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February 11, 2021

Ms. Diane Roy
Vice President, Regulatory Affairs
FortisBC Energy Inc.
16705 Fraser Highway
Surrey, B.C. V4N 0E8
By Email: gas.regulatory.affairs@fortisbc.com

Dear Ms. Roy:

Re: FortisBC Energy Inc. (FEI) - Application for A Certificate of Public Convenience and
Necessity (CPCN) for the Okanagan Capacity Upgrade Project
B.C. Sustainable Energy Association Information Request No. 1 to FEI

Attached please find BCSEA's Information Request No. 1 to FEI. A version in Word format will be provided separately. If you have any questions, please do not hesitate to contact me.

Yours truly,

William J. Andrews



Barrister & Solicitor

Encl.

REQUESTOR NAME: **BC Sustainable Energy Association**

INFORMATION REQUEST ROUND NO: 1

TO: **FortisBC Energy Inc.**

DATE: **February 11, 2021**

PROJECT NO: **1599152**

APPLICATION NAME: **FortisBC Energy Inc. (FEI) - Application for a Certificate of Public Convenience and Necessity (CPCN) for the Okanagan Capacity Upgrade Project**

1.0 Topic: Project Need

Reference: Exhibit B-1-2, pp.25, 41

On page 25 of the Updated Application, FEI states:

“The most significant constraint on maintaining minimum pressure into the north and central Okanagan is the pressure limitation to 5171 kPag (750 psig) between Ellis Creek Control Station in Penticton and the SN9-3 Control Station south of Kelowna.”

- 1.1 Is this in effect the Updated Application’s “problem statement”?
- 1.2 Does FEI have data on pressure minima in the north and central Okanagan? If so, please provide a graph and table showing the historical annual minimum pressure in the area of concern, along with the expected future annual minimum pressures in the short term and upon completion of the proposed OLI PEN 406 Extension.
- 1.3 Please provide a graph and table showing the historical annual minimum pressures in the Capacity Shortfall Area and the annual peak day demand in the area.
- 1.4 Do the annual minimum pressures in the Capacity Shortfall Area coincide with the annual peak day demand? If not, please explain.
- 1.5 If the timing of annual minimum pressure in the area of concern is not correlated with the annual peak day demand, then please address:
 - (a) what explains the timing of the pressure minima in the Capacity Shortfall Area,
 - (b) whether there is a historical downward trend in the annual minimum pressure in the area of concern,
 - (c) whether Project “need” should be evaluated in terms of the annual minimum pressure in the area of concern rather than the forecast peak day demand in relation to estimated system capacity.

2.0 Topic: Project Need

Reference: Exhibit B-1-2, p.16; Figure 3-5: Capacity Shortfall Region

FEI states on p.16 of the Updated Application:

“Currently, approximately 60 percent of the demand on the ITS is concentrated in the Okanagan region, which includes Kelowna. The population growth in this area has led to a corresponding increase in the

demand for gas, and thus an increased demand on the ITS.” [underline added]

Figure 3-5 shows the Capacity Shortfall Region.

- 2.1 Please provide a version of Figure 3-5 that shows the “Okanagan region” in which 60% of the demand on the ITS is concentrated.
- 2.2 Please provide a more detailed version of Figure 3-5 that shows the pipelines and pipeline segments within the Capacity Shortfall Region.
- 2.3 When FEI says “approximately 60 percent of the demand on the ITS is concentrated in the Okanagan region” does this refer to annual energy or to annual peak demand?
- 2.4 What percentage of the peak demand on the ITS is within the Capacity Shortfall Region?
- 2.5 Please explain how the two IP pipelines shown within the Capacity Shortfall Region on Figure 3-5 relate to the Capacity Shortfall and the proposed OLI PEN 406 Extension.

3.0 Topic: Project Need

Reference: Exhibit B-1-2, p.17; Figure 3-6: ITS Historical and Forecast Peak Demand; FEI 2017 Long-Term Gas Resource Plan, Exhibit B-1 in BCUC proceeding, page ES-8, pdf p.20

FEI states on p.17 of the Updated Application:

“Figure 3-6 below illustrates the historical increase in peak demand as well as the forecast increase in peak demand on the ITS according to historical loads and the 2019 load forecast (the most recent load forecast at the time of project development).”

- 3.1 Please confirm, or otherwise explain, that Figure 3-6 shows peak demand in the entire ITS area and not the peak demand in the “Okanagan region” or in the Capacity Shortfall Region shown in Figure 3-5.
- 3.2 Why does FEI analyze the need for a capacity increase in one portion of the ITS by examining the entire ITS rather than examining the need for a capacity increase in the Capacity Shortfall Region itself?
- 3.3 Does FEI have historical and forecast peak demand figures for the Capacity Shortfall Region? If so, please provide a graph like Figure 3-6 for the Capacity Shortfall Region.
- 3.4 Please provide a breakdown of the historical and forecast peak demand figures by residential, commercial, industrial and Natural Gas for Transportation. Are any additional types of load included?
- 3.5 FEI says that forecast peak demand does not include interruptible load. Please confirm, or otherwise explain, that historical peak demand does not include interruptible load. If the historical peak demand in Table 3-6

does include interruptible load, please provide a version that excludes interruptible load.

- 3.6 Please clarify whether the ITS Historical Peak Demand shown in Figure 3-6 is temperature normalized.
- 3.6.1 Please explain why the Historical Peak Demand line meets the Forecast Peak Demand line at 2019. Did 2019 experience a 20-year coldest day?
- 3.7 Please explain how or if the Forecast Peak Demand takes into consideration future changes in winter temperatures and/or extreme weather events as a result of climate change.
- 3.8 Please provide a version of Figure 3-6 showing what FEI refers to as “ITS Capacity.” The intention is to show historical changes in ITS Capacity in relation to the historical ITS annual peak demand.

FEI cites the following sources on p.18:

⁸ Statistics Canada, Table 17-10-0135-01, Population estimates, July 1, by census metropolitan area and census agglomeration, 2016 boundaries. July 1, 2018 data.

⁹ Population projections prepared for FBC by BC Stats.”

- 3.9 Please provide copies of the sources referred to in footnotes 8 and 9.

FEI states in footnote 10 on page 18:

“¹⁰ System design temperature is determined for each region by calculating the coldest day which is statistically likely to occur once in a 20-year period. FEI’s system is designed to meet the peak demand which would occur during this extreme cold weather event. The statistical 20-year low is calculated using information from local weather stations, and is updated as weather trends change.” [underline added]

- 3.10 What is the region for the system design temperature used in determining the ITS Historical and Forecast Peak Demand shown in Figure 3-6? Is the region coincident with the ITS?
- 3.11 What is the system design temperature for the Capacity Shortfall Region?

In the 2017 LTGRP, FEI acknowledges “policy-driven risks of downward pressure on natural gas demand” in the 20-year visions. [p.ES-11]

- 3.12 Does the Forecast Peak Demand take into consideration policy-driven risks of downward pressure on natural gas demand in the ITS and the Capacity Shortfall Region? If so, to what extent? If not, why not?

In the 2017 LTGRP, FEI states:

“For each regional system, higher or lower than expected load growth could shift the timing of system expansion requirements either ahead or further out in time. The potential for additional new, large industrial demand could create a step change in load delivery requirements and a corresponding advancement of system expansion requirements. Because the location, size and nature of such potential new loads are often speculative, a myriad of potential impacts could occur, making it difficult to model these loads.” [FEI 2017 Long-Term Gas Resource Plan, Exhibit B-1 in BCUC proceeding, page ES-8, pdf p.20]

- 3.13 Please show uncertainty bands on the forecast ITS peak demand curve in Figures 3-6 and 3-7.
- 3.14 Is minimum pressure in the affected pipeline segments a more direct measure of the ‘headroom’ between peak demand and system capacity?

4.0 Topic: Project Need

Reference: Exhibit B-1-2, Figure 3-8: ITS Peak Demand vs. Capacity After Completion of OCU Project

FEI states on page 19:

“For reference, Figure 3-8 below illustrates both the current capacity and the capacity of the ITS following completion of the OCU Project. The figure shows that, with the OCU Project, there will be sufficient capacity to support peak demand until the winter of 2029/2030.”

- 4.1 Please provide a version of Figure 3-8 that shows “ITS Capacity with OCU” starting in the appropriate year.
- 4.2 Please provide a version of Figure 3-8 that shows Peak Demand vs. Capacity After Completion of OCU Project for the Capacity Shortfall Region.

5.0 Topic: Project Need

Reference: Exhibit B-1-2, pp.20-24

FEI states on p.20:

“The peak day demand forecast methodology that FEI used to assess the need for the OCU Project is consistent with the methodology FEI has used in previous CPCN applications and long-term resource plans filed with the BCUC.”

- 5.1 Please identify the previous CPCN applications FEI has in mind when it says the peak day demand forecast methodology that FEI used to assess the need for the OCU Project is consistent with the methodology FEI has used in previous CPCN applications.
- 5.2 Please list previous CPCN applications by FEI (or its corporate predecessors) in which the need for the project was to have adequate capacity to meet a forecast increase in peak demand.

- 5.3 Please explain how “need” was established in the previous CPCN application that in FEI’s view most closely resembles the Application in terms of the need for the project.

FEI states on p.22:

“FEI accounts for variations across the region served by the ITS by calculating average UPCs at a more local level. For the portion of the ITS most impacted by the capacity constraint addressed by the OCU Project, FEI calculates UPC_{peak} values in ten local regions, each comprising one or more municipal districts between Kamloops and Penticton. The peak demand in these locales, especially in the region circled in Figure 3-5: Capacity Shortfall Region above, is most influential on the timing of the capacity constraint.”

- 5.4 Further to BCSEA IR 3.3, if FEI has UPC_{peak} values in municipal districts between Kamloops and Penticton please provide historical and forecast annual peak demand for those districts, or, more specifically, for the Capacity Shortfall Region.
- 5.5 Please explain why UPC_{peak} values in municipal districts between Kamloops and Penticton that are not within the Capacity Shortfall Region are relevant to the timing of the capacity constraint in the Capacity Shortfall Region.

FEI states on page 23:

“FEI applies the relevant LHA [local health authority] growth rates to the customer counts in each municipality to develop a 20 year customer forecast for each municipality. These forecasts are aggregated to the FEI regional level (Lower Mainland, Inland, Columbia, Vancouver Island, Whistler, Revelstoke, or Fort Nelson).”

- 5.6 Please explain why FEI aggregates customer forecasts from the municipal level up to the Inland regional level when it is the Capacity Shortfall Region that is apparently pertinent to the proposed OLI PEN 406 Extension.

After providing Kelowna as a high-level example of the municipal-level determination of forecast of customer additions, FEI says on page 24:

“The forecasted account additions each year are combined with the UPC_{peak} values to determine the incremental increase in peak demand in each community across the ITS.”

- 5.7 Please explain the relevance of the incremental increase in peak demand in each community across the ITS. Isn’t it the incremental increase in peak demand within the Capacity Shortfall Region that matters in terms of the proposed OLI PEN 406 Extension?

FEI states on page 24:

“As shown in Figure 3-7, the available capacity of the ITS in the central Okanagan will exceed the demand in the winter of 2021/2022 if FEI does not take any mitigation measures.”

- 5.8 Is there a typo in the quoted sentence? Is the intention to say ‘the peak demand will exceed the available capacity of the ITS in the central Okanagan in the winter of 2021/2022 if FEI does not take any mitigation measures”?

6.0 Topic: Project Need
Reference: Exhibit B-1-2, p.24

FEI states on page 24:

“The gas supplies from the north and south converge at the lowest pressure point within this portion of the ITS, typically near the Polson Gate Station on the south side of Vernon.”

- 6.1 Does FEI expect that implementation of the proposed Project will shift the location of the lowest pressure point within this portion of the ITS? If so, will it be shifted northward? To where?
- 6.2 What are the implications of a shift in the location of the lowest pressure point within this portion of the ITS for the input of natural gas from the Westcoast-Enbridge T-South pipeline and the TCE Foothills pipeline? Will there be a significant change in the ratio of ITS supply from the north and from the east? Are there any implications for ITS system resiliency?
- 6.3 Please show the Polson Gate Station and Kelowna #1 Gate Station on a map.

7.0 Topic: Project Need
Reference: Exhibit B-1-2, pp.25-26

FEI states on pages 25-26:

“The compression available at Kitchener to move gas from the TC Energy supply at Yahk through the proposed OCU gas line into the Okanagan is sufficient without need for upgrade for the early part of the forecast, up to the winter of 2029-30.

Based on the current forecast, by the summer of 2029 FEI will need to upgrade the compression capability on the SCP to improve capacity into the Central and North Okanagan. FEI is currently considering several possible options to increase compression capability on the SCP to meet a variety of possible future needs. As the compression requirement to address future capacity needs in the Okanagan is several years beyond the immediate need for the OCU Project, and the optimal location and extent of required additional compression cannot yet be determined, FEI did not include a compressor upgrade in the OCU Project. Compressor requirements to satisfy the longer term capacity needs would be included, as needed, as part of any expansion project contemplated on the SCP.”

- 7.1 Please compare Alternatives 1, 2 and 3 in terms of a need for additional compression on the SCP by the winter of 2029-30.
- 7.2 What capacity-focused demand-side management measures is FEI exploring with a view to deferring a need for enhanced compression on the Southern Crossing Pipeline to address future capacity needs in the Okanagan?

8.0 Topic: Project Need
Reference: Exhibit B-1-2, p.26

On page 26 (pdf 38), FEI states:

“As temperatures drop and heating load increases, curtailment of interruptible and non-interruptible¹³ commercial and residential customers becomes increasingly likely if customer demand exceeds the design capacity limits of the system.”

In footnote 13 on page 26, FEI states:

“¹³ Certain large industrial and commercial gas customers have elected for “interruptible” service, which means that they can be curtailed and need to stop consuming gas and switch to alternative fuels under peak weather conditions. This curtailment is necessary to free up capacity on the FEI system when the demand from firm core residential and commercial customers ramps up under peak weather conditions. These interruptible customers receive lower rates in exchange for this potential inconvenience and disruption. As previously noted, interruptible demand is not considered when determining forecasted peak demand.”

- 8.1 Has FEI explored purchased curtailment or other capacity-focused demand-side management to defer a capacity shortfall in the subject area? If so, how much cost-effective capacity-focused DSM is available? If not, why not?

9.0 Topic: Project Need
Reference: FEI’s 2022 LTGRP Estimated Expenditures shown in Table 7-10 (pdf p.77) of FEI’s Exhibit B-2 in the FEI Annual Review for 2020 and 2021 Delivery Rates proceeding

In FEI’s 2022 LTGRP Estimated Expenditures shown in Table 7-10 (pdf p.77) of FEI’s Exhibit B-2 in the FEI Annual Review for 2020 and 2021 Delivery Rates proceeding, FEI included a Estimated Expenditure of \$115,000 for “Impact of New End-Use Trends on Time-of-Day Use and Linking the Annual and Peak Demand Forecasts.”

- 9.1 Does this mean that FEI believes it needs to do incremental work on the link between Annual and Peak Demand Forecasts? Does this apply to the ITS peak demand forecast?

10.0 Topic: Short Term Mitigation Measures
Reference: Exhibit B-1-2, p.33

On page 33 of the Updated Application, FEI introduces certain potential short-term mitigation measures:

“Each proposed Project alternative relies on the implementation of short-term mitigation measures to meet forecasted capacity shortfalls in the winters of 2021/2022 and 2022/2023.”

In Table 4-1, FEI provides “Capacity Shortfall Mitigation Measures Cost Estimates” with a Total Estimated Station Upgrade Cost of \$1,518,000.

10.1 Are these potential short-term mitigation measures part of the proposed OLI PEN 406 Extension for which FEI seeks a CPCN?

Figure 4-1 shows ITS Capacity with Mitigation Measures.

10.2 Please provide a version of Figure 4-1 that shows ITS Capacity with Mitigation Measures for the appropriate years.

11.0 Topic: Description of Alternatives and Options
Reference: Exhibit B-1-2, Table 3-1: ITS Pipeline Construction

FEI states on page 25:

“The ITS serving the Thompson Okanagan region has several regions where pressure is controlled below the original MOP to ensure pipeline safety factors associated with CSA Z662 class locations requirements. These pressure-controlled regions are identified in Table 3-1 above, with the segments most relevant to the OCU Project listed in rows 2 to 5. These portions of the pipeline can provide a local constraint on capacity. The most significant constraint on maintaining minimum pressure into the north and central Okanagan is the pressure limitation to 5171 kPag (750 psig) between Ellis Creek Control Station in Penticton and the SN9-3 Control Station south of Kelowna. The OCU Project will address this constraint by providing the ability to supply gas into the NPS 12 Savona to Penticton mainline at the maximum 5171 kPa at a point more than 28 kilometres closer to the major load centres on the ITS in the Central Okanagan.”

11.1 Can the segments in rows 2 to 5 of Table 3-1 be considered the “bottleneck” that the proposed OLI PEN 406 Extension is intended to alleviate?

11.2 Please confirm, or otherwise explain, that in the statement quoted above the “OCU Project” means the proposed OLI PEN 406 Extension, and does not include Alternatives 1 or 2.

11.3 Please confirm, or otherwise explain, that the point at which the OCU Project will provide the ability to supply gas into the NPS 12 Savona to Penticton mainline is the proposed Chute Lake Control Station.

- 11.4 Please explain how the “SN9-3 Control Station south of Kelowna” relates to the proposed Chute Lake Control Station. Please show them on a map. Why does the proposed OLI PEN 406 Extension not tie in to the NPS 12 Savona to Penticton mainline at the SN9-3 Control Station?

12.0 Topic: Feasibility Analysis

Reference: Exhibit B-1-2, Table 4-2: Preliminary Cost Estimates of All Alternatives

FEI provides the following Table summarizing preliminary cost estimates for the five alternatives that were considered:

Table 4-2: Preliminary Cost Estimates of All Alternatives

Alternative	Description	Total Pipe Installed (km)	Capital Cost Estimate Range (2019\$ millions)
1	ITS Upgrades to VER PEN 323	15	40 – 100
2	Modified ITS Upgrades to VER PEN 323	19	50 – 130
3	OLI PEN 406 Extension	30	100 – 250
4	508 mm Loop from Savona	54	200 – 500
5	LNG Facility Near Vernon	n/a	250 - 600

Regarding the Feasible Alternatives Evaluation, and the Financial criterion in particular, FEI states on page 47:

“The sole criterion within this category measures the financial impact of the project on FEI’s customers. FEI considered the long term rate impact to FEI’s non-bypass customers in order to financially compare all three feasible alternatives. This was completed by evaluating the present value of the incremental revenue requirement as well as the levelized delivery rate impact over the 70 year analysis period for each alternative based on the estimated capital cost and operating cost.” [underline added]

- 12.1 Please confirm, or otherwise explain, that the preliminary capital cost estimate range for Alternatives 1, 2, and 3 shown in Table 4-2 were not used in the Feasible Alternatives Evaluation.

13.0 Topic: Feasible Alternatives Evaluation Criteria

Reference: Exhibit B-1-2, pp. 59-60; Table 4-4

FEI summarizes the evaluation criteria and weighting in Table 4-4:

Table 4-4: Evaluation Criteria Weighting

Evaluation Criteria - Category	Weight (Overall)	Evaluation Criteria - Specific	Weight (Within Category)
Asset Management Capability	40%	System Capacity Increase	50%
		Operational Flexibility	50%
Project Execution and Lifecycle Operation	30%	Environmental, Public, and Indigenous Impacts	45%
		Schedule Risk	55%
Financial	30%	Rate Impact	100%

- 13.1 Please explain the genesis of this weighted scoring methodology. Has FEI used it before? Were the criteria and weights the same?
- 13.2 Please confirm, or otherwise explain, that “environmental, public and indigenous impacts” comprised only 13.5% of the total weighting (45% x 30% = 13.5%).

14.0 Topic: Feasible Alternatives Evaluation

Reference: Exhibit B-1-2, Table 4-7: PV of Incremental Annual Revenue Requirement and Rate Impact; Table 4-8: Capital, O&M, Property Taxes (\$000s).

In the Financial Comparison analysis FEI provides the following Table:

Table 4-7: PV of Incremental Annual Revenue Requirement and Rate Impact

	Alternative 1	Alternative 2	Alternative 3
PV of Annual Revenue Requirement \$000s	\$199,969	\$213,780	\$203,973
Levelized Rate Impact \$/GJ	\$0.057	\$0.061	\$0.059
Financial / Rate Impact	4	2	3

Table 4-8 summarizes the incremental capital costs, annual operating and maintenance and property tax costs for the three alternatives:

Table 4-8: Capital, O&M, Property Taxes (\$000s)

Particulars	Alternative 1	Alternative 2	Alternative 3
Capital Cost (2019\$) (excl. AFUDC)	\$195,113	\$206,623	\$188,149
Capital Cost As Spent (incl. AFUDC)	\$220,215	\$232,927	\$212,906
In-Line Inspection Capital (2019\$)	N/A	N/A	\$828
Retirement / Removal Costs As Spent	\$1,569	\$692	Nil
Incremental Annual O&M (2019\$) ²²	Nil	\$9	\$24
Incremental O&M - Integrity Digs (2019\$) ²³	N/A	N/A	\$140
Incremental Annual Property Taxes (2019\$)	\$6	\$78	\$337

FEI states on page 57:

“The financial evaluation of the three feasible alternatives indicated minimal differences in rate impacts between all three alternatives. Alternative 2 (Modified ITS Upgrades to VER PEN 323) has the highest incremental cost for ratepayers as a result of its higher cost, and resulting higher levelized rate impact. However, there is only a difference of \$0.002 / GJ in the rate impact between Alternative 1 and Alternative 3.”

- 14.1 Please comment on the apparent magnification of relatively small differences in PV into very large differences in evaluation points for Financial/Rate Impact between the three Alternatives.
- 14.2 Does the (feasible alternatives evaluation) methodology itself require slight differences in PV to be reflected in points in whole numbers (4, 2, and 3 for Alternatives 1, 2 and 3, respectively)? Or does the methodology contemplate that the assignment of points is within the judgment of the entity applying the methodology?
- 14.3 To better understand the feasible alternatives evaluation methodology and the application of it, in choosing to allocate the Financial/Rate Impact points in whole numbers (4,2,3) did FEI take into account that an equal allocation (3,3,3) would not alter the ranking of the alternatives?

15.0 Topic: Project Description
Reference: Exhibit B-1-2, pp.58-59

FEI lists the main Project components on pages 58-59.

- 15.1 Please provide, or identify the location of, a map showing the main Project components.

16.0 Topic: Project Description
Reference: Exhibit B-1-2, p.59

In Section 5.3 of the Update Application FEI describes the route selection process for the OCU Project.

- 16.1 Please confirm, or otherwise explain, that the “OCU Project” for the route selection process means the proposed OLI PEN 406 Extension.
 - 16.1.1 Is it correct that the objectives of the route selection process involve examination of options within the proposed OLI PEN 406 Extension (Alternative 3) and not examination of, say, Alternative 1 or Alternative 2?
- 16.2 Please provide a version of “Figure 5-1: Step One – Identified Corridor” with labels indicating pipeline segments and stations.
- 16.3 Have the Pipeline Route Evaluation Criteria Definitions in Table 5-1 been used in any previous FEI applications to the BCUC? If so, please specify.
- 16.4 Have the Pipeline Route Evaluation Weighting factors in Table 5-2 been used in any previous FEI applications to the BCUC? If so, please specify.

- 16.5 Have the Route Evaluation Scoring descriptions in Table 5-3 been used in any previous FEI applications to the BCUC? If so, please specify.
- 16.6 Please provide a version of “Figure 5-2: Step Two – Feasible Route Sectionalization” showing Option 1 and Option 2 as described in “Table 5-4: OCU Project Selected Pipeline Route Details.”
- 16.7 Please explain why the Pipeline Route Evaluation Weighting in Table 5-2 has 100 maximum weighting points and the Segment Evaluation Scores in Table 5-5 have a maximum of 500 points (per footnote 26 on page 65).

17.0 Topic: Project Description
Reference: Exhibit B-1-2, p.71

On page 71 of the Updated Application, FEI refers to its Integrity Management Program (IMP):

“Consistent with the existing pipeline, the integrity of the new OLI PEN 406 pipeline extension will be managed within FEI’s Integrity Management Program (IMP). The IMP is a corporate-level management system for identifying and mitigating hazards to system assets that have the potential to result in a failure with significant consequences.”

On page 46 of its filing for the Annual Review for 2020 and 2021 Delivery Rates, FEI refers to its Transmission Integrity Management Capabilities project:

“FEI is currently planning the Transmission Integrity Management Capabilities (TIMC) project to mitigate the risk of rupture failure due to Stress Corrosion Cracking (SCC) and other crack-like imperfections.”

- 17.1 Please explain the relationship between FEI’s Integrity Management Program and its Transmission Integrity Management Capabilities project in relation to integrity monitoring of the proposed OLI PEN 406 Extension.

18.0 Topic: Project Description
Reference: Exhibit B-1-2, pp.75, 104, 106

FEI states that the designated environmental monitor will have “stop work authority” in the event that works underway have the potential to impact the natural environment [p.104].

FEI also states that the designated archaeological monitor will have “stop work authority” in the event that works underway have the potential to result in unauthorized impacts to archaeological, historic heritage or cultural resources [p.106]

- 18.1 Will the safety inspection and monitoring firm have stop-work authority? If not, why not?
- 18.2 Who will be responsible for addressing noise complaints during construction? Will it be FEI, the contractor, or both?

19.0 Topic: Environmental and Archaeology

Reference: Exhibit B-1-2, Chapter 7, Environment and Archaeology; Appendix F, Environmental Overview Assessment Reports; Appendix G, Archaeological Overview Assessment Reports

19.1 For both environmental review and archaeology review, please explain what aspects of the examination addressed all three feasible Alternatives, and what aspects of the examination addressed the proposed OLI PEN 406 Extension in particular.

19.1.1 Please confirm, or otherwise explain, that the Environmental Overview Assessment (Appendix F) addresses only the proposed OLI PEN 406 Extension and not Alternative 1 and 2.

19.2 What steps will FEI take to prevent damage to the three community watersheds intersected by the proposed OLI PEN 406 Extension during and after construction?

20.0 Topic: Vineyards

Reference: Application, Exhibit B-1-2, pp.64, 54

FEI refers to 3,040 m in Segment 4, "Vineyard Segments," for the Option 1 route of Alternative 3 [p.64]. FEI also states:

"Some inconvenience to the public is expected, as portions of the route pass through or adjacent to vineyards and other developed areas."

20.1 Please explain how the proposed Project would impact vineyards. Are the vineyards subject to rights of way for FBC 73L? Would construction of the Project require FEI to acquire additional rights of way? Is the plan that vineyards on the Project right of way would be replanted after construction? How long would it take for the impacted vineyard areas to be back in the condition they were in before the construction?

21.0 Topic: Power Supply to Chute Lake Control Station

Reference: Application, Exhibit B-1-2, p.74

FEI states on p.74:

"Power to the Chute Lake Control Station will be supplied by Thermo-Electric Generator (TEG) units. The use of existing FBC power lines was considered and determined to not be practical or cost-effective. The TEG units will use gas as the supply energy source and feed a DC/AC inverter, providing 120VAC for main power distribution through the distribution panel. There will be redundant TEG units installed for reliability and maintenance.

21.1 Please explain why the use of existing FBC power lines to supply the proposed Chute Lake Control Station would not be practical or cost-effective.

22.0 Topic: Rights of Way
Reference: Application, Exhibit B-1-2, pp.81, 82, 114

Regarding the proposed Project, FEI says “The work will take place in a mostly rural landscape with low population density alongside existing ROWs.” [p.81] FEI says it “has proposed a route that runs alongside FEI’s existing VER PEN 323 right-of way and FBC’s existing 73 Line right-of way where possible, to minimize the creation of additional right-of-way lands.” [p.82] FEI says it “began negotiations to acquire the necessary land rights in August and September 2020.” [p.114]

22.1 Please clarify whether FBC’s existing rights-of-way for the FBC 73L transmission line allow FEI to construct and operate the proposed Project within the bounds of the ROWs. Are modifications to the existing ROWs anticipated?

22.2 Please provide an estimate of the aggregate length of ROWs that FEI expects to require in order to proceed with the proposed Project.

23.0 Topic: 2017 LTGRP
Reference: Application, Exhibit B-2, p. 126; BCUC proceeding re FEI application for a CPCN for the Tilbury LNG Storage Expansion (TLSE) Project, Exhibit B-1, p.208

FEI states on page 126 that “The OCU Project remains consistent with the 2017 LTGRP.”

In its application for a CPCN for the Tilbury LNG Storage Expansion (TLSE) Project, FEI says that the TLSE Project “is a direct result of that ongoing vigilance in regional security of supply issues” although FEI apparently acknowledges that the TLSE Project was not specifically mentioned in the 2017 LTGRP. FEI states:

“Section 5 of the 2017 LTGRP concludes by stating that FEI will “continue to examine potential opportunities on FEI’s own transmission and storage systems”¹³⁹ to address ongoing regional supply developments that impact the Company’s ability to maintain secure, cost-effective supply sources and infrastructure over the long-term. The TLSE Project is a direct result of that ongoing vigilance in regional security of supply issues.” [Exhibit B-1, p.208, in BCUC proceeding re FEI application for a CPCN for the Tilbury LNG Storage Expansion (TLSE) Project]

23.1 Is FEI examining substantial new projects to address security of supply issues in the ITS? If so, please outline the possibilities being considered, and address how they may affect the need for the proposed OLI PEN 406 Extension.

24.0 Topic: Conditions of CPCN
Reference: Exhibit B-1-2, p.13; Decision and Order C-11-99, Southern Crossing Pipeline

FEI states on p.13:

“3. The most recent major upgrade to the ITS was completed in 2000, when the NPS 24 SCP⁶ was constructed from Oliver to the TC Energy pipeline, diversifying the area’s supply and increasing the quantity of gas flowing into the ITS at Oliver from Alberta, which increased gas flow capacity into the Okanagan region.”

Footnote 6 on p.13 states:

“Refer to BCUC Order C-11-99 and decision associated with the Application for a Certificate of Public Convenience and Necessary for the Southern Crossing Pipeline Project.”

In its reasons for issuing Order C-11-19 for the Southern Crossing Pipeline, the BCUC Panel notes that:

“In its June 15, 1999 letter, BC Gas states that it is willing to accept a CPCN that includes as a condition the mechanism described in the Decision [Decision and Order G-51-99] to limit ratepayer exposure to capital cost overruns. The rate base addition for the SCP project will be a maximum of \$414 million (as adjusted in the manner described in the Decision if a November 2001 in-service date were to be adopted).”

24.1 Regarding the Application, is FEI willing to accept a CPCN condition that limits ratepayer exposure to capital cost overruns? If so, please state the commitment. If not, why not?

25.0 Topic: BCUC Decision and Order C-4-94
Reference: Exhibit B-1-2, footnote 5 on p.13

FEI states in footnote 5 on p.13:

“Refer to BCUC Order C-4-94 and decision associated with the Application for a Certificate of Public Convenience and Necessary for the Southern Interior System Reinforcement.” [underline added]

BCSEA is unable to locate BCUC Order C-4-94 and decision on the BCUC website.

25.1 Please provide a copy of BCUC Order C-4-94 and decision.