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May 1, 2018

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 (the Commission) Order E-10-16
Price Risk Management Annual Report (Annual Report) – May 1, 2018
REDACTED**

In accordance with Commission Order E-10-16, FEI respectfully submits the Annual Report as of May 1, 2018.

On June 17, 2016 by Order E-10-16, the Commission 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 Commission 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 Commission 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 Commission confirmed that the hedging limits as laid out in FEI's letter were consistent with the Commission's 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 Commission's Rules of Practice and Procedure regarding confidential documents, established by Order G-1-16. 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 2018 Annual Report upon executing a Confidentiality Declaration and Undertaking form, as provided in Appendix A to the 2018 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.

Diane Roy

Attachments



FORTISBC ENERGY INC.

Price Risk Management Annual Report

REDACTED

May 1, 2018

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1. INTRODUCTION

This FortisBC Energy Inc. (FEI) Price Risk Management 2018 Annual Report (2018 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 approved by the British Columbia Utilities Commission (the Commission) under Order E-10-16 dated June 17, 2016. It satisfies the reporting requirements outlined by the Commission 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 2018 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 Commission. The 2018 PRMP was a revised version of the 2017 PRMP, filed on June 13, 2017 with the Commission.

1.1 2015 PRICE RISK MANAGEMENT APPLICATION

On December 23, 2015 FEI submitted to the Commission 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 Commission 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;

- 1 e) Price targets apply to each winter or summer term or one-year term within the three-year
- 2 horizon of April 2016 to March 2019, and
- 3 f) No hedging is executed if the price targets in (a) or (b) above are not reached.
- 4 2. Implementation of enhancements to FEI's quarterly commodity rate setting mechanism,
- 5 which includes the following components:
- 6 a) Commodity rate change cap of \$1.00 per GJ, applicable to rate increases or decreases,
- 7 provided the deferral account balance is maintained within a reasonable range:
- 8 i. Implementing a commodity rate change cap, plus or minus \$1.00 per GJ, would
- 9 be utilized for a maximum of two consecutive quarters provided that the rate
- 10 changes subject to the cap have been in the same direction, and
- 11 ii. The cap is removed for the third consecutive quarter if the rate change is in the
- 12 same direction.
- 13 b) Criteria for consideration of using a prospective period beyond the 12-month outlook to
- 14 determine a new effective commodity rate. A 24-month prospective period may be used
- 15 in specific situations to maintain the Commodity Cost Reconciliation Account (CCRA)
- 16 deferral account balance within a reasonable range over the full duration of the 24-
- 17 month period, which includes:
- 18 i. When a commodity rate change is indicated using a standard 12-month
- 19 prospective period;
- 20 ii. When there is a difference of \$0.75 per GJ or more between the CCRA weighted
- 21 average cost of gas (WACOG) for year one versus year two of the 24-month
- 22 prospective period, and
- 23 iii. The direction of the commodity rate change indicated using a standard 12-month
- 24 prospective period is opposite to the direction of the CCRA WACOG for year two
- 25 compared to the CCRA WACOG for year one (for example, if the indicated
- 26 commodity rate change was an increase, the CCRA WACOG for year two would
- 27 need to be lower than the CCRA WACOG for year one).

28
 29 FEI noted that it was not proposing any changes to the Commission guidelines for setting gas
 30 cost recovery rates and managing the gas cost reconciliation balances as set out in Letters L-5-
 31 01 and L-40-11 (the Guidelines) with respect to the consideration of the full circumstances.
 32 Rather it proposed some criteria to provide further clarification of when consideration be given to
 33 the appropriateness of commodity rate proposals for timeframes beyond the 12-month outlook
 34 since the guidelines currently do not include any specific metrics or criteria in this regard.

35 In terms of the hedging percentages, the FEI commodity supply portfolio included the gas
 36 purchases FEI requires for its commodity portfolio and excluded any supply provided to FEI by
 37 natural gas marketers per the Customer Choice Program. The commodity supply portfolio is

1 typically determined within the Annual Contracting Plan (ACP) each year or load forecasts may
2 be updated through the Annual Review process. For simplicity, FEI defined the hedging terms
3 as including winter, summer or one-year terms.

4 In terms of the rate setting mechanism enhancements, FEI considers a band of approximately
5 +/- \$60 million a reasonable range for the commodity deferral account. Deviations falling
6 materially outside of this range can pose challenges for FEI in terms of the timing of refunding or
7 recovering significant dollar amounts from customers and can impact FEI's balance sheet and
8 potentially its credit rating and borrowing capacity.

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

14 **1.2 COMMISSION PANEL DECISION**

15 The Commission Panel (Panel) approved the 2015 PRMP in Order E-10-16 dated June 17,
16 2016. In its decision, the Panel accepted that FEI's current portfolio of comprehensive price risk
17 management strategies and tools are working well from the perspective of managing volatility,
18 sending appropriate market signals and managing the CCRA deferral account balances within a
19 reasonable range. It also noted that the development of effective price risk management tools
20 is an iterative process and the application of these tools will continue to evolve as market
21 conditions change¹.

22 The Panel's decision to approve the three-year hedging strategy was made with consideration
23 to the low-price commodity environment, which existed at the time FEI submitted its 2015
24 PRMP². FEI noted in the 2015 PRMP that this low price environment, where market natural gas
25 prices are near their lowest levels in over a decade and gas producer break-even costs,
26 provides FEI with the opportunity to help meet the price risk management objectives of
27 mitigating market price volatility to support rate stability and capturing opportunities to provide
28 customers with low rates. The medium-term hedging strategy that includes locking in up to half
29 of the commodity supply portfolio with fixed price purchases or swaps, if pre-defined price
30 targets are reached, would help keep FEI's commodity rate at low and favourable levels relative
31 to historical values.

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

¹ Commission Order E-10-16 dated June 17, 2016, page 12.

² IBID, page 24.

1 exists today³. The Panel stated that there is no evidence on the record attempting to define
2 exactly what a “low-price market environment” is and at what price point a low-price market
3 environment ceases to exist and there is a shift from a risk view to a market view. The Panel
4 stated that, if FEI wishes to make any change to the term, the price targets or the methodology
5 as outlined in its 2015 PRMP, it must do so by a formal application. FEI has done this through
6 its 2018 PRMP, which is based on recommendations from FEI’s 2017 Annual Report submitted
7 to the Commission on April 27, 2017.

8 In its decision, the Panel approved FEI’s proposal to keep the CCRA deferral account range at
9 +/- \$60 million after tax in keeping with FEI’s recommendations⁴. However, the Panel
10 considered there to be potential benefit to examining the option of increasing the maximum
11 amount of the CCRA deferral account as a practical solution to control volatility over the longer
12 term. In the event that FEI sought to extend the hedging program, the Panel expected FEI to
13 include in its application a review of the effectiveness of the approved strategies as compared to
14 the other price risk management tools, which may be available to FEI. In particular, FEI was
15 directed to include an evaluation of the option of increasing the acceptable CCRA deferral
16 account balance to +/- \$200 million to manage CCRA during periods of extreme volatility. FEI
17 has included this review and evaluation in its 2018 PRMP.

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

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

31
32 FEI was directed to file the Annual Report concurrently with FEI’s ACP, which is typically filed at
33 the beginning of May each year. A copy of the Annual Report is also to be provided to all
34 participants of the 2015 PRMP proceeding, redacted if necessary. FEI will also provide a
35 redacted copy of the 2018 Annual Report to participants in the February 24, 2017 Price Risk
36 Management Workshop (2017 PRM Workshop), listed below:

- 37 • Sentinel Energy Management

³ IBID, page 24.

⁴ IBID, page 27.

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

12
13 FEI does not object to the participants in the 2017 PRM Workshop being provided with the
14 unredacted confidential version of the 2018 Annual Report upon executing a Confidentiality
15 Declaration and Undertaking form, as provided in Appendix A.

16 Once it has been filed, the need for further process will be assessed by the Commission and, if
17 required, a formal process determined. FEI believes that the review process for the 2018
18 PRMP, currently underway, provides the appropriate review process relating to the assessment
19 of FEI's price risk management strategies since the 2018 PRMP includes the recommendations
20 from the assessment of the price risk management strategies discussed in this 2018 Annual
21 Report.

22 This 2018 Annual Report satisfies the Panel's reporting requirements listed above and provides
23 some recommendations regarding FEI's price risk management tools and strategies going
24 forward.

25 **1.2.1 Hedging Implementation Clarification**

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

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

36

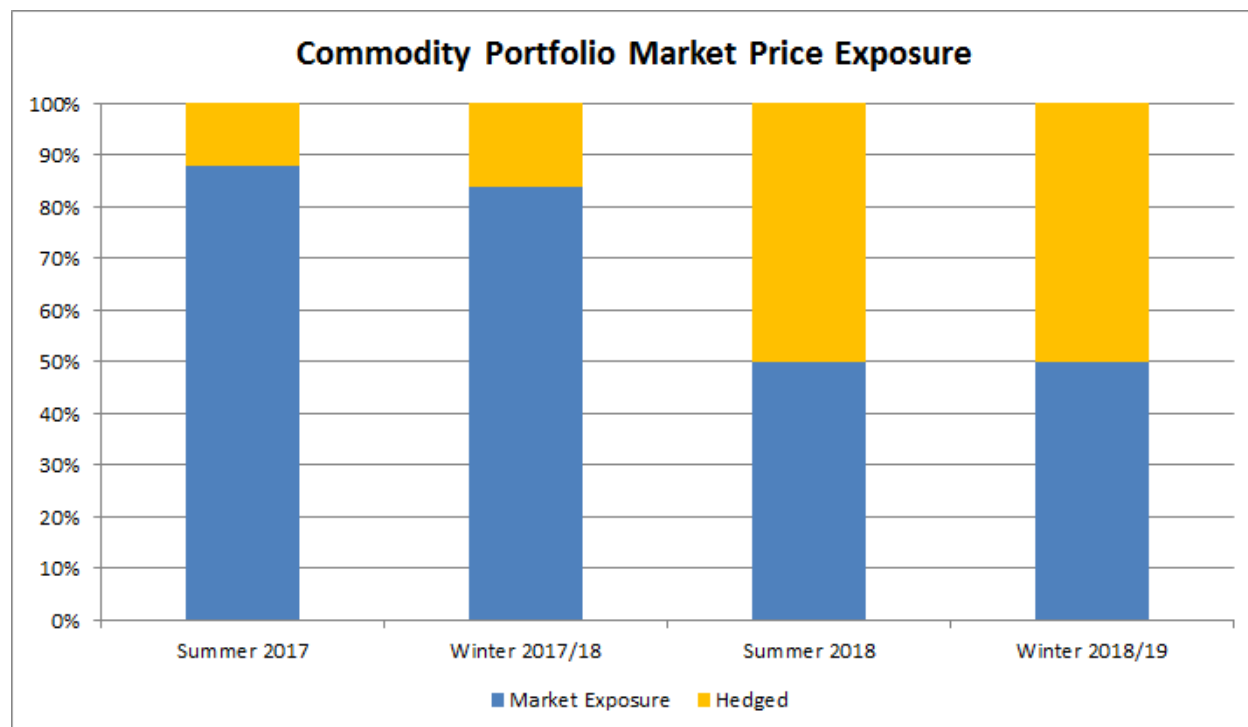
2. ASSESSMENT OF MEDIUM-TERM HEDGING STRATEGY

FEI has implemented the hedging strategy outlined in the 2015 PRMP and approved by the Commission. 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.

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 current level of 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 Review⁵ forecasts. FEI has implemented all allowable hedging according to the implementation and volume limits of the 2015 PRMP.

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.

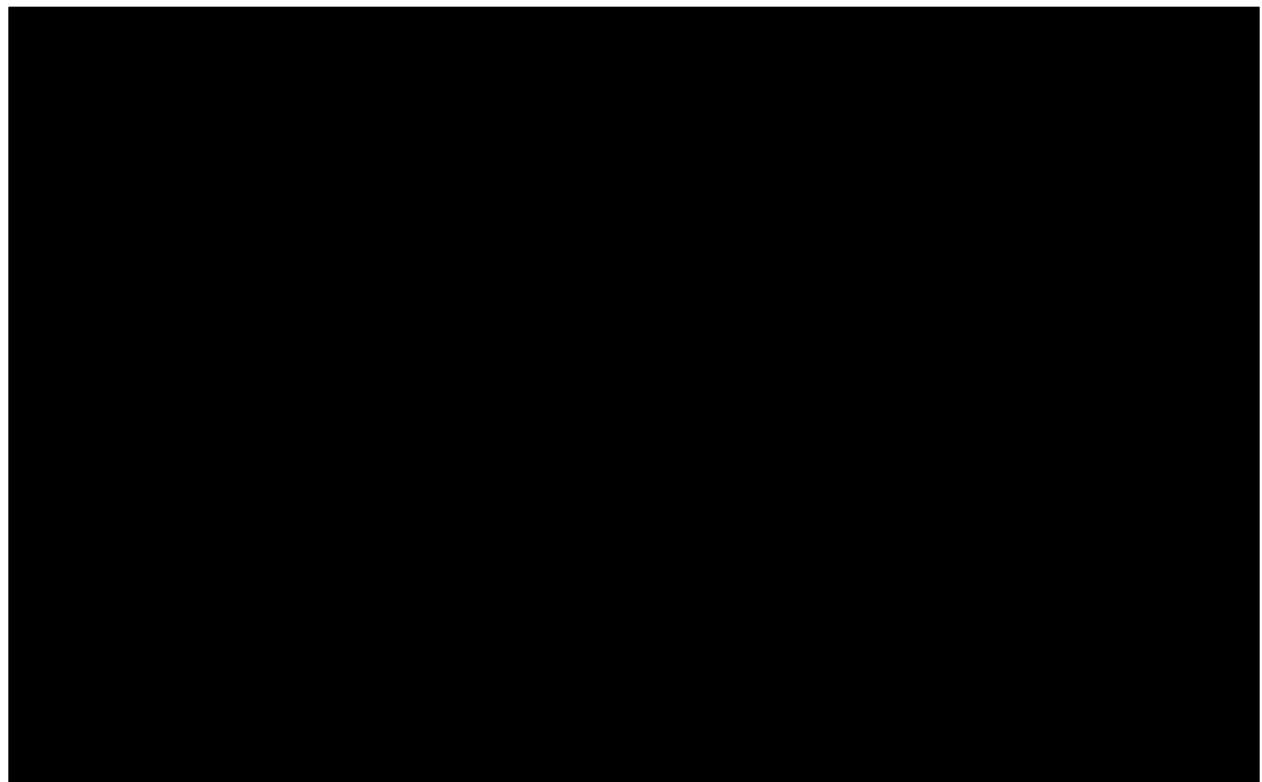
1 The hedges implemented for Summer 2017 and Winter 2017/18 total about 40 TJ per day and
 2 53 TJ per day, respectively, which are below the maximum hedging volume of 165 TJ per day
 3 for each term as market prices fell below hedging price targets [REDACTED]
 4 [REDACTED]. The hedges implemented for Summer 2018 and Winter 2018/19 total 185 TJ per day,
 5 respectively, as market prices were below hedging price targets for a long enough time to
 6 implement the hedging strategy to the maximum allowance.

7 The following subsections provide further analysis regarding the medium-term hedging strategy
 8 by first reviewing the hedges that have expired (i.e. underlying market prices have settled) and
 9 then those hedges that remain open (i.e. market prices have not yet settled).

10 **2.1 EXPIRED HEDGES**

11 As of the date of this report, the hedges implemented for the Summer 2017 and Winter 2017/18
 12 terms have expired as the underlying market prices have settled. The following figure shows the
 13 hedging price targets and implemented hedging prices by the transaction date for the Summer
 14 2017 term.

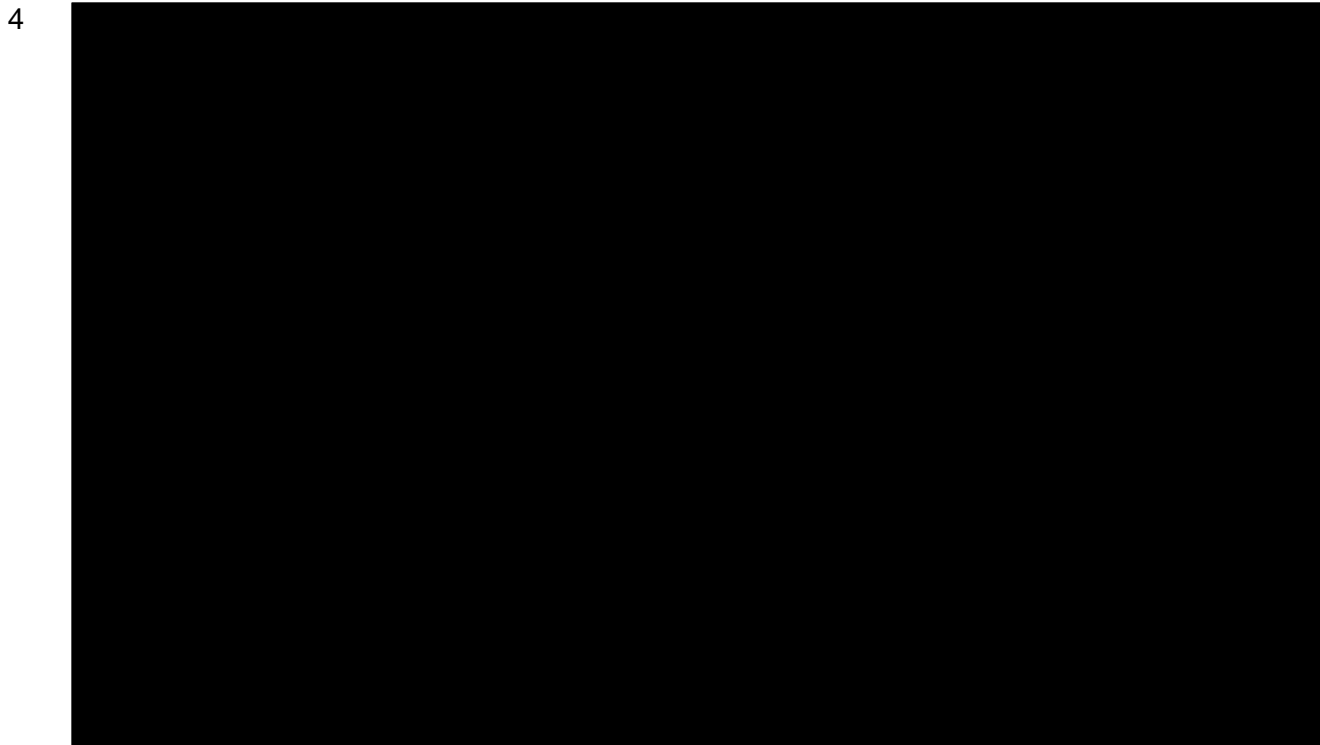
15 **Figure 2:** [REDACTED]



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

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

3 **Figure 3:** [REDACTED]

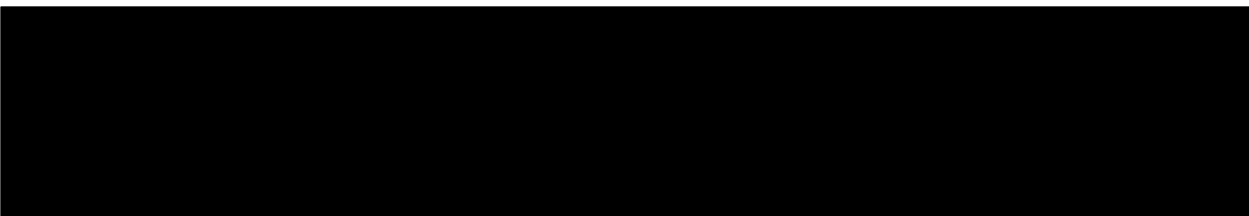


5 As the figure above shows, the first hedge for the Winter 2017/18 term was transacted on
6 [REDACTED], as the hedge target price of [REDACTED] was reached just before the start
7 of the Winter 2017/18 term. In total, FEI hedged 16 percent of the portfolio at prices at or below
8 the first hedging target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

10 The following table shows the hedging gains/(costs) from the implemented hedges for Summer
11 2017 and Winter 2017/18. Hedging gains/(costs) are measured by comparing the weighted
12 average hedge prices to the average actual settled AECO/NIT monthly index prices for each
13 term.

14 **Table 1:** [REDACTED]

15



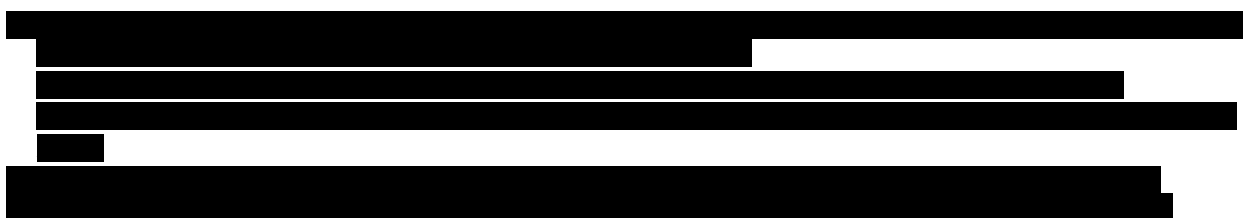
6 [REDACTED]

1 As the previous table shows, the settled hedges resulted in incurred hedging costs for Summer
2 2017 and Winter 2017/18. The impact of the hedging costs relative to the total commodity
3 portfolio costs was [REDACTED] and [REDACTED] for Summer 2017 and Winter 2017/19
4 respectively. This hedging cost is a relatively small premium on FEI's total gas costs and does
5 not equate to a material portion of the total customer bill. For example, the hedging cost
6 represents [REDACTED] for an average residential customer and an average small
7 commercial customer bill respectively.

8 It is important to note that while FEI's average hedge prices were [REDACTED]
9 [REDACTED] for Summer 2017 and Winter 2017/18, respectively, based on AECO/NIT, FEI receives a
10 further discount for Station 2 supply priced off the AECO/NIT index as FEI's commodity
11 purchases consist of 75 percent from Station 2 and 25 percent from AECO/NIT. With the actual
12 incurred Station 2 to AECO/NIT discount of about [REDACTED]
13 [REDACTED] for Winter 2017/18, the average effective prices for the supply delivered to Station 2 are
14 about [REDACTED] for Summer 2017 and Winter 2017/18 terms. This
15 shows the effective price, while not the lowest market price, helped capture prices below the
16 2017 commodity rate of \$2.05 per GJ.

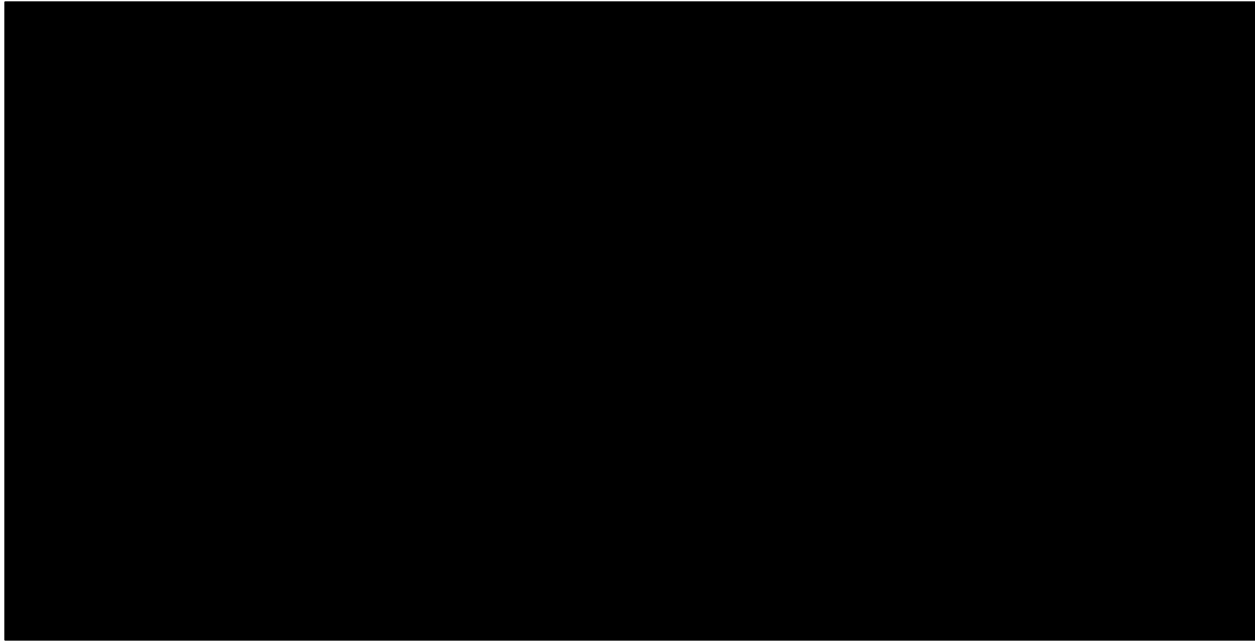
17 **2.2 OPEN HEDGES**

18 As of the date of the 2018 Annual Report, the hedges implemented for the Summer 2018 and
19 Winter 2018/19 terms remain open, as underlying market prices for the full terms have not yet
20 settled. Therefore, the hedges for these terms are subject to mark-to-market (MTM) valuations,
21 rather than incurred actual hedging gains or costs. The following figure shows the hedging price
22 targets and implemented hedging prices by the transaction date for the Summer 2018 term.



1

Figure 4: [REDACTED]



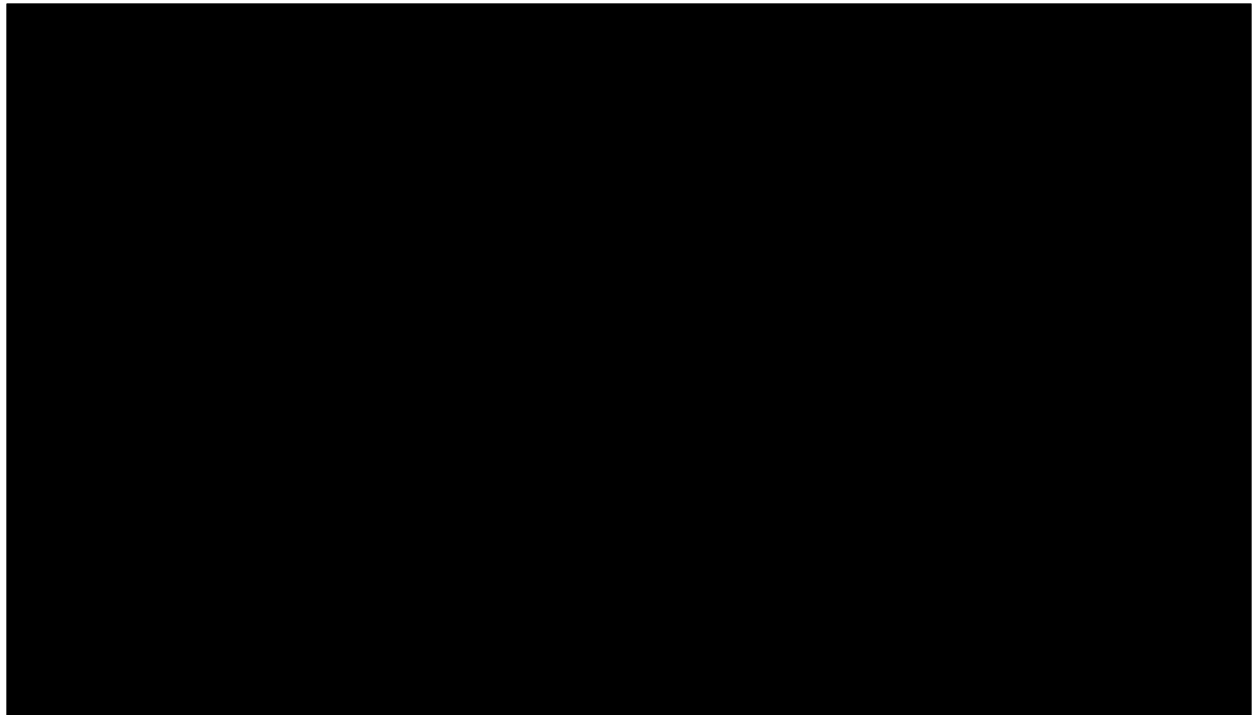
2

3 As the figure above shows, hedging for the Summer 2018 term began on [REDACTED]
4 and concluded on [REDACTED]. The forward market prices fell below the first hedge target
5 price of [REDACTED] in 2017 during [REDACTED],
6 which allowed FEI to hedge about 83 TJ per day, the approved maximum limit of 25 percent of
7 the total commodity portfolio for the first hedge target price. On [REDACTED], forward market
8 prices fell below [REDACTED], allowing more hedges to be transacted below this level. An
9 additional 33 TJ per day was hedged, reaching the maximum hedging volume of 35 percent of
10 the total commodity portfolio for year 2 of the approved hedging strategy. As of February 21,
11 2018, the April 2018 to March 2019 period, year 2, rolled over to become year 1 of the approved
12 hedging strategy, which increased the maximum hedging limit to 50 percent of the total
13 commodity portfolio. With an additional 15 percent to hedge for Summer 2018 and with forward
14 market prices being well below the second hedging price target level, the remaining hedges
15 were implemented in [REDACTED].

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

1

Figure 5: [REDACTED]



2

3 As the figure above shows, hedging for the Winter 2018/19 term began on November 24, 2017.
4 As forward market prices fell below the first hedge target price of [REDACTED] and continued to
5 fall further past the second hedge target price of [REDACTED], the implementation of the
6 hedging strategy allowed FEI to layer on additional hedges at lower prices. On December 22,
7 2017, the maximum hedging volume of 35 percent of the total commodity portfolio for year 2 of
8 the approved hedging strategy was reached. As of February 21, 2018, year 2 rolled over to
9 become year 1 of the approved hedging strategy, which increases the maximum hedging limit to
10 50 percent of the total commodity portfolio. The forward market prices continued to be lower
11 than the second hedge target price of [REDACTED], allowing FEI to hedge to the maximum limit
12 for Winter 2018/19 term. Hedging concluded for this term on [REDACTED].

13 The following table shows the MTM value of the hedges in place based on the forward market
14 price curve as of April 11, 2018. This shows the current value of the hedges compared to
15 forward market prices for Summer 2018 and Winter 2018/19 terms. The Summer 2018 term
16 includes the incurred cost for April 2018, which was [REDACTED], and the MTM for the remaining
17 months in which the prices have not yet settled (i.e. May to October 2018).

1

Table 2: [REDACTED]

[REDACTED TABLE]

2

3 The previous table shows Summer 2018 with a MTM cost of about [REDACTED], while Winter
4 2018/19 has a MTM gain of [REDACTED]. It should be noted that the net MTM value for both
5 terms is based on forward market prices at a point in time and, because forward market prices
6 change on a daily basis, this MTM value will also change over time. As of April 11, 2018, the
7 Summer 2018 MTM cost is [REDACTED] of the forecasted commodity costs and Winter 2018/19
8 MTM gain is less than [REDACTED]. The combined net cost represents [REDACTED] for an
9 average residential and small commercial customer bill, respectively. The cost to the average
10 residential and small commercial customers' total bill falls under the 3.6 and 4.6 percent
11 increase threshold, respectively, that customers would be willing to pay for greater stability in
12 their natural gas bill as per the customer survey FEI had conducted in March 2017 (discussed in
13 the 2018 PRMP).

14 The average hedge prices for Summer 2018 and Winter 2018/19 of [REDACTED]
15 [REDACTED] are further discounted when applying the Station 2 discount from AECO/NIT. With the
16 current Station 2 to AECO/NIT discount of about [REDACTED] for Summer 2018 and [REDACTED]
17 [REDACTED] for Winter 2018/19, the average effective prices are about [REDACTED]
18 for Summer 2018 and Winter 2018/19 terms. This results in the average effective prices being
19 lower than FEI's 2017 commodity rate of \$2.05 per GJ and closer to the FEI current commodity
20 rate effective January 1, 2018 of about \$1.55 per GJ.

21 FEI recognizes that the MTM cost for the Summer 2018 term is greater than Winter 2018/19
22 term, which has a slight gain, or the incurred costs for the Summer 2017 and Winter 2017/18
23 terms. This is because forward AECO/NIT market prices fell during the end of when hedging
24 were being implemented. While FEI was able to capture low-priced hedges during this period,
25 some of which are currently showing a hedging gain, the weighted average hedge price for
26 Summer 2018 is currently above forward market prices. Section 2.3 discusses the recent
27 developments in the gas marketplace that have affected Summer 2018 AECO/NIT and Station 2
28 market prices in particular.

¹⁰ Summer 2018 "Gains/(Costs)" includes settled AECO/NIT index price for April 2018.

[REDACTED TABLE]

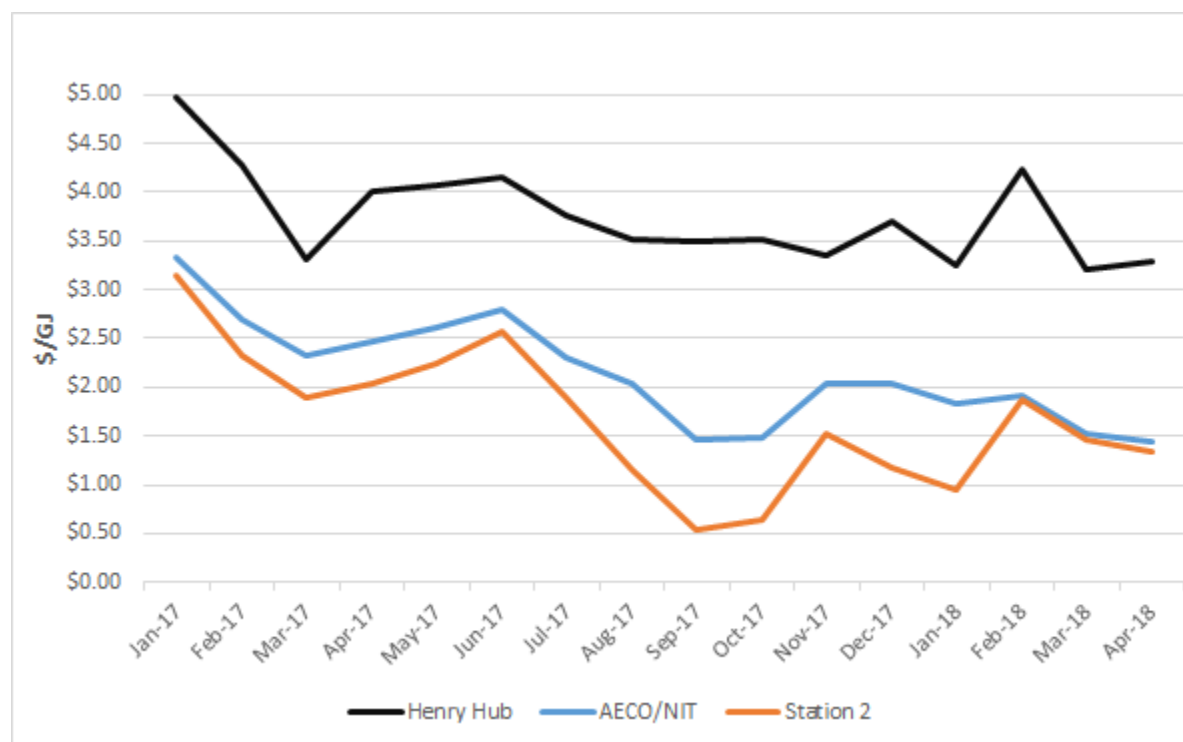
1 Overall, the implementation strategy has captured hedges at lower prices than the approved
 2 target levels. The combination of two hedging price targets, each with a percentage limit, and
 3 the weekly implementation limits provided opportunities to capture lower hedge prices in a
 4 falling market price environment rather than locking in prices all at once and not providing the
 5 opportunity to capture lower prices later. Furthermore, lower volume percentage limits on
 6 hedging for year 2 and year 3 allow the layering on of hedges as markets prices have continued
 7 to fall.

8 **2.3 MARKET PRICES**

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

11 The following figure shows the monthly settled prices at Henry Hub, AECO/NIT and Station 2
 12 from January 2017 to April 2018.

13 **Figure 6: Monthly Settled Market Prices**

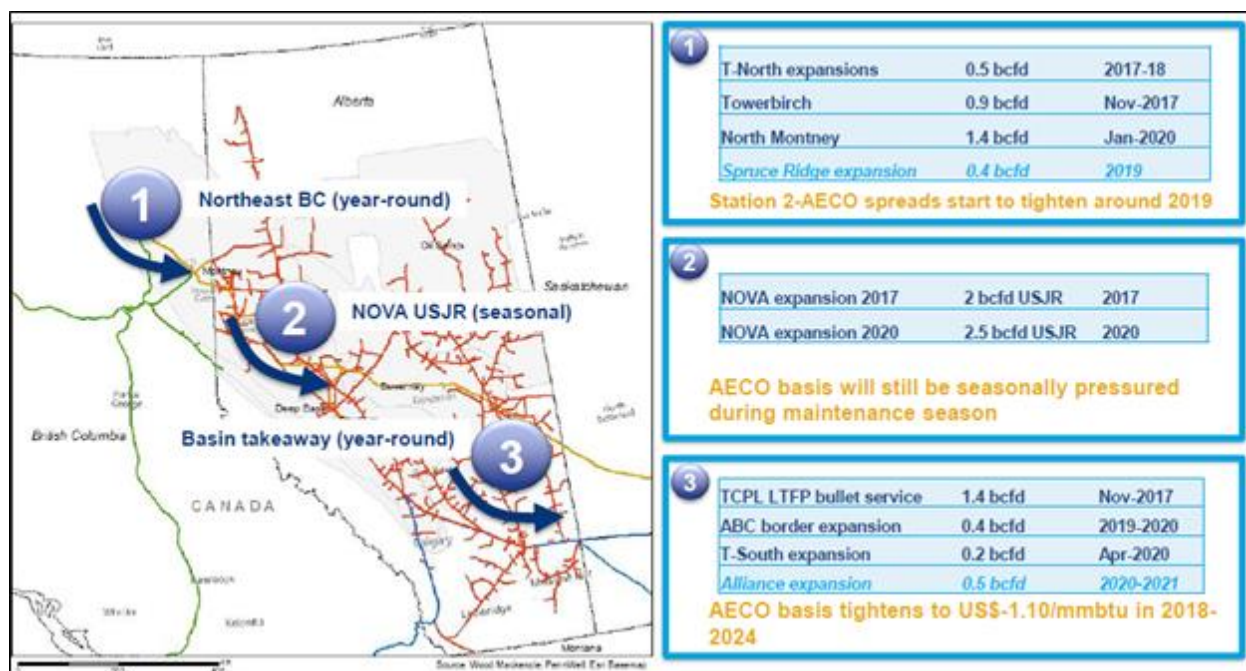


14
 15 AECO/NIT and Station 2 prices began to disconnect significantly from Henry Hub prices in June
 16 2017 and have continued to be near their lowest levels in decades. The drop in prices during
 17 the summer months of 2017 was due to several main reasons. These include pipeline
 18 maintenance and expansion on the Alberta Nova Gas Transmission Line system, which left
 19 Alberta and BC gas stranded. Also, the combination of natural gas from the WCSB being
 20 pushed back from the Utica and Marcellus plays and increasing WCSB supply due to lower
 21 break-even costs added additional downward pressure on prices. The pipeline constraints within

1 the WCSB to access downstream markets will continue to influence the discount between Henry
 2 Hub and AECO/NIT prices for the next couple of years. It is expected that AECO/NIT and
 3 Station 2 prices will continue to be seasonally pressured during the summer pipeline
 4 maintenance and expansion season, causing lower prices in those months for the next two
 5 years.

6 However, future pipeline developments could alleviate downward price pressure by providing
 7 more outlets for WCSB gas and start to tighten the AECO/NIT basis by 2020, as shown in the
 8 figure below.

9 **Figure 7: WCSB Pipeline Developments¹³**



10
 11 The figure above shows expected pipeline developments in BC and Alberta over the next few
 12 years. The North Montney expansion in Northeast BC will provide more interconnection
 13 between BC and Alberta in 2020 and so could begin to reduce the Station 2 discount to
 14 AECO/NIT pricing. Also, WCSB takeaway expansion capacity could tighten the AECO/NIT
 15 discount to Henry Hub by 2020. Until then, it is expected that seasonal maintenance and
 16 expansion of the NOVA Upstream James River (USJR) pipeline system will continue to result in
 17 low AECO/NIT and Station 2 prices during the summer terms.

18 Overall, the result of these pipeline developments is that the AECO/NIT basis could tighten in
 19 the future (i.e. increasing AECO/NIT pricing relative to Henry Hub pricing) with the increase in
 20 outlets for WCSB gas supply to markets. Hedging 3 to 5 years out, as recommended in the
 21 2018 PRMP, would provide an opportunity to capture low market prices and improve the
 22 likelihood of maintaining low and more stable commodity rates for customers beyond winter
 23 2018/19.

¹³ Source: Wood Mackenzie : North American Gas Outlook (November 2017)

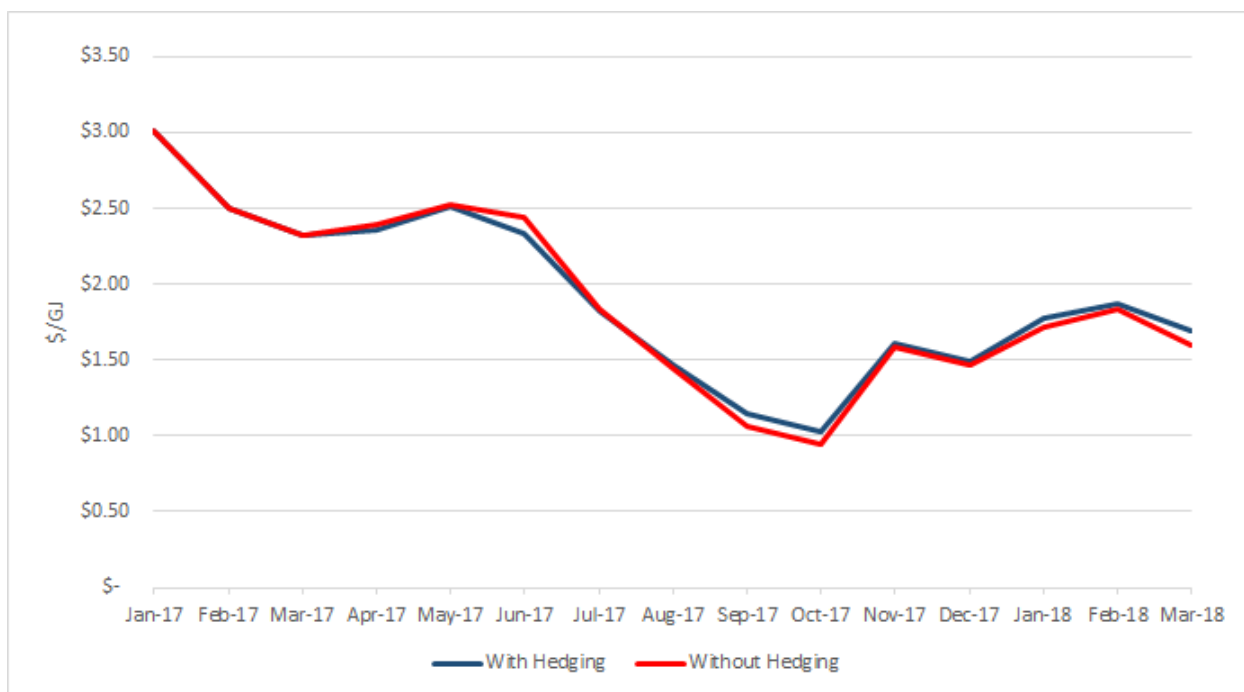
1 FEI continues to monitor market developments and forward market prices and has
2 recommended lowering hedging targets per the 2018 PRMP based on consideration of gas
3 producer break-even costs, market prices and probability analysis, and FEI's commodity rate.
4 Hedging at or below the proposed hedging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

7 **2.4 IMPACTS ON COST OF GAS**

8 This section provides an assessment of the impact of the hedging activity on FEI's cost of gas
9 as compared to what would have occurred had hedging not been undertaken. Section 2.5
10 provides an assessment with regard to FEI's commodity rates.

11 The following figure shows the actual quarterly weighted average cost of gas (WACOG) in the
12 CCRA portfolio, on a per unit basis, from January 2017 to March 2018, with and without the
13 implemented hedges. This reflects the impact of the hedges on FEI's cost of gas, excluding
14 deferral accounts, that is recovered from customers through commodity rates.

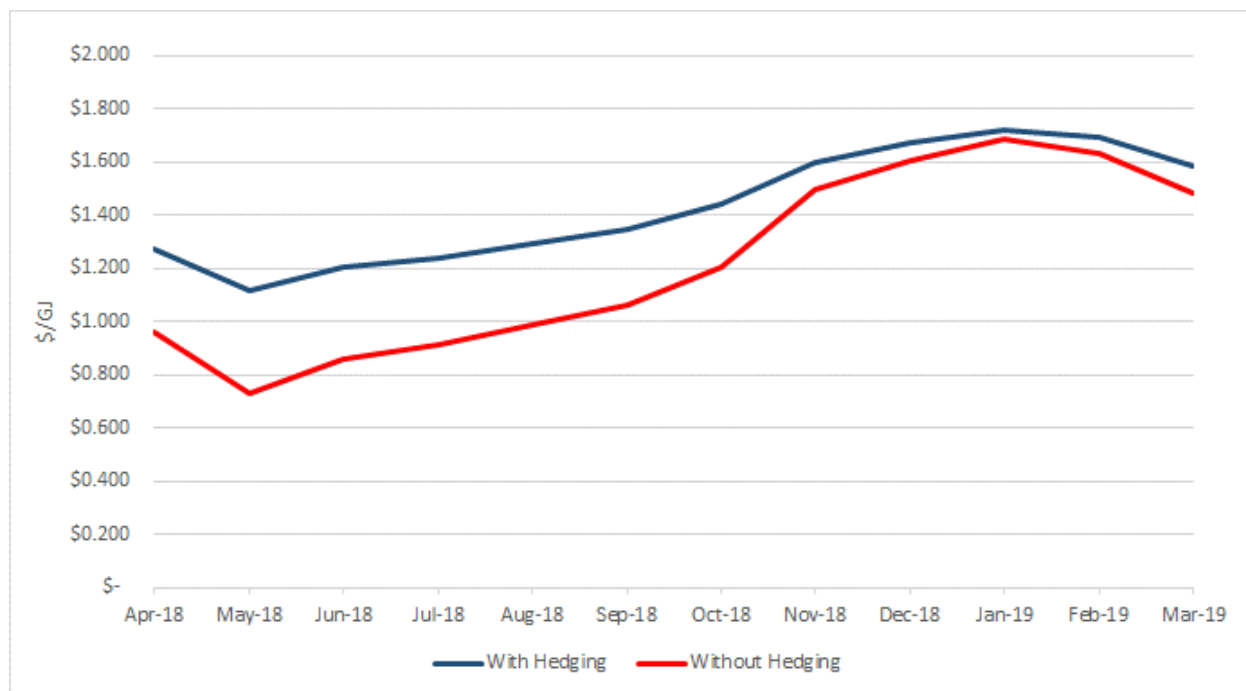
15 **Figure 8: Actual WACOG in CCRA Portfolio with and without Hedging**



16
17 The figure above shows that, given the relatively small amount of hedges implemented for
18 Summer 2017 and Winter 2017/18 and small differences between settled market prices and
19 hedging prices, there is little difference between the actual weighted cost of gas with and
20 without hedging since FEI began hedging in February 2017 under the approved medium-term
21 hedging strategy. FEI's customers have continued to benefit from the majority of the decreases
22 in the market gas prices at the AECO/NIT and Station 2 hubs.

1 The following figure shows the recent projected weighted cost of gas in the CCRA portfolio, on a
 2 per unit basis, from April 2018 to March 2019, with and without the implemented hedging.¹⁴

3 **Figure 9: Projected WACOG in CCRA Portfolio with and without Hedging**



4
 5 The figure above shows that the projected cost of gas with hedging is higher than without
 6 hedging, more significantly during the Summer 2018 months. This is due to the higher MTM
 7 hedging costs for Summer 2018 compared to Winter 2018/19 as discussed in the previous
 8 section. However, overall, the projected cost of gas with the current hedges in place averages
 9 [REDACTED] for the one-year outlook, helping maintain FEI's commodity rate near its current
 10 low level of about \$1.55 per GJ.

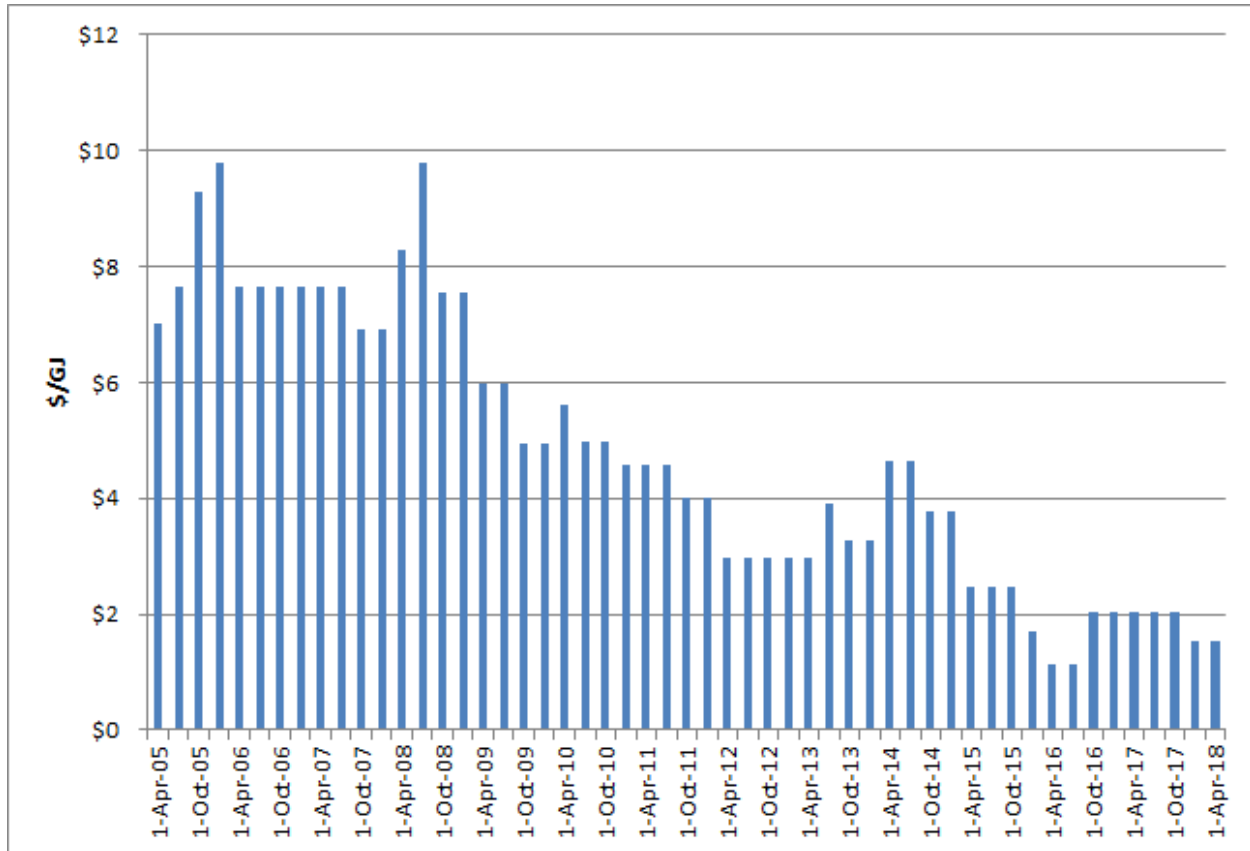
11 The following section discusses the impacts of the hedging and cost of gas on FEI's commodity
 12 rates paid by customers.

¹⁴ Based on FEI's First Quarter Gas Cost Report using the five-day average of February 21, 22, 23, 26 and 27, 2018 forward prices.

1 **2.5 IMPACTS ON FEI COMMODITY RATES**

2 The following figure shows FEI's actual historical commodity rates effective from April 2005 until
 3 April 2018, including the results of any hedging activity. The commodity rates reflect the cost of
 4 gas as well as the impacts of deferral account balances.

5 **Figure 10: FEI Historical Commodity Rate**



6
 7
 8 The average of these historical commodity rates since April 2005 is about \$4.70 per GJ.
 9 However, since 2008 when the era of shale gas began, the commodity rate has averaged about
 10 \$3.45 per GJ. The commodity rate average for the last three years is about \$1.91 per GJ. FEI's
 11 lowest commodity rate was about \$1.14 per GJ effective April 1, 2016 to September 30, 2016,
 12 after which time it increased to \$2.05 per GJ effective October 1, 2016 and is currently at about
 13 \$1.55 per GJ since January 1, 2018.

14 FEI has implemented AECO/NIT hedges at an average price of about [REDACTED] for both
 15 Summer 2017 and Winter 2017/18 terms, which have been settled. In addition, FEI has
 16 implemented AECO/NIT hedges at an average price of about [REDACTED] for Summer 2018
 17 and about [REDACTED] for Winter 2018/19. After the Station 2 discount, the average effective
 18 hedge prices are about [REDACTED] and [REDACTED] for Summer 2018 and Winter 2018/19
 19 terms. This helped in reducing the commodity rate below \$2.05 per GJ and is helping to
 20 improve the likelihood that FEI's commodity rate remains below this level, at least out to the end

- 1 of Winter 2018/19. Based on the projected cost of gas and deferral account balances reviewed
- 2 for setting the latest FEI commodity rate effective April 1, 2018, both indications, with and
- 3 without hedging, were for no commodity rate change.

- 4 The hedging program helps maintain gas rates at lower levels, relative to recent historical
- 5 levels, and, along with FEI's other price risk management tools, provide more commodity rate
- 6 stability and for customers.

1 **3. ASSESSMENT OF COMMODITY RATE SETTING ENHANCEMENTS**

2 FEI has not yet had the opportunity to use any of the 2015 PRMP approved commodity rate
3 setting enhancements. These enhancements include the \$1.00 per GJ rate change cap and the
4 criteria for consideration of using a prospective period beyond the 12-month outlook to
5 determine a new effective commodity rate. FEI has had two commodity rate changes since the
6 approval of the rate setting enhancements in June 2016, with the first one being an increase
7 from \$1.141 per GJ to \$2.05 per GJ effective October 1, 2017 and more recently FEI decreased
8 the commodity rate from about \$2.05 per GJ to \$1.549 per GJ effective January 1, 2018. The
9 rate changes of about \$0.91 per GJ effective October 1, 2016 and about \$0.50 per GJ effective
10 January 1, 2018, were both below the \$1.00 per GJ rate change cap.

11 Furthermore, for rate setting effective October 1, 2016 and January 1, 2018, the gas cost
12 outlook for the 12-month and 24-month periods did not meet the criteria for consideration of the
13 24-month outlook. This is because there was a difference of less than \$0.75 per GJ between
14 the CCRA WACOG for year one versus year two of the 24-month prospective period. The
15 direction of the commodity rate change indicated using a standard 12-month prospective period
16 was not opposite to the direction of the CCRA WACOG for year two compared to the CCRA
17 WACOG for year one. Therefore, none of the criteria were met to use the 24-month outlook.

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

22

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 Commission 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. The summer term hedging price targets should be adjusted to [REDACTED] for the first hedge price target and [REDACTED] for the second hedge price target. The winter term price targets should be adjusted to [REDACTED] for the first hedge price target and [REDACTED] for the second hedge price target. One-year term hedging price targets should be in between these summer and winter price target levels at [REDACTED] for the first hedge price target and [REDACTED] for the second hedge price target;
- 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 are currently indicated for Summer 2018 in this Annual Report.

The 2018 PRMP is currently under review by the Commission.

Appendix A

CONFIDENTIAL 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 2018 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 2018 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] 2018.

Signature: _____

Name (please print): [Name]

Representing (if applicable): [organization being represented]