts' view if their capital structure and return on equity recommendations were accepted by the Board?

Response

We believe that the stand-alone debt rating would be BBB (high).

- d. If NTPC's ratepayers receive the benefit of the GNWT's debt rating through lower debt costs and less restrictive debt covenants, shouldn't its capital structure be consistent with the GNWT rating? If no, please explain why not.

Response

No, Drs. Kryzanowski and Roberts disagree. The logic suggested contradicts the regulatory stand-alone principle under which the capital structure is determined to be appropriate for a stand-alone company.

- e. Would it be reasonable for NTPC to pay a guarantee fee for its debt to the GNWT to reflect the difference in the cost of debt that the company would incur on a stand-alone basis and the cost of debt that it incurs as a result of the government guarantee? If no, please explain why not.

Response

It would be reasonable for NTPC to pay such a fee to compensate the GNWT for the debt guarantee less any implicit guarantee that NTPC would obtain anyway by being owned by the GNWT less any implicit guarantee from the Federal Government for the debt of the GNWT. Paying a guarantee fee is the practice in Quebec for Quebec Hydro debt which is guaranteed by the province. The guarantee fee if it were charged would increase the cost of debt. On the other hand, subtracting the portion of the sinking fund costs that should be charged to NTPC alone would reduce the cost of debt. Drs. Kryzanowski and Roberts did not conduct such calculations and therefore believe that whether the adjusted cost after these additions and subtractions would be higher or lower than the historical cost of debt remains an open question.

NTPC.HC-4

Reference

Page 36, Application of the Stand-Alone Principle and Taxability

Preamble

“Further evidence that bond rating agencies exercise considerable judgment in forming ratings comes from observing that half of the companies in Schedule 3.1 have split ratings with the rating agencies disagreeing. Further, even when downgrades occur, utilities can carry on their businesses profitably as long as they remain investment grade. It follows that lower coverage ratios resulting from non-taxable status should not increase risk for utilities. With no increased risk, the argument for a higher equity component collapses.”

Request

- a. Please explain in more detail how the application of the stand-alone principle leads to the conclusion that NTPC’s non-taxable status should be ignored when determining an appropriate common equity ratio?

Response

In the paragraph following the one quoted in the preamble to this Information Request, Drs. Kryzanowski and Roberts state:

“Second, the argument that lower coverage ratios for non-taxable utilities justify a higher equity ratio can be dismissed on logical grounds as contradictory to the stand-alone principle. As explained earlier, such lower coverage results from the non-taxable status that goes with government ownership. Under the stand-alone principle, the impact of such ownership must be set aside.”

- b. Would Drs. Kryzanowski and Roberts please confirm that the EUB allowed higher common equity ratios for non-taxable utilities than taxable utilities in its Generic Cost of Capital Decision (EUB 2004-052, July 2004)?
- c. Would Drs. Kryzanowski and Roberts please confirm that the EUB allowed a higher common equity ratio for AltaLink than for other transmission utilities to account for the fact that AltaLink was not allowed a full income tax allowance?
- d. Please provide any studies or commentary by rating agencies of which Drs. Kryzanowski and Roberts are aware that address the differences in financial risk between utilities that are regulated on normalized income taxes and those that are regulated on flow-through taxes.

Response b.-d.

The statements describing EUB decisions in points b. and c. are confirmed. In those decisions the EUB indicates that it accepts the argument that non-taxable utilities should be allowed higher common equity ratios. In contrast to the view of the EUB, we note that DBRS recently upgraded the credit ratings of a number of government-owned borrowers. This suggests that DBRS likely does not share the concerns voiced about the risk associated with non-taxable status.

NTPC.HC-5

Reference

Page 34

Preamble

“In that same hearing, we also identified AltaGas Distribution as a company with business risk well above the average.....”

Request

Please explain why, in Drs. Kryzanowski and Roberts’ view, AltaGas Utilities faces business risk well above the average.

Response

In their evidence in the hearing leading to the AEUB’s Generic Decision 2004-052, Drs. Kryzanowski and Roberts based their business risk assessments on the evidence of Mr. Bob Liddle and Mr. Robert Marcus and recommended an equity ratio for AltaGas of 40%. Ms. McShane recommended an equity ratio of 45% for AltaGas. In its decision, on pages 53-4, the Board awarded AltaGas a capital ratio of 41% very close to the recommendation of Drs. Kryzanowski and Roberts.

The Board noted that “the business risks of AltaGas are greater than the business risks of a typical gas distribution company because of the nature of its service territory, not necessarily because of its smaller size.”

NTPC.HC-6

Reference

Page 34 and Schedule 3.6

Preamble

“..another useful benchmark comes from past decisions by the Board for NTPC’s allowed capital structure.”

Request

- a. Would Drs. Kryzanowski and Roberts please confirm that the capital structures that the Board has adopted in the past represent NTPC’s forecast actual common equity ratios?

Response

In the past the Board has approved capital structures based on NTPC’s forecasts of actual common equity ratios. For example, Drs. Kryzanowski and Roberts reviewed Decision 1-2002. In that decision, the NWT Public Utilities Board approved the Comprehensive Negotiated Settlement Agreement as a package, which does not necessarily imply that it approved or even agreed with NTPC’s forecasted capital structure. Negotiated settlements are such that parties make tradeoffs between the various items in the settlement. The Board appears to acknowledge these tradeoffs at page 20 of Decision 1-2002.

- b. Would Drs. Kryzanowski and Roberts please confirm that a government-owned utility like NTPC has less access to equity capital than an investor-owned utility? If not, please explain why not.

Response

No, Drs. Kryzanowski and Roberts cannot confirm that a government-owned utility like NTPC has less access to equity capital than an investor-owned utility. While it is true that government-owned utilities generally have less equity capital, this is not necessarily due to lack of access. There is nothing to prevent a government with a strong credit rating from issuing debt and then using the proceeds to inject equity into a government-owned utility subject, of course, to regulatory approval of the ratio.

- c. If the Board were to adopt NTPC's actual forecast common equity ratios for rate-setting purposes, what would Drs. Kryzanowski and Roberts' recommended returns on equity be?

Response

Drs. Kryzanowski and Roberts do not make adjustments to the recommended cost of equity of a utility to reflect its financial risk. Rather, our approach is to determine the appropriate cost of equity for an average-risk utility and then to adjust the equity ratio to compensate for any difference in business risk between the utility in question and the average-risk utility. Within this framework, if the Board were to adopt NTPC's actual forecast common equity ratios the result would be an unfair burden to ratepayers.

NTPC.HC-7

Reference

page 35 and Schedule 3.3

Preamble

"Focusing on 2005 because it is the most recent year.."

Request

- a. Do bond rating agencies determine debt ratings based on a single year of data?
- b. Would Drs. Kryzanowski and Roberts confirm that the bond rating agencies consider business risk when determining debt ratings?
- c. Would Drs. Kryzanowski and Roberts agree that, all other things equal, if two utilities had different levels of business risk but maintained similar interest coverage ratios, the utility with higher business risk would have a lower bond rating? If no, please explain why not.

Response to a., b. and c.

Bond rating agencies consider data reflecting business risk and financial risk. In examining these data, rating agencies look at trends and current values. Coverage ratios represent one measure of financial risk. It is, therefore, possible that "if two utilities had different levels of business risk but maintained similar interest coverage ratios, the utility with higher business risk would have a lower bond rating".

Placing this general approach in the context of our evidence on page 35, the issue is whether the lower coverage ratio resulting from non-taxable status increases financial risk. We conclude on page 35 of our evidence that:

“Although bond rating agencies certainly pay attention to ratios, there is no formula which translates ratios into bond rating; considerable judgment comes into play. Simply having a key ratio below a certain level is not by itself grounds for a downgrade in practice.”

NTPC.HC-8

Reference

Pages 21 and 22 and Schedule 3.2

Preamble

Drs. Kryzanowski and Roberts report and discuss the capital structures of various utility holding companies.

Request

Would Drs. Kryzanowski and Roberts please confirm that DBRS reports a total debt ratio of 54.2% for ATCO Ltd.?

Response

Drs. Kryzanowski and Roberts cannot so confirm. Our data are drawn from *Financial Post Advisor* not from DBRS. The DBRS reports supplied in response to Information Request BR.NTPC-28 do not include ATCO Ltd.

NTPC.HC-9

Reference

Page 22 and Drs. Kryzanowski and Roberts' Recommendations

Preamble

On page 22, Drs. Kryzanowski and Roberts report an average interest coverage ratio of 2.65 times.

Request

- a. What would be the implied interest coverage ratio for NTPC if the Board accepts Drs. Kryzanowski and Roberts' recommendations for a 2007 return on equity of

6.75%, a common equity ratio of 42% and debt and capital lease costs of 8.29% and 8.19% respectively?

Response

Please see Drs. Kryzanowski and Roberts' response to Information Request BR.HC-2.

- b. What would be, in Drs. Kryzanowski and Roberts' view, the stand-alone debt rating of NTPC if the Board were to accept Drs. Kryzanowski and Roberts' recommendations for each of the elements referenced in a) above.

Response

The stand-alone debt rating of NTPC would be BBB (High). As explained in the evidence of Drs. Kryzanowski and Roberts on page 22, this would be sufficient to allow the company to conduct its business.

NTPC.HC-10

Reference

Pages 151-155

Preamble

"The regulatory formulas are drawn from the era of significantly higher risk premiums."

Request

- a. Please confirm that the NEB formula was confirmed in 2002?
- b. Please confirm that the AEUB formula was set in July 2004?
- c. Please confirm that the BCUC established its current formula in March 2006?
- d. Please confirm that the OEB confirmed continued use of its formula for the electricity distributors in December 2006?
- e. Please detail the changes that have occurred over the period since the formulas in parts (a) through (d) above were reconfirmed that support Drs. Kryzanowski and Roberts' conclusion that the formulas are "drawn from the era of significantly higher risk premiums".

Response parts a.-e.

Drs. Kryzanowski and Roberts state on pages 151-2 of their evidence that the NEB and AEUB formulas have been reconfirmed and remain in current use. They confirm that the OEB and BCUC currently use their respective formulas. We state on page 152 of our evidence: "We believe that, despite their limitations, these formulas provide useful benchmarks of the thinking of regulators in Canadian jurisdictions." The key limitation of these formulas is not that they have not been recently confirmed but rather that, in confirming the formulas, regulatory boards have failed to update them for the current lower market risk premiums documented in our evidence. We expand on this point on page 155 of our evidence.

NTPC.HC-11

Reference

page 15

Preamble

"A more realistic forecast incorporates projects known to be in the planning stage and includes the Mackenzie gas project, other oil and gas exploration, development and production along with other development activity."

Request

What impact does the deferral and tripling of costs of the Mackenzie gas project have on the economic forecasts?

Response

In March 2007, Imperial Oil Ltd., the principal sponsor of the Mackenzie gas project, announced substantially higher costs and completion delays. The company remains very positive on prospects for the project according to an article in *The Toronto Star*, March 12, 2007 from www.thestar.com. Imperial executives indicated that they expect confirmation of approval for the project from Ottawa. Part of this approval is expected to come from the Joint Review Panel for the Mackenzie Gas Project and Imperial Oil plans to file an update of the project in May 2007 according to the Gas Strategies Group Ltd statement on March 21, 2007 on <http://global.factiva.com>. Based on this information along with the fact that the Mackenzie project is one among a number of planned development activities, Drs. Kryzanowski and Roberts do not anticipate any substantial revisions to the NWT economic forecast.

NTPC.HC-12

Reference

page 23 and Schedule 3.4

Preamble

“Further, only 3 of our 11 regulated companies failed to achieve actual ROEs higher than their allowed rates.”

Request

- a. Please confirm that 5 of the 6 actual ROEs reported in Schedule 3.4 are for the holding company, not the utility.

Response

The statement is confirmed. The heading for the ROE column in Schedule 3.4 states that the ROEs are for the consolidated company

- b. Please explain how the actual returns of the holding companies lead Drs. Kryzanowski and Roberts to conclude that the regulated companies failed to achieve higher ROEs than their allowed rates.

Response

Drs. Kryzanowski and Roberts provide the rationale for selecting the sample for Schedule 3.4 on page 21 of their evidence: “In focusing on traded companies, our goal is to maintain sample consistency throughout our evidence. We recognize, however, that many of the traded companies include nonregulated businesses in addition to the regulated utility.” To put the point another way, the use of traded holding companies as a source of returns is an approximation necessitated by the availability of data and our desire for consistency. The inference that we draw on page 23 is the opposite of that in part b. of the request: “In Schedule 3.4 we update this comparison for 2005 and broaden it beyond electric utilities to encompass our sample. The update shows that utilities continue to enjoy typical earned ROEs in excess of the target ROEs allowed by regulators.”

NTPC.HC-13

Reference

page 23

Preamble

“..in a 2001 study on the Canadian electric utility industry by DBRS concludes that actual earned ROEs typically exceed ROE targets set by regulators.”

Request

Please provide DBRS' support for their conclusion.

Response

The DBRS study compared actual versus regulator-set ROEs as the source for its conclusion.

NTPC.HC-14

Reference

page 59 (NTPC, 2007),

Preamble

"In the interest of being conservatively high, we estimate that the MERP going forward is 4.9%" (NTPC, 2007)

Request

In their evidence in the matter of UtiliCorp Networks Canada (Alberta) Ltd. (UNCA) 2002 Distribution Tariff Application (DTA) No. 1250392, April 2002 (page 59), Drs. Kryzanowski and Roberts recommended a market risk premium of 3.7-4.1%. In this evidence they are recommending a market risk premium of 4.9%. Please explain the reasons for the increase.

Response:

When using a conditional estimation framework, the MERP is a forward-looking estimate based on the information (including market expectations of future returns) at that point in time. Given current information, our recommended MERP is 4.9%. Also, given the reluctance of Canadian boards to explicitly place weight on geometric mean returns, our MERP recommendation is now based solely on arithmetic mean returns although there is considerable support in the literature for placing some weight on geometric mean returns when looking forward.

A more relevant comparison is a comparison of the MERP estimates recommended in this hearing to those made by the same experts in the AEUB Generic Cost of Capital proceeding. The recommended MERP of Drs. Kryzanowski and Roberts is 4.9% in this hearing up from their recommendation of 4.7% at the AEUB Generic Cost of Capital proceeding. In contrast, the recommended MERP of Ms. McShane is 6.50% in this hearing, which is up from her recommendation of 6.00% at the AEUB Generic Cost of Capital proceeding. Similarly, the relative risk of the average-risk benchmark utility of Drs. Kryzanowski and Roberts is 0.50 in this hearing, which is unchanged from their

recommendation at the AEUB Generic Cost of Capital proceeding. In contrast, the recommended relative risk of the “average-risk” benchmark utility of Ms. McShane of 0.65 to 0.70 in this hearing is up from her recommendation of 0.60 to 0.65 at the AEUB Generic Cost of Capital proceeding.

NTPC.HC-15

Reference

pages 50-51

Preamble

Drs. Kryzanowski and Roberts state that it is preferable to use real returns to estimate the MERP when using historical data and that MERP estimates that include high inflation periods include an extra risk premium that grows with the rate of inflation to compensate investors for a loss in the purchasing power of the risk premium.

Request

a. Does this preference refer to both stock and bond returns?

Response:

The preference is to use real returns for the equity market proxy and long Canada’s for estimating the MERP.

b. Do both equity and bond investors require an extra risk premium to compensate for the loss in purchasing power?

Response:

The equity risk premium is compensation for differences in investment risk between the two securities being compared. It is expected to be larger given higher expected inflation.

c. If yes, is the extra risk premium higher for bond investors than for equity investors? Please explain the response.

Response:

The reference deals with the MERP and not with risk premiums for bonds and stocks.

NTPC.HC-16

Reference

page 52

Preamble

Drs. Kryzanowski and Roberts refer to mean aversion for bonds

Request

Please explain in layman's terms what mean aversion is and how it is manifested in bond returns.

Response:

There are a number of definitions of mean aversion. One such definition is the tendency of an above-average return to be followed by another above-average return, and a similar pattern for a below average return. Such trends would tend to increase the risk of an investment in such a security faster as the time horizon increases than if returns were random about the mean return for that security. If the returns on a security (such as a bond) exhibit mean aversion, then the variance of return for that security will not be proportional to the return horizon. As depicted in Schedule 4.2 of the evidence of Drs. Kryzanowski and Roberts, the variance ratio for bond returns grows progressively higher than one as the investment horizon increases. In contrast, equities exhibit mean reversion in that the variance ratio for equity returns grows progressively lower than one as the investment horizon increases. Thus, over successively longer horizons, the relative risk of holding equities versus holding bonds decreases. A MERP is the return premium for the risk of the market portfolio of equities relative to the risk of long Canada's.

NTPC.HC-17

Reference

page 56

Preamble

Drs. Kryzanowski and Roberts state that well-run corporations typically use the arithmetic mean MERP with the T-bill rate as the risk-free proxy or the geometric mean with a long-term Treasury as the risk-free proxy.

a. Please provide the documentation for that conclusion.

Response:

As noted on pages 53 and 54 of our evidence, this is drawn from the teaching note to the case study, Grand Metropolitan PLC, which refers to the copyrighted study by: R. F.

Bruner, K.M. Eades, R.S. Harris and R. Higgins, 1998, Best practices in estimating the cost of capital: Survey and synthesis, *Financial Practice and Education* (Spring/Summer).

- b. Are the corporations using the T-bill rate and the arithmetic risk premium measuring the cost of equity for the same investment horizon as the corporations using the long-term Treasury and the geometric mean?

Response:

There appears to be no consensus on this point.

- c. Is it Drs. Kryzanowski and Roberts' view that either is equally appropriate?

Response:

We provide no view on whether they are equally appropriate. We merely point out that this article, which deals with "best practices", finds that corporations using the long-term Treasury rate as their risk-free proxy tend to use the geometric mean for the MERP. In applications of the Risk Premium Test, regulatory boards in Canada have opted for the use of the long Canada rate and the arithmetic (not geometric) mean return for the MERP.

NTPC.HC-18

Reference

page 56

Preamble

Drs. Kryzanowski and Roberts state that many financial economists, especially those associated with buy-side investment entities, have historically used the arithmetic mean MERP.

Request

- a. Please provide documentation for that conclusion.

Response:

The reference should be to sell-side and not buy-side entities. With this correction, the observation is drawn from general knowledge and is based on an examination of many communications by sell-side professionals over the years.

- b. Please explain why financial economists associated with buy-side investment entities would favour the arithmetic mean MERP.

Response:

This amplifies the expected return pick up from equity investing over fixed income investing and results in greater percentage allocations to equities in an investment portfolio. Since turnover rates tend to be higher for equities than bonds, this can lead to more business for the sell-side entities.

NTPC.HC-19

Reference

page 56

Preamble

Drs. Kryzanowski and Roberts state that using the weighted average of the arithmetic and geometric means removes the need to make any additional adjustments to ensure the financial integrity of an applicant utility.

Request

- a. Are Drs. Kryzanowski and Roberts referring to specific weightings when they arrive at this conclusion?

Response:

Based on schedule 4.3, our weighting of 75% on the arithmetic mean and 25% on the geometric mean, provides a cushion of around 40 basis points.

- b. Please explain in more detail why using a weighted average removes the need to make any additional adjustments to ensure the financial integrity of an applicant utility.

Response:

The financial integrity of an applicant utility will be under greater jeopardy when risk is higher. However, the difference between the arithmetic and geometric mean returns increases as the risk of returns increases.

Furthermore, this point is moot since, as we show beginning on page 140, investors in Canadian utilities have earned a premium return from such investments, or what investment people refer to as a positive alpha or “free lunch”. The decisions by various Canadian regulators have been such that shareholder investment in this sector has outperformed the S&P/TSX Composite by 1.54% annually over the 1988-2005 period, and by 3.80% annually over the ten-year period 1996-2005 based on a comparison of their arithmetic means. Not only were the mean returns higher but the investors bore less risk to get these higher returns.

NTPC.HC-20

Reference

page 56

Preamble

Drs. Kryzanowski and Roberts state that they are recommending a blended mean MERP with weights of 75% for the arithmetic and 25% for the geometric means for Canada and the US, but that this makes no adjustment for the greater mean reversion in the US MERPs.

Request

How much weight did Drs. Kryzanowski and Roberts give to US risk premiums in arriving at their estimated risk premium?

Response:

Please see the discussion on pages 62-67 of the evidence of Drs. Kryzanowski and Roberts. This includes the use of various non-Canadian risk premiums, including those for the U.S.

NTPC.HC-21

Reference

page 58 and Schedule 4.3

Preamble

Drs. Kryzanowski and Roberts report historical risk premiums in both nominal and real terms.

Request

Please explain why the risk premiums reported in real terms are lower than the risk premiums reported in nominal terms.

Response:

The two would be the same if inflation was constant over the estimation horizons. When the rate of inflation is time varying, there can be a difference between the risk premiums calculated using nominal and real returns. Also, Dr. Siegel favors the use of real returns since he finds that real returns are more stable than nominal returns.

NTPC.HC-22

Reference

page 58 and Schedule 4.3

Preamble

Drs. Kryzanowski and Roberts state that they start by examining the 50-year period 1957-2006.

Request

Please confirm that the nominal equity returns reported for this period are lower than for any of the other periods reported in Panel B of Schedule 4.3

Response:

The nominal equity returns are lower than for any of the other periods reported in Panel B. However, based on Panel C, the real equity returns for this period are not the lowest. The criteria used to choose time periods and the reasons for starting with the 1957-2006 time period are specified on page 58 in the evidence of Drs. Kryzanowski and Roberts.

NTPC.HC-23

Reference

page 58 and Schedule 4.3

Preamble

Drs. Kryzanowski and Roberts state that “This strongly suggests that the MERP (however measured) has been declining in Canada over time.”

Request

- a. Please discuss the extent to which the observed risk premium has declined over time due to increased bond returns and the extent to which it has declined due to decreases in equity returns.

Response:

With regard to nominal returns, equity returns have been fairly stable and have increased more recently. Bond returns have increased somewhat over the period with a larger increase more recently. The more interesting results are for real returns. Both

equity and bond returns exhibit a smile shape (i.e., higher at both extremes than in the middle) as the estimation period gets shorter, although the smile for bond returns is higher for the shortest time period.

- b. Please confirm that the nominal returns on bonds in Panel B of Schedule 4.3 over all of the periods shown exceed the expected yields on long-term Canada bonds by a wide margin.

Response:

We have not conducted an analysis of the relationship between the nominal returns on bonds and the expected yields on long-term Canada bonds for all the periods since some of the periods start in 1900. Obviously, bond investors lost when actual inflation was higher than expected and gained when actual inflation was lower than expected. This is part of the risks associated with being a bond investor.

- c. What is the current yield on long-term inflation-indexed Government of Canada bonds?

Response:

The current yield on Canada real return bonds due December 1, 2036, as per the *Globe and Mail* dated March 19, 2007, was 1.72%. As more Canadian pension funds have embraced asset and liability management, the yield on the limited supply of Canadian real bonds has been bid downwards. This squeeze on their yields is expected to intensify in the future given changes in the rules governing Canadian pension funds.

- d. Please confirm that the real returns on long-term Canada bonds for all of the periods shown in Panel C of Schedule 4.3 exceed the current yield on long-term inflation-indexed Government of Canada bonds by a wide margin.

Response:

When examining historical performance, one needs to examine the geometric means. The geometric means are higher, although it is highly inappropriate to compare the real returns on long-term Canada bonds for all of the periods shown in Panel C of Schedule 4.3 against the current yield on long-term inflation-indexed Government bonds. For example, this would not be the case if one took the yield of 3.03% for the same Canadian real return bond, as listed in the *Globe and Mail* on May 19, 2003, or the yield of 3.76% for the same Canadian real return bond, as listed in the *Globe and Mail* on March 11, 2002. If we use the 3.76% yield, then this yield is only exceeded by the real return for the most recent of the six periods listed in Schedule 4.3.

NTPC.HC-24

Reference

pages 24 and 25

Preamble

At page 24. Drs. Kryzanowski and Roberts indicate that there is no exact formula available for estimating the optimal debt-equity ratio. On page 25, they state that one of the main factors affecting the ratio is taxes.

Request

Given that there is no exact formula, and NTPC does not pay taxes, please explain why a 42% equity ratio is more optimal than NTPC's actual forecast common equity ratio? Please include in the response how Drs. Kryzanowski and Roberts are able to determine with precision that 42% is the 'right' number but the 45.5% and 48.6% forecasts for the two test years are too high.

Response

The non-taxable status of NTPC does not impact on the choice of an appropriate capital structure as explained in the evidence of Drs. Kryzanowski and Roberts on pages 34-37. To obtain our recommendation of 42% equity we employ four benchmarks:

"The first is based on the average of actual equity ratios for eight traded utility companies. The second estimate is the average equity ratio allowed 11 regulated entities within these companies by their regulatory boards. The third estimate is the range allowed by the AEUB for two high-risk utilities. The fourth and final benchmark is the range of past Board decisions for the allowed equity ratio of NTPC from 1997 to the present. These benchmark equity ratios all fall in a range of 38% - 43%.

"Our analysis of the business risk faced by NTPC assesses this risk as somewhat higher than that of the average shareholder-owned electric utility in Canada. This suggests that a fair common equity ratio for NTPC should be at 42%, just below the top of this range. "

NTPC.HC-25

Reference

Page 106

Preamble

Q. Are there any rulings by other Boards on how to determine the embedded cost of debt issues with sinking funds?

A. Yes, there are...

Request

- a. Did Drs. Kryzanowski and Roberts review and consider any rulings or decisions by the NWT Public Utilities Board regarding the embedded cost of debt issues with sinking funds? If so, please identify the rulings or decisions, discuss the NWT Public Utilities Board's findings and how those findings impacted Drs. Kryzanowski's and Roberts' conclusions.

Response:

Please see the response to b.

- b. Please confirm that the NWT Public Utilities Board has previously approved NTPC's embedded cost of debt issues with sinking funds in Decisions 1-1997 and 1-2002.

Response:

Drs. Kryzanowski and Roberts had previously reviewed Decision 1-2002. In that decision, the NWT Public Utilities Board approved the Comprehensive Negotiated Settlement Agreement as a package, which does not necessarily imply that it approved or even agreed with NTPC's method of calculating the embedded cost of debt for issues with sinking funds. Negotiated settlements are such that parties make tradeoffs between the various items in a negotiated settlement. The Board appears to acknowledge these tradeoffs at page 20 of Decision 1-2002.

In its response to information request YK&HR.NTPC-21(c) in the 2001/02 and 2002/03 GRA, NTPC states that it has calculated its effective cost of debt in accordance with Decision 1-91 of this Board. However, in the calculation for the GRA, NTPC introduced sinking fund balances and revenues in its calculation for the first time. As noted below, this change contradicts the past interpretations by NTPC of how Decision 1-91 of this Board dealing with the calculation of the effective cost of debt should be implemented.

Further to this request, Drs. Kryzanowski and Roberts reviewed Decision 1-97. The Board stated that it "examined the evidence before it and agrees with the parties that the long term debt rates proposed in the agreement are reasonable (page 17)." Drs. Kryzanowski and Roberts also reviewed the 1995/96/97 Application (subsequently updated to include 1997/98). What is noteworthy in this application is that NTPC did not give effect to or request either sinking fund interest or earnings in its calculation of the effective cost of long-term debt (please see Application Tables 3.2.1 and 3.2.2.). In other words, NTPC used the method being proposed by Drs. Kryzanowski and Roberts. Furthermore, NTPC's 1995/96/97 application referred to this calculation method on pages 3-5 as follows: "The effective cost of debt has been calculated in accordance with previous Board Decisions. The mid-year sum of the annual costs and the amortization of offering discount, underwriting fees and related expenses for each long-term debt

issue are divided by the average proceeds for each long-term debt issue.” Thus, in some applications, NTPC considered (and used) the method proposed by Drs. Kryzanowski and Roberts as being in accordance with Decision 1-91, and in a more recent application, NTPC considered not using (and did not use) the method proposed by Drs. Kryzanowski and Roberts and stipulated by this Board in Decision 1-91 as not being in accordance with Decision 1-91 of this Board.

Drs. Kryzanowski and Roberts also reviewed Decision 9-93 (pages 64-65) and Decision 1-91 (pages 39-40) and note there are no references to sinking funds or sinking fund calculations. NTPC did not give effect to or request either sinking fund interest or earnings in its calculation of the effective cost of long-term debt. However, what is truly noteworthy is in Decision 1-91, which states that, “However, for the purpose of future general rate applications to the Board the Board directs that the Corporation calculate the cost of debt as the sum of the annual debt cost and the amortization of offering discount, underwriting discount and related expenses for each long term debt issue, divided by the average net proceeds for each long term debt issue” (page 40). The methodology prescribed by the Board is the same as that advocated by Drs. Kryzanowski and Roberts and used by NTPC prior to its 2001/02 and 2002/03 GRA.

NTPC.HC-26

Reference

Page 112-113

Preamble

- Q. What is your understanding of the arrangements between the three involved parties in NTPC’s capital lease?
- A. Our understanding of the arrangements are based primarily on the annual reports of NTPC and its response to our information requests. Our understanding is as follows...

Request

- a. Did Drs. Kryzanowski and Roberts review and consider any rulings or decisions by the NWT Public Utilities Board regarding the Snare Cascades capital lease? If so, please identify the rulings or decisions, discuss the NWT Public Utilities Board’s findings and how those findings impacted Drs. Kryzanowski’s and Roberts’ conclusions.

Response:

Please see response to b.

- b. Please confirm that the NWT Public Utilities Board has previously approved the Snare Cascades capital lease, including the treatment of the capital lease as 100% debt and the lease payments, in Decisions 1-1997 and 1-2002.

Response:

Drs. Kryzanowski and Roberts reviewed Decisions 1-97 and 1-2002 and understand that both decisions approved the Negotiated Settlements as a package, which does not necessarily imply that the Board specifically approved or even agreed with the treatment of the capital lease.

- c. Is it Drs. Kryzanowski's and Roberts' contention that if a taxable utility had entered into the capital lease that the cost to ratepayers would have been lower and if yes, to explain how.

Response:

Please see the response by Drs. Kryzanowski and Roberts to BR-HC 8.

NTPC.HC-27

Reference

Page 53

Preamble

Dr. Kryzanowski and Roberts state that Drs. Mehra and Prescott "now acknowledge that the arithmetic average can lead to misleading estimates when returns are serially correlated, and that the geometric average may be the more appropriate statistic to use"

Request

- a. Please confirm that the article to which they refer was published as Rajnish Mehra and Edward C. Prescott, "The Equity Premium in Retrospect" in G.M. Constantinides, M. Harris and R. Stulz, *Handbook of the Economics of Finance* (Elsevier, 2003).

Response:

The reference is Rajnish Mehra and Edward C. Prescott, The Equity Premium in Retrospect, forthcoming: G.M. Constantinides, M. Harris and R. Stulz, *Handbook of the Economics of Finance* (Amsterdam: North Holland). Draft of their paper, February 2003.

- b. Please confirm that Drs. Mehra and Prescott state at page 890 “we report arithmetic averages.”

Response:

Confirmed but Drs. Mehra and Prescott report arithmetic averages to be consistent with what they report in their 1985 paper. Interestingly, Dr. Prescott (a Nobel Laureate) in a co-authored paper with Dr. McGrattan reports that there is no equity premium puzzle. When they account for taxes, regulations and costs, “the difference between average debt and equity returns during peacetime in the last century is less than 1 percent, with the average real debt return almost 4 percent, and the average real equity return somewhat under 5 percent. (p. 392)”. [Ellen R. McGrattan and Edward C. Prescott, 2003, Average Debt and Equity Returns: Puzzling?, *The American Economic Review* 93: 2 (May), pp. 392-397].

NTPC.HC-28

Reference

Pages 64-65

Preamble

Drs. Kryzanowski and Roberts discuss issues related to the period of time and the breadth of index coverage by the Ibbotson data and then present the Ibbotson and Dimson *et. al.* data.

Request

- a. Please confirm that the Dimson *et. al.* data series (DMS-Ibbotson) reported by Drs. Kryzanowski and Roberts covers 1900-2006 and the Ibbotson and Associates data set covers 1926-2006.

Response:

Confirmed as updated in schedule 4.5.

- b. Please confirm that despite broadening the index coverage and lengthening the period, the DMS-Ibbotson data set shows real and nominal returns that are virtually identical to the original Ibbotson data set.

Response:

Confirmed. However, lengthening the time period further results in much lower values as reported in schedule 4.4. Furthermore, Drs. Dimson et al. argue that comparisons across markets require an adjustment for risk differences, and that the effects of equity

reevaluations need to be removed to obtain expected MERP from realized MERP (page 65 of evidence of Drs. Kryzanowski and Roberts).

NTPC.HC-29

Reference

Page 65

Preamble

Drs. Kryzanowski and Roberts adjust the U.S. market risk premium for the higher risk of the U.S. market relative to the Canadian market.

Request

a. Please explain in detail how these adjustments were made.

Response:

Please see the response to BR-HC-4, part b).

b. Please discuss the extent to which the historic standard deviation of equity returns in the Canadian market may have been the result of the existence of the Foreign Property Rule.

Response:

There is no a priori reason to expect such a relationship and no evidence that risk has diminished with changes in the Foreign Property Rule.

NTPC.HC-30

Reference

Pages 66-67

Preamble

At page 66-67, Drs. Kryzanowski and Roberts cite an equity risk premium estimate made by Dr. Ibbotson in 2001.

Request

Are Drs. Kryzanowski and Roberts aware of any more recent estimates made by Dr. Ibbotson? If so, please provide along with source documentation.

Response:

Drs. Kryzanowski and Roberts do not do continuous monitoring of the MERP estimates of specific individuals. The references to Dr. Ibbotson are only included because he was part of a forum on the equity risk premium and his firm provides historical data that are used in rate of return hearings. Also, as noted on page 185 of the evidence of Drs. Kryzanowski and Roberts, the MERP estimates of Dr. Ibbotson tend to be above the median forecast of other professionals.

NTPC.HC-31

Reference

Page 53

Preamble

“...the arithmetic average can lead to misleading estimates when returns are serially correlated...”

Request

Please present any evidence showing that Canadian or US stock returns are serially correlated.

Response:

There are various ways of testing for dependences in asset returns over time. Please see Appendix 4.A and schedules 4.1 and 4.2 of the evidence of Drs. Kryzanowski and Roberts and the related discussion.

NTPC.HC-32

Reference

Page 48

Preamble

“...while the S&P/TSX Composite Total Return Index is used from December 1956, other proxies that are more likely to be contaminated by survivorship and selection biases are used from 1924 to 1957.”

Request

Please confirm that data from 1924 to 1957 was used to compute the variance ratio tests for mean reversion and mean aversion.

Response:

Please see schedule 4.1 for the correct time periods used in conducting the variance ratio tests.

NTPC.HC-33

Reference

page 54

Preamble

“We find that stock returns exhibit mean reversion in both Canada and the U.S., bond returns exhibit mean aversion in both Canada and the U.S., and equity risk premiums exhibit mean reversion in both Canada and the U.S.

Request

For a market equity risk premium (MERP) equal to the stock market return (R_M) minus the long bond return (R_B), please present the theory or theories that explain how an R_M exhibiting mean reversion minus an R_B exhibiting mean aversion produces an MERP that exhibits mean reversion, rather than mean aversion, or neither mean reversion nor mean aversion.

Response:

It depends upon the level of mean reversion or aversion in each of the two series. In other words, it depends upon how the relationship between the multi-period variance and the single-period variance changes as the multi-period gets longer. The relationships differ for stocks and for bonds, as shown in schedule 4.2 of the evidence of Drs. Kryzanowski and Roberts.

NTPC.HC-34

Reference

Page 71 and Schedules 4.7 and 4.8

Preamble

Drs. Kryzanowski and Roberts discuss DCF tests for the market.

Request

a. Please explain why these were not updated for 2003-2006.

Response:

Updating would not have changed the inferences drawn from the schedules. Also, earnings for the Canadian index are negative in 2001.

b. Please provide all of the inputs to the analysis in Schedules 4.7 and 4.8 in electronic format with formulas intact, with source documentation.

Response:

The data are drawn from databases with licensing agreements that prohibit the redistribution of raw data.

c. Please provide all support for the assumption that the growth inputs to the models represent investor expectations for growth in the relevant years.

Response:

The growth inputs represent variables that are often used by academics and practitioners to represent investor expectations in such calculations.

NTPC.HC-35

Reference

Page 85

Preamble

Drs. Kryzanowski and Roberts add a flotation cost allowance of 10 basis points.

Request

a. Please confirm that the EUB added an allowance of 50 basis points for all utilities, including the municipally owned utilities, in its Generic Cost of Capital Decision.

Response:

Confirmed. However, the effect of such “generous” add-ons contribute to the superior performance of Canadian utilities relative to the market index. Please see the

discussion beginning on page 140 of the evidence of Drs. Kryzanowski and Roberts. Also, see Ms. McShane's response to HC.NTPC-33, where she confirms that the arithmetic mean utility equity returns of 12.7% over the 1956-2005 time period (as reported in Table 9 or Schedule 14 of her evidence) are higher than the arithmetic mean market equity return of 10.8% over the same time period (as reported on page 3 of Schedule 8), and that investors earned a higher risk premium of almost 2% by investing in utilities as opposed to investing in the general market over this period of time.

- b. Please confirm that the OEB added 50 basis points to the bare-bones cost of equity for the electricity distributors in Ontario, virtually all of which are government-owned.

Response:

Please see the response to part a) of this information request.

NTPC.HC-36

Reference

Schedule 4.12

Request

Please provide the names of the firms and their respective industry underlying the data in Schedule 4.12.

Response:

It is each and every firm listed on the TSX as captured in the CFMRC database over the period for which an industry classification could be assigned. This includes all TSX-listed equities over this period of time. The final sample consists of almost 3400 firms.

NTPC.HC-37

Reference

page 38

Preamble

Drs. Kryzanowski and Roberts recommend a common equity ratio of 42%.

Request

- a. Are Drs. Kryzanowski and Roberts aware that NTPC was directed in Decision 2-94 to review its capital structure and propose an appropriate capital structure consistent with its business risk at the time of its next GRA?

Response

Drs. Kryzanowski and Roberts note that NWTTPC forecast an equity ratio of 46.019% for 1993/94 and the Board said “The Board is of the view that NWTTPC’s business risks may not be as high as suggested by Ms. McShane.”

- b. Are Drs. Kryzanowski and Roberts aware that NTPC filed such a study with the Public Utilities Board in response to the directive?

Response

Drs. Kryzanowski and Roberts note that Decision 1-97 re 1995/96/97/98 noted equity ratios of 46%, 43% and 43% for the three test years but made no reference to any study.

- c. Are Drs. Kryzanowski and Roberts aware that in response to the PUB directive and the results of the study, NTPC adopted a target common equity ratio of 45-50%?

Response

It is the understanding of Drs. Kryzanowski and Roberts that the decision that approved the 1995/96/97/98 negotiated settlement was silent on the matter of a target capital structure for NTPC.

- d. Are Drs. Kryzanowski and Roberts aware of any decision by the PUB that took issue with NTPC’s target common equity ratio?

Response

As noted above, in Decision 2-94, the Board commented that the business risks incorporated into the 46% equity ratio requested by NTPC were not as high as suggested by Ms. McShane. This suggests that 46% was on the high side. Further Decision 1-2002 approved the negotiated settlement which incorporated equity ratios of 42%, 40% and 43% for 2000/01, 2001/02 and 2002/03.

NTPC.HC-38

Reference

page 95

Preamble

Drs. Kryzanowski and Roberts indicate that the inclusion of a sinking fund is likely unnecessary for an issuer like NTPC which enjoys a bond rating of Aa3 from Moody's due to the GNWT guarantee.

Request

What was the GNWT bond rating when NTPC issued each of its sinking fund bonds?

Response:

According to NTPC's response to HC.NTPC-23, part c), GNWT had no bond rating at that point in time. However, in the same response, NTPC stated that no calculations exist on the rate reduction at issue from the inclusion of sinking funds for these debt issues. Furthermore, NTPC's response to HC.NTPC-23, part c) states that "NTPC has no empirical evidence of the coupon rates that would exist on these notes had, at the time they were issued, they been established or negotiated as being debentures without sinking funds requirements." Such calculations are required to make an informed judgment on whether the inclusion of the sinking funds was prudent, especially given that a number of the issues were placed privately and the underwriter has to deal with the interests of both the issuer and private investors, where the latter are likely to be much larger clients of the underwriter than the former in the case of NTPC.

NTPC.HC-39

Reference

pages 90-108

Preamble

Drs. Kryzanowski and Roberts propose a new methodology for calculating the cost of debt.

Request

- a. Can Drs. Kryzanowski and Roberts confirm that the method utilized by NTPC is the same method that has been used in previous rate filings before the PUB?

Response:

Please see response to b.

- b. Please explain why the adoption of the method now proposed by Drs. Kryzanowski and Roberts would not constitute retroactive ratemaking?

Response:

Please see the response to BR-HC7. As noted in the response to NTPC.HC-25, the Board approved the method recommended by Drs. Kryzanowski and Roberts for calculating the embedded cost of sinking fund debentures in Decisions 1-91, 9-93 and 1-97, although sinking fund debentures date back to 1989. The Board in Decision 1-2002 approved the negotiated settlement in which NTPC proposed a new sinking fund treatment. Since all parties argued that the settlement had to be approved as a whole (package), the Board's decision can not be interpreted as agreeing with each and every item in the negotiated settlement when each is considered in isolation. Furthermore, the parties to this negotiated settlement agreed to the settlement "without prejudice to the Corporation or any of the Interveners in any of the Corporation's future Phase I GRA's." (clause 1(c) of the Settlement).]

- c. Please confirm that there is no evidence that the Board has ever determined that the terms and conditions of the sinking fund issues of NTPC were imprudent.

Response:

Confirmed but as noted in NTPC.HC-25, it appears that NTPC's proposed calculation of the effective cost of debt for sinking fund debentures is in fact, contrary to the Board's explicit direction in Decision 1-91.

- d. Is it Drs. Kryzanowski and Roberts' evidence that, once the terms and conditions of a bond issue have been determined to be reasonable, it would be appropriate to reverse that decision? Please explain the response.

Response:

For the reasons stated earlier, we do not accept the premise in this question that the Board implicitly or explicitly agreed to the method that NTPC has used in this application to calculate the embedded cost of debentures with sinking funds. In Decision 1-2002, in accordance with the negotiated settlement, the Board approved a revenue requirement for the test years. It did not specifically determine the terms and conditions of any bond issue to be reasonable, and even if it could be argued that it did so impliedly, it could only be for the test years. On an on-going basis, a utility has a duty to conduct itself and incur costs in a prudent manner.

Furthermore, this question implies that the Board is a proxy for management and that it should have no latitude in revisiting the rationale underlying previous implicit or explicit decisions given new information. We reiterate that it is NTPC that has decided unilaterally to give a new (and inappropriate) interpretation to Board Decision 1-91.

- e. Please provide any examples of which Drs. Kryzanowski and Roberts are aware where a Canadian regulator found the terms and conditions of a debt issue to be prudent and then reversed that decision years later.

Response:

To the date of this response, we have not found any such examples. However for the reasons stated earlier, we reject the underlying premise that the Board in this case found the terms and conditions of the debt issues in question to be prudent.

Further, Boards continually render decisions based on the arguments put forth by the various interested parties. Thus, the information base that Board members have to work with depends upon the strength of the representations made by the various interested parties and the issues that they currently think are of utmost importance. Thus, the information set available to Boards is time varying. However, this does not preclude an updating of the bases on which Boards make decisions. Given new information, Boards have, for example, placed no weight on methods (such as Comparable Earnings) to determine the return on equity, which in previous hearings they may have placed weight on in their deliberations.

Also, an examination of the Board decisions provided by NTPC in response to the information request HC.NTPC-23 reveals that the three Board decisions refer to a review of the application and information provided in support thereof. Since no reference is made to a hearing or evidence provided by interveners, one can only assume that both were absent. The three decisions by the Board are: Decision 3-92 (April 1, 1992); Decision 1-96 (January 23, 1996); and Decision 12-98 (October 7, 1998). It should be noted that each of these decisions indicated that the interest rates would be reviewed at the next GRA. It should be further noted that NTPC had not sought to include sinking fund balances or interest into the long-term debt calculations prior to the 2001/02/03 GRA. Therefore, there was no evidence available to the Board at the time it issued these three decisions to suggest that NTPC would calculate the effective cost of long-term debt in the manner it is now seeking.

NTPC.HC-40

Request

Did Drs. Kryzanowski's and Roberts review and consider other rulings or decisions by the NWT Public Utilities Board which approved the return on common equity for other utilities in the Northwest Territories, particularly PUB Decision 9-2005 which approved an ROE of 10% for Northland Utilities (Yellowknife) Ltd. for 2006; and PUB Decision 12-2005 which approved an ROE of 9.5% for Northland Utilities (NWT) Ltd for 2006? If so, please elaborate how these decisions were incorporated into Drs. Kryzanowski and Roberts' evidence. If not, why not.

Response:

We use a framework where the capital structure for an average-risk or benchmark utility is determined. Then we adjust the capital structure for NTPC for any differences in its business risk from that of the benchmark utility. We then determine the ROE for this benchmark utility. The relevance of these decisions for this application is questionable. First, the ROE's implicit in these two decisions were for negotiated settlements that involved various unknown compromises by the various parties to the negotiated settlements. Second, they were determined at a different point in time, which involved different Consensus Forecasts and different AEUB/NEB prescribed ROEs.