

Slide Additions – October 28, 2020

Slides 2 to 9 have been added to reflect takeaways from the October 23rd, 2020 meeting

Foothills takeaways from the Oct 23rd Customer meeting

1. Do the costs for Foothills BC include the pigging of the line for dithiazine? (*Zone 8*)

FHPL response:

Pipeline Integrity costs, including pigging costs related to dithiazine cleaning, are prudently incurred to maintain the integrity of the pipeline system and are recoverable from Foothills' customers through the revenue requirement and tolls.

2. Is the EMAT program for FHSK planned for the entire length of pipe? (*Zone 9*)

FHPL response:

The EMAT program for FHSK is not planned for the entire length of pipe. The EMAT program for FHZ9 is separated into 4 segments, where only two segments meet the requirements for inspection. For 2021, the EMAT program is planned for only one of these line segments.

Because this year's inspection from Shaunavon to Monchy is the baseline, in the absence of known possible threats or cracks, additional digs have been planned and will be performed depending on the results of the EMAT.

Foothills takeaways from the Oct 23rd Customer meeting

3. Can FHPL provide more detail on 2020 O&M Actual Costs? (Zone 8 & 9)

FHPL response: See table below

Zone 8 (BC) 2020 Forecast – O&M Costs (\$Thousands)

	<u>2020 Rates Filing</u>	<u>2020 Forecast</u>	<u>2021 Preliminary</u>
O&M			
OM&A	9,007	10,389	10,585
Electrical Power	923	707	850
Compressor Repair	1,300	1,300	1,300
Pipeline Integrity Program	5,292	4,788	2,737
Government Agency Costs Recovery	1,119	1,244	1,271
Total	17,641	18,428	16,743

* Totals may not add due to rounding

Foothills takeaways from the Oct 23rd Customer meeting

3. (cont'd) Can FHPL provide more detail on 2020 O&M Actual Costs? (Zone 8 & 9)

FHPL response: See table below

Zone 9 (SK) 2020 Forecast – O&M Costs (\$Thousands)

	<u>2020 Rates Filing</u>	<u>2020 Forecast</u>	<u>2021 Preliminary</u>
O&M			
OM&A	4,207	4,645	4,442
Electrical Power	787	787	795
Compressor Repair	1,435	1,977	435
Pipeline Integrity Program	1,403	1,799	5,049
Government Agency Costs Recovery	704	467	440
Total	8,536	9,675	11,161

* Totals may not add due to rounding

Foothills takeaways from the Oct 23rd Customer meeting

4. Is it possible to defer O&M costs? (*Zone 9*)

FHPL response:

Forecast O&M costs are primarily related to safe and reliable operations of the pipeline and pipeline integrity costs. Tolls reflect costs that are expected to be incurred in the toll year in which the integrity work is planned according to the integrity program cycle. A departure from this practice would require a change to the current methodology. Also, deferring expected costs would impact tolls in the future which raises intergenerational equity concerns. Foothills confirms that costs are based on the latest forecast information.

5. Is there a potential to decrease pipe integrity related costs (without compromising on safety etc.)? (*Zone 9*)

FHPL response:

The timing of integrity expenditures is driven by our integrity program and regulatory requirements. Deferring costs would impact available capacity and our ability to meet contractual obligations.

Foothills takeaways from the Oct 23rd Customer meeting

6. Can Foothills change the depreciation rates to levelize tolls in the short-term while continuing work on potential long-term solutions? (*Zone 9*)

FHPL response:

A change in depreciation rates is typically supported by a depreciation study and requires CER approval; both of which make it difficult to implement in 2021 tolls. FHPL can consider the concept of adjusting depreciation rates to help with levelizing tolls but notes this would be a departure from current depreciation practice.

7. Are there new full-haul contracts forecasted for 2021 for Foothills SK? (*Zone 9*)

FHPL response:

There are new full-haul contracts forecasted for 2021 for Foothills SK. Additional contracting details for the Foothills Pipe Lines System can be found by accessing the [Contract Report](#) on Customer Express. Note that the Contract Report is updated on a monthly basis.

8. Can Foothills provide the split of billing determinants (BD's) between intra-haul and exports? (*Zone 9*)

FHPL response:

The breakdown of BD's between intra-haul and exports has been provided as a footnote on [Slide 24](#)

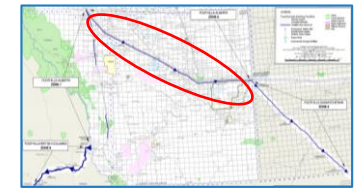
Foothills takeaways from the Oct 23rd Customer meeting

9. Can Foothills provide cost information for Zones 6 and 7?

FHPL response:

Response provided on [Slides 8 & 9](#)

Zone 6 – Costs and Revenue (\$Thousands)



This slide is in response to Question 9 from slide 7

	2020 Rates Filing	2021 Preliminary	Difference
Cost of Service			
O&M	32,482	33,076	594
Return & Depreciation	15,225	12,565	(2,660)
Taxes	6,951	4,096	(2,855)
Emissions Compliance Costs	4,407	3,765	(642)
Other	1,605	112	(1,493)
Sub-Total	<u>60,670</u>	<u>53,614</u>	<u>(7,056)</u>
Adjustments			
Previous (Over) Under	<u>(5,106)</u>	<u>(18,048)¹</u>	<u>(12,942)</u>
Total Revenue Requirement	<u>55,564</u>	<u>35,566</u>	<u>(19,998)</u>
Other Revenue			
STFT / IT	<u>-</u>	<u>-</u>	<u>-</u>
Firm Revenue Requirement	<u><u>55,564</u></u>	<u><u>35,566</u></u>	<u><u>(19,998)</u></u>

- Totals may not add due to rounding
- ¹2021 Preliminary Adjustments made up of ~\$12M of current year over collections plus ~\$6M of 2019 True-Ups. The majority of the 2020 overcollections are due to:
 - Lower OM&A due to lower electrical power/utility costs from lower power prices and utilization required to meet decreasing flows at McNeil Border
 - Lower Pipe Integrity costs due to EMAT that was planned but not completed
 - Lower Depreciation due to lower additions compared to fully depreciated GPIS asset classes compared to last year
 - Lower income taxes due to Repair & Overhaul which was not forecasted in the 2020 tolls filing

Zone 7 – Costs and Revenue (\$Thousands)



This slide is in response to Question 9 from slide 7

	2020	2021	Difference
	<u>Rates Filing</u>	<u>Preliminary</u>	<u></u>
Cost of Service			
O&M	6,943	4,901	(2,042)
Return & Depreciation	1,309	167	(1,142)
Taxes	1,087	813	(274)
Emissions Compliance Costs	n/a	n/a	-
Other	273	21	(252)
Sub-Total	<u>9,612</u>	<u>5,902</u>	<u>(3,710)</u>
Adjustments			
Previous (Over) Under	(2,057)	(3,000)	(942)
Total Revenue Requirement	<u>7,555</u>	<u>2,903</u>	<u>(4,652)</u>
Other Revenue			
STFT/IT	-	-	-
Firm Revenue Requirement	<u><u>7,555</u></u>	<u><u>2,903</u></u>	<u><u>(4,652)</u></u>

* Totals may not add due to rounding

A wide-angle photograph of an industrial site, likely a natural gas processing plant. In the foreground, a large, horizontal, silver-colored pipe with a yellow label that reads "100 Natural Gas" is supported by blue metal stands. The pipe curves towards the right. In the background, there is a complex of industrial structures, including a large building with a tall, dark chimney stack, various smaller tanks, and a network of pipes. The ground is a flat, gravelly surface. The sky is a pale blue with wispy white clouds.

Foothills Pipe Lines (FHPL) Customer Meeting

October 23, 2020



Boost Your Positivity

- **Practice Gratitude** – watch for things, big or small, that you are grateful for as you go about your day. Keeping a journal can help to make this a daily habit.
- **Be Mindful** – stay in the moment, rather than worrying about the past or what may come in the future
- **Savour Life's Pleasures** – enjoy the good stuff! Appreciate a great meal, a beautiful sunset, a visit with friends, or a relaxing evening.
- **Pay Less Attention to Negative Thoughts** – try to reframe negative thoughts and look for the positive in a difficult situation



Agenda

- 1 Preliminary 2021 effective rates and abandonment surcharge
- 2 Foothills BC (Zone 8) Expansion update

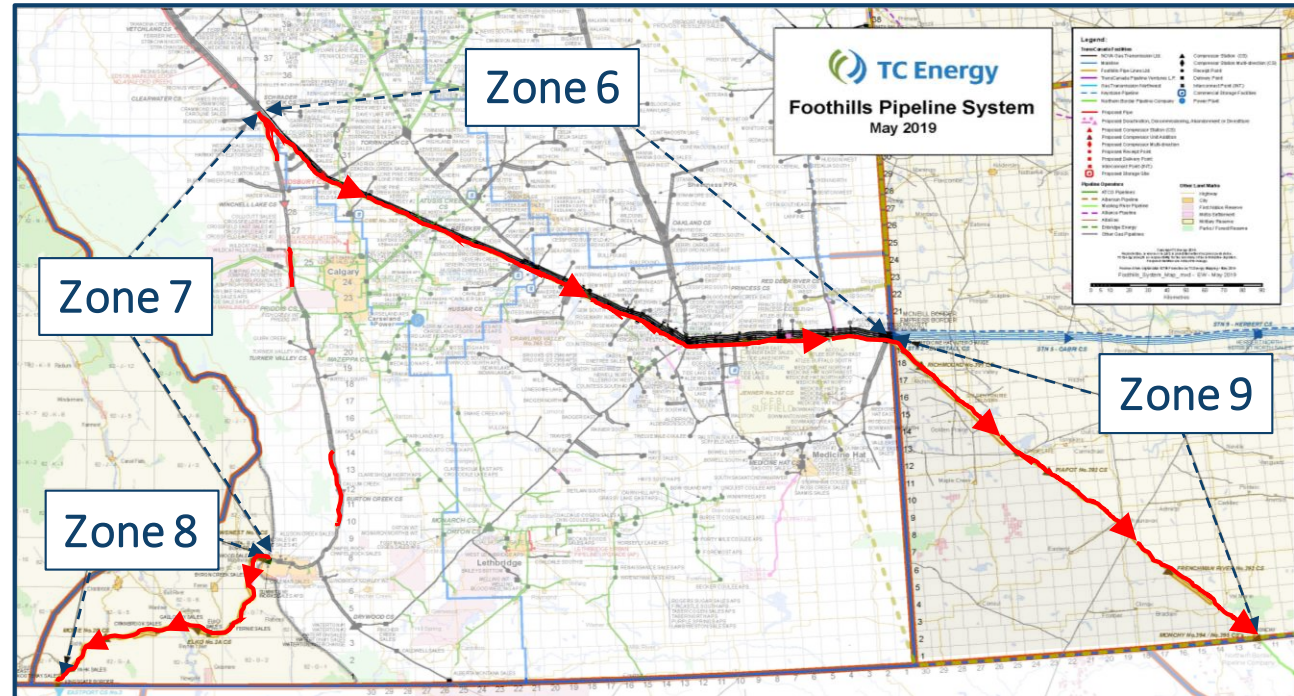


Preliminary 2021 Effective Rates and Abandonment Surcharge

Foothills Pipe Lines Customer Meeting - October 23, 2020

Agenda

- Cost of Capital
- Foothills Zone 8 (BC)
 - Cost & Revenue
 - Waste Heat Update
 - Rule of Thumb
- Foothills Zone 9 (SK)
 - Costs & Revenue
 - Rule of Thumb
- Abandonment Surcharge
- Filing Timeline



Introduction

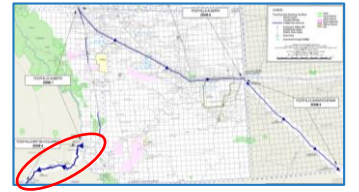
- Currently under 2020 Effective Rates
- Foothills Pipe Lines Ltd. will be filing 2021 Rates to be effective on January 1, 2021
- Foothills 2021 Effective Rates are based on:
 - 2021 forecast of contracts / throughput
 - 2021 forecast of costs
 - 2020 projected deferrals
- Update to Schedule C in 2021 Rates Filing package

Cost of Capital

For 2021 Rates:

- Foothills proposes to continue the current cost of capital parameters; 10.1% ROE on 40% deemed equity
 - Parameters approved by NEB in Order TG-011-2013

Overview of Zone 8 (BC)



The Revenue Requirement:

- 2021 - \$83.9 MM (2020 Rate Filing: \$91.3 MM)
- After adjustments for (over)/under: 2021 - \$64.9 MM (2020 Rate Filing: \$88.5 MM)

Total Firm Contracts:

- 2021 – 2,981 TJ/d (2020 Rate Filing: 2,844 TJ/d)

Total Throughput:

- 2021 – 2,641 TJ/d (2020 Rate Filing: 2,839 TJ/d)

Results in an FT Rate of:

- 2021 – 5.8 ¢/GJ (2020 Rate: 8.2 ¢/GJ)

Zone 8 (BC) – Costs and Revenue (\$Thousands)



	2020 Rates Filing	2021 Preliminary	Difference
Cost of Service			
O&M	17,641	16,743	(898)
Return & Depreciation	32,309	33,099	790
Taxes	14,390	9,965	(4,425)
Emissions Compliance Costs	20,511	19,203	(1,308)
Other	6,489	4,916	(1,573)
Sub-Total	<u>91,340</u>	<u>83,926</u>	<u>(7,414)</u>
Adjustments			
Previous (Over) Under	(2,811)	(19,072)	(16,261)
Total Revenue Requirement	<u>88,529</u>	<u>64,854</u>	<u>(23,675)</u>
Other Revenue			
STFT/IT	(2,912)	(1,257)	1,655
Firm Revenue Requirement	<u><u>85,617</u></u>	<u><u>63,597</u></u>	<u><u>(22,020)</u></u>

* Totals may not add due to rounding

Zone 8 (BC) – Contract & Throughput (TJ/d)



	2020 Rates Filing	2021 Preliminary	Difference
Firm Contract Demand	2,844	2,981	137
Throughput to Services			
Firm Volumes	2,751	2,587	(164)
STFT / IT Volumes	88	54	(34)
Total Throughput	<u>2,839</u>	<u>2,641</u>	<u>(198)</u>

** Totals may not add due to rounding*

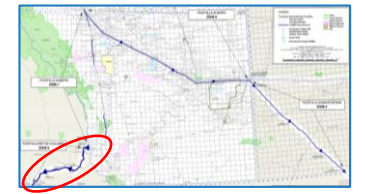
Zone 8 (BC) – Waste Heat



- Power plant commenced operations in December 2012 using recovered heat to produce electricity
- Foothills receives a heat access payment which is shared 50-50 between Foothills and Zone 8 Shippers
- OM&A Credits to Zone 8 Shippers:

(\$Thousands)	Heat Access	Backpressure and Land Lease	Total
2017	239	32	271
2018	217	25	242
2019	245	41	286
2020 (Jan-Aug)	172	23	195

Zone 8 (BC) – 2021 Rate Sensitivity – Rule of Thumb



- A \$1 million increase (decrease) in revenue requirement results in approximately a 0.09¢/GJ increase (decrease) in the Firm Transportation rate
- A 100 TJ/d increase (decrease) in contract level results in approximately a 0.19¢/GJ decrease (increase) in the Firm Transportation rate

Overview of Zone 9 (SK)



The Revenue Requirement:

- 2021 - \$48.4 Million (2020 Rate Filing: \$49.5 Million)
- After adjustments for (over)/under: 2021 - \$51.2 Million (2020 Rate Filing: \$46.9 Million)

Total Firm Contract:

- 2021 – 1,006 TJ/d (2020 Rate Filing: 953 TJ/d)

Total Throughput:

- 2021 – 889 TJ/d (2020 Rate Filing: 1,055 TJ/d)

Results in an FT Rate of:

- 2021 – 18.1 ¢/GJ (2020 Rate: 14.5 ¢/GJ)

Zone 9 (SK) – Costs and Revenue (\$Thousands)



	2020	2021	Difference
	Rates Filing	Preliminary	
Cost of Service			
O&M	8,536	11,161	2,626
Return & Depreciation	26,235	26,439	205
Taxes	11,092	9,493	(1,599)
Emissions Compliance Costs	2,485	892	(1,593)
Other	1,114	434	(680)
Sub-Total	<u>49,461</u>	<u>48,420</u>	<u>(1,041)</u>
Adjustments			
Previous (Over) Under	(2,550)	2,773	5,323
Total Revenue Requirement	<u>46,911</u>	<u>51,193</u>	<u>4,282</u>
Other Revenue			
STFT / IT / SGS	(7,891)	(4,687)	3,204
Firm Revenue Requirement	<u><u>39,020</u></u>	<u><u>46,506</u></u>	<u><u>7,486</u></u>

* Totals may not add due to rounding

Zone 9 (SK) – Contract & Throughput (TJ/d)



	2020 Rates Filing	2021 Preliminary	Difference
Firm Contract Demand	953	1,006	54
Throughput to Services			
Firm Volumes	915	822	(93)
STFT / IT / SGS Volumes	140	67	(73)
Total Throughput	<u>1,055</u>	<u>889</u>	<u>(166)</u>

** Totals may not add due to rounding*

(Note Added after Foothills Shipper Meeting October 23, 2020)

The Forecasted Firm Contract Demand for intra-haul service increased from 298 TJ in 2020 to 445 TJ in 2021.
The Forecasted Firm Contract Demand for full-haul service decreased from 655 TJ in 2020 to 561 TJ in 2021.

Zone 9 (SK) – 2021 Rate Sensitivity – Rule of Thumb



- A \$1 million increase (decrease) in revenue requirement results in approximately a 0.35¢/GJ increase (decrease) in the Full Path Firm Transportation rate
- A 100 TJ/d increase (decrease) in throughput results in approximately a 2.1¢/GJ decrease (increase) in the Full Path Firm Transportation rate

Abandonment Surcharges

Based on forecast of 2021 Billing Determinants: 2,740 PJ/year

- Adjusted Annual Contribution Amount \$7.75 million
 - Annual Contribution Amount \$7.83 million
 - Minus ~\$80K for Tax True-Ups
- Applicable to all Foothills Zones
 - NGTL pays Zone 6 & 7 Surcharges

2021 Abandonment Collection

- Daily Abandonment Surcharge 0.28 ¢/GJ
- Monthly Abandonment Surcharge 8.61 ¢/GJ

Filing Timeline

- Foothills intends to file for 2021 Effective Rates and 2021 abandonment surcharges on October 30, 2020
- In the event of changes to the 2021 preliminary rates, updates will be posted on Customer Express with an email and NRG notifications to follow

<http://www.tccustomerexpress.com/935.html>



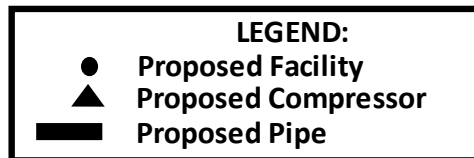
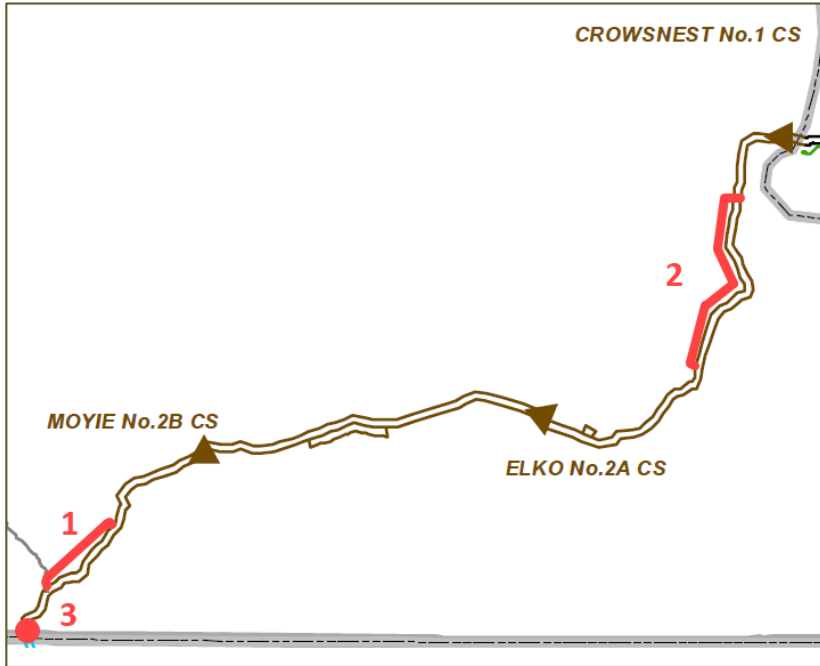
Foothills BC (Zone 8) Expansion -Facilities update

Foothills Pipe Lines Customer Meeting - October 23, 2020

Agenda

- Foothills BC (FHBC) Expansion – Facilities Update
- Estimated Abandonment Costs – Update
- Illustrative Toll Impact on Foothills BC - Update

Proposed Mainline Facilities for Area Demands (FHBC)



<u>MAP I.D.</u>	<u>FACILITY</u>	<u>DESCRIPTION</u>	<u>TARGET IN-SERVICE DATE</u>	<u>CAPITAL COST (\$Millions)</u>
FHBC Export Expansion Tranche 1				
1	BCML Loop Yahk Section	13 km NPS 48	Nov-22	133
FHBC Export Expansion Tranche 2				
2	BCML Loop Elko Section	31 km NPS 48	Nov-23	305
3	Kingsgate Meter Station Expansion		Nov-23	0.5

Approved Applied-for To Be Applied-for

Proposed Mainline Facilities – Kingsgate Export (FHBC)

Purpose:

- Increase capability to transport gas to growing markets

Scope:

- ~~17-13~~ km NPS 48 for 2022
- 31 km of NPS 48 for 2023

Estimated Cost:

- Total: \$~~226-133~~ Million (2022) & \$~~312-306~~ Million (2023)

Capacity:

- Expected Existing FHBC Capacity 2022: ~ 78,800 10³m³/d (2,980 TJ/d)
- Incremental Capacity (Tranche 1): ~ 2900 10³m³/d (110 TJ/d)
- Expected Existing FHBC Capacity 2023: ~ 81,700 10³m³/d (3,090 TJ/d)
- Incremental Capacity (Tranche 2): ~ 4300 10³m³/d (160 TJ/d)

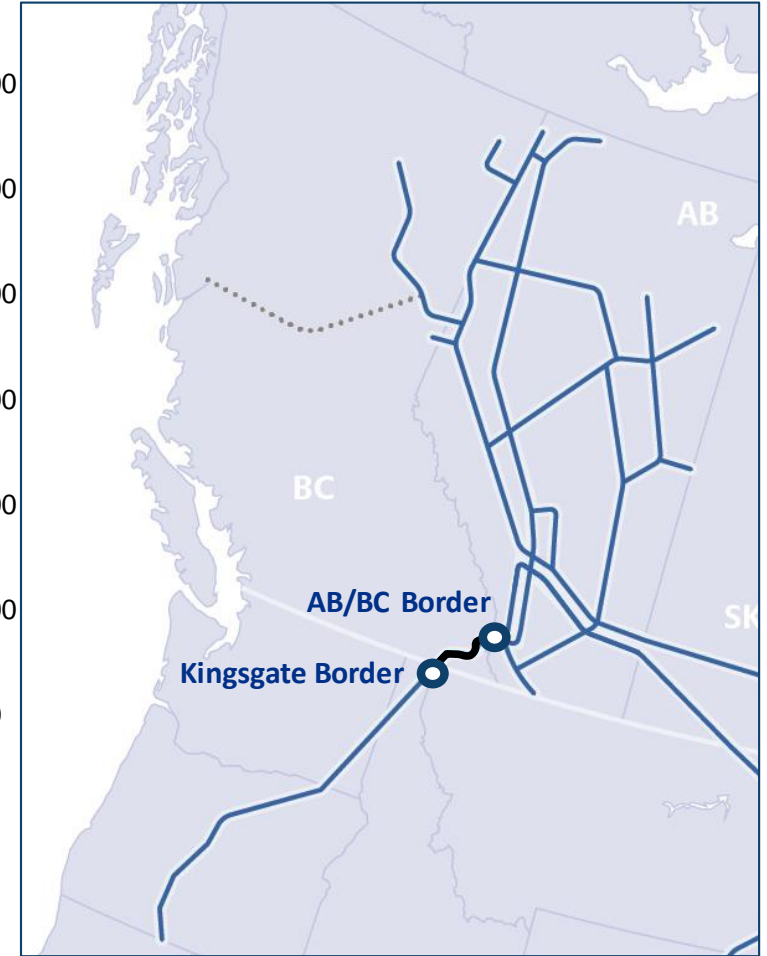
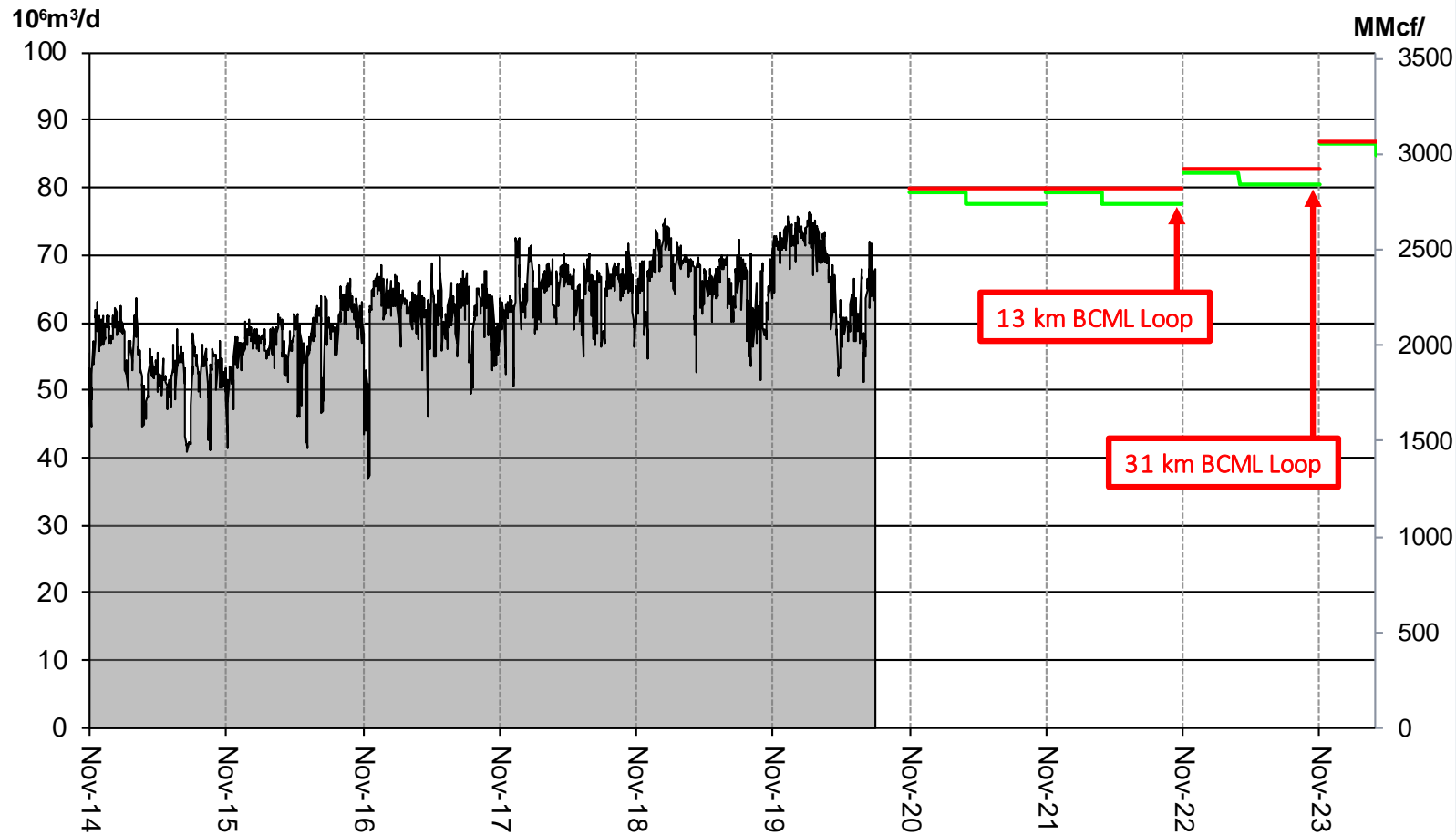
Incremental Contracts:

- 108 TJ/d for Nov 2022
- 162 TJ/d for Nov 2023

Schedule:

- Two applications:
 - CER s.214 Application (2022 on-stream)
Application filed: June 2, 2020
 - CER s.214 Application (2023 on-stream)
Target application filing : March 1, 2021
- In-service Nov 2022 and Nov 2023

Foothills BC Delivery Design Chart



Estimated Future Abandonment Costs

- ~~\$5.6~~ 5.3 million estimate to abandon the proposed facilities
- Specific abandonment approach and cost estimate will be updated when an application to abandon these facilities is filed in the future

Illustrative Toll Impact – FHBC

Toll/Revenue impact assessment based on the following:

- Total capital costs: \$~~226~~133 Million (2022) & \$~~312~~306 Million (2023)
- Subject to change before filing

	2022	2023	2024	2025	2026	2027	Average Toll Impact (2022–2027)
Illustrative Toll Impact (¢/GJ/d)	(0.4) (0.3)	1.5 0.5	5.0 3.9	5.0 3.9	4.9 3.9	4.9 3.9	3.5 2.6

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Hammerhead Resources Questions on West Path Delivery Project

A. In reviewing the Foothills BC (FHBC) Contract list, about 70% of the contracts are up for renewal between now and 2023.

- Does TC Energy expect all these contracts to be renewed?

FHPL response:

FHPL expects continued long term demand for transportation service on this path

- Have you reached out to all of the customers to see what their renewal plans are?

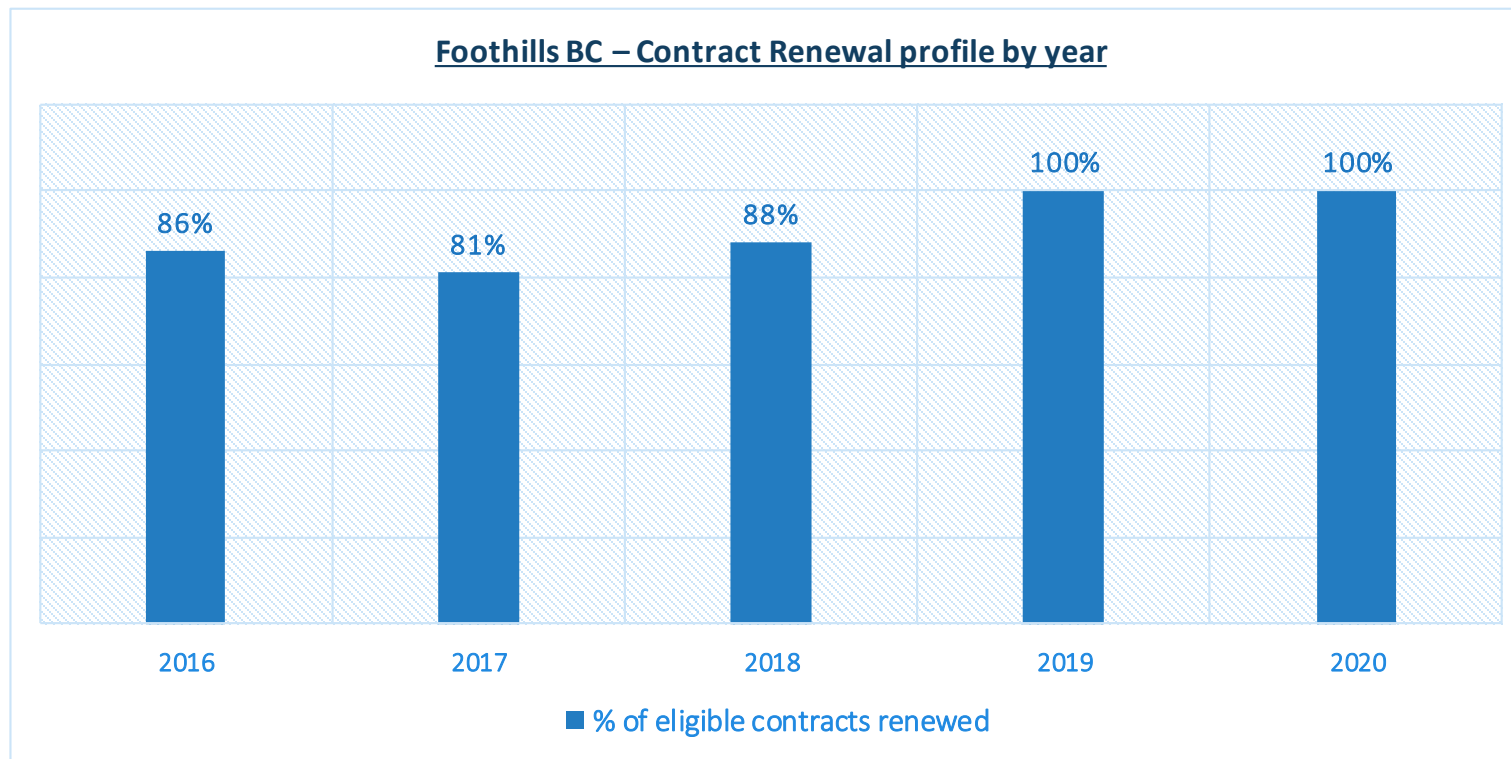
FHPL response :

We continue to have on-going conversations with all FHBC customers. We continue to receive requests and interest in contracting more capacity on the West Path.

Hammerhead Resources Questions on West Path Delivery Project

B. What have the renewal profiles on FHBC been like over the past 5 years

FHPL response: See graph below



Hammerhead Resources Questions on West Path Delivery Project

C. This path was fully contracted and built up to about 3 Bcf back around the year 2002. Can you share what the capacity has been and the monthly / annual flows have been since that last expansion?

FHPL response:

Flows on Foothills BC have consistently trended upwards over the last five years

Throughput and capacity can be accessed through the CER's website by following this [LINK](#)

D. We note that the increase in capacity of this expansion is about 10%, while forecasting a 40-50% increase in tolls, 4-5 cents, vs a 8-10 cent toll over the past 5 years.

- How does TC Energy justify a rolled in methodology for this expansion?

FHPL response:

- Facilities and services are fully integrated
- Facilities are needed to meet aggregate demand of the system

- What would the tolls be for a standalone project and tolling methodology?

FHPL response:

The Project is not a stand-alone project. It is fully integrated with the system.

Hammerhead Resources Questions on West Path Delivery Project

E. We note that a surcharge was used for the North Montney roll in for NGTL. Would some kind of surcharge be appropriate for this expansion?

FHPL response:

No. As noted in response to question 'D'. The West Path Delivery Project is not comparable to the North Montney Mainline.

F. Will TC Energy build some contingency plans into place for non-renewals reducing the need for the some or all of the build?

FHPL response:

FHPL is continually evaluating its facility need and, depending on many factors including timing, may revise the build requirements

G. What does the spend profile look like for the West Path Delivery Project?

FHPL response:

Spending has started with project kick-off and will increase gradually with a step change for the order of long lead materials which is about 1.5 years ahead of in-service, and an increased rate of spend with the start of construction which is approximately 4 months ahead of in service.

Hammerhead Resources Questions on West Path Delivery Project

H. Will those costs be recoverable from the rate base, or just the shippers requesting the expansion?

FHPL response:

The cost of the facilities will be added to rate base when declared in-service.

I. Given that North America is generally heading towards a Net Zero Carbon target by 2050 and the primary markets for Foothills BC are on the leading edge of these targets, does TC Energy think that this expansion will be fully utilized for the next 25 – 30 years?

FHPL response:

FHPL expects demand for its transportation services, and the need for the Project, to remain robust over time, as illustrated by the long-term contractual commitments made in support of the Project.