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British Columbia Utilities Commission
Suite 410, 900 Howe Street
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Attention: Ms. Marija Tresoglavic, Acting Commission Secretary

Dear Sirs/Mesdames:

**Re: FortisBC Energy Inc. - Revelstoke Propane Portfolio
Cost Amalgamation Application ~ Project No. 159933**

We enclose for filing in the above proceeding the Final Submission of FortisBC Energy Inc. dated June 16, 2020.

Yours truly,

FASKEN MARTINEAU DuMOULIN LLP

[Original signed by]

Tariq Ahmed

TVA/vde
Enclosure



Before the British Columbia Utilities Commission

FortisBC Energy Inc.

**Application Regarding Revelstoke Propane Portfolio
Cost Amalgamation Application**

Project No. 1599033

Final Submission of FortisBC Energy Inc.

June 16, 2020

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PART ONE: INTRODUCTION

A. OVERVIEW OF APPLICATION AND PROCEEDING

1. FortisBC Energy Inc. (“FEI”) propane customers in Revelstoke have consistently experienced higher rates and greater price volatility than FEI’s natural gas customers. While FEI provides the same cost-effective delivery service in Revelstoke as elsewhere, the commodity and midstream costs currently paid by customers are dependent on the type of fuel. Propane is higher cost and experiences greater volatility than natural gas.¹

2. FEI’s proposal — to amalgamate the Revelstoke propane supply costs with the FEI midstream natural gas supply resource costs in the Midstream Cost Reconciliation Account (“MCRA”) and to implement a revised propane gas cost rate setting mechanism — offers an innovative, least-cost, non-capital solution to this issue. The proposed rate setting mechanism will provide Revelstoke customers with propane rate stability on par with FEI’s natural gas customers, will provide propane commodity rate relief to Revelstoke customers and enjoys support in the community. It achieves these benefits in accordance with the accepted principle of common rates across geographic locations within FEI’s service territory without incurring significant capital costs. For these reasons, FEI submits that the proposal is just and reasonable and should be approved as sought.²

B. ORGANIZATION OF THIS SUBMISSION

3. The remainder of this Final Submission is organized as follows:

- (a) Part Two describes the proposed rate relief mechanism for FEI’s Revelstoke customers;
- (b) Part Three explains how the different costs experienced by Revelstoke customers are the product of geographic and historical factors;

¹ Exhibit B-2, BCUC IR 1.12.2.

² A revised draft form of order, which has been updated from that which appeared as Appendix F-2 to the Application to account for the passage of time, is included as Appendix A to this Submission.

- (c) Part Four describes why the proposed cost amalgamation is beneficial to Revelstoke customers;
- (d) Part Five explains how the cost amalgamation proposal is consistent with rate design principles;
- (e) Part Six addresses specific issues that arose in information requests that do not bear upon the merits of the cost amalgamation proposal; and
- (f) Part Seven concludes this Final Submission.

PART TWO: DESCRIPTION OF RATE RELIEF PROPOSAL

4. This Part describes how FEI proposes to amalgamate the costs of FEI's Revelstoke propane supply requirements with the costs of FEI's natural gas supply requirements. The market price for the natural gas commodity has historically been more stable than that for the propane commodity. Applying equal cost of energy recovery rates to FEI's Revelstoke propane customers represents an improvement to the current situation in line with the accepted principle of common rates across geographical locations within FEI's service territory.

5. The specific elements of FEI's proposal to achieve this outcome are:³

- (a) Amalgamate its Revelstoke propane supply portfolio costs with its natural gas supply portfolio costs by transferring the closing balance of the Propane Cost Deferral Account ("PCDA") to FEI's existing MCRA as an opening balance adjustment;
- (b) Capture all Revelstoke propane supply portfolio costs in the MCRA; and
- (c) Eliminate the PCDA.

6. The result would be that Revelstoke propane customers would pay the same gas cost recovery rates as FEI's natural gas customers.⁴

7. FEI proposes to capture the Revelstoke propane supply portfolio costs in the existing MCRA because the profile of the Revelstoke propane supply varies with weather. As such, FEI's Revelstoke propane purchases are shaped to the relative level of seasonal consumption, similar to how FEI currently captures the costs for seasonally shaping its natural gas supply in the existing MCRA.⁵

³ Exhibit B-1, Application, p. 7.

⁴ Exhibit B-1, Application, p. 9.

⁵ Exhibit B-1, Application, pp. 7 and 8.

8. FEI's proposal involves changes to the accounting treatment only. It does not involve any changes in how the physical propane and natural gas supply resources are planned and managed. FEI will continue to manage the propane and natural gas supply requirements separately for contracting, balancing, and mitigation of the physical supply portfolios. Separate propane and natural gas Annual Contracting Plans,⁶ as well as the individual energy supply agreements that FEI executes with counterparties, will continue to be submitted to the BCUC for review and acceptance prior to the contracting period.⁷

9. Although the cost of gas recovery rates are identical, the carbon tax rate charged to Revelstoke customers is that applicable to propane.⁸ Propane customers will thus continue to pay higher carbon tax rates than natural gas customers. As discussed in Part 4 below, this approach preserves alignment with BC's energy objectives.

10. Fully amalgamating the propane and natural gas portfolio costs on an equal basis ensures that FEI customers in Revelstoke do not experience differing cost of energy recovery rates for gas service due to their location within FEI's service territory.⁹

⁶ Exhibit B-2, BCUC IR 1.2.9.

⁷ Exhibit B-1, Application, p. 8.

⁸ Exhibit B-1, Application, p. 9

⁹ Exhibit B-2, BCUC IR 1.2.1.

PART THREE: DIFFERENTIAL RATES ARE AN ARTIFACT OF GEOGRAPHY AND HISTORY

11. In this Part, we demonstrate that FEI's Revelstoke customers pay more and experience more price volatility than FEI's other customers¹⁰ because of where they are situated and the manner in which rates have developed over time.

12. The Revelstoke system is a satellite, off-grid propane distribution system that serves approximately 1,500 residential and commercial customers.¹¹ Propane is supplied to Revelstoke by railcars and tanker trucks, where it is offloaded into storage tanks, vaporized as needed, and distributed to customers through an underground piped distribution system.¹²

13. From the outset of service, customers in Revelstoke consuming propane have paid the same delivery rates as natural gas customers, plus a rider specific to Revelstoke and surrounding area for the propane commodity costs.¹³

14. When the piped propane system was first introduced to Revelstoke in 1991, it was because Revelstoke was located at too great a distance from the natural gas distribution system and its forecast load was insufficient to make connection economic.¹⁴ FEI knew that an extension of the natural gas system was uneconomic and that propane prices were typically higher than natural gas prices. However, FEI had anticipated that at some point in the future, sufficient economic growth and development could occur in the corridor from the north Okanagan to Revelstoke that would justify a natural gas extension (without an additional contribution from any party). Since that time, the economic growth in Revelstoke and in the corridor has not occurred to a degree that would enable an economic physical pipeline connection.¹⁵

¹⁰ Exhibit B-2, BCUC IR 1.1.1.

¹¹ Exhibit B-1, Application, p. 1.

¹² Exhibit B-1, Application, p. 1.

¹³ Exhibit B-4, BCSEA IR 1.2.4.

¹⁴ Exhibit B-1, Application, p. 1.

¹⁵ Exhibit B-4 BCSEA IR 1.13.1.

15. FEI performed an analysis in 2015/2016¹⁶ to determine if an alternate solution such as a virtual pipeline would solve the volatility and higher prices that Revelstoke customers pay for energy, but the results did not provide an economic solution. FEI has brought forward this Application as a solution that would have little cost to natural gas ratepayers to the issue of volatility and higher prices of energy that Revelstoke customers bear.¹⁷

16. Despite the fact that Revelstoke is served with a different commodity, the service provided to Revelstoke customers is indistinguishable from that provided to FEI's natural gas customers. Serving Revelstoke customers by propane is the most cost-effective method to provide piped energy to customers in the face of much more expensive capital options that could provide the same fuel as FEI's other customers (natural gas). On that basis, as discussed in the following sections, it is fair and reasonable for Revelstoke customers to pay the same price as FEI's natural gas customers for the energy service they receive, regardless of the commodity delivered.¹⁸

¹⁶ Exhibit B-2, BCUC IR 1.8.3.

¹⁷ Exhibit B-4 BCSEA IR 1.13.1.

¹⁸ Exhibit B-4, BCSEA IR 1.2.11.

**PART FOUR: FEI'S PROPOSAL REPRESENTS AN INNOVATIVE SOLUTION FOR
CUSTOMER RATE RELIEF**

17. In this Part, we discuss the evidence demonstrating that FEI's proposal represents an innovative solution to the less predictable and higher energy costs experienced by Revelstoke customers, relative to FEI's natural gas customers.¹⁹ We focus on the facts that FEI's proposed cost amalgamation:

- (a) Benefits FEI's Revelstoke customers by providing rate relief and reducing volatility;
- (b) Supports BC's energy objectives; and
- (c) Will have very limited cost consequences for FEI's other customers.

A. AMALGAMATION BENEFITS REVELSTOKE CUSTOMERS

18. The proposed amalgamation of FEI's Revelstoke propane supply portfolio costs with FEI's natural gas supply portfolio costs provides a simple and transparent solution to address the price volatility and higher energy costs experienced by Revelstoke propane customers.

19. The evidence is clear that, in the Western Canadian propane and natural gas commodity supply markets:

- (a) The magnitude of price spikes for propane is greater than that for natural gas;
- (b) Propane has historically sold at higher prices than natural gas on an energy equivalent basis; and
- (c) The frequency of price spikes is somewhat greater for propane than for natural gas.²⁰

¹⁹ Exhibit B-1, Application, p. 1.

²⁰ Exhibit B-1, Application, p. 3.

20. Since these energy commodity prices are reflected in the cost of gas recovery portion of customer rates, these three factors have a direct impact on FEI's Revelstoke customers. The annual bill of Revelstoke residential customers is consistently higher than FEI's natural gas residential customers when assuming the average Revelstoke residential customer has the same level of consumption as FEI's natural gas residential customers. For the 2006 to 2018 period, Revelstoke RS 1 residential customers have paid, on average, \$405 per year (or approximately 69 percent) more than FEI's RS 1 residential natural gas customers, with a peak of \$624 (105 percent) more in 2014, assuming the same consumption level.²¹ It is noteworthy that Revelstoke customers have the same delivery rates as FEI's natural gas customers, meaning that cost premium and the fluctuation in annual bills experienced by Revelstoke propane customers is due to the propane energy portion of the annual bill only.²²

21. Propane price volatility peaked in 2013 and 2014 and remained significantly higher than natural gas price volatility. For the period from 2016 to 2018, monthly propane price volatility was greater than \$1.50/GJ while natural gas price volatility was approximately \$0.50/GJ.²³

B. AMALGAMATION SUPPORTS BC'S ENERGY OBJECTIVES

22. We describe below how the proposed changes support the following two of BC's energy objectives under section 2 of the *Clean Energy Act*:²⁴

(h) to encourage the switching from one kind of energy source or use to another that decreases greenhouse gas emissions in British Columbia; and

(k) to encourage economic development and the creation and retention of jobs.

(a) Fuel Switching from Heating Oil Could Provide GHG Benefits

23. One benefit of the rate stability and rate relief offered to Revelstoke customers by the proposed amalgamation of FEI's propane supply costs into the natural gas supply costs would

²¹ Exhibit B-1, Application, pp. 4 and 5.

²² Exhibit B-1, Application, p. 4.

²³ Exhibit B-2, BCUC IR 1.1.4.

²⁴ S.B.C. 2010, c. 22.

be accelerated load growth in Revelstoke with conversions from other fuel types (e.g., from heating oil to propane), which would provide associated GHG emissions benefits.²⁵

24. FEI expects that some conversions from heating oil to propane will likely occur given the price difference between heating oil and propane.²⁶ Based on the historical data from FEI's Connect to Gas incentive program for 2015 to 2019, even with existing rates, FEI averaged approximately 23 heating system conversions per year (including both new attachments and existing customers) from heating oil to piped propane.²⁷

25. FEI prepared an "Upper Bound" scenario describing an unlikely situation where Revelstoke customers converted rapidly to FEI's system. FEI believes it is unlikely that all 1,063 residential dwellings identified within 30 metres of an existing main in Revelstoke will convert immediately.²⁸ However, if 100 percent of heating oil residential customers switched to propane, CO₂e emissions would be reduced by approximately 100 metric tonnes of per year. If fewer than 100 percent of the light fuel oil customers switch to propane, CO₂e savings will be proportionately less.²⁹

26. While conversions from heating oil to propane are expected to occur, FEI does not intend to convert any customer end-use appliances. Customers wishing to connect would follow the existing FEI System Extension process. If the profitability index passes the threshold, no contribution in aid of construction would be required. Similar to natural gas main extension customers, Revelstoke main extension customers would be responsible for their equipment costs.³⁰

²⁵ Exhibit B-1, Application, p. 15.

²⁶ Exhibit B-2, BCUC IR 1.2.7.3.

²⁷ Exhibit B-7, BCUC IR 2.18.7.

²⁸ Exhibit B-2, BCUC IR 1.2.7.3.

²⁹ Exhibit B-2, BCUC IR 1.2.7.2. See also, Exhibit B-10, CEC IR 2.13.1.

³⁰ Exhibit B-2, BCUC IR 1.2.7.1. See also Exhibit B-5, CEC IR 1.9.2 and Exhibit B-2, BCUC IR 1.7.1.

27. It is important to note that Revelstoke propane customers will continue to pay for the higher carbon tax rate of propane compared to FEI's natural gas customers. Therefore, FEI does not believe the proposed amalgamation undermines the efficacy of the carbon tax.³¹

28. The proposed amalgamation does not change the price signal for energy conservation to propane customers in Revelstoke. The revenues recovered from Revelstoke's propane customers will continue to be predominantly based on variable rates with a small portion recovered via the fixed basic charge. Therefore, although lower and less volatile, the rate structure continues to promote energy conservation to Revelstoke's propane customers where high energy users will continue to pay more than low energy users.³² FEI's energy conservation programs will continue to be available to Revelstoke customers to encourage energy conservation.³³

29. FEI believes the likelihood that reduced propane prices will encourage customers to switch from electric appliances is low for a number of reasons:³⁴

- (a) First, the price of the commodity is only one of the many factors that impact a customer's decision to convert from electric to propane end uses. Beyond the savings from the utility bill, customers will consider the capital cost of the conversion, the renovation work required to install the necessary ductwork for a new forced-air propane heating system, the requirement of a gas connection to the property, the remaining useful life of existing equipment, the environmental impacts of a propane heating system, as well as a number of other factors.³⁵
- (b) Second, from a purely economic perspective, the simple payback to convert from an electric baseboard home to a forced-air propane furnace heating home is

³¹ Exhibit B-2, BCUC IR 1.13.4.1. See also Exhibit B-4, BCSEA IR 1.2.20.

³² Exhibit B-2, BCUC IRs 1.13.5 and 1.13.6.

³³ Exhibit B-2, BCUC IR 1.13.5.

³⁴ Exhibit B-7, BCUC IR 2.17.4.

³⁵ Exhibit B-7, BCUC IR 2.17.4.

approximately 11 years even considering the reduced propane rates under FEI's proposed cost amalgamation. Given the length of the payback period, FEI believes the number of electrically heated homes in Revelstoke converting to a propane heating system will be limited, considering that the payback period is a significant portion of the life of a propane furnace that can range from 15 to 20 years. In reality, the actual payback period will be longer due to the conservative assumptions used, making the probability of switching even more unlikely.³⁶

30. While the evidence filed by Canadian Biomass Energy Research Ltd. ("CEBR") provided a scenario in which GHG emissions went up as a result of conversions to propane,³⁷ FEI's Rebuttal Evidence explained the problems with CEBR's analysis. CEBR's analysis assumes all residential buildings currently using heating sources other than propane will be converted to propane as a result of FEI's proposed cost amalgamation. This assumption is flawed as it ignores the financial and technical challenges associated with conversions, as well as customers' individual preferences and circumstances.³⁸

31. FEI calculated the annual cost savings and simple payback period for each type of conversion to a propane furnace using the capital cost estimates and the effective rates per GJ of heat for various fuel types in Revelstoke based on the capital cost table provided by CEBR.³⁹ From a financial perspective, FEI's calculations demonstrated that certain types of conversions provide no operating cost savings (e.g., air-source heat pump, cordwood, and the biomass district energy system operated by Revelstoke Community Energy Corporation ("RCEC")), while others provide a payback period that is much longer than the estimated life of the propane furnace (e.g., wood pellets). Accordingly, CEBR's assertions relating to conversions and associated GHG emissions should not be given any weight. The data suggests that conversion activity will be limited by a lack of savings or long payback periods or both.

³⁶ Exhibit B-7, BCUC IR 2.17.4.

³⁷ Exhibit C1-4, CEBR Evidence, para. 16.

³⁸ Exhibit B-15, FEI Rebuttal Evidence, Question 5.

³⁹ Exhibit B-15, FEI Rebuttal Evidence, Question 5. See also, Exhibit B-16, BCUC IR 3.24.1.

32. Further, from a technical perspective, CEBR's analysis ignores the capital cost and difficulty associated with conversion from electric resistance heat where it is necessary to retrofit ductwork for a new forced-air propane furnace described above.⁴⁰ CEBR's scenario, which assumes all residential buildings would convert, also fails to acknowledge that commodity price is only one of the many factors that influence a customer's decision to convert from electric to propane end uses. In response to an information request on its evidence, CEBR acknowledged that non-price factors do in fact play a role in fuel switching.⁴¹

(b) Economic Development From Lower and More Predictable Energy Costs

33. The cost amalgamation proposal also promotes the following objective: "(k) to encourage economic development and the creation and retention of jobs." The evidence, outlined below, is that lower and more predictable energy costs tend to result in better economic conditions which drive investment and the creation and retention of jobs.⁴² There is also broad community support in Revelstoke for the Application.

34. The cost amalgamation would mitigate rate volatility and provide rate relief to FEI's Revelstoke propane customers. Energy costs can account for a significant proportion of input costs for commercial and industrial activities. As such, less volatile (and thus more predictable) as well as lower energy input costs could free up funds that commercial and industrial enterprises may use for investments, such as the creation and retention of jobs. Likewise, less volatile and lower energy costs for residential propane customers in Revelstoke, may enable these customers to direct portions of their household funds away from energy demand and towards other forms of consumption that may support local economic activity and thus indirectly lead to the creation and retention of jobs. As outlined in Table 5-1 of the Application, the proposed changes would result in significant average annual bill reductions for Revelstoke

⁴⁰ Exhibit B-15, FEI Rebuttal Evidence, Question 5. See also, Exhibit B-16, BCUC IR 3.24.1.

⁴¹ Exhibit C1-8, CEC-CEBR IR 1.3.1.

⁴² Exhibit B-2, BCUC IR 1.2.10.

customers while average annual bill increases for FEI natural gas customers would remain small.⁴³

35. In a prior proceeding relating to common rates and amalgamation, the BC Ministry of Energy and Mines highlighted the notion that while many factors may affect the competitive position of commercial enterprises in a particular locale, a disadvantage in the area of energy input costs may be significant and lead to diminished economic development and job creation opportunities as a result.⁴⁴

36. FEI has received comments from the City of Revelstoke, the businesses of Revelstoke, and the community of Revelstoke around energy price and stability. The conversations mainly occurred during FEI's exploration into the potential of converting the Revelstoke distribution system from propane to natural gas and continued as FEI prepared the Application. The vast majority of the businesses, the community as well as the City of Revelstoke support lower fuel rates in Revelstoke.⁴⁵ FEI's response to BCUC IR 2.15.1 described in detail FEI's consultation with its customers, the City of Revelstoke, and the broader community spanning over five years. Overall, there is broad based support for a solution that will lower energy costs and reduce volatility.⁴⁶

37. This support carried through into this proceeding:

- The City of Revelstoke filed a letter in this proceeding in favor of the Application.⁴⁷

⁴³ Exhibit B-2, BCUC IR 1.2.10.

⁴⁴ Exhibit B-2, BCUC IR 1.2.10 referencing page 21 of the FortisBC Utilities Submissions in *Application for Reconsideration and Variance of Commission Order G-26-13 on the FortisBC Energy Utilities' Common Rates, Amalgamation and Rate Design Application* Decision, February 26, 2014, BCUC Order No. G-21-14. See also the BCUC Decision at pp. 13 and 14.

⁴⁵ Exhibit B-2, BCUC IRs 1.2.5 and 1.2.6.

⁴⁶ Exhibit B-7, BCUC IR 2.15.1.

⁴⁷ Exhibit C3-2, City of Revelstoke Letter of Support.

- Downie Timber’s evidence is that it is a global competitor in the forest products industry and not having the ability to access the same energy costs as its competitors (especially in BC), is a “market disadvantage” and impacts its continued success.⁴⁸ Downie Timber’s evidence is that with 270 employees it is one of, if not the largest employers, in Revelstoke with full time family supporting compensation packages.⁴⁹

38. FEI expects that amalgamation will support increased economic activity and employment opportunities overall in Revelstoke. If the Application is approved, all Revelstoke propane customers will experience lower and more stable cost of energy recovery rates. FEI’s Revelstoke propane customers may redirect such energy cost savings to activities that directly benefit Revelstoke’s economy and job creation. Such activities may include consumption of local goods and services (in the case of residential propane customers) and investment into staffing and business operations (in the case of commercial propane customers).⁵⁰

C. IMPACT TO NATURAL GAS CUSTOMERS IS SMALL

39. The rate impact to FEI’s natural gas customers resulting from FEI’s proposal to amalgamate Revelstoke’s propane supply costs with FEI’s natural gas supply costs in the MCRA is small.⁵¹

40. FEI’s proposal is expected to result in an increase of just over one cent per GJ or an annual increase of just under one dollar for a typical residential natural gas customer.⁵²

41. The midstream rate impact to FEI’s natural gas customers would remain small even under an “Upper Bound” scenario developed by FEI in which both of the following occurred:

⁴⁸ Exhibit C4-2, Downie Timber Evidence.

⁴⁹ Exhibit C4-2, Downie Timber Evidence.

⁵⁰ Exhibit B-7, BCUC IR 2.16.9. See also, Exhibit B-9, BCSEA IR 2.15.1.

⁵¹ Exhibit B-1, Application, p. 11.

⁵² Exhibit B-1, Application, p. 12.

- (a) Propane supply costs return to the historical peak level of approximately \$3.3 million from 2014 instead of the forecast level of approximately \$2.4 million for 2020; and
- (b) All residential dwellings in Revelstoke that are within 30 metres of an existing main but currently use heating oil or other fuel types decide to convert to propane in the first year, resulting in total Revelstoke propane forecast demand of 298 TJ for 2020 instead of 241 TJ under the current forecast for 2020.⁵³

In this extreme but unlikely scenario, the midstream rate impact to FEI's natural gas customers will be an average increase of just over two cents per GJ. This means that a typical residential natural gas customer in the FEI Mainland and Vancouver Island service area would experience an average annual increase of approximately two dollars, based on an average annual usage of 90 GJs per year.⁵⁴

42. FEI's evidence is that the Upper Bound scenario is unlikely due to the practicalities involved with conversions (energy users making conversion decisions over time, planning their conversions, purchasing new appliances, having to rely on contractor capacity for completing their conversions, etc.).⁵⁵ Given the length of the payback period that each individual residential owner will have to consider, FEI believes it is unlikely that all 1,063 residential dwellings identified within 30 metres of an existing main in Revelstoke in the Upper Bound scenario will convert immediately, and even less likely for those residential dwellings located more than 30 metres away. FEI believes the conversions could materialize over time.⁵⁶

43. No commercial conversions were forecast as the likelihood of existing commercial customers attaching is very low due to the following factors:

⁵³ Exhibit B-1, Application, p. 12.

⁵⁴ Exhibit B-1, Application, pp. 12-13.

⁵⁵ Exhibit B-1, Application, p. 15.

⁵⁶ Exhibit B-2, BCUC IR 1.7.3.1.

- (a) FEI experienced a total of four applications over the last five years from commercial properties in Revelstoke to connect to propane from heating oil; and
- (b) The most recent 2012 CEEI (Province of BC Community Energy & Emissions Inventory) report showed that there are no commercial or small-to-medium industrial properties that use heating oil.

44. FEI believes that, given the existing and historical price differential between heating oil and propane, commercial customers would most likely have already converted from heating oil to propane.⁵⁷

45. Under the proposed cost amalgamation, non-Revelstoke customers would also benefit from:⁵⁸

- (a) Overall GHG emission reduction to the province of BC resulting from potential conversion from heating oil to propane in Revelstoke;
- (b) Potential load growth in Revelstoke which lowers overall delivery rate for all FEI customers; and
- (c) A non-capital solution with minimal rate impact to FEI's natural gas customer for providing rate stability and rate relief to Revelstoke propane customers as all other solutions are capital related with higher rate impact to FEI's natural gas customers.

⁵⁷ Exhibit B-2, BCUC IR 1.7.4.

⁵⁸ Exhibit B-2, BCUC IR 1.3.1.

PART FIVE: RATE RELIEF PROPOSAL IS CONSISTENT WITH RATE DESIGN PRINCIPLES

46. In this Part, FEI demonstrates that its proposal is consistent with rate design principles. It is organized around the following points:

- (a) Postage stamp rates already exist for Revelstoke's delivery rates. The proposal calls for an extension of postage stamping to the commodity rate, consistent with the trend that has occurred for FEI's other service areas.
- (b) The proposed rate setting mechanism treats similarly-situated customers equitably.
- (c) The proposal represents a proper balancing of rate design principles.

A. POSTAGE STAMP RATES FOR REVELSTOKE ARE CONSISTENT WITH CURRENT CIRCUMSTANCES AND PAST DECISIONS

47. A portion of the rates paid by FEI's Revelstoke customers is already postage stamped with FEI's natural gas rates. Developments since rates for Revelstoke customers were initially set elsewhere in FEI's service areas support the merits of the proposed cost amalgamation.

Revelstoke Delivery Rates Have Always Been Postage Stamped

48. Revelstoke has been served by FEI since 1991 and has been under the same postage stamp delivery rate as the rest of FEI's natural gas non-bypass customers since 1991.⁵⁹ This means that Revelstoke customers experience the same delivery rate increase or decrease as FEI's natural gas non-bypass customers.⁶⁰

49. Notwithstanding the fuel type consumed, FEI's cost of service related to its transmission and distribution system along with the cost of service for the propane plant and distribution system in Revelstoke has never been separated, and all of FEI's customers, regardless of fuel

⁵⁹ Exhibit B-2, BCUC IR 1.9.2.

⁶⁰ Exhibit B-2, BCUC IR 1.9.1.

type consumed, pay a postage stamp delivery charge. There is no reason why this principle could not be extended to the commodity rate.⁶¹

Postage Stamping Principle is Now Well-Established and Prior Rate Design Impediments Have Been Removed

50. The last inquiry into commodity pricing for Revelstoke occurred well over 20 years ago in 1996 and since then, there have been significant changes in provincial government energy policy, and other changes that have occurred in BC that make it appropriate to revisit how Revelstoke energy costs should be recovered.⁶²

51. Two of the significant impediments identified by the BCUC in the Inquiry Report are no longer relevant:

- Vancouver Island gas customers (formerly FortisBC Energy (Vancouver Island) Inc.) no longer have their rates set by a reference price based on home heating oil or electricity and these customers have been amalgamated with FEI.
- Customers in Whistler were converted in 2010 from propane to natural gas and also have been amalgamated into FEI with postage stamp rates for delivery, commodity and midstream costs.

52. The concept of postage stamp rates for the provision of gas service (whether propane or natural gas) and of not differentiating rates on the basis of location has now been well established, and now is the time to revisit Revelstoke's treatment.⁶³

53. Historically, FEI differentiated natural gas commodity/midstream recovery rates for the different predecessor utilities and regions. These were primarily a function of continued historical practices/methodology. In 2015 the 'regional' natural gas costs were postage stamped as part of the BCUC-approved amalgamation of the FortisBC Energy Utilities, both

⁶¹ Exhibit B-2, BCUC IR 1.9.6.

⁶² Exhibit B-4, BCSEA IR 1.13.2.

⁶³ Exhibit B-4, BCSEA IR 1.13.2.

because the way in which costs were being incurred had changed and because it was impossible to be able to identify exactly which costs were the responsibility of which geographic location, and that all costs were being incurred to provide the least cost while ensuring all firm service customers receive gas.⁶⁴

54. Although the BCUC did not reference the postage stamp principle in its Order No. G-175-14, dated November 14, 2014, it did approve gas cost allocation for the combined gas cost portfolios of FortisBC Energy Inc., FortisBC Energy (Whistler) Inc. and FortisBC Energy (Vancouver Island) Inc. This resulted in all sales customers, by their applicable rate schedule, having a postage stamp Commodity rate and postage stamp Storage and Transport Charges.⁶⁵

55. The concept of postage stamp rates for the same type of service (the provision of gas) and of not differentiating rates on the basis of location has now been well established, and it is now appropriate for the BCUC to consider whether FEI's proposal should be approved in consideration of provincial energy policy along with established rate design principles.⁶⁶

56. FEI believes that it is just and reasonable for customers within its amalgamated service territory that receive the same or similar service to pay the same rates in accordance with the accepted principle of common rates across geographic locations within FEI's service territory.⁶⁷

B. PROPOSAL TREATS SIMILARLY-SITUATED CUSTOMERS EQUITABLY

57. FEI's proposed rate setting mechanism treats Revelstoke customers consistently with FEI's customers in other service areas.

58. To some extent, all customers, even those with the same fuel type, have a different cost of service resulting from their geographical location. For example, FEI's Cranbrook natural gas customers pay the same commodity, and storage and transport recovery rates as FEI's

⁶⁴ Exhibit B-2, BCUC IR 1.9.2.

⁶⁵ Exhibit B-9, BCSEA IR 2.14.1.

⁶⁶ Exhibit B-2, BCUC IR 1.9.2.1.

⁶⁷ Exhibit B-4, BCSEA IR 1.9.2.

Vancouver natural gas customers even though two geographically motivated differences distinguish them from each other:⁶⁸

- Cranbrook customers are likely receiving methane molecules from AECO that were purchased at a different commodity price than methane molecules from Station 2.
- Transportation and storage costs related to the methane molecules purchased at AECO differ from the transportation and storage costs related to the methane molecules purchased at Station 2.

59. Had different historical decisions regarding upstream pipeline routes been made regarding their location and capacity, it is conceivable a different fuel type such as natural gas with a lower cost may have been economic for Revelstoke. The fuel type for Revelstoke is a product of history, but is consistent with FEI's approach for energy resources to acquire them with the overall intent of achieving the least cost for all customers.⁶⁹

C. REPRESENTS PROPER BALANCING OF RATE DESIGN PRINCIPLES

60. The BCUC has to weigh conflicting rate design objectives to arrive at a decision that is in the public interest, not necessarily in the interest of any particular party.

61. FEI's response to BCUC IR 1.9.⁷⁰ included an analysis of the application of the Bonbright principles to the Application. The primary rate design principles that are in question are the principles of the fair apportionment of costs and rate stability (customer acceptance in this case is tied to the variability of rates experienced by Revelstoke customers).

62. With respect to apportionment of costs, the cost amalgamation proposal reflects the shared cost of providing energy service, notwithstanding fuel-type. The fuel-type is the result of

⁶⁸ Exhibit B-2, BCUC IR 1.9.4.

⁶⁹ Exhibit B-2, BCUC IR 1.9.6.

⁷⁰ Exhibit B-2.

historical decisions that can place a location at a disadvantage for the preferred energy type. The issue of the fair apportionment of commodity and midstream costs for the same service between customers in Revelstoke and all other FEI customers is a primary consideration in FEI's proposal. It is a question of fact that the BCUC must decide if the proposed cost amalgamation would be unduly discriminatory.

63. With respect to rate stability, the cost amalgamation proposal represents significant improvement for customers in Revelstoke. For Revelstoke customers the proposal would increase rate stability. For all other FEI customers, it would have a negligible impact on rates.

64. The differentiated cost to natural gas customers is sufficiently small that the BCUC should place more weight on simplifying the tariff for ease of understanding and acceptance, addressing a perceived unfairness of differentiated rates for the service of receiving energy measured in GJ – i.e., to have the same price for energy service notwithstanding the location in the FEI service territory or the particular fuel type.⁷¹

65. Rate design should strive to strike a balance among competing rate design principles based on specific characteristics of customers in each rate schedule. FEI believes that it is now appropriate to fully amalgamate the propane and natural gas costs to create postage stamp rates in order to enhance rate and customer energy cost stability.

66. Though the Application, if approved, would result in a small annual bill impact for FEI's natural gas customers, it provides a means to address the price volatility and higher energy costs experienced by Revelstoke propane customers by virtue of their geographical location. Further, the Application represents the lowest cost to FEI customers amongst the various means of connecting Revelstoke customers to the natural gas system. Accordingly, approval of the Application, would not be unjust, unreasonable, unduly discriminatory or unduly preferential.

⁷¹ Exhibit B-2, BCUC IR 1.9.5.

PART SIX: MATTERS THAT DO NOT BEAR UPON THE RATE RELIEF PROPOSAL

67. In the course of information requests a number of issues were explored that do not bear on the merits of the Application. In this Part, we respond to those issues. We make the following points:

- (a) Future capital upgrades, including conversion to natural gas, and other supply options, are still possible after amalgamation. FEI would continue to pursue the least cost method of serving Revelstoke customers.
- (b) Even an overstated increase in use per customer (“UPC”) in Revelstoke after the proposed cost amalgamation would have an immaterial impact on FEI natural gas customer rates.
- (c) Potential impacts of the proposal on other energy service providers are not a basis to deny rate relief for Revelstoke customers.

A. FUTURE CAPITAL UPGRADES AND OTHER SUPPLY OPTIONS STILL POSSIBLE AFTER AMALGAMATION

68. Approval of the proposed cost amalgamation does not preclude future review of options to upgrade the Revelstoke propane system to natural gas, which may include consideration of alternatives such as a natural gas pipeline, liquefied natural gas (LNG) supply, or compressed natural gas (CNG) supply in consideration of both the economic and non-financial benefits at the time.⁷²

69. FEI has explored capital alternatives, such as a physical pipeline and a virtual LNG pipeline, to address the energy cost disparity and volatility experienced by Revelstoke customers. However, each of these capital alternatives included a greater financial impact to FEI’s natural gas customers than the proposed alternative. Accordingly, finding a least-cost,

⁷² Exhibit B-1, Application, p. 14.

innovative non-capital solution to achieve these objectives reduces the impact to FEI's natural gas customers, thereby benefitting them in relation to such alternatives.⁷³

70. From a financial perspective, propane continues to be the least cost option to serve Revelstoke as opposed to natural gas via a virtual LNG pipeline or a physical pipeline. For example, propane costs for Revelstoke are approximately \$2.239 million annually based on 2020 forecasts as compared to \$6.200 million or \$30.600 million of incremental annual revenue requirement associated with LNG or a physical pipeline, respectively.⁷⁴

71. FEI's proposal also does not preclude the future use of renewable natural gas supply, such as that from the conceptual gas plant promoted by CBER.⁷⁵ FEI recently filed with the BCUC a biomass purchase agreement for the supply of biomethane from wood waste from a facility in Fruitvale, BC, which will be purchased by FEI for injection into FEI's existing natural gas system.⁷⁶

72. The proposed cost amalgamation minimizes the potential impact to natural gas ratepayers while also alleviating the geographic disadvantage faced by Revelstoke customers whose energy costs currently reflect this disadvantage via the cost of propane. In accordance with common rate setting principles, the proposal treats Revelstoke customers in the same manner as other gas customers whose rates are set without regard to their geographic location. Thus, the proposal conserves resources and represents a fair and reasonable solution to overcome geographic disparity impacting energy costs in Revelstoke.⁷⁷

⁷³ Exhibit B-2, BCUC IR 1.3.1. See also, Exhibit B-2, BCUC IR 1.8.3.

⁷⁴ Exhibit B-2, BCUC IR 1.8.3.

⁷⁵ Exhibit C1-4, CEBC Evidence, paras. 29-32.

⁷⁶ BCUC Order No. G-60-20.

⁷⁷ Exhibit B-2, BCUC IR 1.8.3.

73. FEI will continue to investigate potential options to connect Revelstoke to FEI's natural gas distribution system, and will pursue such a project if FEI considers it is economically feasible and supported by BC's energy objectives.⁷⁸

B. REGARDLESS OF UPC, AMALGAMATION WOULD HAVE AN IMMATERIAL IMPACT ON NATURAL GAS CUSTOMER RATES

74. FEI assumes that the use rates for existing Revelstoke customers will remain relatively constant after cost amalgamation and might increase or decrease over time for various factors not related to the cost of commodity. Use rates are dependent on occupant comfort level, their conservation behavior, building envelope and installed equipment. FEI does not believe that new or existing customers would appreciably change, immediately or in the near term, their required comfort level (e.g., current thermostat setting), their conservation behavior, the building envelope or installed equipment due to a change in the commodity cost.⁷⁹

75. In response to a BCUC information request, FEI prepared a correlation analysis between rates (i.e., revenue per GJ) and energy demand (UPC) for Revelstoke over the last 10 years. The correlation coefficients for all rate classes are low which indicate that there is little correlation between the rates and energy demand.⁸⁰ In other words, Revelstoke customers have not responded to lower rates by increasing their energy usage.

76. Rates in both 2010 and 2016 were lower than other years and are at similar levels as the estimated rates after the proposed amalgamation. However, the demand (i.e., UPC) of both residential and commercial customers for these two years remained approximately the same as the years before and after 2010 and 2016. For these reasons, FEI did not feel that price

⁷⁸ Exhibit B-2, BCUC IR 1.12.4.

⁷⁹ Exhibit B-2, BCUC IR 1.6.1; Exhibit B-7, BCUC IRs 2.17.4 and 2.18.1.

⁸⁰ Exhibit B-2, BCUC IR 1.6.1.

elasticity analysis was warranted, and it is FEI's view that factors other than rates, such as those noted above, have a more significant impact on customer demand than rates.⁸¹

77. Third party elasticity studies also indicate that natural gas customers are price inelastic, meaning that their demand does not change materially with changes in commodity prices.⁸² FEI expects the price elasticity of propane (Revelstoke) and price elasticity of natural gas (other FEI customers) to be similar. This is because both natural gas and propane are used for the same end-use purposes (mainly space heating and water heating).⁸³

78. All DSM programming offered by FEI is currently and will continue to be made available to Revelstoke customers. These offers include incentives on high efficiency equipment for all customer sectors and DSM education and outreach activities.⁸⁴

79. A feature of CBER's evidence was a claim that an average dwelling in Revelstoke would use 150 GJ under the proposed cost amalgamation.⁸⁵ FEI explained in its rebuttal evidence the flaws with CBER's analysis, including the incorrect use of heating degree days to interpolate UPC, and the fact that a UPC figure of 150 GJ for Revelstoke would be unrealistic when compared to actual historical data across FEI's service areas.⁸⁶

80. However, regardless of which UPC figure is used, the difference in the impact related to natural gas customer rates is negligible. In response to BCUC IR 2.19.4,⁸⁷ FEI provided an analysis demonstrating that if:

⁸¹ Exhibit B-2, BCUC IR 1.6.1. See also Exhibit B-9, BCSEA IR 2.16.3 in which FEI noted that sudden significant changes in the effective rates paid by Revelstoke customers did not result in corresponding changes to UPC due to the price inelasticity of Revelstoke customers.

⁸² Exhibit B-7, BCUC IR 2.19.5.

⁸³ Exhibit B-7, BCUC IR 2.19.6.1.

⁸⁴ Exhibit B-7, BCUC IR 2.19.8.2.

⁸⁵ Exhibit C1-4, CEER Evidence para. 7.

⁸⁶ Exhibit B-15, Question 3. See also, Exhibit B-16, BCUC IR 3.23.7.

⁸⁷ Exhibit B-7. See also, Exhibit B-7, BCUC IR 2.19.1.

- (a) Residential customers in Revelstoke increase their average annual demand from 50 GJ per year to a level similar to FEI's natural gas customers at 90 GJ per year (an approximate increase in consumption of 80 percent); and
- (b) All 1,063 residential dwellings located within 30 metres of FEI's main identified as part of the Upper Bound scenario in the Application converted to propane immediately and also consume 90 GJ per year,

the bill impact to FEI's natural gas ratepayers remains at less than \$2 per year for an average FEI natural gas residential customer.

81. Even in the extremely unlikely scenario put forward by CBER where all non-propane residential heating sources convert to propane and residential UPC in Revelstoke increased to 150 GJ (which is unrealistic as it would represent an increase of 200 percent from the current average of 50 GJ), the bill impact to FEI's natural gas customers remains small at less than \$3 per year for an average FEI natural gas residential customer.⁸⁸

C. POTENTIAL IMPACT ON OTHER ENERGY PROVIDERS SHOULD NOT STAND IN THE WAY OF FAIR RATES FOR REVELSTOKE CUSTOMERS

82. Some information requests inquired on the potential of effects of FEI's cost amalgamation proposal on other energy suppliers, such as existing retail propane, fuel oil providers, the biomass district energy system operated by RCEC,⁸⁹ and a conceptual gas plant promoted by CBER.⁹⁰

83. FEI acknowledged that there may be conversions from other heating fuels to the FEI propane system if propane rates are lower than those heating fuel prices and if that price differential is sufficient to offset the other costs of conversion.⁹¹ However, it is appropriate to provide service to Revelstoke customers at the same rate for gas service as the rest of the

⁸⁸ Exhibit B-15, FEI Rebuttal Evidence, Question 4.

⁸⁹ Exhibit B-7, BCUC IR 2.16.1.

⁹⁰ Exhibit C1-4, paras. 29-32.

⁹¹ Exhibit B-6, Clean Energy IR 1.1.

customers in the province as this is in the best interest of FEI's customers. FEI discussed in the response to BCUC IR 2.16.1 why it believes any impact to RCEC will be limited, including that 1) RCEC has acknowledged that its service is not viable for residential homes due to the high cost of insulated distribution piping, and 2) the City of Revelstoke has the ability to influence new customer attachments and the retention of its existing customers despite the competitiveness of propane prices (in fact, RCEC will benefit from the proposed amalgamation since RCEC is one of FEI's largest commercial customers in Revelstoke under RS 3⁹²). In addition, customers should be allowed to choose the energy service that best meets their needs.⁹³

84. FEI does not consider the potential impacts on the competitiveness of other energy providers when setting customer rates across its service territory.⁹⁴ Impacts on the competitiveness of other service providers, particularly speculative impacts, do not provide a justification to deny FEI's propane customers the benefits of the proposed cost amalgamation. Utility regulation does not exist to perpetuate high (and differentiated) customer costs for the benefit of businesses that may provide alternative sources of energy supply and whose rates may not be set based on their cost of service.⁹⁵

85. The effect of a utility's rates on other service providers is not a commonly accepted rate design principle. For example, the effect of an electric utility's rates on the competitiveness of other service providers, such as a district energy provider (or for that matter other fuel suppliers like gas stations) has not and would not be a relevant consideration in setting the electric utility's rates.

⁹² Exhibit B-4, BCSEA IR 1.6.3; Exhibit B-7, BCUC IR 2.16.1.

⁹³ Exhibit B-6, Clean Energy IR 1.1.

⁹⁴ Exhibit B-11, Clean Energy IR 2.1.

⁹⁵ Exhibit B-11, Clean Energy IR 2.3.

PART SEVEN: CONCLUSION

86. FEI's proposal represents an innovative, least cost, non-capital solution to provide rate relief and address the rate volatility experienced distinctly by FEI's Revelstoke customers. The evidence is that approving the proposal will provide significant benefits to Revelstoke customers, including the community groups who have supported this Application. The evidence also shows that these benefits can be delivered with a small impact to FEI's natural gas customers and in alignment with postage stamp ratemaking principles. The BCUC should find that the proposal is just and reasonable and approve the Application on the terms sought.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated:

June 16, 2020

[original signed by Tariq Ahmed]

Tariq Ahmed

Counsel for FortisBC Energy Inc.

Appendix A
DRAFT ORDER



ORDER NUMBER

G-xx-xx

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

and

FortisBC Energy Inc.
Revelstoke Propane Portfolio Cost Amalgamation Application

BEFORE:

[Panel Chair]
Commissioner
Commissioner

on **Date**

ORDER

WHEREAS:

- A. On July 18, 2019, FortisBC Energy Inc. (FEI) applied to the British Columbia Utilities Commission (BCUC) for approval to amalgamate the Revelstoke propane supply costs with the FEI midstream natural gas supply resource costs in the Midstream Cost Reconciliation Account (MCRA) and to implement a revised propane gas cost rate setting mechanism, pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA) effective January 1, 2020 (Application);
- B. The Application also seeks approval of minor amendments to applicable FEI's Rate Schedules regarding references to Revelstoke rate rider 1, rate rider 6, and housekeeping amendments where applicable; and
- C. The BCUC has completed its review of the Application and evidence and finds that approval is warranted.

NOW THEREFORE pursuant to section 59 to 61 of the *Utilities Commission Act*, the BCUC orders as follows:

- 1. FEI is approved to amalgamate FEI's Revelstoke propane supply portfolio costs with FEI's natural gas supply portfolio costs as described in the Application by transferring the closing balance of the Propane Cost Deferral Account (PCDA) as of December 31, 2020 to FEI's existing MCRA as an opening balance adjustment and thereafter to begin capturing all costs of the Revelstoke propane supply portfolio in the MCRA.
- 2. FEI is directed to close the PCDA after the balance transfer described in item 1 above.
- 3. To include Rate Rider 6 Midstream Cost Reconciliation Account (MCRA Rate Rider 6), in the calculation of cost of propane per GJ rate for Revelstoke propane customers because all propane costs will be recorded in the MCRA after the proposed changes are implemented.

4. FEI is directed to file the amended Tariff pages as described in the Application at least 30 days prior to the January 1, 2021 implementation date.

DATED at the City of Vancouver, in the Province of British Columbia, this (XX) day of (Month Year).

BY ORDER

(X. X. last name)
Commissioner