bcuc
British Columbia
Utilities Commission

FortisBC Energy Inc.

2017 Price Risk Management Plan

Decision
and Order G-108-19

May 22, 2019

Before:
H. G. Harowitz, Panel Chair
D. J. Enns, Commissioner
B. A. Magnan, Commissioner

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Executive Summary

On June 13, 2017, FortisBC Energy Inc. (FEI) filed its 2017 Price Risk Management Plan (2017 PRMP Application). After inviting parties to provide comment on the scope and process for review of the application, the BCUC determined that a proper review required a broader scope than requested by FEI and requested FEI to submit a revised application and/or addendum to the 2017 application.

On January 5, 2018, FEI filed a revised application titled the 2018 Price Risk Management Plan (PRMP) (Application) requesting approval of the following:

- Extending the term of the current medium-term hedging program out to October 2021;
- Adjusting the current winter and summer term hedging price targets to account for seasonality in market prices as well as the one-year term hedging price targets; and
- Implementing hedging with terms up to five years.

FEI's current Price Risk Management Program, which expired on March 31, 2019, is solely in relation to the Alberta AECO/NIT market component of FEI's gas supply portfolio and the Application solely relates to this market.

FEI states the following objectives for its PRMP:

- Mitigate market price volatility to support rate stability, and
- Capture opportunities to maintain commodity rates at historically low levels.

FEI does not specify the sections of the *Utilities Commission Act* (UCA) under which it is applying for approval of the Application. The Panel will use the public interest test as the basis for determining whether the Application should be approved.

The regulatory process included: FEI's submission of the initial application; intervener registration; FEI and Intervener submissions on scope and process; FEI's submission of a revised Application; one round of Information Requests (IR); FEI and interveners' final arguments followed by FEI's reply argument.

On November 29, 2018 (prior to the Panel issuing a decision), FEI filed a Winter 2018/19 Price Risk Update letter with information about the potential impact that the Enbridge pipeline rupture could have on FEI's 2018 PRMP (New Evidence). Subsequent to filing of the New Evidence, the 2018 PRMP review process continued with one round of Intervener Information Requests on New Evidence and filing of the Supplemental Submissions.

Four interveners registered for the proceeding: Access Gas Services Inc.; British Columbia Old Age Pensioner's Organization, Active Support Against Poverty, Disability Alliance BC, Council of Senior Citizens' Organization of BC, and the Tenant Resource and Advisory Centre (BCOAPO); The Commercial Energy Consumers Association of British Columbia (CEC); and Sentinel Energy Management Inc. Of the four, only BCOAPO and the CEC submitted a final argument, as summarized below:

- BCOAPO is not opposed to FEI's application but expressed two concerns regarding hedging plans targeted at commodity rate stability: "hedging activities may not materially reduce volatility"; and "hedging may achieve a reduction in volatility but at an excessive cost." BCOAPO agrees that there is currently far more commodity price upside risk than there is on the downside: as such, BCOAPO fully supports efforts to lock in current low-price levels for a future in which commodity prices are likely to increase.

- The CEC does not agree that mitigating volatility to support commodity rate stability for ratepayers is an important objective to be sought through hedging activities and would not support having FEI incur significant risks or costs to do so. With regard to FEI's second objective, the CEC agrees with FEI's analysis that there currently exists a low-price environment that provides opportunities for FEI to create price benefits for ratepayers. The CEC qualifies its views by stating that if the program does not result in lower or equivalent prices relative to what would otherwise be achieved, the program should be discontinued or scaled back.

The Panel has structured the Decision in two major parts. The first deals with determining whether, in the context of the objectives set out by FEI in its Application, a hedging program specifically in relationship to the AECO/NIT markets, is in FEI's customers' interest. With those determinations in place, the Panel turns its attention to the broader question of whether the Application is in the public interest. Thus, there are three questions to be addressed:

- Are the interests of FEI's customers served by a hedging program designed to further mitigate market price volatility related to the AECO/ NIT markets to support commodity rate stability?
- Are the interests of FEI's customers served by a hedging program designed to capture opportunities to maintain commodity rates at what are in FEI's view, historically low levels?
- Is it in the public interest to approve the requested extension of the current hedging program to October 2021, adjustments to hedging price targets, and hedging with terms up to five years?

As FEI applied for a proposal based on AECO/NIT index pricing, the Panel's focus is on the AECO/NIT market and all the references to the volatility in the decision refer specifically to the AECO/NIT market.

Regarding whether a program targeted to support commodity rate stability is in the customers' interest, the Panel makes the following key findings:

- AECO/NIT market price volatility has declined significantly, and current volatility levels are the appropriate context in which to evaluate this Application;
- Customers' commodity rates have been relatively stable and current commodity rate stability levels are the appropriate basis upon which to assess the merits of the Application;
- Hedging has not contributed significantly to the observed commodity rate stability, and the evidence does not support a conclusion that hedging will make a significant contribution in the future; and,
- The customer survey does not provide sufficent evidence of customers' preferences.

Based on these findings, **the Panel finds that the proposed hedging program, insofar as it is intended to achieve additional gas commodity rate stability, is not in the interest of FEI's customers.**

Regarding whether a program targeted to capture opportunities to maintain commodity rates at what FEI characterizes as historically low levels is in the customers' interest, the Panel makes the following findings:

- The Panel disagrees with FEI's characterization of a "low" price environment to the extent that it is meant to imply some inherent statistical likelihood of reverting to long-term historical averages.
- The Panel is not persuaded that on a balance of probabilities, FEI customers will be exposed to a significantly greater risk of AECO/NIT market price increases from current levels than market price declines. For these reasons, **the Panel finds that there is no reason to expect, that on a balance of probabilities, there will be a significant departure from the recent/current AECO/NIT market price environment.**
- Thus, the Panel is not persuaded that the risk to protect against, either in magnitude or probability, warrants the expense of the hedging program.

Based on these findings, **the Panel finds that the proposed hedging program, insofar as it is intended to capture opportunities to maintain commodity rates "at historically low levels", is not in the interest of FEI's customers.**

FEI's two objectives for the PRMP deal first and foremost with anticipated benefit to FEI's customers. Thus, while the Panel's assessment of the public interest considers multiple factors, the Panel places greater emphasis on whether the Application serves the interests of FEI's customers. Having determined that the proposed hedging program is not in the customers' interest, **the Panel finds that the proposed hedging program is not in the public interest.**

The Panel therefore views the public interest as being served by allowing the March 31, 2019 expiration date to stand as it relates to the existing hedging program. As such, and given the program has expired, the Panel considers approval of an extension to the program (i.e. the five-year horizon) to be moot.

The Panel finds, that the Application is not in the public interest, and therefore denies FEI's request to approve:

- **Extending the current medium-term hedging horizon out to October 2021;**
- **Adjusting the current winter and summer term hedging price targets to account for seasonality in market prices as well as the one-year term hedging price targets; and**
- **Implementing hedging with terms up to five years.**

1.0 Introduction

1.1 Background

FortisBC Energy Inc.'s (FEI) current Price Risk Management Program expired on March 31, 2019.[1] FEI originally applied to the British Columbia Utilities Commission (BCUC) for extensions and modifications on June 13, 2017 to the Price Risk Management Program. On January 5, 2018, FEI filed its revised application. This application is solely in relation to the management of gas procured from the AECO/NIT (Alberta) market.

Prior to this application, FEI has on earlier occasions sought approval of hedging programs as part of a price risk management program regarding its gas supply. A brief chronology follows, outlining key elements of those applications and decisions that this Panel finds relevant to its review of this Application.

In 2010, the BCUC denied the 2010 Price Risk Management Plan applications submitted by FEI and FortisBC Energy (Vancouver Island) Inc. respectively.[2] FEI was directed to conduct a review of the plan's primary objectives in the context of the *Clean Energy Act* and increased domestic natural gas supply.

In 2011, FEI subsequently filed an application seeking approval of the objectives and key elements of its Price Risk Management Plan. In its decision on the 2011 application, the BCUC determined that moderation of volatility of natural gas prices to stabilize customer rates was a reasonable goal for FEI to pursue but rejected the notion that it necessarily followed that the 2011 application was the most cost-effective approach or solution.[3] Hence, the BCUC denied the application for the proposed hedging program.[4]

In 2015, FEI filed an application seeking approval for a medium-term hedging strategy for the period from April 2016 to March 2019. The BCUC found that the FEI medium-term hedging strategy was in the public interest and approved the medium-term hedging strategy with the following components:

- Execute hedges in its commodity supply portfolio only when forward AECO/NIT market prices are at or below a pre-defined price level for a certain period of time;
- Maximum hedging for any term is 50 percent of the FEI commodity supply portfolio;
- Hedges are limited to fixed price financial swaps or physical fixed price purchases;
- Price targets apply to each winter or summer term or one-year term within the three-year horizon of April 2016 to March 2019;

The FEI target prices and time horizon of FEI's hedging strategy were kept confidential in order to preserve and not impair FEI's ability to negotiate and obtain favourable commercial terms. In the 2015 decision, the Panel denied extension of the hedging program beyond March 31, 2019.[5] The BCUC commented on FEI's objective of taking advantage of market opportunities as follows:

[1] FortisBC Energy Inc. (FEI) 2015 Price Risk Management (PRM) Decision and Order E-10-16 and Letter L-15-16 dated June 17, 2016, p. 24.
[2] Terasen Gas Inc. Filing of the 2010 PRM Plan (November 2010 – October 2013) Order E-23-10 and Terasen Gas (Vancouver Island) Inc. Filing of the 2010 PRM Plan (November 2010 – October 2013), Order E-24-10.
[3] Application by Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively Terasen Gas) (now FEI and FortisBC Energy [Vancouver] Inc.) for Approval of the PRM Plan Effective April 2011 – October 2014, Order G-120-11 and Reasons for Decision, p. 22.
[4] ibid.; The application was denied with the exception of granting approval for the basis swaps at Sumas.
[5] FEI 2015 PRM Decision and Order E-10-16, p. 24.

> 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. Given this circumstance, the Panel is of the view that if FEI wishes to make any change to the term, the price targets or the methodology as outlined in its application, it must do so by a formal application.[6]

Additionally, in the 2015 decision, the BCUC approved a number of enhancements to its Guidelines[7] for reviewing quarterly gas cost reporting and setting the respective gas cost rates. The approved enhancements include a commodity rate change cap of ±$1.00/GJ subject to certain conditions and three criteria to consider a 24-month outlook instead of the standard 12-month outlook. These specifications are outlined in Letter L-15-16.

On June 13, 2017, FortisBC Energy Inc. (FEI) filed its 2017 Price Risk Management Plan (2017 PRMP Application). In the 2017 PRMP Application, FEI requests the following:

1. Extend the term and adjust hedging price targets for the medium term fixed-price hedging strategy approved by the BCUC via Order E-10-16. FEI proposes a one-year extension to October 2020 and seasonal (summer and winter) price targets;
2. A longer term fixed-price hedging strategy that includes hedges with terms of up to five years based on pre-defined market price targets. The hedging horizon would end in 2023; and
3. That the Application be held confidential on the basis that it could impair FEI's ability to negotiate and obtain favorable commercial terms for any future natural gas hedging;

In the 2017 PRMP Application, FEI notes: "The objectives of 2015 PRMP continue to be applicable in this 2017 PRMP."[8]

After inviting parties to that proceeding to provide comment on the scope and process for review of the application, the BCUC determined that a proper review required a broader scope than requested by FEI. The BCUC requested FEI submit a revised application and/or addendum to the 2017 application, which includes (among other requirements):

- A unified stand-alone set of objectives along with supporting reasons for those objectives.
- A separate discussion, analyzing the merits of specific strategies/tools put forward for approval in terms of specifically how they address the objectives.[9]

1.2 Application and Approvals Sought

On January 5, 2018, FEI filed a revised application titled the 2018 Price Risk Management Plan (PRMP), (Application) requesting approval of the following:

- Extending the current medium-term hedging horizon out to October 2021. The medium-term hedging strategy includes locking in up to half the commodity supply portfolio with fixed price hedges, only if pre-defined price targets are reached.
- Adjusting the current winter and summer term hedging price targets to account for seasonality in market prices as well as the one-year term hedging price targets.
- Implementing hedging with terms up to five years. [10]

[6] ibid., p. 25.
[7] L-5-01: Guidelines for Setting Gas Recovery Rates and Managing the Gas Cost Reconciliation Balance
[8] Exhibit B-1, p. 1.
[9] Exhibit A-3, p. 9.

FEI's current Price Risk Management Program, which expired on March 31, 2019, is solely in relation to the Alberta AECO/NIT market component of FEI's gas supply portfolio. FEI provides the detailed hedging proposal in section 5 of its Application.[11] Similar to past PRMP applications, FEI requests that commercially sensitive information related to FEI's hedging strategy be treated confidentially, including prices at which FEI plans to execute hedges.

FEI stated the following objectives for its PRMP:

- Mitigate market price volatility to support rate stability, and
- Capture opportunities to maintain commodity rates at historically low levels. [12]

The Panel notes at the outset that the term 'rates' in the context of a gas bill[13] encompasses several charges, for instance delivery charges, commodity charges, and other charges and taxes. In the context of this Application, FEI uses 'rates' and 'commodity rates' interchangeably to refer to the 'cost of gas' component of the commodity charges in the gas bill. For clarity and consistency in this Decision, commodity rates will be used throughout.

- FEI does not specify the particular sections of the *Utilities Commission Act* (UCA) under which it is applying for approval of the Application. The Panel will use the public interest test as the basis for determining whether the Application should be approved.

Given that FEI's two objectives for the PRMP deal first and foremost with anticipated benefit to FEI's customers, and since FEI's hedging costs are passed through to customers and FEI bears no cost, the Panel's assessment of the public interest places significant emphasis on whether the Application serves the interests of FEI's customers.

On November 29, 2018, FEI filed a Winter 2018/19 Price Risk Update letter with information about the potential impact that the Enbridge pipeline rupture could have on FEI's 2018 PRMP (New Evidence). The rupture occurred on October 9, 2018 on Enbridge's subsidiary, Westcoast Energy Inc. (WEI) T-South pipeline and impacted regional supply availability, restricting gas flows to all delivery points south of Station 2. The rupture also impacted the resources in the FEI Annual Contracting Plan (ACP) required to meet customers' needs.[14] Subsequent to filing of the New Evidence, the 2018 PRMP review process continued with one round of Intervener Information Requests (IRs) on New Evidence and filing of the Supplemental Submissions.

1.3 Market Overview and FEI Gas Supply

FEI presents a long-term view of the demand- and supply-side resources identified to meet FEI's expected future natural gas demand and reliability requirements over the 20-year planning period in its Long Term Gas Resource Plan, while its ACP focuses on managing the physical resource requirements to meet the load requirements over the five years.[15]

The portfolio of resources included in the ACP is grouped into two components. The first is the baseload supply that is required for the full gas year, and which is included in the Commodity portfolio. The second component includes seasonal supply, storage, and LNG that is required during the winter period and transportation capacity

[10] Exhibit B-1-2, p. 2.
[11] Exhibit B-1-2, pp. 36–39
[12] Exhibit B-1-2, p. 4.
[13] FortisBC, How to Read your Natural Gas Bill (Apr 2019), retrieved from: https://www.fortisbc.com/NaturalGas/Homes/Rates/Mainland/Pages/Sample-bill-for-Mainland-customers.aspx
[14] Exhibit B-10, p. 2.
[15] Exhibit B-11, BCOAPO IR 1 on New Evidence.

that is required year-round, and is included in the Midstream portfolio. FEI gas supply manages these two components on an integrated basis.[16]

In planning the recommended portfolio of resources, FEI takes into account market information available at the time. FEI notes that the market for natural gas is always changing and these changes are driven by the relationship between pricing points and the availability of resources that impact the different market hubs where FEI sources gas supply.[17]

FEI purchases the majority of its gas supply based on AECO/NIT index pricing[18]. FEI also procures gas from Station 2 and this supply has been impacted by the rupture of the WEI's T-South pipeline. To make up for the loses, FEI procured gas at the Huntington delivery point. Before the T-South pipeline rupture, FEI had no physical Huntingdon supply in the 2018/2019 gas year[19].

FEI notes that the Huntingdon/Sumas market hub is, for the majority of its supply, fed from a single source, the WEI's T-South system. This reliance combined with regional market forces can severely disconnect Sumas prices from other market hub prices, such as AECO/NIT and Station 2. Such periods of pricing disconnect typically occur when increased demand in the Pacific Northwest region exceeds the delivery capacity at Huntingdon and causes Sumas prices to increase significantly above prices at other regional market hubs.[20]

FEI points out that the [Alberta] AECO/NIT market has more diversity with a larger number of production plants, commercial storage facilities, greater pipeline diversity, and provides more takeaway outlets for the gas to flow to more end-use markets. In contrast, the British Columbia marketplace has far less liquidity due to the limited number and size of end-use markets it accesses, greater pipeline risk given limited regional pipeline infrastructure, and only one main commercial storage facility[21].

FEI states that AECO/NIT market prices are near their lowest levels in decades due to a combination of natural gas from the Western Canadian Sedimentary Basin (WCSB) being pushed back from the east, increasing Alberta supply due to lower break-even costs, and Alberta pipeline constraints. However, easing of pipeline constraints in the next five years to move excess supply from the WCSB could tighten the basis and increase AECO/NIT prices.[22] FEI notes that some of these potential pipeline projects that may alleviate the constraints are still proposals at this time and have yet to be finalized with committed start dates and contract volumes. Once there is more certainty regarding the volume and timing of these pipeline projects, forward market prices may increase from current levels. If these projects are delayed or do not proceed, then forward market prices may decrease from current levels.[23]

1.4 Structure of this Decision

The Panel has structured this Decision in two major parts. The first deals with determining whether, in the context of the objectives set out by FEI in its Application, a hedging program specifically in relationship to the AECO/NIT markets is in FEI's customers' interest. With those determinations in place, the Panel turns its attention to the broader question of whether, pursuant to s.71(2.4), the Application is in the public interest.

Thus, there are three questions to be addressed:

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[16] FEI 2018/2019 Annual Contracting Plan – Executive Summary, pp. E-1 – E-2.
[17] FEI 2018/2019 Annual Contracting Plan – Executive Summary, p E-3.
[18] Exhibit B-1-2, p. 8.
[19] Exhibit B-10, pp. 1–2.
[20] ibid., p. 3.
[21] Ibid., pp. 3–4.
[22] Exhibit B-1-2, p. 8.
[23] Exhibit B-8, CEC IR 3.1.

- Are the interests of FEI’s customers served by a hedging program designed to further mitigate market price volatility related to the AECO/ NIT markets, and support commodity rate stability?
- Are the interests of FEI’s customers served by a hedging program designed to capture opportunities to maintain commodity rates, in FEI’s view, at historically low levels?
- Is it in the public interest to approve the requested extension of the current hedging program to October 2021, adjustments to hedging price targets, and hedging with terms up to five years?

2.0 Mitigating AECO/NIT Market Price Volatility and Supporting Commodity Rate Stability

The Panel agrees that pursuit of commodity rate stability on behalf of customers is generally a worthy objective. However, the issue before the Panel is not whether commodity rate stability should be pursued, but whether a hedging program designed to provide additional commodity rate stability beyond that which customers can achieve without a hedging program is in the customers’ interest.

To address this question, the Panel examines four key questions:

- What is the level of market price volatility for the AECO/NIT market?
- What is the level of commodity rate stability?
- What is the impact of hedging on commodity rate stability?
- Have customers indicated there is an unmet need for additional commodity rate stability?

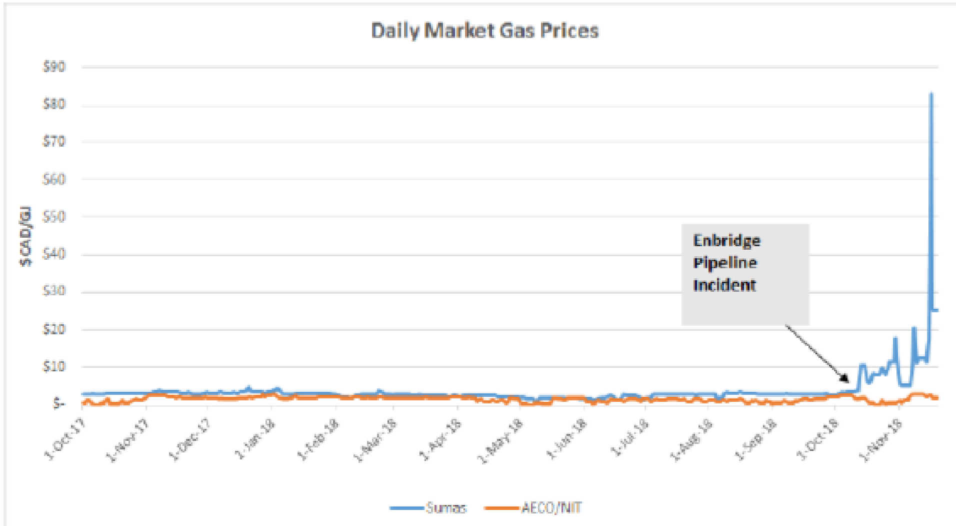
Once these foundational questions have been addressed, the Panel returns to the higher-level question:

- Are the interests of FEI’s customers served by a hedging program designed to mitigate market price volatility for the AECO/NIT market and support commodity rate stability?

2.1 What is the level of the AECO/NIT market price volatility?

The Application seeks approval for a hedging strategy relative to the AECO/NIT market. The October 2018 WEI’s T-South pipeline rupture incident impacted markets dynamics, and regional gas prices have been significantly impacted, particularly those at Sumas market hub. As demonstrated by Figure 1 below, AECO/NIT market prices, however, have not been significantly impacted:

Figure 1: AECO/NIT and Sumas Daily Prices Before and After Enbridge Pipeline Incident[24]



FEI purchases the majority of its commodity supply based on AECO/NIT index pricing and, as such, the hedging requests in the 2018 PRMP are based on AECO/NIT market prices[25]. FEI reiterates that the hedging objectives and strategies proposed in the 2018 PRMP are based on FEI's AECO/NIT price exposure.[26]

As FEI applied for a proposal based on AECO/NIT index pricing, the Panel turns its focus on the AECO/NIT market and all the references to the volatility in the following sections of this Decision refer specifically to the AECO/NIT market. FEI states that its proposed hedging strategy "is designed to take advantage of the volatility in the current market by locking in market prices at the low swings in the market when the opportunity arises."[27]

Figure 2: Historical AECO/NIT Market Prices[28]

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24 Exhibit B-10, pp. 2–3.
25 Ibid., p. 4.
26 FEI Supplemental Submission on New Evidence, pp. 5–6.
27 Exhibit B-1-2, p. 1.
28 Exhibit B-1-2, p. 6.

FEI provides a graphical representation of AECO/NIT market prices from November 1999 to November 2017 in the above table.

FEI also provides an analysis of the volatility for different periods, based on price ranges and standard deviations (in $ per GJ units) in AECO/NIT monthly settled prices:[29]

Table 1: AECO/NIT Market Prices Nov 1999 – Nov 2017[30]

Time Period	High Price	Low Price	Average	Standard Deviation
1999 to 2009	$12.91	$2.50	$5.95	2.10
2010 to 2017	$5.64	$1.04	$2.98	0.91

Time Period	High Price	Low Price	Average	Standard Deviation
Last 19 Years	$12.91	$1.04	$4.55	2.22
Last 10 Years	$6.83	$1.04	$3.15	1.08
Last 5 Years	$5.64	$1.04	$2.84	0.88
Last 3 Years	$3.94	$1.04	$2.39	0.62
Last 1 Year	$3.33	$1.46	$2.39	0.54

FEI submits that "price volatility continues in the current gas market in response to change in supply and demand balances. The abundance of shale gas has generally resulted in an oversupply of gas, but market conditions can change quickly in response to increases in demand."[31]

Panel Determination

The Panel draws two conclusions from the evidence, in terms of AECO/NIT historical and present price volatility:

1. Prices have declined: An average price over the last three years of $2.39/GJ as compared to an average price of $5.95/GJ for the 1999 – 2009 period.
2. Price volatility has declined: A significant decline in the standard deviation, from $2.22/GJ over the last nineteen years, to $0.62/GJ over the past three years. Adjusted for the decline in the base average price in these intervals, the reduction in volatility remains significant: In the past three years, the coefficient of variation of one standard deviation represents ±29% of the average price (0.62 / 2.39), compared to ±49% of the average price (2.22 / 4.55) over the past nineteen years.

FEI has provided various statements about the range of possible scenarios regarding price levels in the future, but insufficient persuasive evidence to support a conclusion that, on a balance of probabilities, an increase in AECO/NIT market price volatility is likely. Having considered the evidence and the arguments, **the Panel is not persuaded that the volatility in the AECO/NIT market will be significantly different than during the recent years. Therefore, recent/current AECO/NIT price volatility levels are an appropriate basis upon which to assess the merits of the Application.**

2.2 What is the level of commodity rate stability?

FEI provides a comparison between the weight average cost of gas in red which reflects market prices, and the rates charged to customers in blue.

[29] Exhibit B-5, BCUC IR 4.4, IR 4.4.1.
[30] Exhibit B-1-2, p. 6.
[31] FEI Final Argument, para 37.

Figure 3: FEI Historical Commodity Rate (Monthly) and Weighted Average Cost of Gas[32]

Panel Determination

As noted, FEI seeks approval of the Application to mitigate market price volatility to support rate stability. The question we address in this section, therefore, is what is the extent of rate stability (or instability) that argues for approving the applied-for measures?

An assessment of commodity rate stability in the context of this Application cannot be as simplistic as observing changes to the rate. Customers likely want their rate to be reduced if the underlying cost of the gas they use has declined. Given the downward trend in market prices since the peak in summer 2008, declines in customer commodity rates were both inevitable and desirable.

The issue of rate instability, then, is more about the volatility of those rate changes in the face of shorter-term fluctuations in the underlying market price. During the past ten years, even as prices were on a downward trend:

- There were several extended periods in which customers saw no change at all in their commodity rate, including: the most recent fifteen months (September 2016 to December 2017); nine months (April 2015 to December 2015); fifteen months (April 2012 to June 2013); and nine months (January 2011 to September 2011).
- There were only two instances of customers experiencing a commodity rate change in one direction in one month, followed by a rate change in the other direction three months later (May/July 2001, and June/September 2013). In both instances, customers saw a rate increase in the first period followed by a rate decrease three months later.
- There was a rate increase of $1.368/GJ in April 2014 and another increase of $0.909/GJ in October 2016. Relative to earlier years, there had been two instances of consecutive rate increases. October 2005 recorded an increase of $1.634/GJ and again in the next quarter of January 2006 an increase of $0.482/GJ, a total of $2.116/GJ over six months. April 2008 recorded an increase of $1.361/GJ and in the next quarter of July 2008 an increase of $1.493/GJ, a total of $2.854/GJ over six months.[33] Thus, the evidence shows that the magnitude of rate increases has reduced in recent years.

[32] Exhibit B-8, CEC IR 4.1.
[33] Exhibit B-5, BCUC 25.4.

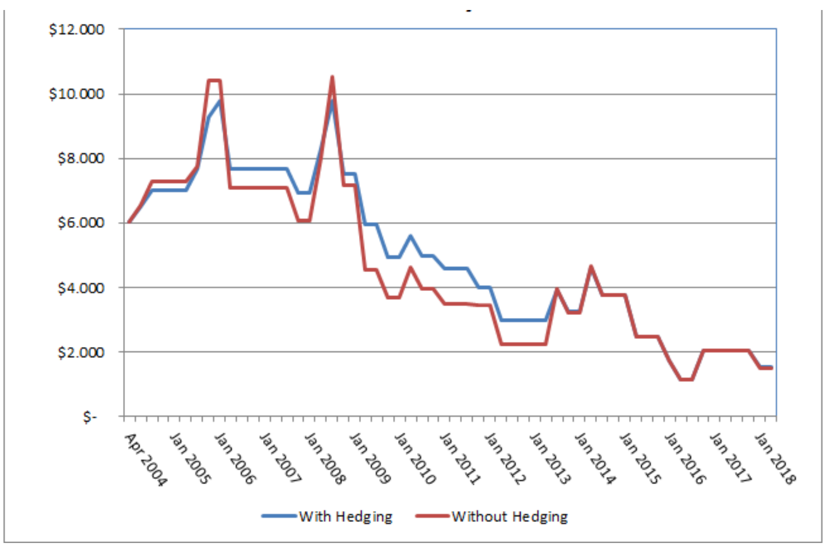
As noted in section 2.1 above, the Panel is not persuaded there is sufficient evidence to conclude that AECO/NIT market prices will exhibit greater volatility in the near term. **The Panel is not persuaded that there is sufficient reason to conclude that commodity rates will become less stable due to volatility in the AECO/NIT market in the near term. Therefore, recent/current commodity rate stability levels are an appropriate basis upon which to assess the merits of the Application.**

2.3 What is the impact of hedging on commodity rate stability?

FEI submits that its bundled service customers are never fully exposed to market prices, by virtue of the quarterly rate setting process and the Commodity Cost Reconciliation Account (CCRA) deferral account (Quarterly Gas Cost Reviews). Key elements of Quarterly Gas Cost Reviews include:

- Application of a rate change trigger mechanism of ± 5% and a minimum rate change threshold of ± $0.50 per GJ;
- Flexibility for utilization of commodity rate change proposals using 24-month timeframes rather than the standard 12-month prospective period when the appropriate criteria are met; and
- A commodity rate change cap of +/- $1.00 per GJ with two provisions: restricting use of the cap to two consecutive quarterly review periods; and that the CCRA deferral account does not exceed the plus or minus maximum of +/- $60 million after tax.

Figure 4: FEI Commodity Rate[34]



FEI provides a chart (Figure 4 and

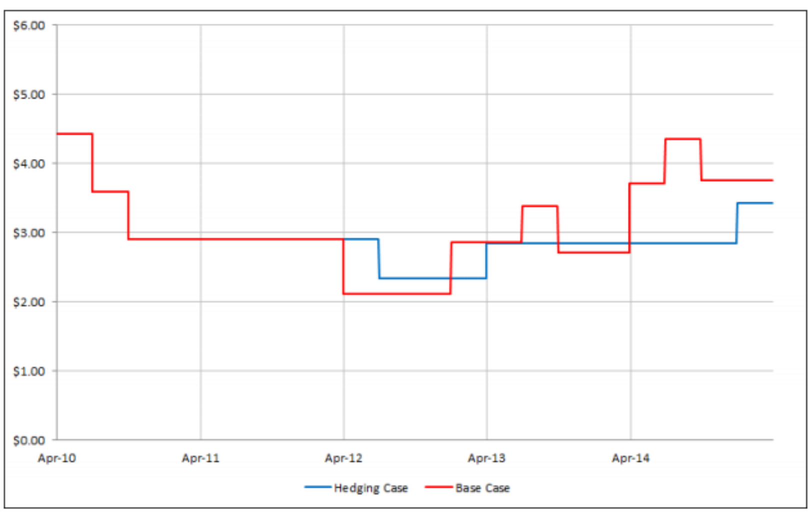
Table 2) showing historical commodity rates with hedging from April 2004 to April 2018, and compares them to what rates would have been without hedging.[35]

[34] ibid., BCUC IR 20.3.
[35] Exhibit B-8, CEC IR 25.2.

Table 2: April 2004 to April 2018 Historical Commodity Rates with Hedging Compared to What Rates Would Have Been Without Hedging

	Rate 1 - $/GJ		
	Hedged	No-Hedge	
Apr 2004	$ 6.020	$ 6.020	
May	$ 6.518	$ 6.527	
Jul	$ 7.005	$ 7.266	
Oct	$ 7.005	$ 7.266	
Jan 2005	$ 7.005	$ 7.266	
Apr	$ 7.005	$ 7.266	
Jul	$ 7.658	$ 7.745	
Oct	$ 9.292	$ 10.428	
Jan 2006	$ 9.774	$ 10.428	
Apr	$ 7.662	$ 7.070	
Jul	$ 7.662	$ 7.070	
Oct	$ 7.662	$ 7.070	
Jan 2007	$ 7.662	$ 7.070	
Apr	$ 7.662	$ 7.070	
Jul	$ 7.662	$ 7.070	
Oct	$ 6.926	$ 6.068	
Jan 2008	$ 6.926	$ 6.068	
Apr	$ 8.287	$ 8.042	
Jul	$ 9.780	$ 10.544	
Oct	$ 7.536	$ 7.161	
Jan 2009	$ 7.536	$ 7.161	
Apr	$ 5.962	$ 4.563	
Jul	$ 5.962	$ 4.563	
Oct	$ 4.953	$ 3.675	
Jan 2010	$ 4.953	$ 3.675	
Apr	$ 5.609	$ 4.624	
Jul	$ 4.976	$ 3.948	
Oct	$ 4.976	$ 3.948	
Jan 2011	$ 4.568	$ 3.505	
Apr	$ 4.568	$ 3.505	
Jul	$ 4.568	$ 3.505	
Oct	$ 4.005	$ 3.463	
Jan 2012	$ 4.005	$ 3.463	
Apr	$ 2.977	$ 2.226	
Jul	$ 2.977	$ 2.226	
Oct	$ 2.977	$ 2.226	
Jan 2013	$ 2.977	$ 2.226	
Apr	$ 2.977	$ 2.226	
Jul	$ 3.913	$ 3.967	
Oct	$ 3.272	$ 3.201	
Jan 2014	$ 3.272	$ 3.201	
Apr	$ 4.640	$ 4.652	Hedging Program ended in March 2014
Jul	$ 3.781	$ 3.781	
Oct	$ 3.781	$ 3.781	
Jan 2015	$ 3.781	$ 3.781	
Apr	$ 2.486	$ 2.486	
Jul	$ 2.486	$ 2.486	
Oct	$ 2.486	$ 2.486	
Jan 2016	$ 1.719	$ 1.719	
Apr	$ 1.141	$ 1.141	
Jul	$ 1.141	$ 1.141	
Oct	$ 2.050	$ 2.050	
Jan 2017	$ 2.050	$ 2.050	
Apr	$ 2.050	$ 2.050	Hedging Program commencing April 2017
Jul	$ 2.050	$ 2.050	
Oct	$ 2.050	$ 2.050	
Jan 2018	$ 1.549	$ 1.485	
Apr	$ 1.549	$ 1.485	

Figure 5: Hedging Strategy vs. Base Case Rate Simulation



FEI also provides the results of simulations that are meant to show the potential benefits of a simulated hedging strategy. More specifically, the simulations quantify the hypothetical results if a particular set of (proposed future) hedging strategies had been applied to actual historical gas prices. The following chart shows the results of one such simulation.[36]

FEI comments that “the simulated hedging strategy resulted in fewer commodity rate changes, kept the commodity rate in a narrower band and avoided the significant increase in the base case commodity rate due to the winter 2013/14 market price spike event.” FEI qualifies the result by commenting that FEI “recognizes that any hedging strategy will work well with perfect hindsight market knowledge.”[37]

Panel Determination

The Panel puts particular focus on the period that FEI characterizes as the Low-Price Environment (October 2009 forward).

During that period, FEI had a hedging program in place for all months except from March 2014 to March 2017 (3/14–3/17). Excluding results incurred during that interval (3/14–3/17) from the analysis (the results are definitionally the same since there were no ‘with hedging’ results to examine) leaves approximately 72 months available for comparison.[38]

When examining the actual commodity rates with hedging for those 72 months and comparing them to the rates that would have prevailed in the absence of hedging shows:

- The number and direction of commodity rate changes achieved with hedging are identical to the changes that would have occurred without hedging;
- For six months the actual commodity rate achieved with hedging was lower than what would have been achieved without hedging;
- For nine months the actual commodity rate achieved with hedging was identical to what would have been achieved without hedging; and
- For 57 months the actual commodity rate achieved with hedging was higher than what would have been achieved without hedging.

The Panel draws the following conclusions from the evidence. From October 2009 forward, hedging appears to not have reduced the number of rate changes or the direction of them, compared to what would have been achieved without a hedging program. Further, the existing program came at a cost, as indicated by the preponderance of periods (57) in which the rate achieved with the program was above the rate that would have been achieved without it. The Panel will more fully address the cost side of hedging in Section 2.5.

While the evidence did not directly explore the underlying causes of customers’ commodity rate stability, the Panel is of the view that, in addition to the benefits of reduced volatility in the underlying gas prices, the effectiveness of the Quarterly Gas Cost Review mechanism under the Guidelines contributed substantially to achieving stable commodity rates for customers.[39]

[36] Exhibit B-1-2, p. 34.
[37] Ibid., p. 34.
[38] From October 2009 through April 2014; and from April 2017 through June 2018 (the April 2018 rate is for 3 months).
[39] BC Gas Utility Ltd. Guidelines for Setting Gas Recovery Rates and Managing the Gas Cost Reconciliation Balance, Letter L-5-01; FEI Report on Gas Cost Deferral Accounts and Rate Setting Mechanisms, Order L-40-11 ; FEI 2015 Price Risk Management Application, Order L-15-16.

FEI has provided simulations that suggest there is a role for hedging to play in achieving added commodity rate stability. The Panel has considered that evidence but gives it limited weight.

The Panel determines that hedging has not materially contributed to commodity rate stability in the past ten years, and the evidence is insufficient to support the conclusion that the proposed hedging program will have a materially positive impact on commodity rate stability going forward.

2.4 Have customers indicated a need for additional commodity rate stability?

FEI asserts that customers desire commodity rate stability based in part on their survey results. The Panel agrees. That said, the question is not whether customers want commodity rate stability in general, but whether they want to bare additional cost and risks for a hedging program for the specific purpose of achieving *additional* commodity rate stability over what they can otherwise achieve.

FEI's position is that the results of the customer survey conducted by Sentis Research in March 2017 (the Customer Survey) indicate that customers support a hedging program. This section examines the Customer Survey results to better understand customers' desires.

Additionally, this section reviews the existing alternative available to customers to achieve rate and bill stability.

FEI states that the Customer Survey shows a willingness by many customers to pay a small premium for bill stability: 62 percent would be willing to pay a small premium; 31 percent indicated they would not be willing to pay a premium; and 23 percent were uncertain.[40]

Looking at the Customer Survey in more detail, the following table sets out the questions and response rates relevant to commodity rate stability.[41]

	Response Rates	
	Residential	Small Commercial
Q11. Some products fluctuate in price because they are traded on the open market, which means no one knows for sure if the price will go up or down. When it comes to paying for a product that has a fluctuating price, which most closely matches your point-of-view? (*randomize two options*)		
1. I would rather pay a bit extra each month to protect against possible, larger monthly increases in the future	39%	42%
2. I would rather **not** pay a bit extra each month and not be protected against possible, larger monthly increases in the future	38%	37%
Don't know	23%	21%
Q12. Paying extra to ensure stable bills/payments applies to natural gas. Since it is possible for natural gas prices to fluctuate, this could mean your natural gas bill		

[40] Exhibit B-1-2, p. 13.
[41] ibid., pp. 75-77, 111.

could go up and/or down several times a year even if your usage remains the same. Knowing this, how much more do you think is reasonable to pay each month to **provide greater stability in your natural gas bill**? (*type in the percentage increase below*)		
Paying __________% more each month on my natural gas bill is reasonable (*range is 1-100%*)	44%	40%
Zero/ Do not want to pay more for greater stability	40%	40%
Don't know	16%	21%
Q13. Generally, what do you think of the idea of paying extra now to ensure a more stable nature gas bill? Select only one.		
1. I like it, keeping **IF RES:** my / **IF BUS:** our natural gas bill stable should be a top priority for FortisBC	19%	17%
2. It's ok, but I worry that **IF RES:** I / **IF BUS:** we will end up paying too much for natural gas	43%	46%
3. I don't like it, FortisBC should just buy the natural gas needed at the market rate and let it fluctuate	31%	30%
No opinion/ doesn't matter to me.	7%	7%

FEI presents information on the program, available to customers on an elective basis, that can be used for rate and/or bill stability, the Customer Choice Program.

The Customer Choice Program for residential customers started in November 2007.[42] Under the Customer Choice Program, customers can elect to receive their commodity supply from a natural gas marketer rather than FEI, and in so doing lock in a fixed rate for terms ranging from one to five years. FEI reports that "only" 3.5 percent of customers are presently enrolled in the Customer Choice Program.[43]

FEI indicated that there have been discussions during the Customer Choice Annual General Meetings by the gas marketers about alternative program offerings for customers, but in general the alternatives contravened the Essential Services Model (ESM) that underpins the program[44]. It is not feasible for gas marketers to sell fixed commodity contracts for terms of less than 12 month increments under the ESM due to operational and seasonal fluctuations.[45]

FEI also provides information on recent Gas Marketers' residential rates (as at the time of filing the Application). The exhibit shows rates ranging from a low of \$3.80/GJ to a high of \$6.39/GJ.[46]

[42] Exhibit B-5, response to BCUC IR 27.6
[43] Exhibit B-1-2, p. 30
[44] Exhibit B-5, response to BCUC IR 27.7
[45] Exhibit B-5, response to BCUC IR 27.7.1
[46] B-1-2 p31

Positions of the Parties

The CEC makes a number of comments regarding the weaknesses in the design of the survey, including: customers were not provided with information about the relative size of the commodity portion of their total gas bill; customers were not provided with information about the historical impact hedging has had on the cost of gas over time; tolerance levels were set at levels considered unlikely in the current market environment; and the survey can be construed as leading the respondents to a preferred response.[47]

The CEC further comments that the 62% majority that FEI refers to as being in support of hedging includes only 19% that like it and 43% that find it okay, whereas 31% indicate they would not be willing to pay a premium.[48]

Panel Discussion

The Panel does not agree with FEI's position that the Customer Survey indicates customer support for a hedging program. The reasons for reaching this conclusion fall into two categories:

- The survey design has shortcomings which undermine the validity of the results; and
- The results do not support the conclusion that customers want a hedging program.

The following examples set out some of the Panel's concerns regarding survey design.

1. Question 11 does not anchor the response in the current context of the customer's gas bill, and asks only about future increases rather than increases and decreases.
2. Question 12 raises the possibility of price changes happening "several times a year", but customers were not provided with a recap of actual experience which shows much greater commodity rate stability than implied by the question.
3. Question 13, alternative 2, has two conflicting ideas in the same answer: "it's okay" and "but I worry that we will end up paying too much for natural gas." Thus, it is unclear whether a respondent who chooses alternative 2 is in support of paying a bit more, is cautiously opposed to paying extra, or is ambivalent/conflicted.

The following examples set out some of the Panel's concerns regarding FEI's interpretation of the survey results:

- Question 11 and 12 response rates are virtually identical in terms of those in favour and those opposed.
- For Question 13, FEI's contention that 62% of Residential customers support hedging is based upon counting all the alternative 2 responses as being in favour. However, if the Panel excludes the responses that chose alternative 2 (for reasons discussed above), the following response rates are noted:
    - Residential: 19% in favour versus 31% opposed
    - Small Commercial: 17% in favour versus 30% opposed

These results indicate there are at least as many customers who are not in favour of paying more for added commodity rate stability as those who are in favour. In summary, the Panel is not persuaded that the Customer Survey results support the contention that customers are in favour of a hedging program.

Turning to the Customer Choice Program, the Panel notes that since the focus of this Application is not on the efficacy of the Customer Choice Program, the evidentiary record is very sparse in terms of shedding light on the relative merits and shortcomings of the Program. Thus, it is difficult to reach a confident conclusion on why

[47] CEC Final Argument, para. 17, 19, 20.
[48] CEC Final Argument, para. 18.

participation rates are at “only” 3.5 percent of all FEI customers. At one end of the spectrum, it might signify that there are many customers who want additional commodity rate stability, but for whatever reason the Customer Choice Program does not effectively meet their needs. At the other end, it might signify that there are very few customers that are willing to pay the existing premium for additional commodity rate stability.

Further, the Panel notes that the Customer Choice Program is available to customers who wish to achieve additional commodity rate stability beyond what can be achieved otherwise.

In summary, **the Panel is not pursuaded that the evidence supports the conclusion that FEI customers support the proposed hedging program**.

The Panel also notes that in contrast to the Customer Choice Program which gives each individual customer flexibility to opt in or out of the program, a hedging program would involuntarily affect outcomes for all FEI customers regardless of whether they support the program or not.

2.5 Are the interests of FEI’s customers served by a hedging program designed to mitigate market price volatility and support commodity rate stability?

In addition to taking into account the evidence and findings presented above, the Panel also looked at the potential benefits/costs of the program.

FEI provides the following information on historical gains and losses from hedging.[49]

Table 3: Hedging Gains and Costs

Hedging Gains and Costs		
Year	$ / GJ	Gains / Costs
1998	($0.475)	($11,680,212)
1999	$0.296	$8,565,130
2000	$0.443	$25,096,270
2001	($0.690)	($55,722,987)
2002	($1.295)	($124,345,799)
2003	$0.216	$10,295,585
2004	$0.267	$13,592,188
2005	$0.942	$66,654,123
2006	($1.299)	($86,604,901)
2007	($1.969)	($138,448,207)
2008	($0.722)	($40,760,938)
2009	($2.922)	($163,773,210)
2010	($2.434)	($135,773,969)
2011	($2.554)	($103,471,971)
2012	($2.442)	($95,837,424)
2013	($1.097)	($17,393,172)
2014	($0.173)	($168,214)
2015	N/A	N/A
2016	N/A	N/A
2017	($0.080)	($936,435)

FEI provides commentary on the above results, noting that prior to 2014 energy purchases under the hedging program were made programmatically. Further, FEI states that the “dramatic decrease in market gas costs

[49] Exhibit B-7, BCOAPO IR 5.1.

brought on by the shale gas revolution represented structural changes to the natural gas marketplace, the impacts of which were unprecedented and unforeseen by energy market participants."[50]

Position of the Parties

The CEC does not agree that mitigating volatility to support commodity rate stability for ratepayers is an important objective to be sought through hedging activities and would not support having FEI incur significant risks or costs to do so.[51]

BCOAPO is not opposed to FEI's application but expressed two concerns regarding hedging plans targeted at commodity rate stability: "hedging activities may not materially reduce volatility"; and "hedging may achieve a reduction in volatility but at an excessive cost."[52]

Panel Determination

As already noted at the outset of Section 2, the Panel agrees that mitigating market price volatility to support gas commodity rate stability is a valid undertaking. However, that general agreement does not necessarily lead to a conclusion that the proposed hedging program, insofar as it is expected to contribute to commodity rate stability, is in FEI's customers' interest.

As set out in the prior four Sections (2.1 – 2.4), FEI has not persuaded the Panel that there is a reasonable expectation that, looking to the future, either price volatility or rate instability will depart significantly from recent experience. Further, we cannot conclude based on the evidence provided that the hedging program would achieve FEI's stated objective to achieve rate stability. And, the customer survey does not persuade us that customers have expressed a clear indication that they support a hedging program.

Looking at the costs of the program, understanding that historical results are not a perfect predictor of future performance, the Panel does take into account that for the past ten years during which FEI had a hedging program in place (2006 – 2017, excluding 2015 and 2016), the program generated losses in every year. While FEI's commentary that the price declines during the period were unprecedented and unforeseen may help explain the results, the comment also underscores the fact that hedging by its very nature may entail additional costs.

In aggregate, the Panel considers the costs/risks of the program to outweigh the limited, if any, additional benefits that it might provide in terms of achieving commodity rate stability.

For the reasons above, **the Panel finds that the proposed hedging program, insofar as it is intended to achieve additional gas commodity rate stability, is not in the interest of FEI's customers.**

3.0 Capturing Opportunities to Maintain Commodity Rates at "Historically Low Levels"

FEI states that the hedging strategy "is the best tool available to FEI to lock in historically low market gas prices for the benefit of FEI's customers. Natural gas market prices have fallen near to their lowest levels in twenty years. There is no certainty that these low market prices will continue indefinitely into the future."[53]

[50] ibid.
[51] CEC Final Argument, p. 2.
[52] BCOAPO Final Argument, p. 2.
[53] Exhibit B-1-2, p. 1.

FEI further states that "the objective of capturing opportunities to provide customers with more affordable rates is about helping maintain low, but not necessarily the lowest, rates for customers relative to where rates have been in the past."[54]

In assessing the merits of the proposed hedging program against the objective of capturing opportunities, the Panel addresses the following questions:

- What is the AECO/NIT gas market environment?
- What are the expected benefits and costs of the program to the customers?

Once these foundational questions have been addressed, the Panel returns to the higher-level question:

- Are the interests of FEI's customers served by a hedging program designed to capture opportunities to maintain commodity rates at historically low levels?

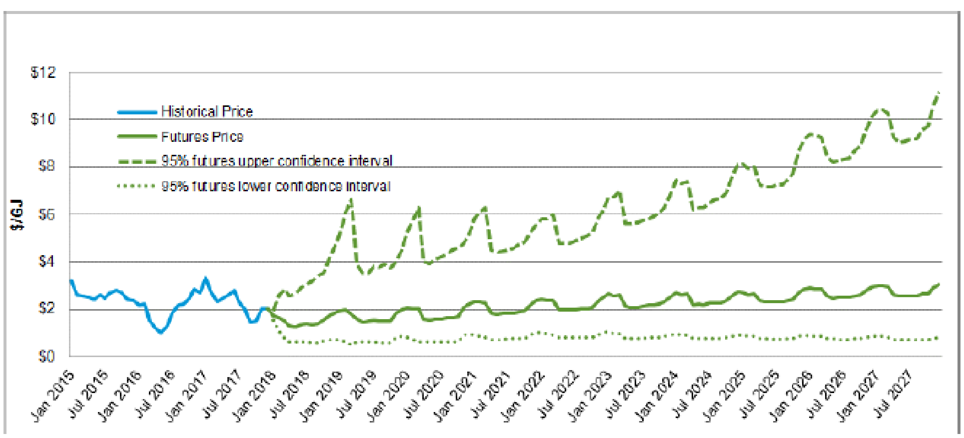
3.1 What is the AECO/NIT gas market environment?

FEI makes multiple references to "historically low" prices throughout the application,[55] and a desire to lock in the low rates relative to where they have been in the past.

The Panel agrees with the assertion that prices are historically low as prices were considerably higher in the past. However, the question is not whether prices are low compared to where they were fifteen years ago, but whether they are likely to depart from the more recent historical levels.

FEI provides the following figure in its Application showing Wood Mackenzie's analysis of the AECO/NIT price probability range from January 2018 to January 2028 as of December 18, 2017, and is replicated below:

Figure 6: AECO/NIT Price Probability Range[56]



5 Source: Wood Mackenzie – AECO/NIT Price Forecast (November 2017)

54 ibid., p. 5.
55 Exhibit B-1-2, p.p. 1, 4, 6, 34, 35
56 Exhibit B-1-2, p. 11.

FEI states that "downside price movements are limited to about $1 per GJ with greater probability of prices increasing to $4 per GJ and higher."[57]

FEI also states "Market prices are near the level of many gas producers' break-even production costs, indicating that there is little room for further downward movement."[58] FEI further states that generally speaking, gas producers' break-even costs have provided a "soft floor" for market gas prices as many producers will cut back on production if market prices fall below these levels.[59]

FEI explains that "… break-even costs could reduce further for some producers due to factors such as technological advancements," and that "some producers already have break-even costs below $1 per GJ and near zero due to the recoveries from gas liquids or oil. It is possible that many liquids-rich producers may be able to sustain these low break-even costs as long as oil and liquids market prices remain high enough for them to generate profits."[60]

FEI notes that lower break-even costs have resulted in declining gas prices over time. FEI states further that "Gas producers in North America continue to lower costs and improve drilling techniques such that they have reduced their break-even costs over time."[61] Just between the 2015 PRMP and 2018 PRMP application, the break-even cost has reduced from over $3.50 per GJ for production in the Montney region, compared to the average break-even of about $2 per GJ for most Western Canadian Sedimentary Basin (WCSB) gas producers.[62] FEI further explains that "… break-even costs could reduce further for some producers due to factors such as technological advancements," and that "some producers already have break-even costs below $1 per GJ and near zero due to the recoveries from gas liquids or oil. It is possible that many liquids-rich producers may be able to sustain these low break-even costs as long as oil and liquids market prices remain high enough for them to generate profits."[63]

Panel Determination

FEI characterizes the current price environment as low and suggests there is greater risk of price increases than potential for price decreases.

The Panel notes that the Wood Mackenzie futures price forecast as of December 18, 2017 shown in Figure 6 above (i.e. Figure 3-6 of the Application) calls for fairly stable market prices, staying within the range of $1 - $3 per GJ for the next ten years.

Thus, the Panel disagrees with FEI's characterization of a "low" price environment if low is meant to imply some inherent statistical likelihood of reverting to long-term historical averages. The Panel believes that the characterization of a "low price" environment must give way to a more accurate characterization as the "current" and/or "expected" environment.

In examining FEI's contention that the upside risk is greater than the downside risk, the Panel draws a distinction between predicting the shape of the forecast interval (maximum and minimum values), from assessing the probability of various outcomes within that interval. The fact that the interval at a 95% confidence level is asymmetrical is only one representation of risk. Interpolation within those intervals is not necessarily linear, and

[57] Exhibit B-5, BCUC IR 5.2.
[58] Exhibit B-1-2, p. 1.
[59] Exhibit B-5, BCUC IR 3.2.
[60] Ibid., BCUC IR 3.5.
[61] Exhibit B-1-2, p. 7.
[62] Exhibit B-5, BCUC IR 3.4.
[63] ibid., BCUC IR 3.5.

the absence of interval forecasts at other confidence levels precludes a more robust and complete analysis of the upside versus downside risks.

FEI has provided a number of statements regarding possible future price scenarios, some of which suggest potential price increases and others suggesting decreases. The Panel considers these to be general descriptions of possible outcomes but finds them devoid of rigorous analysis or other supportive information that provides a basis for assessing the probability of any outcome(s).

Thus, the Panel is not persuaded that on a balance of probabilities, FEI customers will be exposed to a significantly greater risk of AECO/NIT market price increases from current levels than market price declines. For these reasons, **the Panel finds that there is no reason to expect, that on a balance of probabilities, there will be a significant departure from the recent/current AECO/NIT market price environment.**

3.2 Are the interests of FEI's customers served by a hedging program designed to capture opportunities to maintain commodity rates "at historically low levels"?

FEI states that the objective of capturing opportunities to provide customers with more affordable rates is about helping maintain low, but not necessarily the lowest, rates for customers relative to where rates have been in the past.[64] FEI believes the hedging program is more like insurance, providing protection against adverse price movements, and that it would be reasonable for it to have a small cost.[65]

FEI provides a number of additional statements that expand on the purpose and structure of its program that are relevant to this issue:

- FEI's Proposed Strategies are designed to capture low market prices, if the opportunity arises.[66]
- Hedging is the only tool that effectively captures low market prices. Hedging, unlike the other tools, locks in forward market prices.[67]
- Capturing opportunities to provide customers with more affordable rates "reflects an opportunistic strategy based on the current price environment and FEI does not know how long the opportunity may last."[68]

Looking to future performance outcomes, of a revised hedging program, FEI states:

> FEI's previous hedging programs prior to 2014 were largely programmatic and not responsive to changes in market price conditions…. FEI has proposed a limited version of a more dynamic hedging strategy based on consideration of market price conditions. …This opportunistic approach enables FEI to capture low market prices only if they occur, thereby avoiding the potential for significant hedging costs for a sustained period of time.[69]

In terms of potential future financial outcomes, FEI states:

> Assuming FEI were to hedge 50 percent of the 370,000 GJ per day at $2 per GJ and market prices settled at a low of $1 per GJ or high of $3.50 per GJ for the short-term, the potential cost

[64] Exhibit B-1-2, p. 5.
[65] FEI Reply Argument, para. 13.
[66] FEI Final Argument, para. 11.
[67] FEI Final Argument, p. 14.
[68] Exhibit B-1-2, p. 5.
[69] Exhibit B-7, BCOAPO IR 5.1.

would be around $67.5 million and the potential benefit would be around $101.2 million for the short-term. Medium-term and Long-term market prices have highs of $4 and $7 per GJ, respectively, and potential benefits would be around $135 million for the medium-term and $337.6 million for the long-term.[70]

Position of the Parties

The CEC agrees with FEI's analysis that there currently exists a low-price environment that provides opportunities for FEI to create price benefits for ratepayers.[71] The CEC qualifies that support by stating that if the program does not result in lower or equivalent prices relative to what would otherwise be achieved, the program should be discontinued or scaled back.[72]

FEI comments on the CEC's position by saying that "it is unreasonable to expect that FEI can guarantee that it will match or "beat" the market as suggested by CEC, to generate financial benefits for ratepayers.[73] BCOAPO agrees that there is currently far more commodity price upside risk than there is on the downside: as such, BCOAPO fully supports efforts to lock in current low-price levels for a future in which commodity prices are likely to increase.[74]

Panel Determination

The Panel acknowledges that FEI sees this program as being like an insurance policy to protect against high prices. In that sense, the Panel also accepts that the probability of a financial gain is not necessarily a prerequisite for the program to be viewed as being in the customers' interests. By way of a parallel, homeowner's insurance is not purchased in the hope of collecting from a loss (e.g. incurring a fire), but rather to achieve peace of mind from knowing that if a fire does occur, the homeowner is protected.

That said, given FEI's characterization of the hedging program as insurance, the Panel holds the view that the program must demonstrate that the risk being "insured" against warrants the expense of the "insurance program."

The Panel was not persuaded that the probability of future AECO/NIT price increases is significantly greater than the probabilities of future price decreases. Thus, the Panel was not persuaded that the risk to protect against, either in magnitude or probability, warrants the expense of the hedging program.

FEI asserts that the proposed changes to the hedging program will result in better performance in the future. The Panel is not persuaded by FEI's arguments. As FEI indicates, there are no guarantees: hedging has inherent risks of its own. Finally, the quantification of potential net financial gains is simply the arithmetic representation of the hypothesis that there is a higher upside than downside, and (as already discussed) the Panel is not convinced that is the case.

For the reasons above, **the Panel finds that the proposed hedging program, insofar as it is intended to capture opportunities to maintain commodity rates "at historically low levels", is not in the interest of FEI's customers.**

[70] Exhibit B-5, BCUC IR 22.1.
[71] CEC Final Argument, p. 5
[72] ibid., p. 7.
[73] FEI Reply Argument, para 13.
[74] BCOAPO Final Argument, p. 4.

4.0 Final Determinations

FEI sets out two objectives for its proposed hedging program. In the two previous sections of this Decision, the Panel set out its determinations that the proposed hedging program, insofar as it is targeted to either of FEI's stated objectives, is not in the customers' interest.

As noted in section 1.3 of this Decision, for the purposes of assessing this Application, the Panel puts significant weight on customers' interests in assessing the public interest. Thus, **the Panel finds that the proposed hedging program is not in the public interest.**

The Panel therefore views the public interest as best served by allowing the March 31, 2019 expiration date to stand as it relates to the existing hedging program. As such, and given the program has expired, the Panel considers approval of an extension to the program (i.e. the five-year horizon) to be moot.

The Panel finds, that the Application is not in the public interest, and therefore denies FEI's request to approve:

- **Extending the current medium-term hedging horizon out to October 2021;**
- **Adjusting the current winter and summer term hedging price targets to account for seasonality in market prices as well as the one-year term hedging price targets; and**
- **Implementing hedging with terms up to five years.**

DATED at the City of Vancouver, in the Province of British Columbia, this 22nd day of May 2019.

Original signed by:

H. G. Harowitz
Panel Chair / Commissioner

Original signed by:

D. J. Enns
Commissioner

Original signed by:

B. A. Magnan
Commissioner

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bcuc
British Columbia
Utilities Commission

Suite 410, 900 Howe Street
Vancouver, BC Canada V6Z 2N3
bcuc.com

P: 604.660.4700
TF: 1.800.663.1385
F: 604.660.1102

ORDER NUMBER
G-108-19

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Energy Inc.
2017 Price Risk Management Plan

BEFORE:
H. G. Harowitz, Commissioner/Panel Chair
D. J. Enns, Commissioner
B. A. Magnan, Commissioner

on May 22, 2019

ORDER

WHEREAS:

A. On June 13, 2017, FortisBC Energy Inc. (FEI) filed the 2017 Price Risk Management Plan (2017 PRMP) Application for approval by the British Columbia Utilities Commission (BCUC);

B. On August 25, 2017, by Order G-133-17, the BCUC set out the initial regulatory timetable for review of the 2017 PRMP Application, including an invitation to FEI and Interveners to provide comments on the appropriate scope and process for the proceeding;

C. By Order G-168-17 dated November 23, 2017, the BCUC established a regulatory timetable outlining the scope for the process and requiring FEI to submit a revised application and/or addenda to the 2017 PRMP;

D. In compliance with Order G-168-17, on January 5, 2018, FEI chose to file a revised application titled the 2018 Price Risk Management Plan (Application);

E. In the Application, FEI is requesting approval of the following: i) extending the current medium-term hedging horizon out to October 2021; ii) adjusting the current winter and summer term hedging price targets to account for seasonality in market prices as well as the one-year term hedging price targets; and iii) implementing hedging with terms up to five years;

F. On January 24, 2018 by Order G-22-18, the BCUC amended the regulatory timetable established by Order G-168-17, including intervener registration, one round of Information Requests(IR) and further process to be determined ;

G. By Order G-88-18 dated May 9, 2018, the BCUC established the remainder of the regulatory timetable with the filing of written final and reply arguments;

H. On November 29, 2018, FEI filed a Winter 2018/19 Price Risk Update letter with information about the potential impact that the Enbridge pipeline rupture could have on FEI's 2018 PRMP (New Evidence).

I. On December 6, 2019, by Order G-232-18 the BCUC issued a regulatory timetable which included Intervener IRs on New Evidence and FEI's response.

J. On January 30, 2019 by Order G-21-19, the BCUC established the remainder of the regulatory timetable which included supplemental submissions from FEI and Interveners on New Evidence with a final reply from FEI.

K. FEI requests that the confidential version of the Application be held confidential pursuant to Section 18 of the BCUC's Rules of Practice and Procedure regarding confidential documents, established by Order G-1-16.

L. The BCUC has reviewed the Application and the evidence filed in this proceeding and makes the following determinations.

NOW THEREFORE, for the reasons outlined in the decision issued concurrently with this order, the BCUC orders as follows:

1. FortisBC Energy Inc. 2018 Price Risk Management Plan, as applied for, is not in the public interest and therefore, not approved. More specifically, the FortisBC Energy Inc. requests in the 2018 Price Risk Management Plan, as listed below, are not approved:
    a. Extending the current medium-term hedging horizon out to October 2021;
    b. Adjusting the current winter and summer term hedging price targets to account for seasonality in market prices as well as the one-year term hedging price targets; and
    c. Implementing hedging with terms up to five years.
2. The BCUC will hold confidential the hedging price targets and volumes as requested by FEI.

DATED at the City of Vancouver, in the Province of British Columbia, this 22nd day of May 2019.

BY ORDER

Original signed by:

H. G. Harowitz
Commissioner