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November 9, 2022

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Ms. Sara Hardgrave, Acting Commission Secretary

Dear Ms. Hardgrave:

Re: FortisBC Energy Inc. (FEI)

Project No. 1599364

Gas Supply Mitigation Incentive Program (GSMIP) Review and Application to Extend for the Period November 1, 2022 to October 31, 2025 (Application)

Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 1

On August 30, 2022, FEI filed the Application referenced above. In accordance with the regulatory timetable established in BCUC Order G-288-22 for the review of the Application, FEI respectfully submits the attached response to BCUC IR No. 1.

For convenience and efficiency, if FEI has provided an internet address for referenced reports instead of attaching the documents to its IR responses, FEI intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

If further information is required, please contact Matt Yasinchuk at 604-576-7052.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

1.0 Reference: CURRENT GSMIP REVENUE, INCENTIVE PAYMENT AND 2022 REVIEW

Exhibit B-1, Section 4.1, p. 12; Appendix A, p. 3

2022 GSMIP Review

On page 12 of the Application to Extend the Gas Supply Mitigation Incentive Program (GSMIP) For the Period November 1, 2022 to October 31, 2025 (Application), FortisBC Energy Inc. (FEI) states:

> 2. Monthly Commodity Resale Mitigation
>
> FEI seeks to add a new Benchmarked Activity and has added this to the Term Sheet (Appendix A). Typically, during the summer months of April through October there are opportunities for FEI to sell forward excess commodity for a monthly term. FEI believes there are times when this is beneficial to customers and the benchmark should be based on the Platts Inside FERC's Gas Market Report – Monthly Bidweek Spot Gas Prices. FEI introduced and discussed the recommendation in Workshops #2 and #3.

On page 3 of the Appendix A to the Application, FEI states:

> When FEI has excess purchased supply, typically in the summer months between April and October, FEI has the option to sell it back at the same market hub, or transport it to sell to a downstream market. FEI will look for transactions that yield the highest expected net-back value, given the constraints on what is operationally feasible.

1.1 Please discuss how FEI will conduct this benchmarked activity and the expected benefits/savings to ratepayers.

1.1.1 Please explain the current operational arrangements in place, absent this new benchmarked activity.

1.1.2 Please explain how the Monthly Commodity Resale Mitigation is different than the Spot Commodity Resale Mitigation.

1.1.3 Please explain how FEI will determine that it has sufficient excess commodity for a monthly term.

<u>Response:</u>

Monthly commodity resale mitigation is a decision to sell forward, for an entire month, a set volume each day, whereas Spot commodity resale mitigation occurs 24 hours prior each day or the Timely Cycle. FEI will conduct Monthly Commodity Resale in a similar fashion to all mitigation activities undertaken by FEI. FEI takes a diversified approach to mitigation of the ACP resources, including commodity, storage and transportation, in order to optimize the portfolio against the load duration curve and supply / demand balance over the course of the gas year. On a monthly basis, FEI would assess a number of different variables before executing resources and entering into any mitigation activity. These variables include time of year, storage balances, current operational information, ACP load forecasts by month, Pipeline Maintenance, and upcoming capacity constraints. Considering these factors will help FEI determine if there is an opportunity to create value for customers on a monthly termed transaction and where that transaction should take place, at the purchase hub or transported downstream. These are all the same variables that FEI considers when doing any mitigation, whether its monthly or daily.

FEI may sell forward a monthly based product if it has excess supply. Through the Annual Contracting Plan (ACP) and the essential service model, FEI purchases baseload CCRA supply each day of year. In the summer months when the core load requirements are lower due to non-heating season, FEI's baseload supply is greater than the core customer load requirements. FEI will utilize this baseload supply to meet core customer loads, refill upstream and downstream storage accounts, and also refill on-system LNG storage inventories. Any excess supply is then available to be resold into the market, which FEI typically chooses to undertake at Huntingdon/Sumas, Station 2, AECO/NIT and the Kingsgate market centres.

As noted above, mitigation of excess commodity for a monthly term does not differ from any of the decision making FEI currently undertakes when determining daily commodity sales. However, currently in the GSMIP there is only a benchmarked activity for Spot commodity resale mitigation, which uses the Platts Gas Daily published index as the benchmark. Consequently, if FEI were to undertake a monthly commodity resale mitigation activity, the sales volumes would be benchmarked each day against the Platts Gas Daily published index not the monthly index. This is not the appropriate benchmark as FEI uses benchmarks to help gauge not only how markets are performing but also how well FEI is performing. The standard for a monthly product is the Inside FERC's Gas Market Report – Monthly Bidweek Spot Gas Prices (IFERC).

To illustrate, assuming FEI were long in supply by 75,000 GJ per day in the month of June, FEI could chose to sell 25,000 GJ per day at Huntingdon/Sumas during bidweek (i.e. every day for the month of June). In this example, assume the sale prices ranges from $8.39 USD/MMBTU to $8.93 USD/MMBTU and the settled IFERC monthly Sumas price was $8.60 USD/MMBTU. In this example FEI sold 25,000 GJ per day at an average price of $8.75 USD/MMBTU. FEI would still have approximately 50,000 GJ per day of excess commodity to sell at Huntingdon/Sumas each day of June. These daily sales would fall under the current spot commodity resale mitigation activity and benchmarked against the Platts Gas Daily index. The daily settled prices for the month of June are shown in the table below.

Price index	Price date	Average Price
NW Sumas GD	6/1/2022 12:00:00 AM	8.010000
NW Sumas GD	6/2/2022 12:00:00 AM	8.110000
NW Sumas GD	6/3/2022 12:00:00 AM	8.260000
NW Sumas GD	6/4/2022 12:00:00 AM	7.615000
NW Sumas GD	6/5/2022 12:00:00 AM	7.615000
NW Sumas GD	6/6/2022 12:00:00 AM	7.615000
NW Sumas GD	6/7/2022 12:00:00 AM	8.320000
NW Sumas GD	6/8/2022 12:00:00 AM	8.545000
NW Sumas GD	6/9/2022 12:00:00 AM	8.500000
NW Sumas GD	6/10/2022 12:00:00 AM	7.550000
NW Sumas GD	6/11/2022 12:00:00 AM	8.035000
NW Sumas GD	6/12/2022 12:00:00 AM	8.035000
NW Sumas GD	6/13/2022 12:00:00 AM	8.035000
NW Sumas GD	6/14/2022 12:00:00 AM	7.960000
NW Sumas GD	6/15/2022 12:00:00 AM	6.695000
NW Sumas GD	6/16/2022 12:00:00 AM	6.810000
NW Sumas GD	6/17/2022 12:00:00 AM	6.815000
NW Sumas GD	6/18/2022 12:00:00 AM	6.230000
NW Sumas GD	6/19/2022 12:00:00 AM	6.230000
NW Sumas GD	6/20/2022 12:00:00 AM	6.230000
NW Sumas GD	6/21/2022 12:00:00 AM	6.230000
NW Sumas GD	6/22/2022 12:00:00 AM	5.915000
NW Sumas GD	6/23/2022 12:00:00 AM	6.205000
NW Sumas GD	6/24/2022 12:00:00 AM	5.930000
NW Sumas GD	6/25/2022 12:00:00 AM	5.610000
NW Sumas GD	6/26/2022 12:00:00 AM	5.610000
NW Sumas GD	6/27/2022 12:00:00 AM	5.610000
NW Sumas GD	6/28/2022 12:00:00 AM	4.545000
NW Sumas GD	6/29/2022 12:00:00 AM	5.045000
NW Sumas GD	6/30/2022 12:00:00 AM	5.010000

In this example, by selling the monthly term product FEI would have diversified the sale price of some of its excess supply volumes across the month of June and recovered more per unit on average than taking the same volumes and selling at the daily price. Because the daily prices averaged $6.8975 USD/MMBTU, or below the monthly price, FEI would have sold 25,000 GJ per day at an average price of $8.75 USD/MMBTU and the remaining 50,000 GJ per day at a lower price based on the daily market results as in the table above. For the 25,000 GJ per day of monthly sales volumes this is an increased recovery of costs for ratepayers.

The appropriate benchmark for the sale of 25,000 GJ per day monthly sale would be the IFERC monthly index and not the Platts Gas Daily index.

1.2 Please explain possible constraints that could impact the operational feasibility of the Monthly Commodity Resale Mitigation activity.

Response:

Whether there are constraints that could potentially impact the operational feasibility of Monthly Commodity Resale Mitigation activity depends on whether FEI is selling the excess commodity at the same market hub at which FEI purchased the commodity, or delivering the excess commodity on a pipeline to a downstream market.

When FEI sells excess commodity at the same market hub at which FEI purchased the commodity, the sale does not depend on the transportation of the commodity and, therefore, FEI does not foresee the potential for constraints that could impact the operational feasibility of the Monthly Commodity Resale Mitigation activity.

When FEI transports the excess commodity on a pipeline and sells the excess commodity as a delivered product downstream, FEI may encounter unexpected operational challenges, such as capacity constraints and compressor outages, due to unplanned maintenance or pipeline health and operational conditions. FEI's approach involves viewing the major regional transmission pipelines and storage facilities published summer maintenance plan and monthly forecast as the basis for all activities including decisions on monthly commodity transactions to ensure we have a diversified migration portfolio

1.3 Please explain the Platts Inside FERC's Gas Market Report – Monthly Bidweek Spot Gas Prices index. Please include the methodology of the index in the explanation.

Response:

Platts Inside FERC's Gas Market Report – Monthly Bidweek Spot Gas Prices (IFERC) is published on the first business day of the month in which monthly transactions will flow. It is the recognized industry standard for setting gas prices within the gas marketplace.

The publication provides the Monthly bidweek spot gas prices, Bidweek Physical basis prices, Platts monthly Canadian OTC Indices, Monthly bidweek spot gas prices for InterContinental Exchange (ICE) locations and Monthly bidweek spot gas prices- ICE locations.

As stated on the Platts website:

> "In the monthly market, gas is priced for flow on each day of the month at specified volumes. Transaction data is collected for the three days of bidweek , and Platts prices are published on the first business day of the month in which the gas will flow. Platts publishes two price components: the index and the absolute range. The index is the volume-weighted average of all the transactions submitted to Platts that are used to calculate the index for each point. The absolute range shows the absolute low and high of deals submitted, excluding outliers that are not used (see section below on outliers). Platts publishes fixed prices to two decimal places and basis prices to three decimal places. In the monthly market Platts uses both physical fixed-price and physical basis transactions. In those basis transactions, the basis value is negotiated on any bidweek day and the price is set by the final settlement value of the NYMEX contract plus or minus the negotiated basis. The NYMEX futures contract typically expires on the third-to-last business day of the month."[1]

For reference, Bidweek is the first 3 days of the last 5 business days immediately preceding the first of the month. Platts publishes this schedule annually and FEI makes note of these Bidweeks in their monthly planning.

On page 2 of Appendix E to the Application, the Atrium Economics GSMIP Report, Atrium explains:

> The GSMIP consists of the term sheet which provides the definition, methodology and benchmarking for calculating FEI's performance and mitigation incentive, as well as an Excel model which captures the related data and provides calculations and results. Each year FEI files a Winter Report and Year-end Report with the BCUC, including the model and supporting appendices. The Year-end Report is also audited by FEI's internal audit group, providing a letter of reasonableness to support the mitigation incentive payment to FEI.

1.4 Please explain the costs and benefits to ratepayers of potentially replacing the internal audit group with an independent auditor for the GSMIP Year-end Report.

Response:

Replacing the internal audit group with an external auditor for the GSMIP Year-end Report would not provide any increased benefits to ratepayers, but would increase costs. Continuing to use

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[1] https://www.spglobal.com/commodityinsights/PlattsContent/_assets/_files/en/our-methodology/methodology-specifications/us_canada_gas.pdf.

the Internal Audit group for the GSMIP Year-end Report provides benefits and cost savings to FEI's customers and remains reasonable and cost effective for two primary reasons.

First, the Internal Audit group is part of FortisBC Holdings Inc. and independent from FEI. The Internal Audit group therefore provides customers with an independent review. For this reason, FEI does not see any increased benefits from using an external auditor.

Second, the Internal Audit group has familiarity and established knowledge of FEI's gas operations and how the GSMIP operates, which provides greater efficiency and lower costs in reviewing the GSMIP Year-end Report as comparted to engaging an external auditor.

2.0 Reference: CURRENT GSMIP REVENUE, INCENTIVE PAYMENT AND 2022 REVIEW

Exhibit B-1, Appendix D-3, Slide 25

Natural Gas, LNG and RNG

On page 9 of the Application, FEI provides Table 2, which shows the mitigation revenue that is eligible for inclusion under GSMIP for the purposes of determining the incentive earned by FEI and incentive payments achieved since 2011/12.

2.1 Please provide an update of Table 2 including an additional column showing the mitigated natural gas volumes for each natural gas contracting year under the program.

Response:

An updated Table 2, including an additional column showing the mitigated natural gas volumes for each natural gas contracting year under the program, is provided below. The Eligible Mitigation Revenue includes all GSMIP Mitigation activities:

1. Benchmarked Activities such as Transportation mitigation and Commodity Resale
2. Activities with no market benchmark such as Extraction, pooling, Nova Capacity releases and Commodity Resale in the Interior
3. Storage and Forward commodity sales
4. New Activities

The additional column on the far right of the table provides the volume associated with only the Excess Commodity Resale activities which are only a portion of that Eligible mitigation Revenue dollars presented in the first column.

Updated Table 2 Showing Mitigated Natural Gas Volumes

Gas Contract Year	Eligible Mitigation Revenue	Incentive Earned[1]		Customer Savings		Mitigated Natural Gas Volumes
	$Million	$Million	%[2]	$Million	%[2]	Commodity Sales (GJ)
2020/21	$80.58	$2.50	3.11%	$78.08	96.89%	24,996,375
2019/20	$58.38	$1.46	2.50%	$56.92	97.50%	27,542,090
2018/19	$126.22	$3.13	2.48%	$123.09	97.52%	24,520,449
2017/18	$102.60	$2.59	2.52%	$100.01	97.48%	18,322,065
2016/17	$97.18	$2.38	2.45%	$94.80	97.55%	15,764,913
2015/16	$78.15	$2.08	2.66%	$76.07	97.34%	27,317,866
2014/15	$72.25	$2.06	2.85%	$70.19	97.15%	22,135,231
2013/14	$39.47	$1.23	3.12%	$38.24	96.88%	12,867,742
2012/13	$48.82	$1.44	2.95%	$47.38	97.05%	17,067,216
2011/12	$27.70	$0.89	3.21%	$26.81	96.79%	12,555,795
Total	**$731.36**	**$19.76**	**2.70%**	**$711.60**	**97.30%**	

2.1.1 Please explain any significant trends between years. As a part of your answer, please discuss what factors impact the volume of mitigated natural gas for each year.

Response:

Table 2 provides the mitigation revenue eligible for inclusion under GSMIP, including incentive payments and customer savings, and has been updated in FEI's response to BCUC IR1 2.1 to include Mitigated Natural Gas Volumes under Commodity Sales.

Since the 2011/12 GSMIP year and through the 2020/21 GSMIP year, there has been an increasing trend across all factors, including eligible mitigation revenue, incentive earned, customer savings, and mitigated natural gas volumes.

In any given year the volumes of mitigated natural gas through commodity sales are primarily a function of FEI's core customer load requirements, weather and temperature events, planned and unplanned maintenance on regional transmission pipelines, supply disruptions and capacity constraints, and regional markets dynamics in response to broader supply and demand events.

One contributing factor since the 2018/19 GSMIP year is that FEI has worked to develop an intra-day market at Huntingdon/Sumas with counterparties that hold take-away capacity on the Northwest Pipeline system to downstream markets. Typically, in the past, FEI would balance any length on a given day by adjusting the Aitken Creek nomination, whether withdrawing or injecting. FEI now considers opportunities to sell excess commodity at Huntingdon/Sumas, Station 2 and AECO/NIT as an option rather than just balancing with storage.

On Slide 25 of Appendix D-3 to the Application, FEI states, "LNG [liquified natural gas] exports have tied NA natural gas marketplace into other commodities markets worldwide (ie oil/ Asian/Europe)."

Later in Appendix D-3, FEI identifies Mt. Hayes LNG and Tilbury LNG as storage facilities.

2.2 How does the changing and expanding LNG export market in BC affect the GSMIP model with new liquefaction facilities, such as LNG Canada and Woodfibre LNG, expected to begin operation in the next few years?

2.2.1 Do the new LNG projects pose issues and/or opportunities for the GSMIP model?

2.2.2 Do on-system and off-system LNG projects have different implications for GSMIP model?

Response:

The LNG export market in BC, such as the future LNG Canada (i.e. off-system project) and Woodfibre LNG (i.e. on-system project) projects, will not directly affect the GSMIP model, in terms of posing issues or opportunities, but will be another variable in the supply and demand balance for the natural gas marketplace in the Pacific Northwest. The resulting regional changes due to these operations could indirectly affect the inputs to the GSMIP model, such as prices out of the supply basins or into the market demand centres.

LNG Canada, located on the northwestern coast of BC, could be operational by 2025. This project will draw feed supply from northeastern BC and Alberta through its own supply link (TC Energy's Coastal Gaslink pipeline). Once in-service, there could be upward or downward pressure on the regional prices (i.e., Station 2 and AECO/NIT), depending on the operating conditions of this project (i.e. how much natural gas the facility is consuming). Further, although LNG Canada will increase the demand for natural gas in general, it is expected that supply from the Western Canada Sedimentary Basin will grow to offset some or all of this new demand. Therefore, there is no certainty to how the LNG Canada project will impact prices at Station 2 or AECO/NIT.

Woodfibre LNG will operate on the southwestern coast of BC and also draw feed supply from northeastern BC through the T-South system. However, this project already has contracted a significant portion of the transportation capacity it will need on the Westcoast's T-South system to supply its facility (~300 MMcf/day). Currently, that capacity is being used to serve existing market demand. Therefore, when this project becomes operational, and absent any new pipeline infrastructure, it is likely to cause significant upward pressure on the Huntingdon/Sumas price.

On May 25, 2021, the Lieutenant Governor in Council approved Order in Council (OIC) 306/2021, and amended the Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR), which among other things, repealed and replaced section 2 (3.8) to state:

(3.8) The public utility acquires renewable natural gas

a) at costs that meet the following criteria, as applicable:

(i) if the public utility acquires renewable natural gas by purchasing it, the price of the renewable natural gas does not exceed the maximum amount, determined in accordance with section 9, in effect in the fiscal year in which the contract for purchase is signed;

(ii) if the public utility acquires renewable natural gas by producing it, the levelized cost of production reasonably expected by the public utility does not exceed the maximum amount, determined in accordance with section 9, in effect in the fiscal year in which the public utility decides to construct or purchase the production facility, and

b) that, in a calendar year, does not exceed 15% of the total amount, in GJ, of natural gas provided by the public utility to its non-bypass customers in 2019, subject to subsection (3.9) and section 10;

2.3 Please discuss how a growing renewable natural gas (RNG) portfolio may potentially impact the proposed GSMIP extension and mitigation activities.

Response:

FEI does not see any potential impact to the proposed GISMIP extension and mitigation activities from FEI's growing renewable natural gas (RNG) portfolio.

Over the GSMIP extension period of November 1, 2022 through October 31, 2025, FEI anticipates that all of the RNG supply acquired over that period will be consumed and allocated to core customer use. Further, there are no RNG deal structures or prices for FEI to use as a benchmark, given that this market is still in early stages of development.

However, should there come a time when FEI's RNG supply is greater than the demand and the RNG off-system market is more mature, FEI may bring forward an application for the development of a new GSMIP mitigation activity based on RNG for BCUC consideration.

2.4 Does FEI view RNG as a potential new mitigation activity in the coming years given the expanding role it plays in FEI's overall gas portfolio?

2.4.1 Please explain any challenges in developing a mitigation activity involving RNG.

Response:

Please refer to the response to BCUC IR1 2.3.

2.5 Please explain if FEI views the attributable environment credit associated with the RNG as a potential opportunity for future mitigation activity.

Response:

While FEI does view the environment attributes associated with RNG as a potential opportunity for future mitigation activity, FEI has not explored mitigation activities of attributable environmental credits at this time. As discussed in the response to BCUC IR1 2.3, FEI anticipates that all of the RNG supply will be consumed and allocated to core customers over the GSMIP extension period.

2.6 Please explain if any market indices currently exist for RNG and/or its associated environmental credits.

Response:

FEI is not aware of any market indices that exist for RNG or that would be transactable at this time.

There are existing markets for associated environmental credits; however, the jurisdictional treatment of these attributes vary by region.