

LIDSTONE & COMPANY
BARRISTERS AND SOLICITORS

October 29, 2020

BY EMAIL commission.secretary@bcuc.com

British Columbia Utilities Commission
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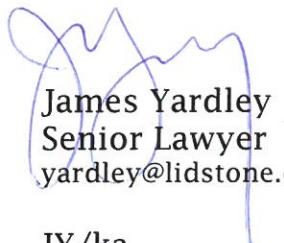
Attention: Marija Tresoglavic, Acting Commission Secretary

**Re: FortisBC Energy Inc. - Application for a Certificate of Public
Convenience and Necessity for the Patullo Gas Line Replacement
Project
Order G-232-20
Our File No. 10012-109**

Please find enclosed Information Request No. 1 of the City of Burnaby in the above noted matter.

Sincerely,

LIDSTONE & COMPANY



James Yardley
Senior Lawyer
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JY/ka

c. James Lota, City of Burnaby
Chris Bystrom, FMD LLP

City of Burnaby Information Request No.1 to FortisBC Energy Inc.
Application for a CPCN for the FEI Pattullo Gas Line Replacement Project

October 29, 2020

Note: unless otherwise specified, all references to pages and line numbers are to the FEI Application.

1. Reference: APPLICATION: Section 1.1, Introduction

On page 1 at lines 10-12, FEI states that the PGR Project is needed to replace the capacity provided by FEI's distribution pressure gas line affixed to the Pattullo Bridge.

On page 1 at lines 15-16, FEI says the PGR project includes a 508 mm gas line that will operate at a maximum operating pressure (MOP) of 2,070 kPa.

- 1.1 Please advise of the MOP of the current gas line on the Pattullo Bridge.
- 1.2 If the MOP of the current gas line is less than 2,070 kPa, please advise of the following:
 - 1.2.1 why FEI is seeking to have the PGR Project include a gas line with a MOP greater than that of the current gas line on the Pattullo Bridge.
 - 1.2.2 whether FEI considered any alternative replacements for the current line that would operate at the same MOP as the current gas line and, if so, provide particulars of the alternative(s).

2. Reference: PROJECT JUSTIFICATION; Section 3.1, Introduction

On page 14 at line 8, FEI says that the Pattullo Gas Line must be decommissioned by the end of 2023.

- 2.1 Please provide any more recent update on the date by which the Ministry of Transportation and Infrastructure (MOTI) has asked for the removal of the existing gas line from the Pattullo Bridge.
- 2.2 Please produce all communications between FEI and MOTI concerning the date sought by MOTI for the removal of the existing FEI gas line.

3. Reference: PROJECT JUSTIFICATION: Section 3.4; Pattullo Bridge Replacement Project

- 3.1 Please provide the most current construction schedule available for the New Bridge, including the date it is expected that the New Bridge will be open for traffic.

- 3.2 Please provide a copy of the Project schedule for the New Bridge relied on by FEI at lines 18 and 19 of page 19 and, if a more recent project schedule is available, a copy of that project schedule.

4. Reference: ALTERNATIVES EVALUATION: Section 4.3.1.1; Analysis of Alternative 1, and Appendix A MOTI Correspondence

In section 4.3.1.1 FEI refers to correspondence that FEI with MOTI in 2018 and has attached in Appendix A some of it correspondence with MOTI.

- 4.1. Please provide a copy of FEI's January 25, 2018 request that is referenced in MOTI's July 3, 2018 letter that is in Appendix A to the Application.
- 4.2. MOTI's letter of July 3, 2018 states that in January 2018, FEI made an alternative request to MOTI to install a 323 mm diameter intermediate pressure pipeline on the New Bridge. Please advise what the rationale was for seeking approval from MOTI for a 323 mm pipeline, rather than the 508 mm gas line that is sought in the current application, and provide further details about the 323 mm diameter pipeline, including its MOP and the extent to which it would be able to satisfy supply provided by the existing line affixed to the Pattullo Bridge.

5. Reference: ALTERNATIVES EVALUATION: Section 4.2 and Section 4.4.2.3; Scoring and Weighting

On page 26 at lines 1-2, FEI states that it evaluated the alternatives "with a focus and priority on the solutions with the least impact".

In Section 4.4.2.3 on page 45, FEI says at lines 20-21, FEI says that weightings were determined "through collaborative discussions with FEI's subject matter experts" and at lines 23-24, that for non-financial evaluation criteria, "each overland alternative was scored by subject matter leads based on system analysis and experience of similar projects ...".

In Table 4-3 on page 46, FEI specifies the weightings given to non-financial and financial impacts.

- 5.1 Please identify the "subject matter experts" and "subject matter leads" referenced in section 4.4.2.3 and provide their experience and qualifications.
- 5.2 Please explain the basis upon which individual weightings were arrived at for the financial and non-financial weightings.
- 5.3 Please advise if the weightings changed during the preparation of the Application, including during the "collaborative discussions" referenced at lines 20-21 and, if they

did, please provide the other weightings that were considered and the rationale for any changes.

- 5.4 Please advise if any factors were dropped from inclusion in the non-financial criteria.
- 5.5 Please identify the individual elements that were considered by FEI in determining the impacts reported in Table 4-5 and advise if any of those individual elements received separate scoring, whether on the basis of the scoring used in Table 4-4, or otherwise. For example, in Table 4-5, FEI refers in "Community, Indigenous and Stakeholder Impacts" to impacts on businesses. Did FEI consider as part of that criteria or the other criteria impacts on people who reside in proximity to the proposed routings, people who travel along the proposed routings, or people whose travel would be affected by the construction along the proposed criteria? If so, is that reflected in Table 4-50 and were those factors (and any other factors), given their own scores?

6. Reference: ALTERNATIVES EVALUATION: Section 4.3.2.1, Alternative 2A

On page 30 at lines 21-22, FEI says that the HDD alignment for Alternative 2A would likely destabilize the structure of the existing Pattullo Bridge.

On page 31 at lines 1-5, FEI refers to risk of frac-out.

On page 31 at lines 8-9, FEI refers to conflicts with other transportation works.

On page 31 at lines 6-7, FEI refers to limited workspace.

- 6.1 Please advise what spatial separation from the piers of the existing Pattullo Bridge would be required for the HDD alignment to not destabilize the existing structure?
- 6.2 Please advise if there is any reason that the drill entry point could not be located further to the south in New Westminster than what is shown by FEI for Alignment 2A so that the alignment would not pass below or beside the piers of the Pattullo Bridge.
- 6.3. Please provide all reports and other investigations upon which FEI's conclusions at lines 1-5 of page 31 are based.
- 6.4. Please identify the size and dimensions of the workspace required for Alternative 2A and identify the locations of the limited workspace discussed at lines 6-7 of page 31.
- 6.5 Please identify the following:
 - 6.5.1 the nature of and locations of the conflicts referenced at lines 8-9 of page 31 with Highway 17, Skytrain tunnel and railway crossings,

- 6.5.2 the location and duration of the transportation system closures referenced;
- 6.5.3 any quantitative measure available of those conflicts and closures, such as vehicles per hour that may be affected;
- 6.5.4 whether any investigation was undertaken of the potential to mitigate such impacts; if such an investigation was undertaken, please produce that investigation.

7. Reference: ALTERNATIVES EVALUATION: Section 4.3.2.2.1, Alternative 2B

On page 32, lines 4-14, FEI specifies four factors that it says make Alternative 2B not feasible.

- 7.1 Please identify the type of work for which a crossing permit is required from CN Rail.
- 7.2 Please identify the basis for CN's authority to require a permit for the work.
- 7.3 Please advise what spatial separation from the piers of the CN Bridge would be required for the HDD alignment to not destabilize the existing structure.
- 7.4 Please advise if there is any reason that the drill entry points could not be located elsewhere so that the alignment would not pass below or beside the piers of the CN Bridge.
- 7.5. Please provide all reports and other investigations upon which FEI's conclusions at lines 4-6 of page 32 are based.
- 7.6. Please provide all reports and other investigations upon which FEI's conclusions at lines 9-10 of page 32 are based.
- 7.7. Please identify the following:
 - 7.7.1 the conflicts with McBride Boulevard referenced at lines 11-12 of page 32,
 - 7.7.2 the location of the traffic disruption referenced,
 - 7.7.3 any quantitative measure available of those conflicts and closures, such as vehicles per hour that may be affected.
 - 7.7.4 whether any investigation was undertaken of the potential to mitigate such impacts, and if there was, produce that investigation.
 - 7.7.5 the name of the owner and the nature, location, timing and status of the future development plans referenced at lines 13-14 on page 32.

8. Reference: ALTERNATIVES EVALUATION: section 4.3.2.3.1, Analysis of Alternative 2C

On page 33 at lines 12 to page 34, line 5, FEI lists several factors why it says Alternative 2C is not feasible.

8.1 With respect to lines 12 and 13 on page 33, please identify the following:

8.1.1 the location and dimensions of the workspace requirements and

8.1.2 the access points referenced.

8.2 Please identify the nature of the change orders referenced at lines 9-10, and their expected impact in terms of cost and time.

8.3 Please advise when the location and size of the bridge pier foundations for the New Bridge are expected to be known.

8.4 Please advise when the detailed design of the HDD is expected to begin.

8.5. With respect to the indigenous village site in Surrey:

8.5.1 Please provide a plan showing the location and boundaries of the site and identify the location and extent to which the pipe route would conflict with the village site.

8.5.2 Please advise if FEI has considered using micro-routing for the indigenous village site and, if it has, provide the outcome of that consideration.

8.6 Please identify the following:

8.6.1 the location of the lane closures and traffic disruption on McBride Boulevard referenced at lines 1-2 of page 34,

8.6.2 any quantitative measure available of the traffic disruption and closures, such as vehicles per hour that may be affected.

8.6.3 whether any investigation was undertaken of the potential to mitigate such impacts, and if there was, produce that investigation.

8.7 Please explain what permitting challenges are referenced at line 3 on page 34 and identify the following:

8.7.1 the entity or entities that issues the permits,

8.7.2 the nature of the permits,

8.7.3 the location of the railway crossings.

8.8 Please provide any assessments of the likelihood of HDD failure on the first attempt and the efforts and timing that would be associated with subsequent HDD attempts.

8.9 Please advise on the extent to which FEI's experience with HDD including attempting more than one HDD attempt before achieving a successful HDD.

9. Reference: ALTERNATIVES EVALUATION; section 4.3.2.4 Alternative 2D – Other Trenchless Methodologies

9.1 At lines 16-19 of page 34, FEI states that 750 meters depth and 70 meters length would be the longest and deepest attempts at micro-tunneling in North America. Please advise if micro-tunneling has been successful elsewhere than North America at lengths and depths that exceed those values.

9.2 Please provide the source for the conclusion stated at lines 20-21 on page 34.

9.3 Please produce the geotechnical data referenced at lines 22-26 on page 34.

9.4 Please identify the contractors considered that are referenced at lines 27-28 on page 34 and confirm if any contractors in North America are available within the time contemplated by the Application.

10. Reference: ALTERNATIVES EVALUATION: Section 4.3.3.3, Analysis of Alternatives 3A and 3B

10.1 With respect to lines 14-15 on page 36, please identify the length of time available for negotiations with landowners and the basis for that statement.

10.2 With respect to lines 14-16 on page 36, please identify the length of time estimated that would be required for an application to the Agricultural Land Commission and the basis for that estimate.

10.3 Please advise of the extent to which the pipeline can be routed along municipal roadways in Richmond under Alternatives 3A and 3B and, if it cannot be so routed, the reason(s) why it cannot.

10.4 Please identify the following:

10.4.1 the permits that are referenced at lines 20-21 on page 36,

10.4.2 the length of time estimated for that permitting, and

10.4.3 the basis for FEI's above answers.

10.5 Please discuss the extent to which FEI can apply information obtained from the HDD alternatives examined for the CPCN application for the Fraser River Crossing Upgrade Project (BCUC C-02-09) to the Fraser River crossings in Alternatives 3A and 3B.

11. Reference: ALTERNATIVES EVALUATION; Section 4.3.4.1, Analysis of Alternative 4.

FEI says it screened out Alternative 4 – Aerial Gas Line Crossing based on an inability to meet schedule requirements. FEI determined it could not meet schedule requirements in part because of long lead permits. The Broadway & Gaglardi Way Corridor will also require many of the permits listed in section 4.3.4.1.

11.1 Please explain why FEI believes the Broadway & Gaglardi Way Corridor will be able to meet schedule requirements despite the fact it will also require many of the same permits as Alternative 4.

11.2 Please advise on the time required for the permits for the Broadway & Gaglardi Way Corridor.

12. Reference: ALTERNATIVES EVALUATION; Table 4-5, Non-Financial Evaluation Summary of Overland Gas Line Route Corridors

The City of Burnaby notes that there are other major infrastructure projects planned to be in construction in the Broadway & Gaglardi Way corridor at the same time as the PGR project, including the Trans Mountain Expansion Project (TMEP).

12.1 Please explain whether FEI's assessment of Alternative 6A: Broadway & Gaglardi Way Corridor includes consideration of schedule impacts for conflicts with other infrastructure projects that are planned along this same corridor at the same time, including the TMEP.

12.2 In the event of a scheduling conflict between the TMEPO and the PGR Project in the Broadway and gaglardi Way corridor, please advise whether the TMEP or the FEI PGR project will take precedence over the other during construction and provide the basis for FEI's answer.

The Broadway & Gaglardi Way corridor has a significant impact to Cariboo Road which is one of the only vehicle crossings of Highway 1 in the vicinity. Due to the importance of maintaining efficient traffic over this crossing, please assume that the City of Burnaby would likely insist on restoring all lanes of traffic on a nightly basis once work has stopped.

12.3. Please advise what schedule impacts FEI assumed for delays to construction arising from restoring all lanes of traffic on Cariboo Road on a nightly basis.

12.4 Please advise how FEI's Community, Indigenous and Stakeholder Impacts assessment considered the impacts to schools, churches, senior's center and bus routes serviced by the Broadway & Gaglardi Way corridor, and how that was reflected in the scoring for that alternative.

12.5 Please advise how FEI scored the impacts to the stakeholders identified in IR 12.4 in comparison to impacts to businesses.

12.6 Please advise of the number of private landowners whose property would be crossed by each of the Cape Horn Gate and Fraser Gate Corridor alternatives.

12.7 Please advise of the length of time expected to be needed for negotiations with landowners for the Cape Horn Gate and Fraser Gate Corridor alternatives and the basis for those estimates.

12.8 Please advise on the expected duration and sequence of construction for the PGR in the Broadway and Gaglardi Way Corridor, and produce a copy of any schedule prepared to date for that work.

12.9 Please advise of the permitting FEI says is required from the one municipality for the Broadway & Gaglardi Way Corridor.

12.10 Please advise of the length of time FEI assumes will be required for the permitting with the municipality for the Broadway and Gaglardi Way Corridor and provide the basis for FEI's answer.

12.11 Please identify the third party utilities located along/near United Boulevard and how they would affect the construction of the Cape Horn Gate Corridor.

12.12 Please identify the third party utilities located along Buller Ave. and how they would affect construction of the Fraser Gate Corridor.

12.13 Please provide a map showing the locations of the businesses FEI says in Table 4-5 will be affected in the construction of

12.13.1 the Broadway & Gaglardi Way Corridor,

12.13.2 the Cape Horn Gate Corridor, and

12.13.3 the Fraser Gate Corridor.

12.14 Please provide a map showing the location of the private lands FEI says in Table 4-5 will be affected by

12.14.1 the Broadway & Gaglardi Way Corridor,

12.14.2 the Cape Horn Gate Corridor, and

12.14.3 the Fraser Gate Corridor.

12.15 Please identify the impacts FEI says in Table 4-5 the Fraser Gate Corridor would have on the City of Vancouver.

12.16 Please advise if FEI has had any consultations with the City of Vancouver about the Fraser Gate Corridor and, if there have been consultations, what the outcome of those consultations has been.

12.17 Please provide specifics about the re-routing FEI says is available to mitigate impacts of species at risk for the Broadway & Gaglardi Way Corridor.

12.18 Please advise if FEI has undertaken any assessment of the extent to which traffic will be affected by each of Alternatives 6A, 6B and 6C, including number of vehicles per hour and per day during construction.

13. Reference: Table 4-6 Financial Evaluation Summary

13.1 Please show how FEI considered the cost of construction logistics from available workspace and laydown areas in its cost estimates, including how much was added to the capital cost estimate for each of the options in Table 4-6 for construction logistics.

13.2 Please advise if FEI included the cost of traffic management in its cost estimates.

13.2.1 If yes, please indicate how much was added to the capital cost estimate for each of the options in Table 4-6 for traffic management.

13.2.2 If no, please explain why not.