



Sarah Walsh
Director, Regulatory Affairs

Gas Regulatory Affairs Correspondence
Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence
Email: electricity.regulatory.affairs@fortisbc.com

FortisBC
16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: (778) 578-3861
Cell: (604) 230-7874
Fax: (604) 576-7074
www.fortisbc.com

September 5, 2023

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

Attention: Patrick Wruck, Commission Secretary

Dear Patrick Wruck:

Re: FortisBC Inc. (FBC)

Application for Approval of a Certificate of Public Convenience and Necessity for the A.S. Mawdsley Terminal Station Project (Application) ~ Project No. 1599424

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

On February 24, 2023, FBC filed the Application referenced above. In accordance with the regulatory timetable established in BCUC Order G-70-23 and Exhibit A-9¹ for the review of the Application, FBC respectfully submits the attached response to BCUC IR No. 2.

For convenience and efficiency, if FBC has provided an internet address for referenced reports instead of attaching the documents to its IR responses, FBC intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Sarah Walsh

Attachments

cc (email only): Registered Interveners

¹ By letter dated August 23, 2023, the Panel granted FBC an extension to file its responses to IR No. 2 on Tuesday, September 5, 2023.



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 1 |

| | Table of Contents | Page No. |
|---|--|-----------------|
| 2 | A. PROJECT NEED AND JUSTIFICATION | 1 |
| 3 | B. EVALUATION OF ALTERNATIVES | 7 |
| 4 | C. PROJECT DESCRIPTION | 14 |
| 5 | E. ENVIRONMENTAL AND ARCHAEOLOGY | 25 |
| 6 | F. CONSULTATION AND ENGAGEMENT | 29 |

7

8 **A. PROJECT NEED AND JUSTIFICATION**

9 **28.0 Reference: Operational Changes**

10 **Exhibit B-1 (Application), Section 3.3.1.2.1, p. 19; Exhibit B-4, BCUC**
 11 **IR 2.21.1; Exhibit**

12 **B-8, ICG IR 2.3 2.4**

13 **FBC’s Transmission System Planning Criteria**

14 On page 19 of the FortisBC Inc.’s (FBC) Application for a Certificate of Public Convenience
 15 and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Project)
 16 (Application), FBC states:

17 In recent years, certain new load and generation conditions have caused FBC to
 18 exceed N-1 system planning. FBC has been able to manage this load through
 19 operational changes; however, these changes to system operation are not
 20 sustainable in the long-term.

21 In response to BCUC Information Request (IR) 2.21.1, FBC stated:

22 The flow through the ASM transformers can be reduced by opening 11 Line path
 23 as dictated by the peak duration requirements. Alternatively, FBC could shed load
 24 in the Boundary and/or Similkameen areas. The amount of load shedding required
 25 would be determined by the percentage of post contingency ASM transformer
 26 overloading. These operational solutions would only be resorted to in a
 27 contingency condition where the remaining ASM transformer is overloaded.

28 Since 2019, FBC has put these operational procedures in place to be implemented
 29 when necessary. However, these post contingency operational changes are in
 30 violation of FBC’s Transmission Planning Criteria and therefore are not suitable in
 31 the long-term.

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 2 |

1 The operational change of opening 11 Line causes the Boundary region to be fed
 2 radially (only from one source) from the Kootenays. This operational change will
 3 reduce the reliability of supply to the Boundary region, and a contingency event
 4 while in this configuration would cause a blackout in the Boundary region, leaving
 5 approximately 4,090 customers without power.

6 On page 19 of the Application, FBC provides the following figure:

Figure 3-7: ASM Terminal Station's Contribution to the Boundary and Similkameen Areas' Total Load Compared to the N-1 Transformer Limits¹³



7
 8 28.1 Please identify when transformer load at ASM first exceeded: (i) Existing Summer
 9 N-1 ASM Transformer Limit; (ii) Existing Summer Emergency N-1 ASM
 10 Transformer Limit.

11
 12 **Response:**

13 The transformer load at the ASM Terminal Station has been exceeding the existing Summer
 14 Normal and Emergency N-1 transformer limits since at least 2014. FBC is not able to determine
 15 the exact year as data prior to 2014 is not easily accessible.

16 Load flow through the ASM transformers is determined by three main factors:

- 17 (1) the Boundary and Similkameen area loads (i.e., customer demand);
- 18 (2) generation dispatch (with generation from the Waneta hydroelectricity facility (WAN)
 19 having the greatest impact); and

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 3 |

1 (3) system configuration.

2 Situations where load exceeded the ASM N-1 transformer emergency limits were largely driven
3 by generation dispatch and system configuration, as opposed to customer demand. The
4 generation dispatch or system configuration situations with the potential to impact the ASM
5 transformers' N-1 emergency limits were most often in the control of BC Hydro and considered to
6 be either anomalous or temporary events for the purposes of transmission planning. In the case
7 of generation from WAN, these events also occurred most often during shoulder seasons, where
8 there is no overlap with peak load on FBC's system from its own customer demand.

9 Through an assessment performed in 2019, and following the interconnection of a new industrial
10 load in the Boundary area to FBC's system, FBC identified that the potential to exceed the N-1
11 ASM transformer emergency limits had increased in both frequency and size due to customer
12 load growth (in addition to factors (2) and (3) discussed above). FBC determined that the load
13 growth increases the risk of a contingency event because there is now more opportunity for
14 overlap of these three events on the system. The frequency where these high load situations will
15 occur will only become greater in the future; therefore, the ASM Project is necessary in order to
16 address these N-1 conditions at this time.

17

18

19

20 28.2 Please explain why FBC elected to adopt the operational procedures in 2019,
21 whereas Figure 3-9 appears to indicate ASM load exceeded N-1 transformer limits
22 since at least 2017.

23

24 **Response:**

25 FBC clarifies that the operational procedures described in the response to BCUC IR1 2.21.1 were
26 not adopted in 2019, rather, they have always been available to be used by FBC in situations
27 where there is a potential for overloading of the transformers at the ASM Terminal Station.

28 While there are other possible operational procedures available to FBC for dealing with a potential
29 overloading situation, those procedures are not reliable because they require actions by BC Hydro
30 who is not always in a position to provide such actions. Further, even where BC Hydro is in the
31 position to provide these actions, with the additional load on FBC's system since 2019, they may
32 not be effective in avoiding an overloading situation.

33 Therefore, in 2019, with the increased load on FBC's system, it was determined that the two
34 operational procedures of (1) operating the 11 Line path radially with an open point, or (2)
35 shedding load in the Boundary and Similkameen area, are the most reliable and effective options
36 for dealing with a potential overload situation where the ASM transformers are not meeting N-1
37 system planning criteria in the short-term. FBC notes, however, that shedding load is only used
38 as a last resort for safety or extreme emergency situations and would not be used under any
39 planned operating conditions.



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 4 |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

28.3 Please clarify whether FBC had different operational or contingency procedures in place prior to adopting the operational procedures in 2019.

28.3.1 If yes, please describe the following for each operational or contingency procedure: (i) description of operational or contingency procedure; (ii) the year of adoption; (iii) whether in violation of FBC Transmission Planning Criteria.

28.3.2 If no, please explain why not.

Response:

Please refer to the response to BCUC IR2 28.2.

28.4 Please discuss whether FBC considered any alternative approaches to the operational procedures put in place in 2019. If yes, please describe each alternative approach and why it was not selected.

Response:

Please refer to the response to BCUC IR2 28.2.

28.5 Please provide a detailed explanation as to why the operational changes are in violation of FBC's Transmission Planning Criteria.

Response:

FBC's Transmission Planning Criteria require that after the loss of a single non-radial element (a single transmission line, transformer, power conditioning unit, or generator), the system shall be within emergency facility ratings and within emergency voltage limits and no loss of load shall occur. No corrective operator action is allowed when determining whether emergency limits have been violated.

After an ASM transformer outage, undertaking an operational procedure (such as opening 11 Line or shedding load) in order to reduce the remaining ASM transformer's emergency thermal

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 5 |

1 overloading is a corrective operator action which therefore will not meet FBC's Transmission
2 Planning Criteria. For clarity, operational changes are acceptable practice unless they are
3 performed to correct an emergency thermal or voltage violation resulting from a contingency
4 event.

5
6

7

8 28.6 Please discuss whether the operational changes been in violation of FBC's
9 Transmission Planning Criteria since adopted in 2019. If not, please identify at
10 what point in time the operational changes became in violation of FBC's
11 Transmission Planning Criteria and discuss the reason for this change.

12 28.6.1 Please explain why this was deemed an acceptable approach by FBC.

13 28.6.2 Please explain why a compliant approach was not developed when FBC
14 first became aware of the violation of its Transmission Planning Criteria.

15

16 **Response:**

17 Please refer to the responses to BCUC IR2 28.1, 28.2 and 28.5.

18

19

20

21 In response to Industrial Customers Group (ICG) IR 2.3, FBC stated, "Yes, the TPL-001-
22 4 – Transmission System Planning Performance Requirements standard addresses N-1
23 capability limits of transmission system infrastructure for Bulk Electric Systems."

24 In response to ICG IR 2.4, FBC stated, "FBC has not had any alleged violations or self-
25 reports of violations of Mandatory Reliability Standards at ASM Terminal Station or WTS
26 [Warfield Terminal Station] since 2017."

27 28.7 Please clarify why the operational changes are in violation of FBC's Transmission
28 Planning Criteria, however, FBC has not had any MRS violations. Please clarify
29 the differences between TPL-001-4 and FBC's Transmission Planning Criteria.

30

31 **Response:**

32 TPL-001-4 is only applicable to the Bulk Electric System (BES). The ASM transformers are not
33 BES equipment; therefore, MRS requirements do not apply to them. In contrast, FBC's
34 Transmission Planning Criteria apply to the entire FBC electrical transmission system which
35 includes both BES and non-BES facilities. As a result, a violation of FBC's Transmission Planning
36 Criteria does not necessarily result in an MRS violation.



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 6 |

- 1 Both TPL-001-4 and FBC's Transmission Planning Criteria establish transmission system
- 2 planning performance requirements within the planning horizon to develop a system that will
- 3 operate reliably over a broad spectrum of system conditions and following a wide range of
- 4 probable contingencies.

- 5

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 7 |

1 **B. EVALUATION OF ALTERNATIVES**

2 **29.0 Reference: TRANSFORMER CAPACITY**

3 **Exhibit B-4, BCUC IR 2.22, 5.5**

4 **Proposed WTS Transformer Capacity**

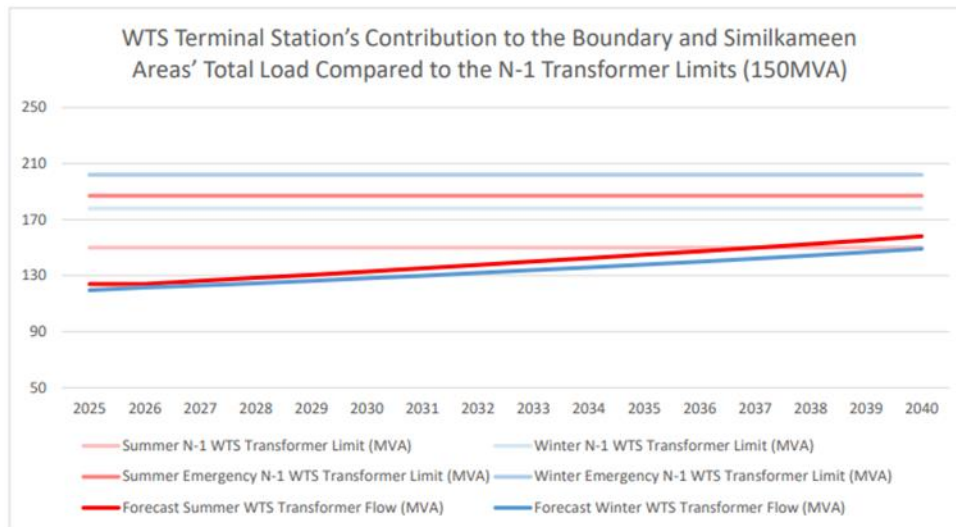
5 In response to BCUC IR 5.5, FBC stated:

6 The ASM transformer forecast (please refer to the response to BCUC IR1 2.22 for
 7 the graphical forecast) was reviewed and it was determined that both the 80 MVA
 8 and 120 MVA transformer sizes would not provide enough room for growth over
 9 the planning horizon. The 80 MVA transformer is already overloaded and the 120
 10 MVA transformer would be overloaded within less than 10 year after installation.

11 11E line has a very similar summer emergency rating to the 150 MVA transformer
 12 and therefore any transformer size higher than 150 MVA would be too large, as
 13 the limiting factor in the area becomes the 11E line. For this reason, the 200 MVA
 14 sized transformers were rejected.

15 The 150 MVA transformer was therefore chosen as it will give sufficient room for
 16 growth in the area over the planning horizon, without being too large.

17 In response to BCUC IR 2.22, FBC provided the following figure:



18
 19 **29.1** Please explain how, if at all, FBC considered the load forecast and the expected
 20 operational lifespan of the asset when determining the size of the new
 21 transformers.

22 **29.1.1** If either the load forecast or expected operational lifespan were not
 23 considered, please explain why not.



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 10 |

1
2
3
4
5
6
7
8
9
10

29.5 Please provide the summer emergency rating of 11E Line and elaborate on why this is the most appropriate factor by which to size the capacity of the WTS transformers.

Response:

Please refer to the response to BCUC IR2 29.1.

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 11 |

1 **30.0 Reference: PROJECT ALTERNATIVES**

2 **Exhibit B-1, Section 4.2.3, p. 26; Exhibit B-4, BCUC IR 2.15, 5.1;**
3 **Exhibit B-6, BCOAPO IR 10.2, 10.3**

4 **Alternative 3 – Required Scope of Work for Compliance with N-1**
5 **Planning Criteria**

6 On page 26 of the Application, FBC states:

7 Transmission work required as part of Alternative 3 includes the rebuilding of 9/10
8 Line (which runs from WTS to the ASM Terminal Station) into one high-capacity
9 transmission line, as well as re-terminating 9 Line (to Cascade Substation (CSC))
10 and 10 Line (to CSC) at the ASM Terminal Station 63 kV bus.

11 In response to BCUC IR 2.15, FBC confirmed that the Boundary and Similkameen areas'
12 total load is supplied via ASM and by the interconnection to British Columbia Hydro and
13 Power Authority (BC Hydro) at Vaseux Lake Terminal Station.

14 In response to BCUC IR 5.1, FBC stated:

15 Reconfiguration of 9 and 10 Line into one high-capacity line is required to meet the
16 N-1 reliability criteria during the event of a 34 Line outage. Rebuilding 9 and 10
17 Line into one high-capacity transmission line is required to match 34 Line capacity.
18 With this complete, there would be two separate lines from WTS to the ASM
19 Terminal Station, providing a redundant path.

20 In response to British Columbia Old Age Pensioners' Organization et al. (BCOAPO) IR
21 10.2, FBC provided a diagram of the current configuration of WTS, including transmission
22 to Cascade Substation (CSC), and the proposed reconfiguration under Alternative 3.

23 In response to BCOAPO IR 10.3, FBC stated:

24 FBC requires the redundant line from WTS to the ASM Terminal Station (a second
25 34 Line) to be able to comply with N-1 contingency planning criteria. The
26 conversion will only impact the segment of the line that runs from WTS to the ASM
27 Terminal Station. The segments of 9 Line and 10 Line that run from the ASM
28 Terminal Station to CSC that will not be converted will need to be re-terminated
29 into the ASM Terminal Station. This is to continue to provide a supply path from
30 WTS to CSC, via the ASM Terminal Station.

31 30.1 Please explain, with rationale, why the transmission work described in the
32 preamble is necessary to achieve the N-1 planning criteria under Alternative 3. In
33 the response, please clarify why the current configuration is not sufficient.

34

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 12 |

1 **Response:**

2 The transmission work associated with Alternative 3 is necessary to serve load in the Boundary
3 and Similkameen areas during a contingency event affecting 34 Line. There is currently only one
4 transmission line (34 Line) from WTS to the ASM Terminal Station. In addition, the maximum load
5 that could be served from the Vaseux Lake Terminal Station during a 34 Line N-1 contingency is
6 approximately 200 MW. Therefore, under the current configuration, the Boundary region will
7 experience low voltage during a 34 Line N-1 contingency event where the Boundary and
8 Similkameen area loads exceed approximately 200 MW. Relying on the current configuration to
9 supply the load during a contingency event on 34 Line (via the Vaseux Lake Terminal Station) is
10 insufficient and not a feasible alternative to the transmission required for Alternative 3.

11 After completing the transmission work for Alternative 3, there will be two separate lines from
12 WTS to the ASM Terminal Station. This provides a redundant path so that there will be a backup
13 to keep the WTS to ASM Terminal Station path energized in the event of an N-1 contingency
14 event on one of these lines.

15
16

17

18 30.2 If alternative 3's scope did not include the new transmission line, please explain
19 whether the Boundary and Similkameen areas' load could be entirely served via
20 the Vaseux Lake Terminal Station during the 34 Line N-1 contingency event.

21 30.2.1 If not, please discuss the proportion of Boundary and Similkameen areas'
22 load that could be served via the Vaseux Lake Terminal Station during a
23 34 Line N-1 contingency event.

24

25 **Response:**

26 Please refer to the response to BCUC IR2 30.1.

27

28

29

30 30.3 Please provide the cost of the transmission work required as part of Alternative 3.

31

32 **Response:**

33 Please refer to Table 1 below which provides the breakdown of capital costs for Alternative 3 as
34 presented in Table 4-4 of the Application between station capital, transmission capital, fibre
35 capital, preliminary engineering costs and financing costs (i.e., AFUDC). FBC also included in
36 Table 1 below the breakdown for Alternative 5 as presented in Table 4-4 of the Application for
37 comparison purposes. As discussed in Section 4.3.4 of the Application, the financial comparison

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 13 |

1 between Alternative 3 and Alternative 5, and as presented in Table 4-4 of the Application, was
 2 completed at the AACE Class 4 estimate level.

3 As shown in Table 1 below, the transmission work under Alternative 3 is estimated to be
 4 approximately \$2.630 million out of the total capital cost estimate of \$43.517 million. FBC notes
 5 that Alternative 5 would continue to be preferable to Alternative 3 based on the financial evaluation
 6 even if the scope of Alternative 3 did not include the new transmission line as suggested by the
 7 BCUC in IR2 30.2.

8 **Table 1: Breakdown of Capital Costs for Alternatives 3 and 5 at AACE Class 4 Estimate Level, As-**
 9 **Spent (\$ millions)**

| AACE Class 4 | Alternative 3: Rebuild ASM | Alternative 5: Expand WTS |
|--|-------------------------------|------------------------------|
| Station | 34.149 | 22.656 |
| Transmission | 2.630 | 2.157 |
| Fibre | 1.752 | 0.345 |
| Subtotal, incl. Removal, Project Management & Contingency | 38.531 | 25.157 |
| CPCN Preliminary Engineering Costs | 0.760 | 0.760 |
| AFUDC | 4.226 | 2.460 |
| Total Capital Costs, As-Spent, Table 4-4 of Application (\$ millions) | 43.517 | 28.378 |

10

11

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 14 |

1 **C. PROJECT DESCRIPTION**

2 **31.0 Reference: PROJECT DESCRIPTION**

3 **Exhibit B-4, BCUC IR 11.1**

4 **Required Statutory Rights of Way Not Yet Obtained**

5 In response to BCUC IR 11.1, FBC stated:

6 The Agreement to Grant is subject to customary subject conditions including,
7 among others, FBC being satisfied with the outcome of its due diligence
8 investigations with respect to the Project and FBC obtaining BCUC approval for
9 the Project. With the exception of FBC obtaining BCUC approval for the Project,
10 the timing of the subject conditions is within FBC's control. Upon the subject
11 conditions being satisfied, FBC will prepare the SRW agreements in registrable
12 form, deliver the SRW [Statutory Rights of Way] agreements to Teck for signature,
13 and submit the fully-executed SRW agreements for registration at the applicable
14 Land Title Office.

15 31.1 Please confirm, or explain otherwise, that the customary subject conditions by
16 which the Agreement to Grant is subject to are the same for both SRW1 and
17 SRW2.

18 **Response:**

19 The Agreement to Grant is for a modification to SRW1 and an entirely new right-of-way area
20 outside of SRW1 and SRW2 (FBC notes that SRW1 and SRW2, as referenced in the Application,
21 refer to existing SRWs registered on title in favor of FBC).

22 The customary subject conditions which the Agreement to Grant is subject to pertain to both the
23 modification of SRW1 and the acquisition of the entirely new right-of-way area.

25
26

27
28 31.2 Please describe each of the customary subject conditions that the Agreement to
29 Grant is subject to. For each condition, please also describe the process and timing
30 for achieving satisfaction.

31

32 **Response:**

33 The following are the customary subject conditions the Agreement to Grant is subject to:

- 34 • FBC being satisfied, in its sole discretion, with the results of any due diligence
35 investigations it decides to conduct with respect to the Properties or the Project (including

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 15 |

- 1 geotechnical, soils, engineering and environmental conditions or requirements concerning
2 the Properties or the Project) (Subject Condition A);
- 3 • FBC obtaining approval to proceed with the Project from the British Columbia Utilities
4 Commission and such other licenses, permits, approvals, or agreements with third parties
5 necessary or desirable for FBC to proceed with the Project (Subject Condition B); and
6 • FBC making a final decision to proceed with the Project (Subject Condition C).

7 **Subject Condition A**

8 FBC carries out a variety of due diligence investigations prior to securing any form of land tenure
9 to determine the constructability and feasibility of the Project. These investigations are conducted
10 throughout the Project planning stage by engaging engineers, surveyors, and environmental
11 professionals to conduct the necessary assessments and reports. The timeline for these
12 preliminary investigations is largely dependent on the complexity and scope of the Project.
13 Examples of assessments associated with the ASM Project include but are not limited to:

- 14 • Environmental Management Plan (completed);
15 • Preliminary Soil Investigation (ongoing);
16 • Preliminary Geotechnical Assessment (completed); and
17 • Archaeological Preliminary Field Reconnaissance (completed).

18 The timing for achieving satisfaction is dependent on the turnaround times of FBC receiving the
19 necessary reports from third-party professionals.

20 **Subject Condition B**

21 FBC will obtain all necessary municipal, provincial, BCUC and any other third-party approvals
22 required for project execution. This is achieved by submitting permits and approval requests to
23 each of the governing bodies by following each of their independent approval processes. The
24 timing for achieving satisfaction is dependent on the length of the approval process for each
25 governing body.

26 **Subject Condition C**

27 FBC senior management will make the final decision to proceed with the Project subsequent to
28 receiving BCUC approval of the Project. The timing for this subject condition is therefore
29 dependent upon the timing of the issuance of the BCUC's decision.

30
31
32



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 16 |

1 31.3 Please describe the scope and timeline of FBC’s due diligence investigations with
2 respect to the Agreement to Grant.

3
4 **Response:**

5 Please refer to the response to BCUC IR2 31.2 with respect to Subject Condition A.

6
7

8
9 31.3.1 Please explain any implications to the Project scope, schedule and cost
10 should FBC be unsatisfied with the outcome of its due diligence
11 investigations.

12
13 **Response:**

14 If FBC is unsatisfied with the results of its due diligence investigations related to the SRW area,
15 then the scope and design of the Project would be modified to fit the upgraded transmission
16 structures in the existing SRW. This modified design has the potential to moderately increase
17 costs and slightly extend the Project schedule; however, neither is expected to have a material
18 impact on the Project.

19

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 17 |

1 **D. PROJECT COSTS**

2 **32.0 Reference: PROJECT COSTS, FINANCIAL ANALYSIS, ACCOUNTING**
3 **TREATMENT AND RATE IMPACT**

4 **Exhibit B-4, BCUC IR 15.4**

5 **Contingency Costs**

6 In response to BCUC IR 15.4, FBC stated:

7 [...] the contingency does not account for any extreme events that may significantly
8 impact material costs (e.g., major scale weather events, pandemics, market
9 crashes/surges, commodity spikes, etc.). If an extreme event were to occur during
10 the execution of the Project, it is expected that the materials costs would be
11 reviewed and re-evaluated at that time to properly reflect current pricing,
12 schedules, expedited deliveries, and the related items.

13 32.1 Please confirm, or explain otherwise, that not accounting for extreme events is a
14 treatment that is consistent with FBC's past practices when developing its
15 contingencies.

16 32.1.1 If not confirmed, please provide FBC's rationale for taking this approach
17 for the Project.

18

19 **Response:**

20 Confirmed. Consistent with AACE contingency guidelines and FBC's past practice, extreme or
21 extraordinary events are not accounted for within the contingency.

22

| | |
|---|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 18 |

1 **33.0 Reference: PROJECT COSTS, FINANCIAL ANALYSIS, ACCOUNTING**
 2 **TREATMENT AND RATE IMPACT**
 3 **Exhibit B-4, BCUC IR 16.1, 16.2, 16.3.1**
 4 **Cost Escalation**

5 In response to BCUC IR 16.1, FBC provided a breakdown of the project escalation in
 6 dollars and percentage presented in Table 1 as follows:

Table 1: Updated Table 6-1 with Breakdown of Project Escalation in \$ millions and %

| Line | Particular | Base Cost | Escalation | As-Spent \$ | Escalation on Base Cost |
|------|--|---------------|--------------|---------------|-------------------------|
| 1 | Station Construction Costs | 20.453 | 1.818 | 22.270 | 9% |
| 2 | Transmission and Distribution Construction Costs | 1.771 | 0.153 | 1.925 | 9% |
| 3 | Fibre Construction Costs | 0.148 | 0.013 | 0.161 | 9% |
| 4 | Removal Costs | 0.984 | 0.108 | 1.092 | 11% |
| 5 | Project Management and Owner's Costs | 2.004 | 0.178 | 2.182 | 9% |
| 6 | Subtotal Project Capital Cost | 25.361 | 2.271 | 27.631 | 9% |
| 7 | Contingency | 3.318 | 0.297 | 3.615 | 9% |
| 8 | Subtotal Project Capital Cost w/Contingency | 28.679 | 2.568 | 31.247 | 9% |
| 9 | CPCN Preliminary Engineering Costs | 0.751 | 0.009 | 0.760 | 1% |
| 10 | AFUDC | 3.171 | | 3.171 | |
| 11 | Total Project Cost | 32.601 | 2.577 | 35.179 | 8% |

7
 8 In response to BCUC IR 16.2, FBC stated:

9 FBC used the forecast of capital expenditure escalation from the Wood Mackenzie
 10 Market Report [...] for electric transmission and distribution utilities across North
 11 America over the period from Q2 2022 to Q4 2024. [...] Please also see Table 1
 12 below which shows the capital index (average) from the Wood Mackenzie Market
 13 Report from Q2 2022 to Q4 2024, the year-over-year increase in percentage, as
 14 well as the cumulative escalation factor from 2022 in percentage calculated for
 15 each year from 2022 to 2026.

Table 1: Calculation of Escalation Factor in Percentage Applied to the ASM Project Capital Costs

| Year | Capital Index (Average) - From Wood Mackenzie Report | YoY Increase (%) | Cumulative Escalation from 2022 |
|------|--|------------------|---------------------------------|
| 2022 | 119.23 | | 100.00% |
| 2023 | 123.21 | 3.34% | 103.34% |
| 2024 | 126.72 | 2.85% | 106.28% |
| 2025 | | 2.85% | 109.31% |
| 2026 | | 2.85% | 112.42% |



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 19 |

1 33.1 Please confirm, or explain otherwise, that the 9 percent escalation applied to
2 project capital costs to bring base costs to as-spent dollars is the cumulative effect
3 from 2023 to 2026 from applying a year-over-year cost escalation of 3.34 percent
4 in 2023, 2.85 percent in 2024, 2.85 percent in 2025 and 2.85 percent in 2026.

5 33.1.1 If not confirmed, please explain whether the escalation is 9 percent per
6 year from 2023 to 2026.

7 33.1.2 If not confirmed, please explain what the difference in dollars and
8 percentage would be to total project costs and incremental rate impact if
9 an annual 2 percent escalation was used from 2023 to 2026, instead of
10 9 percent.

11
12 **Response:**

13 Confirmed.

14 For clarity, since the ASM Project’s construction period is between 2023 and 2026, not all capital
15 costs are subject to the total cumulative escalation of 12.42 percent from 2022 to 2026 shown in
16 Table 1 of the response to BCUC IR1 16.2 and referenced in the preamble above. As such, the
17 total escalation for the ASM Project is 8 percent, as shown in Table 1 of the response to BCUC
18 IR1 16.1 (or 9 percent when excluding the preliminary engineering costs and AFUDC) and does
19 not equal to the cumulative escalation of 12.42 percent from 2022 to 2026. For instance, the
20 capital spending in 2023 will only be subject to the escalation of 3.34 percent from 2022 to 2023,
21 while the capital spending in 2026 will be subject to the full cumulative escalation of 12.42 percent
22 from 2022 to 2026.

23 FBC provides Table 1 below which shows the sample calculation of the total escalation for the
24 station construction costs and removal costs (as presented in Line 1 and Line 4 in Table 1 of
25 BCUC IR1 16.1).

1 **Table 1: Example of Escalation Calculations Applied to the Station Construction Costs and**
 2 **Removal Costs (\$ millions)**

| Line | Particular | Reference | 2023 | 2024 | 2025 | 2026 | Total |
|------|--|--------------------------|---------|---------|---------|---------|------------|
| 1 | Escalation Factor | BCUC IR1 16.2 | 3.34% | 2.85% | 2.85% | 2.85% | |
| 2 | Cumulative Escalation Factor | See Note 1 | 103.34% | 106.28% | 109.31% | 112.42% | |
| 3 | | | | | | | |
| 4 | <u>Station Construction Costs (Example 1)</u> | | | | | | |
| 5 | Base Cost Estimate - 2022 Dollars | BCUC IR1 16.1 | - | 6.666 | 10.086 | 3.701 | 20.453 |
| 6 | As-Spent Dollars | Line 5 x Line 2 | - | 7.084 | 11.025 | 4.161 | 22.270 |
| 7 | Total Escalation (\$ millions) | Line 6 - Line 5 | | | | | 1.818 |
| 8 | Total Escalation (%) | Line 7 / Line 5 | | | | | 9% |
| 9 | | | | | | | |
| 10 | <u>Removal Costs (Example 2)</u> | | | | | | |
| 11 | Base Cost Estimate - 2022 Dollars | BCUC IR1 16.1 | - | 0.214 | 0.025 | 0.745 | 0.984 |
| 12 | As-Spent Dollars | Line 11 x Line 2 | - | 0.227 | 0.027 | 0.838 | 1.092 |
| 13 | Total Escalation (\$ millions) | Line 12 - Line 11 | | | | | 0.108 |
| 14 | Total Escalation (%) | Line 13 / Line 11 | | | | | 11% |

Note 1:

2023: 100% x (1 + 3.34%)

2024: 100% x (1 + 3.34%) x (1 + 2.85%)

2025: 100% x (1 + 3.34%) x (1 + 2.85%) x (1 + 2.85%)

2026: 100% x (1 + 3.34%) x (1 + 2.85%) x (1 + 2.85%) x (1 + 2.85%)

3
4
5
6
7 33.2 Please identify the escalation factor used in other current or recent FortisBC (FBC
8 or FEI) capital projects and explain the rationale for any differences to the
9 escalation factor used in this Application.

10
11 **Response:**

12 Please refer to Table 1 below which summarizes the escalation factors, presented on an
13 annualized basis¹, used in current or recent FBC or FEI capital (CPCN) projects. It can be seen
14 from Table 1 that the difference in the escalation factors, on an annualized basis, between the
15 projects listed is small, and all ranged from 2 to 3 percent per year.

¹ For an apples-to-apples comparison, calculated as the annual escalation rate over the construction period of each project. For example, the annualized escalation factor for the FBC ASM Project is approximately 2.97%, i.e., $(1 + 2.97\%)^4 \text{ yrs} = (1 + 3.34\%) \times (1 + 2.85\%) \times (1 + 2.85\%) \times (1 + 2.85\%) = 112.42\%$ as shown in BCUC IR1 16.2.

1
2

Table 1: Summary of Annualized Escalation Factors used for Recent FEI or FBC CPCN Applications

| Project | FEI/FBC | Year (As-Filed) | Annualized Escalation Factor (%/yr) | Source | Reference |
|----------|---------|------------------------|-------------------------------------|--|--|
| IGU | FEI | Dec-2018 | 2.00% | Conference Board of Canada (Provincial Outlook) | IGU Application, Section 5.3.2.1, pp. 67 |
| KBTA | FBC | Apr-2020 | 2.00% | Conference Board of Canada (Provincial Outlook) | KBTA Application, Section 6.2.6, pp. 54 |
| TLSE | FEI | Dec-2020 | 2.50% | Validation Estimating (External Consultant) | TLSE Application, Appendix K-3, pp. 8 |
| PGR | FEI | Dec-2020 (Evid Update) | 2.50% | Validation Estimating (External Consultant) | PGR Application (Evidentiary Update), Appendix E-3, pp. 4 |
| CTS-TIMC | FEI | Feb-2021 | 2.00% | Validation Estimating (External Consultant) | CTS-TIMC Application, Appendix E-4, pp. 3 |
| AMI | FEI | Jul-2022 (Evid Update) | 2.00% | Bank of Canada Inflation Control Target ¹ | AMI Application (Evidentiary Update), Section 6.3.1.2, pp. 111 |
| ITS-TIMC | FEI | Sep-2022 | 3.00% | Validation Estimating (External Consultant) | ITS-TIMC Application, Appendix H-4, pp. 3 |
| ASM | FBC | Feb-2023 | 2.97% | Wood Mackenzie Market Report | See Note 2 |
| OCU | FEI | May-2023 (Supl Filing) | 2.00% | Validation Estimating (External Consultant) | OCU Application (Supplementary Filing), Appendix A-2, pp. 6 |

3

4 **Notes to Table:**

- 5 1) Bank of Canada inflation-control target is 2 percent.²
 6 2) Cumulative Escalation from 2022 to 2026 is 12.42% (BCUC IR1 16.2). Annualized escalation factor is
 7 calculated as $[\exp(\ln(1 + 0.1242)/4) - 1] \times 100 = 2.97\%$.

8 The small differences are primarily due to the timing of when the escalation estimates were
 9 completed for each project. For example, the escalation estimates for both the FEI IGU project
 10 and the FBC KBTA project were developed prior to 2020 when inflation was relatively stable. In
 11 contrast, the basis of the escalation estimates for the FEI ITS-TIMC project and the FBC ASM
 12 Project (i.e., this Application) were both based on the market data from Q2 of 2022,³ when the
 13 trend for construction labour costs was significantly higher than a few years prior, thus resulting
 14 in the higher escalation estimates for these two projects at approximately 3 percent per year.

15 The effect of timing differences on the escalation estimates is further illustrated by the FEI OCU
 16 project, which has the most recent escalation estimate for the projects listed in Table 1 above.
 17 The escalation estimate for the OCU project was developed based on the market data from Q1
 18 2023, reflecting the current forecast of limited price escalation for construction through 2024. This
 19 resulted in the annualized escalation factor estimated for the FEI OCU project to be lower relative
 20 to other recent projects such as the FEI ITS-TIMC project and the FBC ASM Project.

21 Another factor that leads to small differences in the escalation factors between projects is the
 22 nature of the work for each project. For example, the estimate for the FEI AMI project was based

² <https://www.bankofcanada.ca/rates/indicators/key-variables/inflation-control-target/>.

³ The escalation factor for the FEI ITS-TIMC project was based on the IHS Markit Q2 2022 forecast (Appendix H-4 of FEI ITS-TIMC Application, pp. 7), and the escalation factor for the FBC ASM Project was based on the Wood Mackenzie Report, dated May 2022.

| | |
|---|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 22 |

1 on a negotiated supply contract with the vendor, thus the use of a 2 percent annual escalation
2 factor reflected the price certainty from the contract.

3 Given the small difference in the escalation factors used for different projects by FEI or FBC, FBC
4 considers the escalation factors used for the ASM Project (i.e., this Application) are reasonable
5 and appropriate.

6
7

8
9

In response to BCUC IR 16.3.1, FBC provided the following tables and states:

10 In order to convert the incremental O&M [Operations and Maintenance] from 2022
11 dollars to as-spent dollars, FBC first applied the cumulative cost escalation
12 percentage (as set out in the response to BCUC IR1 16.2) to convert the
13 incremental O&M from 2022 dollars to 2026 dollars. [...] Please refer Table 1 below
14 which provides the incremental O&M estimates in 2022 dollars as well as the
15 cumulative escalation and inflation used to calculate the as-spent dollars.

16 [...]

Table 1: Total Escalation Applied to Incremental O&M (in \$000s and %) from 2027 to 2034

| \$000s | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---------------------------------------|------|------|------|------|------|-------|------|-------|
| Incremental O&M (2022\$) ¹ | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | (6.3) | 1.9 | 183.3 |
| Escalation | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | (1.7) | 0.6 | 58.1 |
| Escalation (%) | 15% | 17% | 19% | 22% | 24% | 27% | 29% | 32% |
| As-spent Dollars ² | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | (8.0) | 2.5 | 241.4 |

17

18 [...]

19 Similar to the incremental O&M, FBC applied the cumulative escalation percentage
20 to convert the incremental property tax from 2022 dollars to 2026 dollars. [...] Please refer to Table 2 below which provides the 2027 incremental property tax
21 estimate in 2022 dollars as well as the cumulative escalation and inflation used to
22 calculate the 2027 dollars.

23
24 [...]

Table 2: Total Escalation Applied to Incremental Property Tax (in \$000s and %) to 2027

| \$000s | 2027 |
|---|-------|
| Property Tax - General, School and Other (2022\$) | 405.9 |
| Escalation | 59.5 |
| Escalation (%) | 15% |
| As-spent Dollars ¹ | 465.4 |

25

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 23 |

1 33.3 Please explain how the cumulative cost escalation percentage applied to
 2 incremental O&M and incremental property tax reaches 15 percent by 2027 by
 3 providing a year-over-year breakdown of the escalation beginning in 2022. Please
 4 include any reference to the figure provided in FBC’s response to BCUC IR 16.2.
 5

6 **Response:**

7 Please refer to Table 1 and Table 2 below for the calculation of the 15 percent cumulative cost
 8 escalation by 2027 for incremental O&M and incremental property tax, respectively. As explained
 9 in the response to BCUC IR1 16.3.1, FBC applied the same escalation factors from 2022 to 2026
 10 as set out in Table 1 of BCUC IR1 16.2, then added 2 percent to escalate from 2026 to 2027
 11 dollars. FBC notes that the 15 percent escalation in 2027 presented in Table 1 and Table 2 of
 12 BCUC IR1 16.3.1 was rounded to whole numbers. As shown in the calculations below, the
 13 cumulative escalation by 2027 is 14.68 percent when rounded to two decimal places.

14 **Table 1: Total Escalation Applied to Incremental O&M (in \$000s and %) from 2022 to 2027**

| Line | Particular | Amount | Reference |
|------|------------------------------------|--------|--------------------------|
| 1 | 2027 Incremental O&M (2022\$) | 1.9 | BCUC IR1 16.3.1; Table 1 |
| 2 | | | |
| 3 | Inflation (%) | | |
| 4 | 2023 | 3.34% | BCUC IR1 16.2; Table 1 |
| 5 | 2024 | 2.85% | BCUC IR1 16.2; Table 1 |
| 6 | 2025 | 2.85% | BCUC IR1 16.2; Table 1 |
| 7 | 2026 | 2.85% | BCUC IR1 16.2; Table 1 |
| 8 | 2027 | 2.00% | BCUC IR1 16.3 |
| 9 | | | |
| 10 | Cumulative Inflation | 14.68% | See Note 1 |
| 11 | 2027 Incremental O&M (As-Spent \$) | 2.2 | Line 1 x (1 + Line 10) |
| 12 | Total Escalation | 0.3 | Line 11 - Line 1 |

Note 1:

15 $[(1 + \text{Line 4}) \times (1 + \text{Line 5}) \times (1 + \text{Line 6}) \times (1 + \text{Line 7}) \times (1 + \text{Line 8})] - 1$



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 24 |

1 **Table 2: Total Escalation Applied to Incremental Property Tax (in \$000s and %) from 2022 to 2027**

| Line | Particular | Amount | Reference |
|------|--|--------|--------------------------|
| 1 | 2027 Incremental Property Tax (2022\$) | 405.9 | BCUC IR1 16.3.1; Table 2 |
| 2 | | | |
| 3 | Inflation (%) | | |
| 4 | 2023 | 3.34% | BCUC IR1 16.2; Table 1 |
| 5 | 2024 | 2.85% | BCUC IR1 16.2; Table 1 |
| 6 | 2025 | 2.85% | BCUC IR1 16.2; Table 1 |
| 7 | 2026 | 2.85% | BCUC IR1 16.2; Table 1 |
| 8 | 2027 | 2.00% | BCUC IR1 16.3 |
| 9 | | | |
| 10 | Cumulative Inflation | 14.68% | See Note 1 |
| 11 | 2027 Incremental O&M (As-Spent \$) | 465.4 | Line 1 x (1 + Line 10) |
| 12 | Total Escalation | 59.5 | Line 11 - Line 1 |

Note 1:

2 $[(1 + \text{Line 4}) \times (1 + \text{Line 5}) \times (1 + \text{Line 6}) \times (1 + \text{Line 7}) \times (1 + \text{Line 8})] - 1$

3

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 25 |

1 **E. ENVIRONMENTAL AND ARCHAEOLOGY**

2 **34.0 Reference: ENVIRONMENT AND ARCHAEOLOGY**

3 **Exhibit B-4, BCUC IR 20.2, 20.2.1**

4 **Soil Management**

5 In response to BCUC IR 20.2, FBC stated:

6 Metal contamination in soil is regulated by the BC Hazardous Waste Regulation
7 which defines leachable toxic waste as a “waste that produces an extract with a
8 lead concentration greater than 5 mg/L, when subjected to the toxicity
9 characteristic leaching procedure (TCLP)”.

10 In response to BCUC IR 20.2.1, FBC stated:

11 FBC’s third party QEP has established working relationships and authorized the
12 receiving facility in Swan Hills, Alberta. If the TCLP test results exceed the BC
13 Hazardous Waste Regulation criteria, soil will be sent for disposal at Swan Hills.

14 34.1 Please identify any additional approvals or permits required for disposing of
15 contaminated soil at an out-of-province facility and FBC’s plan for obtaining them.

16 **Response:**

17 There are no additional approvals or permits required for disposing of contaminated soil at the
18 receiving facility in Swan Hills, Alberta.

19
20
21

22 34.2 Please confirm, or explain otherwise, that FBC has verified that the Swan Hills
23 facility will accept contaminated soil that exceeds the TCLR test results within the
24 dates specified in the project schedule. In the response, please describe any limits
25 on soil contamination that will be accepted by the Swan Hills facility.

26 34.2.1 Please discuss any implications as a result of exceeding the soil
27 contamination limits at the Swan Hills facility.

28
29
30

Response:

31 FBC expects that any contaminated soil can be treated to meet the Swan Hills facility’s
32 requirements. Any soil that will be removed and scheduled for disposal at Swan Hills will be tested
33 and treated with cement powder (usually 10 percent by weight) to increase the pH to accepted
34 limits. The newly treated soil is then retested for TCLP to confirm it meets the Swan Hills facility’s
35 disposal requirements and Transportation of Dangerous Goods (TDG) requirements.



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 26 |

1
2
3
4
5
6
7
8
9
10
11
12
13
14

34.3 Please discuss any alternate sites that were considered and explain why Swan Hills was chosen as the preferred backup location.

Response:

The Teck landfill was chosen as the preferred option due to its close proximity to the Project site and because the soil to be excavated during the Project is expected to meet Teck's waste soil requirements.

The Swan Hills facility was chosen as the preferred backup location as it is the closest authorized treatment and disposal facility for hazardous materials contamination in soils.

No other sites were considered for disposal of soils excavated from the Project location.

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 27 |

1 **35.0 Reference: ENVIRONMENT AND ARCHAEOLOGY**

2 **Exhibit B-4, BCUC IR 21.3, 26.1**

3 **Archaeological Impact Assessment**

4 In response to BCUC IR 21.3, FBC stated:

5 Nupqu completed an AIA on April 18, 2023 under HCA [Heritage Conservation Act]
6 Section 12.2 Multi-assessment Inspection Permit 2022-0110. A report describing
7 the results and recommendations is being prepared by Nupqu. Following
8 completion of the AIA, Nupqu prepared a Letter of Notice included as Attachment
9 21.3 to this response.

10 In summary, no archaeological materials or sites were observed, recorded or are
11 otherwise suspected within the location of the Project footprint. The Letter of Notice
12 recommends that no further archaeological work is required for the Project footprint
13 but that a chance find / stop work procedure be developed and provided to
14 construction crew members.

15 In response to BCUC IR 26.1, FBC confirmed that Nupqu, the Archaeology contractor,
16 had provided notification and the opportunity to participate in the AIA to 11 Indigenous
17 communities on behalf of FBC. Indigenous communities, Osoyoos Indian Band, Splat
18 First Nation, and Ktunaxa Nation Council participated in the AIA which was completed in
19 April 2023. Lower Similkameen Indian Band and Okanagan Nation Alliance did not provide
20 a response to the notification.

21 35.1 Please explain whether any follow-up was provided to Lower Similkameen Indian
22 Band or Okanagan Nation Alliance regarding notification of the AIA. If not, please
23 explain why not.

24
25 **Response:**

26 No follow-up was provided regarding the AIA notification. However, FBC openly engages in two-
27 way dialogue with both the Okanagan Nation Alliance (ONA) and Lower Similkameen Indian Band
28 (LSIB) on an ongoing basis, and lines of communication are open. The notification letter was
29 submitted as a requirement of the *Heritage Conservation Act* multi-assessment permit. As part of
30 this permit process, Indigenous communities are provided a 30-day response period. Lack of
31 response from a community to this type of invitation to participate is not uncommon and is
32 generally assumed to mean that there is no interest in participating, or a lack of capacity to
33 participate. FBC will continue to maintain a positive relationship with ONA and LSIB through open
34 communication and dialogue.

35
36
37

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 28 |

1 35.2 Please explain whether Nupqu’s AIA results and recommendations report is
2 complete.

3 35.2.1 If yes, please provide a high-level summary of the findings and discuss
4 any recommendations that may impact Project cost or schedule.

5 35.2.2 If not, please provide the expected timing for completion of the report.

6 35.2.3 Please explain whether FBC intends to share the report with each of the
7 Indigenous communities that received notification of the AIA. If not,
8 please explain why not.

9

10 **Response:**

11 Nupqu’s AIA results and recommendations report is not complete. The initial draft is expected to
12 be received in Q4 2023, at which time it will be sent to Indigenous communities for review. FBC
13 expects a final draft to be available in Q1 2024. FBC intends to share the report with all Indigenous
14 communities that received notification of the AIA through Nupqu as part of the *Heritage*
15 *Conservation Act* permit process.

16

17

18

19 35.3 Please confirm, or explain otherwise, that FBC intends to develop a chance find /
20 stop work procedure, if it has not done so already, and identify the expected
21 completion date.

22

23 **Response:**

24 FBC has a corporate Heritage Resource Management (Chance Finds) procedure applicable to
25 all projects the Company undertakes. A copy of this procedure will be appended to the finalized
26 AIA results and recommendations report.

27

| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 30 |

1 **Response:**

2 FBC continues to monitor for feedback from Indigenous communities through the preferred
3 communication channel of each community. This includes engagement platforms such as Nations
4 Connect and Ktunaxa Connect, email, telephone, or letter correspondence. FBC is committed to
5 timely, meaningful engagement should any feedback from Indigenous communities be received.

6
7

8
9 In response to BCUC IR 27.3, FBC provided an update on engagement with local
10 Indigenous communities regarding procurement opportunities, including initial
11 engagement activities with the Lower Kootenay Band to discuss civil works opportunities
12 for the Project.

13 36.3 Please provide an update on any engagement with local Indigenous communities
14 regarding procurement opportunities that has taken place since filing of IR1
15 responses.

16

17 **Response:**

18 Please refer to the response to BCUC IR2 36.1.

19
20

21
22 In Section 8.2 of the Application, FBC discusses its engagement with the local community
23 with respect to the Project.

24 In response to BCUC IR 22.1, FBC stated that “There has been no further communication
25 with local governments or stakeholders since the date of filing.”

26 In response to BCUC IR 24.1, FBC stated that “FBC has not received any feedback from
27 local residents since the filing of the Application.”

28 36.4 Please provide an update regarding any public engagement activities FBC has
29 undertaken since the filing of IR1 responses. Please describe any issues raised.

30 36.4.1 If any issues were raised, please explain how FBC responded, or intends
31 to respond, and identify any potential Project impacts.

32

33 **Response:**

34 FBC has not conducted any public engagement activities since the filing of the IR1 responses.
35 FBC continues to monitor for feedback from local governments and stakeholders through



| | |
|--|---------------------------------------|
| FortisBC Inc. (FBC or the Company) Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the A.S. Mawdsley (ASM) Terminal Station Project (Application) | Submission Date: September 5, 2023 |
| Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 2 | Page 31 |

- 1 channels such as email, telephone, or mail. FBC is committed to timely, meaningful engagement
- 2 should any Project feedback or concerns from local governments or stakeholders be received.
- 3 No issues have been raised with FBC since the filing of the IR1 responses.
- 4