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February 14, 2019

Via email:
alwait@telus.net

Attention: Mr. Alan Wait

Dear Mr. Wait:

Re: FortisBC Inc. (FBC)
Project No. 1598987

**Application for a Certificate of Public Convenience and Necessity (CPCN) for
the Grand Forks Terminal Station Reliability Project (the Application)**

**Response to the Industrial Customers Group (ICG) Information Request (IR) No.
1**

On November 19, 2018, FBC filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-250-18 setting out the Regulatory Timetable for review of the Application, FBC respectfully submits the attached response to Wait IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Doug Slater

Attachments

cc (email only): Commission Secretary
Registered Parties



FortisBC Inc. (FBC or the Company) Application for a Certificate of Public Convenience and Necessity (CPCN) for the Grand Forks Terminal Station Reliability Project (the Application)	Submission Date: February 14, 2019
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1 **1 Reference F.3.1, P12**

2 What would FortisBC use as a rough cost for replacing a pole on 9L or 10L between CSC
3 and CHR under summer conditions?

4
5 **Response:**

6 An average cost would be \$13,000 (2018\$) for a 60 kV structure replacement or \$15,600
7 (2018\$) for a distribution underbuild structure replacement. These costs can increase by
8 \$3,000 to \$5,000 in heavy rock and rough terrain conditions.

9

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1 **2 Reference F.3.1, P.12**

2 What is the condition of 11L between ASM and GFT, since the line is 55 years old? How
3 many more years does FortisBC expect 11L to be operational in its present
4 configuration? Also what is presently considered to replace 11L?
5

6 **Response:**

7 The 161 kV transmission lines 11EL and 11WL were built in 1962, and are newer vintage lines
8 than 9L and 10L (9L and 10L were originally constructed in 1908). The transmission lines 11EL
9 and 11WL are a very important transmission interconnection between the south Okanagan and
10 Kootenays. The most recent condition assessment for 11EL was performed in 2012 with the
11 rehabilitation work completed in 2013 and 2014. The most recent condition assessment for
12 11WL was in 2014 with the rehabilitation work completed in 2015. The line will continue to be
13 maintained on an 8 year cycle with an annual line patrol.

14 Transmission lines 11EL and 11WL are operated at a higher voltage class (161 kV) and have
15 robust designs. As such, the lines are built to a higher construction standard with mostly H-
16 frame structures as opposed to single pole structures used for 9L and 10L, and over time the
17 arms and insulation have been upgraded. The transmission lines 11EL and 11WL also have a
18 wider right of way because they are operated at a higher voltage class and are constructed with
19 H-frame structures.

20 The likely course of action in the distant future when these lines deteriorate would be to
21 rehabilitate or rebuild in its place. FBC currently has no plans to replace 11L line, which is
22 expected to last 20 or more years.

23



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1 **3 Reference F.3.1, P12**

2 Please state the ages of the two 161/63 transformers at ASM and their anticipated
3 remaining useful life.

4
5 **Response:**

6 ASM T1 is now 54 years old and ASM T2 is now 48 years old. FBC has engaged a third party
7 consultant to assess the remaining useful life for these units.

8 However, based on their current health condition, FBC expects ASM T1 to have a useful
9 remaining life of 5 to 10 years and ASM T2 may have a useful remaining life of 10 to 15 years.

10



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1 **4 Reference P.12, L8**

2 What happens in the event of a failure of GFT T3, both now and after the upgrades?
3

4 **Response:**

5 GFT T3 has a nominal rating of 12/16/20 MVA. It serves approximately 1,650 direct residential
6 and commercial customers of FBC in addition to the City of Grand Forks electric utility with
7 approximately 2,200 customers. In the event of a GFT T3 failure, some of the load on GFT
8 Feeder 1 may be transferred to RUC Feeder 4 to be supplied by RUC T3. However, the mobile
9 transformer must be installed to restore service to all customers. The upgrades proposed in this
10 application will have no impact on the offloading capability of GFT T3.

11



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1 **5 Reference P.12, L12**

2 What happens in the event of a failure of RUC T3, both now and after the upgrades?
3 Also how old is RUC T3?

4
5 **Response:**

6 In the event of a RUC T3 failure, some of the load on RUC Feeder 2 and RUC Feeder 4 may be
7 transferred to GFT Feeder 1 to be supplied by GFT T3. However, the mobile transformer must
8 be installed to restore service to all customers. The upgrades proposed in this application will
9 have no impact on the offloading capability of RUC T3. The transformer RUC T3 was installed in
10 2018 and is less than a year old.

11

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1 **6 Reference P.26**

2 What is the discount rate used for the 40 year Cost of Service figures?

3

4 **Response:**

5 The incremental Cost of Service for the 40 year period was discounted at 5.87 percent which is
 6 FBC's After Tax Weighted Average Cost of Capital calculated from FBC's compliance filing for
 7 setting 2018 rates (filed on June 25, 2018, BCUC Order G-38-18, Section 11, Schedule 26).

Line No.	Particulars	Capital Structure	Average Embedded Cost	1 – Current Tax Rate	After Tax Cost Component
1	Long Term Debt	55.63%	5.18%	73%	2.10%
2	Short Term Debt	4.37%	3.45%	73%	0.11%
3	Common Equity	40.00%	9.15%		3.66%
4	Total	100.00%			5.87%

8