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October 24, 2024

British Columbia Public Interest Advocacy Centre
Suite 803 - 470 Granville Street
Vancouver, B.C.
V6C 1V5

Attention: Leigha Worth, Executive Director

Dear Leigha Worth:

Re: FortisBC Energy Inc. (FEI)

Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for the Okanagan Capacity Mitigation Project (OCMP) (Application)

Response to the BC Old Age Pensioners' Organization, Council of Senior Citizens' Organizations of BC, Active Support Against Poverty, Disability Alliance BC, Tenants Resource and Advisory Centre, and Together Against Poverty Society ("BCOAPO" or "BCOAPO et al.") Information Request (IR) No. 1

On July 30, 2024, FEI filed the Application referenced above. In accordance with the regulatory timetable established in BCUC Order G-227-24 for the review of the Application, FEI respectfully submits the attached response to BCOAPO IR No. 1.

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

1.0 Reference: Exhibit B-1, Application, pages 1, 11, 15; Figure 3-1 page 11; Exhibit A-4, BCUC IRs 7.3, 8.3

Topic: Longer-Term Capacity Solutions

Preamble: FEI states:

> "The objective of the OCMP is to implement a solution that will be in service before the winter of 2026/2027 to ensure that the capacity requirements in the Okanagan region can be met. The Project must also be able to serve customers' capacity needs through the winter of 2028/2029, as FEI requires the intervening time to assess how best to address the capacity requirements on the ITS in the longer term." **(Application, p. 1)**

> "Despite the denial of the Connections service in the RRGCR Decision, FEI continues to believe that a longer-term capacity solution is required in the Okanagan region. FEI acknowledges, however, the BCUC's comments in the Decision that a longer-term project should be supported by a revised peak demand forecast that addresses the BCUC's concerns. Thus, as part of the scope of the proposed OCMP, FEI has considered the length of time that will be required to both develop and test a revised forecasting methodology and a longer-term project, including the time required to undergo the BCUC review process and, if approved, execute the project." **(Application, p. 15)**

> "As the OCMP focuses on near term need, FEI considers it reasonable to use the most recent 2023 Peak Demand Forecast to define the scope of the Project." **(Application, p. 11)**

1.1 Please further explain why FEI continues to believe that a longer-term capacity solution beyond the OCMP (assuming for the sake of this question that the OCMP is approved as applied for) is required in the Okanagan region despite the denial of the Connections service as part of the Revised Renewable Gas Comprehensive Review (the RRGCR Decision).

Response:

FEI clarifies that, while it expects that an incremental capacity solution will be required beyond the OCMP, it is not seeking approval of such a project at this time. If such a project is required, FEI will file for any required approval of that project with the BCUC and will justify that project based on the need at that time.

However, based on the evidence filed in this Application (and confirmed by the BCUC in the OCU Decision[1]), there is an imminent capacity shortfall on the ITS that must be addressed. The OCMP is proposed to address this capacity shortfall through the winter of 2028/29. Even with the OCMP in place, and as described in Section 3.4.2 of the Application, FEI will still be relying on some short-term mitigation measures to meet peak demand by the winter of 2028/29. FEI needs to work towards eliminating its reliance on these measures to ensure reliable supply to customers during peak cold weather events. A future incremental capacity solution would seek to address this risk as well.

1.2 Further to BCUC IR 8.3, please explain FEI's views as to whether it could determine the proposed OCMP will be the best permanent longer-term solution to address the capacity requirements on the Interior Transmission System (ITS). If FEI does not agree that this is a possibility, please explain why.

Response:

For the reasons and evidence provided in detail in Section 4 of the Application, the OCMP is the preferred alternative to meet the Project objective, which is to implement a solution that will be in service before the winter of 2026/27 and that can serve customers' capacity needs through the winter of 2028/29.

As explained in the response to BCUC IR1 8.1, the OCMP is a permanent solution, but it will not address the forecast capacity shortfall on the ITS after the winter of 2028/29 (and, even in the short-term, as explained in the response to BCOAPO IR1 1.1, FEI will still need to rely on some of the short-term mitigations described in Section 3.3 of the Application).

First and foremost, the OCMP must be able to be in place by the winter of 2026/27. Due to this requirement, and as explained in Section 4 of the Application, all of the potential alternatives were eliminated except for three. Of the three feasible alternatives, FEI confirms that Alternative 6 – Small Scale LNG Storage Facility – is the best option, as it has the highest execution certainty, among other factors, as described in Section 4.5.3.

FEI has proposed a scope for the OCMP that will enable it to permanently (i.e., for the life of the assets) provide approximately 14 TJ/d of additional peak capacity, which is the most capacity that can reasonably be provided given the size of the site.

[1] Decision and Order G-361-23, p. 23.

Accordingly, FEI expects that an incremental solution to address the capacity shortfall after the winter of 2028/29 will be required beyond the OCMP.

1.3 Please explain whether, if approved, FEI intends to use the proposed OCMP post-2028/29.

1.3.1 If not, please indicate whether it is FEI's position that $50.4 million is a reasonable expenditure to provide capacity support on its ITS system for only a 3-year period (2026/27, 2027/28 & 2028/29). Please provide all data, calculations, comparisons or other evidence FEI relied upon to arrive at its answer.

1.3.2 If FEI does intend to continue using the proposed OCMP after those three years, please confirm whether the OCMP would be a decrement to the costs or quantum of the longer-term capacity solutions required on the ITS.

1.3.2.1 If so, will FEI now provide or undertake to provide an estimate of the OCMP-related reductions in the longer-term project's capacity and cost when that application is filed with the Commission?

Response:

Please refer to the response to BCUC IR1 8.1 which explains that the OCMP is a permanent solution to address the imminent capacity shortfall on the ITS and will serve as a complementary solution for any future projects. However, FEI cannot confirm to what extent the OCMP would reduce the capacity and costs of a future project, as FEI has not yet developed such a project.

1.4 Further to BCUC IR 7.3, 7.3.1, and 7.3.2 and using FEI's current load projections, please quantify the total LNG storage capacity and facilities the Utility projects are necessary in addition to its current assets so it might support the longer-term capacity requirements of the area served by the ITS. As part of this response, please provide the incremental capacity requirements (volume/peak-day), storage units, the projected incremental investment ($), and the assumptions used to answer this question as well as the pros and cons of such a .

Response:

Please refer to the response to BCOAPO IR1 1.3.

1.5 Please re-file a version of Figure 3-1 (Exhibit p. 11), 2023 Peak Demand Forecast, adding lines with projections to 2040 reflecting: i) the total additional capacity provided through the proposed Application; and ii) the total additional capacity provided through the proposed Application as well as the short-term mitigation measures as represented by the solid light blue line.

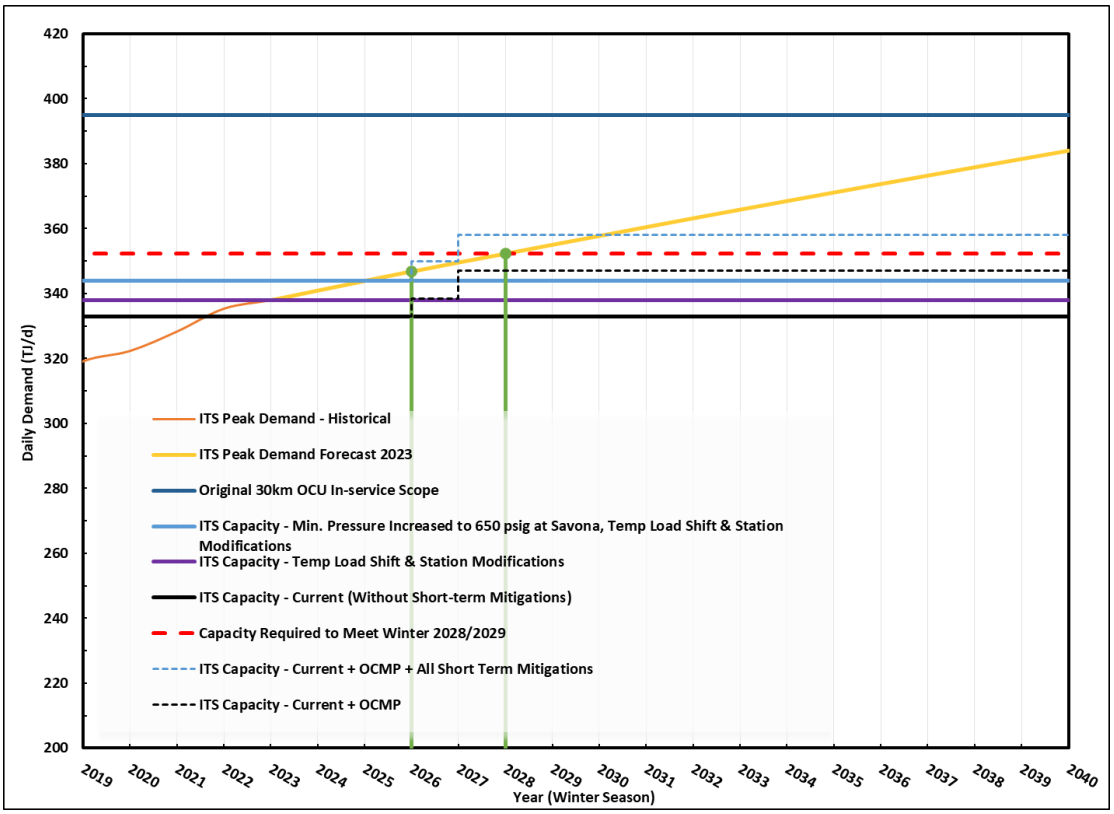
Response:

The figure below is an updated version of Figure 3-1 in the Application, including the total additional capacity provided by the OCMP relative to the two solid lines: with short-term mitigations (Light Blue) and without short-term mitigations (Black). These lines are also characterized in the table below.

FEI notes that there are two step increases in the capacity lines in Figure 1 below that correspond to the in-service timing of Phase 1 (2026) and Phase 2 (2027) of the OCMP. As explained in Section 5.6.1 of the Application, for Phase 1 of the Project, FEI will be utilizing a mobile day tank and three bulk LNG trailers for the winter of 2026/27; therefore, the capacity during this timeframe was evaluated assuming a send out limitation of 3.5 MMcf/d. In 2027/28 and beyond, the capacity is evaluated assuming Phase 2 of the Project is complete and assumes a send out limitation of 10.5 MMcf/d.

As shown in Figure 1, FEI is reliant on some degree of short-term mitigations to meet anticipated peak demand both prior to and following the installation of the OCMP.

Figure 1: Updated Figure 3-1 with OCMP Total Additional Capacity



Year	OCMP Capacity Profile With Mitigations	Cumulative Incremental Capacity (With Mitigations)	OCMP Capacity Profile Without Mitigations	Cumulative Incremental Capacity (Without Mitigations)
2024	344.0	0.0	333.0	0.0
2025	344.0	0.0	333.0	0.0
2026	349.9	5.9	338.4	5.4
2027	358.2	14.2	347.1	14.1
2028	358.2	14.2	347.1	14.1
2029	358.2	14.2	347.1	14.1
2030 +	358.2	14.2	347.1	14.1

1.6 Please provide another version of Figure 3-1 that assumes the 2023 ITS Peak Demand Forecast (yellow line) growth rate is reduced by 1% over the forecast period 2023 – 2040. As part of the response, please provide a discussion of how

the reduced demand changes the evaluation metrics identified in 2.(i), 2.(ii) and 2.(iii) of the Application Requirements from the BCUC's 2015 Certificate of Public Convenience and Necessity Application Guidelines, specifically: the need for the project; the technical, economic, and financial feasibility of the project, whether the alternatives considered would change materially; and the revenue requirements of the project as well as the resulting impacts on customer rates.

1.6.1 Please provide all material assumptions used in the answer to 1.5.1

Response:

FEI interprets the question in BCOAPO IR1 1.6.1 to be a request for a description of the material assumptions used to respond to BCOAPO IR1 1.6, not 1.5.1.

The scenarios requested by BCOAPO in IR1 1.6, 1.7 and 1.8 are hypothetical and arbitrary. There is no supporting evidence to suggest that the growth rate of ITS peak demand or the total ITS peak demand will decline or remain flat from 2023 to 2029 (i.e., the time period with which the ITS capacity needs are being assessed and which the OCMP is being proposed to address). In fact, as shown in the response to BCUC IR1 1.1, customer attachments to the ITS continue to increase based on the 2023 year-end data when compared to the 2022 year-end data. FEI has determined the need for the OCMP based on the expected capacity shortfall in the Okanagan region by the winter of 2026/27 and has selected and scoped the preferred alternative based on the expected capacity needs up to and including the winter of 2028/29. FEI is not seeking approval of a project that will address further capacity needs beyond the winter of 2028/29 at this time; therefore, the peak demand forecast expectations and assumptions beyond the winter of 2028/29 modelled by Figure 3-1 of the Application or by BCOAPO's hypothetical scenarios have no impact on this Application.

However, in order to be responsive, please refer to Figures 1 to 3 below for the alternate versions of Figure 3-1 of the Application for each of the hypothetical scenarios suggested by BCOAPO. FEI notes that there would be no material difference between FEI's 2023 ITS peak demand forecast (yellow line in Figure 1 below) and BCOAPO's first hypothetical scenario, i.e., the annual growth rate is reduced by 1 percent each year (dark green line in Figure 1 below), thus there would be no change to the OCMP under this hypothetical scenario.

Figure 1: Alternate Version of Figure 3-1 with BCOAPO's Hypothetical Scenario that the Annual Peak Demand Forecast Growth Rate is Reduced by 1% from 2023 to 2040

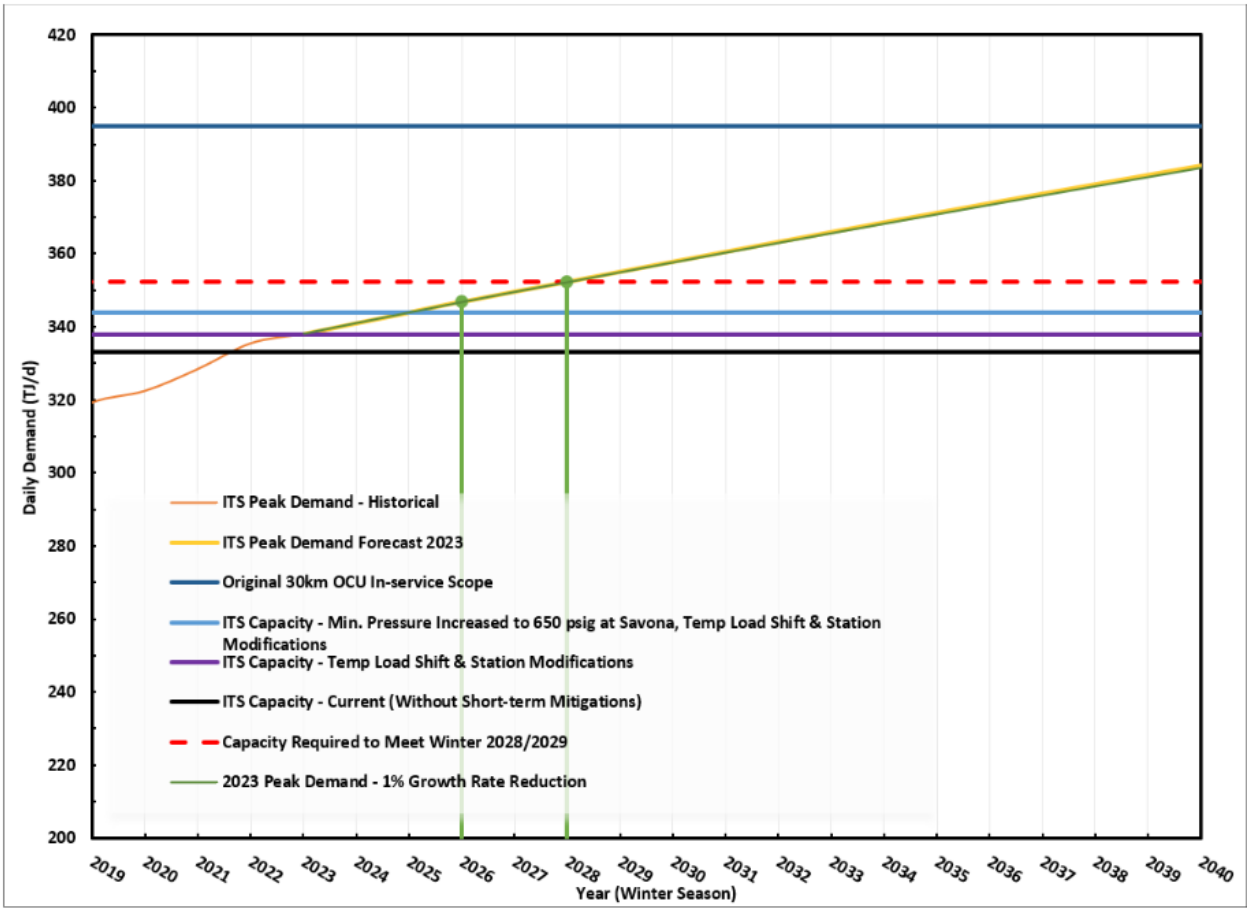


Figure 2: Alternate Version of Figure 3-1 with BCOAPO's Hypothetical Scenario that the Annual Peak Demand Forecast Remains Flat from 2023 to 2040

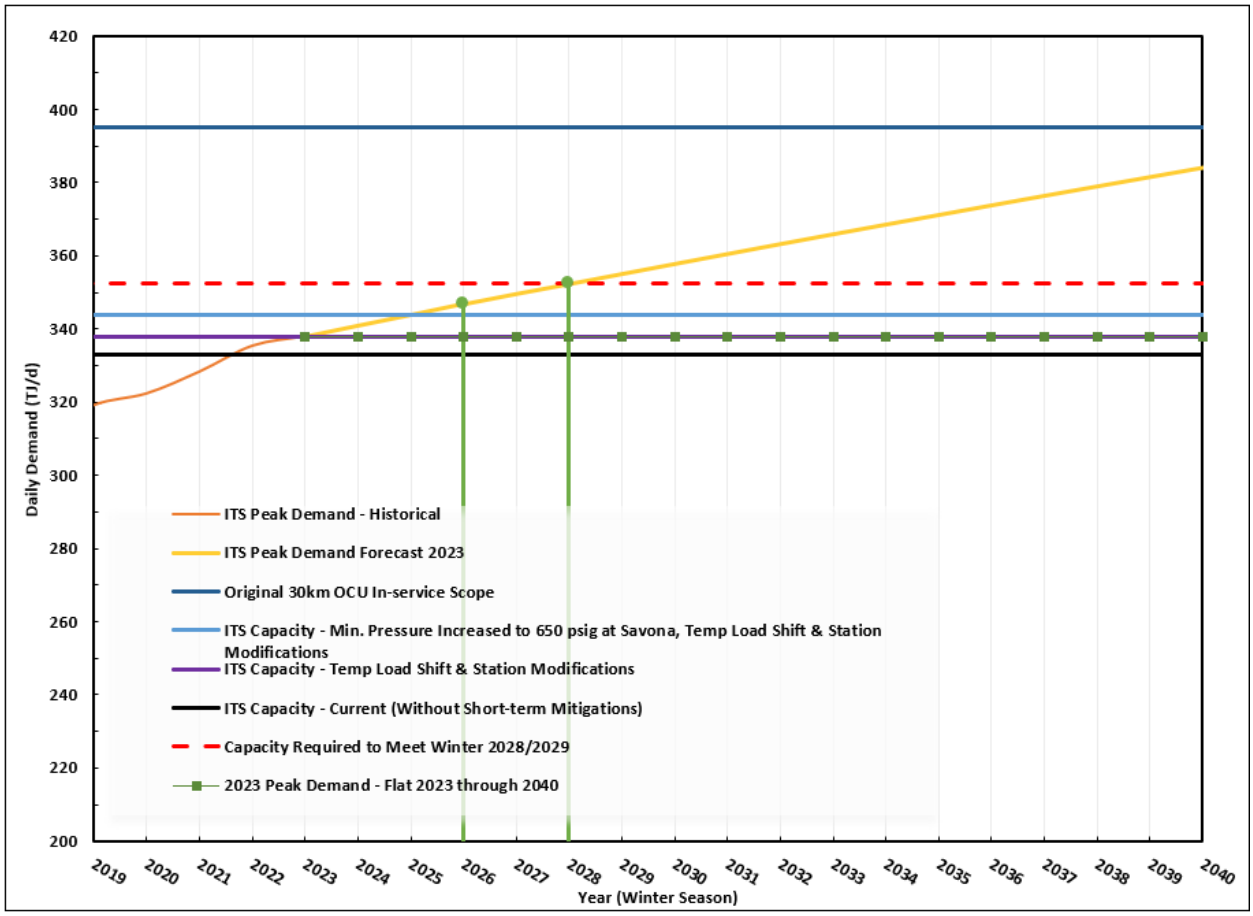
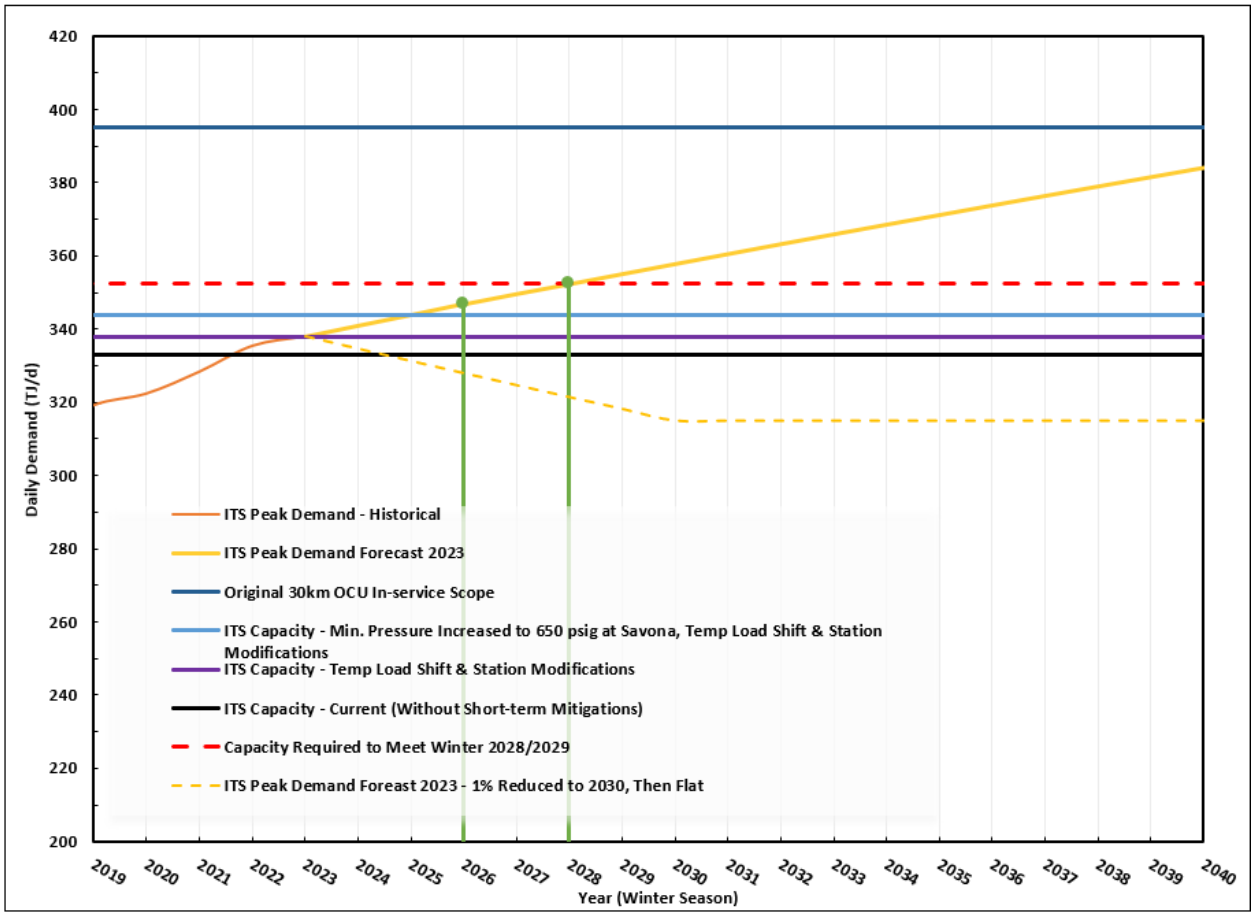


Figure 3: Alternate Version of Figure 3-1 with BCOAPO's Hypothetical Scenario that the Peak Demand Forecast Declines 1% Each Year from 2023 to 2030 and Remains Flat Thereafter



1.7 Please provide another version of Figure 3-1 that assumes the 2023 ITS Peak Demand Forecast (yellow line) is flat over the forecast period 2023 – 2040. As part of the response, please provide a discussion of how the reduced demand changes the OCMP feasibility. Please provide the material assumptions.

Response:

Please refer to the response to BCOAPO IR1 1.6.

1.8 Please provide another version of Figure 3-1 that assumes the 2023 ITS Peak Demand Forecast (yellow line) declines by 1% each year between 2023 – 2030 and is then flat over the remainder of the forecast period 2031 – 2040. As part of the response, please provide a discussion of how the reduced demand changes the OCMP feasibility. Please provide the material assumptions.

Response:

Please refer to the response to BCOAPO IR1 1.6.

2.0 Reference: Exhibit B-1, Application, page 3; Exhibit A-4 BCUC IR 8.1.2.1 FEI CPCN for the Okanagan Capacity Upgrade Project; FEI Final Argument dated August 14, 2023, page 30; Topic: Rate Impacts

Preamble: FEI states:

> "The total cost estimate for the Project is $50.389 million in as-spent dollars and will result in an estimated rate impact of 1.35 percent in 2028 when all construction is complete and after all assets are placed in service. For an average FEI residential customer consuming 90 GJ per year, this equates to a bill impact of approximately $6.93 in 2028." **(Application, p. 3)**

> "The Project will result in an estimated delivery rate impact of 2.37 percent by 2027 when all assets as well as closing costs have entered rate base….For an average FEI residential customer consuming 90 GJ per year, this would equate to a total bill impact of approximately $11.22 in 2027…. The cost estimate for the OCU Project is $327.410 million in as-spent dollars, including contingency and allowance for funds used during construction..." **(FEI CPCN for the Okanagan Capacity Upgrade Project, FEI Final Argument, paras. 72 & 73 [2])**

2.1 Please fully explain why and how the OCMP, with a cost estimate roughly six times less than the Okanagan Capacity Upgrade ("OCU") ($50.4 million vs. $327.4 million) results in a rate impact less than half than the rate impact specified for the OCU (1.35% vs. 2.37%).

Response:

The rate impacts of the OCMP and the original OCU project do not vary in proportion to the projects' respective costs due to a number of factors:

- As explained in Section 6.3 of the Application, the delivery rate impact of 1.35 percent in 2028 (or levelized delivery rate impact of 0.61 percent over the 34-year analysis period) includes both the forecast OCMP costs of $50.389 million and the prior OCU CPCN development costs of approximately $22.153 million (total cost of $72.541 million). If the prior OCU CPCN Development Costs were excluded, the estimated delivery rate impact in 2028 would be 0.66 percent.
- The amortization periods of the OCMP and the original OCU project are different (the amortization period for the OCMP is shorter) which causes the OCMP to appear to have

[2] As accessed on 3 October 2024 on https://docs.bcuc.com/documents/arguments/2023/doc_72977_20230814feifinalargument.pdf.

a high delivery rate impact in proportion to the original OCU project. The delivery rate impact for the original OCU project was calculated based on an amortization period of 65 years (70-year analysis period when including the construction period of 5 years), while the delivery rate impact for the OCMP was calculated based on an amortization period of 30 years (34-year analysis period when including the construction period of 4 years). The rationale for the amortization period for the OCMP is provided in Section 6.4 of the Application.

- The OCMP was calculated based on a higher deemed equity component of 45.0 percent and an allowed return on equity (ROE) of 9.65 percent, as approved by the BCUC in the Generic Cost of Capital Stage 1 Decision and Order G-236-23. In contrast, the delivery rate impact for the original OCU project was based on the previous deemed equity component and allowed ROE of 38.5 percent and 8.75 percent in place at that time.

2.2 Further to BCUC IR 8.1.2.1, please also provide the rate impact analysis requested that assumes: i) the ultimate cost of the project is 50% higher than current projections; and (ii) the ultimate cost of the project is 100% higher than current projections.

Response:

There is no evidence to support that the actual Project cost would be 50 percent or 100 percent higher than the forecast of $50.389 million. As explained in Section 5.10 of the Application, FEI, in conjunction with Jenmar, developed the Project base cost estimate using AACE International Recommended Practice No. 18R-97 as a guide. Further, Validation Estimating completed a quantitative analysis to evaluate the impact of Project-specific risks and systemic risks. FEI considers the P10 and P90 cost distributions developed based on the systemic and Project-specific risks pertaining to the OCMP represent a more probable and reasonable range of Project costs that should be used to evaluate the range of delivery rate impacts, rather than on a hypothetical range of costs.

Using the P10 and P90 confidence of cost distribution of the Project developed by Validation Estimating (as provided in Confidential Appendix H of the Application), the Project cost for the OCMP would range from $35.657 million to $59.371 million. Please refer to Table 1 below which provides the PV of revenue requirement as well as delivery rate impact due to the OCMP based on the P10 and P90 confidence of cost distribution, in comparison to the OCMP cost estimate, which is based on the P70 confidence level of cost distribution.

Table 1: Rate Impact Analysis at the P10, P70 (Proposed), and P90 Confidence Level

	Confidence Level		
	P10	P70 (Proposed)	P90
Total Project Costs ($ millions)	35.657	50.389	59.371
PV of Incremental Revenue Requirement 34 years ($ millions)	55.544	70.005	78.822
Delivery Rate Impact in 2028 (%)	0.50%	0.66%	0.75%
Levelized Delivery Rate Impact 34 years (%)	0.35%	0.44%	0.49%

Note: $22.153 million of prior CPCN development costs is excluded in this table for the purpose of comparing the capital costs specific to the OCMP only.

As shown in Table 1 above, the changes in the delivery rate impact in 2028 (when all assets are expected to be in-service and included in FEI's rate base) would be small, ranging from 0.50 percent to 0.75 percent if the OCMP contingency level is at P10 and P90, respectively. The levelized delivery rate impact with the P10 and P90 confidence level ranges from 0.35 percent to 0.49 percent. The equivalent increase in the total annual bill impact for the average residential customer would be approximately one dollar if the confidence level changes from P10 to P90 (i.e., $2.52 for the P10 confidence level and $3.87 for the P90 confidence level), whereas the proposed confidence level at P70 provides a value of $3.33.

3.0 Reference: Exhibit B-1, Application, pages 3, 17 & 56

Topic: OCMP Phased Implementation

Preamble:

FEI states that it has divided the Project into two phases to ensure that the Project will be in-service prior to the winter of 2026/2027.

"The first Phase entails system modifications and equipment procurement to transport LNG from the Tilbury LNG facility to inject it into the Kelowna Gate Station. This includes the entirety of the scope except installation of the six permanent LNG storage tanks. One mobile day tank and three bulk LNG transport trailers will be filled and connected to the system to meet storage requirements at the Kelowna Gate Station for the 2026/2027 heating season." **(Application, p. 56)**

The second phase includes the installation of the six permanent LNG storage tanks to be ready for operation before the 2027/2028 heating season.

"FEI considers the risk of relying on the availability of all the short-term temporary mitigation measures through the winter of 2028/2029 to be too great. Doing so would leave FEI with no room for error and FEI would be exposed to both the non-firm Savona tap pressure provision by Enbridge of the Savona tap pressure increase (which is out of FEI's control), and the human element required in operating the station modifications during a cold weather event." **(Application, p. 17)**

3.1 Please describe how FEI intends to meet peak demand capacity in the event of a 1 in 20-year cold weather event occurring in the winter of 2026/2027 in the absence of the six permanent LNG storage tanks that it has indicated it is planning to be operational for the 2027/28 heating season. For example, will the mobile tank and 3 LNG trailers act as pseudo temporary storage facilities in 2026/27?

Response:

The preamble appears to exclude the portion from page 56 of the Application which states that "the full six-tank storage quantity is not required to meet the 2026/2027 capacity demands."

As this sentence states, FEI does not require the six tanks to be in-service before the winter of 2026/27. Rather, FEI can meet the 2026/27 peak demand (including a 1-in-20-year cold weather event) by staging the mobile day tank and three LNG trailers on site prior to the peak heating season.

3.2 Please explain what circumstances are expected in 2026/27 that make reliance on the temporary storage facilities an acceptable solution to meet capacity requirements in 2026/27 but i) not in 2027/28 through 2028/29 or ii) beyond.

Response:

As explained in the response to BCOAPO IR1 3.1, Phase 1 of the OCMP provides a sufficient quantity of LNG to address the anticipated capacity shortfall in 2026/27. However, as shown in Figure 3-1 of the Application, peak demand is expected to increase each year beyond 2026/27.

By winter 2027/28, FEI expects the peak demand to increase beyond the limits of the LNG provided by Phase 1 of the OCMP. That is, there will not be sufficient LNG on site to maintain system pressures during a 1-in-20-year cold weather event. Accordingly, FEI has staged the OCMP so that the full six-tank solution (i.e., Phase 2) will be in-service before the winter of 2027/28.

Beyond the winter of 2028/29, FEI expects that an additional solution complementary to the OCMP will be required to meet peak winter demand.

3.3 Please explain what portion of the OCMP will be in service prior to the winter of 2026/27 while also specifying: i) the proportion of the total OCMP cost expenditures ($50.4 million) to be expended prior to the winter of 2026/27; and ii) the total capacity that will be available from the OCMP to support the area's winter 2026/27 capacity requirements on a TJ/day and on a percentage basis in relation to the total capacity shortfall in that year as well as in relation to the capacity shortfall expected by 2028/29.

Response:

Please refer to Table 1 below which summarizes the portion of costs and added capacity that will be in-service prior to each winter of 2026/27, 2027/28, and 2028/29, and the percentage of added costs as well as capacity in relation to the total costs and total capacity by the winter of 2028/29.

For clarity, Table 1 below provides the portion of costs and capacity that will be placed in-service for Phase 1 (2026), which will meet the capacity shortfall for the winter of 2026/27, and for Phase 2 (2027), which is further split between the winter of 2027/28 and the winter of 2028/29. This is because, as explained in Section 5.6.1 of the Application, the OCMP involves two phases with assets to be installed and placed in-service in 2026 and 2027 in order to meet the capacity shortfall over three winters (i.e., 2026/27, 2027/28, and 2028/29):

- Phase 1 involves utilizing the mobile day tank and three bulk LNG transport trailers to meet the capacity requirement of the 2026/27 winter (which is shown under 2026 and under the winter of 2026/27 in Table 1 below).

- Phase 2 involves the installation of the six permanent LNG storage tanks prior to the 2027/28 winter in place of the mobile day tank and the three bulk LNG transport trailers. The three bulk LNG transport trailers will then be used to transport LNG from Tilbury to Kelowna and to fill the permanent tanks annually, and the mobile day tank will be used as part of FEI's LNG fleet. As such, the portion of costs expended and in-service in 2027 is to permanently provide the added capacity needed for both the winter of 2027/28 and 2028/29. As explained in Section 4.5.5 of the Application, the costs for three out of the six permanent tanks which will be in-service in 2027 (i.e., $12.897 million in Table 4-8 of the Application) are intended to meet the additional capacity required by the winter of 2028/29 (for the purposes of this response, FEI has split out these costs and has shown them under the winter of 2028/29 column in Table 1 below).

Table 1: Summary of Costs and Capacity by Project Phase and by Winter Seasons (2026/27, 2027/28, and 2028/29)

Year in-service	2026	2027		
Project Phase	Phase 1	Phase 2		
Winter Season	2026/27	2027/28	2028/29	Total
Incremental OCMP Project Costs ($ millions)	12.906	24.586	12.897	50.389
% of Cumulative Added Project Cost to Total by 2028/29	25.61%	74.41%	100.00%	100.00%
Cumulative Incremental Capacity (TJ/d)	5.9	14.2	14.2	14.2
% of Cumulative Added Capacity to Total by 2028/29	41.55%	100.00%	100.00%	100.00%

Note: Please refer to the response to BCOAPO IR1 1.5 for the forecast peak demand and added capacity by the OCMP for each phase of the OCMP.

4.0 Reference: Exhibit B-1, Application, pages 2, 40; Table 3-2, page 16

Exhibit A-4 BCUC IR 7.1

Topic: Short-Term Mitigation Measures

Preamble: FEI states:

> "FEI therefore considers it necessary to scope the OCMP such that it alleviates the reliance on the short-term temporary mitigation measures to the extent possible." **(Application, p. 2)**

> "The current capacity shortfall (with all of the short-term mitigations implemented) is approximately 8 TJ/d; however, if the short-term mitigations are not relied upon, the capacity shortfall increases to 19 TJ/d. Therefore, FEI considered possible ways to offset the current short-term mitigation strategies and to increase the available capacity within the given time and footprint constraints. Ultimately, FEI determined that it could expand the scope of Alternative 6 to address approximately 14 TJ/d of the capacity shortfall, thus reducing the reliance on the short-term mitigation measures but not eliminating the reliance." **(Application, p. 40)**

4.1 Further to BCUC IR 7.1, please provide a table similar to Table 3-2 (Application, p. 16) breaking down the total capacity shortfall calculated using the 2023 Load Forecast separately for the three winter periods 2026/27, 2027/28 & 2028/29:

i) by each mitigation measure: (a) minimum pressure increase, (b) temporary load shift, (c) station modifications, (d) capacity available from OCMP in 2026/27, (e) capacity available in 2027/28;

ii) the TJ/day that each mitigation measure is expected to support of the capacity shortfall in each year; and

iii) the forecast cost as reflected in the total project cost of $50.4 million (or embedded in annualized revenue requirement if not reflected in the project cost).

Response:

For each mitigation measure, please refer to Table 1 below which shows the TJ/day provided to support the capacity shortfall in each winter period of 2026/27, 2027/28, and 2028/29 (i.e., part i) and part ii) of the question).

Table 1: Capacity (TJ/day) Expected From Each Mitigation Measure

Mitigation Measure	Winter 2026/27 TJ/day	Winter 2027/28 TJ/day	Winter 2028/29 TJ/day	Reference
a) Minimum Pressure Increase	6.0	6.0	6.0	Table 3-1 of Application
b) Temporary Load Shift	1.5	1.5	1.5	BCUC IR1 9.1 of OCU Supplementary Filing[(1)] / Table 3-1 of Application
c) Station Modifications	3.5	3.5	3.5	BCUC IR1 9.1 of OCU Supplementary Filing[(1)] / Table 3-1 of Application
d) Incremental OCMP for Winter 2026/27	5.9	5.9	5.9	BCOAPO IR1 1.5
e) Incremental OCMP for Winter 2027/28 and Beyond	-	8.3	8.3	BCOAPO IR1 1.5
Total Capacity Increase Potentially Available (assuming all Measures included)	**16.9**	**25.2**	**25.2**	

Note 1: The TJ/day for temporary load shifting and station modifications provided in the response to BCUC IR1 9.1 on the OCU Supplementary Filing (Exhibit B-36 in the OCU Project CPCN proceeding) were rounded to 1 TJ/day and 3 TJ/day.

Please refer to Table 2 below which provides the approximate capacity shortfall with and without each mitigation measure in a format similar to Table 3-2 of the Application. FEI notes that (a) minimum pressure increase is a non-FEI controlled mitigation measure as described in Section 3.3 of the Application and is not guaranteed. Nonetheless, it is a mitigation measure that is available to FEI and therefore is included in Table 2 below to support the capacity shortfall on the ITS in each winter period of 2026/27, 2027/28, and 2028/29.

Table 2: Breakdown of Total Capacity Shortfall by Mitigation Measure

Line	TJ/day	Winter 2026/27 TJ/day	Winter 2027/28 TJ/day	Winter 2028/29 TJ/day	Reference
1	Peak Demand Forecast (2023)	346.8	349.6	352.2	Figure 3-1 / BCOAPO IR1 1.5
2	Capacity w/o any Mitigation Measure	333.0	333.0	333.0	Figure 3-1 / BCOAPO IR1 1.5
3	**Current Shortfall Forecast w/o any Mitigation Measure**	**13.8**	**16.6**	**19.2**	**Line 1 - Line 2**
4					
5	Less:				
6	a) Minimum Pressure Increase	(6.0)	(6.0)	(6.0)	Table 1 of BCOAPO IR1 4.1
7	b) Temporary Load Shift	(1.5)	(1.5)	(1.5)	Table 1 of BCOAPO IR1 4.1
8	c) Station Modifications	(3.5)	(3.5)	(3.5)	Table 1 of BCOAPO IR1 4.1
9	d) Incremental OCMP for Winter 2026/27	(5.9)	(5.9)	(5.9)	Table 1 of BCOAPO IR1 4.1
10	e) Incremental OCMP for Winter 2027/28 and Beyond	-	(8.3)	(8.3)	Table 1 of BCOAPO IR1 4.1
11	**Subtotal of Capacity Increase Available**	**(16.9)**	**(25.2)**	**(25.2)**	Sum of Line 6 to 10
12					
13	**Capacity Shortfall with all Mitigation Measure and OCMP**	**(3.1)**	**(8.6)**	**(6.0)**	**Line 3 + Line 11**
14	Note: Negative shortfall implies additional available capacity				

With respect to part iii) of the question, FEI notes that the mitigation measures of (a) minimum pressure increase, (b) temporary load shifting, and (c) station modifications are not part of the OCMP; therefore, there is no forecast costs reflected in the total Project cost of $50.4 million. For the portion of the total forecast OCMP cost assigned to each of the three winter periods (i.e., 2026/27, 2027/28, and 2028/29), please refer to the response to BCOAPO IR1 3.3.

4.2 Please explain whether short-term mitigation measures were required during the winter of 2023/24. As part of the response, please identify which measures were relied upon and the incremental cost incurred.

Response:

FEI notes that a 1-in-20-year cold weather event did not occur in the Okanagan region during the winter of 2023/24; thus, FEI was not required to rely on any of the temporary short-term mitigation measures. However, FEI proactively employed one short-term mitigation measure, which was to underset the Polson DP station to facilitate the load shift away from Polson Gate Station. Implementing this measure can be completed by a technician in approximately 2-3 hours at minimal cost.