

April 8, 2011

Regulatory Affairs Correspondence
Email: gas.regulatory.affairs@fortisbc.comBritish Columbia Utilities Commission
Sixth Floor
900 Howe Street
Vancouver, B.C.
V6Z 2N3Attention: 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")
Response to the British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2**

On January 27, 2011, the Companies filed the Application as referenced above. On April 1, 2011, the Commission issued IR No. 2. 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 response to BCUC IR No. 2.

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

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



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 1

1.0 Reference: Past Hedging Activity

Exhibit B-3, Response to BCUC IR 1.1.1, pp. 3-4

In the past two years, the gain/(cost) as a percentage of total commodity purchased has resulted in costs in excess of 20% for each of the Utilities and total annual hedging costs have significantly exceeded annual hedging gains for the past 10 years as follows:

FortisBC Energy Inc.

Year	Total Annual Hedging Gains/(Costs) (\$millions) (A)	Total Commodity Purchased (\$millions) (B)	Gain/(Cost) as a percentage of Total Commodity Purchased (A/B)
2000	\$26.4	\$574.5	4.60%
2001	\$(56.3)	\$763.7	(7.37%)
2002	\$(123.9)	\$626.9	(19.77%)
2003	\$8.6	\$721.8	1.19%
2004	\$15.6	\$675.8	2.30%
2005	\$66.2	\$773.5	8.56%
2006	\$(88.1)	\$758.0	(11.62%)
2007	\$(136.8)	\$804.5	(17.01%)
2008	\$(40.9)	\$825.7	(4.96%)
2009	\$(163.1)	\$620.1	(26.29%)
2010	\$(133.8)	\$491.5	(27.23%)

* Total Commodity Purchased is based on the annual commodity costs including hedging gains/costs, net storage activity, and commodity resale.

* Total Commodity Purchased includes Lower Mainland, Inland, and Columbia service areas.

* Figures are provided on a calendar-year basis.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 2

FortisBC Energy (Vancouver Island) Inc.

Year	Total Annual Hedging Gains/(Costs) (\$millions) (A)	Total Commodity Purchased (\$millions) (B)	Gain/(Cost) as a percentage of Total Commodity Purchased (A/B)
2000	n/a	\$44.2	n/a
2001	n/a	\$66.6	n/a
2002	\$0.3	\$49.2	0.57%
2003	\$4.3	\$70.9	6.09%
2004	\$2.6	\$71.9	3.66%
2005	\$5.2	\$94.3	5.49%
2006	\$(5.0)	\$93.0	(5.35%)
2007	\$(6.3)	\$92.3	(6.87%)
2008	\$(1.8)	\$103.1	(1.70%)
2009	\$(19.7)	\$82.0	(24.04%)
2010	\$(15.1)	\$67.9	(22.22%)

- * Hedging activity for FEVI began in 2002.
- * Total Commodity Purchased is based on the annual commodity costs including hedging gains/lcosts, net storage activity, and peaking gas resale.
- * Figures are provided on a calendar-year basis.

1.1 Please explain why the high annual hedging costs occurred in the last two years and identify the key factors leading to the costs.

Response:

The hedging costs incurred in the last couple of years, namely 2009 and 2010, can be attributed to a number of factors that dramatically impacted market prices. Firstly, fixed price hedges were put in place for 2009 and 2010 when forward gas prices were increasing through 2007 and mid 2008. During this period, the natural gas marketplace was under-supplied and crude oil demand was increasing globally and this caused natural gas prices to rise significantly. When natural gas prices collapsed, firstly in response to the recent recession, which started in the second half of 2008, and then in response to the oversupplied environment resulting from shale gas and reached the lowest levels not seen in several years in 2009 and 2010, the result was significant out-of-the market outcomes for the hedges implemented earlier at higher prices.

In past PRMPs FBU had sought approval for greater use of options as part of its price risk mitigation activities. However, the Commission restricted the use of options to about 10% of total hedgeable volumes for the past number of years. The Companies feel that a greater use



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 3

of options, both call options and costless collars, would have helped moderate some of the hedging costs the Companies experienced in the past number of years.

The enhanced hedging strategy proposed in the Review Report recommends a greater use of options, as part of the defensive hedging strategy, up to a maximum utilization of 25% of hedgeable volumes. Options allow for protection against price run ups while also allowing for downside market price participation should prices decline.

- 1.2 Please explain why the portfolio has, over the past ten years, resulted in costs exceeding gains on an overall basis.

Response:

The portfolio has resulted in costs exceeding gains over the past ten years for a number of reasons. As prices spiked during periods over the past ten years, futures prices generally were higher than where prices eventually settled. In other words, the marketplace may have priced into futures prices the perception of tight supply and demand fundamentals, scarcity of supply, increasing demand, and expected cooler than normal winter weather. Additionally, any catastrophic event, such as a hurricane, places a 'fear premium' into futures prices, as was witnessed with Hurricanes Katrina and Rita in the summer of 2005. However, these expected outcomes (such as tight supply/demand balances) did not materialize due to other and unforeseen factors such as weak demand in response to a slowdown in economic activity, excess supply from shale resources, or warmer-than-normal winter weather.

The settlement of eventual prices below the futures price at the time of transacting hedges due to unforeseen and unexpected outcomes has resulted in costs exceeding gains over the past ten years for the Utilities.

Generally speaking, a price risk management program consisting of financial hedges is expected to incur hedging costs that outweigh hedging gains over the long term. The goal of any utility hedging program should not be measured by whether hedging gains can be achieved but by whether the objectives of the price risk management program can be achieved.

Additionally, the success of a price mitigation program over time also depends on when results are measured and the number of years that are included in this measurement. The natural gas marketplace has experienced an unprecedented period of declining prices in response to reduced demand resulting from a global economic crisis and increased supply from shale resources in the past two to three years and has had a skewed effect on hedging outcomes for many natural gas utilities.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 4

In response to the current natural gas marketplace, the Review Report outlines FEI's enhanced hedging strategy that is still geared towards the achievement of the objectives but will now allow more flexibility to respond to changing market conditions and reduce the likelihood of significant out-of-the market outcomes in the future. Reducing the level of programmatic hedges and increasing the use of options will enable FEI in this regard.

- 1.3 Please describe the changes to resources and policies that have been made as a result of the hedging costs incurred in the past two years.

Response:

The Utilities have assumed that the reference to resources in this question is referring to physical gas supply resources required to meet core load requirements as well as management or other resources required to manage and oversee the price risk program. The Utilities have made no material changes to these resources or policies relating to price risk management activities as a result of the hedging costs incurred in the past two years.

However, as described in Section 8 of the Review Report and the concurrently filed FEI 2011-2014 Price Risk Management Plan, FEI has submitted an enhanced hedging program to the Commission for approval. This program is more responsive to changes in market conditions and includes less programmatic hedging and uses value and defensive hedging if market prices fall or increase, respectively. These changes, along with a greater use of options if prices and volatility increase, significantly reduce the potential for significant hedging costs going forward.

Over the past few years, the Utilities have recommended an increase in the use of options in the hedging program in an effort to reduce the potential of significant out of market outcomes. However, Commission approval of previous PRMPs has limited the percentage of options in the portfolio 10%.

- 1.4 Given that the purpose of hedging is to protect the Utilities from future, unforeseen commodity price fluctuations, in management's opinion to what extent has the hedging portfolio achieve this purpose over the past ten years?



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 5

Response:

The Utilities have been successful in protecting customers from unforeseen commodity price fluctuations and also providing rates that are competitive with electricity, at least on a variable cost basis.

As discussed in Section 2.4 of the Review Report, the Utilities have mitigated significant amounts of market price volatility, including the impacts of regional price disconnections, through the effective use of hedging. For FEI, deferral accounts and the quarterly rate adjustment mechanism have also helped in this regard. This is illustrated in the Review Report in Figure 1 on page 10.

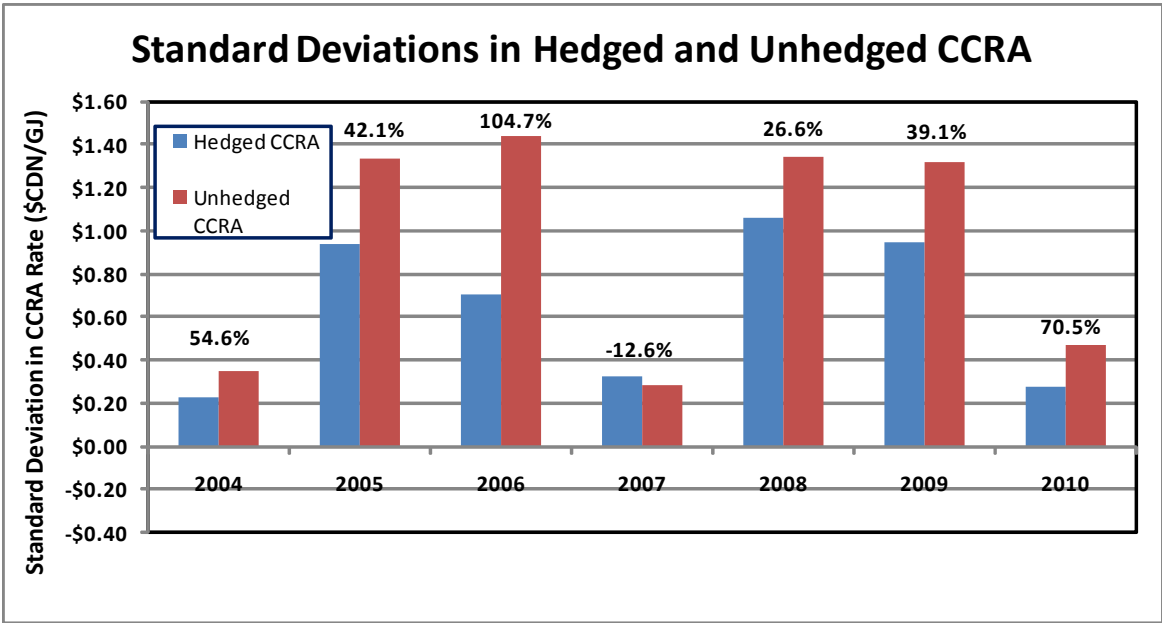
With respect to FEVI rates, the hedging program of FEVI has provided greater gas cost certainty and enabled FEVI to maintain residential rates near the electric equivalent benchmark, thereby protecting customers from market price volatility. The Company notes that with the recent announcement of BC Hydro's rate increase review by the provincial government, there is continued uncertainty on what the future rates for electric customers will be¹. Energy and Mines Minister Rich Coleman appointed a three member panel to conduct an external review of BC Hydro's operating costs, capital requirements, and governance. In the meantime, BC Hydro will proceed with its application to the Commission for an interim rate increase of 9.73 per cent for 2011-12, effective April 1, but pay rebates back to ratepayers for any reduction the review identifies. The graph provided in the Review Report in Figure 2 on page 12 illustrates the historical competitiveness of the FEVI rate to electricity, and that FEVI's hedging program has provided greater gas cost certainty. This has been important given that FEVI is a relatively immature utility, compared to FEI, and faces a greater competitive challenge. The pending expiry of the royalty revenue arrangement with the Province at the end of 2011 adds to this challenge.

With respect to FEI, further evidence of past mitigation of market price fluctuations in terms of FEI commodity (or CCRA) rates was also provided in the response to BCOAPA IR 1.2.4, as shown in the figure below.

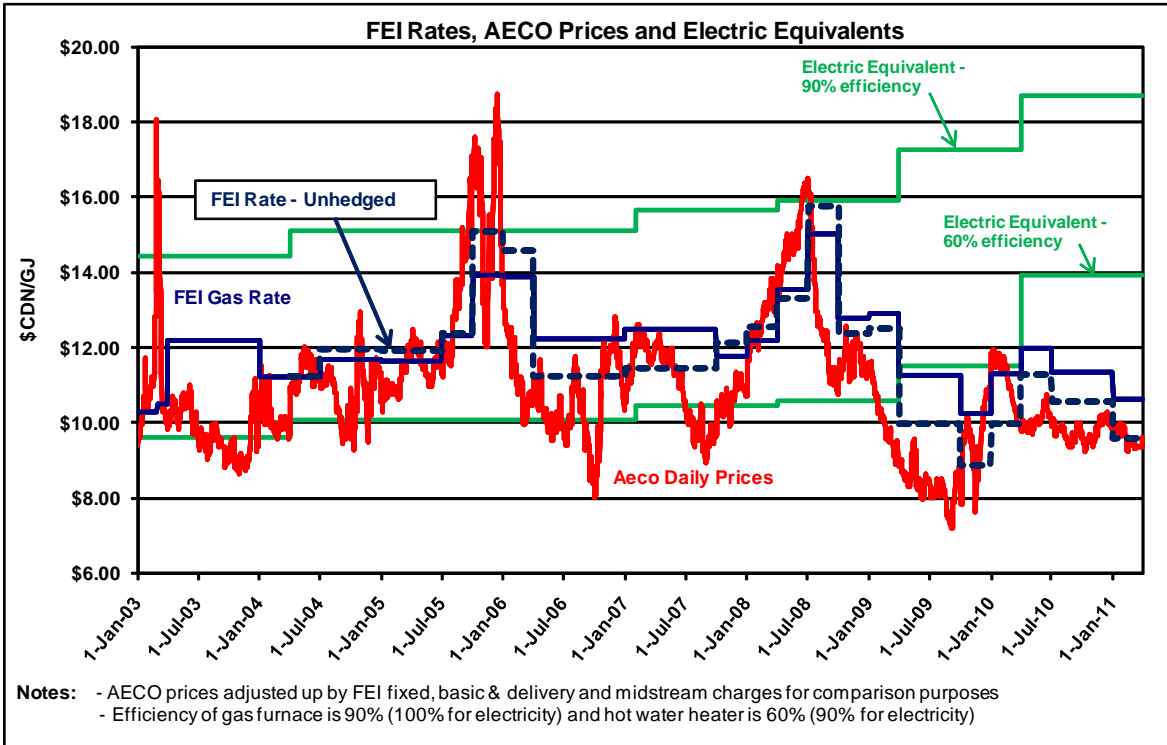
¹ <http://www.cbc.ca/news/canada/british-columbia/story/2011/04/07/bc-hydro-rate-review.html>



<p>FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies")</p> <p>Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")</p>	<p>Submission Date: April 8, 2011</p>
<p>Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2</p>	<p>Page 6</p>



The impacts of the hedging program on mitigating unforeseen commodity price fluctuations for FEI customers was also illustrated in the response to BCOAPA IR 1.2.2, with the figure presented here.

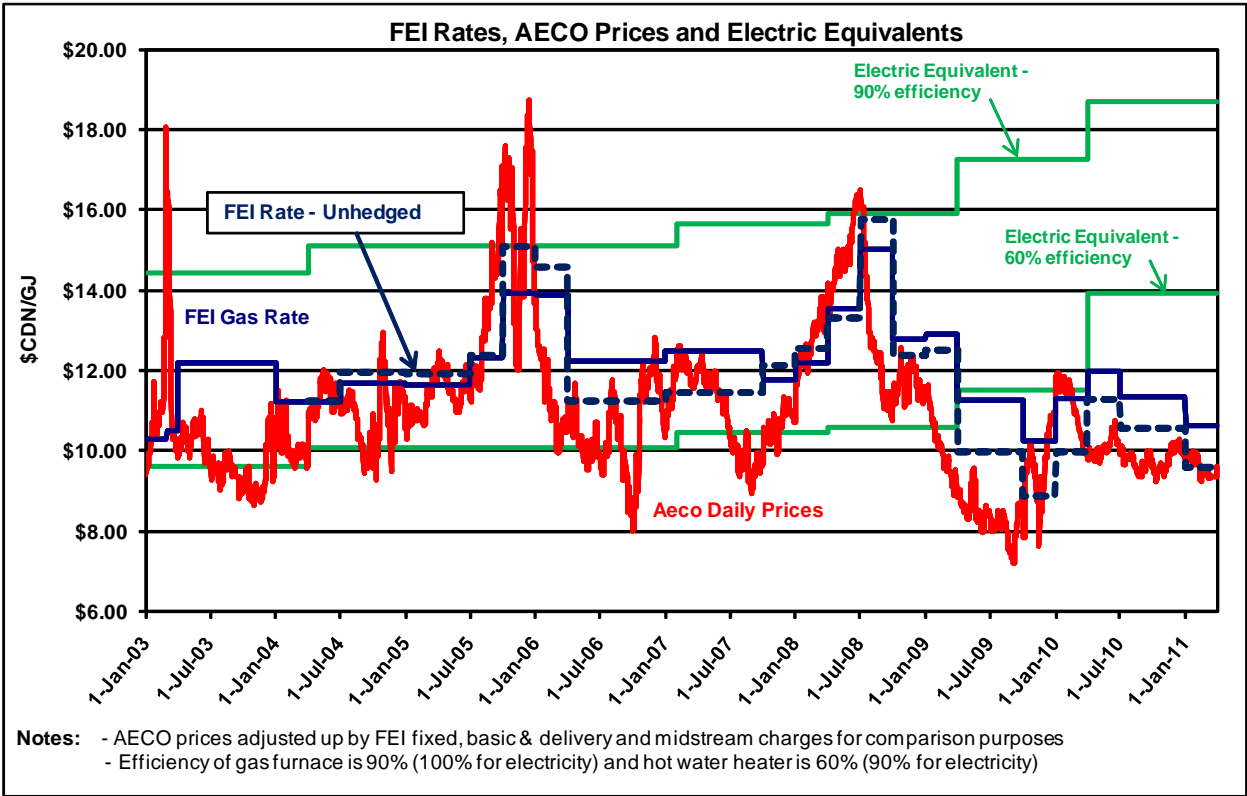




FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 7

This figure also illustrates how managing market price volatility has also helped with maintaining competitiveness, at least on a variable cost basis, for space heating applications (represented by the 90% efficiency electric equivalent). While the Utilities have been challenged with respect to competing in terms of hot water heating applications (represented by the 60% efficiency electric equivalent), declining market prices and rising electricity rates in the last two years has helped in this regard.

Approval of the proposed enhanced hedging program will enable the Utilities to continue to lock in prices that help with managing unforeseen market price fluctuations, including regional price disconnections, and the hot water heating competitiveness challenge going forward.



This figure also illustrates how managing market price volatility has also helped with maintaining competitiveness, at least on a variable cost basis, for space heating applications (represented by the 90% efficiency electric equivalent). While the Utilities have been challenged with respect to competing in terms of hot water heating applications (represented by the 60% efficiency electric equivalent), declining market prices and rising electricity rates in the last two years has helped in this regard.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 8

Approval of the proposed enhanced hedging program will enable the Utilities to continue to lock in prices that help with managing unforeseen market price fluctuations, including regional price disconnections, and the hot water heating competitiveness challenge going forward.

- 1.5 Please describe what steps FEI has taken to ensure that the Utilities have the technical skills and resources to effectively manage the hedging programs in place and the more complex plan described in this Application.

Response:

As discussed in the response to BCUC IR 1.4.3.1, the Utilities have the resources to effectively manage the hedging programs in place and the more complex enhanced hedging program per the FEI 2011-2014 Price Risk Management Plan. These include resources related to price risk management, credit and compliance, legal, regulatory, market information and applicable consultant work. The employees involved with these functions have the technical skills and appropriate experience required to effectively manage the hedging programs. The consultant RiskCentrix, as part of its review of the Utilities' hedging programs and recommended enhancements, has provided the Utilities with the analysis, working models and necessary training to effectively execute the enhanced hedging program.

In order to further resource development with respect to managing price risk and hedging programs, the Utilities will continue to be proactive in ensuring the right resources are in place along with providing staff with appropriate amounts of on-going training, course and conference attendance, market information gathering and analysis and succession planning.

Furthermore, in order to retain and attract staff with the appropriate skill sets and experience, the Utilities must ensure that they continue to provide appropriate total compensation, including salary levels as well as incentive payments and benefits, to employees involved in managing costs and price risk for customers.

- 1.6 Were the hedging results listed above consistent with the results of other utilities in Canada using hedging? If so, please provide details.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 9

Response:

The Canadian utilities that the Companies spoke with regarding hedging gains and costs were not willing to make available their respective hedging results citing confidentiality and sensitivity.

However, in speaking with these Canadian natural gas utilities, the Companies can confirm that hedging results, for those utilities that do hedge, are consistent with what is presented in the tables above. Almost all utilities that the Companies spoke were able to confirm that hedging costs for the past two years (post 2008) have resulted in higher than normal costs when compared to their ten year averages. Some utilities also pointed out that they do not strive to 'beat the market' through hedging activities but use hedging as a means to provide their customers with stable and competitive rates.

Please also see the response to BCUC IR 2.1.7.

- 1.7 Does the track record of either of the Utilities support the Hedging plan proposed in the Application?

Response:

Yes, the track record of the Utilities supports the enhanced hedging program proposed in the FEI 2011-2014 Price Risk Management Plan. The Utilities have developed and successfully executed the Price Risk Management Plans in accordance with Commission approvals and appropriate governance and controls.

The ability and success of the Utilities to deliver on the programs cannot be measured by hindsight review of the outcomes. As discussed in the responses to BCUC IRs 1.9.1.2 and 1.9.1.3, the Utilities use price risk management plans, hedging in particular, to manage commodity cost market risk for customers. The objectives of these programs have been to mitigate market price volatility and risk and not "beat the market" or incur no hedging costs, as discussed in the response to BCUC IR 1.5.1.1. The Utilities' hedging programs have been largely programmatic in the past, smoothing market price volatility through a dollar cost averaging approach. The Price Risk Management Plans have been implemented in accordance with Commission approval/acceptance and counterparty and credit risk exposure has been managed prudently without any adverse results.

The Utilities operate and implement hedges in a market based environment. As discussed in the responses to BCUC IRs 2.1.1 and 2.1.2, natural gas market prices have undergone an unprecedented and sustained price decline since mid 2008, beginning with the recession in



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 10

2008 and continuing with the surge in shale gas in 2009 and 2010. This has led to the significant hedging costs in the last few years, which generally are not representative of the results of the last decade. The Utilities could not have foreseen this dramatic price decline and the avoidance of the hedging costs would have meant ceasing hedging activity and abandoning the objectives. It should also be noted that the Utilities have in the past requested the flexibility to use options for up to 25% of hedging volumes as part of its Price Risk Management Plans, however Commission approval of the plans have restricted the use of options to 10%. Given the degree that prices have declined in the past two to three years, if the Utilities had had the flexibility to use more options instead of fixed price swaps when prices were peaking, the hedging costs would have been lower, while still providing protection to the customers.

The proposed enhanced hedging strategy will better position FEI to deliver on the objectives in the best interests of customers while improving on the hedging outcomes by reducing the likelihood of significant hedging costs due to unforeseen market developments. This will be accomplished through the reduced use of programmatic hedging and the higher use of options as part of the defensive hedging component in high cost and/or volatile price environments. The enhanced program also provides flexibility to lock in value for customers in low price environments. The track record of the Utilities on successfully executing price risk management programs supports approval of the enhanced hedging program.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 11

2.0 Reference: Options

Exhibit B-3, Response to BCUC IR 9.1.1, p. 46

FEI states: "In Figure 1 above, the current market price is assumed to be \$5 CDN/GJ. An at-the-money call option is assumed to cost \$1 CDN/GJ. Therefore any market price at or above \$5 CDN/GJ yields an effective hedge price of \$6 CDN/GJ to account for the \$1 premium. For this call option to be considered in-the-money, the market price would have to settle at or above \$6 CDN/GJ. Note that upside price protection is granted with a call option and that if market prices do decline it allows for downside price participation as well."

2.1 The above example indicates a spot price at \$5 CDN/GJ. When the call option is at-the-money the strike price is equal to the spot price in which the intrinsic value of the option is zero. In the above case the premium for the at-the-money call option is \$1. The above example indicates that the market price would have to settle at or above \$6 CDN/GJ to be "in-the-money".

2.1.1 Please confirm that the call option would be "in-the-money" when the strike price of \$5 CDN/GJ is below the market price for the underlying asset. If confirmed, should the FEI statement be amended?

Response:

Confirmed. The above statement should be amended to say:

"For a call option to be considered in-the-money, the market price of the underlying asset would have to be above the strike price of \$5 CDN/GJ."

2.1.2 Please confirm for the above example that for there to be a net profit (exclusive of transaction costs), the market price would have to settle above \$6 CDN/GJ given a strike price of \$5 CDN/GJ and a premium for the call option of \$1.

Response:

Confirmed.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 12

3.0 Reference: Options

Exhibit B-3, Response to BCUC IR 3.1.9, pp. 10-11

Table 1: Call Option Indications for the Nov10-Mar11 Period

Term	ATM Call Option		\$1 Out-of-the Money Call Option	
	Strike	Premium	Strike	Premium
Nov11-Mar12	\$3.91	\$0.45	\$4.91	\$0.17

In Table 1 of the response, examples of option pricing are given. In this example, the premiums range from 11.5% on the ATM call option to 3.5% on the out of the money call option.

Please complete the table for each of the Utilities:

Year	Average premium rate paid as a percentage of Strike price %	Maximum premium rate paid as a percentage of strike price %	Total Premiums paid in year \$
2007			
2008			
2009			
2010			

Response:

There were no call options transacted for FEVI.

The analysis for FEI is provided in the table below. The data are arranged by gas year; therefore for the year 2007, data will be used for the November 2007 to October 2008 gas year and so forth.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 13

Year	Average premium rate paid as a percentage of Strike price %	Maximum premium rate paid as a percentage of strike price %	Total Premiums paid in year \$
Nov07-Oct08	17.7%	21.8%	\$21,549,335
Nov08-Oct09	17.1%	20.5%	\$11,300,068
Nov09-Oct10	11.8%	11.8%	\$549,095
Nov10-Oct11	12.4%	12.4%	\$530,415

3.1 How does the Utility evaluate if the premium rate on options is appropriate and cost effective?

Response:

To evaluate if the premium on options is appropriate and cost effective, the Utilities consider several factors. These factors include forward market prices and their potential for decrease in the future, the premium in relation to market prices or the strike price and the cost of alternative hedging instruments. For example, if market prices increased significantly and options premiums were adversely disproportionate in relation to market prices or the strike price, the Utilities would consider other hedging instruments such as costless collars. However, this would have to be weighed against the downside price participation afforded by costless collars at the time.

3.2 Is there a threshold for maximum levels of acceptable premium rates? If so, what is that amount?

Response:

There is no threshold for maximum level of acceptable premium rates. As discussed in the response to the previous BCUC IR 2.3.1, the Utilities would consider several factors when implementing call options.

However, the consultant RiskCentrix has performed some analysis regarding the potential cost for premiums under different market price conditions. As discussed in Section 7.1.3 of the



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 14

Review Report, and in particular Table 18 on page 88, RiskCentrix analysis for the recommended hedging strategy shows that the average option premiums costs under different market price scenarios would be near \$11 million while, under the high market price scenario, option premium costs would be about \$48 million. This analysis and these estimated option premium costs would be considered when determining acceptable levels for premiums.

It is important to note that options would only be used as part of the defensive hedging strategy, which would be implemented only if market prices and volatility increased such that the defensive tolerances are breached (i.e. if the probability of prices exceeding certain levels became unacceptable). In this situation, options versus fixed price instruments would be considered where the potential option value participating in potential downward market movements in the future exceeds the cost of the premium. At current market price levels, defensive hedging would not be implemented and no option premium costs would be incurred.

3.3 What is the forecasted level of premiums for 2011 and 2012 for each of the Utilities?

Response:

FEI is not able to predict with any degree of accuracy what option premiums may be in the future. Constantly changing market conditions such as hurricanes, cooler than normal winter weather, unusually hot summer temperatures, and natural gas storage balances are some of many factors that impact natural gas prices and in turn option premiums.

However, the consultant RiskCentrix performed some analysis regarding potential hedging costs, mitigation and option premiums costs on an annual basis in developing the enhanced hedging strategy. Options will only be transacted as part of the defensive hedging component of the portfolio and will only be utilized if forward prices threaten to breach predefined defensive hedging price triggers as determined by a Value at Risk ("VaR") analysis. At current market prices, forward prices are below the defensive hedging triggers and as a result, FEI would not implement any options for all terms at this time. Therefore, based on current market conditions, FEI does not expect to implement any options for 2011 or 2012 *at this time*, but this may change if market prices threaten to breach the predefined defensive hedging price triggers. For a detailed explanation of what call options *may* cost as part of the enhanced hedging strategy, Figure 1 below from Page 87 of Section 7.1.3 of the Review Report, shows the relative cost of option premiums for various price scenarios.

<p>FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies")</p> <p>Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")</p>	<p>Submission Date: April 8, 2011</p>
<p>Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2</p>	<p>Page 15</p>

Figure 1: Recommended Hedging Strategy



FEI recommends strategy G specified in the figure above as the optimal hedging strategy with respect to the use of options since it allows for the most mitigation of price volatility and reduced potential out-of-market outcomes.

Strategy G predicts that option premiums may average about \$11 million per year and up to a maximum of about \$48 million per year under an extremely high market price scenario.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 16

4.0 Reference: Executive Summary

Exhibit B-3, Response to BCUC IR 2.1, p. 4

- 4.1 Given that FEI believes that the commodity price of gas has a direct impact on the competitiveness of natural gas compared to other competitive energy sources, please explain what impact the proposed price risk management plan will be on the risk profile of the Utilities?

Response:

As discussed in the response to BCUC IR 1.11.1.2, the proposed price risk management plan provides rate stability and helps retain and attract customers to natural gas. Customer migration to other sources of energy results in increasing pressure on delivery rates for remaining customers further reducing competitiveness and ultimately increasing the business risk of the Utilities and the appropriate return on equity.

The Company has utilized a price risk management plan for many years with objectives similar to the proposed plan and the impact on the risk profile is embedded in the current allowed return on equity. Rejection of the proposed plan would increase the risk profile of the Company which would suggest an increase in the allowed return was warranted however approval of the plan would not be expected to appreciably change the risk profile from the current level. Therefore approval by the Commission would not require any adjustment to the return on equity all other things being equal.

- 4.2 Does the proposed price risk management plan result in any adjustment to the return on equity of the Utilities?

Response:

Please refer to the response to BCUC IR 2.4.1.

- 4.3 If the risk management strategy in this Application is approved, would FEI consider offering customers the ability to purchase natural gas at a separate, variable or market rate which excludes all hedging activities and related costs? If so, how might this be accomplished?



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 17

Response:

No, if the proposed risk management strategy is approved, FEI does not think that offering a separate "fully variable" service would be appropriate or in the best interest of customers. Customers have come to expect FEI to manage its gas costs and market price volatility and a departure from this would expose customers to more market price volatility than they are used to or may be comfortable with. Generally, customers do not have the knowledge to fully understand how volatile natural gas market prices can be and what impacts this could have, if left unmitigated, on their rates and bills. It would also be difficult to administer such a service offering and ensure the proper allocation of gas costs, appropriate rate adjustment periods, and management of deferral accounts. FEI believes that the proposed price risk management strategy offers the appropriate balance of cost risk protection and market related variable rate pricing for customers. Alternatively, if the risk management strategy in this Application is not approved, FEI would consider providing a fixed price offering to customers if there was support from stakeholders and policy makers.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 18

5.0 Reference: Alternatives to Hedging

Exhibit B-5, Response to CEC IR 46.2, p. 75

FEI states: "If the recommended strategy is not approved and FEI is directed to suspend its hedging activities, FEI could look to a greater amount of physical index based supply or greater use of storage capacity in the portfolio."

- 5.1 Please explain how increasing the amount of physical index based supply and greater use of storage capacity in the portfolio can be used to support each of the three primary PRMP objectives identified on page 5 of the PRMP Review report as contained in Exhibit B-1, if FEI is directed to suspend its hedging activities.

Response:

For clarification, the Utilities did not intend to imply that it would increase the amount of physical index based supply but instead intended to identify that an increase in price exposure associated with physical index based supply would be the result of the suspension of the hedging activities. Without hedging, the portfolio would be exposed to greater amounts of index supply which moves with market prices. This situation would not support the primary objectives of the hedging program and, as such, is not recommended.

Greater use of storage capacity provides some support for the primary objectives. With summer market prices typically averaging lower than winter market prices, increasing storage capacity and injecting more gas into storage during the summer would reduce exposure in the portfolio to winter market prices, helping to reduce market price volatility and maintain competitiveness.

However, it is important to note that increasing storage capacity also increases associated storage and transportation fixed demand charges. Furthermore, 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. 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.

Furthermore, as discussed in the response to BCOAPO IR 2.18.1, the availability of incremental storage capacity and associated pipeline transmission capacity in the Utilities' region is also a primary consideration when assessing greater use of storage capacity. Pipeline constraints and increasing regional demand for storage resources have currently limited the storage alternatives for the Utilities.

Based on these considerations, FEI recommends the proposed enhanced hedging strategy in combination with the appropriate amount of index based supply and storage capacity to meet the objectives.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 19

6.0 Reference: Informed Decision

Exhibit B-3, Response to BCUC IR 4.2.6, p. 21

FEI states "FortisBC Energy Inc.'s primary role with respect to the program is to ensure that customers can access the information they need to make an informed purchase decision."

- 6.1 Does FEI believe that customers should have an understanding of the relative cost of hedging included in the utility rate in order to make an informed decision? Please explain the response.

Response:

FEI does not believe that customers require a detailed understanding of the relative cost of hedging included in the standard rate offering to make a decision. As discussed in the response to BCUC IR 1.4.1.11, FEI recognizes that many customers would not understand the more technical aspects of a hedging program, being generally unfamiliar with derivatives instruments and hedging strategies. FEI believes that the general nature of the current description of purchase and hedging activities in customer communications is appropriate. FEI believes that customers expect FEI to effectively and appropriately manage the gas supply portfolio and gas costs on their behalf without requiring detailed knowledge of this function.



FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (formerly Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively the "Companies") Price Risk Management Review of Objectives and Hedging Strategy and the 2010-2014 Price Risk Management Plan ("PRMP")	Submission Date: April 8, 2011
Response to British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 2	Page 20

7.0 Reference: Customer Survey

Exhibit B-3, Response to BCUC IR 12.1.19, p. 57

FEI states "During this research, participants were not informed that a controlled rate meant that participants may pay more for gas than if a variable rate was applied. However, participants who favoured the controlled variable rate stated their preference for smaller rate decreases if rate increases were also limited as compared to the true variable rate."

- 7.1 Does FEI agree that the results of the customer research related to the graph on page 65 of the PRMP Review report as contained in Exhibit B-1, are not applicable for the case where the controlled rate means the customer pays more for gas than if a variable rate was applied? Please explain the response.

Response:

No, FEI does not agree with this statement. This is because the majority of customers who favoured the controlled rate over the variable rate were primarily concerned with having some rate stability, household budgeting and reducing bill surprises. However, FEI does recognize that if the controlled rate included significantly higher costs on average and over the long run than the variable rate, depending upon the price level of commodity rates, some customers may take that into consideration when choosing between the controlled and variable rate.