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April 26, 2019

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Mr. Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

**Re: FortisBC Energy Inc. (FEI)**

**British Columbia Utilities Commission (BCUC) Order E-10-16**

**Price Risk Management Annual Report (Annual Report) – April 26, 2019 REDACTED**

In accordance with the BCUC Order E-10-16, FEI respectfully submits the Annual Report as of April 26, 2019.

On June 17, 2016 by Order E-10-16, the BCUC approved FEI's request for a three year medium-term fixed-price hedging strategy with pre-defined price targets and maximum hedging percentages, as outlined within the FEI 2015 Price Risk Management Application (2015 PRMP). In its decision, the BCUC directed FEI to file an annual report providing an update on approved hedging strategies as well as providing relevant commentary on the effectiveness of enhancements to the commodity rate setting mechanism.

On February 21, 2017 FEI filed a letter with the BCUC seeking clarification of Order E-10-16 with regards to the implementation plan rolled over each year during the hedging horizon. On February 28, 2017, the BCUC confirmed that the hedging limits as laid out in FEI's letter were consistent with the BCUC decision.

The attached Annual Report satisfies these reporting requirements and provides some recommendations regarding FEI's price risk management tools and strategies going forward.

FEI has provided a confidential version of the Annual Report, and requests confidentiality pursuant to Section 18 of the BCUC's Rules of Practice and Procedure regarding confidential documents, adopted by Order G-15-19. A public version of the Annual Report is also provided which has redacted the sensitive details of FEI's hedging strategy as FEI believes that this market sensitive information should be protected and not publicly disclosed in order to preserve and not impair FEI's ability to negotiate and obtain favorable commercial terms for any future natural gas hedging. The redacted version will be provided to all participants of the 2015 PRMP proceeding and the stakeholders involved in the February 24, 2017 Price Risk Management Workshop conducted by FEI. FEI does not object to customer groups and stakeholders being provided with the unredacted confidential version of the 2019 Annual Report upon executing a Confidentiality Declaration and Undertaking form, as provided in Appendix A to the 2019 Annual Report. FEI requests these stakeholders keep the details of the hedging strategy confidential.

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

Sincerely,

**FORTISBC ENERGY INC.**

Doug Slater

Attachments

# FORTISBC ENERGY INC.

# Price Risk Management Annual Report

## REDACTED

**April 26, 2019**

# Table of Contents



# List of Appendices

# 1. INTRODUCTION

This FortisBC Energy Inc. (FEI) Price Risk Management 2019 Annual Report (2019 Annual Report) discusses the outcomes to date of the implemented tools and strategies proposed in FEI's 2015 Price Risk Management Application (2015 PRMP), which was FEI's last approved PRMP, approved by the British Columbia Utilities Commission (the BCUC) under Order E-10-16 dated June 17, 2016. It satisfies the reporting requirements outlined by the BCUC Panel in its decision regarding the 2015 PRMP and provides recommendations for improvements regarding FEI's price risk management tools and strategies going forward. The 2019 Annual Report does not include any requests for approval. The requests for approval relating to the recommendations are included in the FEI 2018 Price Risk Management Plan (2018 PRMP), which include the continuation of the medium-term hedging strategy with revised hedging price targets and hedging horizon and request for approval of a 5-year hedging term. The hedging proposals within the 2018 PRMP have not been implemented yet as the 2018 PRMP is still under review by the BCUC. The 2018 PRMP, submitted to the BCUC on January 5, 2018, was a revised version of the 2017 PRMP, filed on June 13, 2017 with the BCUC.

## 1.1 *2015 PRICE RISK MANAGEMENT APPLICATION*

On December 23, 2015 FEI submitted to the BCUC the 2015 PRMP, which included the following objectives:

- Mitigate market price volatility to support rate stability; and
- Capture opportunities to provide customers with more affordable rates.

In the 2018 PRMP, FEI revised the second objective listed above to include capturing opportunities to maintain commodity rates at historically low levels in order to make it more specific, measurable and relevant to the current low market price environment.

The 2015 PRMP included requests for approval relating to specific price risk management tools and strategies for customers who receive commodity supply from FEI. These requests were approved by the BCUC and included the following:

1. Implementation of a medium-term fixed-price hedging strategy, which includes the following components:
   a) Execute hedges when forward AECO/NIT market prices are at or below [redacted] for up to 25 percent of the FEI commodity supply portfolio;
   b) Execute hedges when forward AECO/NIT market prices are at or below [redacted] for up to 50 percent of the FEI commodity supply portfolio;
   c) Maximum hedging for any term is 50 percent of the FEI commodity supply portfolio;
   d) Hedges can include fixed price financial swaps or physical fixed price purchases;

e) Price targets apply to each winter or summer term or one-year term within the three-year horizon of April 2016 to March 2019, and

f) No hedging is executed if the price targets in (a) or (b) above are not reached.

2. Implementation of enhancements to FEI's quarterly commodity rate setting mechanism, which includes the following components:

   a) Commodity rate change cap of $1.00 per GJ, applicable to rate increases or decreases, provided the deferral account balance is maintained within a reasonable range:

      i. Implementing a commodity rate change cap, plus or minus $1.00 per GJ, would be utilized for a maximum of two consecutive quarters provided that the rate changes subject to the cap have been in the same direction, and

      ii. The cap is removed for the third consecutive quarter if the rate change is in the same direction.

   b) Criteria for consideration of using a prospective period beyond the 12-month outlook to determine a new effective commodity rate. A 24-month prospective period may be used in specific situations to maintain the Commodity Cost Reconciliation Account (CCRA) deferral account balance within a reasonable range over the full duration of the 24-month period, which includes:

      i. When a commodity rate change is indicated using a standard 12-month prospective period;

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

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

FEI noted that it was not proposing any changes to the BCUC guidelines for setting gas cost recovery rates and managing the gas cost reconciliation balances as set out in Letters L-5-01 and L-40-11 (the Guidelines) with respect to the consideration of the full circumstances. Rather it proposed some criteria to provide further clarification of when consideration be given to the appropriateness of commodity rate proposals for timeframes beyond the 12-month outlook since the guidelines currently do not include any specific metrics or criteria in this regard.

In terms of the hedging percentages, the FEI commodity supply portfolio included the gas purchases FEI requires for its commodity portfolio and excluded any supply provided to FEI by natural gas marketers per the Customer Choice Program. The commodity supply portfolio is typically determined within the Annual Contracting Plan (ACP) each year or load forecasts may be updated through the Annual Review process. For simplicity, FEI defined the hedging terms as including winter, summer or one-year terms.

In terms of the rate setting mechanism enhancements, FEI considers a band of approximately +/- $60 million a reasonable range for the commodity deferral account. Deviations falling materially outside of this range can pose challenges for FEI in terms of the timing of refunding or recovering significant dollar amounts from customers and can impact FEI's balance sheet and potentially its credit rating and borrowing capacity.

FEI recognized that the rate setting enhancement and medium-term hedging strategies are appropriate in the current gas market price environment but may not be applicable if market conditions changed significantly in the future. FEI suggested that the strategies be reviewed through an update report on an annual basis to discuss how the strategies have worked so far and if any refinements need to be made.

## 1.2 *BCUC PANEL DECISION*

The BCUC Panel approved the 2015 PRMP in Order E-10-16 dated June 17, 2016. In its decision, the Panel accepted that FEI's current portfolio of comprehensive price risk management strategies and tools are working well from the perspective of managing volatility, sending appropriate market signals and managing the CCRA deferral account balances within a reasonable range. It also noted that the development of effective price risk management tools is an iterative process and the application of these tools will continue to evolve as market conditions change[1].

The Panel's decision to approve the three-year hedging strategy was made with consideration to the low-price commodity environment, which existed at the time FEI submitted its 2015 PRMP[2]. FEI noted in the 2015 PRMP that this low price environment, where market natural gas prices are near their lowest levels in over a decade and gas producer break-even costs, provides FEI with the opportunity to help meet the price risk management objectives of mitigating market price volatility to support rate stability and capturing opportunities to provide customers with low rates. The medium-term hedging strategy that includes locking in up to half of the commodity supply portfolio with fixed price purchases or swaps, if pre-defined price targets are reached, would help keep FEI's commodity rate at low and favourable levels relative to historical values.

In its decision, the Panel denied any extension of the hedging horizon beyond the three years ending with the Winter 2018/19 term. Therefore, FEI has not implemented any hedges beyond Winter 2018/19. The Panel noted that its concern with extending the program beyond three years is not whether capturing hedging opportunities is appropriate in the current environment, but whether it is appropriate to apply a similar methodology in a higher pricing environment than

[1] BCUC Order E-10-16 dated June 17, 2016, page 12.
[2] IBID, page 24.

exists today[3]. The Panel stated that there is no evidence on the record attempting to define exactly what a "low-price market environment" is and at what price point a low-price market environment ceases to exist and there is a shift from a risk view to a market view. The Panel stated that, if FEI wishes to make any change to the term, the price targets or the methodology as outlined in its 2015 PRMP, it must do so by a formal application. FEI has done this through its 2018 PRMP, which is based on recommendations from FEI's 2017 Annual Report submitted to the BCUC on April 27, 2017.

In its decision, the Panel approved FEI's proposal to keep the CCRA deferral account range at +/- $60 million after tax in keeping with FEI's recommendations[4]. However, the Panel considered there to be potential benefit to examining the option of increasing the maximum amount of the CCRA deferral account as a practical solution to control volatility over the longer term. In the event that FEI sought to extend the hedging program, the Panel expected FEI to include in its application a review of the effectiveness of the approved strategies as compared to the other price risk management tools, which may be available to FEI. In particular, FEI was directed to include an evaluation of the option of increasing the acceptable CCRA deferral account balance to +/- $200 million to manage CCRA during periods of extreme volatility. FEI has included this review and evaluation in its 2018 PRMP.

In its decision, the Panel directed FEI to file an annual report providing an update on approved hedging strategies as well as providing relevant commentary on the effectiveness of enhancements to the commodity rate setting mechanism. The following items should be included in each annual report:

- A financial summary of any gains or costs, which have resulted from hedging activities.
- A description of the impact on rate volatility of any hedging activity as compared to what would have occurred had hedging not been undertaken.
- The commodity rates achieved relative to historical averages.
- An overall assessment of the effectiveness of any hedging activities undertaken and comments on potential improvements or changes.
- A description of the impact on rate volatility related to the implementation of the enhancements made to the commodity rate setting mechanism and comments on any issues arising.

FEI was directed to file the Annual Report concurrently with FEI's ACP, which is typically filed at the beginning of May each year. A copy of the Annual Report is also to be provided to all participants of the 2015 PRMP proceeding, redacted if necessary. FEI will also provide a redacted copy of the 2019 Annual Report to participants in the February 24, 2017 Price Risk Management Workshop (2017 PRM Workshop), listed below:

- Sentinel Energy Management

[3] IBID, page 24.
[4] IBID, page 27.

- Independent Energy Consultants
- Ministry of Energy and Mines
- Cascadia Energy Ltd.
- Shell
- Access Gas
- BC Non-Profit Housing Association
- Commercial Energy Consumers Association of British Columbia (CEC)
- British Columbia Public Interest Advocacy Centre representing the British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Disability Alliance BC, Council of Senior Citizens' Organizations of BC, Together Against Poverty Society, and the Tenant Resource and Advocacy Centre *et al* (BCOAPO)

FEI does not object to the participants in the 2017 PRM Workshop being provided with the unredacted confidential version of the 2019 Annual Report upon executing a Confidentiality Declaration and Undertaking form, as provided in Appendix A.

This 2019 Annual Report satisfies the Panel's reporting requirements listed above and provides some recommendations regarding FEI's price risk management tools and strategies going forward.

### 1.2.1 Hedging Implementation Clarification

On February 21, 2017, FEI filed a letter with the BCUC seeking clarification of Order E-10-16. Specifically, FEI sought clarification from the BCUC that the implementation plan is rolled over each year during the hedging horizon such that, prior to March 2017, year 1 becomes April 2017 to March 2018 and year 2 becomes April 2018 to March 2019. There would no longer be a year 3 as the extension of the hedging horizon beyond March 2019 was denied in the BCUC 2015 PRMP decision. Prior to March 2018, year 1 becomes the final year of the hedging horizon, April 2018 to March 2019, in which case FEI would be allowed to implement hedges up to 50 percent.

The BCUC confirmed FEI's interpretation of the hedging implementation in a letter dated February 28, 2017.

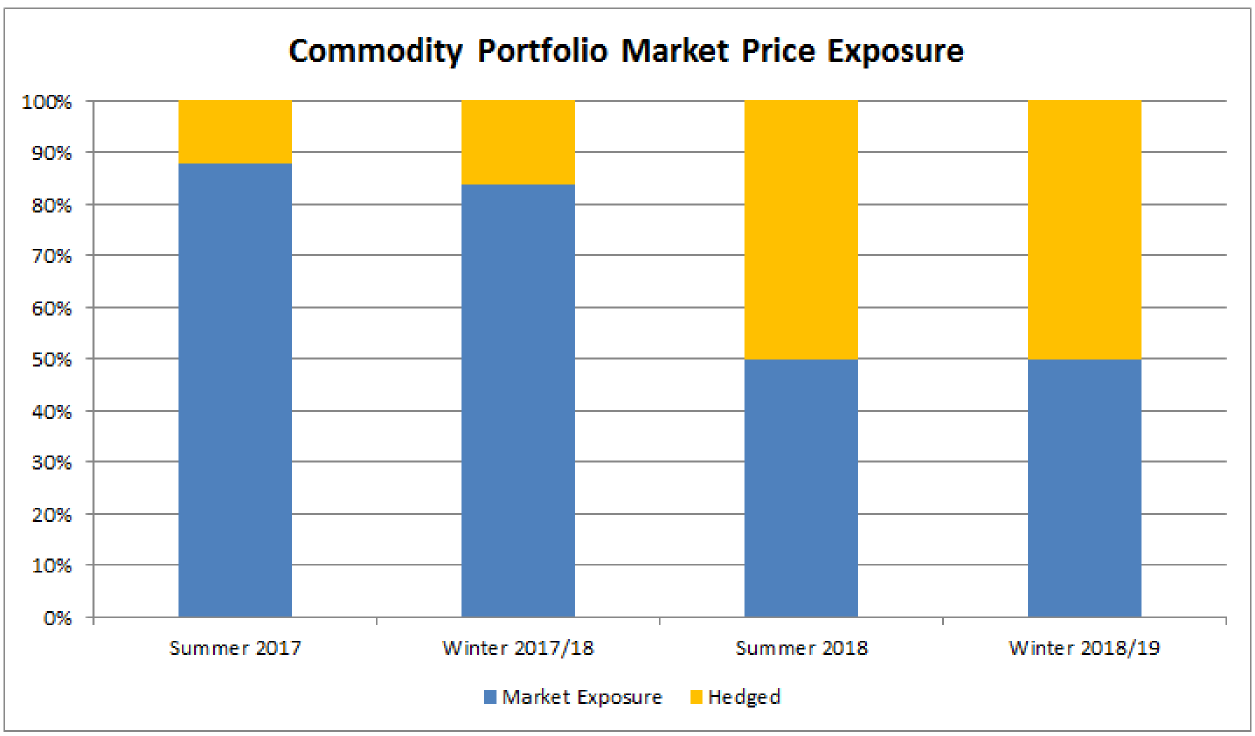
## 2. ASSESSMENT OF MEDIUM-TERM HEDGING STRATEGY

FEI has implemented the hedging strategy outlined in the 2015 PRMP and approved by the BCUC. FEI has implemented hedges (i.e. financial AECO/NIT fixed price swaps) for Summer 2017, Winter 2017/18, Summer 2018 and Winter 2018/19 terms since the 2015 PRMP was approved on June 17, 2016. FEI has implemented all allowable hedging according to the implementation and volume limits of the 2015 PRMP.

Forward AECO/NIT market gas prices fell to and below the approved first hedging target levels of [redacted] beginning in late February 2017. Market prices fell as mild weather in the eastern U.S. and Canada reduced North American gas demand, resulting in lower U.S. gas storage withdrawals than expected and improving storage balances relative to previous-year and five-year average levels. Market prices fell further in early October 2017, falling to and below the second hedging target level of [redacted]. AECO/NIT market prices fell due to Alberta pipeline constraints and a combination of natural gas from the Western Canadian Sedimentary Basin (WCSB) being pushed back from the eastern US Utica and Marcellus plays and increasing Alberta supply, in part due to lower gas producer break-even costs.

The following figure shows the hedges implemented, based on percentage of the total commodity portfolio volume. The total commodity portfolio volume was 330 TJ per day for Summer 2017 and Winter 2017/18 terms and 370 TJ per day for Summer 2018 and Winter 2018/19 terms per the applicable ACP and Annual Review[5] forecasts.

**Figure 1: Percentage of Hedges Implemented**




[5] The forecast normalized annual demand for the August 4, 2017 Filing of the Annual Review for the 2018 Rates Application (the Filing), showed an increase in 2018 annual normal consumption compared to 2017.

The hedges implemented for Summer 2017 and Winter 2017/18 total about 40 TJ per day and 53 TJ per day, respectively, which are below the maximum hedging volume of 165 TJ per day for each term as market prices fell below hedging price targets [redacted]. The hedges implemented for Summer 2018 and Winter 2018/19 each total 185 TJ per day, as market prices were below hedging price targets for a long enough time to implement the hedging strategy to the maximum allowance.

The following subsection provides further analysis regarding the medium-term hedging strategy by reviewing the hedges that have been implemented and which have now all expired (i.e. underlying market prices have settled).

## 2.1 *EXPIRED HEDGES*

As of the date of this report, all the hedges implemented from the approved 2015 PRMP have expired as the underlying market prices have settled. The following figure shows the hedging price targets and implemented hedging prices by the transaction date for the Summer 2017 term.

**Figure 2:** [redacted]

[redacted]

As the figure above shows, hedging for the Summer 2017 term began on February 21, 2017 as market prices reached the [redacted] hedging target. In total, FEI hedged 12 percent of the portfolio at prices at or below the first hedging target of [redacted]. No hedging was implemented at the second hedging price target of [redacted] as forward market prices never fell below the second target before the start of the Summer 2017.

The following figure shows the hedging price targets and implemented hedging prices by transaction date for the Winter 2017/18 term.

**Figure 3:** [redacted]

[redacted]

As the figure above shows, the first hedge for the Winter 2017/18 term was transacted on [redacted], as the hedge target price of [redacted] was reached just before the start of the Winter 2017/18 term. In total, FEI hedged 16 percent of the portfolio at prices at or below the first hedging target of [redacted]. Forward market prices never fell to or below the second hedging target of [redacted].

The following figure shows the hedging price targets and implemented hedging prices by the transaction date for the Summer 2018 term.

**Figure 4: [redacted]**

[redacted]

As the figure above shows, hedging for the Summer 2018 term began on [redacted] and concluded on [redacted]. The forward market prices fell below the first hedge target price of [redacted] in 2017 during the months of [redacted], which allowed FEI to hedge about 83 TJ per day, the approved maximum limit of 25 percent of the total commodity portfolio for the first hedge target price. On [redacted], forward market prices fell below [redacted], allowing more hedges to be transacted below this level. An additional 33 TJ per day was hedged, reaching the maximum hedging volume of 35 percent of the total commodity portfolio for year 2 of the approved hedging strategy. As of February 21, 2018, the April 2018 to March 2019 period, year 2, rolled over to become year 1 of the approved hedging strategy, which increased the maximum hedging limit to 50 percent of the total commodity portfolio. With an additional 15 percent to hedge for Summer 2018 and with forward market prices being well below the second hedging price target level, the remaining hedges were implemented in [redacted] at prices below [redacted].

The following figure shows the hedging price targets and implemented hedging prices by the transaction date for the Winter 2018/19 term.

**Figure 5:** [redacted]

[redacted]

As the figure above shows, hedging for the Winter 2018/19 term began on [redacted]. As forward market prices fell below the first hedge target price of [redacted] and continued to fall further past the second hedge target price of [redacted], the implementation of the hedging strategy allowed FEI to layer on additional hedges at lower prices. On December 22, 2017, the maximum hedging volume of 35 percent of the total commodity portfolio for year 2 of the approved hedging strategy was reached. As of February 21, 2018, year 2 rolled over to become year 1 of the approved hedging strategy, which increases the maximum hedging limit to 50 percent of the total commodity portfolio. The forward market prices continued to be lower than the second hedge target price of [redacted], allowing FEI to hedge to the maximum limit for Winter 2018/19 term. Hedging concluded for this term on [redacted].

The following table shows the hedging gains/(costs) from the implemented hedges for Summer 2017, Winter 2017/18, Summer 2018 and Winter 2018/19. Hedging gains/(costs) are measured by comparing the weighted average hedge prices to the average actual settled AECO/NIT monthly index prices for each term.

**Table 1: [redacted][6]**

[redacted]

As the previous table shows, the settled hedges resulted in incurred hedging costs for all four periods. The impact of the hedging costs relative to the total commodity portfolio costs was [redacted] for Summer 2017 and Winter 2017/18 respectively, while Summer 2018 was [redacted] and Winter 2018/19 was [redacted]. The combined hedging costs for Summer 2017 and Winter 2017/18 terms represents [redacted][7] [redacted] for an average residential customer and an average small commercial customer bill respectively. For Summer 2018 and Winter 2018/19 terms the combined hedging costs were [redacted][8] [redacted] for an average residential customer and an average small commercial customer bill respectively. The cost to the average residential and small commercial customers' total bill falls under the 3.6 and 4.6 percent increase threshold, respectively, that customers would be willing to pay for greater stability in their natural gas bill as indicated by the customer survey FEI had conducted in March 2017 (discussed in the 2018 PRMP).

Summer 2017, Winter 2017/18 and Winter 2018/19 terms were not significant in the incurred hedging costs as market prices settled, on average, lower than the hedged prices. Summer 2018 had the largest impact to the hedging cost out of the hedging terms. This was due to seasonal maintenance and expansion of pipelines that constrained gas at AECO/NIT and Station 2, constraining supply from reaching markets thereby causing a surplus in the supply/demand balance. Market prices at AECO/NIT averaged [redacted] compared to the average hedge price of [redacted] for the Summer 2018 term. The impact of pipeline expansions on market prices is further discussed in Section 2.2*.*

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6 [redacted].

7 [redacted]. [redacted]. [redacted].

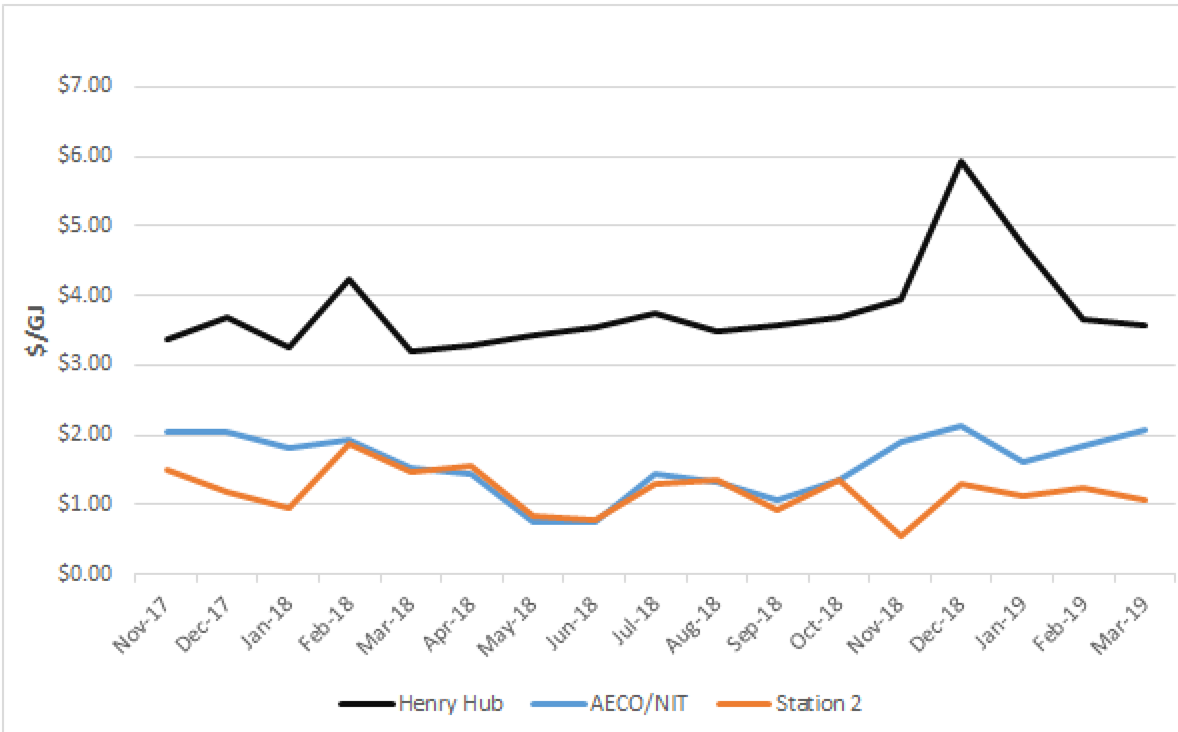
8 [redacted]. [redacted]. [redacted]. [redacted].

## 2.2 MARKET PRICES

This section provides a discussion of the recent developments in gas market prices to provide some context for the assessment of the hedges that have been implemented.

The following figure shows the monthly settled prices at Henry Hub, AECO/NIT and Station 2 from November 2017 to March 2019.

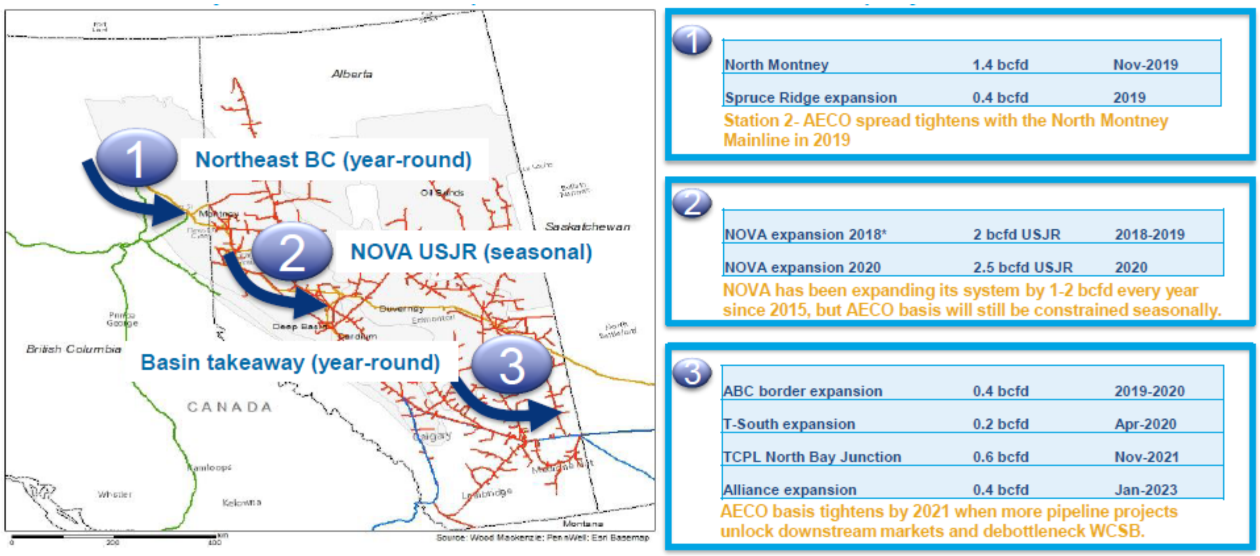
**Figure 6: Monthly Settled Market Prices**




AECO/NIT and Station 2 prices continue to be disconnected significantly from Henry Hub prices, with an average discount of over [redacted] since November 2017. AECO/NIT and Station 2 prices settled lower in the summer months of 2018 due to the pipeline maintenance and expansion on the Alberta Nova Gas Transmission Line (Nova) system, which left Alberta and BC gas with reduced market outlets. Also, the combination of natural gas from the WCSB being pushed back from the Utica and Marcellus plays and increasing WCSB supply due to lower break-even costs added additional downward pressure on prices. The pipeline constraints within the WCSB to access downstream markets will continue to influence the discount between Henry Hub and AECO/NIT prices for the next couple of years. It is expected that AECO/NIT and Station 2 prices will continue to be seasonally pressured during the summer pipeline maintenance and expansion season, causing lower prices in those months for the next two years.

However, future pipeline developments could alleviate downward price pressure by providing more outlets for WCSB gas and start to tighten the AECO/NIT basis over the next few years, as shown in the figure below.

**Figure 7: WCSB Pipeline Developments[9]**




The figure above shows expected pipeline developments in BC and Alberta over the next few years. The North Montney expansion in Northeast BC will provide more interconnection between BC and Alberta in 2019 and so could begin to reduce the Station 2 discount to AECO/NIT pricing. Also, WCSB takeaway expansion capacity could tighten the AECO/NIT discount to Henry Hub starting in 2020. Until then, it is expected that seasonal maintenance and expansion of the NOVA pipeline system will continue to result in low AECO/NIT and Station 2 prices during the summer terms.

Overall, the result of these pipeline developments is that the AECO/NIT basis could tighten in the future (i.e. increasing AECO/NIT pricing relative to Henry Hub pricing) with the increase in outlets for WCSB gas supply to markets. Hedging 3 to 5 years out, as recommended in the 2018 PRMP, would provide an opportunity to capture low market prices and improve the likelihood of maintaining low and more stable commodity rates for customers beyond winter 2018/19.

FEI continues to monitor market developments and forward market prices and has recommended lowering hedging targets per the 2018 PRMP based on consideration of gas producer break-even costs, market prices and probability analysis, and FEI's commodity rate. Hedging at or below the proposed hedging price target levels up to the maximum 50 percent of the commodity portfolio limit in the future will further improve FEI's ability to meet these objectives.

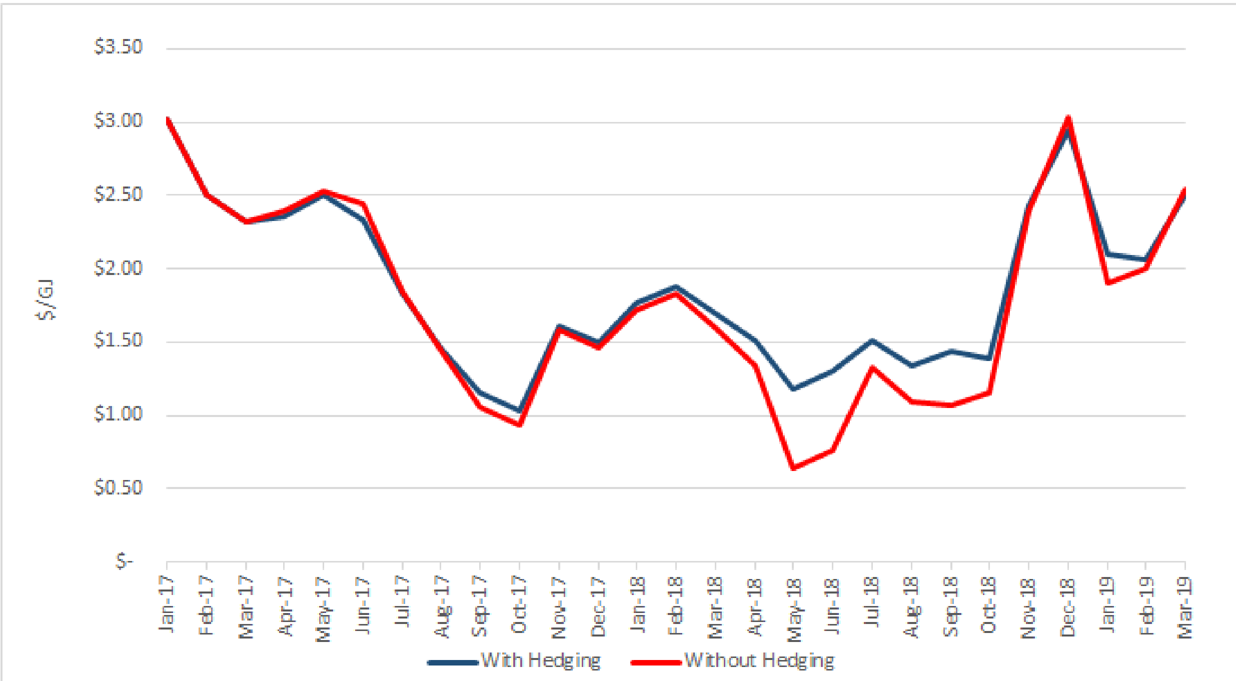
## 2.3 *IMPACTS ON COST OF GAS*

This section provides an assessment of the impact of the hedging activity on FEI's cost of gas as compared to what would have occurred had hedging not been undertaken. Section 2.4 provides an assessment with regard to FEI's commodity rates.

[9] Source: Wood Mackenzie : North American Gas Outlook (December 2018)

The following figure shows the actual quarterly weighted average cost of gas (WACOG) in the CCRA portfolio, on a per unit basis, from January 2017 to March 2019, with and without the implemented hedges. This reflects the impact of the hedges on FEI's cost of gas, excluding deferral accounts, that is recovered from customers through commodity rates.

**Figure 8: Actual WACOG in CCRA Portfolio with and without Hedging**



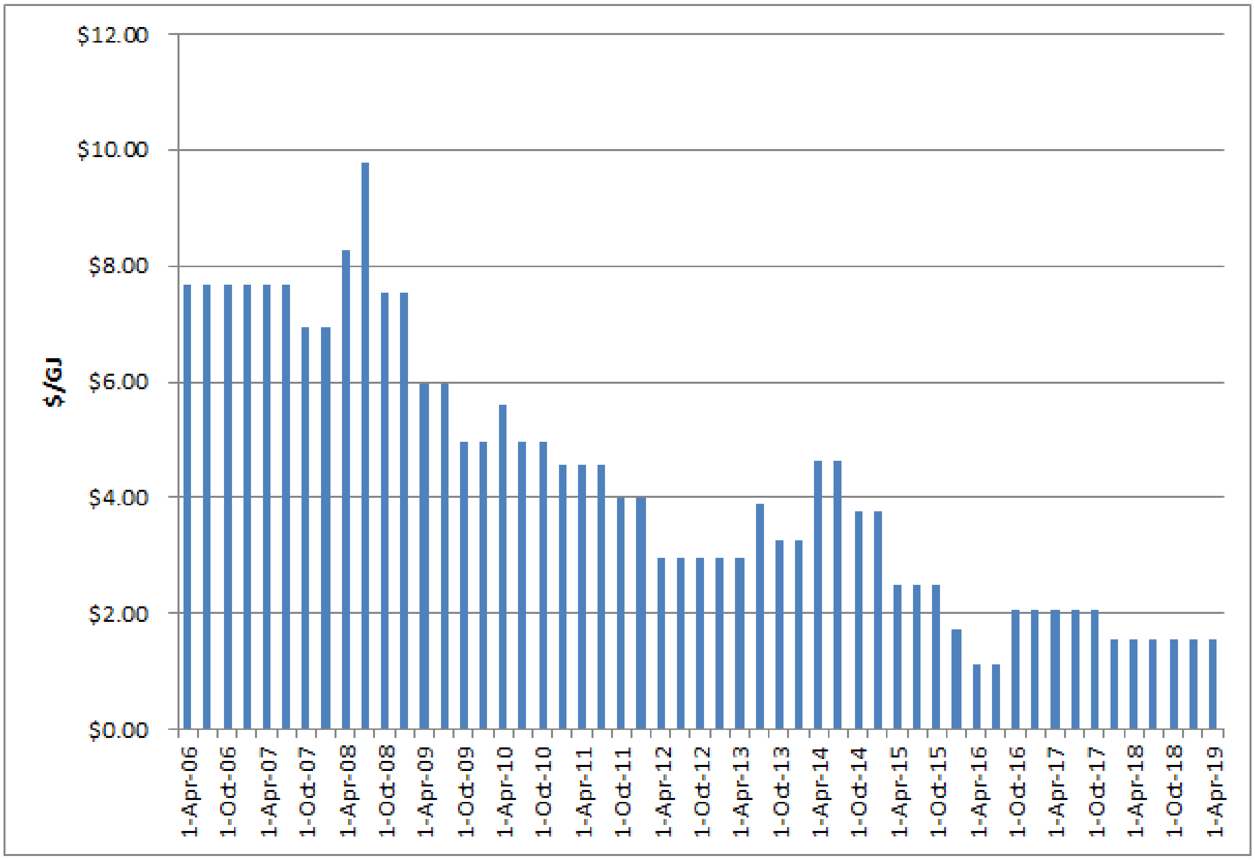

The figure above shows that, given the relatively small amount of hedges implemented for Summer 2017 and Winter 2017/18 and small differences between settled market prices and hedging prices, there is little difference between the actual weighted cost of gas with and without hedging since FEI began hedging in February 2017 to March 2018 under the approved medium-term hedging strategy. The hedges implemented for Summer 2018 show a greater difference in the actual weighted cost of gas with and without hedging due the reasons discussed in the previous section. For Winter 2018/19, there were smaller differences between settled market prices and hedging prices and thus a minimal difference between the actual weighted cost of gas with and without hedging. Overall, the hedging strategy mitigated market price volatility in the CCRA portfolio and contributed to commodity rate stability at a low cost.

The following section discusses the impacts of the hedging and cost of gas on FEI's commodity rates paid by customers.

## 2.4 *IMPACTS ON FEI COMMODITY RATES*

The following figure shows FEI's actual historical commodity rates effective from April 2006 until April 2019, including the results of any hedging activity. The commodity rates reflect the cost of gas as well as the impacts of deferral account balances.

**Figure 9: FEI Historical Commodity Rate**




The average of these historical commodity rates since April 2006 is about $4.25 per GJ. However, since 2008 when the era of shale gas began, the commodity rate has averaged about $3.30 per GJ. The commodity rate average for the last three years is about $1.72 per GJ. FEI's lowest commodity rate was about $1.14 per GJ effective April 1, 2016 to September 30, 2016, after which time it increased to $2.05 per GJ effective October 1, 2016 and is currently at about $1.55 per GJ since January 1, 2018.

FEI had implemented AECO/NIT hedges at an average price of [redacted] for Summer 2017, [redacted] for Winter 2017/18, [redacted] for Summer 2018 and [redacted] for Winter 2018/19, which have all been settled. After the Station 2 discount is applied to the hedge prices, the average effective supply prices are about [redacted] for Summer 2017 and [redacted] for Winter 2017/18 and about [redacted] for Summer 2018 and [redacted] for Winter 2018/19. [redacted]

[redacted].

The hedging program has worked as part of a portfolio approach in helping maintain gas rates at lower levels relative to recent historical levels, and, along with FEI's other price risk management tools, provides additional commodity rate stability for customers.

# 3. ASSESSMENT OF COMMODITY RATE SETTING ENHANCEMENTS

FEI has not yet needed to use any of the 2015 PRMP commodity rate setting enhancements approved in BCUC Letter L-15-16. These enhancements include the +/- $1.00 per GJ rate change cap and the criteria for consideration of using a prospective period beyond the standard 12-month outlook to determine commodity rate proposals. FEI has had two commodity rate changes since the approval of the rate setting enhancements in June 2016, with the first one being an increase from $1.141 per GJ to $2.050 per GJ effective October 1, 2016 and more recently FEI decreased the commodity rate from about $2.050 per GJ to $1.549 per GJ effective January 1, 2018. The rate changes of $0.909 per GJ effective October 1, 2016 and $0.501 per GJ effective January 1, 2018, were both below the $1.00 per GJ rate change cap.

Furthermore, for rate setting effective October 1, 2016 and January 1, 2018, the gas cost outlook for the 12-month and 24-month periods did not meet the criteria for consideration of the 24-month outlook. This is because there was a difference of less than $0.75 per GJ between the CCRA WACOG for year one versus year two of the 24-month prospective period. The direction of the commodity rate change indicated using a standard 12-month prospective period was not opposite to the direction of the CCRA WACOG for year two compared to the CCRA WACOG for year one. Therefore, none of the criteria were met to use the 24-month outlook.

Despite not having used the rate change cap or 24-month outlook components of the rate setting enhancements, FEI believes they are valuable tools, supported by stakeholders, in meeting the objectives in the interests of customers and should be continued. Further enhancements or improvements could be considered in the future.

# 4. RECOMMENDATIONS

At this point in time, it is difficult to properly assess the effectiveness of the hedging program given that hedging has been implemented for only four terms with a relatively small percentage of hedging being implemented for the first two terms. FEI suggests that more time is required to assess the effectiveness and impact on rates and recommends that the medium-term hedging program be continued, with some improvements, with further assessments included in future annual reports.

FEI's recommendations for improvements to its approved price risk management tools are included as requests for approval in the 2018 PRMP filed with the BCUC on January 5, 2018. In summary:

- The first recommendation is to extend the hedging horizon out beyond Winter 2018/19 to the three-year period ending with Summer 2021 (i.e. out to the end of October 2021);
- The second recommendation is to lower and seasonalize the hedging price targets to position FEI to capture even lower forward market prices should they occur;
- The third recommendation is to continue with the approved rate setting enhancements, and
- The fourth recommendation is to extend the hedging strategy beyond three years and out to five years to take advantage of the current low market prices further out in time.

As discussed in the 2018 PRMP, FEI has lowered the hedging price targets based on consideration of several factors including lower market prices, FEI's lower commodity rate, gas price probability ranges and lower gas production costs. The lower hedging price targets help to reduce the risk of significant hedging costs. FEI notes that the events that triggered the market price decline and subsequent hedging costs for Summer 2018 have now been factored into the market prices for Summer 2019 and 2020. For example, when FEI started hedging Summer 2018, forward market prices were trading near [redacted] for Summer 2018 and 2019. Currently, the forward prices for Summer 2019 and 2020 are trading closer to [redacted]. While this does not guarantee there will be no hedging costs if FEI were to implement hedges at these lower price levels, there is less likelihood of the same level of hedging costs that resulted for Summer 2018 in this Annual Report.

The 2018 PRMP is currently under review by the BCUC.

# Appendix A

# CONFIDENTIALITY DECLARATION AND UNDERTAKING FORM

# Confidentiality Declaration and Undertaking Form

In accordance with the Commission's Rules of Practice and Procedure, please provide a completed form to the party who filed the confidential document and copy Commission Secretary at commission.secretary@bcuc.com. If email is unavailable, please mail the form to the address above.

**Undertaking**

I, __[name]____, am representing the party ___[organization being represented]_______________ in the matter of __FEI Price Risk Management 2019 Annual Report

In this capacity, I request access to the confidential information in the record of this proceeding. I understand that the execution of this undertaking is a condition of an Order of the Commission, and the Commission may enforce this Undertaking pursuant to the provisions of the *Administrative Tribunal Act*.

| | |
|---|---|
| **Description of document:** | FEI Price Risk Management 2019 Annual Report - Confidential |

I hereby undertake:

(a) to use the information disclosed under the conditions of the Undertaking exclusively for duties performed in respect of this proceeding;

(b) not to divulge information disclosed under the conditions of this Undertaking except to a person granted access to such information or to staff of the Commission;

(c) not to reproduce, in any manner, information disclosed under the conditions of this Undertaking except for purposes of the proceeding;

(d) to keep confidential and to protect the information disclosed under the conditions of this Undertaking;

(e) to return to the applicant, _FortisBC Energy Inc._, all documents and materials containing information disclosed under the conditions of this Undertaking, including notes and memoranda based on such information, or to destroy such documents and materials within fourteen (14) days of the Commission's final decision in the proceeding; and

(f) to report promptly to the Commission any violation of this Undertaking.

Signed at ___[place]____ this _[day] day of [month] 2019___.

Signature: ________________________________

Name (please print): ___[Name]_______

Representing (if applicable): ____[organization being represented]_____________