Doug Slater
Director, Regulatory Affairs

Gas Regulatory Affairs Correspondence
Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence
Email: electricity.regulatory.affairs@fortisbc.com

FortisBC
16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: (778) 578-3874
Cell: (778) 214-3842
Fax: (604) 576-7074
Email: doug.slater@fortisbc.com
www.fortisbc.com

January 9, 2019

Commercial Energy Consumers Association of British Columbia
c/o Owen Bird Law Corporation
P.O. Box 49130
Three Bentall Centre
2900 – 595 Burrard Street
Vancouver, BC
V7X 1J5

Attention: Mr. Christopher P. Weafer

Dear Mr. Weafer:

Re: FortisBC Energy Inc. (FEI)

Project No. 1598917

2017 Price Risk Management Plan (PRMP) (the Application) and the 2018 PRMP (the Revised Application)

Response to the Commercial Energy Consumers Association of British Columbia (CEC) Information Request (IR) No. 1 on New Evidence

On November 29, 2018, FEI filed its Winter 2018/2019 Price Risk Update (New Evidence) in the above noted proceeding. In accordance with the British Columbia Utilities Commission Order (BCUC) G-232-18 setting out the Regulatory Timetable for the review of the Application, FEI respectfully submits the attached response to CEC IR No. 1 on New Evidence.

In FEI's view, a number of the IRs from BCOAPO and CEC on FEI's New Evidence are not relevant to FEI's 2018 PRMP. The IRs appear to relate instead to the potential impacts of the Enbridge rupture on FEI's Annual Contracting Plan ACP or Long Term Gas Resource Plan, which are filed separately with the BCUC. Nonetheless, given that FEI's New Evidence raises the topic of the Enbridge rupture, FEI has provided responses to the questions to be helpful to BCOAPO and CEC.

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

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Doug Slater

Attachments

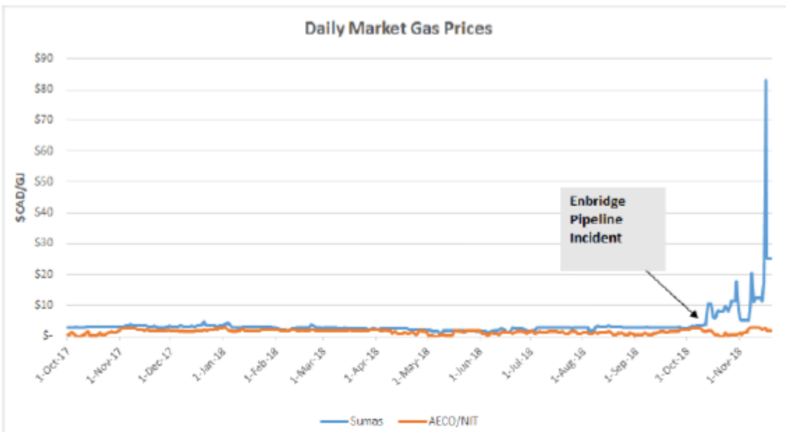
cc (email only): Commission Secretary
Registered Parties

1. Reference: Exhibit B-10 page 2-3 and Exhibit B-1, Appendix B, page 4

Market Dynamics

As a result of this pipeline incident, regional gas market prices have been significantly impacted, particularly those at the Sumas market hub. AECO/NIT market prices, however, have not been significantly impacted.

The following figure shows AECO/NIT and Sumas daily prices before and after the incident.



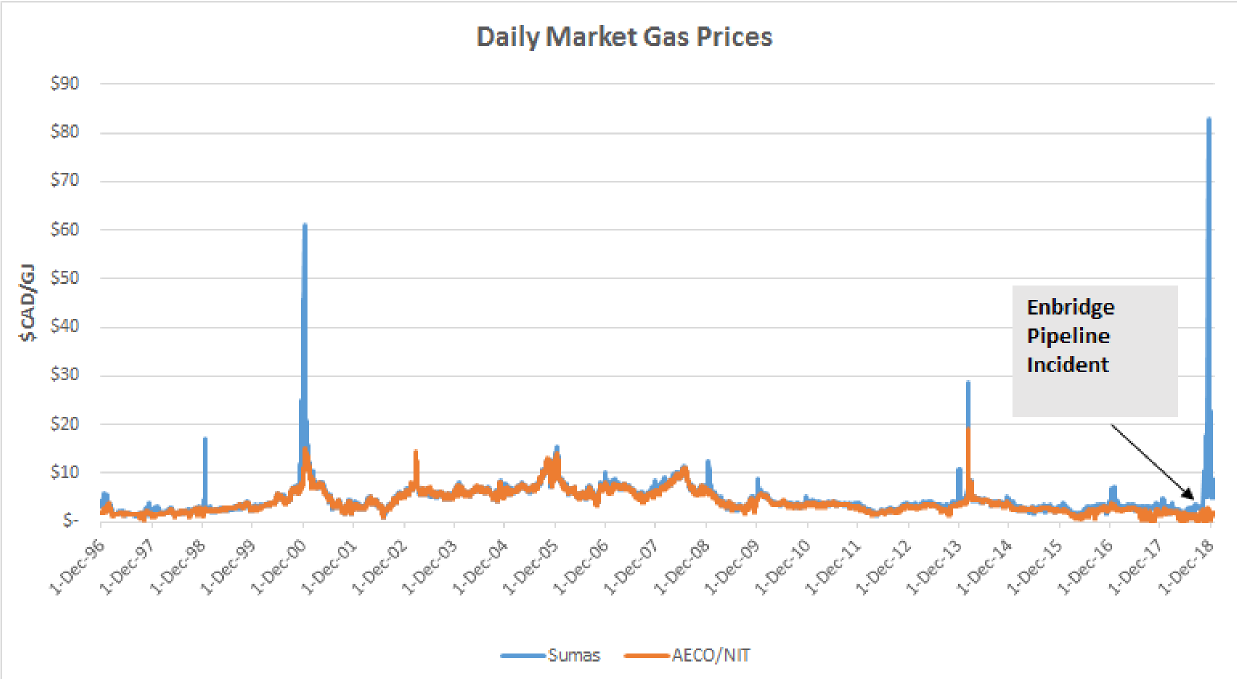
As shown above, the incident caused Sumas daily prices to become considerably more volatile. Sumas prices spiked well above $10 per Gigajoule (GJ) several times and reached as high as $82 per GJ on November 16, whereas AECO/NIT daily prices have been volatile but within a narrower range of $0 per GJ to $3 per GJ. This increased volatility in Sumas pricing is due to the further constraints the rupture has placed on the supply-demand dynamics of the marketplace in BC and in particular the locational-basis risk at the Huntingdon/Sumas market hub, as discussed in section 4.2.2 of the 2018/19 ACP.

Price Risk Management Tool	Description	Degree to which Volatility is Mitigated	Limitations of Tool
Financial Tools			
Sumas AECO/NIT Swaps	FEI locks in the forward market price differential between AECO/NIT and Sumas to protect against Sumas price disconnections.	Mitigates the volatility or changes in the price differential between AECO/NIT and Sumas.	Does not mitigate the AECO/NIT market price volatility.

1.1 Please update the Daily Market Gas Prices figure as far as possible.

<u>Response:</u>

The following figure shows the daily market gas prices for Sumas and AECO/NIT for the time period of December 1, 1996 to December 21, 2018. FEI does not have pricing information prior to December 1, 1996.



1.2 Does FEI expect volatility to continue in the Sumas market? Or does FEI expect that this will diminish over time? Please explain.

Response:

FEI does expect volatility to continue in the Sumas market because of the constrained regional infrastructure, particularly in the winter, even after the Enbridge pipeline incident is fully resolved. Due to growing regional demand with limited pipe capacity, volatility may even increase if new demand like more gas-fired generation, methanol or LNG facilities are initiated in the Pacific Northwest. For the most part, Sumas price volatility in the past has been demand driven, but the Enbridge pipeline incident has caused volatility from lack of supply, showing that volatility at Sumas can be caused from both sides of the supply and demand equation.

1.3 When does FEI expect the Sumas market prices to recover to pre-incident levels and volatility, if ever?

Response:

FEI expects the Sumas market prices to recover to pre-incident levels and volatility over time, once Enbridge returns the T-south pipeline to full operating capacity or the region does not need to attract physical flow of gas on the Northwest Pipeline (NWP) Gorge into the Pacific Northwest. However, the recovery of Sumas market prices to pre-incident levels and volatility also depends on regional supply and demand growth, as explained in the response to CEC IR 1.1.2 on New Evidence.

1.4 Does FEI expect some volatility to continue in the AECO/NIT market? Or does FEI expect that this will diminish over time? Please explain.

Response:

FEI expects some volatility to continue in the AECO/NIT market and may increase over the next five years as more outlets for the AECO/NIT market come from pipeline developments as discussed in Section 3.1.3 of the 2018 PRMP.

1.5 Has FEI has been able to utilize the Sumas AECO/NIT swaps or other tools to mitigate the impact of the Sumas daily price increase and volatility? Please explain.

Response:

Tools to mitigate the impacts of Sumas price increases and volatility include hedging and physical supply strategies.

In terms of hedging, FEI has used Sumas-AECO/NIT basis swaps in the past (before 2013/14) for FEI's Sumas price exposure. The Sumas-AECO/NIT basis swaps can mitigate monthly Sumas price exposure but not daily price exposure as there is no active market for daily hedging at Sumas.

In terms of physical supply, FEI has only been able to mitigate some of the impact of the Sumas daily price increase and volatility on days that FEI's supply exceeds demand from its Core customers. This includes injecting supply back into FEI's contracted storage assets, specifically Jackson Prairie and Mist, to maintain healthy storage inventory levels throughout the winter and/or selling supply back into the Sumas/Huntingdon marketplace.

2. Reference: Exhibit B-10, page 3-4

> It is important to understand the different gas market dynamics that exist in BC compared to Alberta in light of this incident. The Huntingdon/Sumas market hub is, for the majority of its supply, fed from a single source, the WEI 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. In this case, however, the significant supply disruption is the primary cause of the current price disconnect.
>
> The Alberta marketplace has different dynamics than the BC market. Alberta has
>
> considerably greater liquidity because of the the large volume of tranasactions and number of maket players compared to BC. The 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 BC 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. While BC currently produces close to 5 billion cubic feet (Bcf) per day of natural gas, only 1.8 Bcf per day maximum flows on T-South. The balance flows east, largely to Alberta, where it is added to the Alberta market hub and forms part of the 12.5 Bcf per day that is traded at AECO/NIT.

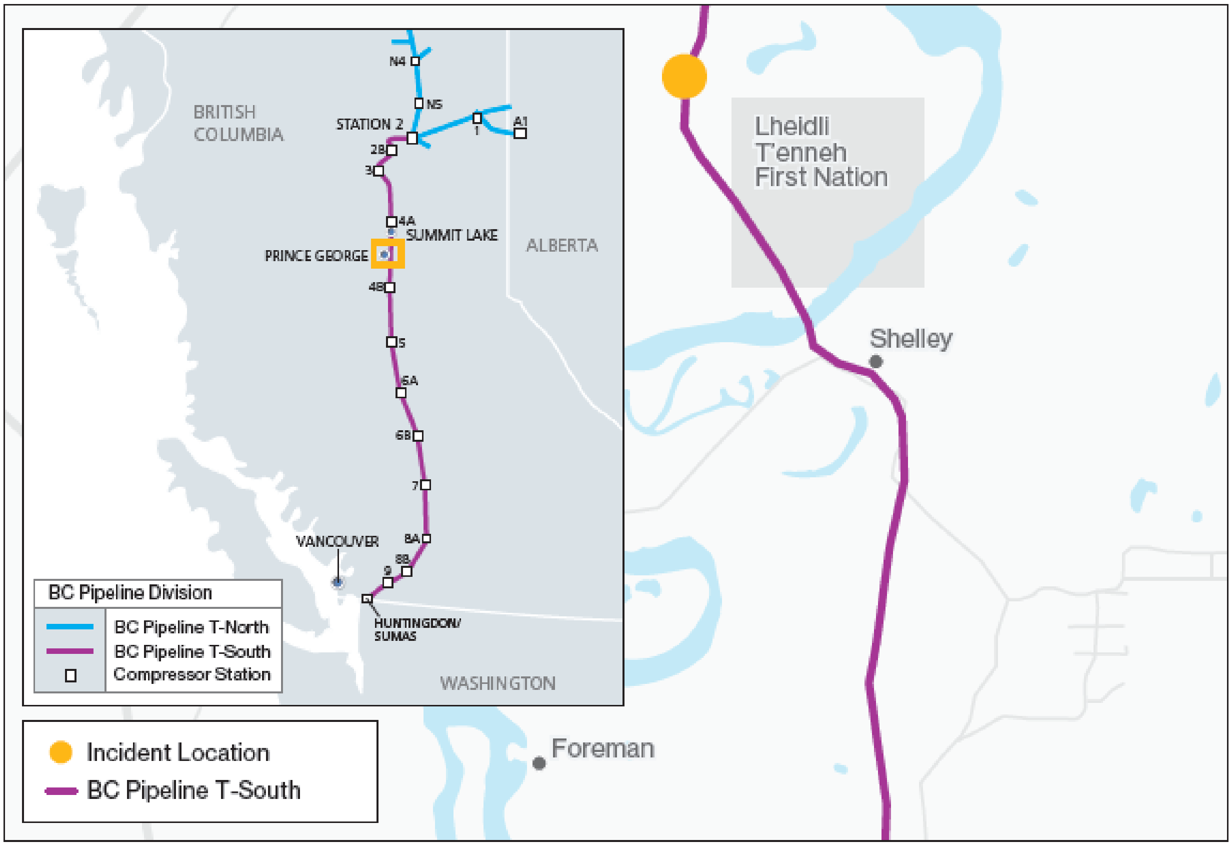
2.1 Please provide an illustration/map showing the geographic location of:

- FEI pipelines including T-South and others;
- Natural gas market/trading hubs;
- gas storage and LNG facilities including Aitken Creek, Tilbury and Mt. Hayes;
- stations (eg Station 2, Station 4B, Huntingdon etc.);
- the rupture; and
- areas of gas flow restrictions arising as a result of the rupture.

<u>Response:</u>

The below figure provides an illustration showing the gas supply infrastructure and natural gas market/trading hubs in the region:

The below figure is a map that Enbridge provided to the WEI Toll and Task Tariff Committee members which shows where the pipeline rupture occurred on its T-South pipeline. FEI can confirm that all areas south of the incident have had certain gas flow restrictions as a result of the rupture.



2.2 Can the incident in question can be considered a ‘low probability’ event? Please provide evidence support FEI’s views in this matter.

Response:

Please refer to the response to BCOAPO IR 1.1 on New Evidence.

2.2.1 If no, please explain how FEI would characterize the event and provide supporting evidence.

Response:

Please refer to the response to CEC IR 1.2.2 on New Evidence.

2.3 Please provide FEI's expectations as to the likelihood of a similar, or more significant event occurring over the next decade.

Response:

Please refer to the response to BCOAPO IR 1.1 on New Evidence.

2.4 Does FEI expect that it will be able to meet its supply obligations to all its customers this winter? Please explain.

Response:

Barring any further incremental sustained reduction in supply, there are both demand side and supply side developments that provide FEI with assurance that it will meet its supply obligations to all of its customers this winter:

- Demand Side - Mild weather, customer conservation, and industrial customers switching to an alternative fuel if possible in November allowed FEI and other regional market participants to protect the resources in the region, as well as maintain healthy storage inventory levels heading into typically the coldest months of the winter season (December and January).

- Supply Side - In early December, Enbridge was able to increase its operating pressure on the T-South to Huntingdon segment of pipeline capacity to 85 percent. Taking this into account, as well as FEI's additional FEI Huntingdon purchases, FEI's supply requirements are back to the level prior to the Enbridge rupture on T-South.

2.5 Has FEI considered any long-term plans to mitigate the risk of a similar incident? Please explain.

Response:

FEI cannot directly mitigate the risk of a rupture on another entity's pipeline. However, FEI is considering long term options to mitigate the impact if a similar event occurs, specifically the issue of how much redundancy the region requires, and at what cost. However, given that the pipeline resources in the region are interconnected and that market participants in the region typically dictate how much redundancy is required, any long term solution will require the participation of other key stakeholders and utilities in the region, and regulatory approvals. Therefore, this resource will likely take 5 to 10 years to be implemented if it is deemed to be required for the region.

3. Reference: Exhibit B-10, page 4

> **ACP and Price Risk**
>
> As outlined in the 2018/19 ACP, 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. FEI's recent purchases at Huntingdon for winter 2018/19 add Sumas price risk to its supply portfolio. As discussed in section 4.2.3 of the 2018/19 ACP, FEI considers hedging any Sumas price exposure due to the price disconnection risks at the Huntingdon/Sumas market hub. However, FEI does not consider it appropriate to hedge the Sumas price risk for the incremental purchases outlined in the Amendment for winter 2018/19, for the following reasons:
>
> - market prices at Sumas for the rest of winter 2018/19 have already reacted to the incident (as shown in the figure above) and so FEI is not able to implement hedges at favourable price levels;
> - [redacted]
> - [redacted]
> - [redacted] FEI is not able to hedge daily Sumas prices as there is not an active, liquid market for this.

3.1 Please provide the proportion of FEI commodity supply purchased on AECO/NIT index pricing.

Response:

Prior to the rupture on Enbridge's T-South pipeline, the proportion of FEI's supply purchased on AECO/NIT index pricing for the Commodity Cost Reconciliation Account (CCRA) and Midstream Cost Reconciliation Account (MCRA) was approximately 63 percent and 59 percent, respectively, for winter 2018/19 (November 1, 2018 to March 31, 2019). FEI's recent purchases at Huntingdon for winter 2018/19 affects the MCRA supply portfolio percentage only. Therefore, the proportion of commodity supply purchased at AECO/NIT index pricing for FEI's MCRA supply is now approximately 31 percent.

3.2 Please provide FEI's recent purchases at Huntingdon for winter 2018/19.

Response:

FEI's recent purchases at Huntingdon for the winter 2018/19 will range between 85 TJ/day and 120 TJ/day.

4. Reference: Exhibit B-10, page 5

> **Next Steps**
>
> FEI believes the 2018 PRMP objectives, strategies, and evidence relating to AECO/NIT price risk remain relevant and, therefore, there is no change to the requests sought in the Application as a result of the Enbridge pipeline incident. The requests in the 2018 PRMP remain appropriate and FEI requests approval of the Application from the BCUC. FEI continues to evaluate its Sumas price risk in light of the Enbridge pipeline incident and for potential impacts beyond winter 2018/19.
>
> After resource requirements for the 2019/20 gas year are determined and the 2019/20 ACP is developed and submitted to the BCUC by May 1, 2019, FEI will contsider whether including Sumas price risks is appropriate in a future PRMP application.

4.1 Please discuss the steps that FEI is taking to 'evaluate its Sumas price risk'.

Response:

FEI is evaluating its Sumas price risk by assessing market price and supply risks. FEI is continuing to monitor the Sumas market prices occurring during this winter 2018/19, as impacted by the Enbridge pipeline incident, as well as the potential impacts on forward Sumas market prices for the next winter 2019/20 period. This will help FEI to determine the Sumas price volatility risk for this winter as well as indications of the volatility risk for future winters.

FEI is also monitoring its Huntingdon purchasing strategy which it implemented in winter 2018/19 due to the loss of some of its T-South pipeline capacity. Once this winter 2018/19 is complete and Enbridge provides clarity on T-South pipeline capacity for winter 2019/20, FEI will assess whether to include Huntingdon winter purchases in its 2019/20 ACP.

4.2 Please provide examples of the types of activities FEI could undertaken to include Sumas price risks in in a future PRMP application.

Response:

FEI has interpreted this question as asking what methods could FEI use to mitigate Sumas price risk and include in a future PRMP application. Assuming FEI does include Huntingdon purchases in its next ACP[1], there are several ways in which FEI could mitigate the associated Sumas price risk.

---

[1] FEI has moved away from contracting supply at the Huntingdon marketplace since 2013 due to the

One method is to resell some of its Huntingdon supply that is not required for customer load due to normal or mild weather conditions. In this case, FEI could resell the Huntingdon supply at the same price index at which it was purchased, thereby eliminating the Sumas price risk, at least for the portion of supply being resold. FEI would incur Sumas price risk for the portion of supply not being resold, if it is required by core customers.

Another method would be to hedge the Sumas monthly price risk in the ACP portfolio through financial derivatives. FEI could mitigate the Sumas price risk through the implementation of Sumas-AECO/NIT basis swaps which are financial transactions where FEI locks on the forward price spread between Sumas and AECO/NIT monthly prices. This effectively reduces Sumas winter price disconnection risk as FEI would pay AECO/NIT prices plus a fixed differential, rather than Sumas prices. FEI implemented these basis swaps, with Commission approval, prior to winter 2013/14 when FEI had Sumas monthly price exposure in its portfolio.

4.3 When does FEI anticipate updating its PRMP and filing a future application?

Response:

FEI is not expecting to update its current 2018 PRMP which is currently under review by the BCUC. As noted in FEI's letter dated November 30, 2018, FEI believes the 2018 PRMP objectives, strategies, and evidence relating to AECO/NIT price risk remain relevant and, therefore, there is no change to the requests sought in the Application as a result of the Enbridge pipeline incident.

As the letter also notes, once the resource requirements for the 2019/20 gas year are determined and the 2019/20 ACP is developed and submitted to the BCUC by May 1, 2019, FEI will then consider whether including Sumas price risk is appropriate in its next PRMP application. FEI expects it would submit its 2019 PRMP to the BCUC soon after the 2019/20 ACP so that there is time for FEI to implement any required strategies prior to the start of winter 2019/20.

---

risks associated with shippers de-contracting (i.e., not contracting for firm T-South service) at Huntingdon at that time, and the potential decreased liquidity and reliability and high pricing volatility at the Sumas/Huntingdon market hub. However, given that Enbridge's T-South system is now fully contracted, FEI may have to return to purchasing supply at the Sumas/Huntingdon marketplace in the near future.