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June 28, 2022

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Mr. Patrick Wruck, Commission Secretary

Dear Mr. Wruck:

Re: British Columbia Utilities Commission (BCUC) – 2022 Generic Cost of Capital Proceeding – Project No. 1599176

FortisBC Energy Inc. and FortisBC Inc. (collectively FortisBC) Rebuttal Evidence

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On January 18, 2021, BCUC initiated the proceeding referenced above. In accordance with the regulatory timetable established in BCUC Order G-106-22, FortisBC respectfully submits the attached Rebuttal Evidence on aspects of Dr. Jonathan A. Lesser's responses to information requests No. 2, filed on June 14, 2022. This Rebuttal Evidence is comprised of two parts:

- Rebuttal evidence prepared by FortisBC itself; and
- Rebuttal evidence of Mr. James. M. Coyne of Concentric Energy Advisers, Inc.

For convenience and efficiency, FortisBC has occasionally provided an internet address for referenced reports instead of attaching lengthy documents to its filings. FortisBC intends for the referenced document to form part of its Rebuttal Evidence in this proceeding.

If further information is required, please contact the undersigned.

Sincerely,

on behalf of FORTISBC

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

Part 1

REBUTTAL EVIDENCE OF FORTISBC

British Columbia Utilities Commission
2022 Generic Cost of Capital Proceeding

Rebuttal Evidence
of FortisBC Energy Inc. and FortisBC Inc.
(FortisBC or FortisBC Utilities)

June 28, 2022

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List of Tables and Figures

1. INTRODUCTION

Q1: What is the purpose of this Rebuttal Evidence and how is it organized?

A1: The purpose of this Rebuttal Evidence is to provide FortisBC's comments on aspects of Dr. Jonathan A. Lesser's responses to the BCUC and intervener information requests (IRs), filed on June 14, 2022, regarding FortisBC's and Concentric's evidence in the 2022 Stage 1 GCOC Proceeding. Specifically, FortisBC responds to Dr. Lesser's comments regarding:

- Access to capital markets; and
- Credit ratings issues.

FortisBC has not sought to respond to every matter, particularly where matters have already been addressed in its primary evidence or where they relate to the scope of Mr. Coyne's testimony. Silence on a particular matter should not be construed as agreement.

Mr. Coyne has provided separate rebuttal as it relates to the scope of his evidence.

2. ACCESS TO CAPITAL MARKETS

Q2: In response to BCUC IR 6.6 (Exhibit A2-20), Dr. Lesser states:

> **…Mr. Coyne failed to provide any support for including an adjustment to allowed ROE for financial flexibility to allow "utilities such as FEI and FBC have the ability raise capital under a variety of economic and market conditions, such as the financial crisis of 2008/2009 and the COVID pandemic of 2020-2022." In effect, Mr. Coyne asserts, without evidence, that capital markets ceased to function during these periods. Yet, he does not provide evidence that FEI's and FBC's corporate parent was unable to raise capital during these periods or, if they were able to raise capital, the additional issuance costs specifically caused by the financial crisis and the Covid pandemic.**

How do you respond to these statements?

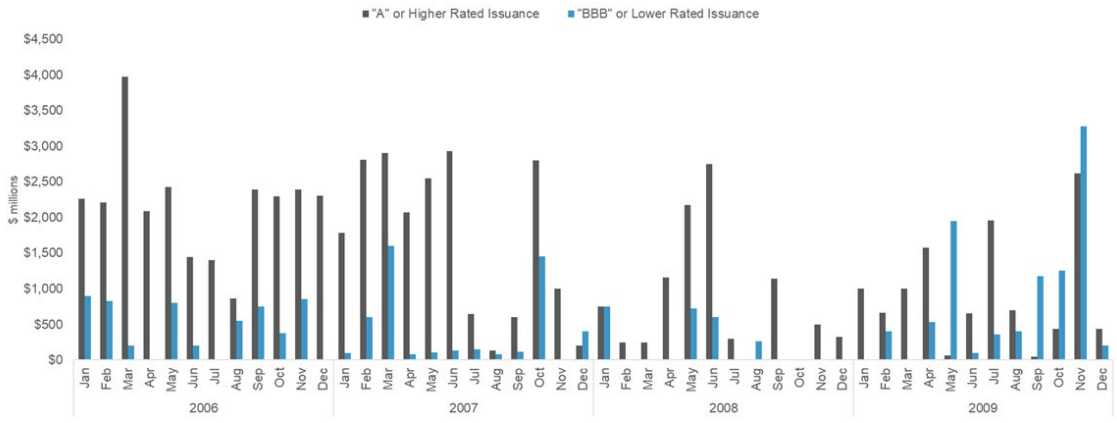
A2: FEI and FBC rely on their parent company, Fortis Inc., for all of their equity issuance needs and have no direct experience with equity markets and their functioning during major market disruptions such as 2008-2009 financial crisis[1]. As such, most of FortisBC's evidence on constrained capital markets conditions is focused on ability to access debt capital markets. Nevertheless, debt and equity capital markets are linked and generally disruptions in either one can impact the other.

Mr. Coyne's and FortisBC's responses to the BCUC and intervener IRs in this proceeding do include a number of examples of supporting evidence regarding the difficulty or inability to access the debt markets during the 2008/2009 financial crisis and the COVID-19 pandemic, particularly for those companies with lower credit ratings (BBB category ratings or lower). FortisBC also explained why there are no instances of FEI and FBC being denied funding. The following provides a summary of these responses, as well as additional evidence from third party institutions regarding the linkage between the two markets and the challenges to issuing equity during capital market disruptions.

Access to capital markets during the 2008-2009 financial crisis and 2020-2022 COVID-19 pandemic:

In response to BCUC IR1 6.4, FortisBC provided supporting evidence regarding its statement that the issuers with BBB category ratings can be shut out of the debt markets at times and provided the Figure 1 below to demonstrate this happening during the 2008-2009 financial crisis:

Figure 1: Monthly debt issuance by rating category



Source: Scotiabank

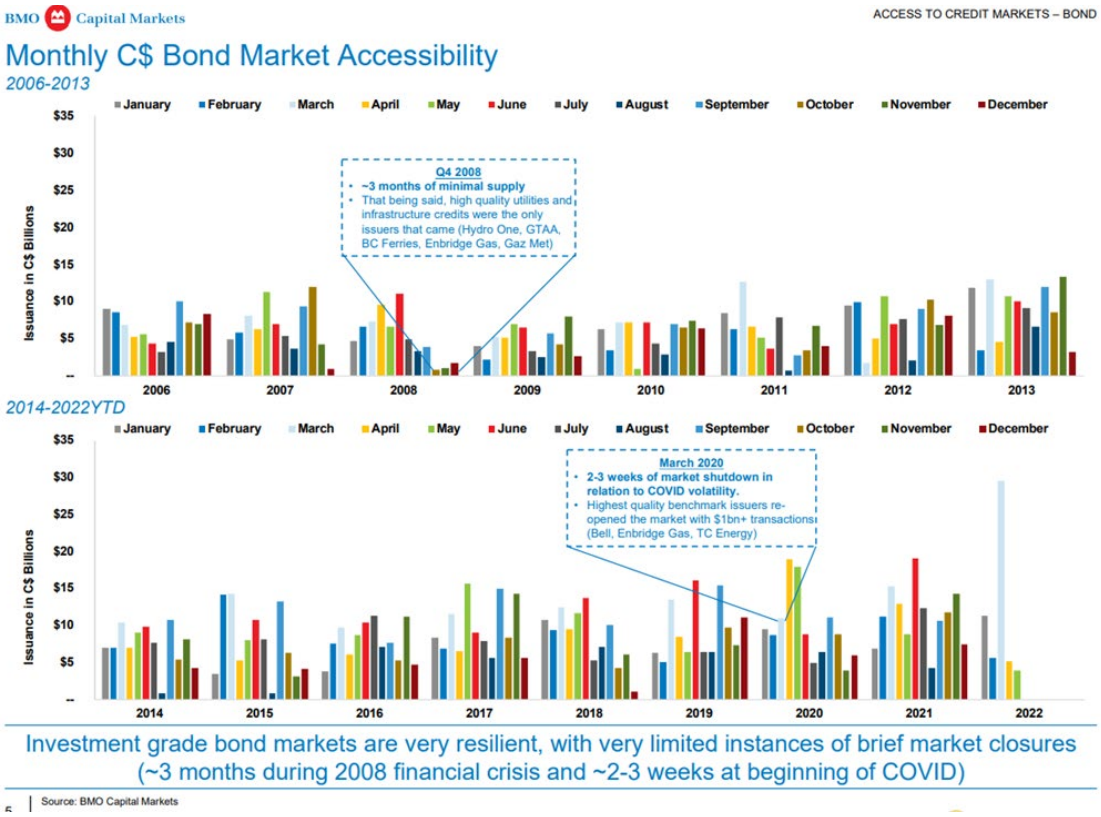
FortisBC's response explained that when the bond markets shut for several weeks following the Lehman Brothers collapse in September 2008, even the strongest

[1] Nevertheless, based on the stand-alone principle, FEI's and FBC's ROE and capital structure should be set assuming that the utilities finance their operations (both equity and debt) on their own.

investment grade companies could not issue bonds, let alone BBBs and below (as shown in the figure above, there was no debt issuance in the Canadian market by either A or BBB rated companies in October 2008). Overall, for the majority of 2008 (8 out of 12 months) and the first several months of 2009, BBB or lower rated issuers were not able to issue bonds in the Canadian marketplace.

In addition, Figure 2 below provided in response to CEC IR2 61.3, showed debt capital market accessibility (as a whole; not separated based on rating category) from 2006 to now with commentary around access to bond markets during the 2008-2009 financial crisis as well as the COVID-19 pandemic. The response to CEC IR2 61.3 also clarified that when FortisBC refers to "access to debt capital markets", it not only refers to times when debt capital markets are accessible to issuers but also when debt can be issued at reasonable terms and conditions.

Figure 2: Monthly debt issuance since 2006 in Canadian market



Further, in response to BCOAPO IR2 81.1, Mr. Coyne cited the evidence from Florida Power & Light Company in its 2021 rate case showing that during March through April 2020, several lower rated utilities were faced with the difficult decisions of either canceling their publicly announced issuances shortly after launching the prospective transactions or accepting very expensive pricing terms because of limited or insufficient investor interest

or demand. The company witness in that proceeding presented a sample of publicly announced issuances that were subsequently canceled following the launch of the transaction but also noted that this list of unsuccessful or failed prospective issuances is a subset of what is likely a much larger population of unsuccessful issuances when including those planned transactions that the issuer elected to cancel prior to announcement because of the constrained capital markets.

The published reports from third party institutions corroborate these statements. For instance U.S. Federal Reserve's Monetary Policy Report submitted to Congress dated February 24, 2009, explained the challenges in accessing the capital markets during the 2008-2009 financial crisis as follows[2]:

> After the financial difficulties experienced by Fannie Mae and Freddie Mac during the summer and the bankruptcy of Lehman Brothers Holdings in mid-September, short-term funding markets were severely disrupted, risk spreads shot up, equity prices plunged, and markets for private asset-backed securities remained largely shut down … Against this backdrop, investors pulled back from risk-taking even further, funding markets for terms beyond overnight largely ceased to function, and a wide variety of financial firms experienced increasing difficulty in obtaining funds and raising capital …
>
> In the stock market, prices tumbled and volatility soared to record levels during the autumn as investors grew more concerned about the prospects of financial firms and about the likelihood of a deep and prolonged recession (figures 12 and 13). Equity-price declines were particularly pronounced among financial and energy firms, but they were generally widespread across sectors and were accompanied by substantial net outflows from equity mutual funds. During this period, the premium that investors demanded for holding equity shares--gauged roughly by the gap between the earnings-price ratio and the yield on Treasury securities--shot up, reflecting the heightened risk aversion that prevailed in financial markets.
>
> (Emphasis added.)

Similarly, in a report titled "The financial crisis and its impact on the electric utility industry" published by Edison Electric Institute dated February 2009, the author described how the financial crisis impacted utilities' equity financing as follows[3]:

[2] https://www.federalreserve.gov/monetarypolicy/mpr_20090224_part2.htm
[3] https://www.europeangashub.com/wp-content/uploads/attach_32.pdf

> Equity financing also has been difficult to secure, and utility deals have been scarce. The equity markets have been characterized by unprecedented and sustained volatility, driven in part by hedge funds being forced to undo billions of dollars worth of investments due to investor withdrawals. In the current environment, few companies have been eager to try to price a stock offering. At the same time, stock prices hovering near 52-week lows have made selling new common stock unattractive, if not unpalatable. Issuing stock at prices below book value—where some electric utilities are currently trading—is not a financially astute course of action, as it serves to undermine shareholder value … Equity investors also scrutinize a utility's regulatory environment carefully. A key determinant of a supportive climate is an allowed return on equity (ROE) that provides adequate compensation for the risk such investors must assume in buying the common stock of a company. In light of the changes in the financial markets in recent months, the current level of ROEs in many jurisdictions likely is to be considered an inadequate recompense for the significant degree of additional risk that now exists in the capital markets.

FEI's and FBC's access to debt markets during the times of market disruptions:

BCUC IR1 6.3 asked whether FEI has had any historical instances of being denied funding from a Canadian institution in the debt capital markets. In response, FEI explained that such evidence cannot be produced since FEI would not go ahead with a transaction if there was risk that funding would be denied. The same process applies to FBC when it plans to issue debt. This is also aligned with the Florida Power & Light Company's witness' statement above that during the first two months of the COVID-19 pandemic, many debt issuers elected to cancel their planned transaction prior to public announcement because of the constrained capital markets.

FortisBC notes that there have been certain instances for both FEI and FBC where the debt issuance timing has shifted because of volatile and unpredictable market conditions, most recently during the COVID-19 pandemic. Fortunately, FEI and FBC have not been in a position where that they had to cancel a publicly announced debt issuance due to market disruptions.

3. CREDIT RATINGS ISSUES

Q3: In response to BCOAPO IR 23.1 (Exhibit A2-24), Dr. Lesser states the following:

> **First, one must ask why, if FBC does not meet Moody's threshold values for a Baa-rating, that it is still rated Baa by Moody's. Clearly,**

> **for Moody's to maintain the Baa rating, it must consider other financial metrics.**
>
> **The referenced credit report states, "Our credit view of Fortis BC Energy reflects its stable cash flow and credit supportive regulatory environment, offset by its high leverage and weak financial metrics."**
>
> **To say that FBC is "at risk" of a financial downgrade is, in my opinion, a meaningless statement because there is no probability assigned to that risk. All firms are "at risk" of a downgrade. The likelihood of a downgrade may be small or large, but it is not zero.**
>
> **I see no evidence that Moody's has placed FBC on credit watch, which would be an indicator of a high risk of a downgrade.**
>
> **Typically, important credit metrics are a firm's capitalization ratio (the fourth metric) and its interest cover ratio (the first metric). I do not know what weight the second and third metrics are given by Moody's or other financial ratings agencies.**

What is your response to these statements?

A3: FortisBC agrees with Dr. Lesser that in addition to the credit metrics, credit rating agencies give weight to other financial and non-financial factors. However, Dr. Lesser's comments about the level of importance of the four credit metrics used by Moody's are not complete. The Table 6-2 of FortisBC's filed evidence, re-produced below, provides the weighting given to various factors used in Moody's rating methodology. As shown, the two metrics highlighted in Dr. Lesser's response as important credit metrics (capitalization ratio and interest coverage ratio) are each given 7.5% weighting in Moody's rating grid while other credit metrics, namely CFO Pre-WC/Debt and CFO Pre-WC – Dividends/Debt are given 15 percent and 10 percent weighting respectively indicating their higher level of importance.

Table 1: Moody's rating grid for regulated utilities

Broad Rating Factor	Factor Weighting	Rating Sub-factor	Sub-factor weighting
Regulatory Framework	25 %	Legislative and judicial underpinnings of regulatory framework Consistency and predictability of regulation	12.5 % 12.5%
Ability to recover costs and earn returns	25 %	Timeliness of recovery of operating and capital costs Sufficiency of rates and returns	12.5 % 12.5 %
Diversification	10 %	Market Position[1] Generation and Fuel Diversity[2]	5 % 5 %
Financial Strength	40 %	CFO Pre-WC[1] + Interest / Interest CFO Pre-WC / Debt CFO Pre-WC – Dividends / Debt Debt / Capitalization	7.5 % 15 % 10 % 7.5 %

Further, with regards to the likelihood of downgrade, Moody's does comment on the financial and non-financial factors that can lead to a downgrade. In the specific case of FBC, Moody's considers two main factors that, if they occurred, could lead to a rating downgrade:

- A forecast of a sustained deterioration in credit metrics including CFO Pre-W/C to debt of less than 8%
- An adverse regulatory decision

In other words, likelihood of FBC being downgraded can be assessed by analyzing the likelihood of either of the two above mentioned risk events materializing, which is what is considered in FBC's evidence[4].

In its primary evidence, FBC discussed that its CFO pre-W/C to debt metric for the two years ending 2020 and 2019 were 8.6 and 8.8 percent, respectively, which means that this financial metric is critically close to a rating downgrade threshold of 8 percent. To put this in perspective, 2019 was the first time in the last 10 years that this metric has been below 9 percent. As explained in response to BCUC IR2 72.3, Moody's forecasts that FBC's CFO Pre-WC / Debt metric will remain between 8 to 10 percent range. FBC's proposed ROE and equity thickness provide some assurance that FBC's CFO Pre-WC / Debt would remain in the upper bound of Moody's 8 to 10 percent forecast which along

[4] In the case of FEI, in addition to the credit metrics and an adverse regulatory decision, the likelihood of a downgrade should also be viewed from the ESG perspective. As explained in FortisBC's primary evidence, Moody's views FEI as having a "very negative carbon transition risk" which increases the likelihood of downgrade.

with other factors in Moody's rating methodology will help to maintain its current credit rating.

Additionally, FBC's allowed common equity ratio has been stable at 40 percent since 1996 and any reduction in the common equity ratio may be viewed by the credit rating agencies as undermining the support of the regulatory framework. Indeed, in its November 2021 rating report, Moody's discussed the ongoing GCOC proceeding stating that it "assumed that there will be no changes stemming from this decision that would put downward pressure on financial metrics." Therefore, it can be concluded that any decline in FBC's current ROE and equity thickness increases the likelihood of FBC being downgraded.

It is important that the BCUC provide FEI and FBC with necessary financial support to avoid being placed on a negative credit watch in the first place, rather than waiting for a utility's rating to be placed on a negative credit watch before taking action. This is because, ratings tend to be sticky and lag economic conditions and business cycles[5]. In other words, rather than lagging rating agencies' rating actions, the BCUC should be proactive and react to the changing economic conditions and business cycles in a timely manner.

Q4: Does this conclude this rebuttal evidence?

A4: Yes.

[5] https://unctad.org/system/files/official-document/osgdp20081_en.pdf

Part 2

REBUTTAL EVIDENCE OF CONCENTRIC ENERGY ADVISORS, INC.

REBUTTAL TESTIMONY:
JAMES M. COYNE

PREPARED FOR:
FORTISBC ENERGY INC. AND FORTISBC INC.

BEFORE THE:
BRITISH COLUMBIA UTILITIES COMMISSION

JUNE 28, 2022

www.ceadvisors.com

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is James M. Coyne, and I am employed by Concentric Energy Advisors, Inc. ("Concentric") as a Senior Vice President. My business address is 293 Boston Post Road West, Suite 500, Marlborough, MA 01752.

Q. Did you also submit a pre-filed expert report in this proceeding?

A. Yes, I submitted evidence in January 2022 on behalf of FortisBC Energy Inc. ("FEI") and FortisBC Inc. ("FBC") with regard to the appropriate cost of equity and capital structure to the British Columbia Utilities Commission ("BCUC" or the "Commission").

Q. What is the purpose of your Rebuttal Testimony?

A. The purpose of my Rebuttal Testimony is to respond to certain of the responses provided by Dr. Jonathan A. Lesser on June 14, 2022, to data requests from Commission staff and interveners in this proceeding, including the Residential Consumer Intervener Association ("RCIA"), the Industrial Customers Group ("ICG"), the Commercial Energy Customers Association ("CEC"), and the British Columbia Old Age Pensioners' Organization ("BCOAPO") as it relates to the methods used to determine the just and reasonable authorized return on equity ("ROE") and capital structure for FEI and FBC.

II. SUMMARY AND OVERVIEW

Q. Has Dr. Lesser made any specific recommendations regarding the authorized ROE or capital structure for FEI or FBC in his June 2022 responses to data requests?

A. No, Dr. Lesser has not performed any cost of capital analyses, nor has he made any recommendations regarding a fair return for FEI or FBC.

Q. Are there areas of agreement between your ROE analysis and Dr. Lesser's preferred approach, as described in his responses to data requests and in his August 2021 report to the BCUC?

A. Yes, there are several important areas of agreement between Dr. Lesser's preferred approach and mine:

1) Dr. Lesser and I agree regarding the use of North American gas and electric proxy groups to estimate the authorized ROE for FEI and FBC. [See Dr. Lesser's response to BCUC IR2 1.3.] I do not, however, agree with his suggestion that lower allowed returns for Canadian companies might warrant a downward adjustment to the U.S. data. The general reasons for my disagreement were addressed in my initial Report on pages 37-38, and specifically in my risk analysis for FEI on pages 112-117 and for FBC on pages 138-141.

2) We agree that projected EPS growth rates should be used in the DCF model rather than dividends per share or sustainable growth rates. [See Dr. Lesser's response to BCUC IR2 5.1.]

3) We agree that beta coefficients in the CAPM analysis should be adjusted for their tendency to revert to the market average of 1.0 (i.e., the Blume adjustment). Dr. Lesser supports use of Value Line betas, while I have relied on betas from both Value Line and Bloomberg. [See Dr. Lesser's response to BCUC IR2 7.1.]

4) We agree that it is reasonable to use a North American proxy group and that the U.S. and Canadian economies are highly integrated and capital markets are international. [See Dr. Lesser's response to BCUC IR2 1.3.]

5) I agree with certain of his comments on Energy Transition risk. In particular, I agree with Dr. Lesser that Energy Transition risk partly depends on the response of policymakers and regulators. Their responses can mitigate some, but not all exposure for shareholders. [See Dr. Lesser's response to BCOAPO IR2 14.4.] A case in point was Pacific Northern Gas' ("PNG") experience in 2000, when a major company reorganization was undertaken in response to liquidity issues created when PNG's largest customer, the methanol complex in Kitimat, closed for a one-year period. Shareholders were exposed to a sharp reduction in the share price and a cut in the dividend. Looking ahead, there is risk that cannot be completely mitigated by regulators or policymakers related to the future growth prospects for regulated gas utilities such as FEI that Dr. Lesser does not directly address in his responses to data requests.

6) I agree with Dr. Lesser that it is possible to take into account differences in financial leverage between the proxy group companies and FEI and FBC by adjusting the authorized ROE. [See Dr. Lesser's response to BCUC IR2 8.1.]

Dr. Lesser has indicated that the Hamada equation can be used for this purpose; however, I have not used the Hamada formula to adjust my CAPM analysis, so my estimated ROEs for FEI and FBC are lower than they would be if I had used this adjustment.

7) Dr. Lesser does not provide any specific recommendations regarding the appropriate capital structure for FEI or FBC, nor does he provide any responses that oppose my recommendation to increase the deemed equity ratio for FEI from 38.5 percent to 45.0 percent. However, he does state that he is not aware of any evidence that gas utilities have been raising their equity ratios due to the Energy Transition risk, which I will address later in my Rebuttal Testimony.

8) Finally, I agree with Dr. Lesser's view that it is not possible to isolate the effects of the COVID 19 pandemic on the model inputs and that even if one could isolate any impacts that does not mean that these inputs are any less representative than their actual values. [See Dr. Lesser's responses to BCOAPO IR2 21.1, 22.1 and 22.1.2.]

Q. Please list the areas in which you disagree with Dr. Lesser's preferred approach, or with certain statements he has made in his responses to data requests from the Commission Staff and interveners.

A. Dr. Lesser and I disagree in the following areas: 1) the composition of the proxy groups for FEI and FBC, although this is not a primary driver of the results, as I will demonstrate; 2) his preference for a single source of EPS growth rates in the DCF model, as well as his comments related to optimism bias in analyst growth rates; 3) his

use of current average government bond yields instead of projected bond yields in the CAPM analysis; 4) his preference for using the multi-stage DCF model rather than the constant growth DCF model to calculate the forward-looking market risk premium in the CAPM analysis; 5) his comments regarding an adjustment to the authorized ROE for flotation costs and financial flexibility; 6) certain statements Dr. Lesser has made regarding Energy Transition risk for gas utilities and whether that risk should be reflected in the authorized return for FEI; 7) his position concerning the credit ratings and credit risk of FortisBC, FEI and FBC; and 8) other miscellaneous issues such as how small size affects the return requirements of investors, and whether there is an inverse relationship between interest rates and the equity risk premium.

I will address each of these issues in the following sections of my Rebuttal Testimony, starting with the composition of the proxy groups.

III. RESPONSE TO DR. LESSER

A. Proxy Group Composition

Q. Please summarize Dr. Lesser's comments regarding the composition of your proxy groups for FEI and FBC in his responses to BCUC IR2 1.1 and 1.2.

A. Dr. Lesser takes issue with certain of the screening criteria I used to select my U.S. Gas and U.S. Electric proxy groups. In particular, he questions my screens related to the percentage of regulated operating income and percentage of regulated income from gas and electric utility services. Dr. Lesser uses a slightly different set of screening criteria to arrive at a U.S. Electric proxy group of 12 companies. Dr. Lesser also suggests adding two companies (Atmos Energy Corp. and South Jersey Industries) to my U.S. Gas proxy group.

Q. How do you respond to the Dr. Lesser's comments concerning your U.S. proxy groups?

A. I do not agree with Dr. Lesser's concerns regarding the screens I used to select my U.S. Gas and U.S. Electric proxy groups. As explained in my Report, for the U.S. Gas proxy group, I selected companies that derive greater than 65 percent of their operating income from regulated operations and more than 90 percent of their regulated income from gas distribution service.[1] While Atmos Energy Corp. ("ATO") did not pass the percentage of regulated income screen when my analysis was conducted in December 2021, ATO now meets that screen based on updated business segment data for the three year period from 2019-2021, and I would agree with the inclusion of ATO based on the most recent information available. I do not, however, agree with the addition of South Jersey Industries ("SJI") to the U.S. Gas proxy group because on February 24, 2022, it was announced that SJI is in the process of being acquired by a private infrastructure fund within J.P. Morgan Investment Management,[2] and therefore does not meet the screening criteria used by both Dr. Lesser and me to exclude companies that are engaged in M&A activity.

With regard to the U.S. Electric proxy group, I disagree with Dr. Lesser's suggestion to exclude certain companies (Alliant Energy, Exelon, OGE Energy) from my proxy group because they are not pure play electric utilities. I also note that Dr. Lesser's proposed electric proxy group also includes several companies that have significant natural gas operations and should be excluded on that same basis. These are

1 Concentric Report, January 2022, at 40.
2 South Jersey Industries Press Release, February 24, 2022, announcing the acquisition of SJI by the Infrastructure Investment Fund, a unit within J.P. Morgan Investment Management.

Consolidated Edison Inc. ("ED") and CenterPoint Energy ("CNP").[3] In addition, two of the companies in Dr. Lesser's proposed electric proxy group are also engaged in significant transactions and do not pass his M&A screen on that basis. These are: PNM Resources (which is being acquired by Avangrid)[4] and PPL (which is engaged in a transaction with National Grid under which PPL is acquiring Narragansett Electric in Rhode Island in return for an electric utility in England).[5]

Q. How would the use of Dr. Lesser's preferred U.S. Electric and U.S. Gas proxy groups affect the results of the ROE analysis you performed for FEI and FBC.

A. I re-ran my ROE analysis as of December 31, 2021, using Dr. Lesser's recommended U.S. Gas and U.S. Electric proxy groups. As shown in Figures 1 and 2 below, the results of those analyses demonstrate that differences in our respective proxy groups would not result in material changes in my ROE analysis or recommendations for FEI or FBC. Using Dr. Lesser's proxy groups, the average of the CAPM and Multi-Stage DCF results for the U.S. Gas proxy group increase from 10.1 percent to 10.2 percent, while the average CAPM and Multi-Stage DCF results for the U.S. Electric proxy group remains at 10.0 percent.

[3] CenterPoint Energy also reduced its dividend in the second quarter of 2020 and would be excluded from my proxy group and based on Dr. Lesser's screens for that reason.

[4] PNM Resources Press Release, January 3, 2022, PNM Resources Merger Agreement Extended and Appeal Filed, Financial Update with Earnings Guidance Scheduled for February 3. The acquisition was originally announced in October 2020, and was extended by the parties after the merger application was rejected by the New Mexico Commission.

[5] National Grid USA Press Release, May 25, 2022. National Grid USA Completes Sale of The Narragansett Electric Company to PPL Rhode Island Holdings, LLC. The transaction was originally announced in March 2021.

Figure 1: Summary of Results – Natural Gas[6] (Dr. Lesser's Proxy Group)

	Canadian Regulated Utilities	US Gas Utilities	North American Utilities - Gas	Average
CAPM	10.68%	10.76%	11.02%	10.8%
Constant Growth DCF	11.61%	10.83%	11.14%	11.2%
Multi-Stage DCF	10.28%	9.70%	10.05%	10.0%
Risk Premium		9.97%	9.97%	10.0%
Average	10.9%	10.3%	10.5%	10.6%
Avg CAPM and Multi-Stage DCF	10.5%	10.2%	10.5%	10.4%

Figure 2: Summary of Results - Electric[7] (Dr. Lesser's Proxy Group)

	Canadian Regulated Utilities	US Electric Utilities	North American Utilities-Electric	Average
CAPM	10.68%	11.29%	10.97%	11.0%
Constant Growth DCF	11.61%	9.01%	9.44%	10.0%
Multi-Stage DCF	10.28%	8.78%	9.02%	9.4%
Risk Premium		10.01%	10.01%	10.0%
Average	10.9%	9.8%	9.9%	10.2%
Avg CAPM and Multi-Stage DCF	10.5%	10.0%	9.9%	10.1%

While I continue to support my U.S. and North American gas and electric proxy groups as risk comparable, I have shown that the use of Dr. Lesser's recommended proxy groups produces almost identical ROE estimates for FEI or FBC.

[6] DCF results are based on 90-day average stock prices for proxy group companies. Results include 50 basis points for flotation costs and financial flexibility except for U.S. risk premium results. The risk premium analysis was only conducted for the U.S. proxy group; as such, there are no risk premium results for the Canadian Regulated proxy group.

[7] Ibid.

Q. In his response to BCUC IR2 1.3, Dr. Lesser also questions the purpose of your Canadian proxy group. Please comment.

A. Dr. Lesser correctly observes that the Canadian proxy group consists of a mixture of gas, electric and combination utility companies and that several of the companies in that Canadian proxy group are engaged in unregulated activities. According to Dr. Lesser, the Canadian proxy group is neither comparable to FEI nor FBC. I present a Canadian proxy group of regulated utilities to address any concerns that may arise regarding the comparability of U.S. proxy groups in establishing the authorized ROE for Canadian gas and electric companies. However, as explained in my Report, I share Dr. Lesser's concern that the Canadian proxy group is comprised of several companies that derive a larger percentage of their operating income and revenues from unregulated activities than is true for the U.S. Gas and U.S. Electric proxy groups, which tend to derive the vast majority of their operating income and revenues from regulated gas and electric utility operations.[8]

Dr. Lesser suggests creating a North American proxy group rather than dividing the companies into Canadian and U.S. groups.[9] I have been advocating this approach for almost 10 years because investors perceive the capital market for utilities as being a North American market. Dr. Lesser does not, however, indicate which Canadian companies he would add to the North American Gas and the North American Electric proxy groups. As explained in my Report, Algonquin Power and Utility Company, Emera Inc., and Hydro One are primarily electric utilities, while AltaGas and Enbridge

[8] Concentric Report, January 2022, at 55.
[9] Response of Jonathan A. Lesser to BCUC IR2 1.3.

Inc. are primarily gas utilities, and Canadian Utilities Ltd. is a combination gas and electric utility that derives approximately equal percentages of revenues and operating income from both segments. So I have added these companies to my North American proxy groups.

Dr. Lesser also questions the inclusion of AltaGas (now Apex Utilities) on the basis that its credit rating is BBB-, which is one notch below his recommended lower boundary of BBB. I included all publicly-traded Canadian regulated utility companies with an investment grade credit rating in my Canadian proxy group due to the small number of available companies in Canada. In addition, I observe that while AltaGas is headquartered in Canada, it no longer owns any Canadian gas distribution business and derives the vast majority of its income and revenues from the former WGL Holdings, which was a U.S. gas distributor providing service in Maryland, Virginia, and D.C. Prior to being acquired by AltaGas, WGL Holdings was a highly rated gas utility and was typically included in my U.S. Gas proxy group.

If I were to follow Dr. Lesser's suggested approach and rely on the North American proxy groups, my estimated ROEs for FEI and FBC would increase by 50 basis points (from 10.1 to 10.6% for FEI) and decrease by 10 basis point (from 10.0 to 9.9% for FBC) based on my original analysis.

B. DCF Model Inputs

Q. In his response to BCOAPO IR2 17.2, Dr. Lesser has expressed a preference for a single source of EPS growth rates in the DCF model. Do you have any concerns with this approach?

A. Yes. My primary concern is that equity investors tend to consider as much available information as possible when developing their return requirements and expectations. Estimates from alternative sources can also vary. Dr. Lesser is concerned that the growth rates from different sources may have been developed at different times, and he argues that it is not appropriate to average those growth rates for this reason. However, I see no reason to limit the EPS growth rates to a single source, such as Yahoo! Finance, when projected earnings growth rates are provided by a wide variety of sources. Although the Federal Energy Regulatory Commission ("FERC") previously expressed a preference for growth rates from I/B/E/S, more recent decisions (for example, Opinion No. 569) have indicated that EPS growth rates from alternative comparable sources of consensus EPS growth rates may also be considered.

Another consideration is that, in my experience, the EPS growth rates reported on Yahoo! Finance, which is the source Dr. Lesser prefers, are not always updated on a regular basis and may become stale at times. In addition, there is less analyst coverage for Canadian utility companies, and Yahoo! Finance does not provide EPS growth rates for every Canadian utility company, so it is necessary to also consider other sources such as Zacks Investment Research, Value Line, and SNL Financial to develop a more robust DCF analysis for a Canadian proxy group. For these reasons, I continue

to believe it is reasonable to average EPS growth rates from multiple sources in the DCF model.

Q. Has Dr. Lesser always relied on a single source of EPS growth rates?

A. No, he has not. In 2002, for example, when Dr. Lesser was testifying on behalf of Central Illinois Lighting Company ("CILCO"), he used an average of the EPS growth rates reported by Zacks Investment Research and Thomson-I/B/E/S.[10] In his 2005 testimony for Arkansas-Oklahoma Gas, he used EPS growth rates from Zacks and Value Line.[11] In 2002, Dr. Lesser criticized another witness' DCF approach and stated in his rebuttal testimony for AOG that reliance on a single source of growth tends to bias the DCF results downward.[12]

Q. Do you agree with Dr. Lesser that the results of the single-stage DCF model are biased upward, as he states in his response to BCOAPO IR2 17.4?

A. No, I do not. Although Dr. Lesser does not specifically cite the reason for this upward bias, he is presumably referring to a concern that short-term EPS growth rates are higher than GDP growth and therefore not sustainable. In my Report, I conducted an analysis showing that actual EPS and DPS growth rates exceeded GDP growth for the proxy group companies from 2005-2019. The results of that analysis are shown in Figure 23 on page 52 of my Report. I have also conducted an analysis comparing the projected short-term EPS growth rates for the U.S. Gas and U.S. Electric proxy group

[10] Direct Testimony of Jonathan A. Lesser for Central Illinois Lighting Company, Docket No. 02-0837, November 22, 2002, at 34-35.

[11] Direct Testimony of Jonathan Lesser for Arkansas-Oklahoma Gas, Docket No. 05-006-U, February 2005, at 32-33.

[12] Direct Testimony of Jonathan Lesser for Arkansas-Oklahoma Gas, Docket No. 02-024-U, September 2002, at 3.

companies in June 2016 to the actual compound EPS growth rates for these same companies over the period from 2017-2021. The Figure below shows that projected EPS growth rates in 2016 were the same as the actual EPS growth rate that were achieved by the U.S. Electric proxy group companies during this period, while for the U.S. Gas proxy group, the actual compound EPS growth rates from 2017-2021 were 126 basis points higher than the projected EPS growth rates from analysts in 2016.

Figure 3: Projected vs Actual EPS Growth Rates

	Projected EPS Growth - 2016	Actual Compound EPS growth – 2017-2021
U.S. Electric	5.11%	5.13%
U.S. Gas	5.60%	6.86%

This evidence demonstrates that analysts' EPS growth forecasts for the U.S. Electric and U.S. Gas proxy group companies are not upwardly biased, contrary to Dr. Lesser's concerns with optimism bias.

Finally, my recommendations are based on the average results of my CAPM and Multi-Stage DCF models, obviating concerns with the constant growth DCF model.

Q. Do you have any other comments with regard to Dr. Lesser's responses related to the DCF model?

A. Dr. Lesser advocates using the Multi-Stage DCF model rather than the Constant Growth DCF model.[13] While my ROE recommendations for FEI and FBC are based

[13] In his 2002 testimony for Central Illinois Lighting Company, Dr. Lesser stated his preference for the "perpetual" DCF model, which refers to the Constant Growth DCF model or the Gordon growth model. See pages 28-31 of his 2002 CILCO testimony.

on the average of the CAPM and Multi-Stage DCF model results, I also find value in the Constant Growth DCF model results because utilities are mature and stable companies that have relatively high dividend yields compared to the broader market. As such, the underlying assumptions of the Constant Growth DCF model are met by the U.S. Gas and U.S. Electric proxy group companies, and the results of the single-stage DCF model provide a reasonable cost of equity estimate for FEI and FBC in this proceeding, even though I have not included those values in my recommendations for FEI and FBC.

C. CAPM Inputs

Q. Do you agree with Dr. Lesser's stated preference for using current average government bond yields as the risk-free rate in the CAPM?

A. No, I do not. In his response to BCUC IR2 10.4, Dr. Lesser indicates that he prefers to use current average yields on 30-year government bonds as the risk-free rate in the CAPM because forecast bond yields violate the Efficient Market Hypothesis ("EMH"). Under current market circumstances, when interest rates are changing rapidly as central banks in both Canada and the U.S. normalize monetary policy in response to higher than expected inflation after a period of extraordinary policy accommodation, the use of a current average risk-free rate tends to understate the level of interest rates during the period for which the cost of equity is being set. Interest rates on government bonds in June 2022 are much closer to the levels in the Consensus Economics' forecast from October 2021 than to the historical average level as of December 2021. In summary, use of an interest rate forecast from leading economists and financial institutions in Canada and the U.S. has proven to be correct so far in

2022, whereas reliance on historical average interest rates would have substantially understated the risk-free rate, and in turn the ROE estimates produced by the CAPM. Regardless of whether the forecast bond yields are correct, that is the information equity investors rely on in setting their return requirements.

Q. Has Dr. Lesser always supported use of current average bond yields in the CAPM analysis?

A. No, in his 2002 testimony on behalf of CILCO, for example, Dr. Lesser used projected government bond yields from Blue Chip Financial Forecasts for the next six quarters as the risk-free rate in the CAPM. In that instance, the projected bond yield was 5.38 percent.[14]

Q. In his response to RCIA IR2 36.2 and BCOAPO IR2 18.2, Dr. Lesser states that central banks can influence short-term interest rates, but have much less influence over long-term interest rates, which are affected by factors including investor expectations about economic growth and long-term inflation rates. What is your response?

A. I disagree with Dr. Lesser on this point. The stated purpose of the U.S. Federal Reserve's Quantitative Easing after the financial crisis of 2008/2009 was to stimulate the economy by reducing long-term interest rates through the purchase of longer-dated Treasury bonds. This drove down long-term interest rates on Treasury bonds to levels well below where they would otherwise have been given economic conditions and absent these novel monetary policies. The Bank of Canada also engaged in

[14] Direct Testimony of Jonathan A. Lesser, Central Illinois Lighting Company, Docket No. 02-0837, November 22, 2002, at 43.

Quantitative Easing in 2020 in response to the COVID-19 pandemic, driving down yields on the long Canada bond. This is important because it suggests that as central banks reverse the Quantitative Easing and start to reduce the size of their balance sheets, it is reasonable to expect that longer-term interest rates will also increase rather significantly as policy accommodation is withdrawn.

Q. Please summarize Dr. Lesser's approach to deriving the market risk premium in the CAPM based on his responses to BCOAPO IR2 18.6.

A. According to Dr. Lesser, the market risk premium ("MRP") in the CAPM analysis should be based on a forward-looking estimate of the total return on the broad market less the risk-free rate. Dr. Lesser advocates use of the Multi-Stage DCF model to estimate the total return for the broader market.

Q. Do you agree with this approach?

A. While I agree that it is reasonable to derive an MRP based on forward-looking data, I do not agree with Dr. Lesser that the Multi-Stage DCF model should be used to develop this return estimate. As explained in my Report, I used the Constant Growth DCF model for this purpose, consistent with the approach taken by FERC.[15] While Dr. Lesser prefers FERC's methodology in many places throughout his August 2021 report for the BCUC and in his June 2022 responses to data requests, he deviates from FERC's approach in this one important respect.

[15] Concentric Report, January 2022, at 60-61.

Q. Please elaborate on why FERC relies on the Constant Growth DCF model instead of the Multi-Stage DCF model for purposes of deriving a forward-looking MRP.

A. I explained FERC's rationale for using the Constant Growth DCF model in the derivation of the forward-looking MRP on page 61 of my Report and in my response to BCUC IR1 39.3. Specifically, in Opinion No 531-B, FERC stated:

> The required return on the overall market is determined by conducting a DCF study of "a representative market index, such as the Standard & Poor's 500 Index." [Para 113]
>
> The rationale for incorporating a long-term growth rate estimate in conducting a two-step DCF analysis of a specific group of utilities does not necessarily apply when conducting a DCF study of the companies in the S&P 500. That is because the S&P 500 is regularly updated to include only companies with high market capitalization. While an individual company cannot be expected to sustain high short-term growth rates in perpetuity, the same cannot be said for a stock index like the S&P 500 that is regularly updated to contain only companies with high market capitalization, and the record in this proceeding does not indicate that the growth rate of the S&P 500 stock index is unsustainable. [Para 113]

Further, as noted in my response to BCUC IR2 84.1.1, the Multi-Stage DCF model produces some obvious distortions for companies with higher growth rates and lower dividend yields. For example, using the Multi-Stage DCF model, Microsoft's ROE estimate is 5.79 percent, which is lower than many utility holding companies, even though Microsoft has a projected EPS growth rate of 13.62 percent.

Q. Are there any other differences in the MRP in your CAPM analysis and the approach preferred by Dr. Lesser?

Q. Yes. I have used an average of the historical MRP and the forward-looking MRP in my CAPM analysis, which is more conservative than relying solely on the forward-

looking MRP. By contrast, both Dr. Lesser and FERC rely solely on a forward-looking MRP in the CAPM. If I were to use only the forward-looking MRP, my CAPM results would have been 180-190 basis points higher.

Q. Has Dr. Lesser previously used a different method to derive the MRP in the CAPM?

A. Yes. On several occasions from 2002-2005, Dr. Lesser filed cost of capital testimony in which he used Value Line's estimated price appreciation for the broad market over the next three-to-five years to derive the MRP in his CAPM analysis. For example, in his testimony for CILCO in 2002, Dr. Lesser found that Value Line's estimated price appreciation potential for the market was 60 percent, which he converted into an annualized rate of 12.47 percent per year. He performed this same calculation over a six week period and derived an average market return including dividends of 15.17 percent. From this value, Dr. Lesser subtracted the average forecast bond yield from Blue Chip for the next six quarters of 5.38 percent to arrive at a MRP of 9.81 percent. He then averaged this forward-looking MRP with the historical MRP of 7.15 percent based on Ibbotson data, to derive an overall estimate of the MRP of 8.47 percent.[16]

According to Value Line, the current estimated price appreciation potential for the market is 75 percent, the median dividend yield for dividend paying companies is 2.2 percent, the forecast bond yield from Blue Chip for the next six quarters is 3.48 percent, and the historical MRP in the U.S. through 2021 is 7.46 percent. Using the same methodology that Dr. Lesser employed in 2002 for CILCO, the average forward-

[16] Direct Testimony of Jonathan A. Lesser for Central Illinois Lighting Company, Docket No. 02-0837, November 22, 2002, at 45-46.

looking and historical market risk premium in the U.S. would be 10.60 percent, as shown in Figure 4 below. This is higher than the average MRP for the U.S. of 9.67 percent in my CAPM analysis. As shown in Figure 29 of my Report, I used an average MRP of 8.49 percent for Canada and the U.S.

Figure 4: Average Market Risk Premium – Dr. Lesser's previous approach

Value Line Price Appreciation (1)		75%	
4 year compound price appreciation		15.01%	
Value Line Median dividend yield (1)		2.20%	
Total Market Return		17.21%	
Blue Chip Forecast - six quarter average (2)		3.48%	
Forward MRP		13.73%	
Duff and Phelps Historical MRP (3)		7.46%	
Average of Projected and Historical MRP		10.60%	
Sources:			
(1) Value Line Investment Survey, June 24, 2022.			
(2) Blue Chip Financial Forecast, Volume 41, Issue No. 6, June 1, 2022, at 2.			
(3) Duff and Phelps, Cost of Capital Navigator, data through 2021.			

D. Flotation Costs and Financing Flexibility

Q. Dr. Lesser opposes an adjustment to the authorized ROE for flotation costs and financing flexibility in his responses to BCUC IR2 6.3 and 6.6. Please respond to his points on this issue.

A. Dr. Lesser fails to recognize the longstanding Canadian precedent for an adjustment of 50 basis points to the authorized ROE to account for flotation costs and financial flexibility. In the BCUC's August 2016 decision, the Commission indicated that FEI should provide more detailed support for the adjustment for flotation costs and financial flexibility when the company filed its next cost of capital request.[17] As discussed in my Report and summarized in Figure 36, every province in Canada (except Manitoba and Saskatchewan for which no information is available) has accepted an adjustment for flotation costs and financing flexibility.[18] The vast majority of these adjustments are 50 basis points, with only Quebec being somewhat lower at 30-40 basis points.

In addition, Dr. Lesser has provided a 2012 article as Exhibit A2-28 to his responses to data requests from the BCUC Staff which advocates for companies having less financial leverage, especially during times of financial instability. This article provides support for the reasonableness of making an adjustment to the authorized ROE to serve as a cushion for utilities that need to raise significant amounts of capital regardless of conditions in capital markets. This supports the need for a return that enables the utility to attract capital under a variety of economic and capital market

[17] BCUC, FortisBC Energy Inc. Application for its Common Equity Component and Return on Equity for 2016, Decision and Order G-129-2016, August 10, 2016, at 84-85.
[18] Concentric Report, January 2022, at 69-72.

conditions. That is the underlying rationale for the financial flexibility adjustment. It remains as reasonable today as when it was last approved by the BCUC in the 2016 decision for FEI's cost of capital.

Dr. Roger Morin has also observed that utilities need the ability to attract capital even during "market breaks" because they have an ongoing obligation to serve. For that reason, he recommends providing the utility an additional allowance for financial flexibility during difficult market conditions, as follows:

> The flotation cost allowance of 5% allows for both the direct flotation costs and market pressure component but does not contain an explicit allowance for market break.
>
> ***
>
> Such an allowance is desirable, however. If negative events should occur during the time period from announcement of a public issue to actual pricing, the price could fall below book value unless a sufficient margin is maintained. Compared to non-regulated companies, utilities do not possess the same latitude and discretion in accessing capital markets in view of their obligation to serve. They must access capital markets regardless of capital market conditions. Therefore, they have limited ability to time security issuances in order to avoid an adverse market break.[19]

Q. Is there support in the academic literature for an adjustment for flotation costs?

A. Yes, there is. In response to BCUC IR2 83.3, I cited an article from Dr. Shannon Pratt which explains the basis for recovering flotation costs through an adjustment to the authorized ROE as follows:

> Flotation costs occur when new issues of stock or debt are sold to the public. The firm usually incurs several kinds of flotation or transaction costs, which reduce the actual proceeds received by the firm. Some of

[19] Dr. Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc. 2006, at 326.

> these are direct out-of-pocket outlays, such as fees paid to underwriters, legal expenses, and prospectus preparation costs. Because of this reduction in proceeds, the firm's required returns on these proceeds equate to a higher return to compensate for the additional costs. Flotation costs can be accounted for either by amortizing the cost, thus reducing the cash flow to discount, or by incorporating the cost into the cost of capital. Because flotation costs are not typically applied to operating cash flow, one must incorporate them into the cost of capital.[20]

In his 2006 book, New Regulatory Finance, Dr. Roger Morin also supports recovery of flotation costs through an adjustment to the authorized ROE rather than as an expense regardless of whether common equity was issued in a particular year.[21]

Q. How do you respond to Dr. Lesser's position that flotation costs should be recovered as an expense rather than through an adjustment to the authorized ROE?

A. I disagree. Flotation costs are part of the invested costs of the utility, which are properly reflected on the balance sheet under "paid in capital." They are not current expenses, and, therefore, are not reflected on the income statement. Like investments in rate base or the issuance costs of long-term debt, flotation costs are incurred over time. As a result, the majority of a utility's flotation cost is incurred prior to the test year but remains part of the cost structure that exists during the test year and beyond. As such, these costs should be recovered through the authorized ROE. To the extent a company is denied the opportunity to recover prudently-incurred flotation costs,

[20] Shannon P. Pratt, Cost of Capital Estimation and Applications, Second Edition, at 220-221.
[21] Dr. Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc. 2006, at 323-327.

actual returns will fall short of expected (or required) returns, thereby diminishing a company's ability to attract adequate capital on reasonable terms.[22]

Q. Is the need to consider flotation costs eliminated because FEI and FBC do not issue common stock?

A. No. Although FEI and FBC are wholly-owned subsidiaries of Fortis, Inc., it is appropriate to consider flotation costs because subsidiaries receive equity capital from their parent and provide returns on the capital that roll up to the parent, which is designated to attract and raise capital based upon the returns of those subsidiaries. To deny recovery of issuance costs associated with the capital that is invested in the subsidiaries ultimately penalizes the investors that fund the utility operations and inhibits the utility's ability to obtain new equity capital at a reasonable cost.[23]

E. Business Risk

Q. In his response to BCOAPO IR2 14.1, Dr. Lesser states that in his experience any adjustment for business risk is generally reflected in the authorized ROE instead of the capital structure. What is your response?

A. Most Canadian regulators adjust for changes in business risk through the deemed equity ratio rather than through the authorized ROE. That is the approach I took in my Report. While it is possible to make adjustments for business risk through the authorized ROE, Dr. Lesser has not suggested a company-specific risk adjustment that

[22] I also note that in his 2002 testimony for CILCO, Dr. Lesser recommended an adjustment for issuance costs of 6.5 basis points if these costs were not recovered as an expense at the time of issuance.

[23] Direct Testimony of Jonathan A. Lesser, Central Illinois Lighting Company, Docket No. 02-0837, November 22, 2002, at 54-55.

he would recommend to compensate FEI for the additional business risk discussed in my Report and the risk evidence of FortisBC.

Q. According to Dr. Lesser's response to BCOAPO IR2 14.3, Energy Transition risk is a regulatory or political risk rather than a business or financial risk. How do you respond to this characterization?

A. Regardless of how Energy Transition risk is categorized, this is a real risk for shareholders. I agree with Dr. Lesser that the impact of this risk depends on how policymakers and regulators respond to these issues. In his response to the BCOAPO IR2 14.4, Dr. Lesser states: "If, for example, legislators pass a law guaranteeing cost recovery of all potential stranded costs that may arise from the energy transition, then there is little additional financial risk to the utility. But if regulators are hostile to stranded cost recovery, then financial markets may require a premium to provide funds to the utility." I generally agree with his perspective as it pertains to stranded costs. However, as discussed in my Report, Energy Transition risk also affects the gas utility's future growth and earnings prospects. Dr. Lesser has not mentioned that issue in his response, but it is very relevant from the perspective of equity investors in FEI.

Q. Dr. Lesser also references a FERC decision in his discussion of business risk. Please comment.

A. Dr. Lesser cites the instance of Panhandle Eastern, which requested permission to shorten the economic planning horizon for its gas pipeline assets and to increase its annual depreciation expense. The Administrative Law Judge at FERC rejected Panhandle Eastern's request for an economic life reduction to 35 years, but also rejected Trial Staff's recommended economic life of 50 years, and settled on 40 years

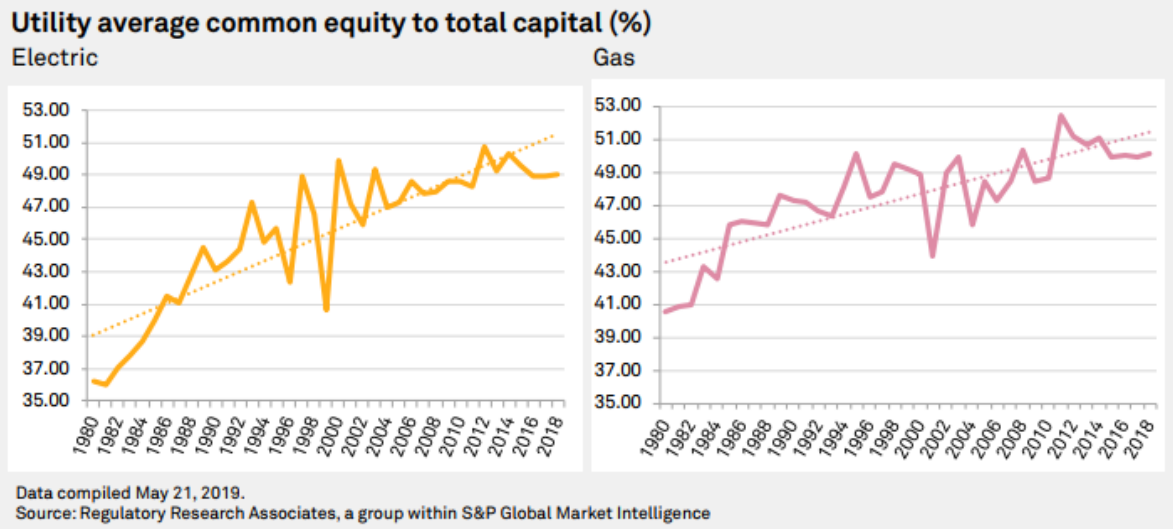
[Initial Decision, p. 118]. I also note that FEI is not asking for higher depreciation rates or a shorter economic planning horizon for its gas distribution assets to mitigate the Energy Transition risk at this time. Rather, FEI is requesting an increase in its common equity ratio from 38.5 percent to 45.0 percent, which would bring the company's deemed equity ratio more in line with other U.S. gas distributions companies at 50-52 percent.

Q. Dr. Lesser states that he is not aware of any trend of higher equity ratios for gas utilities due to the Energy Transition in his response to BCUC IR2 2.5. Please comment.

A. Energy Transition is a relatively new risk for gas distributors, as explained in my Report, and policies to reduce carbon emissions are driving fundamental changes in the natural gas industry. As this risk evolves and as regulatory policy matures on this issue, Energy Transition will be accounted for in the business risk profiles of gas utilities such as FEI. , Higher equity ratios are one tool available to regulators and utilities to accommodate Energy Transition risk.

In that regard, I note that average equity ratios have increased substantially for both electric utilities and gas distribution companies in the U.S. since 1980, placing these companies in a better position to manage these risks and invest the significant capital required to transition from fossil-fuel based companies to ones based on sustainable and renewable resources. As shown in Figure 5, the average equity ratio for U.S. gas LDCs increased from 40.5 percent in 1980 to 50.0 percent in 2018.

Figure 5: Authorized U.S. Equity Ratios – 1980-2018[24]



FEI also anticipates the need for significant capital investments in response to Energy Transition, and customers will benefit from the company's access to capital on favorable terms supported by a competitive equity ratio.

Q. Has Dr. Lesser previously testified that higher business risk for gas distribution companies supported higher common equity ratios, authorized returns on equity or both?

A. Yes. For example, in his 2002 testimony for CILCO's gas distribution business, Dr. Lesser made the following points regarding the increasing business risk for gas LDCs:[25]

1) Local distribution companies (LDCs) today face several business risks that stem from deregulation of natural industry in 1993 in FERC Order 636.
2) These threats include bypass, especially by larger industrial customers, increased competition from gas marketers, interstate pipelines, and electric

[24] S&P Global Market Intelligence, RRA Regulatory Focus, "Taking stock of trends in utility capital structures," May 22, 2019, at 4-5.

[25] Direct Testimony of Jonathan A. Lesser, Central Illinois Lighting Company, Docket No. 02-02-0837, November 22, 2002, at 6-7.

utilities, and increased earnings volatility, which may be a consequence of existing regulatory policies.

3) Natural gas LDCs today operate in an inherently riskier environment, regardless of whether they remain franchised monopolies.
4) LDC risk may be exacerbated because they continue to retain an obligation to serve while simultaneously facing more competitive threats from bypass and new technologies.
5) To ensure continued investor faith, the capital structure of LDCs likely will require a greater proportion of equity or higher expected rates of return on equity to compensate investors for the increased risks they face.
6) Previous levels of debt capital widespread in the industry will be perceived as having increased financial risk. Thus, investors will either require a higher risk premium to hold utility bonds, a lower debt/equity ratio, or a combination of the two.

In my view, the Energy Transition risks that gas utilities such as FEI are facing today in BC are at least equivalent, if not greater, than the risks that Dr. Lesser was discussing in his 2002 testimony for CILCO.

Q. Do you have any comments in response to Dr. Lesser's statements regarding Fortis, Inc.'s credit rating from Moody's in his responses to BCOAPO IR2 23.1 and RCIA IR2 37.1 and 37.2?

A. Yes, I do. Dr. Lesser incorrectly focuses his attention on Fortis, Inc., when both FEI and FBC issue their own debt and have their own credit ratings. FortisBC also addresses this issue of credit metrics and ratings in its Rebuttal Testimony.

F. Other Miscellaneous Issues

Q. Dr. Lesser disagrees that there is an inverse relationship between interest rates and the equity risk premium in his response to BCAOP IR2 26.1. How do you respond?

A. This inverse relationship is demonstrated for regulated gas and electric utilities in my Risk Premium analysis. As shown in that analysis, as interest rates have decreased, the

equity risk premium for utilities has increased. The regression equation shows that these terms are highly correlated since 1992. This is consistent with an article by Dr. S. Keith Berry, who also observed an inverse relationship between authorized returns for utilities and utility bond yields.[26]

Q. Dr. Lesser appears to dispute the existence of a small size premium in his response to BCOAPO IR2 26.1. Please comment.

A. While I have not made an adjustment for small size, the BCUC has previously found that the authorized ROE for FBC should be 40 basis points higher than that of FEI due, in part, to the small size of FBC. Rating agencies consider small size and lack of geographic and economic diversification as a risk factor for regulated utilities.[27] A 1995 article in Public Utilities Fortnightly also observed that small size was a factor for utilities, with investors requiring a higher return for smaller companies.[28] Further, Ibbotson publishes data concerning the historical returns for companies by deciles, with smaller companies having much higher returns than larger companies. This allows for quantification of a small size premium. Dr. Lesser has previously criticized Staff for failing to recognize the small size of Arkansas-Oklahoma Gas in its ROE analysis.[29]

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26 S. Keith Berry, Managerial and Decision Economics, "Interest Rate Risk and Utility Risk Premia During 1982-1993, March 1998.

27 Moody's Investors Service, Rating Methodology for Regulated Electric and Gas Utilities, June 23, 2017, at 16-17.

28 Michael Annin, Public Utilities Fortnightly, "Equity and the small stock effect," October 15, 1995.

29 Rebuttal Testimony of Jonathan A. Lesser, Arkansas-Oklahoma Gas, Docket No. 02-024-U, September 2002, at 27.

G. Model Updates

Q. In his response to BCUC IR2 6.10, Dr. Lesser suggests that having the most recent available market data is preferable for purposes of the BCUC establishing a fair return for FEI and FBC. Do you agree?

A. Yes, I generally agree with Dr. Lesser on this point. In my responses to BCUC IR2 83.1.1 and 83.2, I agreed to update my ROE analyses for the most recent market data, as the Commission deems appropriate prior to the hearing. My intention would be to use the same inputs and sources for each model as in my Report, to recheck the proxy group screening and make any necessary adjustments, and to give the same equal weighting to the Multi-Stage DCF and CAPM models as in my Report, unless otherwise directed by the Commission.

IV. CONCLUSIONS AND RECOMMENDATIONS

Q. Please summarize your conclusions and recommendations.

A. I continue to support the recommendations in my Report. In particular, I recommend an authorized ROE of 10.1 percent and a deemed common equity ratio of 45.0 percent for FEI, and an authorized ROE of 10.0 percent and a deemed common equity ratio of 40.0 percent for FBC. I reserve the right to update these recommendations if my ROE analysis closer to the hearing shows material changes in market data that are important to capture in these results and recommendations.

Q. Does this conclude your Rebuttal Testimony?

A. Yes, it does.