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British Columbia Utilities Commission

Generic Cost of Capital Proceeding (Stage 1)

Decision and Order G-236-23

September 5, 2023

Before:

D. M. Morton, Panel Chair
A. K. Fung, KC, Commissioner
K. A. Keilty, Commissioner
T. A. Loski, Commissioner

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APPENDICES

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EXECUTIVE SUMMARY

The British Columbia Utilities Commission (BCUC), pursuant to section 59(5)(b) of the *Utilities Commission Act* (UCA) is responsible for ensuring that shareholders of the utilities it regulates are afforded a reasonable opportunity to earn a fair return on their invested capital.

On January 18, 2021, the BCUC noted that significant time had passed since the BCUC's 2013 and 2016 cost of capital reviews and over that period, changes have occurred in financial markets, and pursuant to section 82 of the UCA, issued a Notice of Initiating a Generic Cost of Capital (GCOC) Proceeding.

The BCUC determined that a two-stage proceeding to establish public utilities' cost of capital was appropriate for the GCOC proceeding. Stage 1 of the GCOC proceeding will determine the deemed capital structure and allowed return on equity (ROE) of FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively, FortisBC). Stage 2 will determine matters related to the benchmark utility, including whether utilizing a benchmark utility remains an appropriate approach and, if so, whether one or both or neither of these utilities should serve as a benchmark for establishing the cost of capital for other utilities in British Columbia (BC).

FEI and FBC jointly engaged Mr. James Coyne (Mr. Coyne) of Concentric Energy Advisors Inc. (Concentric) as their expert consultant in Stage 1 of the GCOC proceeding. The BCUC engaged Dr. Jonathan A. Lesser (Dr. Lesser) of Continental Economics, Inc. (Continental Economics) as an independent expert. Dr. Lesser opined on Mr. Coyne's expert analysis. Dr. Lesser did not perform his own independent calculations and did not present capital structure or ROE recommendations. No Intervener engaged an expert to provide expert evidence on FortisBC's cost of capital.¹

Key Principles

The purpose of Stage 1 of the GCOC proceeding is to set a fair return for FEI and FBC. When determining the utilities' cost of capital, the Panel is guided by certain fundamental regulatory principles, including the Fair Return Standard which requires three elements to be met for a fair and reasonable return on capital:

- a) The comparable investment requirement – the return on capital should be comparable to the return available from the application of the invested capital to other enterprises of like risk;
- b) The financial integrity requirement – the return on capital should enable the financial integrity of the regulated enterprise to be maintained; and
- c) The capital attraction requirement – the return on capital should permit incremental capital to be attracted to the enterprise on reasonable terms and conditions.

In the BCUC's application of the Fair Return Standard, the utility must also be assessed based on the standalone principle. That principle provides that the utility should be regulated as if it were a standalone entity, raising capital on the merits of its own business and financial characteristics, regardless of affiliations within the holding

¹ Corix Multi-Utility Service Inc., Pacific Northern Gas Ltd and Pacific Northern Gas (N.E.) submitted a Brattle Report on the use of a Benchmark Utility (Exhibits B6-4 and B9-5).

As BCOAPO observes, the evidence is clear that, despite the numerous points upon which Mr. Coyne and Dr. Lesser disagree, they do both agree that ROE estimates should be based on the use of multiple models. BCOAPO supports this premise as a reasonable response to a challenging issue.³⁴⁵

The Panel will discuss its views of each model in the next sub-sections, reviewing in turn the CAPM, the DCF methodology, and the Risk Premium Model. The Panel will then determine the various weightings to be attributed to each model in Section 6.3.

Briefly, the CAPM is based on the long-observed relationship between non-diversifiable risk and expected return, the DCF methodology is based on the premise that today's stock price represents investors' expectations regarding future cash flows from holding that stock in terms of dividends and price appreciation, and the Risk Premium Model is based on the premise that common equity capital is riskier than debt and, therefore, equity investors require a greater return than would bondholders.

5.2 Capital Asset Pricing Model

The CAPM is commonly used in business valuation and regulatory jurisdictions to estimate ROE. The CAPM financial model estimates the expected return of an investment or security based on its riskiness relative to the rest of the market. The BCUC has recognized the use of the CAPM in prior cost of capital decisions.³⁴⁶

The CAPM is based on the relationship between the required return of a security and the systematic risk of that security and is defined by the following equation:

$$K_e = rf + \beta(rm - rf) \quad (1)$$

Where:

K_e = the required ROE for a given security;

rf = the risk-free rate of return;

β = Beta is the systematic risk of an individual security;

rm = the required return for the market as a whole; and

$(rm - rf)$ = Market risk premium (MRP) is the premium that equity investors demand to compensate them for the extra risk they accept

Dr. Lesser states that the CAPM is the most used approach for estimating allowed ROE values. In his view, the model is understandable, transparent, based on sound financial theory, and there are readily available data with which to develop CAPM estimates. He explains that the assumptions used in deriving estimates for each of the three CAPM components can have a significant impact on the ROE result and that key empirical issues for regulators to consider when using the CAPM are as follows:

- a) What risk-free rate (rf) should be used;

³⁴⁵ BCOAPO Final Argument, p. 37.

³⁴⁶ 2013 Decision, 2016 Decision.

ROE but FEI states that this amount can be readily back-calculated as being only 12 bps. FortisBC submits that this is clearly insufficient, as a Hamada adjustment would increase the ROE by almost four times that amount.³⁹⁹

Panel Determination

Beta is a key input into the CAPM and relies on a proxy group of companies to estimate the risk of FEI and FBC compared to the whole market. Consistent with common practice, Mr. Coyne uses five years of data in his analysis. His estimates are based on data from two credible third-party sources (Value Line and Bloomberg). In contrast, Dr. Lesser prefers to only use Value Line data to ensure consistency amongst all CAPM estimates. However, the evidence shows that Value Line does not publish adjusted betas for several of the utilities included in Mr. Coyne's Canadian proxy groups. Given this, the Panel agrees with BCOAPO that since there appears to be no upward or downward bias in either source of data, Mr. Coyne's approach using the average of values published by Value Line and Bloomberg is reasonable.

In Section 3.2, the Panel determines it appropriate to remove two Canadian utilities from the Mr. Coyne's North American proxy groups in accordance with BCOAPO's proposal to remove Enbridge Inc. and Canadian Utilities Limited which, since as stated by Mr. Coyne during the oral hearing, these companies were unlikely to have passed his screening criteria if applied strictly. This change impacts the overall beta result. The Panel will consider the overall impact of this in Section 5.2.5 on Overall CAPM Results.

Both experts agree that it is appropriate to use Blume-adjusted betas to reflect a forward-looking view and to adjust the raw data for the observed tendency of betas to migrate toward the market mean over time. Consistent with the views of the experts, the use of adjusted betas is accepted by US utility regulators, including FERC.

Mr. Coyne states that he is not aware of any Canadian jurisdiction that has specifically endorsed the use of Blume adjusted betas.⁵⁰ The BCUC has not accepted Blume-adjusted betas in previous proceedings. In the 2016 Decision, the BCUC placed limited weight on the experts' adjustments to beta because of a lack of empirical evidence supporting the applicability of the Blume adjustment to utility stocks.⁵¹ Likewise, in the 2013 Decision, the BCUC stated:

An adjustment of beta to the market average of one seems inconsistent with the lower risk in the industry, while realized return seems to indicate a beta that exceeds the industry average. The Panel finds that none of the positions fully explain the beta value and therefore accepts an intermediate beta estimate of 0.6 representing the range of reasonable estimates presented.⁵²

However, the Panel notes Mr. Coyne's explanation that Dr. Blume found that his adjustment was applicable to all betas, ranging from a low of 0.50 to a high of 1.53, and in Mr. Coyne's view, there is no reason to expect that regulated utilities would be an exception to this rule.⁵³ Given the views of the two experts in this proceeding and since none of the parties object to Mr. Coyne's use of Blume-adjusted data, the Panel accepts the experts' recommendation to use the Blume-adjusted beta estimates for the proxy groups.

The Panel agrees with the experts that there is a need to account for leverage differences in the proxy group of companies and acknowledges that the Hamada adjustment is an appropriate approach to adjust for FEI and

³⁹⁹ FortisBC Reply Argument, p. 46.