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March 16, 2022

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

Attention: Mr. Patrick Wruck, Commission Secretary

Dear Mr. Wruck:

Re: FortisBC Energy Inc. (FEI)

FEI Application for Approval of Rates and Agreement for a CNG Fueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation for GFL Environmental Inc. and for Amendments to Rate Schedule 6P (Application)

Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2

On October 27, 2021, FEI filed the Application referenced above. In accordance with the regulatory timetable established in BCUC Order G-43-22 for the review of the Application, FEI respectfully submits the attached response to BCUC IR No. 2.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

FortisBC Energy Inc. (FEI or the Company) FEI Application for Approval of Rates and Agreement for a CNG Fueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation for GFL Environmental Inc. and for Amendments to Rate Schedule 6P (Application)	Submission Date: March 16, 2022
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1.0 Reference: PROPOSED RATES FOR FUELING SERVICE

Exhibit B-2, BCUC IR 2.1, Attachment, Amendment No. 1 to the Repayable Contribution Agreement, p. 1, IR 2.2; Exhibit B-3, CEC IR 1.1

Natural Resources Canada (NRCAN) Funding Contribution and GFL Environmental Inc. (GFL) Fueling Services Agreement

In response to British Columbia Utilities Commission (BCUC) IR 2.1, FEI stated:

Since filing the Application, FEI and NRCAN executed Amending Agreement No. 1 which extends the project completion deadline to March 31, 2022 to allow for equipment delivery and contractor delays due to a significant weather event causing major flooding, mudslides, and landslides in southern British Columbia that occurred in November 2021.

In conjunction with NRCAN Amendment No. 1, FEI and GFL agreed to extend the condition precedent date to December 31, 2021 to account for permitting delays and the significant weather event. Please refer to Attachment 2.1 for the extension letter.

On page 1 of the redacted Amending Agreement No. 1 to the NRCAN Contribution Agreement filed as an attachment to BCUC IR 2.1, it states that the project shall be completed by December 31, 2021.

In response to BCUC IR 2.2, FEI stated that it had not yet received any funding from NRCAN for the GFL Abbotsford Fueling Station, but that it expects to receive the full \$868,000 in funding in 2022.

1.1 Please clarify whether the deadline in the NRCAN Contribution Agreement to complete the GFL Abbotsford Fueling Station has been extended to December 31, 2021 or March 31, 2022. As part of the response, please clarify where the extension to March 31, 2022 is stated in Amending Agreement No. 1 to the NRCAN Contribution Agreement.

1.1.1 If the deadline in the NRCAN Contribution Agreement to complete the GFL Abbotsford Fueling Station has not been extended to March 31, 2022, please explain whether FEI still expects to receive the full \$868,000 in NRCAN funding.

Response:

The deadline in the NRCAN Contribution Agreement has been extended to March 31, 2022. FEI and NRCAN executed Amending Agreement No. 1 which extended the project completion deadline to December 31, 2021 and subsequently, FEI and NRCAN executed Amending

<p style="text-align: center;">FortisBC Energy Inc. (FEI or the Company)</p> <p>FEI Application for Approval of Rates and Agreement for a CNG Fueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation for GFL Environmental Inc. and for Amendments to Rate Schedule 6P (Application)</p>	<p>Submission Date: March 16, 2022</p>
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Agreement No. 2 which extended the completion deadline to March 31, 2022. The need for the extension in Amending Agreement No. 2 was caused by delays for equipment delivery and contractor delays arising from a significant weather event in November 2021 which caused major flooding, mudslides, and landslides in southern British Columbia. Please refer to Attachment 1.1 for a copy of the Amending Agreement No. 2. Consequently, FEI still expects to receive the full \$868,000 in funding from NRCAN in 2022.

In response to the CEC IR 1.1, FEI stated:

FEI and GFL executed a confidential Amending Agreement, which extended the project completion deadline to December 31, 2021 [...]

On December 16, 2021, the GFL station was operational. Public fueling will be available prior to the NRCAN deadline of March 31, 2022.

1.2 Please clarify when GFL began fueling at the GFL Abbotsford Fueling Station (e.g. on the first operational date of December 16, 2021 or on the amended project completion date of December 31, 2021).

Response:

Although the GFL Abbotsford Fueling Station was operational on December 16, 2021, GFL began taking fueling service from the station on January 14, 2022.

1.3 Please confirm, or explain otherwise, that the GFL Abbotsford Fueling Station is currently open to the public and capable of providing public fueling service.

1.3.1 If confirmed, please provide the date that the station was open to the public and capable of providing public fueling service.

Response:

Confirmed. As of February 18, 2022, the GFL Abbotsford Fueling Station was open to the public and providing public fueling service.

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1.4 Please provide, in confidence if necessary, a copy of the amending agreement to the GFL Fueling Services Agreement that extended the project completion deadline to December 31, 2021. As part of the response, where possible, please file a redacted version of the amending agreement for the public record.¹

1.4.1 If FEI is requesting the amending agreement to the GFL Fueling Services Agreement be treated as confidential by the BCUC, please explain why confidential treatment is necessary pursuant to Section 18 of the BCUC's Rules of Practice and Procedure.

1.4.2 Please clarify whether FEI is requesting BCUC approval of the changes established by the amending agreement to the GFL Fueling Services Agreement on an interim basis. If not, please explain why BCUC approval is not necessary.

Response:

Please refer to Attachment 1.4 for a copy of the letter agreement between FEI and GFL dated November 15, 2021, which extends the project completion deadline to December 31, 2021 (Letter Agreement). The Letter Agreement was signed pursuant to the terms of the GFL Agreement that contemplate that the parties may agree in writing to change the project completion deadline. As stated in section 2 b of Amending Agreement No. 1:

"If the condition(s) listed above ((a) through (c)) is/are not satisfied or waived by FEI by the Commencement Date, or such later date agreed to by both parties in writing, FEI may terminate this Agreement, at its sole discretion and neither party will have recourse against the other party due its termination nor will either party have any further rights or obligations under this Agreement." [Emphasis added.]

FEI incorrectly referred to the Letter Agreement as confidential in its response to CEC IR1 1.1. FEI is not requesting confidential treatment of the Letter Agreement.

FEI clarifies that it is requesting BCUC interim approval of the Letter Agreement as part of the GFL Agreement.

¹ [G-15-19 BCUC Rules of Practice and Procedure.pdf](#).

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2.0 Reference: PROPOSED RATES FOR FUELING SERVICE

Exhibit B-2, BCUC IR 3.2; FEI Rates and Agreement for Constructing and Operating a CNG Fueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation at Annacis Island, BC and amendments to Rate Schedule 6P (Annacis Island Fueling Station Proceeding); Exhibit B-2, BCUC IR 5.1

Cost of Service

In response to BCUC IR 3.2, FEI provided the following table with the operating and maintenance (O&M) costs for FEI's other fast-fill CNG fueling stations:

Table 1: O&M 2017-2021 CNG Fast-Fill Stations

	2017	2018	2019	2020	Projected 2021	Total 2017-2021	Average by Station
Burnaby Ops	120,722	35,560	22,085	14,671	49,975	243,013	48,603
Kamloops Operations*		32,798	39,811	59,065	61,119	192,793	48,198
Langford Ops	38,297	272,568	98,590	53,679	52,766	515,900	103,180
Mid-Island Co-Op - Nanaimo	131,312	118,646	53,385	43,644	20,165	367,152	73,430
Surrey Ops	120,748	79,723	45,652	96,468	57,943	400,534	80,107
5 Year Average for all CNG Fast-Fill Stations: \$70,704							

2.1 Please compare the actual average O&M costs provided in the table above with the O&M costs that were forecasted at the time the rates for each of the respective fast-fill CNG stations were approved by the BCUC. As part of the response, please provide explanations for any variances greater than 10 percent between the average actual and forecast O&M costs.

Response:

O&M includes fixed O&M requirements and variable O&M requirements. Variable O&M costs are dependent on the volumes dispensed from the station, while fixed O&M costs are incurred at a level based on set schedules. In general, greater forecast volumes result in more frequent runtime-based preventative maintenance intervals.

FEI forecasts O&M cost for CNG stations based on each station's unique characteristics, including the station design, compressor size, and location of the station. All other things being equal, stations that have compressors with greater capacity are expected to incur less run-time hours to produce the same volume of CNG. Smaller compressors are typically expected to have more frequent runtime-based preventative maintenance requirements. Additionally, the spare parts and the synthetic oil used to perform preventative maintenance on smaller compressors are significantly more expensive than the spare parts and mineral oil required for the larger compressors. The labour required for the runtime-based preventative maintenance intervals on

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the larger compressors is also significantly more expensive than what is required for the smaller compressors.

In addition to compressor size, O&M costs are dependent on factors such as volume of CNG fuel dispensed, which affects the run-time hours of the compressors, the cost of spare parts and oil for preventive maintenance, regional weather, station age and the location of the station. The cost of material and labour is greater for stations located outside of the Lower Mainland, such as in Kamloops or on Vancouver Island. Infrequently replaced items for these stations must either be couriered from FEI's Port Kells CNG spare parts storage facility or locally sourced parts must be substituted that are often more expensive, when available. Furthermore, there is not an established network of trained CNG technicians outside of the Lower Mainland, and major servicing and more complicated preventative maintenance for these stations requires travel or remote assistance from expert CNG technicians.

Actual O&M fluctuates from year to year for a variety of reasons, including:

- unexpected O&M costs, such as component failures;
- the timing of major service intervals which depend on the run-time hours of the station;
- the need for consumable or replacement parts and the station servicing requirements may significantly change year-to-year, as there are differences in the lifespan of the individual components of the station, the maintenance cycle of the station consumables, and when major servicing is required; and
- costs may be deferred from one year to the next or services performed earlier than anticipated if an operational efficiency is recognized.

Because of the unique characteristics of each station, and the uncertainty that can occur year over year as discussed above, variations between forecast and actual O&M and variations between the O&M of different CNG stations are expected to occur. However, as discussed below and in the remainder of the responses to the BCUC IR2 2 series, these variances are explainable and are reasonable, and as such, FEI's methodology for forecasting O&M remains appropriate.

The following table shows the forecast O&M, actual O&M and key characteristics of each station.

	GFL	Annacis Island	Burnaby Ops	Kamloops Operations	Langford Ops	Mid-Island Co-Op Nanaimo	Surrey Ops
Forecast O&M and Volume							
Forecasted Annual O&M at Time of Filing (\$)	\$49,600	\$94,000	\$38,690	\$44,070	\$47,200	\$58,400	\$8,500
Forecasted Annual Volume at Time of Filing (GJ)	14,300	20,714	8,700	13,560	17,320	12,240	4,725
\$/GJ for Forecasted O&M	\$3.47	\$4.54	\$4.447	\$3.250	\$2.725	\$4.771	\$1.799

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	GFL	Annacis Island	Burnaby Ops	Kamloops Operations	Langford Ops	Mid-Island Co-Op Nanaimo	Surrey Ops
Actual O&M and Volume							
Average Actual O&M (2017 to 2021) (\$)	N/A	N/A	\$48,603	\$48,198	\$103,180	\$73,430	\$80,107
Average Actual Volume (2017 to 2021) (GJ)	N/A	N/A	13,317	2,931	24,510	16,394	15,959
\$/GJ for Actual O&M	N/A	N/A	\$3.650	\$16.444	\$4.210	\$4.479	\$5.020
Station Characteristics							
# of compressors	1	1	2	2	2	2	2
Location of Station	Lower Mainland	Lower Mainland	Lower Mainland	Interior	Vancouver Island	Vancouver Island	Lower Mainland
Cold weather package?	N	N	N	Y	N	N	N
In Service Date	2021	2022	2016	2018	2014	2016	2011

- 1
- 2 The table below summarizes the actual average O&M and the forecast O&M for the stations listed
- 3 in BCUC IR 1.3.2. As shown in the table below, the primary reason for variances between the
- 4 actual average O&M and forecast O&M is the actual annual volume being higher than the forecast
- 5 minimum annual volume except for Kamloops Operations where the actual annual volume is
- 6 lower than the forecasted volume.

	Forecasted O&M (per BCUC approved filing)	2017-2021 Average O&M	Variance	Explanation for if Variance is greater than 10%
Burnaby Ops	\$38,690	\$48,603	26%	O&M was forecast based on the minimum annual fueling volume of 8,700 GJs, while actual annual fueling volume was approximately 13,317 GJs from 2017 to 2021.
Kamloops Operations	\$44,070	\$48,198	9%	N/A
Langford Ops	\$47,200	\$103,180	119%	O&M was forecast based on the minimum annual fueling volume of 17,320 GJs, while actual annual fueling volume was approximately 24,510 GJs from 2017 to 2021. Several unexpected O&M costs occurred that were not originally forecast based on volume: several design modifications were implemented, including the installation of dispensing line insulation to increase operational efficiency and mitigate potential future failures, and unexpected heat exchanger leaks that resulted in repairs being performed.

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	Forecasted O&M (per BCUC approved filing)	2017-2021 Average O&M	Variance	Explanation for if Variance is greater than 10%
Mid-Island Co- Op - Nanaimo	\$58,400	\$73,430	26%	O&M was forecast based on the minimum annual fueling volume of 12,240 GJs, while actual annual fueling volume was approximately 16,394 GJs from 2017 to 2021. Simultaneous compressor operation was required, but not anticipated at the time of the filing. This simultaneous operation resulted in a significant increase to the variable O&M costs of operating the compressors.
Surrey Ops	\$8,500	\$80,107	842%	O&M was forecast based on expected fueling volumes of 4,725 GJs, while actual annual fueling volumes from 2017 to 2021 have averaged 15,959 GJ's. New equipment was installed at the site in 2019 including a second compressor, storage, dryer, and associated control panels, which were needed to increase capacity to meet growing demand and replace obsolete equipment. This additional equipment resulted in additional O&M costs. As well, a significant rebuild of the original compressor was required. As the compressor was manufactured in 1986, several components were no longer available and had to be replaced with more expensive substitutes. This was completed in 2020 and charged to O&M.

2.2 For each of the stations listed in the table above, please compare the actual 5-year average O&M costs per GJ of CNG dispensed (i.e. \$/GJ) for the period from 2017 to 2021 with the per GJ O&M costs that were forecasted at the time the rates for each of the respective fast-fill CNG stations were approved by the BCUC. As part of the response, please provide explanations for any variances greater than 10 percent between the average actual and forecast per GJ O&M costs.

Response:

Variances in \$ per GJ occur either due to changes in O&M costs for the station, or changes in CNG fuel volume sold at the station. The table below summarizes the actual average O&M per GJ and the forecasted O&M per GJ costs. FEI clarifies that the forecasted O&M per GJ for each

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1 station shown in the table below represents the full cost recovery of the forecasted O&M at the
2 time the rates were approved by the BCUC and therefore might not reflect the actual approved
3 O&M rate. In accordance with the terms of the GGRR, the approved O&M rate may represent a
4 cost recovery of less than 100 percent and therefore would not be an appropriate comparison
5 with the actual average O&M per GJ from 2017 to 2021.

	Forecasted O&M per GJ (per BCUC approved filing)	2017-2021 Average O&M (\$/GJ)	Variance	Explanation for if Variance is greater than 10%
Burnaby Ops	\$4.447	\$3.65	-18%	Higher expected volumes lowered the per GJ O&M cost as the fixed O&M costs are spread over a larger GJ volume.
Kamloops Operations	\$3.250	\$16.444	406%	Actual volume from 2017 to 2021 was approximately 22% of what was forecast at the time of filing. The volume decrease only reduced variable O&M costs dependent on usage, while fixed O&M costs remained the same.
Langford Ops	\$2.725	\$4.210	54%	Several unexpected O&M costs occurred that were not originally forecast based on volume: <ul style="list-style-type: none"> • completing several design modifications including the installation of dispensing line insulation to increase operational efficiency and mitigate potential future failures; and • unexpected heat exchanger leaks that resulted in repairs.
Mid-Island Co-Op - Nanaimo	\$4.771	\$4.479	-6%	N/A
Surrey Ops	\$1.799	\$5.02	179%	New equipment was installed at the site in 2019 including a second compressor, storage, dryer, and associated control panels, which were needed to increase capacity to meet growing demand and replace obsolete equipment. This additional equipment resulted in additional O&M costs. As well, a significant rebuild of the original compressor was required. As the compressor was manufactured in 1986, several components were no longer available and had to be replaced with more expensive substitutes. This was completed in 2020 and charged to O&M.

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7 Note: Surrey Ops rates are derived via Rate Schedule 6P, therefore there is no specific O&M rate
8 for the Surrey Ops station. O&M cost recovery is built into the rates in the Rate Schedule 6P
9 tariff.

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In response to BCUC IR 3.2, FEI provided explanation for variances between the forecast O&M cost of the GFL Abbotsford Fueling Station and the actual O&M cost of FEI's other fast-fill CNG fueling stations. FEI also stated that it used the average annual O&M forecast for the GFL Abbotsford Fueling Station for years 3 to 10 for the comparison, which is \$54,000 per year consisting of \$34,000 for repair and maintenance and \$20,000 for electricity costs.

In response to BCUC IR 5.1 in the Annacis Island Fueling Station Proceeding, FEI provided explanation for variances between the forecast O&M cost of the Annacis Island Fueling Station and the actual O&M cost of FEI's other fast-fill CNG fueling stations. FEI also stated that the average annual O&M forecast for the Annacis Island Fueling Station is \$94,000 consisting of \$60,000 for repair and maintenance and \$34,000 for electricity costs.

BCUC staff prepared the following table with extracts of FEI's explanations provided in those two IR responses:

Fueling Station	BCUC IR 3.2 (GFL Abbotsford Fueling Station Proceeding)	BCUC IR 5.1 (Annacis Island Fueling Station Proceeding)
Burnaby Ops	"Burnaby Ops has two lower capacity compressors that accumulate greater projected run hours than the GFL Abbotsford Fueling Station per GJ volume, thus reaching major service intervals more frequently and increasing O&M costs in comparison. The Burnaby Ops average minimum volume is 13,300 GJ per year, compared with an average minimum volume at GFL Abbotsford of 15,500 GJs for year 3 to year 10."	"Burnaby Ops has smaller, less maintenance intensive compressors in comparison to the larger compressor at Annacis Island."
Mid-Island Co-op - Nanaimo	"Mid-Island Co-Op - Nanaimo has two lower capacity compressors that accumulate more projected run hours than the GFL Abbotsford Fueling Station per GJ volume, thus reaching major service intervals more frequently and increasing maintenance costs. [...] The average minimum volume at Mid-Island Co-op is 16,500 GJs per year."	"Mid-Island Co-Op - Nanaimo has a smaller site and less maintenance-intensive compressors in comparison to the larger compressor at Annacis Island. Higher than expected expenditures occurred at Mid-Island Co-Op - Nanaimo due to unexpected equipment failures in 2017 and 2018 that inflated the five year average O&M cost."
Surrey Ops	"Surrey Ops has two compressors, increasing the required scheduled preventative maintenance and resulting in higher O&M costs in comparison to the GFL Abbotsford	"Surrey Ops has less volume being dispensed at the station than the projected volumes at the Annacis Island Fueling Station. Therefore, the run time and operation of the station

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	Fueling Station. One of the Surrey Ops compressors was manufactured in 1986 and is nearing the end of its usable life, increasing forecasted O&M costs in comparison to a new compressor. Surrey Ops does not have a minimum volume and only provides public fueling through Rate Schedule 6P."	is less. This reduces the maintenance expenditures at the station compared to the Annacis Island Fueling Station."
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2.3 Given that the two compressors at the Burnaby Ops Fueling Station are smaller than the one larger compressor at the GFL Abbotsford Fueling Station and the Annacis Island Fueling Station, respectively, please clarify why the average O&M cost of the Burnaby Ops Fueling Station is greater than the forecast O&M cost (excluding electricity) of the GFL Abbotsford Fueling Station, but less than the forecast O&M cost (excluding electricity) of the Annacis Island Fueling Station.

Response:

The difference between the average O&M cost for the three stations is mainly due to the greater volumes forecast at the Annacis Island Fueling Station in comparison to the Burnaby Ops and GFL Abbotsford fueling stations:

- The Burnaby Ops Fueling Station has an average annual fueling volume of 13,317 GJ per year;
- The GFL Abbotsford Fueling station has a similar forecast of annual volumes starting in years 2 and onward (forecast is 7,500 GJ in year 1, 11,500 GJ in year 2, and 15,500 GJ in years 3 to 10); and
- The Annacis Island Fueling station has significantly greater forecast volume of 21,000 GJ annually from years 1 to 5, which decreases to 20,000 GJ annually in years 6 and 7.

The Annacis Island and GFL Abbotsford fueling stations have identical compressors which are greater in capacity than the Burnaby Ops Fueling Station compressors. As discussed in the response to BCUC IR2 2.1, compressors with greater capacity are expected to incur less run-time hours to produce the same volume of CNG. Since the Burnaby Ops compressors are smaller, it is expected to there would be more run-time hours required than the GFL Abbotsford compressor for a similar forecast of volumes. As such, it is expected to have more frequent runtime-based preventative maintenance requirements for smaller compressors. Additionally, the spare parts and the synthetic oil used to perform preventative maintenance on the smaller Burnaby Ops compressors are significantly more expensive than the spare parts and mineral oil required for the larger compressors at Annacis Island and GFL Abbotsford.

Annacis Island Fueling Station has greater forecast volumes; therefore, its compressor will incur more run-time hours than GFL Abbotsford Fueling Station, resulting in more frequent runtime-based preventative maintenance intervals. Similarly, the additional volume at Annacis Island is

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expected to increase the wear and tear on station components. The labour required for the runtime-based preventative maintenance intervals on the larger compressors is also significantly more expensive than what is required for the smaller compressors at Burnaby Ops.

2.4 Given that the two compressors at the Mid-Island Co-op - Nanaimo Fueling Station are smaller than the one larger compressor at the GFL Abbotsford Fueling Station and the Annacis Island Fueling Station, respectively, please clarify why the annual O&M cost in 2019 and 2020 of the Mid-Island Co-op - Nanaimo Fueling Station is greater than the forecast O&M cost (excluding electricity) of the GFL Abbotsford Fueling Station, but less than the forecast O&M cost (excluding electricity) of the Annacis Island Fueling Station.

Response:

FEI does not believe it is reasonable to compare actual O&M spent during a two year period with forecast average O&M costs over a longer period as actual O&M spending fluctuates from year to year, as discussed in the response to BCUC IR2 2.1.

FEI can provide the following general comparisons between the O&M costs at Mid-Island Co-op, Annacis Island, and GFL Abbotsford fueling stations.

- The actual O&M costs at Mid-Island Co-op are higher than the forecast O&M costs at GFL Abbotsford due to:
 - The GFL Abbotsford Fueling Station's compressors that have a greater capacity than the compressors at the Mid-Island Co-op Fueling Station. As explained in BCUC IR2 2.1, compressors with greater capacity require less run hours to dispense the same volume of CNG:
 - As the Mid-Island Co-op Fueling Station's compressors are expected to incur significantly more run hours than the GFL Abbotsford compressor, it is expected the Mid-Island station would have more frequent runtime-based preventative maintenance intervals than GFL Abbotsford;
 - As the compressors at Mid-Island Co-op operate simultaneously, the O&M cost between each runtime-based maintenance interval would be double;
 - The spare parts and the synthetic oil used to perform preventative maintenance on the smaller Mid-Island Co-op compressors are more expensive than the spare parts and mineral oil required for the larger compressors at Annacis Island and GFL Abbotsford;

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- Mid-Island Co-op has a second CNG dispenser which increases O&M costs for items such as filters and dispensing hoses; and
- Mid-Island Co-op is located in the Vancouver Island service area and so incurs additional costs for shipping parts from the FEI CNG central inventory in Surrey and more expensive labour due to the skill level and availability of local technicians.
- The actual O&M costs at the Mid-Island Co-op Fueling Station are lower than the forecast O&M costs at the Annacis Island Fueling Station due to:
 - The higher forecast annual volumes at the Annacis Island Fueling Station means that the compressor at Annacis Island is expected to incur significantly more run hours than Mid-Island or GFL Abbotsford, resulting in more frequent runtime-based preventative maintenance intervals, and
 - The additional volume at Annacis Island is expected to increase the wear and tear on the station components, resulting in higher expected O&M costs than the Mid-Island Co-op Fueling Station.

2.5 Given that the Surrey Ops Fueling Station has one more compressor than the GFL Abbotsford Fueling Station and Annacis Island Fueling Station, respectively, please explain why the average O&M cost of the Surrey Ops Fueling Station is greater than the forecast O&M cost of the GFL Abbotsford Fueling Station, but less than the forecast O&M cost of the Annacis Island Fueling Station.

Response:

The average O&M cost of the Surrey Ops Fueling Station is greater than the forecast O&M cost of the GFL Abbotsford Fueling Station due to:

- Surrey Ops Fueling Station has an additional second compressor installed as redundancy, which operates on a set minimum amount of run-time hours to ensure it remains in working condition. Although this second compressor has less frequent hourly maintenance intervals, it still requires a minimum level of regular preventative maintenance to remain in working condition that would not be dependent on the volume of the fueling station.
- Surrey Ops has a greater volume of public fueling customers that do not fill at a regular schedule, which leads to more daily compressor starts and results in increased O&M costs.

The average O&M cost of the Surrey Ops Fueling Station is less than the forecast O&M cost of the Annacis Island Fueling Station due to the greater forecast volumes at the Annacis Island Fueling Station in comparison to the Surrey Ops Fueling Station and the GFL Abbotsford Fueling

FortisBC Energy Inc. (FEI or the Company) FEI Application for Approval of Rates and Agreement for a CNG Fueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation for GFL Environmental Inc. and for Amendments to Rate Schedule 6P (Application)	Submission Date: March 16, 2022
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Station. Although the Surrey Ops Fueling Station does not have a minimum annual volume, its actual fueling volumes in 2020 and 2021 were 17,825 GJs and 18,711 GJs, respectively, which is higher than the forecast volume of 15,500 GJs (from year 3 to 7) for the GFL Abbotsford Fueling station but less than the Annacis Island Fueling station, which averages to 20,714 GJs annually over the 7 year contract term.

In response to BCUC IR 3.2, FEI stated:

Kamloops Operations is a lower volume station in comparison to the GFL Abbotsford Fueling Station, with a minimum annual volume of 3,000 GJs per year. The compressor at GFL Abbotsford Fueling Station is expected to have substantially more run hours resulting in greater O&M costs.

2.6 Given that the average minimum volume of the Kamloops Operations Fueling Station is approximately less than one-fifth of the average minimum volume of the GFL Abbotsford Station, please explain why the average O&M cost of the Kamloops Operations Fueling Station is only \$5,802 or 10.7 percent less than the forecast O&M cost of the GFL Abbotsford Station.

Response:

The average O&M cost of the Kamloops Operations Fueling Station is \$5,802 or 10.7 percent less than the forecast O&M cost of the GFL Abbotsford Station (years 3 to 10) primarily due to fixed costs. Despite lower volumes, the compressors at the Kamloops Operations Fueling Station and other station equipment still require a fixed amount of preventative maintenance which is not dependent on the volume dispensed from the fueling station. Moreover, the Kamloops Fueling Station has two compressors that each are similar in size to the single GFL Abbotsford compressor. As such, the fixed preventative maintenance costs at Kamloops are expected to be approximately double that of GFL Abbotsford.

Other factors leading to relatively higher costs at the Kamloops Operations Fueling Station compared to GFL include:

- Kamloops has compressors that use a more expensive synthetic oil than the compressor at GFL Abbotsford.
- The Kamloops Fueling Station is located in a colder, more severe winter climate, which requires the compressors to have a cold weather package which incurs additional O&M costs to maintain relative to the GFL Abbotsford compressor.
- Kamloops is located in the Interior B.C. service area, which results in additional shipping costs for parts from FEI's central inventory for CNG parts located in Surrey, in addition to

FortisBC Energy Inc. (FEI or the Company) FEI Application for Approval of Rates and Agreement for a CNG Fueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation for GFL Environmental Inc. and for Amendments to Rate Schedule 6P (Application)	Submission Date: March 16, 2022
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incurring higher labour charges for local technicians with the skill level and availability to perform service work.

BCUC staff calculated \$3.484/GJ² and \$4.476/GJ³ as the average per GJ annual O&M forecast for the GFL Abbotsford Fueling Station and the Annacis Island Fueling Station, respectively.

2.7 Please explain why the average per GJ forecast O&M cost of the GFL Abbotsford Fueling Station is approximately \$1/GJ or 22 percent less than the forecast O&M cost of the Annacis Island Fueling Station.

Response:

There are two reasons the forecast O&M cost per GJ of the GFL Abbotsford Fueling Station is 22% less than the forecast O&M cost per GJ of the Annacis Island Fueling Station:

1. The GFL Abbotsford Fueling Station has a lower volume commitment compared to the volume commitment at the Annacis Island Fueling Station (15,500 GJ vs. 21,000 GJ).
2. The forecast O&M of the GFL Abbotsford Station is less than the forecast O&M of the Annacis Island Fueling Station (\$54,000 vs. \$94,000) because, although the size and capacity of the compressor at the GFL Abbotsford Fueling Station is identical to the Annacis Island Fueling Station and, therefore, the preventative maintenance requirements of the compressors are also identical, the preventative maintenance schedule varies between stations primarily because the Annacis Island Fueling Station has a higher volume commitment. As such, the preventive maintenance schedule is accelerated for the Annacis Island Fueling Station due to additional station run hours which lead to the higher O&M costs in comparison to the GFL Abbotsford Fueling Station.

2.8 Please compare the size and capacity of the compressor and the preventative maintenance schedule of the GFL Abbotsford Fueling Station with those of the Annacis Island Fueling Station and explain their impact on O&M costs.

² \$3.484 = \$54,000/15,500 GJ.

³ \$4.476 = \$94,000/21,000 GJ.



FortisBC Energy Inc. (FEI or the Company) FEI Application for Approval of Rates and Agreement for a CNG Fueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation for GFL Environmental Inc. and for Amendments to Rate Schedule 6P (Application)	Submission Date: March 16, 2022
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1 **Response:**

2 Please refer to the response to BCUC IR2.2.7.

3

Attachment 1.1

DEPARTMENT OF NATURAL RESOURCES

CONTRIBUTIONS IN SUPPORT OF CLEAN FUELS, TRANSPORTATION AND INDUSTRY

**ELECTRIC VEHICLE AND ALTERNATIVE FUEL INFRASTRUCTURE DEPLOYMENT
INITIATIVE**

AMENDMENT NO. 2 TO THE REPAYABLE CONTRIBUTION AGREEMENT

THIS AMENDING AGREEMENT is made in duplicate

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF CANADA ("Canada"), represented by the Minister of Natural Resources,

AND:

FORTISBC ENERGY INC., a for-profit organization, incorporated under the laws of British Columbia (the "**Proponent**").

WHEREAS Canada and the Proponent entered into a Contribution Agreement signed by Canada on January 2, 2019 and by the Proponent on December 3, 2018 (the Agreement); and amended by Canada on March 26, 2021 and by the Proponent on March 18, 2021 (Amendment 1);

WHEREAS the Proponent is requesting an amendment to the Project Completion date;

AND WHEREAS Canada and the Proponent wish to amend the Agreement;

NOW, THEREFORE, Canada and the Proponent agree as follows:

1. The definition of "**Eligible Expenditure Period**" under *Interpretation Article* is revoked and replaced by the following:

"Eligible Expenditure Period" means the period starting when this Agreement is signed to **March 31, 2022**;

2. The definition of "**Total Project Costs**" under *Interpretation Article* is revoked and replaced by the following:

"Total Project Costs" means the Contribution and other verifiable cash or in-kind contributions either received or contributed by the Proponent and directly attributable to the Project from **July 18, 2018 to March 31, 2022**.

3. Paragraph 4.2 of the Agreement is revoked and replaced by the following:

The Proponent shall complete the Project by **March 31, 2022**, unless expired earlier pursuant to the provisions of this Agreement.

4. Schedule A (Description of the Project) is revoked and replaced by the attached Schedule A.

5. Schedule C (Reports) is revoked and replaced by the attached Schedule C.

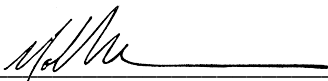
6. Schedule D (Certification of Eligible Expenditures Incurred and Paid) is revoked and replaced by the attached Schedule D.

7. All other terms and conditions of the Agreement remain in full force and in effect.
8. This Amending Agreement comes into force when signed by the Parties.

IN WITNESS WHEREOF this Amending Agreement has been executed on behalf of **Her Majesty the Queen in right of Canada** by an officer duly authorized by the Minister of Natural Resources and on behalf of the **Proponent**, by an officer duly authorized on its behalf.

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

December 10, 2021
Date



Mollie Johnson
Assistant Deputy Minister
Low Carbon Energy Sector

FORTISBC ENERGY INC.

December 2, 2021
Date



Mike Leclair
VP, Major Projects & LNG

SCHEDULE A

To the Agreement between

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

And

FORTISBC ENERGY INC.

DESCRIPTION OF THE PROJECT

1. Project Description

TITLE	CNG Station – Abbotsford
OBJECTIVE	The purpose of this Project is to increase awareness, availability and use of lower carbon vehicles and fuels in Canada by supporting the installation of a natural gas refueling station in British Columbia.
DESCRIPTION	<p>The Proponent will be leveraging the experience gained from previously building and operating 19 CNG / LNG refueling stations throughout the province of British Columbia by developing a CNG fueling station in Abbotsford.</p> <p>The fuelling station will aid both in the service of existing and new CNG fleet vehicles from GFL Environmental as well as be open for third party public use for other adopters of CNG in and around the surrounding area. Operating at 3,600 psi, the station will consist of a single fast-fill dispenser with two (2) hoses (i.e., ability to fuel 2 vehicles at once).</p> <p>The Proponent will continue to work with other potential customers in the area and promote the economic and environmental benefits of CNG. The Proponent will provide end-to-end support for customers including the construction, operation and maintenance of the natural gas fuelling infrastructure as well as promoting the adoption of natural gas as a transportation fuel in British Columbia.</p>
BENEFITS	<p><u>Benefits to Canada:</u></p> <ul style="list-style-type: none">• Encourage strategic deployment of the infrastructure network that supports lower carbon options in the transportation sector.• Encourage the use of alternative fuel vehicles in Canada.• Supply and demand for lower carbon transportation options in Canada continues to grow in the transportation sector. <p><u>Benefits to Stakeholders:</u></p> <ul style="list-style-type: none">• Increase capacity to encourage awareness, availability and use of lower carbon transportation options such as alternative fuelled vehicles and fuels.• Encourage a clean economic growth and the creation of jobs by installing and managing infrastructure.• Encourage Canadian companies who have positioned themselves as leaders in the development and deployment of alternative fuels and clean technologies.

2. Tasks and Timelines

<u>Tasks</u>	<u>Timelines</u>
Task 1 – Engineering and design	June 2021
Task 2 – Permit acquisition	August 2021
Task 3 – Equipment procurement	August 2021
Task 4 – Construction	September 2021
Task 5 – Inspection as to completion and full operation of the infrastructure	September 2021
Task 6 – Project management and reporting	December 2021
Task 7 – Open to its intended users and activities have begun.	No later than March 31, 2022

3. Key Performance Indicators

- Number of infrastructure installed or built.
 - Infrastructure is operational and open to its intended users before **March 31, 2022**.
4. The Proponent must submit a written request to Canada to make an adjustment to station location. This request is subject to the approval in writing by Canada's representative identified in Article 25 (*Notices*).

SCHEDULE C

To the Agreement between

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

And

FORTISBC ENERGY INC.

REPORTS

1. Payment Claims:

The Proponent shall provide the following documentation in accordance with the frequency set out below:

Claim period:	Due no later than:
From the date of signature of the Agreement by Canada to March 31, 2019.	April 30, 2019

- i. a financial report signed by the Chief Financial Officer or Duly Authorized Officer of the Proponent which outlines Eligible Expenditures Incurred by nature of cost;
- ii. an Employees' Time Summary sheet when claiming salary and benefits. On this summary sheet, the Proponent must detail the number of hours, rate per hour and total amount for each task in this Agreement for each employee (or category of employees) and be certified by the Chief Financial Officer or Duly Authorized Officer of the Proponent;
- iii. a detailed report of all travel including a breakdown of all transportation (e.g. airline costs, train costs, taxis), accommodation, travel times, per diem meal amounts, and any other travel costs;
- iv. an updated Project quarterly cash flow statement and budget;
- v. a written summary report on the progress achieved in the task(s) which will demonstrate the outcomes achieved in the reporting period; this report must identify any delays, issues or risks and details of mitigation plans regarding these issues; and
- vi. any permit issued during the reporting period.

Subject to the terms and conditions of this Agreement, if the Proponent cannot submit a claim for payment on or before **March 31** of a Fiscal Year, the Proponent shall **no later than April 3** provide the Minister with a signed statement of anticipated Eligible Expenditures Incurred up to **March 31**, in order for the Minister to establish a Payable at Year-End.

2. Progress Reports:

The Proponent shall provide the following documentation in accordance with the frequency set out below:

Reporting period:	Due no later than:
From April 1, 2019 to June 30, 2019.	July 31, 2019
From July 1, 2019 to September 30, 2019.	October 31, 2019
From October 1, 2019 to December 31, 2019.	January 31, 2020
From January 1, 2020 to March 31, 2020.	April 30, 2020
From April 1, 2020 to June 30, 2020.	July 31, 2020
From July 1, 2020 to September 30, 2020.	October 31, 2020
From October 1, 2020 to December 31, 2020.	January 31, 2021
From January 1, 2021 to March 31, 2021.	April 30, 2021
From April 1, 2021 to June 30, 2021.	July 31, 2021
From July 1, 2021 to September 30, 2021.	October 31, 2021
From October 1, 2021 to December 31, 2021.	January 31, 2022
From January 1, 2022 to March 31, 2022.	April 30, 2022

- i) a written summary report on the progress achieved in the task(s) which will demonstrate the outcomes achieved in the reporting period; this report must identify any delays, issues or risks and details of mitigation plans regarding these issues

3. Final Reports (Financial and Progress/Technical):

The Proponent shall submit, **no later than sixty (60) days (May 31, 2022) after Project Completion:**

- i. a financial report that shall demonstrate how the Contribution was spent, including the receipt of goods and/or services being funded by Canada;
- ii. a Project's activity report of the first week after the Project is open to its intended users;
- iii. a final narrative report to describe how its activities have contributed to the achievement of the objectives, the benefits and the key performance indicators of the Project as described in Schedule A (Description of the Project), including the results of the Project in comparison to the original outputs and work plan;
- iv. a certification, in the manner set out in Schedule D (Certification of Eligible Expenditures Incurred and Paid), that the claims for payment of Eligible Expenditures of the Project have been Incurred and Paid by the Proponent.

The Proponent shall provide the following documentation **no later than sixty (60) days (May 31, 2022) after the Eligible Expenditures period:**

- v. as specified in Paragraph 6.7 of this Agreement, the Proponent shall provide the Minister with a declaration as to the total amount of contributions or payments, including the Total Government Funding, received in respect of the Project, as per Schedule B (Budget and Eligible Expenditures).

4. Repayment Reports:

The Proponent shall provide to the Minister **no later than thirty (30) days following the Project Completion in each calendar year**, for the period of the payment obligation described in Article 8 (*Repayment of contribution*) of this Agreement, a complete and accurate report (including nil reports) of any Profit received by the Proponent and shall include any payments to Canada. The report shall contain:

- i. net income directly related to the Project as determined using GAAP or IFRS;
- ii. a computation of any share of the Profit, if any, due and payable to Canada;
- iii. the following information for each natural gas station:
 - Total natural gas dispensed in diesel litre equivalent. The conversion rate is 1kg of natural gas equals 1.462 litres of diesel
- iv. be certified as correct by the Chief Financial Officer or Duly Authorized Officer of the Proponent.

SCHEDULE D

To the Agreement between

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

And

FEDERATED CO-OPERATIVES LIMITED

CERTIFICATION OF ELIGIBLE EXPENDITURES INCURRED AND PAID

1. Pursuant to Article 7 (*Method of Payment*) of this Agreement, the Proponent must submit, no later than **May 31, 2022**, the following certification in writing on company letterhead and signed by the duly authorized officer as follows.

“All claims for payment submitted to Canada for the reimbursement of Eligible Expenditures of the Project have been Incurred and Paid by FortisBC Energy Inc. (“the Proponent”) as of the date of this certification by the undersigned and all supporting documents to this effect have been kept in our records and will be made available to the Minister upon request.”

In accordance with Article 6 (Contributions), the Proponent, as of the date of this certification by the undersigned has reported all contributions and payments, including Total Government Funding, received by the Proponent.

“I _____ an officer of FortisBC Energy Inc., duly authorized on behalf of the Proponent hereby represent and warrant that the above noted declarations are true and accurate. I understand that if, in the opinion of the Minister, there has been a misrepresentation or a breach of this warranty, the Minister could place the Proponent in default of the terms, conditions or obligations of the Agreement, and may exercise the Minister’s right to terminate this Agreement, and direct the Proponent to repay forthwith all or any part of the monies paid by Canada pursuant to this Agreement.”

Date: _____

Signature: _____

Title: _____

Attachment 1.4

November 15, 2021

GFL Environmental Inc.
8409 15 Street NW,
Edmonton, Alberta
T6P 0B9

Attention: Tyler Stefure

Dear Tyler,

Re: Fueling Services Agreement Extension of Conditions Precedent Deadline.

Pursuant to the Fueling Services Agreement between FortisBC Energy Inc. ("FEI") and GFL Environmental Inc., signed by FEI on December 14, 2020 ("FSA") and Amending Agreement #1, effective September 22, 2021, the parties both agree to extend the deadline to either waive or satisfy the three conditions precedent as described in Part 1 of the FSA (the "Conditions Precedent").

The parties hereby agree to extend the deadline for FEI to satisfy or waive the Conditions Precedent that is currently set for November 15, 2021, to December 31, 2021. Further the parties agree that no amendment is required to the FSA to give effect to this extension as the Amending Agreement #1 allows the parties to set a later date, so long as it is in writing.

Please sign this letter below and return a copy to me acknowledging you agree and consent to the extension of the deadline of the Conditions Precedent to December 31, 2021.

If you have any questions, please send an email to: georgina.wheatcroft@fortisbc.com or call 604-293-8607.

Sincerely,

FortisBC Energy Inc. by its authorized signatory(ies):



Signature

Sarah Smith

Name (print)

Director, Low Carbon Transportation and LNG Business Growth
Title

FortisBC Energy Inc.

Company

Client name, by its authorized signatory(ies):



Signature

GFL Environmental Inc- Tyler Stefure

Name (print)

Fleet Director

Title

GFL Environmental Inc

Company

11.17.2021