
**REPLY ARGUMENT OF THE CITY OF YELLOWKNIFE, THE
TOWN OF HAY RIVER AND THE TOWN OF FORT SMITH**

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1. INTRODUCTION

This Reply Argument is submitted on behalf of the City of Yellowknife, the Town of Hay River and the Town of Fort Smith (“the Hydro Communities” or “HC”) to address certain portions of the Northwest Territories Power Corporation (“NTPC”) Written Argument which it considers to be in error, incomplete or to unfairly represent the evidence.

Unless expressly stated, this Reply does not address matters put forward in Argument by other parties, which are generally supportive of the position taken by the Hydro Communities. However, lack of response should not necessarily be treated as acceptance of the position of NTPC or other parties.

For convenience, paragraph references are consistent with those used by NTPC.

At page 6, NTPC states that it is proposing to continue and maintain its fuel and water stabilization funds, all as active funds. This is not entirely correct because, as stated at page 12 of the Hydro Communities Argument, the Taltson Water Stabilization Fund was deemed not to be in operation in the 2001/02/03 GRA because the level of surplus hydro available on the Taltson River was so large that there was no need to establish a Fund to deal with water from year to year. The Hydro Communities would refer the Board to pages 12-13 of their argument for reasons why the reactivation of this Fund should be denied.

2. BACKGROUND

(c) Scope of the Application with Respect to Extraordinary Risks and Events

NTPC has repeated large portions of its Opening Statement in the background section of its argument. The Hydro Communities have considered these comments for the most part in its Argument and will only address those areas which they consider to be incomplete or unfairly represent the evidence.

At page 7, Mr. Bowman speculates that “The chances of them (new mining loads) opening (in the test years) are slim to nil” and even if such a load did materialize, NTPC would be back before the Board as it does not currently have an approved rate in place to serve such a load. As noted in Argument, the Hydro Communities have several concerns with these statements. First, it is submitted that the last NTPC rate application was 5 years ago in 2001 and therefore the prospects of any new mining load should be considered in the context of that timeframe, not just the two test years. Second, a new mining load could be served by Northland Utilities (NWT) Limited under its existing rate. Third, and perhaps most importantly, NTPC fails to mention Bill 4. The passing of Bill 4 could create an unregulated entity whose objects are to generate, supply and sell electricity in the NWT, and more specifically to expand the Twin Gorges Hydroelectric Generating Facility. This raises several questions regarding the sale of surplus energy from existing regulated facilities and potential credits for use of existing common facilities both of which could occur within the timeframe before the next GRA.

The Hydro Communities reiterate that there is sufficient uncertainty regarding the potential increases and treatment of incremental mining revenues from new or existing mines to warrant the creation of a deferral account to be addressed at the next GRA. It would not be appropriate to shift the burden to the Board “to ensure that NTPC is reviewed to ensure that it is not over earning on that system.”¹

At page 8, NTPC also argues that deferral account treatment for climate change regulations is not appropriate. NTPC opines² that it is probably looking at additional costs in terms of emissions regulations and then seems to contradict that in argument when it states that it can’t make an assessment as to whether it will cost money “to achieve or that, in fact, there will be credits coming back to the Corporation.” Given this uncertainty, the Hydro Communities submit that the net costs or benefits resulting from

¹ Tr. Vol. I, page 64

² Tr. Vol. I, page 68

climate change regulations/emission credits should be captured in a deferral account and addressed at the next GRA.

3. 2006/07 AND 2007/08 GRA FORECASTS

(a) Sales and Load Forecast

At page 8, NTPC bemoans the fact that its sales and load forecasts drew considerable attention notwithstanding that it used the exact same methodology as used in the previous negotiated settlement. It goes on to boast that its 2001/03 forecasts, at least on a Corporate-wide basis, varied less than 1% from forecast. While NTPC may attribute this to its methodology, the Hydro Communities are far more skeptical insofar as the forecasts in Fort Smith, Fort Resolution, Behchoko and Dettah are concerned. Despite fairly extensive cross-examination³ and Exhibits 24 and 34, NTPC did not provide any arguments with respect to sales and load forecasts in Fort Smith. The HC expect those arguments will come in Reply Argument. The Hydro Communities would therefore refer the Board to Exhibit 34 that provided sales and Heating Degree Day data for the Town of Fort Smith. Based on that information, the Heating Degree Days for Fort Smith have been:

2001/02	7,120
2002/03	7,733
2003/04	7,058
2004/05	7,726
2005/06	6,294

The 30-year normal Heating Degree Days over the period 1971-2000 were 7,439.⁴ Therefore, while the 2001/02 and 2002/03 data approximated long term normal Heating Degree Days for Fort Smith, the same cannot be said for 2005/06 which was a full 15%

³ Tr. Vol. I, pages 93-103

⁴ Tr. Vol. I, page 96

warmer than normal. As shown in the HC Argument at page 10, the sales per residential customer in 2005/06 were about 8% below the 4-year average which was close to normal weather-wise while the Heating Degree Days were 15% warmer than normal. On a more macro basis, there appears to be a strong relationship between residential sales and Heating Degree Days. NTPC then reduced those (apparently un-normalized) sales from 2005/06 a further 3.3% and 4.3% in the test years. This “bottom-up” approach is clearly flawed and defies all logic. NTPC provided Exhibit 24 that purported to provide weather regressed sales in Fort Smith. For the reasons set out at pages 9-10 in the HC Argument, this Exhibit should be rejected as flawed. The Hydro Communities reiterate that their forecast of sales for Fort Smith residential customers is far more reasonable than that provided by NTPC.

The Hydro Communities applied similar logic in assessing the residential sales in Behchoko and Dettah at pages 11-12 of their argument. The Hydro Communities reiterate that their forecast of sales for Behchoko and Dettah residential customers is far more reasonable than that provided by NTPC.

NTPC concludes this section by stating that the Board should accept the sales and load forecast simply because there was no evidence submitted by any intervener. The Board should disregard this gratuitous statement and rely on the entire evidence that was adduced throughout the hearing, which, the Hydro Communities submit demonstrates that NTPC has not properly determined normalized sales and as a direct result thereof, has significantly understated residential sales in the test years in Fort Smith, Fort Resolution, Behchoko and Dettah.

4. REVENUE REQUIREMENT

(a) Operating and Maintenance Expenses

(i) Salaries and Wages

The Hydro Communities wish to reply to one aspect of the elusive operating benefits expected from avoided diesel generation resulting from the purchase of the Bluefish Hydro Facility. In response to Undertaking No. 2, NTPC suggested that the number of positions across the Snare System has been constant over the period: 41 in 2004/05, 39 in 2005/06, 39 in 2006/07 and 41 in 2007/08.⁵ With respect to supplies and services, the amounts shown for Jackfish are also increasing.⁶ The bottom line still appears to be that there are no demonstrated operating benefits other than fuel attributable to the purchase of the Bluefish Hydro Facility.

At page 14, NTPC has merely summarized the record with respect to At-Risk Compensation. The Hydro Communities consider they have adequately addressed this issue and have nothing further to add to its Argument at pages 21-22.

(iv) Travel and Accommodation

At pages 16-17, NTPC addressed increased travel and accommodation costs and identified increased regulatory requirements and travel related to the RFID as the key drivers for the increases. The Hydro Communities provided a breakdown of these costs split to Operations and to Professional Development at page 20 of their argument. As noted there, it is difficult to fathom a 200% increase in Profession Development expenses as a result of environmental and safety training as compared to the three prior years. The Hydro Communities submit that no more than a doubling of Professional Development expenses should be allowed.

(d) Amortization of Deferred Charges

(iii) Water Licensing Deferral Account

At page 25, NTPC quotes,

⁵ Tr. Vol. III, page 80-81

⁶ HC Argument, page 17

“What it’s proposing to do now is to switch from that deferred cost accounting to this permanent deferral account – account – method of accounting, similar to the overhauls, in which there would be a set annual appropriation to the account and all – all amounts required to be spent in respect of water licensing would be spent out of that deferral account.”

While the Hydro Communities stated in Argument that they did not oppose a Water License Deferral Account,⁷ they did take exception with such deferral account being imposed retroactively “by virtue of the fact that this is how NTPC accounted for the costs and no adjustment was made during the review process.” Absent specific Board approval of a Water Licensing Deferral Account, (and NTPC acknowledged it had not been approved),⁸ the Hydro Communities submit it would be inappropriate to approve this deferral account on a retroactive basis simply because it had eluded any specific review and was implicitly approved. Further details are provided in the Hydro Communities Argument pages 57-58.

(e) Other Deferral Accounts and Reserves

(i) Reserve for Injuries and Damages

At page 26, NTPC quotes:

“...on an annual basis we review the charges to the fund with the people who have the knowledge of the events and we review with them the terminology of the policy so that they have a good understanding of what events qualify under these funds, in particular, the reserve for injuries and damages.”

As noted in the HC Argument at pages 56-57, the Hydro Communities are concerned that NTPC staff will have the final authority to approve uninsurable or uninsured charges

⁷ HC Argument, page 57-58

⁸ Tr. Vol. I, page 174-175

against the reserve for injuries and damages notwithstanding that such decisions may improve the net income or return on equity of the regulated operations which is the criteria for 50% of At-Risk Compensation. The final disposition of these uninsurable or uninsured charges must, if submitted, be deferred until the next GRA, and if necessary be reviewed by a qualified independent individual to determine whether the event truly meets the test of “accidental.”

(iii) Reserve for Future Removal and Site Restoration

At page 31, NTPC indicates it has made several attempts to approach the Federal Government to see if they will contribute to the cleanup of the soil contamination attributable to Federal ownership of the sites but that it has been turned down officially. That does not reconcile to page 6-3 of the Application that states, “Neither NTPC nor NPC received a response to the March 30, 2004 letter.” It does not appear to the Hydro Communities that NTPC has pursued the Federal Government’s liability to the extent possible.

The Hydro Communities reiterate that NTPC should continue to pursue funding from the Federal Government for the soil contamination that they were responsible for, including legal action when all other channels have been exhausted.

(f) Return on Rate Base

(i) Cost of Debt

The Hydro Communities submit that the method for calculating the cost of debt stipulated in Board Decision 1-91 excludes sinking fund items. In contrast in its Final Argument⁹, NTPC inserts sinking fund items into the calculation method prescribed by the Board. To illustrate, NTPC inserts “sinking fund” balances into “average net proceeds for each long term debt issue”, although the term “net proceeds” is understood by issuers of securities to be the capital raised minus the

⁹ NTPC Argument, p. 32 lines 1-8

costs of issuing the securities. This re-interpretation of the method for calculating the cost of debt has not been approved by the Board since no references to sinking funds or sinking fund calculations are included in Decision 1-91 (pages 39-40) and in Decision 9-93 (pages 64-65).¹⁰

Although the Board had the term sheet for the 1989 debenture issue with sinking fund before them prior to Decision 1-91, the Board excluded the sinking fund earnings and contributions from its ruling on how the effective cost of long-term debt should be calculated. Furthermore, in its 1995/96/97 Application (subsequently updated to include 1997/98), NTPC used the method proposed by Drs. Kryzanowski and Roberts when it did not give effect to or request either sinking fund interest or earnings in its calculation of the effective cost of long-term debt (Application Tables 3.2.1 and 3.2.2.). This was the case although the first sinking fund payments began in March 1995.

NTPC argues¹¹ that the methodology proposed by HC's witnesses "is neither fair nor reasonable". HC submits that the method is both fair and reasonable since it places the consequences for the choice by management (acting as an agent for the sole NTPC shareholder) of a debt issue with a more risky bond feature (i.e., a sinking fund) on that shareholder.

NTPC advances several arguments¹² why the Board should not use the cost of debt methodology that was prescribed by the Board and recommended by HC's witnesses. One such argument is that NTPC was relatively unknown with no track record or debt rating at the time of issue of the debentures with sinking funds, and that the issue would only be attractive to insurance companies. HC refutes this point in detail in its Final Argument. On p. 49, HC refers to the testimony of Dr. Kryzanowski that this type of debt would have been attractive to other institutional investors since it was a relatively safe investment whose small dollar

¹⁰ Exhibit 9, NTPC.HC-39.

¹¹ NTPC Argument, page 32, lines 15-17

¹² NTPC Argument, page 32, lines. 1-8

value would facilitate portfolio diversification for such an investor, that an explicit issuer rating is not that important for private debt placement of smaller amounts that are purchased by institutions that can do their own analysis, and that such debt would carry an implicit bond rating.

NTPC argues that there was no implicit federal government guarantee because the cost of the company's debt was not the same as that on the government debt¹³. Because an implicit guarantee only comes into play in extreme credit events, one would not expect the costs to be the same. A good example is the major chartered banks in Canada. It is widely believed that they enjoy an implicit guarantee but their costs of debt are not the same as Canada's.

NTPC argues that the sinking fund borrowings must have been cost-effective because borrowings placed in arms-length third party transactions using professional advisers in institutional lending have to be taken without supporting documentation as being the most cost effective.¹⁴ In its Final Argument¹⁵, HC points out that NTPC acknowledges that other forms of debentures (such as amortizing debentures) have several advantages over sinking fund debt such as lower costs, reduced cash flow impact, greater simplicity and lower administrative costs. HC shows further that NTPC has no empirical evidence that issuing their existing debentures with sinking funds or the type of redemption feature attached to two of these debentures was subject to rigorous comparative analysis or that they were the lowest cost or most desirable option. HC also argues that, since NTEC (a more risky nonregulated entity) could issue debentures without sinking funds, NTPC could have issued debentures either without sinking funds or with less onerous sinking fund provisions. HC argues that this suggests the presence of agency and incentive problems since the consequences of a post-issue decline in interest rates for an issue of debentures with sinking funds would be borne by the ratepayers in the case of NTPC and by the sole shareholder (GNWT) in the case

¹³ NTPC Argument, page 33, lines 2-5

¹⁴ NTPC Argument, page 33, lines 6-33

¹⁵ HC Argument, page 48

of NTEC¹⁶. HC finds it most surprising that NTPC does not have supporting issuance documentation for open debenture files (i.e., for debentures that are still outstanding).

NTPC implies that each of the sinking fund issues was subject to Board review and approval, and from that perspective, it would be unfair to revisit the terms and conditions of bonds that were issued up to 17 years ago.¹⁷ It should be noted that while the Board approves the purposes of the bond or debenture at the time of issue, it typically defers approval of the specific terms and conditions, and in this case the regulatory treatment of debentures with sinking fund provisions, to the next GRA. NTPC did not specifically request the current sinking fund treatment until the 2001/02/03 GRA¹⁸ and then it was implicitly approved as part of a negotiated settlement.

NTPC suggests that the Alberta Public Utilities Board appears to have only issued one decision in support of the HC methodology.¹⁹ It should be noted that the Alberta Public Utilities Board Decision E89097 directed Edmonton Power to revise its embedded cost of debt by removing the sinking fund and sinking fund earnings from the calculations²⁰. Suffice it to say, Edmonton Power has since removed sinking fund and sinking fund earnings and hence no further decisions were required.

NTPC disagrees with the assessment by HC's witnesses that the investment policy for sinking fund investments was imprudent²¹. While the Corporation gives six reasons for its position, none of its arguments stands up to close scrutiny. First, NTPC argues that it followed the law in terms of its investment policy. HC submitted that the imprudence of the investment policy was also recognized by

¹⁶ HC Argument, pages 48-49

¹⁷ NTPC Argument, page 33, lines 29-33

¹⁸ HC Argument, page 51

¹⁹ NTPC Argument, page 34, lines 31-33

²⁰ Exhibit 8, HC Evidence, page 106

²¹ NTPC Argument, page 33, line 34 to page 34, line 30

NTPC (through its request) and by the responsible Minister, Honorable Jake Ootes during the November 2, 2000 Committee of Whole, which had met to consider *Bill 9, An Act to Amend the NWT Power Corporation Act*²².

Second, NTPC criticizes the forecasts of sinking fund returns appearing in HC's evidence as being "incorrect and understated"²³ although they are based on information provided by NTPC. Similarly, NTPC holds that HC should have used actual results although such information was not provided by NTPC through continual updates. HC argues that the recent liquidation of the equity positions in NTPC's sinking fund could be viewed as a preparatory move to lower sinking fund ROR expectations in the current rate-setting hearing, which, in turn, will increase the deemed cost of debt if the Board adopts the method of calculation proposed by NTPC²⁴.

Third, NTPC argues that its investment policy conforms to the policies followed in other jurisdictions for vertically integrated Crown utilities²⁵. In her rebuttal evidence Ms. McShane characterized some of these Crown utilities as being inappropriate benchmarks. For example, she noted that "neither BC Hydro nor Manitoba Hydro is charged with operating as a commercial enterprise; neither maintains a capital structure that reflects its own stand-alone business risks. Consequently, the coverage ratios of these utilities provide no insight into how the capital markets would view them on a stand-alone basis²⁶."

Fourth, NTPC makes the argument that it would be imprudent to expect NTPC to invest its sinking funds in accordance with the stated policy asset mix for its sinking funds, which includes a diversified international portfolio including equities and fixed income securities²⁷. In effect, NTPC argues that the portfolio is

²² HC Argument, page 50

²³ NTPC Argument, page 34, lines 20-30

²⁴ HC Argument, page 50

²⁵ NTPC Argument, page 35, lines 1-7

²⁶ Ex. 12, McShane Rebuttal, page 19, lines 534-543

²⁷ NTPC Argument, page 35, lines 17-19

more efficient when it is not diversified by being confined to fixed-income instruments, which is in contradiction to the basic principles of portfolio management.

Fifth, NTPC notes that Ms. McShane pointed out that the methodology proposed by Drs. Kryzanowski and Roberts would put the utility's return on equity at risk, and that this is a risk for which the utility has never been compensated²⁸. What she failed to point out is that this was a choice of financing instruments by management where any sinking-fund-related risks were borne by ratepayers and not the sole shareholder of NTPC. Thus, if the agent for the sole shareholder (i.e., NTPC's management) chooses not to issue amortizing debt or debt with a bullet payment, then the shareholder(s) and not the customers of NTPC should bear the risk of making such a decision. In contrast, when the risk of sinking funds would have been borne by the sole shareholder, NTPC's subsidiary NTEC chose to issue non-sinking-fund financing instruments.

Sixth, NTPC responds to a suggestion by Mr. Retnanandan that utilities with no sinking fund debt were equally at risk since they might not be able to generate the cash flows necessary to pay off maturing debt. In its response, NTPC makes the illogical argument that utilities with no sinking funds are not exposed to this risk because they can also refinance²⁹. This totally ignores the rollover risk associated with bullet debt. Furthermore, not only is borrowing to make sinking fund payments always available but the probability of doing so is small and the amount required is also likely to be small.

(ii) Capital Lease

In its argument, NTPC argues that the recommendations of Drs. Kryzanowski and Roberts with respect to the capital lease are unreasonable on several levels.

²⁸ NTPC Argument, page 35, lines 20-33

²⁹ NTPC Argument, page lines 1-6

First, NTPC states that “Dr.Kryzanowski did not find it necessary to understand the background to the Capital Lease ...”³⁰ and goes on to discuss the “public interest concerns” surrounding this agreement. Given that both sides are operating under the stand-alone principle, “public interest concerns” are not relevant to the determination of the appropriate cost of the lease for rate-setting purposes if one is to consistently adhere to this basic regulatory principle for the determination of capital costs. Furthermore, this is a three-way commercial arrangement that involved two interrelated entities (NTPC and NTEC), as well as two nonregulated parties (NTEC and DPC), and where all parties supposedly were aware of the contractual risks associated with the strict application of their commercial arrangement. Thus, Drs. Kryzanowski and Roberts do not recommend any changes to the commercial agreement between NTPC, NTEC and Dogrib nor do they recommend that the terms of that agreement be violated.

Second, NTPC argues that the cost of debt that NWT Energy (NTEC) raised and loaned to DPC was the appropriate rate for the interest component of the capital lease payment³¹. HC argues that NTPC could have borrowed at a lower rate than its unregulated subsidiary NTEC at that point in time³². This would have lowered the cost of the loan to Dogrib. In turn, this would have lowered the cost of the lease to NTPC (and for rate-making purposes). If Ms. McShane’s rebuttal evidence that the cost rates for the three NTEC issues were “well in line with the rates available to a utility with a debt rating in the BBB category” is accepted for the sake of argument, then this strongly supports the argument of Drs. Kryzanowski and Roberts that the implicit debt rating of NTPC is above BBB since the regulated utility should have a higher debt rating than its more risky unregulated subsidiary.

³⁰ NTPC Argument, page 36, lines 34-36

³¹ NTPC Argument, page 37, lines 14-26

³² HC Argument, page 52

Third, NTPC makes the counterfactual argument that the cost of debt for rate-setting purposes should depend on the net present value (NPV) of a project, such as the Snare Cascades hydro project³³. The absurdity of this argument is evident since it suggests that the cost of debt should be lower for projects with larger negative NPVs and higher for projects with larger positive NPVs.

Fourth, NTPC argues that the implementation of the recommendations of Drs. Kryzanowski and Roberts would have unfavorable consequences for DPC³⁴. In responding to questions from the Board consultant, Dr. Kryzanowski acknowledges such.³⁵ By structuring the three-way arrangement involving NTPC, NTEC and DPC so that the capital lease payments from NTPC to DPC depended on Board approval for the debt cost in the capital lease and that the loan from NTEC to DPC did not depend on such Board approval, NTPC effectively shifted this regulatory risk entirely to DPC. In this proceeding, NTPC is trying to use the consequences of this risk shifting to gain leverage with the Board.

(iii) Capital Structure

The Hydro Communities propose a capital structure for NTPC of 42% common equity. In its Final Argument, NTPC states four reasons against adopting this capital structure. HC believes that all these arguments are without merit for the following reasons.

The first argument is that the business risk analysis provided by Drs. Kryzanowski and Roberts, in particular their comparison with two companies in the Alberta Generic Cost of Capital proceeding, is invalid because they did not develop the analysis *de novo* but rather drew on the work of other witnesses for the original business risk analysis.³⁶ This argument is clearly illogical as it

³³ NTPC Argument, page 38, lines 11-32

³⁴ NTPC Argument, page 39, lines 1-18)

³⁵ Tr. Vol. II , pages 351-352

³⁶ NTPC Argument, page 40, lines 7 -12.

suggests that the conclusions of a financial expert can never be valid if they draw on information or techniques that were not invented or developed by the expert himself or herself. Taken to its logical extreme, the argument suggests that witnesses in this, or other hearings, cannot credibly employ the capital asset pricing model because it was invented by Dr. William Sharpe and others, or the dividend discount model because it was invented by Dr. Myron Gordon rather than by the experts testifying!

Second, NTPC asserts that the Board should disregard the business risk evidence of Drs. Kryzanowski and Roberts because Dr. Kryzanowski did not recall all the details of the Snare Cascades deferral account. NTPC also asserts “that some of the deferral accounts that the witnesses had characterized as mitigating risk did not, in fact, do so (e.g., the Snare Cascades deferral account...)”.³⁷

This second argument is without merit because it ignores the response to the Undertaking given at Transcript, Volume II page 277 in which Dr. Kryzanowski provides a description of what he understands and refers to as Snare Cascades Deferral Account and how that is a risk mitigating factor as follows:

Snare Cascades Deferral Account is listed on page 3-22 of the Application. On page 3-21 of that Application, NTPC states that: “the principle of each deferral account is that it will tend toward \$0 over the long-term, and to the extent that this is not being achieved the annual appropriation will be adjusted upwards or downwards at NTPC’s next GRA.” My understanding is that the adjustment provides risk mitigation.

Third, NTPC states that “the witnesses [Drs. Kryzanowski and Roberts] ignored the impact of the non-taxable status of the Corporation.”³⁸ On the contrary, the Final Argument of HC fully recognizes that status and indicates that:

³⁷ NTPC Argument, page 40, lines 17 -23.

³⁸ NTPC Argument, page 40, line 24.

...the recommendation of Drs. Kryzanowski and Roberts makes no adjustment for NTPC's non-taxable status as a Crown corporation for the determination of its allowed capital structure. Drs. Kryzanowski and Roberts believe that the argument that non-taxable status merits a capital-structure adjustment is flawed for three reasons. First, it is based on an overly simplistic view of financial markets and the ratio guidelines employed by bond rating agencies.... 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 standalone principle. As explained earlier, such lower coverage results from the non-taxable status that goes with government ownership. Under the standalone principle, the impact of such ownership must be set aside. Third, the likelihood that a utility, such as NTPC, would breach a 1.0 coverage ratio within a one-year period is very, very small³⁹.

The fourth, and final, argument advanced by NTPC challenges the validity of the sample of actual and allowed capital structures employed by Drs. Kryzanowski and Roberts.⁴⁰ This argument is moot because the HC expert witnesses reworked their calculations to demonstrate that their conclusions stand with the addition of the companies identified by Ms. McShane. As stated in the Argument of the Hydro Communities⁴¹:

To reflect the additional Fortis subsidiaries identified by Ms. McShane in her Rebuttal Evidence, they recalculated the average allowed equity ratio including Maritime Electric and Newfoundland Power and updated the numbers for Emera and TransCanada Pipelines. The resulting revised average allowed common equity ratio is 39.56%. This further analysis

³⁹ HC Argument, page 47

⁴⁰ NTPC Argument, page 41, lines. 1-10.

⁴¹ HC Argument, pages 43-44

reinforces their conclusion that the average “generous” equity ratio for an integrated electric or gas utility is around 38% - 40%.

(iv) Fair Return on Equity

NTPC incorrectly argues that, unlike Ms. McShane, Drs. Kryzanowski and Roberts argue that no other tests (beside the CAPM) need be applied and that rely solely on one test (the CAPM)⁴².

First, the statement is incorrect since Drs. Kryzanowski and Roberts use the scientific approach commonly used in finance inquiry where one uses the best approach to obtain an estimate of the ROE, and then determines if and how these estimates should be altered after testing the robustness of each estimate by using other (somewhat less) reliable estimation approaches⁴³. Thus, Drs. Kryzanowski and Roberts begin by estimating the ROE using the Equity Risk Premium (ERP) Test. Although they consider the Discounted Cash Flow or DCF Test to be inferior to the ERP Test, Drs. Kryzanowski and Roberts use the DCF Test to provide additional estimates of the Market Equity Risk Premium or MERP using both historical and forward-looking estimates of dividends and dividend growth at the market level. Similarly, they use forward-looking estimates of the MERP based on surveys of knowledgeable economists and investment professionals. Drs. Kryzanowski and Roberts do not employ the DCF Test at the individual firm level using analyst’s forecasts due to the upward bias in such forecasts, and they do not employ the Comparable Earnings Approach because they believe that it is without merit and unsuitable for use in determining a fair rate of return on equity for a utility.

⁴²NTPC Argument, page 42, lines 11-42

⁴³ HC Argument, pages 26-27

Second, Drs. Kryzanowski and Roberts use a forward-looking conditional ERP Test and not the CAPM. Furthermore, they also use total variance in their ERP Test, which is counter to the logic behind the traditional CAPM.

Third, using the general theory of estimation error, Drs. Kryzanowski and Roberts conclude that adding the estimates from inferior methods as Ms. McShane does (such as the Comparable Earnings Test or the DCF Test applied to individual firms using the forecasts of analysts without adjusting for optimism bias) to those from a superior estimation method (such as the ERP Test) increases estimation error and bias. In other words, it makes the estimates less reliable instead of more reliable. This is a notion accepted by many Canadian boards given the generic algebraic formulas that they use to adjust ROEs.

NTPC refers to evidence by Ms. McShane that the CAPM has conceptual and application problems, and is not inherently superior to any other tests⁴⁴. Each of these issues has been dealt with in the evidence of Drs. Kryzanowski and Roberts (Ex. 8, pp. 124-128) and in HC's Final Argument.

First, Ms. McShane mistakenly equates the ERP Test with the CAPM and provides criticism of the unconditional CAPM when tested using realized (and not expected) returns⁴⁵. Her approach contradicts evidence from user surveys which find that the CAPM or variants thereof are the method most commonly used by practitioners to estimate a firm's cost of equity. Although Ms. McShane does not take issue with the results of these surveys, she chooses to put material weight on a method that does not appear in these surveys, namely, the Comparable Earnings method for determining a firm's cost of equity. Furthermore, Ms. McShane could provide no reference to corporate use surveys or basic finance textbooks in which

⁴⁴ NTPC Argument, page 42, line 17 to page 43, line 9

⁴⁵ HC Argument, page 29

the Comparable Earnings method of determining the cost of equity is either used or taught⁴⁶.

Second, the CAPM criticisms that Ms. McShane refers to argue for a multi-factor approach to asset pricing and not in favour of the two other inferior approaches that are used by Ms. McShane. Unlike Ms. McShane, Drs. Kryzanowski and Roberts examine the results of using a multifactor APM that is correctly specified econometrically and find that an asset pricing model with a stock and bond factor does not lead to higher ROEs⁴⁷.

Third, the arguments by Ms. McShane that the ERP Test does not address the issues of financial integrity and the comparable earnings standard⁴⁸ are false. If a utility is generating risk-adjusted returns that are comparable to other firms with financial integrity, then it will also have financial integrity by inference. Also, Dr. Kryzanowski testified that the Comparable Earnings Test predates modern finance, including techniques like NPV and CAPM, and that it does a poor job of controlling for risk and does not deal with timing or value of the accounting returns to the owners of the firm. In other words, the Comparable Earnings Test only deals with the magnitude of accounting returns to the owners of the firm and completely ignores their timing or value.⁴⁹ Thus, the use of asset pricing models such as the CAPM is based on valuation developments in finance since the early 1950's for properly implementing and directly testing the so-called "Comparable Earnings" standard.

Fourth, Ms. McShane incorrectly states that "in principle the CAPM attempts to measure the minimum return that will allow a company to attract equity

⁴⁶Tr. Vol. II, page 220 line 8, to page 221, line 16

⁴⁷ Ex. 8, pages 81-83 & Appendix 4.D, pages 191-194

⁴⁸ NTPC Argument, page 43, lines. 3-20

⁴⁹ Tr. Vol. II, page 269, line 13 to page 270, line 13

capital”⁵⁰. The CAPM is a pricing relationship based on the notion that the required returns on assets of similar risk should be equivalent, or alternatively, that the risk-adjusted returns on assets of different risk should be equivalent.

NTPC provides a number of quotes from the Conference Board, London Economics and others that returns allowed for electricity transmission are too low⁵¹. Unfortunately, these conjectures are not supported by empirical evidence⁵². Drs. Kryzanowski and Roberts find that investors in the Canadian utilities sector subindex outperformed the S&P/TSX Composite by 1.54% annually with a lower risk over the 1988-2005 period, and by 3.80% annually with a lower risk over the ten-year period 1996-2005⁵³. Thus, investors who invested in a portfolio that mimicked this sector achieved an excess return or “free lunch” of almost 4% on an annual basis over the recent ten-year period of 1996-2005. After adjusting for risk using Sharpe ratios, they find that the risk-adjusted performance of the utilities sector index over the S&P/TSX Composite index widened more recently. These results indicate that investors in these utilities achieved results significantly higher than that intended by regulators when the regulators determined the allowed ROEs, and additionally that the allowed returns exceeded what investors required to bear the investment risk of these utilities or to maintain the financial integrity of these utilities.

NTPC is correct that there “is no disagreement between Ms. McShane and the Hydro Communities’ witnesses that NTPC is a higher risk utility than the typical Canadian utility”⁵⁴. The problem in its implementation is that the two sets of witnesses use different definitions of what is a typical Canadian utility.

⁵⁰ NTPC Argument, p. 43, lines 5-6

⁵¹ NTPC Argument, page 44

⁵² HC Argument, pages 37-38

⁵³ Exhibit 8, top of page 141

⁵⁴ NTPC Argument, page 45, lines 7-8

Ms. McShane's argument is based on the B.C. method where the Commission explicitly designates a low risk benchmark utility and a low risk benchmark return on equity⁵⁵ and then adjusts both the capital structure and the equity risk premium to reflect any risk above the low-risk benchmark. In contrast with the BCUC approach, Drs. Kryzanowski and Roberts follow the lead of the AEUB and the NEB in setting the equity risk premium at a level appropriate for an average-risk utility and make the adjustment for higher (or lower) business risk through the equity ratio.

While both approaches are logically correct⁵⁶, Ms. McShane falls into error in the application because she fails to maintain the necessary focus on **low-risk** utilities. When she estimates the risk premium, she incorrectly uses a sample or an industry index, which is really for an average and not low-risk utility. Recognizing her error, Drs. Kryzanowski and Roberts challenged her view that an incremental equity risk premium is required. Such an equity risk premium would have the effect of rewarding NTPC twice for the same incremental risk that is already reflected in the capital structure of an average-risk utility.

(v) Impact of Hydro Communities Witnesses' Cost of Capital Recommendations on NTPC's Interest Coverage

NTPC claims that the HC's witnesses' recommended 42% common equity ratio would lead to an excessively low interest coverage ratio "far below the average interest coverage ratios maintained by other Canadian utilities".⁵⁷ The HC agrees that its recommendation would lead to a coverage ratio well below the industry average but disagrees that this lower coverage ratio would cause any difficulties for the Corporation for reasons discussed earlier in this Reply.

⁵⁵ Ex. 2, McShane evidence, page 5, lines 131-4, and page 6, lines 158-160

⁵⁶ HC Argument, pages 46-47

⁵⁷ NTPC Final Argument, page 45, lines 1-23.

Further, the criticism of the HC capital structure recommendations as causing the Corporation to “fail to meet the financial integrity standard” is logically inconsistent. The criticism is based on the coverage ratio on the order of 1.43 times calculated by Ms. McShane based on HC’s witnesses’ recommendations.⁵⁸ The logical inconsistency is revealed by comparing this coverage ratio with the historical values for the Corporation that are based on the actual capital structures considered by NTPC and by Ms. McShane as an appropriate benchmark. The fact is that these actual capital structures produce coverage ratios in the same range as that resulting from the recommendations of Drs. Kryzanowski and Roberts. This is evident in Ms. McShane’s Evidence where she states that the average coverage ratio for NTPC for 2003/4 and 2005/6 was 1.7 times as compared to an industry average of 2.5 times.⁵⁹

Put another way, if a capital structure resulting in a coverage ratio well below the industry average did, in fact, cause a breach of financial integrity, then it follows logically that NTPC has lacked financial integrity since 2003/4 under a negotiated settlement that it agreed to. Given the counterfactual nature of this implication, the argument clearly is without merit.

6.0 RATE BASE

(a) Gross Plant in Service

(iv) L199 Recommissioning

There is no question that the work done to recommission the L199 transmission line was “a necessary and prudently incurred project.”⁶⁰ Neither have the HC raised an issue with respect to either the interest on the deferral account or the legal fees incurred in

⁵⁸ Ex. 12, McShane Rebuttal, page 14, lines 529-532.

⁵⁹ Ex. 2, McShane Evidence, page 17, lines. 451-457.

⁶⁰ NTPC Argument, page 51

achieving a cash settlement⁶¹. The issue is whether it is proper to include in rate base costs that no party to the original project has accepted responsibility for, and which can reasonably be inferred to be the direct result of imprudent (negligent) contract and project management.⁶² If the shareholders of NTPC are not held accountable (at least in part) for losses arising from imprudent behavior on the part of NTPC, then NTPC will have no incentive to ensure that work that customers pay for is done properly the first time, and that prudent contractual arrangements are in place so that, in the event of failure, there is full and effective recourse against the parties responsible.

(vi) Automatic Meter Reading

At page 52, NTPC asserts that the AMR projects have improved the efficiency of the Corporation's operations and have a net benefit to customers. This statement assumes there were benefits which is not true. The net present value analysis in BR.NTPC-29(m) indicates a 10-year net present value of \$75,000. However, as noted at pages 18-19 of the HC Argument, there are no labor savings because linemen have been redeployed to other areas. The Hydro Communities reiterate that if the \$206,000 net rate base addition is approved, then labor costs should be reduced by \$35,000 per year so that customers are indifferent. Alternatively, the project should be excluded from rate base until such time as the \$35,000 of labor savings can be demonstrated.

7.0 TERMS AND CONDITIONS OF SERVICE

The Hydro Communities have no problem with the NTPC's suggested amended wording for section 1.1⁶³ clarifying the source of the Board's jurisdiction to approve the T's and C's.

With respect to the proposed amendments to section 4.1, the Hydro Communities certainly have no sympathy for a customer who "attempts to avoid payment arrears by

⁶¹ HC Argument, page 54

⁶² HC Argument, page 54

⁶³ NTPC Argument, pages 54-55

having another member of their household apply for service at the same residence.⁶⁴ However, the vague and unquantified evidence put forward by NTPC leaves the Hydro Communities unconvinced that a serious problem of this nature exists.

With respect to the proposed amendments to sections 13.2 and 14.1 the Hydro Communities reiterate their argument at pages 60-61 that the result of approval of the proposed amendments would be to expose the customer to a greater degree of potential liability than NTPC considers appropriate for itself. This appears to be fundamentally unbalanced and unfair.

8.0 OTHER MATTERS

(b) Stabilization Funds

(i) Water Stabilization Funds

At page 58, NTPC claims that it is not proposing any changes to the mechanics of the Snare Water Stabilization Fund. NTPC indicates that all fuel expenses for the hydro systems will be charged to the two water stabilization funds. As noted at page 24 of the HC Argument, this has included charges related to the Snare Rapids Upgrade and the Rae Transmission tower failure both during 2005/06. NTPC notes that the rules of the Stabilization Funds do not provide for any overrides or discretion, that is, all diesel generation will be charged to the Funds.⁶⁵

The Hydro Communities addressed their concerns with this practice at pages 23-24 of Argument. The intent of the change in 2001/02/03 was to ensure that NTPC was never paid for diesel that did not run. The Hydro Communities do not believe it was ever the intent that all diesel fuel expense should be charged to the Water Stabilization Funds without any discretion. The Hydro Communities reiterate that the Yellowknife and Fort

⁶⁴ NTPC Argument, page 56

⁶⁵ NTPC Argument, page 59

Smith fuel costs should be included in the revenue requirements on a forecast basis for 2006/07 and 2007/08.

At page 62, NTPC states that there is no need to revisit the Bluefish long-term average generation figure used in the Snare-Yellowknife hydro stabilization fund as any changes would not have an impact on test year revenue requirements and that it will revisit the long-term average output of Bluefish when it becomes a material consideration in the development of the Corporation's revenue requirement. The Hydro Communities consider that the long-term output of Bluefish should be addressed in advance of when it will have an impact on the hydro stabilization fund rather than retroactively. The Hydro Communities reiterate their argument that NTPC should be required to address the long-term output of Bluefish at the time of its next GRA in order to ensure there is a forum to test that output in advance of when it will be reflected in the Water Stabilization Fund. Details should be provided for the long-term output obtainable from each of the projects that were identified in the Project Permit Application along with the estimated completion dates of those projects.

(c) Accounting Provisions

At page 64, NTPC seeks approval for a new deferral account for water licensing and for the general treatment of deferring future costs over a period of time, where costs occurred in one year have a longer term benefit to customers and are significant in magnitude (i.e. job evaluation). The Hydro Communities have addressed the new deferral account for water licensing fees in Section 5.2.3 of Argument and Section 4(d)(iii) of this Reply. While they are not opposed to the water licensing deferral account on a go-forward basis to smooth out amounts that are not predictable and do not occur on an annual basis, the Hydro Communities are however, opposed to NTPC's attempt to retroactively capture prior years' operating costs, particularly given that the retroactive regulatory treatment sought by NTPC may have slipped through "by virtue of the fact that this is how NTPC accounted for the costs and no adjustment was made during the review."⁶⁶ The fact that

⁶⁶ HC.NTPC-15(e)

NTPC escaped review should not be construed as implicit prior approval by the Board. The Hydro Communities submit that deferral accounts should be established in advance and have specific parameters. For example, the Deferred Regulatory Account in this application has a closing balance of \$1,232,000 as of March 31, 2006 and the annual appropriations requested were \$600,000 per test year. The Water License Deferral Account was not approved by the Board, did not have a specified opening balance nor was there any specified annual appropriation. The same applies for the Job Evaluation deferral account. Furthermore, there is no assurance that the company would not have earned its approved return on equity had it paid these expenses in non-test years. Accordingly, the Hydro Communities submit that the Board should deny the \$611,000 of retroactive expenses related to water licensing fees incurred prior to March 31, 2006.

(d) Affiliate Transactions

With respect to an affiliate code of conduct as addressed in the evidence of the TGC, NTPC has asserted that “the costs of yet another proceeding should be avoided.”⁶⁷ The TGC evidence does not request “another proceeding” but merely that “NTPC provide, no later than its next GRA, its own comprehensive code of conduct, and compliance plan, modeled, not duplicated, after the ATCO Code⁶⁸.” As referred to in the HC argument⁶⁹, the need for a formalized code is increasing in concert with new initiatives and developments⁷⁰ including, most notably, Bill 4 and the creation of the Northwest Territories Hydro Corporation as the new corporate parent of NTPC.

⁶⁷ NGTL Argument, page 66, lines 1-3

⁶⁸ Tr. Vol. III, page 30 lines 3-8

⁶⁹ HC Argument, page 7

⁷⁰ As discussed in HC Argument, pages 4-7

The HC are in agreement with the TGC⁷¹ that the questions of what, if any, additional costs may arise from the preparation and implementation of an affiliate code of conduct, and the allocation of those costs are not before the Board in this proceeding.

All of which is respectfully submitted this 03 day of July, 2007.

**Brownlee LLP
Solicitors for the Hydro Communities**

Thomas Marriott
Tue Jul 03 14:56:39 2007

A handwritten signature in black ink, appearing to read 'T. Marriott', is written over a horizontal line. The signature is stylized and somewhat cursive.

Per: _____
Thomas D. Marriott

⁷¹ TGC Argument, page 12