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## DECISION

IN THE MATTER of a review of the Cost of Capital for Enbridge Gas New Brunswick L.P. (EGNB) November 30, 2010

NEW BRUNSWICK ENERGY AND UTILITIES BOARD

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# NEW BRUNSWICK ENERGY AND UTILITIES BOARD:

CHAIRMAN:	Raymond Gorman, Q.C.
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COUNSEL:	Ellen Desmond
APPLICANT:	
Enbridge Gas New Brunswick L.P.	Len Hoyt, Q.C. David MacDougall
INTERVENORS:	
Atlantic Wallboard L.P.	Christopher Stewart
Department of Energy	Mary Ann Mann
Flakeboard Company Limited	Gary Lawson
Public Intervenor	Daniel Theriault, Q.C.

#### **INTRODUCTION**

The New Brunswick Energy and Utilities Board (the Board) has regulated Enbridge Gas New Brunswick since it commenced operations in New Brunswick in 2000. At that time the Board approved a system of rate making and accounting that would allow EGNB to make significant investments during a period of developing the distribution network. These investments were made in the anticipation that they would be recovered from customers once the Development Period ended. In 2008 the Board recognized the need for a number of regulatory decisions to be made prior to the end of this Development Period.

The Board convened a hearing in the nature of a case management session, which was held on January 22, 2009, where it heard from all interested parties concerning these regulatory issues. These parties presented their positions regarding what issues required consideration by the Board, in what order and what issues could conveniently be considered in the same hearings. The decision flowing from that hearing gave direction with respect to subsequent hearings.

Some of the first matters to be dealt with were the issues surrounding the Development Period. It was recognized that the decision about how the Development Period is defined and when it ends would have an impact on many of the other matters to be determined.

The Board, in a decision concerning the Development Period, dated December 1, 2009, identified additional issues requiring consideration, specifically finding that Enbridge Gas New Brunswick Limited Partnership's (EGNB) return on equity, cost of debt and capital structure could and should be reviewed during the Development Period. A process was put in place to conduct that review, which included the filing of a ten year forecast by EGNB.

A public hearing was held in Fredericton from September 27 through September 30, 2010 to consider the return on equity, cost of debt and capital structure of EGNB.

#### **Approved Cost of Debt**

The Board will first address the issue of EGNB's approved cost of debt for regulatory purposes. EGNB's debt financing is provided by Enbridge Inc., the majority partner. The approved cost of debt is currently set at 100 basis points (1%) above the Enbridge Inc. borrowing rate. This rate was established by the Board in its decision of June 23, 2000 and has been in place ever since.

Lawrence Booth provided pre-filed evidence and testified at the hearing on behalf of the Public Intervenor. He contends that because Enbridge Inc. is a holding company and does not have direct access to a utility's revenue stream it pays a premium in the bond market over the rate that a mature operating utility would pay. Dr. Booth recommends that the Board not allow the requested premium of 100 basis points over Enbridge Inc.'s cost of debt, since EGNB is an operating company with a revenue stream and should not be considered to be riskier than the holding company, Enbridge Inc. Dr. Booth estimates that EGNB should be able to get an interest rate on debt which is similar to Enbridge Inc.'s bond rate.

In his pre-filed evidence Dr. Booth recommended that EGNB be asked to provide the Board with funding estimates from two investment banks before granting EGNB a 100 basis points premium over Enbridge Inc's debt cost.

EGNB acted on this recommendation prior to the hearing and sought advice on financing costs from RBC Capital Markets and TD Securities. Two letters were received from TD Securities, each based on different assumptions. On August 4<sup>th</sup> TD Securities issued an opinion that the spread to the 10 year Government of Canada (GOC) Curve would be in the range of +150 to 165 bps. In formulating that opinion, one of the key assumptions used was that EGNB is a subsidiary of Enbridge Inc.

A new opinion was formulated by TD Securities on September  $2^{nd}$  stating that the spread to the 10 year GOC Curve would be in the range of 225 bps to 425 bps depending on the rating (BB to BB+ versus BBB-). In formulating the September  $2^{nd}$  opinion, one of the key assumptions was that EGNB is a stand-alone business.

The Board finds that the assumptions employed by TD Securities in their September 2, 2010 opinion are more appropriate for EGNB's circumstance and are comparable to the underlying assumptions used by RBC Capital Markets.

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EGNB argues that its currently approved rate for its cost of debt is reasonable and that no change is warranted. Although Dr. Booth provided evidence that Enbridge Inc.'s cost of debt was almost always higher than two of its operating subsidiaries in Ontario, the Board heard no evidence that EGNB could borrow at a lower rate than Enbridge Inc., and in fact heard evidence that EGNB may be required to pay a higher rate.

Mr. Charleson testified at page 262 that:

...about a year and a half, two years ago, we had--- the Treasury Group looked as well to see if there was the opportunity--- if there might be a way to save on interest costs if we went to the private markets and (it) came back at a higher cost.

The Board finds that EGNB is currently not able to obtain financing at a rate any lower than Enbridge Inc.'s borrowing rate plus 100 basis points.

Based on the foregoing, the Board determines that the current cost of debt is reasonable and orders that the cost of debt of EGNB be limited to the actual borrowing rate of Enbridge Inc. plus 100 basis points. This rate is to apply to both long-term and short-term borrowing. In addition, the Board orders EGNB to continue recording all of the information necessary regarding the borrowing cost of its parent company in support of the interest charges to EGNB. This information shall be filed, *inter alia*, for the annual review.

#### **Return on Equity**

EGNB's current approved rate of return on equity (ROE) is 13%, which was approved by the Board in its June 23, 2000 decision. EGNB proposes that the ROE be set at 12.75% while the Public Intervenor proposes that the ROE be 9%. The Public Intervenor's proposal is supported by Atlantic Wallboard Limited and Flakeboard LP.

The Board was presented with a number of different methods for calculating an appropriate ROE. Kathleen McShane, who testified on behalf of EGNB, uses three, namely; comparable earnings, discounted cash flow and equity risk premium. Of these methods, the Board finds that the first two methods are not appropriate for the circumstance of the present case and will deal only with the equity risk premium method.

With respect to the equity risk premium, Ms. McShane uses different tests. These tests are the capital asset pricing model (CAPM), a discounted cash flow equity premium method and the historical premium method. Ms. McShane averages the premiums resulting from these three tests to establish a recommended premium and resulting ROE for a benchmark utility.

Both Ms. McShane and Dr. Booth use CAPM in their methodolgy. Dr. Booth's evidence is primarily based on the CAPM method while Ms. McShane uses it as one of a series of approaches. Ms. McShane expresses concerns about solely using the CAPM method but the Board believes the CAPM method's advantages outweigh its weaknesses. This is particularly true with respect to EGNB - a small, young utility which is not publicly traded.

The National Energy Board discussed the CAPM method in the decision of *Trans Quebec & Maritimes Pipelines Inc.*, [RH-1-2008] where it stated at page 26:

The Board is of the view that CAPM is widely accepted as a cost of equity model. This model has been relied upon by the Board in previous proceedings and was not contested in this proceeding as a method to estimate the cost of equity. In the Board's view, CAPM captures the risk equity holders have to bear when holding a common stock.

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The Board finds the CAPM method is widely used, well accepted and thoroughly vetted. As a result the Board finds that, at this time, a Capital Asset Pricing Model is an appropriate method to determine the ROE for a benchmark utility and will use this method in this decision.

This CAPM method for EGNB can be summarized by the following equation:

ROE = Risk free rate + (Market Risk premium x beta coefficient) + Flotation costs + EGNB risk premium

As the equation indicates the model requires the determination of a reasonable forecast of the risk free rate. An appropriate market risk premium is then added to the risk free rate. The premium is estimated for the market as a whole and adjusted by a beta coefficient. The beta is a factor used to convert a general market risk premium into one appropriate for a benchmark utility. An additional amount is added to cover flotation or financing costs. Since EGNB is not a mature benchmark utility, a further risk premium must be considered to account for EGNB's specific situation. This decision will address each of these matters in turn.

#### **The Risk Free Rate**

The initial step in the CAPM method establishes the risk free rate. Both Ms. McShane and Dr. Booth recommend that the 30-year Government of Canada Bond interest rate (LTC) be used as the risk free rate. The Board accepts this recommendation for the purposes of this hearing.

Ms. McShane recommends an LTC forecast of 5.0% based on the *Consensus Economics* forecast. *Consensus Economics* does not produce monthly forecasts of the 30-year Government of Canada bond. Accordingly Ms. McShane uses their forecast for a 10-year Government of Canada bond, to which she adds a differential between the 10-year bond rate and the 30-year bond rate. In the first year of her forecast projection she adds a premium of 0.4% representing the current differential to arrive at 4.6%. Ms. McShane's forecast projection is for ten years, and consequentially she uses the same methodology to develop LTC forecasts for 2011-2015 (5.0%) and 2016-2020 (5.3%). She concludes that an LTC of 5.0% is reasonable.

Dr. Booth's LTC forecast is based on the recent history of the 30-year bond rate. He concludes that the 30-year bond yield stayed at 4.5% from 2005 to the end of 2007. It is his opinion that over the long term the rate will return to 4.5%. He forecasts a modest economic recovery in

Canada which will increase the interest rate and therefore forecasts an LTC rate of 4.25% in 2011 and 4.5% in 2012. He recommends that the Board use an LTC rate of 4.25%.

The Board finds that forecasts of LTC from *Consensus Economics* are widely accepted and more appropriate than historical yields and will use them in establishing the risk free rate. The Board does not believe a 10-year projection of LTC is appropriate, but otherwise agrees with Ms. McShane's approach.

In the Board's view the preferred approach, at this time, is to use the *Consensus Economics* forecast for 10-year bonds and add the current rate differential between 10-year bonds and 30-year bonds to arrive at a forecast for the 30-year Government of Canada Bond rate as the LTC. The Board, following this approach, finds that the risk free rate is 4.6% for the purposes of this decision.

#### **Market Risk Premium**

Once a risk-free rate has been determined, the next step is to determine the market risk premium which approximates the added return required by investors in the equity market.

To calculate the premium for the market as a whole, Ms. McShane subtracts her LTC forecast from historical equity returns. She examines historical data and concludes that the ROE has been in the range of 11.5% to 12.0%. After using statistical techniques, Ms. McShane testified that there is no discernable trend in the ROE and she concludes that this range is a reasonable prediction of the market returns in the future. She subtracts from this range her forecast of LTC of 5.0% and concludes that a reasonable range for the market risk premium is 6.5% to 7.0%. She recommends a middle value of 6.75%.

The Board finds a more appropriate comparison is between the historical LTC rates and the historical return on equities. This comparison is provided by Ms. McShane in Schedule 14 and summarised in Table 6 of her evidence. The data suggests the average market risk premium for Canadian Companies was 5.3% for the time period between 1924 and 2009.

Dr. Booth's recommendation for a market based premium relies on a survey of financial analysts and finance professors on the market risk premiums they use. Specifically, his evidence includes a 2008 survey of academics that includes 29 Canadians and that these respondents indicated

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premiums that ranged from 2.0% to 8.0%. Dr. Booth observes that most of the respondents in the survey use a premium of 5.0% to 6.0% and he recommends this range as appropriate.

Having considered all the evidence the Board finds that an appropriate market risk premium lies between 5.0% and 6.0% and for the purposes of this decision, the Board sets the market risk premium at 5.5%.

#### Beta

To arrive at the risk premium for a benchmark utility, the market risk premium for the market as a whole must be adjusted using a beta coefficient. This is because an investment in a typical utility is considered less risky than an investment in the market as a whole.

Ms. McShane recommends a beta in the range of 0.65 to 0.70. She arrives at this range by analyzing the historical variability of the S&P/TSX Composite Index compared to a sub-index of utility companies as a whole.

Dr. Booth also employs historical data. He examines beta from the utilities S&P/TSX sub-Index as well as a set of Canadian utility holding companies. He also examines the performance of utilities in the recent financial crisis. He concludes that a reasonable range for beta is 0.45 to 0.55.

By its nature the utility beta is based on information that is similar across the country. For this reason there is value in the Board looking at other jurisdictions for additional information. A partial review of other jurisdictions is found in Dr. Booth's evidence on page 50. The range would appear to be from 0.50 to 0.66.

The Board finds that the appropriate beta for the purposes of this decision is 0.55 and that the resulting market premium for a benchmark utility is 3.03% (5.5% x 0.55).

#### **Flotation Costs**

The Board heard evidence from both Ms. McShane and Dr. Booth that a premium to account for financing or flotation costs is appropriate. Ms. McShane recommends the premium be 0.75% while Dr. Booth concludes that 0.50% is reasonable.

Very little compelling evidence on this topic was provided to the Board and little time at the hearing was spent on this matter. As both experts indicate an amount for flotation costs is necessary, the Board accepts Dr. Booth's proposal, being the lower of the two, and finds that a premium of 0.50% is appropriate.

#### **Benchmark ROE**

The above findings result in an ROE for a benchmark utility of 8.13%.

#### **Specific Risk Premium for EGNB**

EGNB is not a benchmark utility and the final ROE calculation must include a risk premium for investors specific to EGNB. Ms. McShane recommends an EGNB risk premium of 2.0% to 3.0% while Dr. Booth concludes that no more than 1.0% is required.

It is useful at this point to discuss the risk exposure related to EGNB.

In its evidence EGNB groups the risks it faces into five categories: market risk, competitive risk, supply risk, regulatory risk and deferral account recovery risk. While EGNB states that the risk in some of these categories may have decreased, it submits that the risk in others has increased. Taken as a whole, EGNB believes it still faces significant risks and that the risks have shifted from market development to the return of capital invested. Before examining the risks associated with the EGNB's business, the Board feels it is important to clarify the role these risks play in coming to a conclusion.

The Board agrees that the magnitude of the risks have shifted from market development to a concern about the return of invested capital. However, there is a need for caution when comparing the current risk with the risk associated with the company in 2000. These sort of relative changes in risk from 2000 to the present may help guide the Board in its decision but the main comparison must be with other currently operating utilities. The ROE is an incentive to the investor looking to invest in equities. The investor's choice is not whether to invest in EGNB today or back in 2000, but rather whether to invest in EGNB today compared to other investment

opportunities, including other utilities. It is with this frame of reference that the Board evaluates the risk facing EGNB and determines the risk premium required.

#### Market Risk

In terms of market risk, EGNB includes the size and nature of the New Brunswick market as an issue. Specifically, it claims cost-effectively serving customers is more challenging in a sparsely populated province. Moreover, because New Brunswick's economy is small and not as diverse as other provincial economies, New Brunswick is more susceptible to economic downturns. This susceptibility to economic fluctuations, the company maintains, puts the utility at a greater risk of losing load. EGNB also includes the existence of Single End-use Franchises which it estimates represents as much as 80% of the provincial load. Without this load the company believes it is exposed to greater risk than it would be otherwise.

Additionally, in its evidence, EGNB states that natural gas is still a relatively unfamiliar fuel choice although the company has made progress in educating potential customers about this option.

The Board is well aware of the nature of the customer base, the provincial economy and the Single End-Use Franchises. The Board, however, is not convinced that these factors have changed in any significant way since 2000.

#### Competitive Risk

With respect to competitive risk, EGNB states that its ability to grow its market is largely dependent on the price of competing fuels. The ability to attract new customers is - in part - based on being able to offer a savings at the burner tip compared to the price of alternative fuels. Inherent in this business model is that, if the price of the fuels gets too close together, it will be harder to attract new customers. The Board heard testimony that this convergence of fuel prices did occur. Natural gas prices rose significantly during the early years of the franchise reducing the competitive advantage relative to both oil and electricity. In addition electricity prices did not rise as the company forecasted. The combination of these factors decreased the incentive to convert to natural gas.

As a result of the reduced incentive, EGNB is more dependent on potential customers deciding to install new furnace equipment before they switch to natural gas. The company stated that it has

made progress capturing roughly 45% of new residential construction and 90% of new commercial construction in areas it serves.

It is important to understand the nature of the risk that is being considered. EGNB's business model is dependent on market prices that are inherently volatile or unpredictable. That this unpredictability is more than EGNB forecasted is related to forecasting error rather than an increased risk.

#### Supply Risk

EGNB testified the company has greater risk in relation to the supply of natural gas itself. The company notes that production over the long-term from the Sable Offshore Energy Project, the region's main supply source, remains unproven. The Board heard that the risk is not that the company will not be able to supply natural gas to its customers; but rather that the cost of supply from New England or the Canaport LNG facility in Saint John will make heating with natural gas less competitive. Unlike other natural gas utilities EGNB's distribution rates incorporate the cost of the natural gas in a manner that can reduce revenues if natural gas prices increase. The Board notes that there have been both positive and negative developments regarding the gas supply and concludes that, on balance, these changes have not impacted on EGNB's overall risk

#### Regulatory Risk

EGNB argued that the utility's risk related to regulation has increased. The Board heard testimony that recent decisions have increased the uncertainty related to the company and therefore increased the business risk. Specifically EGNB stated that when the Board determined that the capital structure and the return on equity could change during the Development Period, it increased the risk of lower returns.

While the future of the company will be influenced by the decisions in the last year and in the coming years, these decisions are part of the regulatory regime established at the beginning of the franchise, and cannot be seen to increase the risk to a regulated enterprise such as EGNB.

The Board heard testimony about other risks. The Public Intervenor and others noted that when the franchise began, the company had no customers, no infrastructure and no revenue source. Ten years later there are in excess of 10,000 customers who purchase more than 5 terrajoules of natural gas. The Public Intervenor suggested that this is a large reduction of risk to the utility.

Atlantic Wallboard L.P. (AWL) also argued that the risk facing the company has decreased. The Board heard that in 2000, the company was facing an application by a competitor for a franchise in Moncton. By its own documents, such a franchise would have made the EGNB operation unviable. Additionally, AWL stated that when the franchise was first granted, EGNB could not market the gas but was required to rely on third parties to sell the commodity. This left EGNB, in part, subject to the marketing efforts of third parties. AWL argued that both of these risks are gone. The application for an alternative franchise was unsuccessful and, in 2003, the legislation was amended to allow EGNB to sell gas directly to customers.

#### Deferral Account Risk

The risks discussed above have largely remained stable or decreased over the last ten years. What truly separates EGNB from mature utilities and what makes EGNB much more risky than a mature utility is its large and growing deferral account.

The Deferral Account was original forecast to peak at \$13 million and has ballooned in the last ten years. At the end of 2009, the account was estimated at \$155 million and EGNB predicts that this account will peak at \$173 Million in 2011. EGNB's total regulatory deferral, which includes Operating and Maintenance costs related to the development of the system, is expected to be in excess of \$276 million at that time.

The Board finds that the risk that not all of the Deferral Account will be recovered is a real and significant risk facing EGNB's investors. Not only is the size of the debt to be paid large but EGNB's ability to recover it is dependent on market forces which are out of EGNB's control.

The EGNB risk premium must give the investor a return in exchange for the risk relative to other investment options. Too much of a premium, in the case of this utility, imposes undue costs on future customers; too little risk may starve the utility of needed capital. In this respect the most important risk to consider is the added risk that the deferral account may not be fully recovered. Considering all of the evidence and risk factors and particularly the magnitude of the Deferral Account the Board finds that the EGNB risk premium is 2.75%.

# <u>Summary</u>

As a result the appropriate return on equity is 10.9%. The calculation is summarized in Table 1.

1	Risk Free Rate		4.6
2	Market Risk Premium		5.5
3	Beta		0.55
4	Utility Risk Premium	Line 2 x line 3	3.03
5	Floatation Cost		0.5
6	Benchmark Utility	Line 1+Line4+Line 5	8.13
7	EGNB Risk		2.75
8	ROE	Line 6 + Line 7	10.9

TABLE 1: Return on Equity Calculation

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### **Capital Structure**

The capital structure of a business includes both the debt and equity. The debt-to-equity ratio caps the percentage of the equity on which the EGNB may earn a ROE. In its June 2000 decision the Board approved, for regulatory purposes, the use of a capital structure for EGNB with an equity component not to exceed 50%.

In the current hearing EGNB proposed that the debt-to-equity ratio remain unchanged. Ms. McShane testified that the equity share in Canadian utilities has increased since the franchise was granted. She testified that this trend supports EGNB's position that the equity portion not be lowered.

In his pre-filed evidence Dr. Booth states on the first page:

I would recommend that EGNB be immediately moved to the 40% common equity ratio the company is forecasting for 2016. This is slightly higher than the common equity ratios of the large mature gas LDCs, like its sister company EGDI in Ontario, but reasonable given its size.

No party filed evidence of another utility that currently has an approved equity component as high as 50%. Table 2 of Ms. McShane's evidence set out the level of equity percentages for Canadian natural gas utilities. This equity level ranged from 36% to 45% for 2010. Mature natural gas utilities tended to fall in the 36% to 40% range. For example Enbridge Gas Distribution Inc. is at 36%. EGNB is not a mature utility, but it has moved toward maturity since 2000. This movement should be reflected in the debt-to-equity ratio.

Considering all the factors and evidence before it, the Board determines that EGNB should have a capital structure where the equity portion does not exceed 45%.

### Conclusion

In conclusion, the Board makes the following orders, effective January 1, 2011:

- EGNB's approved rate of return on equity is reduced from 13.0 percent to 10.9 percent.
- EGNB's regulated cost of debt is set at the Enbridge Inc. borrowing rate plus 100 basis points.
- The equity component of EGNB's debt to equity ratio is reduced from a maximum of 50 percent to a maximum of 45 percent equity.

Dated at the City of Saint John, New Brunswick this 30 day of November, 2010.

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Raymond Gorman, Q.C., Chairman

Cyril Johnston, Vice-Chairman

Don Barnett, Member

Edward McLean, Member

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