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British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Attention: Mr. Patrick Wruck, Commission Secretary

Dear Sirs/Mesdames:

Re: FortisBC Energy Inc. ("FEI") Application for a Certificate of Public Convenience and Necessity for the Interior Transmission System Transmission Integrity Management Capabilities Project - Reply Submission

In accordance with the regulatory timetable in the above proceeding, we enclose for filing the Reply Submission of FortisBC Energy Inc., dated October 18, 2023.

Yours truly,

FASKEN MARTINEAU DuMOULIN LLP

[Original signed by]

Christopher Bystrom*
*Law Corporation

Encl.

cc (email only): Registered Interveners.

BRITISH COLUMBIA UTILITIES COMMISSION

FORTISBC ENERGY INC.

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE INTERIOR TRANSMISSION SYSTEM TRANSMISSION INTEGRITY MANAGEMENT CAPABILITIES PROJECT

REPLY SUBMISSION

OF

FORTISBC ENERGY INC.

OCTOBER 18, 2023

Prepared by: Fasken Martineau DuMoulin LLP - Christopher Bystrom and Niall Rand

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PART ONE: INTRODUCTION

1. As set out in its Application and Final Submission, FortisBC Energy Inc. (FEI or the Company) is requesting that the British Columbia Utilities Commission (BCUC) issue a Certificate of Public Convenience and Necessity (CPCN) for the Interior Transmission System Transmission Integrity Management Capabilities Project (ITS TIMC Project or Project) pursuant to sections 45 and 46 of the *Utilities Commission Act* (UCA). FEI is also requesting to transfer the balance of the TIMC Development Cost deferral account related to the ITS TIMC Application from the existing non-rate base deferral account to the existing rate base TIMC Development Cost deferral account.

2. Three interveners filed final arguments. The British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, Tenant Resource and Advisory Centre and Together Against Poverty (BCOAPO) "takes the position that the Application should be approved", but provides several comments.[1] The Commercial Energy Consumers Association of BC (CEC) recommends that the BCUC grant a CPCN for the ITS TIMC Project as proposed.[2] The Residential Consumer Intervener Association (RCIA) believes FEI "is justified in proceeding with the ITS TIMC Project" and "supports the TIMC project in principle," but argues that portions of the Project should not be approved.[3]

3. In the remainder of this Reply Argument, FEI responds to the comments and recommendations of interveners. Silence in this submission on a particular statement in an intervener submission does not indicate FEI's agreement. The sections below are organized around the following points:

(a) The RCIA's recommendations result in higher and unjustifiable safety and reliability risk and are not prudent. Contrary to the RCIA:

(i) The installation of a temporary pressure reduction facility at the SN-4 Valve Assembly is necessary to implement the operational strategy, which

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1 BCOAPO Final Argument, p. 30.

2 CEC Final Argument, p. 1.

3 RCIA Final Argument, p. 5.

remains feasible, and provides FEI with flexibility to reduce pressure on the Savona to Penticton 323 mainline; and

(ii) The removal of the 3 heavy wall segments is necessary for successful EMAT ILI tool runs to mitigate the significant safety and reliability risk due to the potential for cracking.

(b) In reply to CEC and BCOAPO:

(i) FEI has substantively responded to the BCUC's directive regarding the value of incremental risk reduction.

(ii) FEI's alternatives analysis was robust without the inclusion of sub-alternatives.

(iii) Additional reporting regarding the health of FEI's transmission pipelines is not warranted.

(iv) FEI will report cost savings as part of future compliance and regulatory reporting.

(v) FEI's engagement with Indigenous groups is consistent with the BCUC's CPCN Guidelines.

(vi) Rate mitigation is properly addressed in revenue requirement and rates proceedings.

(vii) FEI has demonstrated the need to implement the Project on the proposed timeline.

PART TWO: RCIA'S RECOMMENDATIONS RESULT IN HIGHER AND UNJUSTIFIABLE SAFETY AND RELIABILITY RISK AND ARE NOT PRUDENT

4. RCIA accepts that FEI is justified in proceeding with the ITS TIMC Project,[4] and agrees with FEI's characterization of the threat posed by cracking and with FEI's proposed use of EMAT ILI tools to inspect the 8 ITS pipelines.[5] However, RCIA recommends not installing a temporary pressure regulating station (PRS) at the SN-4 Valve Assembly or removing three heavy wall segments of pipeline where previous MFL ILI tool runs exhibited speed excursions.

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[4] RCIA Final Argument, p. 5.

[5] RCIA Final Argument, pp. 5-7.

5. FEI submits that RCIA's approach does not reflect a prudent way to manage the significant safety and reliability risks due to the potential for cracking on the ITS or the potential serious consequences to customers if FEI were forced to maintain a pressure reduction on the ITS over the winter months. While RCIA advances its proposals in the name of cost effectiveness, RCIA is proposing that FEI cut corners and take higher risks, based on suppositions and, in some cases, has disregarded evidence on the record. RCIA's recommended approach would impose unjustifiable risks on customers, the public and FEI. RCIA's approach is not recommended by FEI or other interveners. FEI submits that RCIA's approach is not prudent and should be rejected.

6. In the sections below, FEI responds to RCIA's recommendations regarding the temporary PRS at the SN-4 Valve Assembly and the removal of heavy wall pipe segments.

A. FEI Has Demonstrated the Need for a Temporary PRS at SN-4 Valve Assembly

7. RCIA generally supports FEI having additional flexibility and control over the pressure in specific pipeline segments in case the utility needs to reduce the operating pressure in response to severe cracking found during the EMAT ILI. However, RCIA questions FEI's proposed operational strategy[6] to complete the EMAT ILI of the SAV VER 323 pipeline and the associated need for the proposed temporary PRS at the SN-4 Valve Assembly.[7] In particular, based on the additional information provided in FEI's Rebuttal Evidence, RCIA speculates that to avoid a potential pressure reduction that persists through the winter (which could result in insufficient capacity to meet peak winter demand in the Okanagan), FEI will only be able to undertake the baseline EMAT ILI run of the Savona to Penticton 323 mainline once the Okanagan Capacity Upgrade (OCU) Project is in service.[8] RCIA's conclusion that the proposed temporary PRS at the SN-4 Valve Assembly is not needed should be rejected for the reasons below.

8. First, it is premature at this stage of developing the ITS TIMC Project to conclude that FEI will not be able to execute the operational strategy described in the response to BCUC IR1 1.2.1. Development of the ITS TIMC Project, including the operational strategy, is ongoing, remains in

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6 FEI describes the operational strategy in BCUC IR1 1.2.1 (Exhibit B-4).

7 RCIA Final Argument, p. 16.

8 RCIA Final Argument, pp. 16-18.

the relatively early stages and will be re-assessed and refined before undertaking the baseline EMAT ILI run on the Savona to Penticton 323 mainline in 2026. While longer vendor reporting timelines could potentially narrow the window in which FEI can undertake repairs on the pipeline, there remain feasible scenarios where FEI would be able to execute the operational strategy. This contrasts with REL's recommendation that FEI defer installing the proposed PRS at the Yahk Station which, as accepted by RCIA,[9] would have resulted in no feasible timeline for its installation before a pressure reduction was needed. Therefore, as it may still be feasible for FEI to implement the operational strategy, the BCUC should approve the scope of the Project as proposed so that FEI can implement the operating strategy if feasible.

9. Second, RCIA incorrectly assumes that FEI will not be able to initiate *any* repair work on the Savona to Penticton 323 mainline until after FEI has completed its analysis of the crack results.[10] As explained in its Rebuttal Evidence, once FEI receives preliminary vendor reporting, it will undertake an initial review of the vendor's findings, during which it could identify cracking that was not previously identified by the vendor.[11] As part of this review, FEI will assess reported cracks by undertaking integrity digs, analyzing the findings and undertaking in-ditch repairs where possible.[12] While the potential digs and repairs could be a significant undertaking,[13] FEI will have the opportunity to begin some repairs before its analysis of the vendor's preliminary reporting. The temporary PRS at the SN-4 Valve Assembly will provide FEI with the flexibility to proceed with the operational strategy if it is ultimately feasible to do so.

10. Third, even if FEI could not ultimately undertake the operational strategy as currently contemplated, a temporary PRS may still be needed as part of a revised strategy. Consistent with its obligations as a prudent operator, in the event cracking is found following the baseline EMAT ILI run, FEI must maintain sufficient capacity to safely serve the Okanagan region through the winter given that the proposed OCU Project (or another equivalent capacity improvement) will

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9 RCIA Final Argument, pp. 13-14.

10 RCIA Final Argument, p. 17.

11 Exhibit B-18, Rebuttal Evidence, A7.

12 Exhibit B-18, Rebuttal Evidence, A7; Exhibit B-20, BCOAPO IR3 13.1.

13 Exhibit B-11, RCIA IR2 23.4.

not yet be in-service. FEI designed the operational strategy with this objective in mind by proposing to prioritize integrity digs and crack repairs on 41 percent of the Savona to Penticton 323 mainline and then operating the remaining 59 percent at a reduced pressure over the winter.[14] However, FEI may revise the strategy to continue to: (1) meet the overarching objective of maintaining sufficient capacity to serve its customers, and (2) address the safety and reliability risk posed by any cracking identified as part of the baseline EMAT ILI run.

11. Fourth, without the temporary PRS at the SN-4 Valve Assembly, FEI would be forced to delay the baseline EMAT ILI run on the Savona to Penticton 323 mainline until after the OCU Project (or another equivalent capacity improvement) is in place. As stress corrosion cracking is a time-dependent threat, as supported by Dr. Chen's analysis,[15] and any delay to the baseline EMAT ILI run will increase the potential for cracking (if present) to grow to failure. While FEI plans to have the OCU Project in-service prior to October 2026, if the BCUC does not approve the project, FEI would be left without a solution enabling it to run the EMAT ILI tool on the SAV VER 323 and VER PEN 323 pipelines. In particular, as FEI does not have a timeline to implement an alternative equivalent capacity upgrade improvement, RCIA's proposed approach would introduce additional risk of cracks growing to failure during the intervening period.

12. Fifth, while the temporary PRS at the SN-4 Valve Assembly will ensure that FEI has the flexibility to proceed with executing an operational strategy that requires the ability to reduce the operating pressure on the Savona to Penticton 323 mainline, FEI will only install the PRS at the SN-4 Valve Station if needed for the prudent execution of the Project. FEI will be reporting to the BCUC on the execution of the ITS TIMC Project and its actions are subject to review by the BCUC.

13. Ultimately, the proposed temporary PRS at the SN-4 Valve Assembly is the best approach to provide FEI with the option to reduce the pressure on the Savona to Penticton 323 mainline. As FEI explained in its Final Submission, a temporary (rather than permanent) PRS already results in approximately $340 thousand in cost savings, and was selected after considering three

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[14] Exhibit B-4, BCUC IR1 1.2 and 1.2.1.

[15] FEI Final Submission, para. 19.

different PRS alternatives for this station.[16] FEI will provide information to the BCUC with respect to any changes affecting the implementation of the operational strategy and associated need for the proposed PRS as part of Project progress reporting.

B. Replacing Heavy Wall Segments Is Necessary and Cost-Effective

14. RCIA's recommendation that the 3 segments of heavy wall pipe should not be removed as part of the ITS TIMC Project should be rejected.

15. As explained in detail in Part Four, Section A(b) of FEI's Final Submission, these 3 heavy wall segments, one on the SAV VER 323 pipeline (Event 1) and two on the KIN PRI 323 pipeline (Events 29 and 31), need to be replaced to prevent speed excursions resulting in insufficient data downstream of the heavy wall segments that would result in FEI being unable to assess the safety risk posed by cracking.[17] This conclusion is supported by both BCOAPO and CEC.[18] For instance, BCOAPO concludes that "the totality of the FEI evidence…raises concerns over the REL recommendations, such that the FEI Project definition should be accepted as proposed."[19]

16. As cracking is a time-dependent threat, meaning that it increases with time, it is not prudent to leave this risk unmitigated for a portion of the ITS, especially as 329 instances of cracking have already been found on the relatively small portion of the ITS already inspected.[20] FEI must act reasonably and proceed to mitigate the significant safety risk of a potential rupture and widespread loss of gas service to customers, including emergency services, businesses and critical care facilities, in accordance with industry standards and its obligations to maintain the ongoing safety and integrity of its infrastructure. Therefore, contrary to RCIA's contention that FEI's approach to mitigating speed excursions is "likely too conservative",[21] FEI submits that RCIA's recommendation that FEI not proactively replace these 3 heavy-wall segments is

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16 FEI Final Submission, para. 94.

17 Exhibit B-4, BCUC IR1 14.3; Exhibit B-1, Application, p. 92.

18 BCOAPO Final Argument, p. 20; CEC Final Argument, para. 170.

19 BCOAPO Final Argument, p. 20.

20 Exhibit B-1, Application, Table 3-4.

21 RCIA Final Argument, p. 21.

imprudently based on the supposition of a best-case scenario, strikes an improper balance between cost savings and risk mitigation, and should be rejected.

17. While FEI has substantively addressed the points raised by RCIA in its Final Submission, FEI briefly responds to specific arguments regarding the removal of the 3 heavy wall segments of pipe in the subsections below.

(a) Removal of Heavy Wall Segments Are Necessary for a Successful Tool Run

18. RCIA does not consider there to be sufficient value in the data collected in the potential blind spots at Events 1, 29 and 31 to justify the capital expenditures associated with the replacement of the 3 heavy-wall segments.[22] However, RCIA bases its argument on the assumption that EMAT ILI tools will perform better than the MFL-C tools, such that data is not lost. This argument contradicts the findings of the EMAT ILI pilot project which confirm that, in the majority of cases, the same features caused speed excursions in both MFL-C and EMAT ILI tools.[23] Based on the similarities between MFL-C and EMAT ILI results, FEI was able to identify where speed excursions were most likely to occur on ITS pipelines and refined the Project scope accordingly. The use of MFL-C run results to predict where speed excursions could occur was also endorsed by Dynamic Risk as part of the CTS TIMC proceeding as follows:[24]

> The tool velocity of the previous MFL inspections was used to predict the areas where the EMAT tool would potentially exceed the optimum velocity. <u>The performance of the EMAT tool used during the FEI pilot project inspections was analyzed and found to behave similar to the MFL-C with regards to tool velocity. Using this assessment approach gives greater confidence in capturing the highest priority restrictions that could result in a velocity excursion</u>. [Emphasis added]

19. Given FEI's experience with EMAT ILI tools and the impact of heavy-wall segments on tool performance, which RCIA acknowledges it does not have,[25] FEI properly limited proposed alterations to 3 of 65 event locations (i.e., those where it has a high confidence that speed

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22 RCIA Final Argument, p. 20.

23 Exhibit B-1, Application, Appendix D, pp. 5-6.

24 Exhibit B-1, Application, Appendix O-2, BCUC IR1 1.3.

25 Exhibit C2-7, BCUC-RCIA IR1 1.1.

excursions will occur (with or without speed control)), thus supporting their proactive replacement. In particular, at each of these event locations: (1) the MFL-C tool exceeded the *maximum* velocity for data collection (i.e., not simply the *optimal* velocity range); and (2) the speed excursion impacted a significantly longer length of pipe than the heavy-wall segments themselves. As CEC recognizes, "there is a very high likelihood that the heavy wall segments will result in significant speed excursions that would ultimately cause an increase in costs and loss of Project planning benefits."[26]

20. Ultimately, the replacement of these heavy-wall segments will mitigate the loss of EMAT ILI data at these 3 locations and is warranted.

(b) Proactive Replacement of Heavy-Wall Segments is Cost-Effective

21. RCIA's argument that it may be more cost-effective to deal with blind spots by excavating, exposing, repairing and recoating affected areas[27] is again predicated on the assumption that EMAT ILI tools will perform better than MFL-C tools, thus resulting in no blind spot, or a shorter blind spot, and a lower cost to expose and recoat the pipe where the blind spot occurs.[28] As described above, this assumption is without merit and must be rejected.

22. Furthermore, FEI has set out the pros and cons of the alternatives and provided a range of comparative cost estimates for each of the options available to mitigate cracking in blind spots at Event 1, 29 and 31 after the EMAT ILI tool run, as well as the cost estimate range for the proactive heavy-wall replacement proposed in the Application.[29] RCIA does not address all of FEI's reasons for undertaking the proactive replacement of these heavy-wall segments, including:

- The unplanned and much higher gas costs to secure the balance of supply for the CTS, which would be borne by customers, in the event FEI needed to reduce the pressure on the KIN PRI 323 or PRI OLI 323 pipelines during winter;[30] and

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26 CEC Final Argument, para. 169.

27 RCIA Final Argument, p. 22.

28 RCIA Final Argument, pp. 26-27.

29 Exhibit B-20, BCOAPO IR3 15.1.

30 Exhibit B-18-1, Rebuttal Evidence, A16; Exhibit B-20, BCOAPO IR3 16.1.

- That reactive options to mitigate cracking on the downstream impacted pipe, like PLE or PLR, will be more impactful (e.g., more severe environmental and archaeological impacts).[31]

23. A consideration of the relative cost between approaches and pros and cons of the alternatives supports FEI's view that each of the 3 heavy-wall segments should be proactively replaced.[32]

(c) RCIA Improperly Discounts the Costs of Re-Running the EMAT ILI Tool

24. RCIA submits that FEI does not need to immediately re-run the EMAT ILI tool after finding a blind spot.[33] RCIA fails to address FEI's Rebuttal Evidence in which FEI explained that, without baseline EMAT information and other post-ILI information, FEI cannot assume that a potential delay in running the tool of 7 years would be acceptable. FEI would be left without information regarding these segments until 2033 for the SAV VER 323 pipeline and 2039 for the KIN PRI 323 pipeline,[34] which is additional time during which cracks could grow to failure. Therefore, the cost to re-run the EMAT ILI tool must be considered when assessing any potential cost-savings associated with RCIA's recommendation that FEI not proceed with replacing the 3 heavy-wall segments.

(d) It Would be Imprudent for FEI to Rely on the Availability Speed Control

25. Much of RCIA's argument hinges on the availability of speed control, which FEI has addressed in considerable detail as part of this proceeding, as summarized in Part Four, Section A(c) of FEI's Final Submission. In summary, although FEI is interested in running tools with speed control, it cannot *rely* on EMAT ILI tools with speed control being used for the planned baseline runs on the SAV VER 323 and KIN PRI 323 pipelines. In particular, FEI is only aware of one vendor that is developing a speed control unit for NPS 12 EMAT ILI tools.[35]

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31 Exhibit B-18-1, Rebuttal Evidence, A16.

32 Exhibit B-18-1, Rebuttal Evidence, A16; Exhibit B-20, BCOAPO IR3 15.1.

33 RCIA Final Argument, p. 22.

34 Exhibit B-18, Rebuttal Evidence, A25.

35 Exhibit B-18, Rebuttal Evidence, A17.

26. Moreover, even if FEI could rely on speed control being used for these runs, running tools with speed control does not *eliminate* speed excursions or the potential for blind spots.[36] Citing the EMAT ILI pilot project results on the CPH BUR 508, which REL describes as "[p]robably the most relevant industry experience" on the performance of EMAT ILI tools with speed control,[37] RCIA concludes that it expects the combination of speed control and technological advancements will reduce the extent of speed excursions.[38] FEI cannot rely on technological advancement improving tool performance and, in any event, there is no evidence on the record in this regard. Indeed, the EMAT pilot which RCIA endorses demonstrates that, based on current tool capabilities with speed control, the tool still reached a speed above the specified degraded specification range of 2 to 5 m/s and well-above the optimal tool velocity of 1-2 m/s.[39] Therefore, speed control does not resolve the underlying need to proactively replace the proposed heavy-wall pipe segments.

(e) Complete EMAT ILI Data Allows FEI to Demonstrate Pipeline Safety

27. RCIA considers the risk of an extended interruption in gas supply to be overstated and does not accept that if any severe cracking is identified on the SAV VER 323 or KIN PRI 323 pipelines, the utility will have to investigate the blind spots before the winter to demonstrate the pipeline is safe for operation.[40] Contrary to RCIA's suggestion, FEI is not saying that it can deduce the presence of cracking based on cracking elsewhere on the pipeline. Rather, if FEI's initial EMAT ILI finds severe cracking on the pipelines, FEI expects that, as a prudent operator, it will want to demonstrate that the pipeline is safe to operate; having blind spots on the pipeline will inhibit FEI's ability to make that determination. As FEI stated in its Rebuttal Evidence in relation to the proposed heavy-wall replacement on the SAV VER 323 (Event 1):[41]

> If severe cracking is identified on the SAV VER 323 pipeline, FEI expects to address the blind spot because it would otherwise be unable to demonstrate that the

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36 Exhibit B-18, Rebuttal Evidence, A18.

37 Exhibit C2-7, BCUC-RCIA IR1 1.1.

38 RCIA Final Argument, p. 24.

39 Exhibit B-18, Rebuttal Evidence, A19.

40 RCIA Final Argument, p. 27.

41 Exhibit B-18, Rebuttal Evidence, A16.

> pipeline in its entirety is safe for operation. Due to the time constraints to complete integrity digs and repairs and restore pressure in this segment of the pipeline, FEI also expects that its only available option would be to expose the impacted pipeline to determine if there is cracking on the segment, and then repair and recoat it so that it could be operated without a pressure reduction. This work would be a significant and impactful undertaking, as the pipeline crosses under the Trans-Canada Highway.

(f) It is in the Best Interest of Customers for FEI to Maintain a Choice of EMAT ILI Vendors

28. RCIA argues that it would be more economical for FEI to sole-source a vendor offering an EMAT ILI tool with speed control and a degraded data specification than undertaking the proactive replacement of the 3 heavy-wall segments.[42] FEI submits that it is in the best interest of customers for FEI to maintain a choice of vendors for the reasons below.

29. First, as explained above, the use of EMAT ILI tool with speed control and a degraded data specification does not eliminate the potential for speed excursions and blind spots.

30. Second, RCIA's proposal fails to address the barriers FEI identified with respect to requesting a degraded data specification. In particular, while FEI considers that degraded data specifications will assist to achieve full coverage of its pipelines, ILI vendors do not commonly offer such specifications because they are resource intensive, time-consuming, costly and difficult to develop, as well as creating additional and undesirable business risks for these vendors. As FEI explained in the response to the response to CEC IR3 6.1:[43]

> While FEI is not an ILI tool vendor, based on its understanding of ILI tools and discussions with ILI vendors, developing a degraded data specification is complex and could involve modifications to the ILI tool sensors (e.g., increased number/density of sensors), modifications to electronics (e.g., increased scanning frequency for sensors), significant testing, calibration, as well as changes to other aspects of the EMAT ILI tool vendors' services, such as post-ILI analysis procedures.

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[42] RCIA Final Argument, p. 29.

[43] Exhibit B-21.

Without a degraded data specification, the results of the EMAT ILI pilot project suggest that the EMAT ILI tool will likely exceed the optimal tool velocity (1-2 m/s) by a considerable margin, resulting in data loss even if the tool has speed control.[44]

31. Third, RCIA ignores the disadvantages FEI identified with designing its system around specific tool technologies such as speed control and the availability of degraded data specification. In particular, focusing solely on the availability of certain tool characteristics would limit FEI's ability to consider other technical capabilities (e.g., detection and sizing capabilities) in favour for *potentially* improved speed excursion performance.[45] Moreover, in addition to increased run costs (which RCIA appears to accept), RCIA's recommendation would leave FEI beholden to a single vendor and its availability to conduct all of the runs contemplated following the completion of the ITS TIMC Project. As a result, FEI may not be able to undertake EMAT ILI runs within the timelines proposed.

32. Finally, the risks associated with relying on a single ILI vendor could prevent FEI from fully and/or effectively achieving the benefits associated with running EMAT tools over the operating lifecycle of the assets.[46]

(g) Treatment of Pipelines without EMAT ILI Tools Is Irrelevant

33. Contrary to RCIA's submission, FEI's approach regarding smaller pipelines with a diameter of less than 10 inches is not a reason to accept blindness to cracking threats on the ITS.[47] FEI has no option with the smaller pipelines as there are no EMAT tools that can operate in these pipelines. For larger diameter pipelines, FEI must keep pace with industry standard approaches and adopt EMAT ILI. If there were to be a rupture on an ITS pipeline downstream of a heavy wall segment where FEI knew it was blind, RCIA's recommended cost cutting measure would be a catastrophic error. RCIA's recommendation to forgo taking the industry standard approach amounts to accepting a significant and unjustifiable safety risk.

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44 Exhibit B-18, Rebuttal Evidence, A18.

45 Exhibit B-18, Rebuttal Evidence, A22; Exhibit B-21, CEC IR3 5.2.

46 Exhibit B-21, CEC IR3 5.2.

47 RCIA Final Argument, p. 22.

C. FEI Has Correctly Scoped the ITS TIMC Project

34. FEI submits that the BCUC should reject the RCIA's recommendations. FEI has reasonably and cost-effectively scoped the ITS TIMC Project to ensure that it can prudently manage the significant safety and reliability risks posed by cracking threats. FEI has prudently refined the Project scope to the minimum required to ensure it can effectively use EMAT ILI tools and has already reduced the scope of the Project to exclude items such as heavy wall pipe segments that may not reduce the quality of EMAT ILI tool runs. The further reduction in scope recommended by RCIA will likely come with increased safety and/or reliability risks to customers that are not justifiable. The proposed scope of the ITS TIMC Project appropriately reflects FEI's role as a prudent operator responsible for the safe and reliable operation of the gas distribution system and should be approved as set out in the Application.

PART THREE: REPLY TO BCOAPO AND CEC

35. In this part, FEI responds to the comments and recommendations of BCOAPO and CEC.

A. FEI Has Responded to the BCUC's Directive Regarding the Value of Incremental Risk Reduction

36. BCOAPO contends that FEI has not provided a satisfactory response to the BCUC directive from Decision and Order C-3-22 regarding the development of a robust process to assess the value of incremental improvement of risk and asks the BCUC to determine that the directive remains outstanding.[48]

37. Contrary to BCOAPO, FEI's CTS compliance filing attached as Appendix R to the Application provides a fulsome response to the BCUC's directive. FEI considered a number of possible processes to assess the value of incremental improvements in risk resulting from a given project, but ultimately determined that there was no "silver bullet" answer to the question of how to assess incremental improvement in risks. FEI maintains that: (1) risk mitigation is only one of a number of potential project drivers; (2) FEI is continually investigating new processes to analyze and evaluate risk mitigation; (3) industry is moving from a qualitative to a quantitative

[48] BCOAPO Final Argument, pp. 28, 30.

assessment of risks in some areas; and (4) that assessing incremental improvement in risks will vary by project. FEI submits that the CPCN regulatory process remains the best opportunity to assess and test the costs and benefits of a project for ratepayers, including the incremental value of risk mitigation (as applicable). This is because the CPCN process provides a robust, effective and efficient means of assessing the cost and benefits of a project – which is an integral component of the BCUC's public interest-based determinations respecting proposed projects – as well as being flexible enough to support the variety of tools, methods and analyses that are needed to assess the value of incremental improvements in risk.[49]

38. FEI notes that BCOAPO also mischaracterizes FEI's evidence:

(a) With respect to BCOAPO IR1 6.1, 6.2, and 6.3, BCOAPO's questions were focused on whether continually improving risk management impedes or facilitates FEI's ability to assess the value of incremental improvement in risk in future CPCN applications. As FEI explained in response to BCOAPO, its efforts and those of industry will facilitate the assessment of incremental improvements of risk in the context of future CPCN applications,[50] and the variability of risk assessments between different projects will not impede its ability to assess the value of incremental improvement in risk in future CPCN applications as the regulatory process is sufficiently flexible such that the assessments of risk and benefits can be varied to the circumstances of individual projects.[51]

(b) With respect to BCOAPO IR2 12.2, when BCOAPO asked why an overall framework for the evaluation of the value of improvement in risks would not have the flexibility to be adapted/applied to specific CPCN applications, FEI referred BCOAPO to the previous response where FEI explained that it has not identified a single way to evaluate incremental improvements in risk. Ultimately, the existing CPCN process is flexible enough to adapt to the circumstances of individual projects, including a diverse range of drivers and justifications.[52]

39. Ultimately, BCOAPO has not identified any alternative solution for the BCUC's or FEI's consideration, nor explained why FEI's response is incorrect or flawed. FEI submits that there is,

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[49] Exhibit B-1, Application, Appendix R, p. 5; Exhibit B-12, BCOAPO IR2 12.1.

[50] FEI's response to BCOAPO IR1 6.2 (Exhibit B-6) was as follows: "FEI views its efforts, and those of industry, to continuously improve risk management as facilitating its ability to assess the value of incremental improvement in risk in future CPCN applications."

[51] Exhibit B-6, BCOAPO IR1 6.3.

[52] Exhibit B-12, BCOAPO IR2 12.1 and 12.2.

therefore, no need for the BCUC to provide further guidance or set a specific date to provide a full response to its directive, as recommended by BCOAPO.

B. BCOAPO's Insistence on the Need for Unidentified Sub-Alternatives is Unreasonable

40. The CEC and RCIA agree that FEI's alternatives analysis is reasonable and with FEI's conclusion that EMAT ILI (Alternative 4) is the only technically and financially feasible alternative.[53] While BCOAPO states that "there does not appear to be evidence of a superior technology to EMAT ILI" and agrees EMAT ILI technology is the most appropriate alternative, it nonetheless argues that FEI ought to have also evaluated sub-alternatives to EMAT ILI as part of the alternatives analysis.[54] FEI submits in reply that its alternatives analysis was robust and complete, and that BCOAPO has not substantiated the existence of any sub-alternatives that FEI should have examined nor identified any flaw in FEI's analysis.

41. First, BCOAPO has not identified any flaw in FEI's analysis of the various alternatives or identified any feasible and cost-effective alternatives or sub-alternatives that FEI failed to identify and analyze.

42. Second, FEI has complied with the BCUC's CPCN Guidelines[55] and has identified multiple alternatives to the Project. The evidence establishes, however, that none of the multiple alternatives to EMAT ILI are both technically feasible and cost-effective.[56] This is a perfectly reasonable result of an alternatives analysis and consistent with the fact the industry's knowledge of cracking threats has evolved, prompting industry to develop and adopt new tools (EMAT ILI) to address them.[57]

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53 CEC Final Argument, paras. 97-99; RCIA Final Argument, p. 7.

54 BCOAPO Final Argument, p. 9.

55 BCUC CPCN Guidelines state that "the applicant should identify alternatives that it deemed to be not feasible at an early screening stage, and provide the reason(s) why it did not consider them further." https://docs.bcuc.com/documents/Guidelines/2015/DOC_25326_G-20-15_BCUC-2015-CPCN-Guidelines.pdf.

56 Exhibit B-6, BCOAPO IR1 2.3.

57 In 2022, 10,036 miles of gas transmission pipelines were inspected using EMAT ILI in the US: Exhibit B-22, RCIA IR3 26.2.

43. Third, FEI's alternatives analysis in the Application identified the same six alternatives as the CTS TIMC Project CPCN proceeding, which were reviewed and endorsed by the BCUC in its Decision and Order C-3-22 approving the CTS TIMC Project.[58]

44. Fourth, with respect to BCOAPO's reference to the Pattullo Gas Line Replacement (PGR) Project,[59] a linear pipeline project such as the PGR Project is more likely to have sub-alternatives given the potential for multiple routes. As the ITS TIMC Project is not a linear project, there are no alternative routes to consider.

45. Ultimately, for the reasons outlined in Part Three of its Final Submission, FEI properly identified EMAT ILI as the preferred, and only feasible, alternative to achieve the Project objective of enhancing FEI's integrity management capabilities to mitigate cracking threats to the 8 ITS transmission pipelines.

C. Additional Reporting Regarding the Health of FEI's Transmission Pipelines is Not Warranted

46. CEC argues that the BCUC ought to direct FEI to provide an overall update on the health of its transmission pipelines after completing baseline EMAT ILI runs on the CTS and ITS.[60] FEI already reports on integrity digs and associated incremental expenditures as part of Annual Review proceedings in relation to its existing program. FEI will be able to share the results of baseline EMAT ILI runs on the CTS and ITS in a future multi-year ratemaking plan (MRP) or Annual Review filings once FEI validates tool run findings and reporting finalized by the vendor. Therefore, a specific direction from the BCUC in this regard is not warranted. FEI also notes that the BC Energy Regulator oversees FEI's pipeline integrity program, and FEI will be reporting to the BC Energy Regulator in the usual course.

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58 https://docs.bcuc.com/documents/proceedings/2022/doc_66603_c-3-22-fei-cts-timc-cpcn-decision.pdf.

59 BCOAPO Final Argument, p. 9.

60 CEC Final Argument, para. 179.

D. FEI Will Report Project Cost Savings as Part of Compliance and Regulatory Reporting

47. CEC suggests that the BCUC direct FEI to include information regarding the economies of scale between the CTS and ITS TIMC Projects, as well as quantifying any of the associated savings generated, in its regular reporting to the BCUC.[61] As FEI explained in its responses to CEC's IRs in this regard, FEI has realized savings on other integrity-related projects (e.g., the Inland Gas Upgrade Project) and will seek to secure reduced pricing from its suppliers during the execution phase of the ITS TIMC Project.[62] However, the direction sought by the CEC is not needed as FEI has already committed to provide semi-annual progress reporting to the BCUC,[63] in which FEI would report on cost variances which would capture cost savings of this kind.

E. FEI's Engagement with Indigenous Groups is Consistent with the BCUC's CPCN Guidelines

48. BCOAPO concerns[64] regarding FEI's level of engagement under the International Association of Public Participation (IAP2) public participation spectrum are unfounded. BCOAPO has not identified any action that FEI should or should not have taken with respect to its consultation with Indigenous groups. FEI considers its engagement level for Indigenous Groups as "Involve" because FEI works directly with potentially affected groups throughout the process to ensure that the concerns and aspirations are consistently understood and considered.[65] FEI commenced early engagement activities with Indigenous groups before the Application was filed with the BCUC, and provided each of the 35 Indigenous groups with opportunities to provide input on the preliminary Project scope (which will primarily be undertaken within the existing pipeline ROW and station footprints)[66] and to identify potential areas of involvement in its development. FEI proactively offered and then held meetings with Indigenous groups that were interested in working directly with FEI.[67] While responses to this engagement included

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61 CEC Final Argument, para. 196.

62 Exhibit B-7, CEC IR1 1.2.1; Exhibit B-10, CEC IR2 41.1.

63 Exhibit B-10, CEC IR2 41.3.

64 BCOAPO Final Argument, p. 27.

65 Exhibit B-6, BCOAPO IR1 4.2.

66 Exhibit B-1, Application, p. 101.

67 Exhibit B-1, Application, p. 145 and Table 8-3 (pp. 146-148); Exhibit B-6, BCOAPO IR1 4.3.

expressions of interest to be involved in activities during field assessments and construction, to date, no Indigenous groups have raised specific input regarding Project alternatives.[68] As outlined in Section 8.3.6 of the Application, FEI will continue providing detailed Project information to the 35 Indigenous groups identified for their consideration and comment. Further engagement will take place throughout the Project's lifecycle, including Project planning, construction and restoration. In particular, as development of the Project progresses, FEI will continue to follow up and address concerns that were identified as part of early engagement activities.[69]

49. FEI submits that its engagement with Indigenous groups has been reasonable and appropriate. Contrary to BCOAPO's apparent position, FEI should not and cannot force Indigenous groups to engage more deeply with a given project than they desire, simply for the sake of achieving a certain IAP2 participation level. Consistent with the BCUC's CPCN Guidelines, FEI has committed to continue engagement activities throughout the Project lifecycle in alignment with each Indigenous group's preferred method(s) of communication and level of interest.[70]

F. Rate Mitigation Can Be Addressed in Revenue Requirement and Rates Proceedings

50. BCOAPO expresses concerns with respect to the cumulative residential rate increases and bill impacts across the numerous CPCN capital projects that are being proposed by FEI.[71] FEI is mindful of the impacts of delivery rates on customers and will continue to seek opportunities to address future rate increases. However, as the BCUC stated in the CTS TIMC Decision, the BCUC "must assess the need of the Project and its individual rate impact on their own merits", rather than in relation to other projects.[72] Therefore, strategies to mitigate rate impacts are best addressed as part of an annual review or revenue requirement application. These processes permit the rate impacts of major projects to be viewed holistically in light of all of the costs and revenues forecast for a given year or years. Through these proceedings, FEI, the BCUC and

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68 Exhibit B-12, BCOAPO IR2 10.1.

69 Exhibit B-12, BCOAPO IR2 10.2.

70 Exhibit B-6, BCOAPO IR1 4.3.1.

71 BCOAPO Final Argument, p. 24.

72 CTS TIMC Decision, p. 49.

interveners can assess and consider not only the costs of the projects at the time they enter rate base, but also any increased demand or cost reductions that can help offset those costs, and the timing of those costs/revenues, thus providing a full picture of all the factors impacting rates in a given year.

G. FEI Has Demonstrated the Need to Implement the Project in the Proposed Timeline

51. CEC asserts that FEI has not made a particularly strong case for undertaking the ITS TIMC Project immediately because FEI has not provided evidence of a "looming rupture" and "immediate implementation [of the ITS TIMC Project] appears to stem from recognition of serious future risks".[73] Contrary to the CEC, the risks of rupture that FEI has identified in fact exist on FEI's pipelines today: (1) pipelines on the ITS are susceptible to cracking; (2) physical inspections have already confirmed that cracking exists on the 8 ITS TIMC pipelines, including at 329 different locations inspected as part of 641 integrity digs; (3) cracking is a time-dependent threat and many of the pipelines on the ITS were installed in 1957; (4) FEI has regulatory obligations to monitor and mitigate cracking threats to its transmission pipelines; and (5) EMAT ILI is a proven, commercialized and increasingly well-adopted technology to proactively assess, manage and mitigate cracking.[74] Therefore, based on these present risks of rupture and the potentially significant consequences they entail, FEI should carry out the ITS TIMC Project as planned and without delay.

PART FOUR: CONCLUSION

52. FEI submits that the ITS TIMC Project is in the public interest and that the BCUC should grant a CPCN for the Project.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

Dated: October 18, 2023

[original signed by Chris Bystrom]
Chris Bystrom
Counsel for FortisBC Energy Inc.

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[73] CEC Final Argument, para. 66.

[74] Exhibit B-1, Application, Table 3-4; Exhibit B-4, BCUC IR1 1.2; Exhibit B-15, BCUC Panel IR1 1.3.

October 18, 2023

[original signed by Niall Rand]

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