

Sarah Walsh Director, Regulatory Affairs

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

Electric Regulatory Affairs Correspondence Email: <u>electricity.regulatory.affairs@fortisbc.com</u> FortisBC 16705 Fraser Highway Surrey, B.C. V4N 0E8 Tel: (778) 578-3861 Cell: (604) 230-7874 Fax: (604) 576-7074 www.fortisbc.com

May 22, 2025

B.C. Sustainable Energy Association c/o William J. Andrews, Barrister & Solicitor 70 Talbot Street Guelph, ON N1G 2E9

Attention: William J. Andrews

Dear William J. Andrews:

### Re: FortisBC Energy Inc. (FEI)

Application for a Certificate of Public Convenience and Necessity (CPCN) for the Tilbury Liquefied Natural Gas Storage Expansion (TLSE) Project (Application)

Response to the B.C. Sustainable Energy Association (BCSEA) Information Request (IR) No. 6

On December 29, 2020, FEI filed the Application referenced above and on October 24, 2024, FEI filed its Supplemental Evidence to the Application. In accordance with the regulatory timetable established in British Columbia Utilities Commission Order G-324-24 for the review of the Application, FEI respectfully submits the attached response to BCSEA IR No. 6.

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

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Sarah Walsh

Attachments

cc (email only): Commission Secretary Registered Interveners



# 1 27.0 Topic: 2024 Gas System Resiliency Plan, Remaining Vulnerabilities

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# Reference: Exhibit B-65, FEI Response to BCSEA IR5 21.1; Exhibit B-61, 2024 Gas System Resiliency Plan

- FEI's 2024 Gas System Resiliency Plan concludes that only the TLSE Project "needs to
  be developed at this time to address the most significant and top level risks." [Exhibit B61, page 4, pdf p.18]
- Referring to four other Assessed Vulnerabilities that warrant further investigation (AV-5,
  AV-47, AV-48, and AV-52), FEI states in the 2024 Resiliency Plan that:
- 9 "The risk profile of the remaining vulnerabilities is such that, for the time being 10 based on the current analysis, FEI can continue to consider resiliency in the 11 ordinary course of sustainment capital planning (i.e., as assets come due for 12 replacement, and in the context of potential projects that have other non-resiliency 13 drivers)." [Exhibit B-61, page 4, pdf p.18]
- 14 FEI also states:
- "Additionally, while not driven by a specific AV, over the course of completing the
  2024 Resiliency Plan, FEI is considering potential ways improve its capability to
  respond to a Lower Mainland seismic event." [Exhibit B-61, page 4, pdf p.18]
- 18 FEI states in more detail:
- 19 "7.2.4 Improved Response Capabilities to Widespread Lower Mainland Seismic20 Event
- 21 While not directly related to a specific AV, FEI is also considering ways to improve 22 its capability to respond to a Lower Mainland seismic event. In particular, the intent 23 of this initiative is to improve FEI's ability to isolate the Lower Mainland's CTS 24 following a seismic event that results in widespread asset failure in the Lower 25 Mainland. Development for this initiative is in the preliminary stages. At a high-level 26 the scope, as it is currently defined, consists of installing additional valves, and 27 upgrading existing valves. All valves to be added or upgraded will have line break 28 capabilities that will allow them to autonomously shut following a seismic event, if 29 required." [Exhibit B-61, page 93, pdf p.107]
- In response to BCSEA IR5 21.1, FEI states that it "would support the BCUC's acceptance
   of the 2024 Resiliency Plan pursuant to section 44.1 of the UCA as part of granting a
   CPCN for the TLSE Project." [Exhibit B-65, pdf p.2]
- In FEI's view, does the BCUC Panel in the current TLSE CPCN proceeding have
   sufficient information to warrant acceptance of the 2024 Gas System Resiliency
   Plan regarding "the remaining vulnerabilities" and "Improved Response
   Capabilities to Widespread Lower Mainland Seismic Event"?



FortisBC Energy Inc. (FEI or the Company)	Submission Date:
Application for a CPCN for the TLSE Project (Application)	May 22, 2025
Response to BCSEA Information Request (IR) No. 6	Page 2

# 2 Response:

3 Yes, FEI considers that the BCUC Panel in this proceeding has sufficient information to accept

4 the 2024 Resiliency Plan in its entirety, including the portions highlighted in the question.

As explained in the response to BCSEA IR5 21.1, the 2024 Resiliency Plan is comprehensive and was developed over the course of many months and with significant input from independent experts, going well-beyond the previous iteration of the plan filed in the 2022 LTGRP. In the case of both the remaining vulnerabilities and improving its capability to respond to a Lower Mainland seismic event, FEI has clearly identified the next steps it is undertaking to ensure the resiliency

10 of its system.

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#### 28.0 **Topic:** 1 Alternatives to the Project 2 Reference: Exhibit B-61, 2024 Gas System Resiliency Plan; Exhibit B-60, 3 Supplemental Evidence; Exhibit B-65, FEI Response to BCSEA IR5 4 26.1, pdf p.11 5 FEI instructed Exponent to consider a total of nineteen Tilbury Alternatives involving 6 additional on-system storage at the Tilbury Facility ("Tilbury Alternatives"). [Exhibit B-61, 7 page 99, para.183, pdf p.223] 8 In Table 4-9 of the Supplemental Evidence, FEI provides a Summary of Capital Costs, 9 Cost of Service, Gas Supply Costs/Savings, and Levelized Total Rate Impacts for Feasible 10 Supplemental Alternatives. [Exhibit B-60, page 130, pdf p.143] 11 In Table 1 of its response to BCSEA IR5 26.1, FEI provides Total Levelized Rate Impact 12 for Supplemental Alternative 9 over 67-year and 27-year Analysis Period [Exhibit B-65, 13 pdf p.11] 14 28.1 Please clarify which Alternative to the proposed Project best meets FEI's project 15 objectives and summarize why FEI considers the Project to be superior to this 16 Alternative. 17 18 **Response:**

FEI interprets this question as asking which Supplemental Alternative would be the <u>next best</u> alternative at meeting the project objectives, other than the Preferred Alternative. As shown in Table 4-16 in Section 4.6 of the Supplemental Evidence, of the four viable alternatives (Supplemental Alternatives 4, 4A, 8 and 9), the Preferred Alternative (Supplemental Alternative 9) is the superior alternative, with the "second best" alternative being Supplemental Alternative 8.

The Preferred Alternative (Supplemental Alternative 9) outperforms Supplemental Alternative 8 in the "Resiliency Benefit" and "Availability of Dependable Gas Supply During Peak Demand" criterion. Please refer to the following sections of the Supplemental Evidence for further discussion regarding why Supplemental Alternative 9 scores higher than Supplemental Alternative 8 in these criteria:

- Resiliency Benefit: Section 4.5.1 of the Supplemental Evidence explains that that a 3 Bcf tank and 800 MMcf/d of regasification, with a 2 Bcf resiliency reserve, provides additional risk mitigation relative to Supplemental Alternative 8, which only includes a 1.4 Bcf resiliency reserve. The advantage of a 2 Bcf resiliency reserve is pronounced during below-average winter temperatures in the Lower Mainland.
- Availability of Dependable Gas Supply During Peak Demand: Section 4.5.2 of the
   Supplemental Evidence shows that Supplemental Alternative 9 was sized at 1 Bcf for
   optimal gas supply. The additional 0.4 Bcf of gas supply relative to the existing 0.6 Bcf of
   Tilbury peaking gas supply will provide FEI with considerable flexibility for gas supply



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FortisBC Energy Inc. (FEI or the Company)	Submission Date:
Application for a CPCN for the TLSE Project (Application)	May 22, 2025
Response to BCSEA Information Request (IR) No. 6	Page 4

planning and winter operation. This additional 0.4 Bcf could potentially displace, or reduce the requirement for, other high-cost gas portfolio assets.

- 28.2 Please provide a table showing the Total Levelized Rate Impact for the best Alternative to the Project, in a format similar to Table 1 regarding the proposed Project [Exhibit B-65, pdf p.11].
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# 10 Response:

As explained in the response to BCSEA IR6 28.1, other than the Preferred Alternative (Supplemental Alternative 9), Supplemental Alternative 8 scored higher than the other Supplemental Alternatives against the Step 3 criteria in the expanded alternatives analysis. Thus,

14 it is considered to be the next best alternative after Supplemental Alternative 9.

Please refer to Table 1 below which compares the levelized total rate impact (in the same format as Table 1 of the response to BCSEA IR5 26.1) between Supplemental Alternatives 8 and 9 over a 67-year analysis period (i.e., 60 years of expected service life of the assets plus 7 years of construction), as well as a 27-year period (i.e., based on a hypothetical scenario where the assets are only used for 20 years plus 7 years of construction).

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# Table 1: Comparison of Levelized Total Rate Impact Between Supplemental Alternatives 8 and 9Over 67 Years and 27 Years

	Supplemental	Supplemental Alternative 9			
	Alternative 8	(Preferred)	Difference		
67-Years Analysis Period (60 Years Expected Service Life + 7 Years of Construction)					
Levelized Delivery Rate Impact	6.31%	6.90%	0.59%		
Levelized Cost of Gas Impact	-3.18%	-4.51%	-1.33%		
Total Levelized Rate Impact (incl. Cost of Gas) over analysis period (%)	2.60%	2.44%	-0.16%		
Levelized Volumetric Delivery Rate Impact	0.358	0.392	0.034		
Levelized Volumetric Cost of Gas Impact	(0.116)	(0.164)	(0.048)		
Total Levelized Rate Impact (incl. Cost of Gas) over analysis period (\$/GJ)	0.242	0.228	(0.015)		
27-Years Analysis Period (20 Years Hypothetical Use + 7 Years of Construction)					
Levelized Delivery Rate Impact	7.36%	8.14%	0.78%		
Levelized Cost of Gas Impact	-2.49%	-3.60%	-1.11%		
Total Levelized Rate Impact (incl. Cost of Gas) over analysis period (%)	3.51%	3.56%	0.04%		
Levelized Volumetric Delivery Rate Impact	0.418	0.462	0.044		
Levelized Volumetric Cost of Gas Impact	(0.091)	(0.131)	(0.040)		
Total Levelized Rate Impact (incl. Cost of Gas) over analysis period (\$/GJ)	0.327	0.331	0.004		



FortisBC Energy Inc. (FEI or the Company)	Submission Date:	
Application for a CPCN for the TLSE Project (Application)	May 22, 2025	
Response to BCSEA Information Request (IR) No. 6	Page 5	

- Over the expected service life of 60 years, Supplemental Alternative 9 is financially more 1 2 beneficial than Supplemental Alternative 8 despite the higher capital costs. However, even under 3 the shorter hypothetical analysis period, the difference in terms of total levelized rate impact 4 between the two alternatives is small at 0.04 percent or \$0.004 per GJ. For an average residential 5 customer with 90 GJ of annual consumption, the difference is approximately 35 cents. As 6 discussed in the response to BCUC IR6 152.1, FEI expects the TLSE Project will continue to 7 operate beyond 20 years, which means that Supplemental Alternative 9 will become increasingly 8 more beneficial financially than Supplemental Alternative 8. Even under the most extreme 9 adverse hypothetical load loss scenarios, the TLSE assets would still remain useful from a gas 10 supply perspective – providing opportunities to either substitute other more expensive supply 11 resources or generate more mitigation revenue.
- 12 In consideration of the above analysis demonstrating that Supplemental Alternative 9 is financially
- 13 superior to Supplemental Alternative 8 over the expected life of the assets (and essentially neutral
- 14 financially when assessed over the hypothetical 20-year scenario), coupled with the fact that
- 15 Supplemental Alternative 9 ranks better in terms of the Resiliency Benefit and the Availability of
- 16 Dependable Gas Supply During Peak Demand criteria (as discussed in the response to BCSEA
- 17 IR6 28.1), Supplemental Alternative 9 provides superior value for customers.
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# 1 29.0 Topic: Impact of Tariffs

Reference: Exhibit B-65, FEI Responses to BCSEA IR5 to FEI, BCSEA IR 23.1, 23.2, 23.3

As of March 20, 2025, FEI states in its response to BCSEA IR 23.1: "At this point in the
TLSE Project, it is too difficult to determine the extent to which any tariffs implemented by
the United States and any counter tariffs that may be implemented by Canada may impact
the cost of the Project."

- 8 Similarly, as of March 20, 2025, FEI states in its response to BCSEA IR 23.2: "At this time,
   9 there is a high degree of uncertainty surrounding United States tariffs or the potential for
   10 Canadian counter tariffs on energy."
- 11 And, as of March 20, 2025, FEI states in its response to BCSEA IR 23.3: "At this time, it 12 is unclear whether gas supply obtained through commercial arrangements by 13 displacement would be impacted by any tariffs."
- Please update FEI's responses to BCSEA IR5 23.1, 23.2, and 23.3 if FEI has any
   more-recent information on the potential impact of U.S. tariffs or Canadian counter
   tariffs.
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### 18 Response:

FEI does not have any further updates with respect to the TLSE Project specifically. However, as noted in the response to BCSEA IR5 23.1, if the TLSE Project is approved, FEI will monitor, access and use contracting and procurement strategies that will seek to minimize and manage the overall Project costs. This includes both the costs of materials and services, as well as taking into consideration the impact of any tariffs that may be in place at the time.

In general, at the time of filing these IR responses, there remains a high degree of uncertainty with respect to tariffs and relations between Canada and the US. However, with respect to US tariffs or potential Canadian counter tariffs on energy and gas supply, since the time of the responses to BCSEA IR5, the US administration has not implemented tariffs on Canadian energy (originally suggested to be 10 percent). This change in the position of the US highlights recognition of the importance of Canadian energy to the US. FEI will continue to monitor these developments but does not foresee any material impact on how FEI procures its gas supply.

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### 1 **30.0 Topic:** Retirement of Base Plant

### Reference: Exhibit B-64, FEI Response to BCOAPO IR5 5.1

- 3 FEI states:
- 4 "For the purposes of the financial analysis for all Supplemental Alternatives, FEI
  5 assumed the end date for the Base Plant is 2030 and has accordingly assumed
  6 that it is retired from FEI's rate base at that time."
- 30.1 Please briefly describe the regulatory process that FEI anticipates would be
  applicable to retiring the Base Plant.

### 10 **Response:**

- 11 If FEI is granted a CPCN for the TLSE Project as requested in this Application (and Supplemental
- 12 Evidence), FEI will retire the Base Plant prior to the Project's completion. Therefore, there would
- 13 be no separate regulatory process applicable to retiring the Base Plant.
- 14 The retirement of the Base Plant has always been contemplated as part of the TLSE Project. For
- 15 instance, as described in Table 1-3 of the Application (Exhibit B-1-4), the TLSE Project includes
- 16 demolition of the above-ground portion of the Tilbury Base Plant. Further, as described in Section
- 17 5.5 of the Supplemental Evidence, the Project construction is divided into five main sub-projects,
- 18 one of which is the Base Plant demolition. FEI also notes that the draft order in the Supplemental
- Evidence<sup>1</sup> contains the approval for the demolition of the above-ground portion of the Tilbury Base
   Plant.
- 21 The assumption that the Base Plant will be retired from rate base in 2030 (as stated in the
- response to BCOAPO IR5 5.1) is based on the expected Project completion timeline.
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<sup>&</sup>lt;sup>1</sup> Exhibit B-60, Supplemental Evidence, Appendix M-2 (Directive 1.d.).