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FARRIS

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October 26, 2023

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

Attention: Patrick Wruck
Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

**Re: In the Matter of the *Utilities Commission Act*, RSBC 1996, c 473 and
FortisBC Inc.'s Application for a Certificate of Public Convenience
and Necessity for the A.S. Mawdsley Terminal Station Project**

Enclosed please find the Reply Argument of FortisBC Inc. dated October 26, 2023 with respect to the above-noted matter.

Yours truly,

FARRIS LLP

Per: 

Erica C. Miller

ECM/gc

Enclosures

c.c.: Registered Interveners

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BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF
the *Utilities Commission Act*, RSC 1996, c 473

and

FortisBC Inc.'s Application for a Certificate of Public Convenience and Necessity
for the A.S. Mawdsley Terminal Station Project

REPLY ARGUMENT OF FORTISBC INC.

OCTOBER 26, 2023

FortisBC Inc.

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TABLE OF CONTENTS

Part 1 - Overview 1

Part 2 - The Positions of the Interveners 1

Part 3 - Reply to Particular Issues 3

 A. Project Need 4

 B. Alternative 6 is not a Viable Alternative 5

 C. The ASM Transformers are at End of Life 8

 D. The Evaluation Criteria Used were Appropriate 10

 E. Financial Cost of Alternative 5 vs. Alternative 3 10

 F. Rate Impact 12

 G. Engagement & Consultation 14

Part 4 - Conclusion 14

PART 1 - OVERVIEW

1. On September 26, 2023, FortisBC Inc. (**FBC** or the **Company**) filed its final written argument (the **FBC Argument**) pursuant to Order G-70-23 of the British Columbia Utilities Commission (**BCUC**), which established a Regulatory Timetable in this proceeding.
2. The following interveners have filed written arguments in this proceeding:
 - a. British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, and Tenant Resource & Advisory Centre (together, **BCOAPO**) on October 10, 2023 (the **BCOAPO Argument**);
 - b. Industrial Customers Group (**ICG**) on October 10, 2023 (the **ICG Argument**); and
 - c. Commercial Energy Consumers Association of British Columbia (**CEC**) on October 12, 2023 (the **CEC Argument**),

(together, the **Intervener Arguments**).
3. FBC provides this argument in reply to the Intervener Arguments. Unless otherwise specified, capitalized terms used in this reply argument are as defined in the FBC Argument.

PART 2 - THE POSITIONS OF THE INTERVENERS

4. Each of the BCOAPO, CEC and ICG recommend that the BCUC approve the Application (though, as is returned to below, ICG recommends the approval be subject to a condition).¹
5. In the BCOAPO Argument, in making its recommendation that the BCUC approve the Application, BCOAPO:
 - a. agrees that there is a need for a sustainable solution to the potential overloading of the ASM Transformers, and that the reliability of the ASM Transformers needs to be addressed;²

¹ See BCOAPO Argument, p. 31, CEC Argument, p. 29 and ICG Argument, p. 2.

- b. accepts FBC's initial screening results and the identification of Alternatives 3 and 5 as feasible alternatives;³
 - c. accepts that Alternative 5 is preferable to Alternative 3 based on a consideration of the non-financial criteria (and recognizes that, unless the Panel were to attribute a significantly higher weight to the issue of Land Availability or reject the evaluation criteria used by FBC in the Application, the weighted score for Alternative 5 will exceed Alternative 3);⁴
 - d. agrees that Alternative 5 has a cost-based advantage over Alternative 3, and that FBC's conclusion that the rate impact of Alternative 5 is less than Alternative 3 is reasonable;⁵ and
 - e. submits that there is nothing in the evidentiary record that could lead reasonable parties to the finding that FBC has not engaged with the affected First Nations in an appropriate manner or that FBC has not undertaken appropriate public engagement in this matter.⁶
6. Likewise, in the CEC Submission, in making its recommendation that the BCUC approve the Application, the CEC:
- a. agrees that FBC is currently unable to meet its N-1 transmission planning criteria, and that additional capacity is needed;⁷
 - b. agrees that Alternatives 1, 2, and 4 are not viable alternatives for the Project;⁸
 - c. acknowledges that FBC's preferred alternative, Alternative 5, is a good solution based on the evidence on the record;⁹
 - d. agrees that the non-financial evaluation of Alternative 5 was superior to Alternative 3;¹⁰

² BCOAPO Argument, pp. 8 and 10.

³ BCOAPO Argument, p. 13.

⁴ BCOAPO Argument, p. 16.

⁵ BCOAPO Argument, pp. 19 and 21.

⁶ BCOAPO Argument, pp. 29 and 31.

⁷ CEC Argument, paras. 15 and 43.

⁸ CEC Argument, para. 57.

⁹ CEC Argument, para. 74.

¹⁰ CEC Argument, para. 90.

- e. recognizes that FBC’s financial analysis also supports Alternative 5;¹¹
 - f. accepts FBC’s description of the Project and finds that FBC has done an acceptable job of assessing risks of the Project;¹²
 - g. finds the level of rate impact acceptable given the anticipated Project benefits for customers in the areas affected;¹³
 - h. accepts FBC’s assessment of potential environmental impacts to be remediated and the anticipated process for conducting such remediation, and accepts that FBC’s approach to archaeological impacts is appropriate;¹⁴
 - i. finds FBC’s approach to consultation and engagement with the public and Indigenous communities to be appropriate;¹⁵ and
 - j. submits that the Project clearly aligns with, or is not inconsistent with, both BC’s Energy Objectives and the *Clean Energy Act*.¹⁶
7. ICG also recommends that the BCUC approve the Project; however, in contrast to the BCOAPO and CEC, ICG recommends that this approval be on the condition that “FBC provide evidence that it has made good faith efforts to negotiate with Teck for access to the 11E line extension between ASM and WTS”.¹⁷ FBC replies to ICG’s arguments in Part 3 below. FBC disagrees with ICG’s suggestion that the BCUC’s approval should be subject to this condition (see the section on “Alternative 6 is not a Viable Alternative”), and further disagrees with ICG’s submission that there has not been sufficient transparency regarding the drivers of Project need (see the section on “Project Need”).¹⁸

PART 3 - REPLY TO PARTICULAR ISSUES

8. In this Reply Argument, FBC replies to specific points that are raised in the Intervener Arguments.

¹¹ CEC Argument, para. 91.

¹² CEC Argument, para. 98.

¹³ CEC Argument, para. 112.

¹⁴ CEC Argument, paras. 125 and 128.

¹⁵ CEC Argument, para. 137.

¹⁶ CEC Argument, para. 139.

¹⁷ ICG Argument, p. 2.

¹⁸ ICG Argument, p. 1.

A. PROJECT NEED

9. ICG submits that FBC has not been sufficiently transparent regarding the drivers of load growth which underlie Project need, in particular the addition of a new substation (Ponderosa) and the associated load of a crypto currency mining operation served by that substation. It suggests that the BCUC should examine the circumstances of this load addition to determine whether the single customer should bear some of the cost of the advancement of the ASM Project.¹⁹ As is set out in more detail below, FBC disagrees with these assertions.
10. As is depicted by Tables 3-2 and 3-3 of the Application (and as summarized at paragraph 32 of FBC's Argument), summer and winter peak loads have been steadily growing in the Boundary and Similkameen areas and are forecast to continue to increase. This load growth has resulted in an inability to meet FBC's Transmission System Planning Criteria, triggering potential reliability issues. FBC expects that electricity demand will continue to exceed system planning criteria, such that FBC is not able to meet the N-1 system reliability planning criterion in order to reliably maintain service.²⁰
11. This load growth is occurring regardless of the addition of one customer. Even if this industrial customer were to have caused load to grow somewhat more quickly than otherwise would have been the case, this does not impact the fact that the Project is needed in order to address load growth in general, as well as the aging ASM Transformers.
12. As was set out in the response to BCUC IR1 2.13.3, even if certain factors were to arise that resulted in peak load being less than forecast by FBC (as would, for example, hypothetically be the case if the customer had not been added to the system), it would continue to be necessary for FBC to proceed with the Project due to the overloading condition that occurs during an N-1 contingency event at the ASM Terminal Station. Further, and in any event, the Project is required to address the condition of the ASM Transformers, regardless of load growth. These transformers have been classified as having a high risk of failure.²¹

¹⁹ ICG Argument, p. 1.

²⁰ Exhibit B-1, Application, pp. 1, 2 and 18.

²¹ Exhibit B-4, BCUC IR1 2.13.3.

13. The Project is needed to reliably serve the load for all customers in the Boundary and Similkameen areas.

B. ALTERNATIVE 6 IS NOT A VIABLE ALTERNATIVE

14. The ICG Argument further submits that Alternative 6 had the potential to be a lower cost alternative than FBC's preferred Alternative 5, and that it was prematurely eliminated during the pre-screening phase.²² CEC also considers Alternative 6 in the CEC Argument, though this is premised on the ASM Transformers not requiring replacement (which is discussed in more detail below under the heading "The ASM Transformers are at End of Life"), and CEC ultimately recommends that the BCUC approve the CPCN that FBC has requested for Alternative 5.²³
15. FBC submits that Alternative 6 was not a viable alternative, and that it was appropriately eliminated during the initial screening phase.
16. As set out in more detail in FBC's Argument, Alternative 6 (which would involve retaining the existing ASM Terminal Station and adding an additional, new transformer at WTS) was considered by FBC and eliminated from further consideration during the initial screening phase.²⁴ One of the reasons for this rejection, amongst others (described in more detail below), was that it would involve an extension of 11E Line and require a new transmission corridor, as the existing corridor between WTS and the ASM Terminal Station is not wide enough to comply with 161 kV circuit spacing while also continuing to be occupied by multiple 63 kV transmission lines. This extension would need to run through Teck Metals Ltd.'s (Teck) Warfield Operations, interfering with its current use of the land. Further, while additional land could be acquired, the availability of usable land is limited due to the terrain, and Alternative 6 posed design, construction and operational risks.²⁵
17. ICG submits that FBC has not provided any substantive information to support its assertions that Alternative 6 was not a viable alternative and submits that the BCUC should only approve FBC's proposed Alternative 5 if FBC provides evidence that it has

²² ICG Argument, pp. 1-2.

²³ CEC Argument, paras. 75 to 88 and 92

²⁴ FBC Argument, para. 54 and footnote 58.

²⁵ Exhibit B-1, Application, pp. 29-30; Exhibit B-8, ICG IR1 5.3.

made good faith efforts to negotiate with Teck for access to the 11E line extension between ASM and WTS, which would be necessary in order to carry out Alternative 6.²⁶

18. As provided in response to ICG IR1 5.3 (reproduced below for ease of reference), Alternative 6 was eliminated during pre-screening for several reasons, with land availability and access being granted by Teck being only one factor that impacted the decision:

Alternative 6 was eliminated during pre-screening for the following reasons:

- **Land Use & Adjacent Infrastructure & Land Availability** – The 11E Line extension would require a new transmission corridor. This corridor would have to go through the Teck Metals Ltd.'s (Teck) Warfield Operations and would interfere with Teck's current use of the land and established facilities and infrastructure. Less direct transmission line paths were considered; however, these paths could be more disruptive to the community, disturb more properties, and interfere with other established infrastructure.
- **Constructability** – The required land acquisition process, establishment of a new transmission corridor, increased design complexity, and the transmission line construction involved with Alternative 6 all present significant risks to the project schedule, costs, engineering, and constructability.
- **Operations Accessibility and Operability** – Access to the existing 9 Line, 10 Line and 34 Line corridors is already limited. Establishing another corridor adjacent to these would increase the congestion in the area, making operations and maintenance difficult.
- **Safety** – The ASM Terminal Station has known ground grid limitations with the existing configuration. Additional upgrades to the ground grid have already been exhausted.
- **Ecological** – The 11E Line extension corridor between the ASM Terminal Station and Warfield Terminal Station is a heavily forested gully. Alternative 6 would require clearing this forested area and disturbing the existing ecosystem and habitats. Removal of the trees could potentially destabilize the bank, compromising the existing infrastructure, in addition to rendering the bank unstable for new infrastructure.
- **Community Impact** – Alternative 6 would have increased community impact both during construction and in the long-term. During consultation for this Application, FBC received feedback that the existing ASM Terminal Station transformers can be heard by area residents. Alternative 6 would require residences to continue to be disturbed by this noise. In Alternative 6, the community would also be negatively impacted by the removal of greenery from the area as the corridor for 11E Line extension was established.

²⁶ ICG Argument, pp. 1-2.

- **System Reliability** – Splitting the supply of 11E Line between WTS and the ASM Terminal Station will increase system complexity in both system configurations. Alternative 6 will not reduce the system risk associated with aging infrastructure of the ASM Terminal Station. In Alternative 6, ASM T1 and ASM T2 would need to operate a single transformer to match the capacity of the new transformer at WTS. Loss of either ASM T1 or ASM T2 will render both units unsuitable for operation. Because ASM T1 and ASM T2 would be a different size than the new transformer at WTS, there would be significant paralleling

19. As noted above, it is all of these significant challenges, taken together, that resulted in FBC appropriately rejecting Alternative 6 during the pre-screening phase, and not just access issues with Teck. While ICG submits that FBC should be required to provide evidence that it “has made good faith efforts to negotiate with Teck for access to the 11E line extension between ASM and WTS”,²⁷ FBC did not discuss this type of access arrangement with Teck, as Alternative 6 had already been determined to be untenable based on the other factors set out above.
20. Notably, and as set out in the Application, Alternative 6 also fails to address one of the key objectives of the Project, which is replacing the aging ASM Transformers.²⁸ While CEC suggests that if Alternative 6 could delay the purchase of a transformer, this might offset the costs of undertaking an underground transmission option as part of Alternative 6,²⁹ the ASM Transformers are at end of life and need to be replaced, as discussed in more detail in Section C below.
21. Further, the cost of undertaking this underground transmission work is estimated to be in excess of \$5 million per kilometer, plus additional termination and substation costs.³⁰ This high cost is just one of the reasons why undertaking an underground transmission option was not considered by FBC as a viable option. As is set out in more detail in the response to ICG IR2 7.1, the challenges with this option included the fact that the terrain and routing in the area are not well suited to an underground transmission option (with gully and Canadian Pacific Railway crossings, digging up and repaving of roads, road closures, excavating rocks, and conflicts with other underground facilities in a very limited space),

²⁷ ICG Argument, p. 1.

²⁸ Exhibit B-1, Application, p. 30.

²⁹ CEC Argument, paras. 83 and 88.

³⁰ Exhibit B-11, ICG IR2 7.1.

as well as that this option would significantly increase project and design risks, as well as cost and outage times.³¹

C. THE ASM TRANSFORMERS ARE AT END OF LIFE

22. FBC disagrees with CEC's assertion that there is "time and life left" in the ASM Transformers, and that this could impact available Project alternatives (though CEC acknowledges that this does not impact the need for the Project more generally).³²
23. As was set out in the FBC Argument, the Hitachi Report calculated the probability of failure in any given year of ASM T1 (2.41 percent) and ASM T2 (2.35 percent), which is higher than FBC's accepted failure tolerance of 2 percent. This tolerance was adopted by FBC, based on CEATI industry findings, for transformers like the ASM Transformers.
24. FBC does not suggest that the BCUC should take the 2 percent failure tolerance established by the CEATI 30/113 Report as being "absolute" as is raised by CEC,³³ nor has FBC treated the threshold in this manner. Instead, FBC used the CEATI Report as a guide to determine generally what an acceptable probability of failure is for transformers like the ASM Transformers. FBC submits that this 2 percent threshold, which was established based on CEATI industry findings, is an appropriate and reasonable guideline. However, this guideline was then considered by FBC in the context of the specific circumstances of the ASM Transformers to determine, given that their probability of failure exceeded the 2 percent threshold, whether this risk was unacceptable. Finally, this approach was then validated through the commissioning of the Hitachi Report.³⁴
25. While the CEC suggests that the ASM Transformers have additional life left in them,³⁵ FBC disagrees. The ASM Transformers are critical to FBC's network operation and, due to their condition, overloading could lead to unforeseen failures.³⁶ FBC assesses the risk level of the ASM Transformers as being both "high" (as the probability of failure in any given year is over 2 percent), as well as "unacceptable" (due to the criticality of the ASM

³¹ Exhibit B-11, ICG IR2 7.1.

³² CEC Argument, paras. 41 and 48.

³³ CEC Argument, para. 29.

³⁴ Exhibit B-13, BCOAPO IR2 39.1.1.

³⁵ CEC Argument, paras. 43, 48 and 49.

³⁶ Exhibit B-4, BCUC IR1 3.5.

Transformers to FBC's system, the lengthy response time caused by the long-lead times for replacement transformers, and the current condition of the ASM Transformers).³⁷

26. In its response to BCUC IR1 3.5, FBC set out a limited list of circumstances in which FBC may decide to continue to operate a transformer, despite the total risk of failure exceeding 2 percent. This included circumstances where: there is additional network redundancy or overloading capabilities available, equipment refurbishment is available to reduce the total risk of failure to an acceptable level, there are spare transformers of adequate size available, there is a station upgrade project with a defined execution timeline in place, or where there are no reasonable alternatives.³⁸
27. As described in more detail in the FBC Argument, it is not the case that the ASM Transformers could be refurbished to economically gain additional life, as the component that is most at risk of failure (the On-Load Tap Changers) cannot be replaced.³⁹ Even if it is the case that the ASM Transformers have insulation with 10 to 15 years left,⁴⁰ this is only one component of the transformers. Further, a spare transformer of adequate size is not available.⁴¹ Instead, there is a station upgrade project with a defined execution timeline in place: this ASM Project addressed by this Application.
28. To the extent CEC is suggesting in the CEC Argument that FBC should run the ASM Transformers to failure, this was not an option considered by FBC as an alternative for the ASM Project, as it fails to meet the Project objectives.⁴² A key objective of the ASM Project is to address this aging infrastructure, including in light of their age, condition and ability to be properly maintained moving forward.⁴³
29. FBC has concluded that a probability of failure of higher than 2 percent is not acceptable for the ASM Transformers.⁴⁴ The risk of failure of one of the ASM Transformers is already above FBC's failure tolerance of 2 percent, and their condition continues to deteriorate with age, with their risk of failure increasing with each year.⁴⁵

³⁷ FBC Argument, para. 48.

³⁸ Exhibit B-4, BCUC IR1 3.5.

³⁹ FBC Argument, para. 50. See also Exhibit B-4, BCUC IR1 3.8.1.1 and Exhibit B-7, CEC IR1 12.1.

⁴⁰ CEC Argument, para. 46.

⁴¹ Exhibit B-4, BCUC IR1 2.3.

⁴² Exhibit B-7, CEC IR1 17.1.

⁴³ Exhibit B-1, Application, p. 23.

⁴⁴ Exhibit B-4, BCUC IR1 3.5.

⁴⁵ FBC Argument, para. 51.

D. THE EVALUATION CRITERIA USED WERE APPROPRIATE

30. While the BCOAPO accepts FBC's conclusion that Alternative 5 is preferable to Alternative 3 based on consideration of non-financial and financial criteria,⁴⁶ it notes that the evaluation criteria used for the Project was different than the criteria used for the evaluation of the Kelowna Bulk Transformer Addition (**KBTA**) Project and raises a concern about the lack of consistency in the evaluation criteria applied from project to project.⁴⁷
31. FBC acknowledges that there are differences between the evaluation criteria used in this Application as compared to the criteria used in the prior KBTA application but submits that the differences are reasonable and valid.
32. The scoring approach, evaluation criteria and weights were established through the engagement and collaboration of FBC's internal stakeholders. These stakeholders take into account a variety of factors (which can evolve and improve over time), including understanding of existing and emerging issues and risks, prior experience with other projects, the specific attributes of the project area, and feedback received from customers, public stakeholders and Indigenous communities. As is set out in more detail in the response to BCUC IR1 7.3, all of these factors resulted in the evaluation criteria developed for the current Application (in 2023) being revised from the criteria previously established during the development of the KBTA application (in 2020).⁴⁸
33. FBC notes that while the BCOAPO has raised the consistency of evaluation criteria between projects, it (and the other interveners) have not raised concerns about any of the specific changes, or the criteria more generally.
34. FBC submits that the BCUC should conclude that the evaluation criteria used were appropriate.

E. FINANCIAL COST OF ALTERNATIVE 5 VS. ALTERNATIVE 3

35. While BCOAPO agrees with FBC's assessment that Alternative 5 is the preferred alternative based on both the financial and non-financial analysis,⁴⁹ it suggests that a "true

⁴⁶ BCOAPO Argument, pp. 16 and 19

⁴⁷ BCOAPO Argument, pp. 16 and 21.

⁴⁸ Exhibit B-4, BCUC IR1 7.3.

⁴⁹ BCOAPO Argument, p. 21.

apples-to-apples comparison” was not done between these two alternatives, and that it was required to expend additional time and expertise to facilitate a fair comparison.⁵⁰

36. Alternative 3 has a significantly higher cost than Alternative 5 and, as summarized on pages 17-18 of the BCOAPO Argument, one of the contributors to this difference is that Alternative 3 includes the rebuilding of 9/10 Line, which runs from WTS to the ASM Terminal Station, into one high-capacity transmission line, as well as re-terminating 9 Line and 10 Line. This work would ensure that FBC could continue to meet the N-1 reliability criterion in the event of an unexpected outage of 34 Line.
37. The BCOAPO states that “[t]he evidence leads BCOAPO to believe that, in FBC’s preferred Alternative 5, an unexpected outage of Line 11E will have a similar impact as that of an outage of the 34 Line under Alternative 5”, but that while Alternative 3 included the cost of the 9/10 Line work (to ensure that 34 Line could meet the N-1 criterion), Alternative 5 did not include similar work to allow 11E Line to meet the same standard.⁵¹
38. As further explained below, FBC’s financial assessment of Alternative 3 versus Alternative 5 was correctly performed, and it was appropriate to include the cost of the transmission work in Alternative 3.
39. If FBC were to carry out Alternative 3, it would be adding a new line from WTS to the ASM Terminal Station that is redundant to 34 Line. As a result, an outage of 34 Line would mean that there is still service to/from the ASM Terminal Station, running via the new line, and therefore still service to 11E Line. When planning for Alternative 3, the option to make some redundancy for 34 Line, by repurposing 9/10 Line, was available at an additional cost of approximately \$2.63 million. This was included in the alternative, as it would mean that an outage of 34 Line would not also result in an outage of 11E Line.⁵²
40. In contrast, 34 Line does not exist under Alternative 5.⁵³ Instead, 34 Line will be re-terminated into 11E Line (i.e., 34 Line becomes part of 11E Line), and no such work was included in the plan for this alternative.⁵⁴

⁵⁰ BCOAPO Argument, p. 19.

⁵¹ CEC Argument, pp. 17-19.

⁵² Exhibit B-1, Application, p. 25.

⁵³ Exhibit B-1, Application, p. 28.

⁵⁴ Exhibit B-1, Application, pp. 3-4.

41. Likewise, an outage of 11E Line has the same impact under either Alternative 3 or Alternative 5. Adding to transmission work to make 11E Line redundant would add significant cost to both Alternative 3 and Alternative 5. This work was not included in either alternative, as the objective of the Project was to address the ASM Transformers, as opposed to 11E Line. As is set out in more detail in the responses to BCOAPO IR2 28.5 and 28.5.2, FBC forecasts that 11E Line will not meet the N-1 planning criteria in 2034, and it has developed other strategies to deal with this at that time, which would be carried out in addition to the Project.⁵⁵
42. Finally, and in any event, as BCOAPO recognizes, even if the 34 Line transmission work was not included in Alternative 3, there would continue to be a cost advantage to Alternative 5.⁵⁶

F. RATE IMPACT

43. In the BCOAPO Argument, the BCOAPO notes that “the revenue requirement impacts are not limited to just those listed above [in Table 6-2, Financial Analysis of the Project]. There are costs that come due in 2025 and 2026 arising out of the wheeling costs caused by the forecast outages rooted in the 34 Line conversion”.⁵⁷ While the BCOAPO does not otherwise raise concern with the revenue requirement impacts of the Project, FBC wishes to clarify that this is not correct.
44. For ease of reference, Table 6-2 from the Application is reproduced below:⁵⁸

⁵⁵ Exhibit B-13, BCOAPO IR2 28.5 and 28.5.1.

⁵⁶ BCOAPO Argument, p. 19.

⁵⁷ BCOAPO Argument, p. 26.

⁵⁸ Exhibit B-1, Application, p. 57.

Table 6-2: Financial Analysis of the Project

Line	Particular	Total	Reference
1	Total Capital Costs to Electric Plant in Service (\$millions)	33.847	Schedule 6, Line 34
2	Total Removal Costs to Accumulated Depreciation (\$millions)	1.332	Schedule 6, Sum of Line 35 - Line 34
3	Total Project Cost (\$ millions)	35.179	Line 1 + Line 2
4	Incremental Sustainment Capital	6.252	Schedule 6, Sum of Line 27 (2027-2076)
5	Total Incremental Capital Costs over 53 years (\$millions)	41.431	Line 3 + Line 4
6			
7	Incremental Rate Base in 2027 (\$millions)	34.311	Schedule 5, Line 12 (2027)
8	Incremental Revenue Requirement in 2027 (\$millions)	2.458	Schedule 1, Line 11 (2027)
9	PV of Incremental Revenue Requirement 53 years (\$ millions)	44.138	Schedule 9, Line 25
10			
11	Rate Impact in 2027, compared to 2023 Approved (%)	0.58%	Schedule 9, Line 28 (2027)
12	Levelized Rate Impact 53 years (%)	0.63%	Schedule 9, Line 32
13	Levelized Rate Impact 53 years (\$/MWh)	0.767	Schedule 9, Line 45

45. The present value (PV) of the incremental revenue requirements on line 9, as well as the levelized rate impact in percentage and \$/MWh on lines 12 and 13, respectively, each cover a 53-year period which includes 2025 and 2026. These amounts include the forecast outages raised by BCOAPO. Lines 7, 8 and 11 highlight the year 2027, because that is the year when the assets enter rate base.
46. See also page 58 of the Application, which provides the following assumption that is relevant to the financial evaluation in Table 6-2:
- **Cost of Energy Outage Wheeling Cost:** As discussed in Section 5.5, the 34 Line conversion will require several outages over the duration of construction in 2025 and 2026, which will result in additional wheeling costs to cover the Okanagan transmission shortfall with the BC Hydro Open Access Transmission Tariff (OATT). The cost of the outages are estimated to be \$0.290 million in 2025 and \$0.357 million in 2026.
47. These wheeling costs were included in FBC's financial analysis.
48. In the CEC Argument, CEC finds that FBC's calculations of rate impact are appropriate but, "with the exception that the selection of a 53-years life for the Plant in Service is likely shorter than the expected life should be, based on the useful life of the current ASM T1 and T2 transformers". It requests that FBC re-examine the appropriate life for this equipment in future applications.⁵⁹

⁵⁹ CEC Argument, paras. 108-109.

49. FBC disagrees that the 53-year analysis period used is too short, or needs be re-examined. This period was calculated based on an estimated three-year construction period (from 2024 to 2026) plus a 50-year post-Project period commencing in 2027. 50 years is the Average Service Life (ASL) of the station equipment in FBC's transmission plant (with station equipment representing over 90 percent of the total capital costs entering FBC's rate base⁶⁰), which was determined based on FBC's most recently approved depreciation study. This will be reviewed again in the future when a new depreciation study is done. The 53-year analysis period used correctly reflects the expected life of the new assets as well as the financial lifecycle of the ASM Project.⁶¹

G. ENGAGEMENT & CONSULTATION

50. In the BCOAPO Argument, the BCOAPO notes that the Nupqu's AIA Results and Recommendation Report is not yet complete.⁶²
51. FBC agrees that engagement for the Project is not yet complete, and confirms that it will continue to maintain open lines of communication and collaborate with Indigenous communities on any outstanding interests or concerns brought forward throughout the remainder of the Project, including planning, construction and restoration.
52. FBC otherwise agrees with the BCOAPO's submission that the evidence on record demonstrates FBC has engaged with affected First Nations in an appropriate manner.

PART 4 - CONCLUSION

53. FBC continues to submit that the ASM Project, as proposed, meets the objectives of the Project in a cost effective manner and while minimizing rate impacts, and that it is in the public convenience and necessity.
54. In support of this, FBC continues to rely on the entirety of its Application, the evidence in this proceeding, and the FBC Argument.
55. In all the circumstances, FBC requests that the approvals sought in the Application be granted, namely that FBC be granted a CPCN with respect to the ASM Project.

⁶⁰ Exhibit B-1, Application, pp. 56-57.

⁶¹ Exhibit B-7, CEC IR1 21.3.3.

⁶² BCOAPO Argument, p. 29.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Counsel for FBC:

____ [Original signed by Erica Miller]

Erica Miller

Dated: October 26, 2023