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April 6, 2016

British Columbia Utilities Commission
Sixth Floor
900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Ms. Laurel Ross, Acting Commission Secretary and Director

Dear Ms. Ross:

Re: FortisBC Energy Inc. (FEI)

Project No. 3698864

2015 Price Risk Management Application (the Application)

FEI Final Submission

In accordance with Order G-38-16 setting out the remainder of the Regulatory Timetable for the review of the Application, attached please find FEI's Final Submission, including a Confidential Final Submission under the separate cover.

If further information is required, please contact Mike Hopkins, Senior Manager, Price Risk & Resource Planning at (604) 592-7842.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachment

cc (email only): Registered Parties

BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF THE UTILITIES COMMISSION ACT,
R.S.B.C. 1996, CHAPTER 473

and

2015 PRICE RISK MANAGEMENT APPLICATION

FINAL SUBMISSION OF
FORTISBC ENERGY INC.

APRIL 6, 2016

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PART ONE: INTRODUCTION

1. FortisBC Energy Inc. (FEI or the Company) filed its 2015 Price Risk Management Application (the Application) on December 23, 2015, seeking from the British Columbia Utilities Commission (the Commission) the approval of: (1) enhancements to the current commodity rate setting guidelines consisting of a commodity rate change cap of +/- $1.00 and a defined set of criteria that will allow for consideration of a 24-month prospective period for commodity rate setting; and (2) implementation of a fixed price hedging strategy, including the use of fixed price physical purchases and/or fixed price financial swaps (collectively, the Proposed Strategies). The details of the approvals sought are set out in section 2 of the Application.

2. On January 27, 2016, by Order G-10-16 (Exhibit A-3), the Commission divided the review of the Application into Scopes A and B, stating: "Scope A is FEI's proposed revisions to the quarterly gas cost reporting and commodity rate setting guidelines as currently set out in Commission Letters L-5-01 and L-40-11. Scope B is FEI's proposed medium-term hedging strategy."

3. FEI submits that the approvals sought in both Scope A and Scope B should be granted as applied for. FEI's customers will benefit from the Proposed Strategies as the Proposed Strategies are responsive to the current market environment and help to achieve two objectives that FEI has identified for its price risk management: (a) mitigating market price volatility to support rate stability; and (b) capturing opportunities to provide customers with more affordable rates for core sales customers that purchase their commodity supply directly from FEI.[1] The Proposed Strategies also supplement FEI's existing price risk management tools. Further, the Proposed Strategies took into account feedback from four stakeholder workshops led by FEI over 2015 (the Stakeholder Workshops or Workshops). As FEI summarized in the Application, "[w]hile there may be different opinions among stakeholders on how to best achieve the objectives, there was some support expressed for FEI's rate setting mechanism

[1] Exhibit B-1, page 1; see also Appendix A to Exhibit B-1, page 17.

enhancements…. There was also some support for FEI's proposed medium-term hedging strategies."[2]

4. In the remainder of this submission, FEI will first discuss the nature of the Application and issues relating to approvals sought in both scopes, followed by discussions of specific approvals and issues in each scope.

PART TWO: GENERAL CONSIDERATIONS

A. Limited Scope of the Application

5. The Proposed Strategies applied for in the Application are limited in scope.

6. First, the Proposed Strategies are designed to respond to the current market environment of low commodity prices and continuing market price volatility.[3] For instance, the fixed price hedging strategies are for a medium term (a three year horizon) and are specifically price-targeted based on the current market conditions. This is further discussed in Part Four below.

7. Second, the Proposed Strategies are designed to supplement FEI's existing price risk management tools. FEI currently has several price risk management tools available to it and its customers, ranging from physical gas contracting tools, rate setting mechanisms, and optional customer choices.[4] For instance, FEI enables several price risk mitigation activities for its physical supply, including diversifying gas pricing by purchasing supply from different market hubs and by using a combination of daily and monthly indexed purchases. FEI also uses storage resources to take advantage of any summer-winter price differential, reduce exposure to market price disconnections or spikes during peak winter demand and enhance reliability of

[2] Exhibit B-1, page 2.

[3] Exhibit B-1, page 4; Exhibit B-4, BCUC Scope B IR 1.6.1.

[4] Exhibit B-3, BCUC Scope A IR 1.1.1.

supply.[5] In Exhibit B-3, response to BCUC Scope A IR 1.1.1, FEI describes and evaluates the existing, proposed (in this Application) and potential price risk management tools and their respective functions and limitations. As demonstrated, each tool can mitigate volatile market conditions to a certain extent, but no single tool effectively mitigates volatility or changes in all market conditions. The Proposed Strategies do not replace any of the existing tools already available to FEI; rather, they provide types of strategies that are complementary; for instance, by prescribing a set of circumstances where the 24-month prospective period for commodity rate setting may be appropriate, and by making available fixed price hedging tools that focus on the medium term (the three year horizon).[6]

8. Furthermore, the Proposed Strategies are put forward after taking into account the stakeholder feedback from the Workshops. Not only has FEI proposed a more limited set of price risk management strategies in this Application than it recommended in the 2014 Price Risk Management Review Report (the 2014 Review Report) and discussed in the Workshops (as discussed below), some tools were designed to specifically address the stakeholders' concerns. For instance, some stakeholders indicated that they believe that FEI should capture low market price opportunities, if and when they occur, to provide customers with more affordable rates and to limit the magnitude of rate changes, as this is difficult for some customers to manage. To limit the magnitude of rate changes, FEI has, for example, requested approval for a commodity rate change cap in the Application.[7]

9. This Application differs from FEI's recommendations for more comprehensive hedging strategies as discussed within its 2014 Review Report.

10. The proposed enhancements to the commodity rate setting mechanism do not change the frequency of commodity rate reviews or other mechanisms for rate changes established by the Commission in the Guidelines for Setting Gas Recovery Rates and Managing

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[5] Exhibit B-9, CEC Scope B IR 1.1.2.

[6] Exhibit B-3, BCUC Scope A IR 1.1.2.

[7] Exhibit B-1, page 2; Exhibit B-4, BCUC Scope B IR 1.1.4.

the Gas Cost Reconciliation Balance (the Guidelines), including the quarterly rate review process and rate adjustment triggers such as the 0.95/1.05 recovery-cost ratio and a $0.50/GJ minimum rate change threshold. Nor do they change the Commission's current approach to consider "full circumstances" when reviewing and setting commodity cost recovery rates.[8] Indeed, in FEI's view, the rate setting mechanisms under the Guidelines have worked well in different market conditions, including those in the past when market prices were considerably higher.[9] The proposed enhancements to rate setting mechanisms are intended to work together with other established components of the Guidelines.[10]

11. With respect to the hedging strategy, FEI's proposal is limited to fixed price hedging strategies applicable in specific market conditions for a period of three years. They present a limited version of a more dynamic hedging strategy, basing on market price conditions and using predefined market price targets such that hedges are only implemented if the price targets are reached. This is unlike FEI's previously proposed hedging programs, which were largely programmatic based on layering in hedges periodically over time and was less responsive to different market price environments.[11] In addition, the proposed price hedging tools are more opportunistic than defensive in that they are designed to capture favourable market price opportunities, if and when they occur, on behalf of customers.[12] Further, the proposed hedging tools are developed from a risk management view, not a market view. Or, as FEI stated, the tools are not developed to "beat the market" but rather to lock in pricing when low market price opportunities present themselves to help to maintain affordable rates for customers.[13]

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[8] See Commission Letters L-5-01 and L-40-11.

[9] Exhibit B-3, BCUC Scope A IRs 1.3.1 and 1.3.2.

[10] Exhibit B-1, page 16.

[11] Exhibit B-9, CEC Scope B IR 1.17.1.

[12] Exhibit B-9, CEC Scope B IR 1.15.1. A defensive strategy is designed to mitigate the impacts of market price spikes or increasing market prices. Such a strategy would likely use call options to cap market price increases.

[13] Exhibit B-1, page 13; see also Exhibit B-4, BCUC Scope B IR 1.2.1.

B. The Price Risk Management Objectives

12. FEI has two primary objectives for its price risk management which drive the Proposed Strategies: (a) mitigating market price volatility to support rate stability and (b) capturing opportunities to provide customers with more affordable rates for core sales customers that purchase their commodity supply directly from FEI. The first goal identified above is consistent with what the Commission has previously determined to be a reasonable goal for FEI's price risk management. In Order G-121-11 and the accompanying decision, the Commission determined that "moderating the volatility of natural gas prices is a reasonable goal for FEI's price risk management".[14] The second goal is consistent with the first, and also a reasonable objective for price risk management. While not examined by the Commission previously in the context of reviewing FEI's price risk management plan, capturing marketing opportunities helps maintain low, affordable natural gas rates for customers, relative to where rates have been in the past.[15] If market opportunities arise, the Proposed Strategies would have the value of making customer rates more stable.

13. Stakeholders are generally supportive of these objectives. Some stakeholders in the Workshops indicated their support for the proposed price risk management strategies contained in the Application, which, in turn, has helped FEI re-affirm the price risk management objectives. For example, stakeholders representing low-income customers indicated that they believe that FEI should capture low market price opportunities, if and when they occur, to provide customers with more affordable rates.[16]

C. Maintenance of Deferral Account Balance

14. FEI believes that the balance of the Commodity Cost Reconciliation Account (CCRA), which was established to capture the differences between revenue from the gas cost

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[14] Order G-120-11 and accompanying Decision, page 22.

[15] Exhibit B-4, BCUC Scope B IRs 1.1.1 and 1.1.1.2.

[16] Exhibit B-4, BCUC Scope B IR 1.1.2.

recovery rates and gas costs, should be maintained within a reasonable range.[17] Some information requests seem to suggest a potential consideration of growing the CCRA as a means to smooth out commodity rates.[18] FEI submits that this approach is not appropriate for the following three main reasons.

15. First, there is a continuing need for FEI to maintain the balance of CCRA within a reasonable range.[19] This provides greater certainty that FEI will be able to recover its costs from, or refund surpluses to, customers in a timely fashion.[20] Additionally, the CCRA balance is included in rate base and, depending on the balance, could have a material impact on earned return, taxes and ultimately delivery rates.[21] Further, the size of the deferral balance may impact FEI's credit rating and borrowing capacity, which can adversely affect FEI's customers, all else being equal.[22]

16. Second, using a deferral account as a price risk management tool is less effective than the medium term hedging strategies proposed here. Deferral accounts may help smooth out gas costs (in the case of the CCRA typically over the next twelve months), but can only partially mitigate the effects of short-term price volatility, because they do not impact the underlying market prices. In contrast, a medium-term price hedging strategy can help mitigate market price volatility over both short and medium terms and can provide more significant volatility mitigation as hedging (as proposed here) will impact underlying market prices for terms up to three years.[23] As the hedging simulations discussed in the Workshops show, the

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[17] Exhibit B-3, BCUC Scope A IR 1.3.3; see also Exhibit B-4, BCUC Scope B IR 1.1.14 (FEI understands that Commission staff concur that the objective of managing deferral account balances was one of the considerations the Commission considers in setting rates and that objective was consistent with the rate setting guidelines).

[18] Exhibit B-3, BCUC Scope A IR 1.3.3 and 1.4.7.

[19] In Exhibit B-3, response to BCUC Scope A IR 1.5.3, FEI explained that the current reasonable range is between range of +/- $50 to $60 million by including Vancouver Island baseload volumes, and other volume adjustments which include customers returning from the Customer Choice program to FEI's standard commodity rate offering.

[20] Exhibit B-3, BCUC Scope A IR 1.4.7.

[21] Exhibit B-3, BCUC Scope A IR 1.4.7.

[22] Exhibit B-1, page 4; Exhibit B-3, BCUC Scope A IRs 1.5.1, 1.5.2.

[23] Exhibit B-9, CEC Scope B IR 1.1.1; see also Exhibit B-3, BCUC Scope A IR 1.1.1.

hedging strategy could be more effective than the use of the CCRA deferral account alone in reducing rate volatility, particularly during periods of market price spikes.[24]

17. Third, the effectiveness of growing the CCRA deferral account during volatile periods as a means to smooth out commodity rates is hard to ascertain as it depends on many factors such as the nature of the market circumstances, duration of the market event, and the level of the CCRA account before the event.[25] For example, a strategy of building a deficit CCRA during a period of rising market prices in order to keep rates stable would have adverse effects if the period of rising market prices is not temporary and lasts longer than expected. Not only could the CCRA balance increase significantly and beyond a reasonable range, the subsequent commodity rate increase could also be more significant as it would be based on both the rising market prices and also recovery of the growing CCRA balance.

D. Evaluation of Price Risk Management Tools

18. When evaluating the effectiveness of price risk management tools, FEI takes into consideration various factors in light of the stated objectives, including managing supply risk, managing market price risk, managing deferral account balances, sending price signals to customers and monitoring counterparties and credit exposure under different market price conditions.[26] Therefore, a specific set of metrics by which to evaluate a hedging strategy proposal after the fact to determine its effectiveness should not be required.[27]

19. In this Application, the evidence shows that FEI has proposed price risk management strategies that take into consideration supply risk and current market conditions (for instance, by hedging only certain percentage of the commodity supply portfolio based on a predetermined price target), require the maintenance of the balance of the CCRA within a reasonable range (for instance, implementing the commodity rate change cap only if the

[24] Exhibit B-8, CEC Scope A IRs 1.4.1, 1.4.2, 1.4.3 and 1.4.4.
[25] Exhibit B-3, BCUC Scope A IR 1.3.3.
[26] Exhibit B-3, BCUC Scope A IR 1.1.2.
[27] Exhibit B-7, BCOAPO Scope B IR 1.1.1.

deferral account is within a reasonable range)[28], and are superior to the use of the CCRA as a tool to smooth out commodity rates as explained above. Additionally, FEI has also proposed an update report on an annual basis to discuss how the strategies have worked and if any refinements need to be made.[29] FEI submits that such a report will provide the Commission with a regular opportunity to review the effectiveness of the Proposed Strategies.

PART THREE: SCOPE A – ENHANCEMENTS TO COMMODITY RATE SETTING MECHANISM

20. The Guidelines set a quarterly rate review process and various commodity rate setting mechanisms/components, including the 0.95/1.05 recovery-cost ratio and $0.50/GJ minimum rate change threshold, and a 12-month prospective period for rate setting purposes "in normal circumstances." The Commission has expressly stated that the Guidelines are intended "as a general guide", and has adopted an approach that will consider the "full circumstances and other criteria" when reviewing and setting commodity cost recovery rates.[30]

21. In this Application, FEI proposes two additional enhancements to the commodity rate setting mechanism:

a) Setting a commodity rate change cap of $1.00/GJ, applicable to rate increases or decreases;

b) Establishing a set of circumstances for consideration of setting commodity rates over a 24-month prospective period.

22. Each proposed enhancement is described in detail in sections 3.2.1 and 3.2.2 of the Application respectively and is summarized below.

[28] Exhibit B-1, page 18.

[29] Exhibit B-7, BCOAPO Scope B IR 1.1.1.

[30] Commission Letters L-5-01, L-40-11.

A. Commodity Rate Change Cap

23. FEI proposes to implement a rate change cap of $1.00/GJ to limit the impact of increases or decreases in a rising or declining market for two consecutive quarters. More specifically,

(a) The cap will be applied for a maximum of two consecutive quarters if the rate changes in these two consecutive quarters have been in the same direction;

(b) The cap will not apply for the third consecutive quarter if the rate change is in the same direction; and

(c) The cap will be applied only if the CCRA balance is maintained within a reasonable range.[31]

24. In Exhibit B-1, in Table 2 and Exhibit B-6, response to BCOAPO Scope A IR 1.2.1, FEI offered examples of how the rate change cap would apply in different scenarios.

25. FEI submits that the proposed rate change cap should be approved because:

(a) It will reduce significant commodity rate increases and decreases during periods of short term market price volatility;[32]

(b) The conditions for implementation discussed above will minimize potential under-recovery of gas costs during periods of more sustained market price increases;[33]

(c) The use of the rate change cap is subject to management of deferral account balance within a reasonable range;[34]

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[31] Exhibit B-1, page 3.

[32] Exhibit B-1, page 17-18; Exhibit B-3, BCUC Scope A IR 1.1.1.

[33] Exhibit B-1, page 18.

[34] Exhibit B-1, page 18.

(d) The utilization of the cap is likely limited, mainly during a short-term market event, such as a cold winter when gas demand temporarily drives up market prices;[35]

(e) The proposed cap of $1.00/GJ was tested through simulations and shown to provide a good balance of limiting the rate increase as well as the duration of the rate increase;[36]

(f) There was some support expressed for the rate change cap in the Stakeholder Workshops and one stakeholder in particular commented on the importance of helping customers manage their household budgets;[37] and

(g) The proposed rate change cap at a fixed level (+/- $1.00/GJ) offers better customer protection than, for instance, a percentage rate change cap, which would result in higher absolute rate change caps as rates increased and lower rate change caps as rates decreased. In the rate increase scenario, customers would be faced with higher rates and, at the same time, could be subject to a lower level of protection than provided by a fixed rate cap.[38]

B. Use of a 24-Month Prospective Period for Commodity Rate Setting

26. Under the Guidelines, gas cost recovery rates are set considering forecast costs at forward prices over a 12-month prospective period. However, the Commission has specifically recognized in the Guidelines that consideration of "full circumstances", including "factors such as the current deferral balances and, based on the forecast costs, the appropriateness of any rate proposals over a 24-month timeframe" can be applied.[39] However, the Guidelines do not include specific criteria for when the 24-month prospective period should

[35] Exhibit B-1, page 17.
[36] Exhibit B-1, page 18.
[37] Exhibit B-1, page 19.
[38] Exhibit B-8, CEC Scope A IR 1.6.1.
[39] Commission Letter L-40-11.

be considered. During the Workshops, Commission staff commented that specifics regarding the criteria would be helpful for the Commission.[40]

27. In this Application, FEI has proposed what the Commission has suggested: providing a set of circumstances where rate setting may be appropriate based on a 24-month prospective period. The 24-month prospective period does not replace the 12-month timeframe; rather, FEI has proposed one set of circumstances when the 24-month timeframe may be considered to aid the Commission's consideration in the event FEI applies for the 24-month prospective period in the commodity rate setting process. The specific set of circumstances proposed in the Application includes:

(a) When a commodity rate change is indicated using the standard 12-month prospective period;

(b) When there is a difference of $0.75/GJ or more between the CCRA weighted average cost of gas (WACOG) for year one versus year two of the 24-month prospective period; and

(c) When the direction of the commodity rate change indicated using a standard 12-month prospective period is opposite to the direction of the CCRA WACOG for year two compared to the CCRA WACOG for year one (for example, if the indicated commodity rate change was an increase, the CCRA WACOG for year two would need to be lower than the CCRA WACOG for year one).[41]

28. FEI submits that its proposal should be approved because:

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[40] Exhibit B-1, page 20; Exhibit B-8, CEC Scope A IR 1.2.1.

[41] Exhibit B-1, page 20.

(a) The 24-month prospective period proposal resulted from feedback from the Stakeholder Workshops and is intended to provide more explicit criteria, which the current Guidelines contemplate but lack specifics;[42]

(b) All three conditions would have to be met to support a commodity rate setting over a 24-month prospective period. That is, item (i) would not be a sufficient condition on its own for using a prospective period beyond the 12-month outlook. All three conditions would be required before using a prospective period beyond the 12-months for the described set of circumstances;[43] and

(c) The 24-month timeframe will be used only in limited circumstances. For instance, when the projected gas costs caused by an event for 12 months out are significantly different from those for the following 12 months. In this case, the 24-month prospective period may help to mitigate rate volatility and keep the commodity rate more stable for a longer period while still managing the deferral account balance within a reasonable range.[44]

C. Conclusion for Scope A Review

29. FEI has proposed two enhancements to the existing rate setting mechanism that help meet the identified price risk management objectives. The commodity rate change cap can limit the impacts of significant market price volatility on commodity rates, while maintaining the CCRA balance within a reasonable range. The addition of a set of criteria for the consideration of the 24-month prospective period for commodity rate setting provides specifics which are currently lacking in the Guidelines. These enhancements received support from stakeholders in the Workshops and should be approved by the Commission.

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[42] Exhibit B-8, CEC Scope A IR 1.2.1.

[43] Exhibit B-8, CEC Scope A IR 1.2.2.2.

[44] See Exhibit B-1, pages 20-23 where FEI provided an example to illustrate this point.

PART FOUR: SCOPE B – MEDIUM TERM FIXED PRICE HEDGING STRATEGY

A. The Proposed Hedging Strategy

30. FEI seeks Commission approval for a fixed price hedging strategy for the period of April 2016 to March 2019, which includes fixed price physical purchases and/or fixed price financial swaps.[45] FEI will only implement the hedging strategy subject to the following conditions:

(a) Forward AECO/NIT market prices must be at or below defined market price targets;[46]

(b) The hedging transactions as proposed will not exceed FEI's monthly indexed supply within the commodity supply portfolio. Currently FEI's commodity portfolio is 60 percent monthly index and 40 percent daily index;[47] and

(c) The maximum hedging ultimately transacted through the medium term fixed price hedging strategy as proposed in the Application for any of the three terms (winter term from November to March, summer term from April to October and one-year term, meaning a 12 month period starting either April or November) constitute 50% of FEI's commodity supply portfolio.

31. FEI has set the price targets based on consideration of how low market prices have been in the past, where market prices are currently, what gas producer break-even costs are, as well as other market-based factors such as coal-to-gas switching price levels.[48] The price targets are lower than the forward AECO/NIT market prices as of December 1, 2015 and remain lower than the forward market prices as of February 1, 2016 (with the exception of the forward

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[45] Exhibit B-4, BCUC Scope B IR 1.6.1.2.

[46] Exhibit B-1-1, page 3. The price targets are confidential.

[47] Exhibit B-4, BCUC Scope B IR 1.11.3. As noted on page 4 of the Application, FEI commodity supply portfolio includes the gas purchases FEI does for its commodity portfolio and excludes any supply provided to FEI by natural gas marketers under the Customer Choice Program. The commodity supply portfolio is determined within the Annual Contracting Plan each year.

[48] Exhibit B-9, CEC Scope B IR 1.11.3.

market prices for the April 2016 to October 2016 term).[49] FEI selected AECO/NIT market prices as price target reference points for executing its hedging tools for two main reasons. First, the AECO/NIT market is a highly liquid trading market with multiple buyers and sellers, making it easy to transact hedges. Second, the Station 2 monthly index is very illiquid; thus, FEI and many other buyers and sellers purchase Station 2 physical supply based on a premium or discount to the AECO/NIT monthly index.[50] The price targets are the same for winter, summer, or the one-year term.[51]

32. FEI selected two different price targets in response to a concern raised in the Stakeholder Workshops that the price target be set low enough so customers continue to benefit if commodity prices decrease further. Thus, if the first price target is reached, a defined percentage of the portfolio is hedged; if market prices fall further, FEI could execute hedges up to another pre-defined percentage based on the lower price target.[52]

33. Hedging transactions using either fixed price financial swaps or fixed price physical purchases are limited by the amount of monthly index supply planned in FEI's commodity portfolio. When determining the amount of monthly index supply FEI plans for its physical commodity supply portfolio, FEI considers various factors such as pricing volatility, customer migration between FEI's variable rate offering and gas marketers, and excess commodity resale.[53] The amount of monthly priced commodity supply and amount available for hedging are determined in FEI's Annual Contracting Plans.[54] Further, the amount of physical supply contracts already executed for future periods also limits the remaining amount of physical fixed price purchases that can be done.[55]

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[49] Exhibit B-1, page 15; Exhibit B-4, BCUC Scope B IR 1.5.1.
[50] Exhibit B-5, BCUC Confidential Scope B IR 1.1.4; Exhibit B-9, CEC Scope B IR 1.3.1.4.
[51] Exhibit B-9, CEC Scope B IR 1.3.4.
[52] Exhibit B-5, BCUC CONFIDENTIAL Scope B IR 1.1.1.
[53] Exhibit B-4, BCUC Scope B IRs 1.11.3 and 1.11.3.1.
[54] Exhibit B-1, page 4.
[55] Exhibit B-4, BCUC Scope B IR 1.11.3.1.

34. FEI proposes to execute hedging transactions based on predefined percentages of the commodity supply portfolio, and submits that the percentages as proposed for hedging transactions are appropriate as explained in Exhibit B-5, BCUC Confidential Scope B IR 1.1.3. The maximum hedging limit of 50 percent of the commodity portfolio provides an appropriate balance between capturing low market prices, reducing any potential hedging costs and providing customers with market price signals.[56]

35. In responses to various Information Requests, FEI explained how the fixed price financial swaps and the physical fixed price physical purchases will work respectively.[57] In Exhibit B-4, response to BCUC Scope B IR 1.13.2, FEI explained the risks and benefits of each strategy. In sum, both hedging tools effectively provide the same result in terms of managing market price risk,[58] and are appropriate tools to hedge the price of commodity supply. Which tool FEI implements depends on the availability of counterparties with which to transact and the fixed price they are willing to provide.[59]

36. FEI submits that the hedging tools should be approved, thereby making them available to FEI to implement and execute when the conditions explained above are met. The reasons for such approval are summarized in below.

B. Reasonable Hedging Strategy

37. The proposed hedging strategy is reasonable as it responds to the current market conditions and stakeholders' feedback, supplements FEI's existing price risk management tools, and will be implemented prudently, as further explained below.

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[56] Exhibit B-4, BCUC Scope B IRs 1.10.1, 1.11.1, 1.12.1, and 1.12.2.

[57] Exhibit B-4, BCUC Scope B IRs 1.10.1, 1.11.1, 1.12.1, and 1.12.2.

[58] Exhibit B-4, BCUC Scope B IR 1.12.2.1.

[59] Exhibit B-4, BCUC Scope B IR 1.13.1.

38. FEI's hedging strategy proposed in the Application is developed in consideration of the current market conditions.[60] As FEI has demonstrated in the Application and in responses to Information Requests,[61] the gas market is currently in a low price environment. For instance, as shown in Figure 1 of Exhibit B-1 (page 6 of the Application), current market prices are near their lowest levels since April 2004 and FEI's then-current commodity rate of $1.719 per gigajoule was FEI's lowest commodity rate since the Essential Services Model was implemented in 2004.

39. Price volatility, however, continues in the current market in response to changes in supply and demand balances.[62] The abundance of shale gas has resulted in an oversupply of gas, but market conditions may change due to flattening production growth,[63] fuel switching from coal to natural gas by power producers, and periods of high demand such as were experienced during winter 2013/14.[64] The price volatility in the market has led FEI's gas costs and commodity rates to fluctuate significantly, as illustrated in Exhibit B-1, Figure 7 on page 12 of the Application. The medium term fixed price hedging strategy will enable FEI to capture the currently low market prices, provide low and affordable commodity rates for customers and mitigate the potential upward movement or volatility of the commodity rates. Indeed, through simulation, FEI has demonstrated that a fixed price hedging tool could reduce the market price volatility when compared to the current base strategy without the use of hedging.[65]

40. The hedging strategy of capturing market opportunities takes into account the stakeholders' feedback in the Workshops.[66] For instance, even though FEI believed that low-

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[60] Exhibit B-1, page 5; Exhibit B-7, BCOAPO Scope B IR 1.3.1.

[61] E.g., Exhibit B-4, BCUC Scope B IR 1.7.1.

[62] Exhibit B-1, page 10.

[63] Exhibit B-1, pages 7-8; see also Exhibit B-9, CEC Scope B IR 1.6.3 where FEI clarifies that the referenced comment should have said that there had been a drop in production levels in some areas of northern BC, particularly the Fort Nelson and Pine River plants. However, total gas production in northern BC actually increased in 2015, which is discussed in greater detail in the response to Exhibit B-9, CEC Scope B IR 1.6.4.

[64] Exhibit B-1, pages 5-9.

[65] Exhibit B-1, pages 12-13.

[66] In Exhibit B-1, section 3.1.3 of the Application, FEI summarized the main stakeholders' reactions to the proposed hedging tools.

cost call options could be an effective hedging tool if price volatility continues, it did not make such a proposal in the Application because "there was no stated support from stakeholders for the strategy of limiting market price increases or price spikes with low-cost call options."[67]

41. FEI has proposed a medium term hedging strategy because market price movements and price volatility are more significant in short and medium terms. While FEI has some other price risk management tools and mechanisms which help mitigate short term market price volatility, such as the use of natural gas storage and rate setting and deferral account mechanisms, the medium term hedging tools would therefore supplement FEI's current price risk management tools.[68]

42. Implementation of the medium term hedging strategies has been prudently planned to capture the market opportunities while limiting risks. The proposed hedging strategies will be applicable when market prices are relatively low compared to historical values. FEI has defined the limitations and parameters of the hedging strategy, which include maximum hedging volume limits and predefined hedging targets. The hedges will also be implemented over a period of time rather than all at once to balance capturing the low prices with reducing the risk of potential hedging costs.[69] In Exhibit B-5, response to BCUC Confidential Scope B Information Request 1.1.4, FEI outlined its staged hedging strategy. Concurrently with this filing, FEI will make a confidential submission to further explain the implementation plan.

43. FEI submits that the proposed hedging strategy should be approved because there will be benefits to the customers from the proposed hedging strategy in the Application.

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[67] Exhibit B-1, section 3.1.3, page 14.
[68] Exhibit B-3, BCUC Scope A IR 1.1.1.
[69] Exhibit B-5, BCUC CONFIDENTIAL Scope B IR 1.1.4.

C. Hedging Savings and Costs

44. FEI recognizes that FEI's hedging strategy could result in some hedging costs depending on where market prices ultimately settle relative to the prices of the implemented hedges.[70] However, FEI expects that any potential costs for the additional benefits of the hedging strategy would be significantly lower than in the past based on previous hedging programs and submits that implementing the proposed medium term fixed price hedging strategy is cost effective in that it benefits FEI's customers in terms of rate volatility mitigation (as summarized in the preceding section).[71] More specifically:

- The market prices are currently significantly lower than they were in the past and so the risk of significant hedging costs is reduced.[72]
- The proposed hedging tools are limited to circumstances of capturing opportunities in a low price environment (i.e. will only be implemented if certain downside price targets are met).[73]
- It is possible that there could be periods of hedging gains (as explained below), given the greater upside market price potential than downside price potential in the current price environment.[74]

45. The hedging strategy can result in savings for customers. For instance, as shown in the simulation provided in Exhibit B-1, Figure 8 on page 13 of the Application, for the period of April 2012 to March 2015, the hedging strategy resulted in a lower overall commodity rate, with the hedging commodity rate averaging \$2.78/GJ while the base case (with no hedging activities) commodity rate averaged \$3.08/GJ.[75] Furthermore, during periods of significant market price spikes, the hedging savings can be even greater. Figure 8 shows that FEI's

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[70] As discussed in Section 3.1.5 of the Application, FEI estimated the potential hedging costs relating to the proposed hedging strategy. In the example provided, if the proposed hedging volume of 50% of the portfolio is executed at the second hedging price target, then the potential hedging cost is about 3% based on the current total bill components of about \$8.24/GJ effective January 1, 2016.

[71] Exhibit B-8, CEC Scope A IR 1.4.7.

[72] Exhibit B-9, CEC Scope B IR 1.16.2.

[73] Exhibit B-8, CEC Scope A IR 1.4.7.

[74] Exhibit B-4, BCUC Scope B IR 1.7.1.

[75] Exhibit B-8, CEC Scope A IR 1.4.2.

commodity rate in absence of hedging activities for April 1, 2014 to September 1, 2014 averaged $4.57/GJ while the commodity rate (with hedging) averaged $2.85/GJ for the same period.[76]

D. Conclusion – Scope B Review

46. FEI has proposed a medium-term hedging strategy to supplement its existing price risk management tools to capture current lower market prices and to mitigate commodity price volatility. The hedging strategy is proposed for three years and will be executed if specifically pre-determined market-based price targets are reached. As shown through simulations, there could be periods of hedging savings with the hedging strategy if market prices increase or volatility occurs. This strategy received some support from stakeholders in the Workshops and should be approved by the Commission.

[76] Exhibit B-8, CEC Scope A IR 1.4.1.

PART FIVE: CONCLUSION

47. As detailed in Exhibit B-1, Section 2 of the Application, FEI requests Commission approvals for enhancements to the currently established commodity rate setting mechanisms and a medium term fixed price hedging strategy. The enhancements and the hedging strategy are beneficial to FEI customers in that they are intended to mitigate commodity price volatility and capture opportunities to provide customers with more affordable rates.

48. In conclusion, FEI submits that the approvals sought in the Application should be approved as filed.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated: April 6, 2016

[original signed by Song Hill]

Song Hill
Counsel for FortisBC Energy Inc.