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February 25, 2021

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)**

**Project No. 1599169**

**Application for Approval of Revised/Renewal Rates for Langford Compressed Natural Gas (CNG) Fueling Station under the Province's Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) in Langford, BC (Application)**

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

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On December 23, 2020, FEI filed the Application referenced above. In accordance with BCUC Order G-6-21 setting out the Regulatory Timetable for the review of the Application, FEI respectfully submits the attached response to BCUC IR No. 1.

If further information is required, please contact Sarah Smith at (604) 592-7874.

Sincerely,

**FORTISBC ENERGY INC.**

***Original signed:***

Diane Roy

Attachments

FortisBC Energy Inc. (FEI or the Company) Application for Approval of Revised/Renewal Rates for the Langford Compressed Natural Gas (CNG) Fueling Station under the GGRR (Application)	Submission Date: February 25, 2021
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**1.0 Reference: INTRODUCTION**

**Exhibit B-1, Application, Table 3, pp. 1–2, 4, 6**  
**ColdStar and GFL fueling agreements**

On pages 1 to 2 of the Application, FortisBC Energy Inc. (FEI) states:

On December 17, 2020, ColdStar and GFL have both entered into new Fueling Services Agreements with FEI for fueling at the Langford Fueling Station. GFL will be a new customer at the Langford Fueling Station. The two executed agreements (collectively, the ColdStar and GFL Fueling Agreements) are attached in Appendix A. The rates proposed in the ColdStar and GFL Fueling Agreements are new rates for refueling at the Langford Fueling Station based on a cost of service model that includes the collective volume commitment of 21,000 GJs per year over a new five-year term and will result in recovery of 80 percent of FEI's forecast cost of service of the station over a five-year period.

On page 4 of the Application, FEI states:

Given the competitive markets in which Coldstar and GFL operate, a CNG fueling rate based on 100 percent recovery of the Landford Feuling [sic] Station costs was not acceptable to ColdStar or GFL. GFL indicated it would not sign a fueling agreement for the Langford Fueling Station at a 100 percent cost recovery rate. On the other hand, ColdStar indicated that, at a 100 percent cost recovery rate, they would only renew their fueling agreement on a spot basis, begin to retire their existing CNG trucks, and make no further investments in new CNG vehicles. This scenario would reduce revenue from the station and increase cost recovery risk for FEI's other non-bypass customers. As such, it was necessary for FEI to negotiate a market competitive rate with Coldstar and GFL.

In Table 3 of the Application, FEI provides a table that compares the current rates and the proposed rates for compressed natural gas (CNG) fueling service at the Langford Fueling Station.

1.1 Please clarify why the proposed rates are considered market competitive. As part of the response, please discuss who in the market, if any, FEI compared the proposed rates to determine that the proposed rates are competitive.

**Response:**

The proposed rates are considered market competitive because CNG fueling station customers compare the rates with their competing transport fuel options, such as diesel fuel (based on diesel litre equivalent prices) when determining if the rates meet their market competitive requirements. At the time of writing, the average price per litre for diesel fuel in the Victoria area

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for the month of December 2020 was \$1.14<sup>1</sup>. The proposed rates will allow ColdStar and GFL to fuel at the Langford Fueling Station at a competitive rate of approximately \$0.61<sup>2</sup> per diesel litre equivalent. With year-over-year decreasing vehicle capital incentives under the Greenhouse Gas Reduction Regulation (GGRR), NGT customers are seeking a competitive rate that provides a fuel savings that continues to support their ongoing and future investments in natural gas powered vehicles.

Additionally, the proposed rates are within the price range of other FEI natural gas fueling stations. In 2020, the base rate for FEI-owned stations (Capital Rate, O&M Rate, and OH&M Rate) ranged from \$3.250 per GJ to \$13.541 per GJ. As such, the proposed base rate of \$7.226 per GJ for the Langford CNG Fueling Station falls in the middle of this range.

1.2 Please discuss whether the market competitive rate negotiated with ColdStar Solutions Inc. (ColdStar) and GFL Environmental Inc. (GFL) is a fixed dollar amount per GJ, as set out as the proposed rates in Table 3 of the Application, or 80 percent of the forecast cost of service of the Langford Fueling Station. In other words, if the station's forecast cost of service changes, would the proposed fueling rate change such that it would recover 80 percent of the updated forecast cost of service?

**Response:**

The proposed rates in Table 3 of the Application have been negotiated with ColdStar and GFL as a fixed dollar amount per GJ. FEI has executed the Fueling Services Agreement with ColdStar and GFL based on a fueling rate which they deemed to be competitive in the market as compared to their alternatives, allowing them to justify their continued operation of their NGT fleets. Given that the rates are a fixed dollar amount per GJ, if the station's forecast cost of service changes (increases or decreases), the cost recovery percentage would change based on the updated forecast cost of service; however, absent the need for capital expansions, FEI does not expect to update the station's forecast cost of service until the expiry of these agreements. This method of setting and escalating rates over the term of the contract is consistent with the approach that FEI has taken for all other CNG and LNG stations, has been accepted by the BCUC, and is consistent with the requirements of the GGRR. Further, station rates that are set based on customer volumes and are acceptable to customers will support continued investment in, and adoption and growth of, natural gas for transportation.

<sup>1</sup> Source: [https://www2.nrcan.gc.ca/eneene/sources/pripr/prices\\_bycity\\_e.cfm?productID=5&locationID=3&frequency=M&priceYear=2020&Redisplay=.](https://www2.nrcan.gc.ca/eneene/sources/pripr/prices_bycity_e.cfm?productID=5&locationID=3&frequency=M&priceYear=2020&Redisplay=)

<sup>2</sup> This is an all in cost of diesel equivalent of CNG including capital, O&M, OH&M, Commodity, Delivery and applicable taxes.

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**2.0 Reference: PROPOSED RATES**

**Exhibit B-1, Table 2, pp. 1, 5**

**Committed and short-term spot volumes**

On page 1 of the Application, FEI states:

By Order G-187-13, dated November 19, 2013, the BCUC [British Columbia Utilities Commission] approved FEI's rates for providing fueling service from the Langford Fueling Station, as set out in the CNG fueling service agreement (Original Fueling Agreement) between FEI and ColdStar. The rates were effective beginning on the in-service date of the Langford Fueling Station and for an initial term of five years, which ended on January 1, 2019. The Original Fueling Agreement included a two-year renewal term which allowed ColdStar to fuel at the station until December 31, 2020. ColdStar has been the "anchor tenant" for the Langford Fueling Station since it went into service in 2014.

[...]

In addition to ColdStar, there are currently five other customers approved by the BCUC for fuelling at the Langford Fueling Station. The overall demand served from the Langford Fueling Station in the first five years of operation resulted in FEI recovering approximately 117 percent of the forecasted cost of service in the Original Fueling Agreement.

2.1 Please provide the following information for the first five years of operation:

- (i) The actual cost of service of the Langford Fueling Station broken down by the cost categories presented in Schedule 1 of Appendix D to the Application;
- (ii) The dollar amount and the percentage of the actual cost of service of the Langford Fueling Station that was recovered from the overall demand served from the station;
- (iii) The dollar amount and the percentage of the actual cost of service of the Langford Fueling Station that was recovered from/refunded to FEI's non-bypass ratepayers; and
- (iv) Identify the years used in the above calculations.

**Response:**

Please refer to Table 1 below for item (i) providing the actual cost of service broken down by cost categories for the first five years of operation, and item (iv) which is for the years 2014 to 2018. FEI notes that actual O&M costs shown in Table 1 below reflect the updated actual O&M costs as set out in BCUC IR1 4.1.

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**Table 1 – Breakdown of actual revenue requirement of the Langford Fueling Station (2014 to 2018)**

Line	Particulars	2014	2015	2016	2017	2018
1	<b>Revenue Requirement (\$000s)</b>					
2	Operation and Maintenance	54	38	32	48	283
3	Property Taxes	4	4	4	4	4
4	Depreciation Expense	57	57	57	57	58
5	Amortization Expense	1	1	1	1	1
6	Other Revenue	-	-	-	-	-
7	Income Taxes	0	(30)	(18)	(9)	(2)
8	Earned Return	82	78	74	70	67
9	<b>Annual Revenue Requirement (\$000s)</b>	<b>199</b>	<b>148</b>	<b>151</b>	<b>172</b>	<b>411</b>

Please refer to Table 2 below for the requested information as follows:

- For item (ii), please refer to Line 17 and Line 20 for the total dollar amount and percentage, respectively, for the actual cost of service recovered from the Langford Fueling Station; and
- For item (iii), please refer to Line 22 and Line 23 for the total dollar amount and percentage recovered from non-bypass customers over the period from 2014 to 2018.

**Table 2 – Summary of Cost of Service recovered from fueling customers and FEI's non-bypass customers from 2014 to 2018**

Line	Particulars	Reference	2014	2015	2016	2017	2018
1	Capital Rate (\$/GJ)	2013 Appendix B, Sch 11, Line 31	7.529	7.680	7.833	7.990	8.150
2	O&M Rate (\$/GJ)	2013 Appendix B, Sch 11, Line 32	2.683	2.710	2.740	2.792	2.848
3	Total Annual Volumetric Rate (\$/GJ)	Sum of Line 1 to Line 2	10.212	10.390	10.573	10.782	10.998
4	Total Annual Volume (TJ)	Actual Volume	15.281	20.636	21.280	20.301	22.336
5	Annual Cost of Service Collected over Contract Term (\$)	(Line 3 x Line 4) x 1000	156,052	214,410	224,991	218,881	245,651
6							
7	Short Term Charge Rate (\$/GJ)		1.000	1.000	1.000	1.000	1.000
8	Spot Charge Rate (\$/GJ)		1.000	1.000	1.000	1.000	1.000
9	Annual Volume (TJ) that attracts Spot Charge and Short Term	Actual Volume	-	1.664	0.943	0.896	0.948
10	Annual Volume (TJ) that attracts Spot Only Charge	Actual Volume	-	-	-	0.591	1.161
11	Revenue Collected on Spot Charge and Short Term Charge (\$)	(Line 7 + Line 8) x Line 9 x 1000	-	3,328	1,886	1,792	1,896
12	Revenue Collected on Spot Charge (\$)	(Line 8 x Line 10) x 1000	-	-	-	591	1,161
13							
14	Total Revenue Collected (\$)	Line 5 + Line 11 + Line 12	156,052	217,738	226,877	221,264	248,707
15	Total Cost of Service (\$)	Actual Cost of Service	198,653	148,029	150,606	171,509	410,998
16							
17	<b>Sum of Total Revenue Recovered (\$)</b>	<b>Sum of Line 14</b>	<b>1,070,638</b>				
18	Sum of Total COS (\$)	Sum of Line 15	1,079,793				
19							
20	% of COS recovered from fueling customers	Line 17 / Line 18	99%				
21							
22	<b>Amount refunded or (recovered) from non-bypass ratepayers</b>	<b>Line 17 - Line 18</b>	<b>(9,155)</b>				
23	<b>% of COS refunded or (recovered) from non-bypass ratepayer</b>	<b>Line 21 / Line 18</b>	<b>-1%</b>				

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2.2 Please provide the same information as in the preceding information request (IR), but for the period from when the station went into service to December 31, 2020.

**Response:**

Please refer to Table 1 below for item (i) providing the actual cost of service broken down by cost categories for the period since the station went into service to December 31, 2020, and item (iv) which is for the years 2014 to 2020. FEI notes that actual O&M costs shown in Table 1 below reflect the updated actual O&M costs as set out in BCUC IR1 4.1.

**Table 1 – Breakdown of actual revenue requirement of the Langford Fueling Station (2014 to 2020)**

Line	Particulars	2014	2015	2016	2017	2018	2019	2020
1	<b><u>Revenue Requirement (\$000s)</u></b>							
2	Operation and Maintenance	54	38	32	48	283	109	66
3	Property Taxes	4	4	4	4	4	4	4
4	Depreciation Expense	57	57	57	57	58	58	58
5	Amortization Expense	1	1	1	1	1	1	1
6	Other Revenue	-	-	-	-	-	-	-
7	Income Taxes	0	(30)	(18)	(9)	(2)	4	9
8	Earned Return	82	78	74	70	67	62	58
9	<b>Annual Revenue Requirement (\$000s)</b>	<b>199</b>	<b>148</b>	<b>151</b>	<b>172</b>	<b>411</b>	<b>238</b>	<b>195</b>

Please refer to Table 2 below for the requested information as follows:

- For item (ii), please refer to Line 17 and Line 20 for the total dollar amount and percentage, respectively, for the actual cost of service recovered from the Langford Fueling Station between 2014 and 2020; and
- For item (iii), please refer to Line 22 and Line 23 for the total dollar amount and percentage refunded to non-bypass customers over the period from 2014 to 2020.

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**Table 2 – Summary of Cost of Service recovered from fueling customers and FEI's non-bypass customers from 2014 to 2020**

Line	Particulars	Reference	2014	2015	2016	2017	2018	2019	2020
1	Capital Rate (\$/GJ)	2013 Appendix B, Schedule 11, Line 3	7.529	7.680	7.833	7.990	8.150	8.313	8.479
2	O&M Rate (\$/GJ)	2013 Appendix B, Schedule 11, Line 3	2.683	2.710	2.740	2.792	2.848	2.933	2.995
3	Total Annual Volumetric Rate (\$/GJ)	Sum of Line 1 to Line 2	10.212	10.390	10.573	10.782	10.998	11.246	11.474
4	Total Annual Volume (TJ)	Actual Volume	15.281	20.636	21.280	20.301	22.336	20.403	25.418
5	Annual Cost of Service Collected over Contract Term (\$)	(Line 3 x Line 4) x 1000	156,052	214,410	224,991	218,881	245,651	229,449	291,653
6									
7	Short Term Charge Rate (\$/GJ)		1.000	1.000	1.000	1.000	1.000	1.000	1.000
8	Spot Charge Rate (\$/GJ)		1.000	1.000	1.000	1.000	1.000	1.000	1.000
9	Annual Volume (TJ) that attracts Spot Charge and Short Term	Actual Volume	-	1.664	0.943	0.896	0.948	0.646	0.840
10	Annual Volume (TJ) that attracts Spot Only Charge	Actual Volume	-	-	-	0.591	1.161	1.079	1.028
11	Revenue Collected on Spot Charge and Short Term Charge (\$)	(Line 7 + Line 8) x Line 9 x 1000	-	3,328	1,886	1,792	1,896	1,292	1,679
12	Revenue Collected on Spot Charge (\$)	(Line 8 x Line 10) x 1000	-	-	-	591	1,161	1,079	1,028
13									
14	Total Revenue Collected (\$)	Line 5 + Line 11 + Line 12	156,052	217,738	226,877	221,264	248,707	231,820	294,361
15	Total Cost of Service (\$)	Actual Cost of Service	198,653	148,029	150,606	171,509	410,998	238,253	195,411
16									
17	Sum of Total Revenue Recovered (\$)	Sum of Line 14	1,596,819						
18	Sum of Total COS (\$)	Sum of Line 15	1,513,457						
19									
20	% of COS recovered from fueling customers	Line 17 / Line 18	106%						
21									
22	Amount refunded or (recovered) from non-bypass ratepayers	Line 17 - Line 18	83,362						
23	% of COS refunded or (recovered) from non-bypass ratepayer	Line 21 / Line 18	6%						

On page 5 of the Application, FEI states:

In addition to the volume commitments in the ColdStar and GFL Fueling Agreements, FEI has had approximately 5,000 GJs of demand from other third party customers in 2020 at the Langford station. FEI expects that the 5,000 GJs will continue to be consumed by these customers on a go forward basis.

In Table 2 of the Application, FEI provides a comparison of the percentage of recovery of the Langford Fueling Station's cost of service from a firm volume commitment for the next five years (i.e. 2021 to 2025) from ColdStar and GFL versus a short-term spot volume scenario.

2.3 Please explain why FEI expects the other third-party customers at the Langford Fueling Station to continue consuming 5,000 GJs per year on a go-forward basis. Would the proposed rates impact these customers' future consumption?

### **Response:**

FEI expects approximately 5,000 GJs of fueling consumption from third-party customers at the Langford Fueling Station on a go-forward basis based on customer indications and their historical fueling consumption.<sup>3</sup> Third-party fueling consumption is not factored into the

<sup>3</sup> Approximate annual third-party consumption in 2020 – 5,200 GJs; 2019 – 4,600 GJs; 2018 – 5,000 GJs.

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Langford Fueling Station rates; therefore, any consumption by third-party customers leads to a greater cost recovery for the station generally.

Please also refer to the response to BCUC IR1 6.3, where FEI discusses a change to its proposal for third-party agreement customer rates by applying existing third-party agreement rates to any new third-party agreements at the same station. To the extent that third-party customer rates are in a range that is considered market competitive, there is unlikely to be any impact on third-party customers' future consumption at a station solely as a result of the rate. Future consumption from third-party customers is typically influenced more by other factors such as geographic location of the station relative to driving routes the customers' fleets travel.

2.4 Please expand Table 2 to include the next 20 years (i.e. 2021 to 2040) and include the volume for the five other customers of the station under the assumption that these customers would continue consuming 5,000 GJ each year on a go forward basis (i.e. add 5,000 to lines 4 and 13).

**Response:**

In an effort to be responsive, FEI has expanded Table 2 as requested; however, doing so requires assumptions about station use and volume throughput that may not reflect the actual operation and usage of the station in years beyond the term of the agreements. For example, to assume that a volume commitment of 26,000 GJ will be maintained over a 20-year period is uncertain given that a CNG vehicle life expectancy is less than 10 years under regular usage conditions. Further, in the case of the Langford Fueling Station, it will be fully depreciated before 2040. Thus, this hypothetical analysis is assuming that the station will be operated past its useful life with no additional capital added to the station in future years to extend the useful life. In consideration of the issues with projecting 20 years into the future, FEI has expanded Table 2 as requested, based on the following assumptions:

- Capital and O&M rates remain constant only increasing by inflation at 2 percent each year;
- Firm volume commitment from current customers (GFL and ColdStar) at the station remains constant over the next 20 years without any additional third-party customers added; and
- No sustainment capital is required from 2021 to 2040.



<p style="text-align: center;">FortisBC Energy Inc. (FEI or the Company)</p> <p style="text-align: center;">Application for Approval of Revised/Renewal Rates for the Langford Compressed Natural Gas (CNG) Fueling Station under the GGRR (Application)</p>	<p>Submission Date: February 25, 2021</p>
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Line	Particular	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1	PV Total COS	Appendix C, Schedule 10, Line 82	173,345	165,057	156,327	147,606	139,030	129,280	121,394	113,839	106,638	99,805	93,340	87,241	81,499	76,101	71,554	65,118	34,041	32,984	31,949	30,939
2	Sum of PV Total COS	Sum of Line 1	1,893,084																			
3																						
4	Updated Volume Consumption (GJ)	Appendix C, Schedule 10, Line 77	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000
5	Proposed Capital Rate (\$/GJ)	Appendix C, Schedule 10, Line 74	4.420	4.509	4.599	4.691	4.785	4.805	4.825	4.845	4.865	4.885	4.905	4.925	4.945	4.965	4.985	5.005	5.025	5.045	5.065	5.065
6	Proposed O&M Rate (\$/GJ)	Appendix C, Schedule 10, Line 75	2.286	2.331	2.378	2.426	2.474	2.523	2.543	2.563	2.583	2.603	2.623	2.643	2.663	2.683	2.703	2.723	2.743	2.763	2.783	2.803
7	Proposed Total Rate (\$/GJ)	Appendix C, Schedule 10, Line 76	6.706	6.840	6.977	7.117	7.259	7.328	7.368	7.408	7.448	7.488	7.528	7.568	7.608	7.648	7.688	7.728	7.768	7.808	7.848	7.888
8	Revenue at Committed Volume (\$)	Line 7 x Line 4	174,356	177,840	181,402	185,042	188,734	190,540	191,580	192,620	193,660	194,700	195,740	196,780	197,820	198,860	199,900	200,940	201,980	203,020	204,060	205,100
9	PV of Revenue at Committed (\$)	Appendix C, Schedule 10, Line 80	165,313	159,871	154,616	149,536	144,612	138,424	131,961	125,796	119,916	114,307	108,958	103,855	98,989	94,349	89,923	85,703	81,679	77,841	74,182	70,693
10	Sum of PV Revenue at Committed (\$)	Sum of Line 9	2,290,528																			
11	% Recovery w/ Committed Volume	Line 10 / Line 2	121%																			
12																						
13	Updated Volume at Spot (GJ)	Estimated Spot Volume	20,000	15,000	10,000	7,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
14	Capital Rate (\$/GJ)	Current Capital Rate + 2% Inflation	8.649	8.822	8.998	9.178	9.382	9.382	9.402	9.422	9.442	9.462	9.482	9.502	9.522	9.542	9.562	9.582	9.602	9.622	9.642	9.662
15	O&M Rate (\$/GJ)	Appendix C, Schedule 10, Line 75	2.286	2.331	2.378	2.426	2.474	2.494	2.514	2.534	2.554	2.574	2.594	2.614	2.634	2.654	2.674	2.694	2.714	2.734	2.754	2.774
16	Spot and Short Charge (\$/GJ)		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
17	Spot Total Rate (\$/GJ)	Sum of Line 14 to Line 16	12.934	13.153	13.376	13.604	13.836	13.876	13.916	13.956	13.996	14.036	14.076	14.116	14.156	14.196	14.236	14.276	14.316	14.356	14.396	14.436
18	Revenue at Spot Volume (\$)	Line 13 x Line 17	258,686	197,295	133,760	95,225	69,178	69,378	69,578	69,778	69,978	70,178	70,378	70,578	70,778	70,978	71,178	71,378	71,578	71,778	71,978	72,178
19	PV of Revenue at Spot (\$)		245,269	177,380	114,009	76,954	53,006	50,402	47,926	45,571	43,331	41,201	39,175	37,249	35,417	33,875	32,019	30,444	28,945	27,521	26,166	24,878
20	Sum of PV Revenue at Spot (\$)	Sum of Line 19	1,210,519																			
21	% Recovery w/ Spot Volume	Line 20 / Line 2	64%																			
22																						

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2.5 Please explain how FEI estimated ColdStar's annual spot volumes (line 13). Please provide any assumptions used.

**Response:**

Absent what it considered a market competitive rate, ColdStar indicated to FEI that it would not be willing to enter into a firm agreement with a volume commitment and would slowly start retiring its existing CNG fleet by fueling on a spot basis. Under that scenario, FEI calculated that each CNG truck consumed on average 600-700 GJs per year and estimated the spot volume based on the truck retirement schedule provided by ColdStar. ColdStar assumed that it would operate 23 trucks in year 1 and retire approximately 7 trucks every year, completing retirement of its current fleet by the end of year 3. Table 1 below provides the anticipated truck retirement schedule and estimated total volume consumption by year.

Year	Trucks Operating	Estimated Total Volume Consumption (GJ)
2021	23	15,000
2022	16	10,000
2023	9	5,000
2024	0	0

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### 3.0 Reference: PROPOSED RATES

**Exhibit B-1, p. 6; Appendix D, Schedules 7, 8; Exhibit A2-1, FEI Application for Approval of Rate Design and Rates for Constructing and Operating a CNG Refueling Station under the Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) for ColdStar (ColdStar-Langford 2013 Application), dated September 19, 2013, Appendix B, Schedules 7, 8**

#### **Cost of service model – Capital Rate**

On page 6 of the Application, FEI states:

The proposed 2021 total dispensing rates reflect a \$4.768 per GJ decrease compared to the current rates primarily due to a lower undepreciated value of the station (\$0.812 million as of December 31, 2020), a lower cost recovery from 91 percent to 80 percent, and an increased volume commitment of 21,000 GJs per year.

The following table prepared by BCUC staff summarizes the gross plant in service and the accumulated depreciation at the beginning of 2021 presented respectively in Schedules 7 and 8 of Appendix D to the Application.

(\$000's)	Gross Plant in Service	Accumulated Depreciation	Undepreciated Value
CNG Dispensing Equipment	962	(287)	675
CNG Foundations	142	(43)	99
CNG Dehydrator	53	(16)	37
<b>Total</b>	<b>1,158</b>	<b>(345)</b>	<b>812</b>

The following table prepared by BCUC staff summarizes the gross plant in service and the accumulated depreciation at the beginning of 2021 presented respectively in Schedules 7 and 8 of Appendix B to the ColdStar-Langford 2013 Application.

(\$000's)	Gross Plant in Service	Accumulated Depreciation	Undepreciated Value
CNG Dispensing Equipment	1,015	(355)	660
Foundation	99	(35)	64
NG Dehydrator	51	(18)	33
<b>Total</b>	<b>1,165</b>	<b>(408)</b>	<b>757</b>

3.1 Please reconcile the gross plant in service and accumulated depreciation in the Application with the ColdStar-Langford 2013 Application.

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1    **Response:**

2    Please refer to Table 1 and Table 2 below for the reconciliations of the current gross plant in  
3    service (GPIS) and the accumulated depreciation, respectively, with the original ColdStar-  
4    Langford 2013 Application.

5    FEI notes the following:

- 6        • As noted in response to BCUC IR1 7.1 of the original ColdStar-Langford 2013  
7        Application and as accepted by the BCUC, the Capital Rate was not adjusted for the  
8        actual construction costs incurred because there was no requirement under the GGRR  
9        to adjust rates to account for actual costs. The 2014 Gross Plant in Service (GPIS)  
10       difference shown on Line 24 of Table 1 below is the difference between the forecast and  
11       the actual construction costs for the Langford Fueling Station.
- 12       • There were also some small additional capital expenditures on the station in 2015 and  
13       2017 (see Line 8 of the actual GPIS amounts in Table 1 below). The 2015 and 2017  
14       capital expenditures did not trigger a change in the Capital Rate because the station  
15       continued to recover more than 91 percent of the cost of service as per the original  
16       ColdStar-Langford 2013 Application and continued to meet the minimum GGRR  
17       requirement of 80 percent recovery of the forecasted cost of service.

18  
19    While responding to this information request, FEI discovered that the opening balance of the  
20    accumulated depreciation amount in the cost of service model for 2021 in the current  
21    Application was not correct. As a result, FEI has recalculated the station rates with the correct  
22    accumulated depreciation as well as updating the property tax rate, as discussed in the  
23    response to BCUC IR1 5.1. The updated accumulated depreciation and property tax resulted in  
24    a lower Capital Rate of \$4.286 in 2021.

25    However, FEI is not proposing any changes to the currently proposed rates established in the  
26    agreements with ColdStar and GFL. As discussed in the response to BCUC IR1 1.1, the  
27    proposed Langford Fueling Station rates as set out in the agreements were designed to provide  
28    a market competitive rate that was acceptable to ColdStar and GFL. Rather than entering into  
29    amending agreements with ColdStar and GFL, FEI believes the proposed station rates in the  
30    agreements should remain unchanged, which would increase the recovery of the forecast cost  
31    of service over the term of the agreements from 80 percent to 82 percent.

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**Table 1 – Reconciliation of the gross plant in service between actual GPIS in the Application and the GPIS reported in the ColdStar-Langford 2013 Application**

Cold Star - Langford: Gross Plant in Service Reconciliation  
(\$000's), unless otherwise stated

Actual Gross Plant in Service Amounts			2014	2015	2016	2017	2018	2019	2020
Line	Particulars	Reference							
1	<b>Gross Plant in Service, Beginning</b>								
2	CNG Dispensing Equipment	Preceding Year, Line 14	-	948	950	950	962	962	962
3	CNG Foundation	Preceding Year, Line 15	-	142	142	142	142	142	142
4	CNG Dehydrator	Preceding Year, Line 16	-	53	53	53	53	53	53
5	Total Gross Plant in Service, Beginning	Preceding Year, Line 17	-	1,143	1,145	1,145	1,158	1,158	1,158
6									
7	<b>Gross Plant in Service, Additions</b>								
8	CNG Dispensing Equipment		948	2	-	12	-	-	-
9	CNG Foundation		142	-	-	-	-	-	-
10	CNG Dehydrator		53	-	-	-	-	-	-
11	Total Gross Plant in Service, Additions		1,143	2	-	12	-	-	-
12									
13	<b>Gross Plant in Service, Ending</b>								
14	CNG Dispensing Equipment	Line 2 + Line 8	948	950	950	962	962	962	962
15	CNG Foundation	Line 3 + Line 9	142	142	142	142	142	142	142
16	CNG Dehydrator	Line 4 + Line 10	53	53	53	53	53	53	53
17	Total Gross Plant in Service, Ending	Sum of Lines 14 through 16	1,143	1,145	1,145	1,158	1,158	1,158	1,158
Forecasted 2013 Langford Gross Plant in Service Amounts									
Line	Particulars	Reference	2014	2015	2016	2017	2018	2019	2020
1	<b>Gross Plant in Service, Beginning</b>								
2	CNG Dispensing Equipment	Preceding Year, Line 14	-	1,015	1,015	1,015	1,015	1,015	1,015
3	CNG Foundation	Preceding Year, Line 15	-	99	99	99	99	99	99
4	CNG Dehydrator	Preceding Year, Line 16	-	51	51	51	51	51	51
5	Total Gross Plant in Service, Beginning	Preceding Year, Line 17	-	1,165	1,165	1,165	1,165	1,165	1,165
6									
7	<b>Gross Plant in Service, Additions</b>								
8	CNG Dispensing Equipment	Appendix B 2013 Application, Schedule 7, Lines 10	1,015	-	-	-	-	-	-
9	CNG Foundation	Appendix B 2013 Application, Schedule 7, Lines 11	99	-	-	-	-	-	-
10	CNG Dehydrator	Appendix B 2013 Application, Schedule 7, Lines 12	51	-	-	-	-	-	-
11	Total Gross Plant in Service, Additions	Appendix B 2013 Application, Schedule 7, Lines 13	1,165	-	-	-	-	-	-
12									
13	<b>Gross Plant in Service, Ending</b>								
14	CNG Dispensing Equipment	Line 2 + Line 8	1,015	1,015	1,015	1,015	1,015	1,015	1,015
15	CNG Foundation	Line 3 + Line 9	99	99	99	99	99	99	99
16	CNG Dehydrator	Line 4 + Line 10	51	51	51	51	51	51	51
17	Total Gross Plant in Service, Ending	Sum of Lines 14 through 16	1,165	1,165	1,165	1,165	1,165	1,165	1,165
18									
19									
20	<b>Difference between Actual and Forecast GPIS</b>								
21	CNG Dispensing Equipment	Forecasted Line 14 - Actual Line 14	68	65	65	53	53	53	53
22	CNG Foundation	Forecasted Line 15 - Actual Line 15	(44)	(44)	(44)	(44)	(44)	(44)	(44)
23	CNG Dehydrator	Forecasted Line 16 - Actual Line 16	(2)	(2)	(2)	(2)	(2)	(2)	(2)
24	Total Gross Plant in Service, Difference	Sum of Lines 21 through 23	22	19	19	7	7	7	7

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**Table 2 – Reconciliation of the accumulated depreciation between the actual accumulated depreciation in the Application and the accumulated depreciation reported in the ColdStar-Langford 2013 Application**

Cold Star - Langford: Accumulated Depreciation & Amortization  
(\$'000's), unless otherwise stated

Line	Particulars	Reference	2014	2015	2016	2017	2018	2019	2020
1	<u>Actual-Accumulated Depreciation</u>								
2									
3	Accumulated Depreciation, Beginning								
4	CNG Dispensing Equipment	Preceding Year, Line 16	-	(47)	(95)	(142)	(190)	(239)	(287)
5	Foundation	Preceding Year, Line 17	-	(7)	(14)	(21)	(28)	(36)	(43)
6	NG Dehydrator	Preceding Year, Line 18	-	(3)	(5)	(8)	(11)	(13)	(16)
7	Total Accumulated Depreciation, Beginning	Sum of Lines 4 through 6	-	(57)	(114)	(172)	(230)	(287)	(345)
8									
9	Accumulated Depreciation, Depreciation Expense1								
10	CNG Dispensing Equipment@ 5%	Appendix B 2013 Application, Schedule 8, Line 10	(47)	(48)	(48)	(48)	(48)	(48)	(48)
11	Foundation@ 5%	Appendix B 2013 Application, Schedule 8, Line 11	(7)	(7)	(7)	(7)	(7)	(7)	(7)
12	NG Dehydrator@ 5%	Appendix B 2013 Application, Schedule 8, Line 12	(3)	(3)	(3)	(3)	(3)	(3)	(3)
13	Total Accumulated Depreciation, Depreciation Expense	Sum of Lines 10 through 12	(57)	(57)	(57)	(58)	(58)	(58)	(58)
14									
15	Accumulated Depreciation, Ending								
16	CNG Dispensing Equipment	Line 4 + Line 10	(47)	(95)	(142)	(190)	(239)	(287)	(335)
17	Foundation	Line 5 + Line 11	(7)	(14)	(21)	(28)	(36)	(43)	(50)
18	NG Dehydrator	Line 6 + Line 12	(3)	(5)	(8)	(11)	(13)	(16)	(19)
19	Total Accumulated Depreciation, Ending	Sum of Lines 16 through 18	(57)	(114)	(172)	(230)	(287)	(345)	(403)
20									
21	<u>Forecasted 2013 Langford Accumulated Depreciation</u>								
22									
23	Accumulated Depreciation, Beginning								
24	CNG Dispensing Equipment	Preceding Year, Line 16	-	(51)	(102)	(152)	(203)	(254)	(305)
25	Foundation	Preceding Year, Line 17	-	(5)	(10)	(15)	(20)	(25)	(30)
26	NG Dehydrator	Preceding Year, Line 18	-	(3)	(5)	(8)	(10)	(13)	(15)
27	Total Accumulated Depreciation, Beginning	Sum of Lines 24 through 26	-	(58)	(116)	(175)	(233)	(291)	(349)
28									
29	Accumulated Depreciation, Depreciation Expense1								
30	CNG Dispensing Equipment@ 5%	Appendix B 2013 Application, Schedule 8, Line 10	(51)	(51)	(51)	(51)	(51)	(51)	(51)
31	Foundation@ 5%	Appendix B 2013 Application, Schedule 8, Line 11	(5)	(5)	(5)	(5)	(5)	(5)	(5)
32	NG Dehydrator@ 5%	Appendix B 2013 Application, Schedule 8, Line 12	(3)	(3)	(3)	(3)	(3)	(3)	(3)
33	Total Accumulated Depreciation, Depreciation Expense	Sum of Lines 30 through 32	(58)	(58)	(58)	(58)	(58)	(58)	(58)
34									
35	Accumulated Depreciation, Ending								
36	CNG Dispensing Equipment	Line 24 + Line 30	(51)	(102)	(152)	(203)	(254)	(305)	(355)
37	Foundation	Line 25 + Line 31	(5)	(10)	(15)	(20)	(25)	(30)	(35)
38	NG Dehydrator	Line 26 + Line 32	(3)	(5)	(8)	(10)	(13)	(15)	(18)
39	Total Accumulated Depreciation, Ending	Sum of Lines 36 through 38	(58)	(116)	(175)	(233)	(291)	(349)	(408)
40									
41	Difference between Actual and Forecast GPIS								
42	CNG Dispensing Equipment	Forecasted Line 16 - Actual Line 16	(3)	(7)	(10)	(13)	(15)	(18)	(21)
43	CNG Foundation	Forecasted Line 17 - Actual Line 17	2	4	7	9	11	13	15
44	CNG Dehydrator	Forecasted Line 18 - Actual Line 18	0	0	0	0	1	1	1
45	Total Gross Plant in Service, Difference	Sum of Lines 42 through 44	(1)	(2)	(3)	(3)	(4)	(4)	(4)

Schedule 8 of Appendix B to the ColdStar-Langford 2013 Application shows that the fueling station equipment (i.e. the dispensing equipment, foundation and dehydrator) is depreciated straight line over a 20-year period from 2014 to 2033.

Schedule 8 of Appendix D to the Application shows that the fueling station equipment (i.e. the dispensing equipment, foundation and dehydrator) is depreciated straight line over a 20-year period from 2021 to 2040.

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3.2 Please explain why the useful life of the Langford Fueling Station is expected to increase by seven years (from 2033 to 2040).

**Response:**

The useful life of the Langford Fueling station is not expected to increase by seven years.

FEI's cost of service model for the CNG fueling station has a 20-year analysis period based on the approved depreciation rates. FEI inadvertently neglected to change the analysis period for this Application to 13 years (2021 to 2033) to match the expected remaining useful life of the Langford Fueling Station.

The purpose of the cost of service model is to calculate the station rates for the new five-year contract term, based on the present value of the station's cost of service from 2021 to 2025. As such, the length of the analysis period in the cost of service model has no impact on the calculation of the station rates over the term of the agreement period from January 1, 2021 to December 31, 2025.

However, FEI has updated the financial schedules with a 13-year analysis period (i.e., from 2021 to 2033) to match the expected remaining useful life of the Langford Fueling Station. The updated financial schedules confirm that the station rates do not change because of the change in the analysis period. The remaining book value in the cost of service model in 2033 is primarily due to the small amount of capital expenditures in 2015 and 2017, as discussed in the response to BCUC IR1 3.1. The updated financial schedules are provided in Attachment 3.2.

3.3 Please confirm, or explain otherwise, that by increasing the useful life of the Langford Fueling Station by seven years, the station is no longer being depreciated annually at 5 percent.

3.3.1 If confirmed, please discuss whether FEI is requesting BCUC approval for new depreciation rates for the fueling station. Why or why not?

**Response:**

Not confirmed, the Langford Fueling Station is still being depreciated at 5 percent per annum. As discussed in the response to BCUC IR1 3.2, FEI is not increasing the expected useful life of the Langford Station by seven years.

3.4 Please recalculate the cost of service of the Langford Fueling Station based on a 20-year straight line depreciation from 2014 to 2033 and provide the percentage of the cost service that the proposed fueling rate would recover over the five-year

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term of the ColdStar and GFL Fueling Agreements. As part of the response,  
please include the financial schedules with the recalculated cost of service.

**Response:**

Please refer to the response to BCUC IR1 3.2 for the updated financial schedules based on an  
analysis period of 13 years (i.e. 2021 to 2033).

As a result of the changes discussed in BCUC IR1 3.1, the percentage of the cost of service  
that the proposed fueling rate would recover over the five-year term from 2021 to 2025 has  
increased to 82 percent.



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#### 4.0 Reference: **PROPOSED RATES**

##### **Exhibit B-1, Table 5, pp. 7–8**

##### **Cost of service model – Operations and Maintenance Rate**

On page 7 of the Application, FEI states:

The O&M [operations and maintenance] Rate is determine [sic] by using a forecasted average O&M of the station over the next five years. FEI anticipates an average annual O&M expense of \$60 thousand is required. Below is a table showing the annual O&M for the Langford Fueling Station from 2015 to 2020.

**Table 5: Actual O&M between 2015 and 2019, and Projected 2020 O&M**

Year	O&M Spend (\$)
2015	28,257
2016	22,273
2017	38,297
2018	272,568
2019	98,589
2020 (Projected)	62,795
Total	522,779
Average	87,130
Average O&M excluding unplanned upgrades/maintenance*	40,270
*2018 and 2019 estimated O&M expenditure excluding unplanned upgrades/maintenance was \$45,000 in each year	

On page 8 of the Application, FEI states:

FEI determines the O&M forecast of \$60 thousand per year based on the historical average O&M costs (exclude unplanned expenditures) plus FEI's estimate preventative maintenance and repair schedule over the next five years. FEI believes increasing the forecast O&M to \$60 thousand is reasonable as the preventative maintenance and repair/servicing requirement over the next five years will likely increase from the initial operating years given the hours already incurred by the equipment as well as some of the fueling equipment is no longer covered by warranty.

4.1 Please explain why the O&M expenditure of \$62,795 projected for 2020 is greater than all of the other years in the above table once the unplanned upgrades/maintenance in 2018 and 2019 are excluded. As part of the response, please explain whether the O&M expenditures projected for 2020 is expected to continue in subsequent years.

#### **Response:**

FEI has updated Table 5 with actual O&M expenditure for each year the station was operational and included the 2020 actual O&M expenditures, as at the time of filing the Application, actuals

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1 were not available for 2020. FEI notes that the electricity costs were inadvertently omitted from  
2 Table 5 in the Application and have now been included.

3 **Updated Table 5: Actual O&M between 2014 and 2020**

Year	O&M Spend (\$)
2014	54,449
2015	37,597
2016	32,270
2017	47,874
2018	283,218
2019	108,840
2020	65,697
Total	629,945
Average	89,992
Average O&M excluding unplanned upgrades/maintenance*	49,827

4 \* 2018 and 2019 estimated O&M expenditure excluding unplanned upgrades/maintenance was  
5 \$55,650 and \$55,251 respectively  
6

7 O&M actual expenditure for 2020 of \$65,697 was greater than previous years (after excluding  
8 unplanned upgrades/maintenance) because in 2020 FEI conducted a full third party  
9 investigation of the site equipment and completed several engineering design modifications to  
10 increase operational efficiency and mitigate future failures from occurring. As a result, going  
11 forward FEI expects the average preventative maintenance and repair expenditure over the next  
12 five years to be less than 2020, resulting in an O&M forecast slightly below the 2020 actual  
13 O&M expenditure.

14 While the forecast O&M expenditure for the five-year renewal term is \$60 thousand per year,  
15 which is higher than the overall average of \$50 thousand per year for O&M expenditures  
16 experienced for the station in the past, FEI expects this will be the O&M level for the station  
17 going forward. This is because the Langford Fueling Station has experienced customer load  
18 growth in recent years that has increased the operational demand on the station relative to its  
19 initial in-service years. Additionally, as the station equipment ages, components approach their  
20 end of service life and require replacement or recertification. Components nearing their end of  
21 service life in the coming years include actuator valves, transducers, cylinders, pistons, rods,  
22 and relief valves. Aging components are factored into preventative maintenance and repair  
23 forecasts and, as a result, the expected preventative maintenance and repair forecast for the  
24 proposed O&M Rate is higher relative to the initial in-service years of the station. FEI believes  
25 that the forecast O&M of \$60 thousand per year over the next five years is reasonable having  
26 taken into account the station load growth, aging equipment and electricity costs.

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4.2 Please provide the forecast O&M for the preventative maintenance and repair over the next five years and how these amounts were determined. As part of the response, please discuss whether the forecast amounts and the maintenance and repair schedule are comparable to other CNG stations of similar age and usage.

**Response:**

The forecast O&M expenditure for the Langford Fueling Station is \$60 thousand per year over the next five years. This forecast is based on the history of the station, the projected equipment run hours, and expected electricity consumption. The estimated \$60 thousand per year consists of an average of \$50 thousand for preventative maintenance and repair and \$10 thousand for electricity costs. The average preventative maintenance and repair from 2014 to 2020 was approximately \$40 thousand per year (excluding unplanned upgrades/maintenance). FEI forecasts an incremental \$10 thousand per year on average due to the preventative maintenance and repair schedule over the next five years. FEI expects to complete three major servicing requirements for the compressors during this five year period. Additional station components such as actuator valves, relief valves, and transducers are also expected to reach their end of service life during the five-year period. When possible, these components will be replaced or recertified in years that major compressor servicing is not taking place to reduce annual fluctuations in preventative maintenance and repair expenditures.

FEI compared the Langford Fueling Station O&M forecast with other FEI CNG stations to determine the forecast. The average O&M actual expenditures at other FEI CNG stations operating for at least 3 years have a range between \$34 thousand and \$71 thousand per year. The Langford Fueling Station forecast annual average O&M expenditure of \$60 thousand is within the range of other CNG stations. In considering the forecast, five variables were compared between the Langford Fueling Station and other FEI CNG stations: location, type, size, usage, and age.

- **Location:** The location of the Langford Fueling Station makes it more costly in comparison to other FEI CNG stations. The Langford Fueling Station is one of two FEI CNG stations located on Vancouver Island. A small inventory of spare parts are stored on Vancouver Island; however, infrequently replaced items must either be couriered from FEI's Port Kells CNG spare parts storage facility or substituted for locally sourced parts that are often more expensive when available. Furthermore, there was not an established network of trained CNG technicians when the Langford Fueling station was commissioned in 2014. Vancouver Island CNG technicians were trained to perform routine preventative maintenance and troubleshoot priority service call issues. Major servicing and more complicated preventative maintenance requires the travel or remote assistance of expert CNG technicians.
- **Type:** The Langford Fueling Station is fast fill only, making it more expensive to operate than a similarly sized time fill only station, but less expensive than a similarly sized

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station with both time fill and fast fill capabilities. Compressors start and stop more frequently at fast fill stations resulting in increased valve cycling and wear and tear. Fast fill stations also require additional or more complex equipment such as a point of sales system, storage, priority panel, and fast fill dispenser. Customer requirements for relatively quick on demand 24/7 service make fast fill stations more prone to time sensitive priority service calls when dispensers are inoperable.

- **Size:** The Langford Fueling Station is mid-tier sized in extent of compression equipment relative to other FEI CNG stations. Dispensing is limited to three fast fill refueling locations, reducing O&M expenditure relative to other FEI CNG stations with up to 102 refueling locations.
- **Usage:** The Langford Fueling Station averages four total run hours per day between its two compressors. Based on total run hours, it is in the low to mid operating range in comparison to other FEI CNG stations.
- **Age:** The Langford Fueling Station was commissioned in 2014 and has nearly 10,000 combined run hours between its two compressors. As a CNG station ages, it approaches service intervals that require overhaul, replacement or recertification of equipment. The station is coming up to several service intervals including three major compressor services scheduled over the next five years. Parts and labour expenditures for service intervals were factored into the forecast O&M and compared with other FEI CNG stations that previously completed similar servicing.

4.3 Please explain whether it would be appropriate to calculate the O&M Rate based on the forecast annual average O&M of the station over the remaining expected useful life of the station (i.e. over the next 13 or 20 years) instead of over the next five years considering that the hours incurred by the equipment over the next five years would impact the maintenance and repair/servicing requirements in the subsequent years.

**Response:**

It is more appropriate to calculate the O&M Rate based on the forecast annual average O&M of the station over the term of the agreement for the anchor customer(s), rather than over the remaining expected useful life of the station that is longer than the contract term, for three primary reasons:

1. It provides more certainty around the factors taken into account in the O&M forecast, such as committed minimum volumes over the contracted term. This allows FEI to determine the appropriate schedule and costs anticipated for planned preventative maintenance and repairs based on the committed minimum volumes;

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2. Calculating the forecast costs over the contract term is consistent with how FEI calculates rates for all its other CNG fueling stations; and

3. It aligns costs and rates for customers that use the station over the contract term. This allows costs, forecast to be incurred over the contract term, to be recovered from the contracted customers that use the stations during the contract term. It would not be appropriate to set O&M rates based on forecast O&M costs outside of the contract term when it is unknown to FEI if the current contracted customers will continue to use the station beyond the contract term.

Although the run hours of the equipment is a factor when forecasting O&M expenditures, other factors and variables such station load and the overall condition of the equipment affect FEI's ability to accurately forecast O&M expenditures to reflect actual expenditures over the longer-term.

4.4 Please confirm, or explain otherwise, that FEI expects annual operating expenses beyond the next five years to continue on average at \$60,000 (plus inflation).

4.4.1 If confirmed, please explain why considering that preventative maintenance and repair/servicing requirements would likely continue to increase as more hours are incurred by the equipment and costs would increase as warranties continue to expire.

4.4.2 If not confirmed, please provide the expected annual average operating expenses over the remaining expected useful life of the station and recalculate the cost of service and the percentage of the cost service that the proposed fueling rate would recover over the five-year term of the ColdStar and GFL Fueling Agreements. As part of the response, please include the financial schedules with the recalculated cost of service.

**Response:**

FEI confirms that it expects annual operating expenses beyond the next five years to continue on average at \$60 thousand plus inflation. FEI has based this expectation on the following three main assumptions and factors.

1. FEI has assumed that the volume/load requirements of the station remain consistent with current levels for the remainder of the equipment lifecycle and no station expansion occurs.

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2. FEI has accounted for the fact that major components of the station's equipment are no longer covered by manufacturer's warranty. For example, the compressors are a critical component to the fueling station which can have a material impact on O&M expenditures if unplanned repairs or replacement become necessary.

3. FEI has also factored into its expected annual operating expenses the service life of the equipment at the fueling station. FEI employs operating practices to maximize service life and minimize unplanned component failures by balancing equipment use where possible. For example, FEI staggers station run hours between the compressors to maintain consistency for service intervals and to balance wear and tear in an effort to avoid unplanned repairs, maintenance or service disruptions. This practice helps to reduce the potential for substantial annual fluctuations in O&M expenditures.

Based on the fueling station's current utilization and planned major service intervals for the compressors and other major station components, FEI expects O&M expenditures to be incurred fairly consistently over the remaining useful life of the station.

It is important to note, however, that there are three other primary variables that can impact FEI's expectation of annual operating expenses. These three variables, as discussed in more detail below, are station usage, critical component failure, and availability of replacement components. Significant changes to one or more of these three variables may require FEI to re-evaluate or update its forecast for O&M expenditures over the remaining useful life of the station. The extent to which these variables may have an impact on a particular fueling station, and the significance of that impact, is difficult to both quantify and predict over the lifecycle of the station.

1. **Station Usage** - a significant increase or decrease in customer usage/load would affect the frequency of load cycles on high pressure components. For example, heat exchangers see both pressure and temperature swings during normal operation and are subject to fatigue with increased utilization. Under higher use conditions, components such as these will require refurbishment or replacement in order to maintain safe operation that extends beyond the typical compressor service intervals.

2. **Critical Component Failure** – as the station equipment ages, critical components and hardware may require unplanned or unexpected major service, repair or replacement.

3. **Availability of Replacement Components** – over time, some components or replacement parts may become unavailable or be difficult to source. To the extent that alternate or substitute components can be used, additional expenses may be incurred to modify or alter the station to facilitate installation.

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4.5 Please confirm, or explain otherwise, that the O&M Rate in the Original Fueling Agreement was designed to recover the average forecast O&M expense over the estimated useful life of the station, such that the O&M Rate would over recover the expected O&M expenses in the initial years and under recover in the latter years.

4.5.1 If not confirmed, please explain how the O&M Rate was designed and provide the rationale for that design. As part of the response, please discuss whether the design could result in intergenerational inequity.

**Response:**

Not confirmed. The O&M Rate in the Original Fueling Agreement was designed to recover the average forecast O&M expense over the five-year term. The O&M Rate in the Original Fueling Agreement was calculated by including FEI's forecast O&M expenditures for operation, anticipated preventative maintenance and repair costs, and electricity costs over the five-year term of the agreement. To design an O&M Rate based on the average O&M over the life of the station would not be reasonable as there are many variables that impact the ability to forecast over the long term useful life of the station. As such, forecasting of O&M expenditures over the term of an agreement creates more accuracy because it is based on more known variables such as expected CNG fuel volume, station load and the overall condition of the station.

The O&M Rate design does not result in intergenerational inequity because it is based on a forecast of O&M expenditures that takes into consideration the relevant factors, such as committed volume/load, station age/condition, term of the agreement, and FEI's operational experience at the fueling station and other similar fueling stations, thus resulting in a more accurate forecast of O&M expenditures, likely closely reflecting the actual O&M expenditures incurred.

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**5.0 Reference: PROPOSED RATES**

**Exhibit B-1, Appendix D, Schedules 1, 2; Exhibit A2-1, ColdStar-Langford 2013 Application, Appendix B, Schedules 1, 2**

**Cost of service model – O&M and property taxes**

In Schedule 1 of Appendix D to the Application, FEI forecasts property taxes of \$2,000 in 2021. In Schedule 1 of Appendix B to the ColdStar-Langford 2013 Application, FEI forecasts property taxes of \$6,000 for 2021.

5.1 Please explain why property taxes are forecast to decrease by two-thirds for 2021 in the Application compared to the ColdStar-Langford 2013 Application. If there has been a change in forecasting methodology, please elaborate and provide the rationale for the change.

**Response:**

There has not been a change in the forecasting methodology FEI uses for property taxes. The reason that property taxes are forecast to decrease in the Application is as a result of a property tax error in the ColdStar-Langford 2013 Application, which was discussed in the response to BCUC IR1 8.3 in the ColdStar-Langford 2013 Application, which stated the following:

The Cold Star cost of service model was adapted from a cost of service model being used to evaluate a project in Nanaimo. While adapting the model for Cold Star, FEVI did not update the property tax rate to that of the City of Langford; this was an oversight. The property tax rate within the model of 5.4996% is higher than the property tax rate that FEVI will pay to the City of Langford. The 2013 Langford property tax rate for FEVI is 2.5389%. Changing the tax rate in the cost of service model would lower the Cold Star fueling rate by \$0.175 which would be a decrease of 1.6%.

BCUC Order G-187-13 approved the station rates for Langford in the original ColdStar-Langford 2013 Application which did not include any changes to the property tax rate as discussed in BCUC IR1 8.3 of the ColdStar-Langford 2013 Application.

Additionally, at the time of responding to this question, FEI determined that the property tax rate used in the current Application is incorrect, which should be 1.95 percent for the Langford site, rather than the 1.62 percent which is more reflective of a Lower Mainland property tax rate. Please refer to the response to BCUC IR1 3.1 for further discussion on the associated rate impact as a result of this increase to the property tax rate.



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5.2 Please provide the actual annual property taxes for the Langford Fueling Station for the years 2014 to 2020.

**Response:**

The Langford Fueling Station is located at FEI's Langford Regional Operations Facility. Property taxes for the Langford CNG Fueling Station are not separated from taxes for the Langford Regional Operations Facility, as the station is not located on a separate parcel. Please refer to the table below for the total property taxes paid for the property at the Langford Regional Operations Facility from 2014-2020 and the amount of property tax FEI had included in the cost of service model of the Langford Fueling Station from 2014 to 2020 (i.e. recovered as part of the station capital rate). The property tax amounts used in the model are the local property tax rates multiplied by the value of the foundation of the station. This approach to assessing the property tax is consistent with how FEI has assessed property tax on all of its CNG stations; it serves as a reasonable approximation of the total property tax attributable to the Langford Fueling Station.

Langford Office  
Property Taxes 2014 to 2020

Folio	Year	Total Property Taxes	Total Amount Attributed to the Langford CNG Station
327-06500-190	2020	303,240	6,124
327-06500-190	2019	341,574	6,001
327-06500-190	2018	319,008	5,881
327-06500-190	2017	318,687	5,763
327-06500-190	2016	294,458	5,646
327-06500-190	2015	280,206	5,533
327-06500-190	2014	276,151	5,421

In Schedule 2 of Appendix B to the ColdStar-Langford 2013 Application, FEI forecasts fees and administration costs of \$2,000 for 2021. In Schedule 2 of Appendix D to the Application, there is no line item for fees and administration costs.

5.3 Please explain why the Application does not include a forecast for fees and administration costs.

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1 **Response:**

2 FEI no longer breaks out the fees and administration costs in Schedule 2 of the financial  
3 schedules. All related O&M expenses are included as one line item in Schedule 2, which is  
4 consistent with the approach FEI has taken in all of its recent CNG station rate applications.

5

FortisBC Energy Inc. (FEI or the Company) Application for Approval of Revised/Renewal Rates for the Langford Compressed Natural Gas (CNG) Fueling Station under the GGRR (Application)	Submission Date: February 25, 2021
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**6.0 Reference: APPROVALS SOUGHT**

**Exhibit B-1, p. 2; Exhibit A2-2, FEI CNG and Liquefied Natural Gas (LNG) Agreement Rates – 2019 Annual Report (CNG and LNG 2019 Annual Report), dated February 27, 2020, p. 6; Exhibit A2-3, Application for Approval to Amend the Capital Rate for the Vedder Transport Ltd. (Vedder) LNG Fueling Station Established in the Third Amending Agreement between FEI and Vedder (Vedder 2017 Application), dated January 27, 2017, p. 3**

**Third party fueling agreements**

On page 2 of the Application, FEI states:

Further, as a result of GFL's acquisition of the solid waste business of Evergreen Industries Ltd. (Evergreen) on Vancouver Island, GFL has requested that Evergreen's existing third party fueling agreement for the Langford Fueling Station (filed with the BCUC under Tariff Supplement J-13) be terminated. For administrative efficiency and consolidated billing, GFL is assuming Evergreen's minimum annual quantity commitment of 500 GJs per year within GFL's new five-year Fueling Services Agreement. GFL has made the termination of the service agreement with Evergreen a condition to its execution of the new five-year agreement. A copy of a letter from GFL is provided in Appendix B to support this request for termination of the Evergreen agreement.

On page 9 of the Application, FEI states:

If approved, FEI would apply the revised rates for the Langford Fueling Station to new third party agreements executed on or after January 1, 2021, which would be filed with the BCUC for approval. Existing third party customers will continue to obtain service from the Langford Fueling Station under the terms and rates established in their respective agreements approved by the BCUC until expiry or termination.

6.1 Please confirm, or explain otherwise, that the initial term of Evergreen's existing third-party fueling agreement for the Langford Fueling Station (Evergreen Agreement) ends on January 11, 2022.

**Response:**

Confirmed.

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6.2 Please confirm, or explain otherwise, that upon expiry of the initial term of an existing third-party fueling agreement at the Langford Fueling Station, that customer can execute a new third-party fueling agreement under the proposed rates for the station without incurring any termination fees or penalties.

**Response:**

Confirmed.

On page 6 of the CNG and LNG 2019 Annual Report, FEI states:

Depending on the terms of the third party agreement, a Short Term Charge and/or a Spot Charge may also be applicable. The Short Term Charge is applied to third party agreements with a term that is less than three years in length, while the Spot Charge is applied to third party agreements, which do not have a minimum firm volume commitment. The Short Term Charge and Spot Charge are designed to encourage third party customers to commit to longer terms and firm volumes. With the exception of customers who fuel at the Vedder Fueling Station, all third party customers pay the same Capital and O&M rate as that of the Host fueling station.

6.3 Please discuss whether recovering less per GJ toward the capital and operating costs of the Langford Fueling Station from customers with new third-party agreements compared to customers with existing third-party agreements could be considered unduly discriminatory or unduly preferential for the same fueling service.

**Response:**

Upon further reflection, FEI acknowledges that charging new third-party agreement customers a rate that differs from existing third-party agreement customers at the Langford Fueling Station that receive the same fueling service, as initially proposed in Section 3.3 of the Application, could be considered unduly discriminatory or unduly preferential.

As a result, FEI now proposes that FEI would apply the existing third-party agreement rates to any new third-party agreements at the Langford Fueling Station as that is a more fair and reasonable approach for third-party customers receiving the same fueling service from the same fueling station.

Further, in future cases where the anchor customer's fueling rates differ from existing third-party agreement rates, FEI will use the same approach by applying the existing third-party agreement rates to all new third-party agreements at that same fueling station. This approach is also consistent with that which was proposed by FEI for the Vedder Abbotsford Fueling Station

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amendment application,<sup>4</sup> approved by BCUC Order G-87-17 and the recent new third-party agreement approved by Order G-23-20 for the same station.

6.4 Considering that the Short Term Charge and Spot Charge are not applicable to Host or Anchor customers, such as ColdStar and GFL, and as such these customers' fueling rates are already lower than third-party customers who either do not have a long-term fueling agreement or a minimum firm volume commitment, please discuss whether the lower Capital Rate and O&M Rate proposed could result in an unduly discriminatory or unduly preferential fueling rate when compared to the existing third party customers' fueling rates.

**Response:**

Please refer to the response to BCUC IR1 6.3.

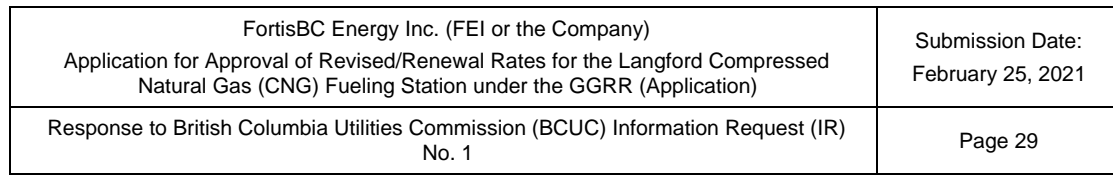
On page 3 of the Vedder 2017 Application, FEI states:

The amendment to Vedder's capital rate will not impact the capital rate applied to all third party customers with existing contracts who fuel at the Vedder Abbotsford station. Specifically, Westcan Bulk Transport, Denwill Enterprises Inc., Ledcor Resources and Transportation L.P. and Clark Reefer Lines Ltd. will continue to pay the agreed upon capital rate of \$1.927 as per their respective Fueling Service Agreements until their individual expiry dates. Additionally, any new third party customers that could receive fueling service from the Vedder Abbotsford station will pay the same capital rate that is currently paid by the existing third party customers.

6.5 Please explain why customers with new third-party agreements at the Langford Fueling Station should be applied the revised rates given that customers with new third-party agreements at the Vedder Abbotsford Station are applied the unrevised rates (i.e. the same rate as the existing third-party customers of that station). Please provide the rationale for the differing treatment.

6.5.1 Please discuss whether the differing treatment of rates applied to new third-party agreements at the Langford Fueling Station and the Vedder

<sup>4</sup> Application dated January 27, 2017.



3  
4 **Response:**

5 Please refer to the response to BCUC IR1 6.3.

## **Attachment 3.2**

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station: Revenue Requirement**

Schedule 1

(\$000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Revenue Requirement</b>														
2	Cost of Energy Sold		-	-	-	-	-	-	-	-	-	-	-	-	-
3	Operation and Maintenance	Schedule 2, Line 18	60	61	62	64	65	66	68	69	70	72	73	75	76
4	Property Taxes	Schedule 2, Line 23	2	2	2	2	2	3	3	3	3	3	3	3	3
5	Depreciation Expense	Schedule 8, Line 13 + Line 30	58	58	58	58	58	58	58	58	58	58	58	58	58
6	Amortization Expense	Schedule 9, Line 46	1	1	1	1	1	-	-	-	-	-	-	-	-
7	Other Revenue	Schedule 2, Line 19	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Income Taxes	Schedule 3, Line 20	12	15	17	19	20	20	21	21	21	21	21	21	20
9	Earned Return	Schedule 5, Line 23	<u>49</u>	<u>46</u>	<u>42</u>	<u>38</u>	<u>35</u>	<u>31</u>	<u>27</u>	<u>24</u>	<u>20</u>	<u>17</u>	<u>13</u>	<u>9</u>	<u>6</u>
10															
11	<b>Annual Revenue Requirement</b>	Sum of Lines 2 through 9	<b>183</b>	<b>184</b>	<b>183</b>	<b>183</b>	<b>181</b>	<b>178</b>	<b>176</b>	<b>174</b>	<b>172</b>	<b>170</b>	<b>168</b>	<b>165</b>	<b>163</b>
12															
13	Calendar Year = Contract Year														



FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station: O&M, Other Revenue and Property Tax**

Schedule 2

(\$000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Gross O&amp;M</b>														
2	Labour Costs		-	-	-	-	-	-	-	-	-	-	-	-	-
3	Vehicle Costs		-	-	-	-	-	-	-	-	-	-	-	-	-
4	Employee Expenses		-	-	-	-	-	-	-	-	-	-	-	-	-
5	Materials & Supplies		-	-	-	-	-	-	-	-	-	-	-	-	-
6	Computer Costs		-	-	-	-	-	-	-	-	-	-	-	-	-
7	Lease Cost		-	-	-	-	-	-	-	-	-	-	-	-	-
8	Contractor Costs		60	61	62	64	65	66	68	69	70	72	73	75	76
9	Electricity		-	-	-	-	-	-	-	-	-	-	-	-	-
10	Recoveries & Revenue		-	-	-	-	-	-	-	-	-	-	-	-	-
11															
12	Non-Labour Costs		60	61	62	64	65	66	68	69	70	72	73	75	76
13															
14	Total Gross O&M Expenses		60	61	62	64	65	66	68	69	70	72	73	75	76
15															
16	(Less): Capitalized Overhead		-	-	-	-	-	-	-	-	-	-	-	-	-
17	Add (Less): Adjustment		-	-	-	-	-	-	-	-	-	-	-	-	-
18	Net O&M		60	61	62	64	65	66	68	69	70	72	73	75	76
19															
20	<b>Property Taxes</b>														
21	General, School and Other		2	2	2	2	2	3	3	3	3	3	3	3	3
22	1% in Lieu of General Municipal Tax <sup>1</sup>	Schedule 10, Line 57/1000 x 1%	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Total Property Taxes		2	2	2	2	2	3	3	3	3	3	3	3	3
24															
25	1 - Calculation is based on the second preceeding year; ex., 2023 is based on 2021 revenue														

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station: Income Tax Expense**  
Schedule 3  
(\$000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Income Tax Expense</b>														
2															
3	Earned Return	Schedule 5, Line 23	49	46	42	38	35	31	27	24	20	17	13	9	6
4	Deduct: Interest on debt	Schedule 5, Line 22	(23)	(21)	(19)	(18)	(16)	(14)	(13)	(11)	(9)	(8)	(6)	(4)	(3)
5	Add (Deduct): Amortization Expense	Schedule 9, Line 46	1	1	1	1	1	-	-	-	-	-	-	-	-
6	Add: Depreciation Expense	Schedule 8, Line 13 + Line 30	58	58	58	58	58	58	58	58	58	58	58	58	58
7	Add: Removal Cost Provision		-	-	-	-	-	-	-	-	-	-	-	-	-
8	Deduct: Overhead Capitalized Expensed for Tax Purposes		-	-	-	-	-	-	-	-	-	-	-	-	-
9	Deduct Removal Costs		-	-	-	-	-	-	-	-	-	-	-	-	-
10	Deduct: Capital Cost Allowance	Schedule 4, Line 22	(54)	(44)	(36)	(29)	(24)	(20)	(16)	(14)	(11)	(10)	(8)	(7)	(6)
11	Taxable Income After Tax	Sum of Lines 3 through 10	32	40	46	51	54	55	56	57	57	57	57	56	55
12															
13	Income Tax Rate		27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
14	1 - Current Income Tax Rate	1 - Line 13	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%
15															
16	Taxable Income	Line 11 / Line 14	44	55	64	70	74	75	77	78	79	78	78	77	75
17															
18	Total Income Tax Expense	Line 16 x Line 13	12	15	17	19	20	20	21	21	21	21	21	21	20
19	Adjustments		-	-	-	-	-	-	-	-	-	-	-	-	-
20	Net Tax Expense	Line 18 + Line 19	12	15	17	19	20	20	21	21	21	21	21	21	20

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station: Capital Cost Allowance**  
Schedule 4  
(\$000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>CNG Dispensing Equipment (hoses and fill posts)- Class 8 @ 20%</b>														
2	Opening Balance	Preceding Year, Line 5	234	187	150	120	96	77	61	49	39	31	25	20	16
3	Additions	Schedule 7, Line 10 - AFUDC	-	-	-	-	-	-	-	-	-	-	-	-	-
4	CCA	[Line 2 + ( Line 3 x 1/2)] x CCA Rate	(47)	(37)	(30)	(24)	(19)	(15)	(12)	(10)	(8)	(6)	(5)	(4)	(3)
5	Closing Balance	Sum of Lines 2 through 4	187	150	120	96	77	61	49	39	31	25	20	16	13
6															
7	<b>CNG Foundations- Class 1 @ 4%</b>														
8	Opening Balance	Preceding Year, Line 11	109	105	101	97	93	89	85	82	79	76	73	70	67
9	Additions	Schedule 7, Line 11 - AFUDC	-	-	-	-	-	-	-	-	-	-	-	-	-
10	CCA	[Line 8 + ( Line 9 x 1/2)] x CCA Rate	(4)	(4)	(4)	(4)	(4)	(4)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
11	Closing Balance	Sum of Lines 8 through 10	105	101	97	93	89	85	82	79	76	73	70	67	64
12															
13	<b>CNG Dehydrator- Class 8 @ 20%</b>														
14	Opening Balance	Preceding Year, Line 17	13	10	8	6	5	4	3	3	2	2	1	1	1
15	Additions	Schedule 7, Line 12 - AFUDC	-	-	-	-	-	-	-	-	-	-	-	-	-
16	CCA	[Line 14 + ( Line 15 x 1/2)] x CCA Rate	(3)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(0)	(0)	(0)	(0)	(0)
17	Closing Balance	Sum of Lines 14 through 16	10	8	6	5	4	3	3	2	2	1	1	1	1
18															
19	<b>Total CCA</b>														
20	Opening Balance	Preceding Year, Line 23	355	302	258	223	194	170	150	134	120	109	99	91	84
21	Additions	<sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
22	CCA	<sup>2</sup>	(54)	(44)	(36)	(29)	(24)	(20)	(16)	(14)	(11)	(10)	(8)	(7)	(6)
23	Closing Balance	Sum of Lines 20 through 22	302	258	223	194	170	150	134	120	109	99	91	84	78
24	1 - Schedule 4, Sum of detailed Additions lines														

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station: Rate Base**  
Schedule 5  
((\$000's), unless otherwise stated)

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Rate Base</b>														
2	Gross Plant In Service- Beginning	Schedule 7, Line 7	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158
3	Gross Plant In Service- Ending	Schedule 7, Line 25	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158
4															
5	Accumulated Depreciation- Beginning	Schedule 8, Line 7	(345)	(403)	(461)	(519)	(577)	(635)	(692)	(750)	(808)	(866)	(924)	(982)	(1,040)
6	Accumulated Depreciation- Ending	Schedule 8, Line 25	(403)	(461)	(519)	(577)	(635)	(692)	(750)	(808)	(866)	(924)	(982)	(1,040)	(1,098)
7															
8	Contributions in Aid of Construction- Beginning	Schedule 7, Line 29	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Contributions in Aid of Construction- Ending	Schedule 7, Line 32	-	-	-	-	-	-	-	-	-	-	-	-	-
10															
11	Accumulated Amortization- Beginning	Schedule 8, Line 29	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Accumulated Amortization- Ending	Schedule 8, Line 32	-	-	-	-	-	-	-	-	-	-	-	-	-
13															
14	Net Plant in Service, Mid-Year	Sum (Lines 2 through 12 )/2	784	726	668	610	552	494	436	378	320	263	205	147	89
15															
16	Unamortized Deferred Charges, Mid-Year	Schedule 9, Line 49	3	5	4	2	1	-	-	-	-	-	-	-	-
17	Cash Working Capital	<sup>1</sup>	2	2	2	2	2	2	2	2	2	2	2	2	2
18	<b>Total Rate Base</b>	<b>Sum of Lines 14 through 17</b>	<b>788</b>	<b>733</b>	<b>673</b>	<b>614</b>	<b>555</b>	<b>496</b>	<b>438</b>	<b>380</b>	<b>322</b>	<b>264</b>	<b>207</b>	<b>149</b>	<b>91</b>
19															
20	<b>Return on Rate Base</b>														
21	Equity Return	Line 18 x ROE x Equity %	27	25	23	21	19	17	15	13	11	9	7	5	3
22	Debt Component	<sup>2</sup>	23	21	19	18	16	14	13	11	9	8	6	4	3
23	Total Earned Return	Line 21 + Line 22	<b>49</b>	<b>46</b>	<b>42</b>	<b>38</b>	<b>35</b>	<b>31</b>	<b>27</b>	<b>24</b>	<b>20</b>	<b>17</b>	<b>13</b>	<b>9</b>	<b>6</b>
24	Return on Rate Base %	Line 23 / Line 18	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
25															
26	1 - Schedule 7, Line 25 x FEI CWC/Closing GPIS %														
27	2 - Line 18 x (LTD Rate x LTD% + STD Rate x STD %)														

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

Langford CNG Station: Capital Spending  
Schedule 6  
(\$000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	Capital Spending Prior to 2021														
2	CNG Dispensing Equipment (hoses and fill posts)		-												
3	CNG Foundations		-												
4	CNG Dehydrator		-												
5	Total Capital Spending Prior to 2021	Sum of Lines 2 through 4	-												
6															
7	AFUDC Prior to 2021														
8	CNG Dispensing Equipment (hoses and fill posts)		-												
9	CNG Foundations		-												
10	CNG Dehydrator		-												
11	Total AFUDC Prior to 2021	Sum of Lines 8 through 10	-												
12															
13	Capital Spending 2021 Onwards														
14	CNG Dispensing Equipment (hoses and fill posts)		-	-	-	-	-	-	-	-	-	-	-	-	-
15	CNG Foundations		-	-	-	-	-	-	-	-	-	-	-	-	-
16	CNG Dehydrator		-	-	-	-	-	-	-	-	-	-	-	-	-
17	Total Capital Spending 2021 Onwards	Sum of Lines 14 through 16	-	-	-	-	-	-	-	-	-	-	-	-	-
18															
19	Total Capital Spending <sup>1</sup>	Line 5 + Line 17	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Total AFUDC	Line 11 + Line 18	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Total Annual Capital Spending and AFUDC	Line 19 + Line 20	-	-	-	-	-	-	-	-	-	-	-	-	-
22															
23	Contributions in Aid of Construction		-	-	-	-	-	-	-	-	-	-	-	-	-
24	Removal Costs		-	-	-	-	-	-	-	-	-	-	-	-	-
25	Net Annual Project Costs- Capital	Line 21 + 23 + 24	-	-	-	-	-	-	-	-	-	-	-	-	-
26															
27	Total Project Costs- Capital Spending and AFUDC	Sum of Line 21	-												
28	Total Net Project Costs- including CIAC & Removal Costs	Sum of Line 25	-												
29															
30	1 - Excluding capitalized overhead; First year of analysis includes all prior year spending														

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station: Gross Plant in Service & Contributions in Aid of Construction**

Schedule 7  
(\$000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Gross Plant in Service</b>														
2															
3	Gross Plant in Service, Beginning														
4	CNG Dispensing Equipment (hoses and fill pos: Preceding Year, Line 22		962	962	962	962	962	962	962	962	962	962	962	962	962
5	CNG Foundations	Preceding Year, Line 23	142	142	142	142	142	142	142	142	142	142	142	142	142
6	CNG Dehydrator	Preceding Year, Line 24	53	53	53	53	53	53	53	53	53	53	53	53	53
7	Total Gross Plant in Service, Beginning	Sum of Lines 4 through 6	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158
8															
9	Gross Plant in Service, Additions														
10	CNG Dispensing Equipment (hoses and fill pos: Schedule 6, Lines 2 + 8 + 14 + 18		-	-	-	-	-	-	-	-	-	-	-	-	-
11	CNG Foundations	Schedule 6, Lines 3 + 9 + 15 + 18	-	-	-	-	-	-	-	-	-	-	-	-	-
12	CNG Dehydrator	Schedule 6, Lines 4 + 10 + 16 + 18	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Total Gross Plant in Service, Additions	Sum of Lines 10 through 12	-	-	-	-	-	-	-	-	-	-	-	-	-
14															
15	Gross Plant in Service, Retirements														
16	CNG Dispensing Equipment (hoses and fill posts)		-	-	-	-	-	-	-	-	-	-	-	-	-
17	CNG Foundations		-	-	-	-	-	-	-	-	-	-	-	-	-
18	CNG Dehydrator		-	-	-	-	-	-	-	-	-	-	-	-	-
19	Total Gross Plant in Service, Retirements	Sum of Lines 16 through 18	-	-	-	-	-	-	-	-	-	-	-	-	-
20															
21	Gross Plant in Service, Ending														
22	CNG Dispensing Equipment (hoses and fill pos: Line 4 + Line 10 + Line 16		962	962	962	962	962	962	962	962	962	962	962	962	962
23	CNG Foundations	Line 5 + Line 11 + Line 17	142	142	142	142	142	142	142	142	142	142	142	142	142
24	CNG Dehydrator	Line 6 + Line 12 + Line 18	53	53	53	53	53	53	53	53	53	53	53	53	53
25	Total Gross Plant in Service, Ending	Sum of Lines 22 through 24	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158
26															
27															
28	<b>Contributions in Aid of Construction (CIAC)</b>														
29	CIAC, Beginning		-	-	-	-	-	-	-	-	-	-	-	-	-
30	Additions		-	-	-	-	-	-	-	-	-	-	-	-	-
31	Retirements		-	-	-	-	-	-	-	-	-	-	-	-	-
32	CIAC, Ending	Sum of Lines 29 through 31	-	-	-	-	-	-	-	-	-	-	-	-	-

**Langford CNG Station: Accumulated Depreciation & Amortization**  
Schedule 8  
((\$000's), unless otherwise stated)

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Accumulated Depreciation</b>														
2															
3	Accumulated Depreciation, Beginning														
4	CNG Dispensing Equipment (hoses and fill posts)	Preceding Year, Line 22	(287)	(335)	(383)	(431)	(479)	(527)	(575)	(623)	(671)	(719)	(768)	(816)	(864)
5	CNG Foundations	Preceding Year, Line 23	(43)	(50)	(57)	(64)	(71)	(78)	(85)	(92)	(99)	(107)	(114)	(121)	(128)
6	CNG Dehydrator	Preceding Year, Line 24	(16)	(19)	(21)	(24)	(27)	(29)	(32)	(35)	(37)	(40)	(43)	(45)	(48)
7	Total Accumulated Depreciation, Beginning	Sum of Lines 4 through 6	(345)	(403)	(461)	(519)	(577)	(635)	(692)	(750)	(808)	(866)	(924)	(982)	(1,040)
8															
9	Accumulated Depreciation, Depreciation Expense <sup>1</sup>														
10	CNG Dispensing Equipment (hoses and fill posts)@ 5%	Schedule 7, Line 4 & Line 10	(48)	(48)	(48)	(48)	(48)	(48)	(48)	(48)	(48)	(48)	(48)	(48)	(48)
11	CNG Foundations@ 5%	Schedule 7, Line 5 & Line 11	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
12	CNG Dehydrator@ 5%	Schedule 7, Line 6 & Line 12	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
13	Total Accumulated Depreciation, Depreciation Expense	Sum of Lines 10 through 12	(58)	(58)	(58)	(58)	(58)	(58)	(58)	(58)	(58)	(58)	(58)	(58)	(58)
14															
15	Accumulated Depreciation, Retirements														
16	CNG Dispensing Equipment (hoses and fill posts)	Schedule 7, Line 16	-	-	-	-	-	-	-	-	-	-	-	-	-
17	CNG Foundations	Schedule 7, Line 17	-	-	-	-	-	-	-	-	-	-	-	-	-
18	CNG Dehydrator	Schedule 7, Line 18	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Total Accumulated Depreciation, Retirements	Sum of Lines 16 through 18	-	-	-	-	-	-	-	-	-	-	-	-	-
20															
21	Accumulated Depreciation, Ending														
22	CNG Dispensing Equipment (hoses and fill posts)	Line 4 + Line 10 + Line 16	(335)	(383)	(431)	(479)	(527)	(575)	(623)	(671)	(719)	(768)	(816)	(864)	(912)
23	CNG Foundations	Line 5 + Line 11 + Line 17	(50)	(57)	(64)	(71)	(78)	(85)	(92)	(99)	(107)	(114)	(121)	(128)	(135)
24	CNG Dehydrator	Line 6 + Line 12 + Line 18	(19)	(21)	(24)	(27)	(29)	(32)	(35)	(37)	(40)	(43)	(45)	(48)	(51)
25	Total Accumulated Depreciation, Ending	Sum of Lines 22 through 24	(403)	(461)	(519)	(577)	(635)	(692)	(750)	(808)	(866)	(924)	(982)	(1,040)	(1,098)
26															
27															
28	<b>Accumulated Amortization of Contributions in Aid of Construction (CIAC)</b>														
29	Accumulated Amortization CIAC, Beginning		-	-	-	-	-	-	-	-	-	-	-	-	-
30	Amortization	<sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
31	Retirements		-	-	-	-	-	-	-	-	-	-	-	-	-
32	Accumulated Amortization CIAC, Ending	Sum of Lines 29 through 31	-	-	-	-	-	-	-	-	-	-	-	-	-
33															
34	1- Depreciation & Amortization Expense calculation is based on opening balance + (additions x in-service days/365 if it is the in-service year for project; otherwise, it is based on the opening balance of the plant-in-service)														

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station: Deferred Charges & Deficiency / Surplus [Tracker]**

Schedule 9

(\$000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Deferred Charge- Lease during Construction</b>														
2	Opening Balance	Previous Year, Line 7	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Gross Additions														
4	Tax	Line 3 x Tax Rate	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Net Additions	Sum of Lines 3 through 4	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Amortization Expense @ 5 years		-	-	-	-	-	-	-	-	-	-	-	-	-
7	Closing Balance	Lines 2 + 5 + 6	-	-	-	-	-	-	-	-	-	-	-	-	-
8															
9	<b>Deferred Charge- Application Costs</b>														
10	Opening Balance	Previous Year, Line 15	-	6	4	3	1	-	-	-	-	-	-	-	-
11	Gross Additions		10												
12	Tax	Line 11 x Tax Rate	(3)	-	-	-	-	-	-	-	-	-	-	-	-
13	Net Additions	Sum of Lines 11 through 12	7	-	-	-	-	-	-	-	-	-	-	-	-
14	Amortization Expense @ 5 years		(1)	(1)	(1)	(1)	(1)	-	-	-	-	-	-	-	-
15	Closing Balance	Lines 10 + 13 + 14	6	4	3	1	-	-	-	-	-	-	-	-	-
16															
17	<b>Deficiency / Surplus [Tracker]</b>														
18	Opening Balance	Previous Year, Line 26	-	5	9	10	7	-	-	-	-	-	-	-	-
19	Gross Addition	Schedule 10, Line 31 / 1000	5	3	0	(3)	(7)	-	-	-	-	-	-	-	-
20	Tax		-	-	-	-	-	-	-	-	-	-	-	-	-
21	Net Addition	Line 19 + Line 20	5	3	0	(3)	(7)	-	-	-	-	-	-	-	-
22	AFUDC														
23	Equity	Line 18 x (Schedule 10, Lines 17 x Line 18)	-	0	0	0	0	-	-	-	-	-	-	-	-
24	Debt		-	0	0	0	0	-	-	-	-	-	-	-	-
25	Interest Adjustment		-	-	-	-	0	-	-	-	-	-	-	-	-
26	Closing Balance	Sum of Lines 21 through 25	5	9	10	7	-	-	-	-	-	-	-	-	-
27															
28															
29	<b>Deferred Charge- Non Rate Base</b>														
30	Opening Balance	Previous Year, Line 38	-	5	9	10	7	-	-	-	-	-	-	-	-
31	Opening Balance, Adjustment	Opening balance transfer to rate base	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Gross Additions		5	3	0	(3)	(7)	-	-	-	-	-	-	-	-
33	Tax		-	-	-	-	-	-	-	-	-	-	-	-	-
34	AFUDC		-	0	0	1	0	-	-	-	-	-	-	-	-
35	Net Additions	Sum of Lines 32 through 34	5	4	1	(3)	(7)	-	-	-	-	-	-	-	-
36	Interest Adjustment		-	-	-	-	0	-	-	-	-	-	-	-	-
37	Amortization Expense		-	-	-	-	-	-	-	-	-	-	-	-	-
38	Closing Balance	Lines 30 + 31 + 35 + 36 + 37	5	9	10	7	0	-	-	-	-	-	-	-	-
39															
40	<b>Deferred Charge- Rate Base</b>														
41	Opening Balance	Previous Year, Line 47	-	6	4	3	1	-	-	-	-	-	-	-	-
42	Opening Balance, Adjustment		-	-	-	-	-	-	-	-	-	-	-	-	-
43	Gross Additions		10	-	-	-	-	-	-	-	-	-	-	-	-
44	Tax		(3)	-	-	-	-	-	-	-	-	-	-	-	-
45	Net Additions		7	-	-	-	-	-	-	-	-	-	-	-	-
46	Amortization Expense		(1)	(1)	(1)	(1)	(1)	-	-	-	-	-	-	-	-
47	Closing Balance	Lines 41 + 45 + 46	6	4	3	1	-	-	-	-	-	-	-	-	-
48															
49	Deferred Charge, Mid-Year	(Line 41 + Line 42 + Line 47) / 2	3	5	4	2	1	-	-	-	-	-	-	-	-

1- Line 18 x [Schedule 10 , (Lines 20 x 21+ Lines 22 x 23) x (1- Tax Rate)]

2- Adjustment to net account to zero in final year; result of varying WACC rates throughout contract



Langford O&G Station - Contract Rate Design

Schedule 10

(S), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	Annual Cost of Service (Excl.)	Schedule 1, Line 11	183,008	183,008	183,008	183,008	183,008	183,008	183,008	183,008	183,008	183,008	183,008	183,008	183,008
2	Annual Cost of Service (O&M, excl. lease)	Schedule 1, Line 31 - Line 3	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
3	Annual Cost of Service (Lease Only)	Schedule 2, Line 7	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250
4	Annual Cost of Service (Incl. Lease)	Line 1 - Line 2	122,827	122,827	122,827	122,827	122,827	122,827	122,827	122,827	122,827	122,827	122,827	122,827	122,827
5	Annual Volume (T)	Minimum contract demand	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
6	% of Annual Revenue Required to be Collected	GGRR: 80% during Contract Term; 100% thereafter	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
7	Annual Revenue Required to be Collected (Excl. Lease)	Line 2 x Line 6	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262
8	Annual Revenue Required to be Collected (Incl. Lease)	Line 2 x Line 7	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262	98,262
9	Annual Revenue Required to be Collected (Lease Only)	Line 2 x Line 7	48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
10	Annual Revenue Required to be Collected (Lease Only)	Line 2 x Line 7	48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
11	PV of Annual Revenue Required to be Collected (Incl. Lease)	Line 9 / (1 + Line 26) <sup>n</sup>	93,165	88,032	82,896	76,920	71,414	66,245	61,352	56,720	52,318	48,108	44,051	40,113	36,278
12	PV of Annual Revenue Required to be Collected (O&M, excl. Lease)	Line 9 / (1 + Line 26) <sup>n</sup>	45,511	44,013	42,455	41,165	39,810	38,500	37,222	35,976	34,762	33,578	32,414	31,270	30,145
13	PV of Annual Revenue Required to be Collected (Lease)	Line 10 / (1 + Line 27) <sup>n</sup>	45,511	44,013	42,455	41,165	39,810	38,500	37,222	35,976	34,762	33,578	32,414	31,270	30,145
14	Annual Discount Rate		5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%
15	Equity Component		8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%
16	RCE %		38.50%	38.50%	38.50%	38.50%	38.50%	38.50%	38.50%	38.50%	38.50%	38.50%	38.50%	38.50%	38.50%
17	Debt Component		4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%
18	Long Term Debt Rate		59.14%	59.14%	59.14%	59.14%	59.14%	59.14%	59.14%	59.14%	59.14%	59.14%	59.14%	59.14%	59.14%
19	Short Term Debt Rate		2.19%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%
20	Short Term Debt Portion		2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
21	Tax Rate		27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%	27.00%
22	Annual Discount Rate (After-Tax WACC)		5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%
23	1 - RCE x Equity Portion + [(1-D) x LTD Portion + STD x STD Portion] x (1 - Tax Rate)		8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%
24	Cost of Service (Includes Lease, Excludes O&M)		92,824	94,680	96,574	98,505	100,475	102,486	104,536	106,625	108,753	110,919	113,124	115,368	117,641
25	Annual Capital Rate		5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%
26	Annual Volumetric Capital Rate (\$/GJ) - Cost based beyond Contract Term		4.420	4.509	4.599	4.691	4.785	4.881	4.979	5.079	5.181	5.285	5.391	5.498	5.606
27	Contract Term Capital Rate Calculation and Present Value Proof		4.420	4.509	4.599	4.691	4.785	4.881	4.979	5.079	5.181	5.285	5.391	5.498	5.606
28	Volume (T)		21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
29	Capital Rate over Contract Term		92,824	94,680	96,574	98,505	100,475	102,486	104,536	106,625	108,753	110,919	113,124	115,368	117,641
30	Present Value Proof		85,009	85,114	85,213	85,314	85,419	85,526	85,635	85,745	85,856	85,968	86,081	86,195	86,309
31	PV of Capital Rate Revenue over Contract Term		412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028
32	Sum of PV Rate Revenue		412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028
33	PV Cost of Service over Contract Term		412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028	412,028
34	Difference from required Delivery Revenue (Should be zero)		0	0	0	0	0	0	0	0	0	0	0	0	0
35	Calculation of Year 1 Capital Rate over Contract Term (Excludes O&M)		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
36	Annual Capital Rate Escalation over Contract Term		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
37	Product of Escalation		0.0083	0.0087	0.0092	0.0097	0.0102	0.0107	0.0112	0.0117	0.0122	0.0127	0.0132	0.0137	0.0142
38	Formula		4.420	4.509	4.599	4.691	4.785	4.881	4.979	5.079	5.181	5.285	5.391	5.498	5.606
39	Where:														
40	r <sub>1</sub> = Contract Rate Year 1														
41	D = Discount Rate														
42	n = Contract Year														
43	PV COS = Present Value of the Cost of Service (including O&M) over Contract Term														
44	PV COS = Present Value of the Cost of Service (including O&M) over Contract Term														
45	Cost of Service (O&M, Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
46	Forecast Annual IBC CP Rate		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
47	Annual O&M Expense (Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
48	Annual Volumetric O&M Rate (\$/GJ)		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
49	Line 65 / Line 5		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
50	Cost of Service (O&M, Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
51	Forecast Annual IBC CP Rate		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
52	Annual O&M Expense (Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
53	Annual Volumetric O&M Rate (\$/GJ)		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
54	Line 65 / Line 5		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
55	Cost of Service (O&M, Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
56	Forecast Annual IBC CP Rate		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
57	Annual O&M Expense (Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
58	Annual Volumetric O&M Rate (\$/GJ)		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
59	Line 65 / Line 5		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
60	Cost of Service (O&M, Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
61	Forecast Annual IBC CP Rate		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
62	Annual O&M Expense (Excl. Lease)		48,000	48,960	49,939	50,938	51,957	52,994	54,048	55,119	56,205	57,306	58,421	59,551	60,695
63	Annual Volumetric O&M Rate (\$/GJ)		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
64	Line 65 / Line 5		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
65	Fueling Station Rate		4.420	4.509	4.599	4.691	4.785	4.881	4.979	5.079	5.181	5.285	5.391	5.498	5.606
66	Capital Rate (\$/GJ)		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
67	O&M Rate (\$/GJ)		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
68	G-78-13		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
69	Total Annual Volumetric Contract Rate (\$/GJ)		7.726	7.960	8.194	8.428	8.662	8.896	9.130	9.364	9.598	9.832	10.066	10.300	10.534
70	Annual Forecast Revenue		151,744	154,500	157,256	160,012	162,768	165,524	168,280	171,036	173,792	176,548	179,304	182,060	184,816
71	Present Value Proof of Total Revenue Required under GGRR		151,744	154,500	157,256	160,012	162,768	165,524	168,280	171,036	173,792	176,548	179,304	182,060	184,816
72	GGRR Requirement: 80% of Total COS (incl. O&M) for the Over Contract Term of the operation recovered under take-or-pay agreement (contract demand) with a minimum term of 6 years		151,744	154,500	157,256	160,012	162,768	165,524	168,280	171,036	173,792	176,548	179,304	182,060	184,816
73	Capital Rate (\$/GJ)		4.420	4.509	4.599	4.691	4.785	4.881	4.979	5.079	5.181	5.285	5.391	5.498	5.606
74	Line 66 over Contract Term of 5 years		4.420	4.509	4.599	4.691	4.785	4.881	4.979	5.079	5.181	5.285	5.391	5.498	5.606
75	Line 67 over Contract Term of 5 years		4.420	4.509	4.599	4.691	4.785	4.881	4.979	5.079	5.181	5.285	5.391	5.498	5.606
76	O&M Rate (\$/GJ)		2.286	2.331	2.378	2.426	2.474	2.522	2.570	2.618	2.666	2.714	2.762	2.810	2.858
77	Line 74 x Line 75		6.706	6.840	6.974	7.108	7.242								

**Langford CNG Station: Discounted Cash Flow Analysis**  
Schedule 11  
(*\$000's*), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	<b>Cash Flow</b>														
2	Add: Revenue	Schedule 10, (Line 66 + Line 67) x Line 5 / Line 7	176	180	183	187	191	178	176	174	172	170	168	165	163
3	Less: O&M, Property Tax Expense	Schedule 1, - (Line 3 + Line 4)	(62)	(64)	(65)	(66)	(67)	(69)	(70)	(72)	(73)	(74)	(76)	(77)	(79)
4	EBITDA <sup>1</sup>	Line 2 + Line 3	114	116	118	121	123	109	106	103	99	96	92	88	84
5	Capital Expenditures <sup>2</sup>	Schedule 6, Line 19 + Line 23	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Pre-Tax Cash Flow	Line 4 + Line 5	114	116	118	121	123	109	106	103	99	96	92	88	84
7	Income Tax Expense	Line 4 x (- Schedule 3, Line 13)	(31)	(31)	(32)	(33)	(33)	(29)	(29)	(28)	(27)	(26)	(25)	(24)	(23)
8	Overhead Capitalized Tax Shield	Schedule 3, -Line 8 x Line 13	-	-	-	-	-	-	-	-	-	-	-	-	-
9	CCA Tax Shield / Removal Cost	Schedule 3, (-Line 9 + Line 10) x Schedule 3, Line 13	14	12	10	8	6	5	4	4	3	3	2	2	2
10	Terminal Value of CCA Tax Shield	<sup>4</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Terminal Value	<sup>5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
12															
13	Free Cash Flow	Sum of Line 6 to Line 11	97	96	96	96	96	85	82	79	76	72	69	66	63
14															
15	After Tax WACC %	Schedule , Line 17	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%
16	Present Value of Free Cash Flow <sup>3</sup>	Line 13 / (1 + Line 15)^Yr	92	87	82	78	74	62	56	51	47	42	39	35	31
17	Total Present Value of Free Cash Flow	Sum of Line 16	<b>776</b>												
18															
19	1 - Earnings Before Interest, Taxes, Depreciation & Amortization (EBITDA)														
20	2 - Net of CIAC and removal costs (if applicable) and excludes capitalized overhead														
21	3 - 2021 present value calculates capital expenditure to occur at time zero														
22	4 - [Class 8 UCC Closing Balance x CCA Rate / (CCA Rate + WACC) + Class 1.3 UCC Closing Balance x CCA Rate / (CCA Rate + WACC)] x Income Tax Rate														
23	5 - Evaluation period reflects the useful life of the assets, therefore it is assumed that the terminal value is zero														

FortisBC Energy Inc.  
Langford CNG Station  
December 2020

**Langford CNG Station : Approximate Contract Termination Fee**  
Schedule 12  
(5000's), unless otherwise stated

Line	Particulars	Reference	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	Total Gross Plant in Service, Ending	Schedule 7, Line 25	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158	1,158
2	Accumulated Depreciation, Ending	Schedule 8, Line 25	(403)	(461)	(519)	(577)	(635)	(692)	(750)	(808)	(866)	(924)	(982)	(1,040)	(1,098)
3	Contributions in Aid of Construction- Ending	Schedule 5, Line 9	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Accumulated Amortization- Ending	Schedule 5, Line 12	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Deferral Account Repayment	Schedule 9, Line 10	5	9	10	7	-	-	-	-	-	-	-	-	-
6	Add: Removal Costs <sup>1</sup>		-	-	-	-	-	-	-	-	-	-	-	-	-
7	Less: Excess Fueling Station Recoveries <sup>2</sup>		-	-	-	-	-	-	-	-	-	-	-	-	-
8	Net Termination before Surcharge Payment <sup>3</sup>	Sum of Line 1 to Line 7	760	706	648	588	523	465	407	349	292	234	176	118	60
9	Station Surcharge Contribution	Schedule 9, Line 27	-	-	-	-	-	-	-	-	-	-	-	-	-
10	<b>Net Termination after Surcharge Payment<sup>3</sup></b>		<b>760</b>	<b>706</b>	<b>648</b>	<b>588</b>	<b>523</b>	<b>465</b>	<b>407</b>	<b>349</b>	<b>292</b>	<b>234</b>	<b>176</b>	<b>118</b>	<b>60</b>
11															
12	1- Actual removal costs to be determined at time of contract termination and will be less the net salvage collected to date														
13	2 - Cumulative fueling station recoveries received from volumes in excess of minimum contract demand														
14	3 - The forecast early termination fee has been calculated on a year end basis. The actual fee would be determined at the time of contract termination and may be different than the amount shown on Line 10														