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April 26, 2011

British Columbia Utilities Commission
Sixth Floor
900 Howe Street
Vancouver, B.C.
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Attention: Ms. Erica M. Hamilton, Commission Secretary

Dear Ms. Hamilton:

Re: FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI")[1] (collectively the "Companies")

Price Risk Management Review of Objectives and Hedging Strategy and FEI 2011-2014 Price Risk Management Plan ("PRMP")

Final Written Submissions of the Companies

On January 27, 2011, the Companies filed the Application as referenced above. In accordance with Commission Order No. G-23-11 setting out the Regulatory Timetable for the review of the Application, the Companies respectfully submit the attached Final Written Submissions.

If there are any questions regarding the attached, please contact Mike Hopkins at (604) 592-7842.

Yours very truly,

FORTISBC ENERGY INC.

Original signed by: Shawn Hill

For: Diane Roy

Attachment

cc (e-mail only): Registered Parties

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[1] Formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. respectively.

BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF the *Utilities Commission Act,*
R.S.B.C. 1996, Chapter 473 (the "*Act*")

and

FortisBC Energy Inc. and

FortisBC Energy (Vancouver Island) Inc.

(the "Companies")

Price Risk Management Review

Final Written Submissions of the Companies

April 26, 2011

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A. INTRODUCTION

I. Introduction

1. In this Application, FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI"), collectively the "Utilities", are seeking:

- The Commission's endorsement of the price risk management primary objectives which have been reviewed in light of developments including the introduction of the Clean Energy Act and increased domestic natural gas supply; and

- Approval of the FEI 2011-2014 Price Risk Management Plan (the "Plan"), dated January 27, 2011, which includes the implementation strategy and hedging instruments necessary to meet the objectives.

2. The results of the review undertaken of the objectives are reflected in the Review of Price Risk Management Objectives and Hedging Strategy report (the "Review Report"). The review confirmed the validity of the original price risk management objectives. Among the primary objectives validated by the review are: improving the likelihood that natural gas remains competitive with other sources of energy, primarily electricity; moderating the volatility of market gas prices and their effect on rates for customers; and reducing the risk of regional price disconnections. An underlying objective is to meet these primary objectives at the lowest reasonable cost to customers.

3. To date, the hedging programs of the Utilities have met these primary objectives. The Price Risk Management Plans ("PRMPs") have mitigated significant amounts of market price volatility, providing customers with relatively stable and competitive rates at a modest cost over time. However, as part of the 2011 Plan, FEI has proposed enhancements to the hedging strategy be made such that potential hedging costs are reduced while still effectively meeting the established objectives. The proposed hedging strategy, developed by the consultant RiskCentrix, LLC ("RiskCentrix") and recommended by FEI within the Plan, serves to continue to meet these objectives while reducing the potential for significant out-of-market outcomes. The enhanced hedging strategy is more responsive to changes in market conditions and so should be more effective regardless of the market price environment. Ultimately, this provides

market price volatility protection for customers, positions FEI to offer competitive rates and helps minimize costs, in the best interests of customers.

4. For the reasons summarized above, and developed in detail below, the Utilities respectfully submit that the Commission should confirm the continued validity of the established objectives and approve the Plan.

II. Overview

5. The primary objectives of the Plan are consistent with past price risk management plans of the Utilities that have been reviewed and accepted by the Commission. Periodic review, however, will ensure the objectives continue to be appropriate in light of significant market and other developments. The two most significant developments that have led to the current review of the objectives are the Clean Energy Act and increased domestic gas supply, which are fully explored in the Review Report. The Utilities continue to believe that the objectives are appropriate in light of the Clean Energy Act and increased gas supply and are in the best interests of customers.

6. As discussed in Section 4.4.3 of the Review Report, while the Clean Energy Act prescribes significant additions to British Columbia's electricity infrastructure and increased sources of renewable energy supply, the impacts of these changes on future electricity rates are uncertain[1]. For example, most recently it has been announced that the BC Ministry of Energy and Mines department has formed a panel tasked with reviewing the recent British Columbia Hydro and Power Authority ("BC Hydro") requested rate increases[2]. The recommendations of this panel will be included in an amended BC Hydro rate application to be submitted to the Commission later this year. This review is expected to result in a moderation of future BC Hydro rate increases relative to previous forecasts, which will impact the competitive position of natural gas going forward. As discussed in Section 4.4 of the Review Report, the Utilities are challenged with respect to electricity competitiveness even if 100% of BC Hydro's current projected electricity rate increases would have been implemented[3]. As discussed in Section 4.4.1 of the Review Report, maintaining competitiveness helps maintain or increase natural gas

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1 CEC IR 1.30.1, 1.32.1.
2 BCUC IR 2.1.4.
3 CEC IR 1.31.2, 1.32.1, 1.32.2.

system throughput and reduces the demand on the electricity infrastructure, which is in the best interests of both natural gas and electricity consumers in BC.

7. The recent surge in unconventional natural gas production[4] has created greater North American natural gas supply certainty[5]. This, in combination with weakened natural gas demand due to the recent recession, has depressed natural gas prices. However, market natural gas prices and volatility will continue to impact the competitiveness of natural gas going forward. As discussed in Section 3 of the Review Report, there are many supply and demand factors that will influence North American, as well as regional, market gas prices in the future[6]. Both short term factors, such as sudden and unforeseen increased weather demand or hurricane disruptions, and long term factors, such as increased gas generation and industrial demand recovery, will impact natural gas prices. The recent nuclear power plant crisis in Japan is just one example of an unforeseen event that may have longer term impacts on the use of nuclear power and potentially increasing natural gas demand and potentially putting upward pressure on natural gas prices in North America.

8. The price risk management plans of the Utilities provide the implementation strategy and hedging instruments necessary to meet the objectives of competiveness and rate stability. To date, the hedging programs of the Utilities have met these objectives. The PRMPs have mitigated significant amounts of market price volatility, providing customers with relatively stable and competitive rates at a modest cost over time. However, as a result of this review, FEI has proposed enhancements to the hedging strategy so that it is more responsive to shifts in market conditions and reduces the potential for significant out-of-market outcomes in meeting the objectives. This includes a reduction in programmatic hedging, greater use of options, if necessary, under the defensive hedging strategy, and the value hedging strategy to capture favourable market prices. Ultimately, these changes enable the Plan to provide market price volatility protection for customers, position FEI to offer competitive rates and helps reduce costs, in the best interests of customers.

9. Pursuant to Commission Order No. G-23-11, the Commission determined that a written hearing process should proceed to review the objectives of the Plan prior to making a

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[4] Unconventional natural gas refers to production from shale gas, tight sands gas and coal bed methane. Conventional natural gas is that related to vertically drilled production from traditional sources. Unconventional and conventional natural gas comprises total natural gas production.

[5] Section 3 of the Review Report.

[6] BCOAPO IR 1.4.1, 1.11.2, 2.2.1 and CEC IR 1.13.2, 1.14.1, 1.14.2, 1.16.1, 1.16.2, 1.18.1, 1.19.1, 1.20.1.

determination on the need for a hedging program. The Commission Order also allowed FEI to proceed over the course of the proceedings and on an interim basis with implementation of certain components of the hedging strategy, specifically the value and programmatic hedging as well as the Sumas basis swaps. This has enabled FEI to capture attractive prices for customers in the current favourable market price environment. Permission to implement the defensive hedging strategy on an interim basis was not granted by the Commission. Given the current depressed price environment, the defensive hedging protocols would not have been triggered during this time in any case. However, the defensive hedging component of the strategy will provide greater protection to customers when in a high price and/or volatile environment, and therefore is an important part of the overall hedging strategy. FEI respectfully submits that all the components of the proposed strategy are required to be able to effectively hedge prices and provide the appropriate protection to customers. As such FEI is requesting approval of the Plan as filed.

III. Organization of this Submission

10. The remainder of this submission is organized as follows:

- Section 2 explains why the existing price risk management primary objectives remain appropriate and in the best interests of customers.
- Section 3 explains how the price risk management plan has met, and with the proposed adjustments will continue to meet, the primary objectives.
- Section 4 describes the other mechanisms which compliment, but do not replace, hedging in moderating market price volatility and rate impacts and maintaining competitive rates for natural gas customers.

B. MEETING THE OBJECTIVES IS IN THE BEST INTERESTS OF CUSTOMERS

11. The price risk management primary objectives provide the basis for the Utilities' price risk management activities. In this section the Utilities address the assessment of the price risk management primary objectives in light of changes in the policy context and market conditions. The Utilities submit that the evidence validates the existing price risk management primary objectives as continuing to be in the best interests of customers. These primary objectives include reducing rate volatility for customers (including mitigating the risks of regional price disconnections) and maintaining natural gas competitiveness with other sources of energy.

I. Customers Desire Rate Stability

12. A primary objective of the price risk management activity has been, and should remain, reducing the impact of market price volatility and regional price disconnections. This meets the expectations of customers, is consistent with hedging programs in place at other utilities, and also helps to allow natural gas to remain a competitive option relative to other energy sources.

13. Customer preference is an important consideration in developing the primary objectives. Research shows that natural gas rate volatility is a concern for many customers and that, generally, they prefer some degree of rate stability. There is strong evidence for this preference, including customer surveys, a recent focus group, and customer complaints and media attention when natural gas rates increase, as discussed in Section 4.5.1 of the Review Report and in responses to information requests[7]. The research shows that natural gas bills are among the more significant payments associated with household budgets and that many customers cannot afford large increases in these payments. As discussed in the response to BCUC IR 1.4.1.4, the Residential Customer Price Volatility Preferences Study (the "Study"), provided in Appendix B of the Review Report, revealed that, on average, residential customers could only tolerate annual bill increases of 16% based on the total bill. For customers with lower than average total bills, the Study revealed that they are more sensitive to rate volatility and have less tolerance for rate changes, and are willing to accept natural gas bill increases of only

[7] BCUC IR 1.7.1.2, 1.7.1.4, 1.12.1.1, 1.12.1.2, 1.13.3, 2.7.1.

11% annually[8]. A more recent focus group confirmed these customer preferences for rate stability and showed that the majority of respondents favoured a controlled regulated variable rate over the true variable or absolute fixed rates[9]. Based on this evidence, the Utilities believe that the objective of reducing the impact of market price volatility and regional price disconnections on rates should be a key focus of price risk management activity.

14. This objective is also shared by other Canadian jurisdictions that employ hedging programs, as discussed in Section 4.1.1 of the Review Report. Other utilities also recognize that hedging effectively mitigates the impacts of market price volatility on natural gas rates for customers.

15. Managing rate volatility also helps with the objective of competitiveness, which is also in the best interests of customers. As discussed in Section 4.4.6.1 of the Review Report, volatility in natural gas rates can adversely impact the competitiveness of natural gas with other sources of energy and ultimately result in customer migration away from natural gas.[10]

16. Thus, there is justification for retaining as primary objectives of the price risk management activity the reduction of impacts due to market price volatility and regional price disconnections.

II. Achieving Competitiveness Benefits Customers

17. A second objective of the price risk management activity has been, and should remain, maintaining competitiveness with other sources of energy. Achieving natural gas competitiveness with other sources of energy is in the best interests of natural gas customers, and British Columbia's energy consumers generally. The Utilities' hedging program has taken on even greater significance in the new policy environment in British Columbia.

18. Natural gas price competitiveness is important in retaining and attracting natural gas customers. By maintaining existing and attracting new customers, the Utilities are able to maintain or increase system throughput which benefits natural gas customers through stable

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[8] Appendix B of the Review Report (Residential Customer Price Volatility Preferences Study, Page 4) and CEC IR 1.6.1.
[9] Section 4.5.1.2 of the Review Report and BCUC IR 1.12.1.1.
[10] Section 4.4.6.1 of the Review Report and CEC IR 1.33.1, 1.40.1.

delivery rates. Given that much of the Utilities' cost of service is fixed in nature, and as discussed in Section 4.4.1 of the Review Report, migration of customers away from natural gas to other sources of energy reduces system throughput volumes and could significantly increase delivery rates and the annual bill impacts for customers[11]. The rate challenge associated with declining throughput, and its long-term significance to customers and the Utilities, has been addressed in past Long-Term Resource Plans filed by the Utilities[12].

19. Maintaining natural gas competitiveness with electricity also benefits electricity consumers in BC. As discussed in Section 4.4.1 of the Review Report and the response to CEC IR 1.28.1, customer migration to electricity would also lead to upward pressure on electricity rates as BC Hydro would require new, more costly, sources of power. This rate increase would be in addition to the significant rate increases BC Hydro has already projected for the next few years. Given the costly significant infrastructure additions that BC Hydro is projecting to meet growing electricity demand, ensuring natural gas competitiveness with electricity helps achieve effective utilization of energy resources in BC[13].

20. The carbon tax adds to the competitive challenge of the Utilities[14]. The carbon tax, applicable to natural gas and not electricity consumption, was introduced in BC in 2008 at the equivalent of about $0.50 per GJ. The tax has increased at a rate of approximately $0.25 per GJ each year and will reach $1.50 per GJ in July 2012, the equivalent of $30 per tonne of CO2 emissions. While there is uncertainty regarding the level of carbon tax after this time, as discussed in Section 4.4.2.2 of the Review Report, proponents of the carbon tax and reducing greenhouse gas emissions believe it should continue to be increased after 2012.

21. Given the challenges facing the Utilities in terms of higher capital costs for natural gas versus electric equipment, the carbon tax on natural gas and not on electricity consumption, uncertainty regarding future electricity rates and natural gas market prices and volatility, government policy and public perception regarding natural gas and fossil fuels as discussed in the most recent Long-Term Resource Plan[15], the hedging program is important in meeting the objectives of reducing market price volatility and maintaining competitiveness in the interests of energy all consumers in the Province.

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[11] BCUC IR 1.4.1.12, 2.4.1 and CEC IR 1.28.1.
[12] Section 2.2.3 of the 2010 Terasen Gas Inc. Long Term Resource Plan.
[13] Section 4.4.1 of the Review Report.
[14] Section 4.4.2.2 of the Review Report.
[15] Section 2.2.3 of the 2010 Terasen Gas Inc. Long Term Resource Plan.

III. The Hedging Program Protects All Customers

22. FEI natural gas customers have a choice when selecting their commodity supply. They can purchase their gas from a marketer at a fixed rate or remain with the FEI standard variable rate offering. Although the hedging program is of particular importance for customers who do not enrol with marketers, as discussed in the previous section it also supports maintaining or attracting new customers on the natural gas system which benefits all customers.

23. The Customer Choice program, currently available for FEI customers, provides natural gas customers with a choice in terms of their commodity rates. As discussed in responses to several information requests[16], under this program those customers that prefer absolute rate certainty for a fixed period of time and are prepared to accept the terms of a marketer's fixed price offerings could chose to enrol in a marketer's service offerings.

24. FEI does not consider its variable standard rate offering to be in competition with marketers' fixed rate offerings, as these offerings are different and distinct[17]. FEI provides an appropriate balance of rate volatility mitigation, competitiveness with other sources of energy and market price signals, and also passes through the commodity costs without any profit margin. Marketers provide absolute rate certainty through longer term fixed rate offerings, with no variability in rates over the selected term, and subsequently the rate will include a risk premium as well as an additional profit mark-up[18]. The hedging program of FEI is critical in protecting customers that remain with the standard variable rate offering from market price volatility and providing competitive rates.

25. FEI is concerned with the competitiveness of the marketer offerings with other sources of energy because uncompetitive natural gas rate offerings, regardless of whether provided by FEI or marketers, results in migration to other sources of energy and ultimately higher delivery rates for all natural gas consumers.[19] The level of customer complaints and the recent declining trend in marketer enrolments indicates that customers are not willing to pay significant premiums over average market prices in order to achieve absolute rate certainty[20]

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[16] BCUC IR 1.4.1.5, 1.4.2.1, 1.4.2.2, 1.5.1.3, 1.5.1.4.
[17] BCUC IR 1.4.1.6.
[18] BCUC IR 1.4.1.9, 1.4.2.1.
[19] BCUC IR 1.4.1.6, 1.4.2.4 and CEC IR 1.24.2.
[20] BCUC IR 1.7.1.4, 1.7.1.5, 1.13.1.1, 1.13.1.2 and BCOAPO IR 1.10.2, 2.6.2.

even though in general customers prefer some level of rate stability[21]. Therefore, it is important for FEI to continue to meet the objectives at a reasonable cost for customers that remain with the FEI standard variable rate offering over time. The need for the Utilities to deliver on the objectives in a cost effective manner is addressed further in section 3.1 below.

IV. RiskCentrix Validation of Objectives

26. The Utilities retained RiskCentrix, a recognized expert in the development of hedging programs, to review the Utilities objectives and hedging strategy[22]. As discussion in Section 7 of the Review Report, RiskCentrix has extensive experience in designing and implementing commodity risk mitigation programs for natural gas and electric utilities. RiskCentrix's expert opinion is that a hedging program should include appropriate objectives and take into consideration strategies that are responsive in different market price environments[23]. As discussed in Appendix A of the Review Report, RiskCentrix reviewed the objectives and hedging programs of the Utilities and determined that the objectives continue to be valid. As discussed on page 4 of the RiskCentrix report in Appendix A of the Review Report, RiskCentrix states: "Qualitatively, objectives appear appropriate in light of Terasen's position and market realities. The net reduction of volatility is typical of utility risk programs, and more specifically, the competitiveness objective appears appropriate in light of Terasen's filed variable electricity proxy price."[24] [25] The Utilities submit that RiskCentrix's expert assessment is compelling and should be accepted.

V. Summary Regarding Validity of Objectives

27. The Utilities submit that the evidence validates the existing price risk management primary objectives of market price volatility reduction, mitigation of regional price disconnections and maintaining competitiveness as continuing to be in the best interests of

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[21] Section 4.5.1 of the Review Report and BCUC IR 1.7.1.2, 1.7.1.4, 1.12.1.1, 1.12.1.2, 1.13.3, 2.7.1.
[22] Section 7 and Appendix A of the Review Report.
[23] Page 5 and 6 of the RiskCentrix Findings and Recommendations Regarding Energy Risk Mitigation Program Report in Appendix A of the Review Report.
[24] RiskCentrix Findings and Recommendations Regarding Energy Risk Mitigation Program, December 27, 2010, Page 4 in Appendix A of the Review Report.
[25] Effective March 1, 2011 Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. are known as FortisBC Energy Inc. and FortisBC Energy (Vancouver Island) Inc.

customers. As such, the Utilities respectfully request that the Commission endorse the objectives.

C. THE PRICE RISK MANAGEMENT PLANS MEET THE OBJECTIVES

28. As discussed above, the objectives provide an important framework for the development of the price risk management plans. In this section, the Utilities discuss the evidence demonstrating that the price risk management plans have achieved the intended objectives, and address the proposed adjustments to the plan in response to changing policy and market conditions. The Utilities submit that hedging has been effective to date in meeting the objectives at a reasonable cost when evaluated over the appropriate horizon. The proposed hedging strategy, developed by the external expert RiskCentrix and recommended by FEI within the Plan, continues to meet these objectives while reducing the potential for significant out-of-market outcomes.

I. Past Price Risk Management Plans have met the Objectives

29. The Utilities' Price Risk Management Plans have been successful in the past in meeting the primary objectives.[26] The Utilities discuss below how the PRMPs have provided customers with rate stability and maintained competitiveness at a modest cost over time. The ability of the PRMPs to meet the objectives supports the continuation of an appropriate hedging strategy in the future.

30. For FEI, as discussed in Section 2.4.1 of the Review Report, the hedging program has helped mitigate significant amounts for market price volatility and maintained competitive rates for customers in the past. Without the use of hedging, FEI rates would have been more volatile, as discussed in the responses to BCOAPO IR 1.2.2 and IR 1.2.4. The graph below, taken from the response to BCOAPO IR 1.2.2 demonstrates greater rate volatility would have occurred without hedging by providing a comparison of market gas prices, electric equivalents, the actual FEI residential rate with hedging and the estimated FEI residential rate without hedging.

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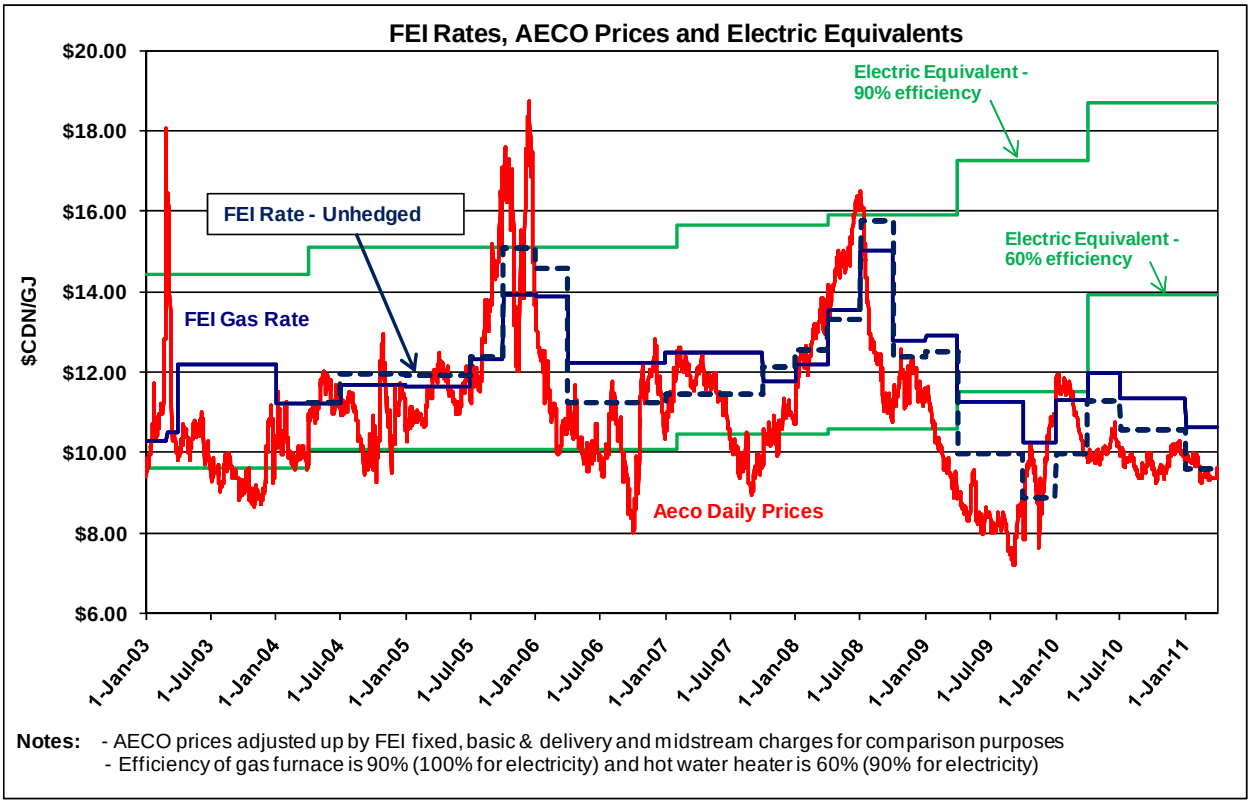
[26] BCUC IR 2.1.4.

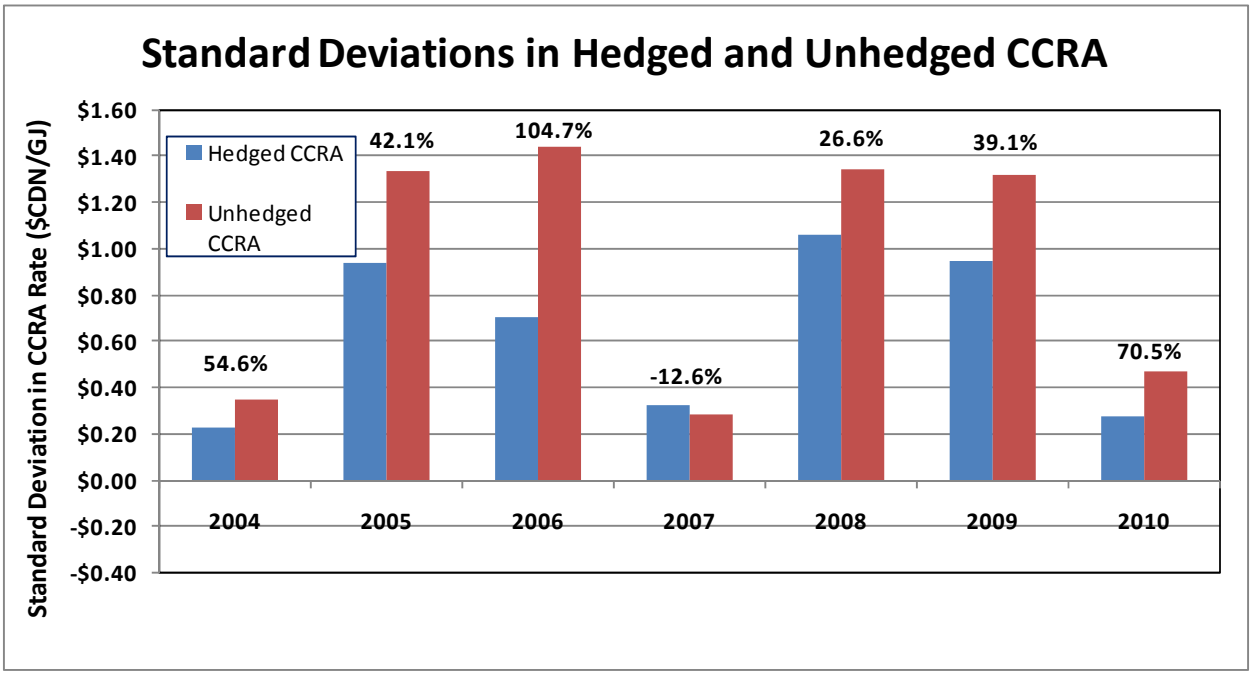
Figure 1: FEI Rate, AECO Prices and Electric Equivalents[27]



31. The following figure is taken from the response to BCOAPO IR 1.2.4, and shows the standard deviations of the actual Commodity Cost Reconciliation Account ("CCRA") rate and the illustrative CCRA rate if no hedges were in place since April 2004. This evidence demonstrates that there would be greater variability in rates without the use of hedging.

[27] BCOAPO IR 1.2.2.

Figure 2: Standard Deviations by Year for Hedged and Unhedged CCRA Rate[28]



32. With respect to FEVI, as discussed in Section 2.4.2 of the Review Report, the hedging program as defined within previous PRMPs has helped FEVI to manage gas costs which has enabled FEVI to maintain residential rates near the electric equivalent benchmark. This has been critically important for FEVI given its relatively small customer base and competitive challenge, especially given the pending expiration of the royalty revenue arrangement with the Province at the end of 2011. Meeting the objective of reducing market price volatility through the hedging program has provided FEVI with greater stability and certainty regarding gas costs, which has enabled FEVI to maintain stable rates for customers.

33. The evidence summarized above supports the Utilities' submission that the past Price Risk Management Plans have successfully met the primary objectives of reducing the impacts of market price volatility on rates and maintaining competitiveness. With the proposed enhancements to the hedging program discussed later in this submission, the 2011 Plan is an appropriate strategy to continue to meet the objectives going forward.

[28] BCOAPO IR 1.2.4.

II. Reasonable Cost

34. An underlying principle in undertaking price risk management is to achieve the objectives at a reasonable cost. In this section, the Utilities address the indirect and direct costs of the price risk management plans and address the implications of those costs for evaluating the plan.

35. The Utilities have been successful in meeting the objectives at a modest cost for customers over time. However, the direct costs of hedging have been skewed by the results from the last two years due to an unforeseen and unprecedented extended period of price declines. Given these recent changes in the external environment, it is appropriate to review the hedging strategy to determine if there are enhancements that could be made to reduce the direct hedging costs if similar or other unforeseen and significant circumstances were to occur again in the future. The proposed enhanced hedging strategy submitted by FEI is designed to help in this regard.

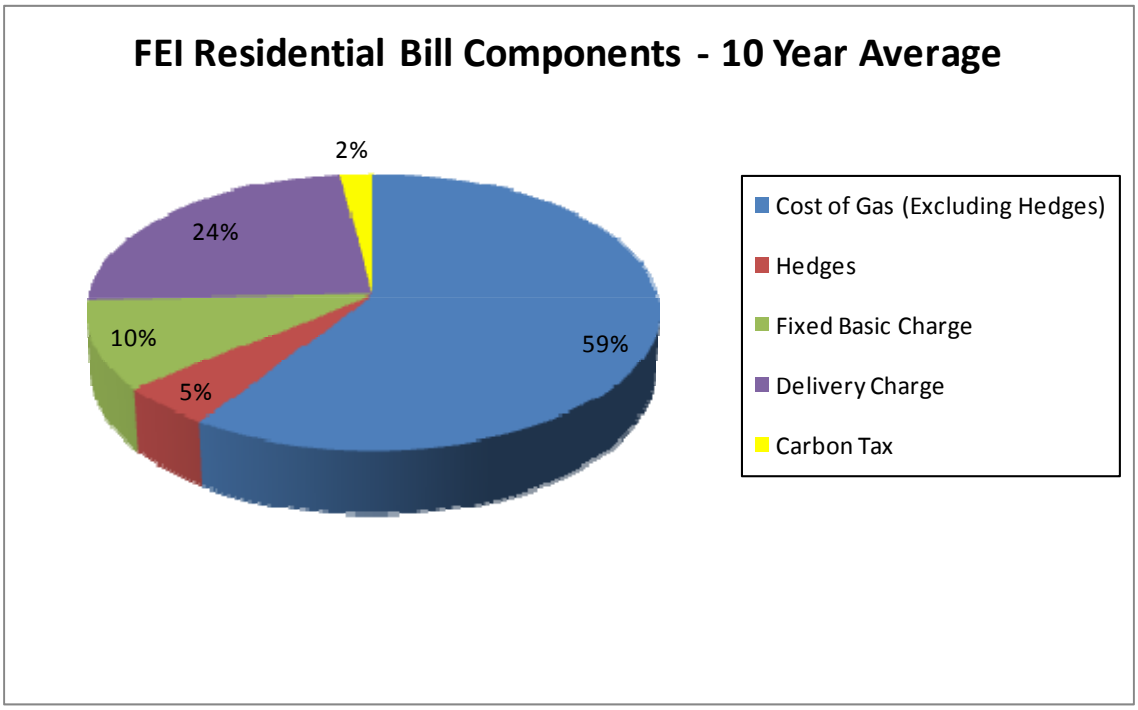
36. The costs associated with price risk management include both indirect and direct costs. Indirect costs are those related to the management and administration of the hedging program which include price risk management, credit and compliance, legal, regulatory, market information and any applicable external consultant work required from time to time. These costs, which are recovered from customers in gas costs, are managed prudently and appropriately and are subject to annual review by the Commission. These costs are not material on a per customer basis and are estimated to be in the order of only $0.25 per customer per year.[29] The most significant costs with any hedging program are the direct costs. The direct costs include any hedging costs (or gains) resulting from the effective hedge prices relative to market prices.

37. On an average basis over the past decade, the direct hedging costs have been modest in light of the benefits of reduced market price volatility and maintaining competitiveness for customers. For FEI, on an annual bill basis, the average hedging costs equate to an approximate annual cost per customer of $56[30]. Graphically, the cost of hedges over the past

[29] BCOAPO IR 1.1.4.
[30] BCOAPO IR 1.1.4.

years compared to the other components of the residential customer bill, including carbon tax, is as follows[31].

Figure 3: FEI Residential Bill Components – 10 Year Average



38. The graph shows that, on average, the hedging costs represent only a small portion of the total bill. However, the benefits of the hedging program are significant and include protecting customers from adverse market price movements and relatively stable rates, as indicated in Figures 1 and 2.

39. While on average the hedging costs have been modest over the last ten years, the direct costs for the last two years have been significant[32] due to a variety of factors. For example, the global recession which began in mid 2008, which was the worst recession in decades, was certainly an unforeseen and unprecedented event which significantly reduced industrial and commercial natural gas demand[33]. Furthermore, the technological drilling developments and surge in shale gas production in the last two years has also had a significant

[31] BCOAPO IR 1.1.4.
[32] Section 3 of the Review Report and BCUC IR 1.1.1.1, 2.1.1, 2.1.2 and BCOAPO IR 1.1.3, 1.1.4, 1.2.5, 1.7.1, 2.1.3, 2.13.2.
[33] Section 3.3 of the Review Report and BCUC IR 2.1.1 and 2.1.2.

impact on the natural gas marketplace[34]. The combination of these events has resulted in natural gas prices, on a forward looking basis, falling to levels not seen in many years resulting in hedging costs from prior hedges that were put in place in the higher price environment prior to 2009.

40. While these costs in the past two years are significant, they are generally not representative of the hedging results of the last decade[35]. The Utilities submit that the reasonableness of hedging gains and costs should be looked at over a longer period of time, given that unusual natural gas market events in any particular year may skew results[36]. Periodic reviews of and enhancements to the hedging strategy can help reduce the potential for significant hedging costs if another prolonged period of market price declines was to occur. The proposed enhanced hedging strategy submitted by FEI is designed to help in this regard.

41. As discussed in the context of the key objectives, hedging is about providing insurance to protect gas customers from exposure to significant price volatility and economic hardship[37]. It is expected that on average there will be a cost associated with protecting customers from market price volatility, and the key is to ensure that those costs remain reasonable in light of the key objectives achieved. Put another way, hedging is not about market speculation or attempting to "beat the market" to generate hedging gains, as discussed in Section 4.7 of the Review Report and the responses to information requests[38]. The pursuit of speculation regarding market price movements could expose customers to significantly greater market price volatility or hedging costs if price predictions prove to be wrong[39]. The success of the hedging program should be measured by whether the objectives can be achieved at a reasonable cost, not by whether hedging gains can be achieved[40].

42. The Utilities believe that improvements can be made with regard to reducing the potential for significant hedging costs while meeting the objectives on a forward looking basis. The proposed hedging strategy, discussed below, accomplishes this goal.

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[34] Section 3.2 of the Review Report and BCOAPO IR 2.13.2.
[35] BCUC IR 1.1.1.1, 2.1.1.
[36] BCUC IR 2.1.1.
[37] Section 4.7 of the Review Report and BCUC IR 1.14.1 and BCOAPO IR 1.1.3.
[38] BCUC IR 1.5.1.1, 2.1.2 and BCOAPO IR 1.1.3, 2.6.1 and CEC IR 1.46.1.
[39] BCOAPO IR 1.2.3.
[40] BCUC IR 1.5.1.1, 2.1.2 and BCOAPO IR 1.1.3, 2.6.1 and CEC IR 1.46.1.

III. The Enhanced Hedging Program Provides Improvements

43. Although the hedging program has brought benefits to customers in the past, the changes in the external environment have made it appropriate to review the plan. In this section, the Utilities describe the enhancements developed with the involvement of an external expert that are being proposed to the hedging program. The proposed enhanced hedging program, included within the Plan and discussed within Sections 7 and 8 of the Review Report, will better position FEI to deliver on the objectives while improving on the hedging outcomes by reducing the likelihood of significant hedging costs due to unforeseen market developments.

44. The Utilities retained the consultant RiskCentrix, a recognized expert in the development of hedging programs, to develop the plan. As discussed in Appendix A of the Review Report, RiskCentrix reviewed the objectives and hedging programs of the Utilities. RiskCentrix determined that the objectives continue to be valid in light of the Clean Energy Act and increased domestic gas supply and recommended enhancements to the hedging strategy, discussed below, to meet these objectives[41]. As discussed in Section 7.1.3 of the Review Report, the recommended strategies were tested under different market pricing scenarios to determine their effectiveness in meeting the objectives.

45. The proposed enhanced hedging program involves a number of changes that will better position FEI to deliver on the objectives and improve on outcomes. They are: the reduction in programmatic hedging, value hedging to capture low price opportunities, basis hedging to mitigate regional price disconnections, and the greater use of options as part of the defensive hedging component in high cost and/or volatile price environments. The enhanced hedging strategy moves away from the historical programmatic approach and is more responsive to changes in market conditions and, as such, reduces the potential for significant hedging costs going forward.

46. Decreasing programmatic hedging is an important aspect of the enhanced hedging strategy[42]. Programmatic hedging includes layering in hedges over time, often referred to as dollar cost averaging, and provides some base amount of market price volatility reduction, given customers' desire for some degree of stability. While programmatic hedging works well in

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[41] Page 4 of the RiskCentrix Findings and Recommendations Regarding Energy Risk Mitigation Program Report in Appendix A of the Review Report.

[42] Section 7.1.2.1 of the Review Report.

rising or cyclical markets recent results show that it is not as effective if there are significant shifts in the market. RiskCentrix's approach of decreasing the amount of programmatic hedging and increasing the amount of hedging that is implemented in response to changing market conditions reduces the potential for significant out-of-market outcomes. The proposed amount of programmatic hedging is about half of what FEI has used in the past. The programmatic hedging is implemented on a pro-rata basis according to a predefined implementation schedule that extends out three years in time.

47. The value hedging strategy developed by RiskCentrix positions FEI to take advantage of low market price environments to lock in value for customers by layering in hedges on a weekly basis if predefined price targets are reached[43]. The value hedging targets are based on consideration of hot water heating electric equivalent benchmarks, the application where FEI is challenged the most, recent historical market prices as well as FEI's current CCRA rate, which is at its lowest level in many years. Locking in prices at this level provides value for customers in meeting the objectives.

48. The basis hedging strategy has been an important component of the hedging program in managing Sumas price disconnections during the peak winter demand periods[44]. By locking in the differential between Sumas and AECO prices only, protection against significant Sumas price increases is achieved while still enabling downward price participation if AECO prices decline in the future. Constrained infrastructure combined with increasing demand in the Pacific Northwest region has increased the frequency of these price disconnections in recent years[45].

49. The defensive hedging strategy provides FEI with the tools to manage increasing market prices or volatility[46]. It is used only if predefined defensive tolerances are breached and so may not be used at all if market prices and volatility do not increase significantly. The defensive tolerances are based on consideration of competitive benchmarks as well as customers' preferences for rate stability. An increased use of options is a critical component of

[43] Section 7.1.2.3 of the Review Report.
[44] Section 7.1.2.4 of the Review Report.
[45] BCOAPO IR 1.11.1, 1.11.2 and CEC IR 1.21.1, 1.22.1, 1.44.1.
[46] Section 7.1.2.2 of the Review Report.

the defensive hedging strategy as options enable capping upside price movements while still enabling downside price participation if market prices fall in the future[47].

50. RiskCentrix's analysis supports this enhanced hedging program, which includes programmatic, value, basis and defensive hedging components in combination, as discussed in Section 7.1.3 and Appendix A of the Review Report[48]. The results indicate that the recommended strategy provides effective market price volatility mitigation and competitiveness with lower potential hedging costs if market prices fall significantly. As such, the recommended hedging program meets the objectives of reducing market price volatility and maintaining competitiveness at a reasonable cost for customers.

[47] BCUC IR 1.3.1.1, 1.3.1.2, 1.3.1.3, 1.3.1.4, 1.3.1.7, 1.3.1.9, 1.9.1.1, 1.9.1.2, 1.9.1.3 and BCOAPO IR 2.2.2.
[48] CEC IR 1.1.1, 1.1.2, 1.1.3, 1.4.1, 1.51.1, 1.51.2.

D. OTHER MECHANISMS COMPLIMENT HEDGING IN MEETING OBJECTIVES

51. The Utilities use other mechanisms which compliment hedging in moderating rate impacts and maintaining competitive rates for natural gas customers. The various mechanisms, which include the use of deferral accounts and quarterly rate setting mechanism, the Equal Payment Plan and the use of storage, are discussed in the following sections. The Utilities submit that, while all of these mechanisms help to some degree in achieving the objectives, they cannot individually or collectively replace the value of cost effective hedging in fully meeting the objectives.

I. FEI Deferral Accounts and Quarterly Rate Adjustment Mechanism

52. In this section, the Utilities address the importance of utilizing the deferral accounts and quarterly rate setting mechanism in conjunction with hedging programs.

53. The deferral accounts capture variances between the actual gas costs and the forecast gas costs as recovered in rates and the deferral mechanisms, which are reviewed quarterly to enable these variances to be recovered from, or refunded to, customers as part of future rates forecast over a twelve month period. These deferral accounts ensure that 100% of the actual gas costs are borne by customers, including any costs above or below those forecast. FEI uses a quarterly rate adjustment review mechanism to effectively manage the deferral account balances from becoming too large, as well as providing appropriate price signals. Significantly higher deferral account balances could result if market prices increased significantly in relation to the rates being charged to customers. Higher deferral balances can impact FEI's short-term borrowing capacity and ultimately its risk profile, as discussed in Section 5.1 of the Review Report. Larger deficit deferral account balances would likely require FBU to increase its credit capacity in order to manage its monthly working capital requirements[49] and result in the need for larger rate changes to be flowed through to customers[50].

54. As discussed in Section 5 of the Review Report, these deferral accounts do not affect or help manage the underlying commodity prices embedded in the cost of gas, which will

[49] CEC IR 1.49.2.
[50] CEC IR 2.3.1.

eventually flow through to customers[51]. Customer rates would still eventually have to catch up for any variances captured in the deferral account. RiskCentrix emphasizes on page 24 of its report in Appendix A: "Generally deferrals do not serve as an alternative to an effective hedging program. A short-duration deferral mechanism adds modest additional stability when used in conjunction with a robust hedge program; it is inferior as a stand-alone approach in the absence of a hedge program."[52] RiskCentrix also states in its report in Appendix A: "The risk of deferral accounting is that deferrals could accumulate to unsustainable levels resulting in the need to ultimately pass through more radical costs."[53] The hedging program, on the other hand, does impact the underlying commodity prices and so directly manages gas costs.

55. Therefore, because the use of the deferral accounts and quarterly rate setting mechanisms do not impact the underlying market prices and gas costs, they are complimentary to, and not substitutes for, an effective hedging program[54].

II. The Equal Payment Plan ("EPP")

56. The EPP also provides some degree of volatility mitigation for the Utilities' customers, as discussed in Section 4.5.1.5 of the Review Report. However, for the reasons discussed below, the EPP should also be complimentary to, and not serve as a substitute for, an effective hedging program.

57. The EPP provides customers with monthly bill payments based on equal volumes over a twelve month period, based on their previous year's consumption volumes. While this acts to smooth the impact of customers' consumption patterns on bill payments it does not affect underlying gas prices as per the price risk management program[55]. In other words, under the EPP, consumers will ultimately have to pay the rate impacts of any market price fluctuations as each customer's account is trued up to the actual usage and rates at the end of the twelve months. Furthermore, the monthly EPP instalments are automatically reviewed every three months during the plan year and are adjusted up or down if required to

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[51] BCUC IR 1.8.3, BCOAPO IR 1.2.1 and CEC IR 1.8.2, 2.10.1.
[52] RiskCentrix Findings and Recommendations Regarding Energy Risk Mitigation Program, December 27, 2010, Page 24 in Appendix A of the Review Report.
[53] RiskCentrix Findings and Recommendations Regarding Energy Risk Mitigation Program, December 27, 2010, Page 24 in Appendix A of the Review Report.
[54] BCUC IR 1.8.3, BCOAPO IR 1.2.1 and CEC IR 1.8.2, 2.3.1.
[55] BCOAPO IR 1.9.2, 2.10.1.

reflect significant changes in usage or rates. This is done to avoid significant billing adjustments at year end caused by large changes in weather related consumption or quarterly rates. So, during periods of extremely volatile market prices and subsequent quarterly rate changes, EPP customers may also be subject to quarterly, rather than annual, rate changes. As such, FEI submits that the EPP is not a substitute for active price risk management but rather a way to smooth consumption and payments for customers[56].

58. The hedging program, unlike the deferral accounts and EPP, directly mitigates market price volatility by affecting the underlying commodity cost of gas which is flowed through to customers via rates. The hedging program accomplishes these objectives through the programmatic, defensive, value and basis hedging strategies. As such, FEI believes that the deferral account balances and quarterly rate adjustment mechanisms and EPP work in a complimentary manner to the hedging program but not as substitutes for hedging.

III. The Use of Storage

59. The effective use of storage is another tool used by the Utilities to help manage market price volatility and gas costs. However, because of the reasons discussed below, it cannot replace and effective hedging program but should rather be seen as another complimentary mechanism to help meet the objectives[57].

60. Storage provides both operational and gas cost benefits and enables the Utilities to achieve the Annual Contracting Plan objective of balancing supply reliability, portfolio diversity and cost minimization[58]. Storage provides a physical hedge by realizing and locking in the differential between summer prices and winter prices with the intent being to inject gas in the summer months when gas prices are generally lower for withdrawal in the colder winter months when prices generally tend to be higher. Storage also provides operational flexibility to meet changes in intra-day load requirements when other resources, such as index supply, have already been utilized and arranged on a day forward basis.

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[56] BCUC IR 1.8.3 and BCOAPO IR 1.2.1,1.9.2, 2.10.1.
[57] Section 6 of the Review Report and BCUC IR 2.5.1, BCOAPO IR 1.14.1, 2.18.1, CEC IR 2.8.1.
[58] Section 6 of the Review Report and BCOAPO IR 2.18.1 and CEC IR 2.8.1.

61. Despite these benefits provided by storage in helping achieve the objectives, there are several reasons why it is not a substitute for hedging. Firstly, the amount of seasonal storage that the Utilities can physically contract is primarily limited by the availability of third party storage capacity and the associated pipeline transmission capacity for delivery to the service areas during the winter months, as discussed in the response to BCOAPO IR 2.18.1, and competition from other regional utilities.

62. Secondly, contracting for storage capacity increases associated storage and transportation fixed demand charges. And, as storage balances are usually drawn down at the end of each winter, the price protection associated with storage capacity is generally limited to a single season. With an effective hedging program, price protection can be provided for several years out in time[59].

63. Also, storage injections during the summer could be impacted by any adverse market price movements, such as price increases resulting from production disruptions caused by seasonal hurricanes. The hedging program mitigates adverse market price movements for both summer and winter periods, effectively mitigating significant amounts of this market price risk. While summer prices are typically lower than winter prices due to the higher heating season demand, this has not always been the case. For example, hurricane disruptions to supply in 2005 and the crude oil price run up in 2008 adversely impacted summer prices. Effective use of hedging by locking in prices for summer and winter periods can help mitigate these market price movements while storage is limited in this regard because of the injection of summer priced gas for winter use.

64. The Utilities assess the optimal amount of seasonal storage in the gas supply portfolio as part of the modeling performed to support the Annual Contracting Plan[60]. While the use of storage does play an important role in managing the impacts of market prices on gas costs, based on these considerations, it must be balanced with the hedging strategy and use of deferral balances in combination with the appropriate amount of index-based supply to effectively meet the objectives[61].

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[59] Section 7.1.2.1 of the Review Report.
[60] Section 6 of the Review Report and BCOAPO IR 2.18.1 and CEC IR 2.8.1.
[61] CEC IR 2.8.1.

E. SUMMARY AND CONCLUSIONS

65. The Utilities submit that the objectives, which have been validated by RiskCentrix, continue to be relevant and appropriate and in the best interests of customers. The objectives reflect the expressed desire for some degree of rate stability and the importance of maintaining competitive rates that benefits both natural gas and electricity consumers in BC. The Utilities submit that the Commission should endorse the objectives going forward.

66. The Utilities' hedging programs have met the primary objectives in the past. The Price Risk Management Plans, in combination with other tools such as the use of deferral account balances, quarterly rate adjustment mechanism and storage, have reduced significant amounts of market price volatility and helped maintain competitive rates with electricity, at least on a variable cost basis. The PRMPs continue to be implemented according to internal and Commission approvals and directives and sound governance, controls and resources have ensured prudent management and minimal risk to customers.

67. The policy and market changes experienced in recent years speak to the need to re-assess how the objectives are delivered, but the objectives remain valid. The proposed hedging program, as submitted within the Plan, provides enhancements which better position FEI to reduce the potential for significant hedging costs in meeting these objectives in the future. The enhanced hedging strategy is more responsive to changes in market conditions and particular attention has been paid to reducing the potential for significant hedging costs going forward. As such, FEI respectfully submits that the Commission should approve the Plan in the interests of natural gas customers.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

FORTISBC ENERGY INC. AND FORTISBC ENERGY (VANCOUVER ISLAND) INC.

Original signed:

Shawn Hill

Dated: April 26, 2011