

15 April 2021

VIA E-FILING

Patrick Wruck
Commission Secretary
BC Utilities Commission
6th Floor 900 Howe Street
Vancouver, BC V6Z 2N3



Reply to: Leigha Worth
ED@bcpiac.org
Ph: 604-687-3034
Our File: 7310.222

Dear Mr. Wruck,

Re: FortisBC Energy Inc. (FEI) - Application for A Certificate of Public Convenience and Necessity (CPCN) for the Okanagan Capacity Upgrade Project BCOAPO Information Request No. 2

We represent the British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, and the Tenant Resource and Advisory Centre, known collectively in this process as "BCOAPO et al."

Enclosed please find the BCOAPO's Information Request No. 2 with respect to the above-noted matter.

If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,
BC PUBLIC INTEREST ADVOCACY CENTRE

Original on file signed by:

Leigha Worth
Executive Director | General Counsel

Encl.

REQUESTOR NAME: BCOAPO *et al.*
INFORMATION REQUEST ROUND NO: #2
TO: FortisBC Energy Inc. (FEI)
DATE: April 15, 2021
APPLICATION NAME: Okanagan Capacity Upgrade CPCN

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A. PROJECT NEED AND JUSTIFICATION

- 6.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
 Updated Application, page 2 & 11
 BCUC IR 1.11.1
 Topic: Need and Cost/Schedule Risk**

Preamble: FEI states:

Specifically, without adding more delivery capacity to the existing ITS, FEI will be required to curtail customers in these regions, shedding load from the system in order to maintain pressure and preserve supply to remaining customers. In a worst-case scenario, during cold winter days, should it become impossible to shed sufficient load through the curtailment of large interruptible service customers, core customers (i.e., firm supply customers) in these areas may be impacted by a loss of gas supply resulting in these customers being left without gas for heat, hot water, and cooking, which could last for few days depending on the extent of the capacity shortfall. **(Updated Application, page 2)**

However, recent FEI gas load and system capacity forecasts indicate that the system will approach its maximum capacity and a major upgrade is required to maintain secure and reliable supply to the central and north Okanagan regions prior to the winter of 2023/2024. **(Updated Application, page 11)**

- 6.1 Please discuss FEI's view as to which aspects of the project (that is, Alternative 3) poses the greatest risk that the project schedule will be delayed.

- 6.2 Please discuss FEI's view as to which aspects of the project (that is, Alternative 3) poses the greatest risk for cost overruns.
- 6.3 If the project is delayed beyond the winter of 2023/24, is it FEI's expectation to meet the energy requirements of customers with CNG injection until the upgrade is operational?
- 6.3.1 What is the magnitude of the impact on project cost associated with 1) a one-month delay during adverse winter conditions; 2) a six-month delay?

**7.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
Updated Application, page 22
BCUC IR 1.5.1 and series 1.8.1 – 8.2
Topic: System Capacity under Maximum Operating Conditions**

Preamble: FEI states:

FEI considers the three-year average to be the appropriate balance between stabilizing the UPC_{peak} for system planning, while also reflecting any developing trends between the current consumption and historical results. In determining an appropriate UPC_{peak} for system planning, FEI considers these two competing objectives. **(BCUC IR 1.5.1);**

FEI's DDD [Design Degree Day] temperature for any system operating within a region is the coldest day that is statistically likely to occur only once in any given 20-year period. In determining the DDD value, FEI uses an extreme value statistical method called the Gumbel Method of Moments. This method returns the expected extreme value for a given historical data set based on a specified return period. FEI uses a 1 in 20 return period on a data set that represents the coldest recorded daily mean temperature at the region's weather station each winter over a 60-year period. **(Updated Application, page 22)**

FEI has two main objectives that are met by using a 60-year data set. The first is to determine a sufficiently infrequent weather event to design the gas system to ensure reliability and security of supply can be met under the associated high demand forecast to occur during such an event. The second is that the design event is a stable and reproducible target for designing the system and doesn't change from year to year. **(BCUC IR 1.8.2.1)**

- 7.1 Please confirm or otherwise explain whether FEI's methodology to arrive at its Design Degree Day and the consumption contribution of customers to peak demand are intended to ensure the energy requirements of firm customers are met under maximum day operating conditions, even if those conditions occur rarely.

- 7.1.1 Please confirm, or otherwise explain, that FEI's methodology is consistent with its past practice for system design.
- 7.1.2 Please discuss whether the reliance of a 20-year or 60-year data set of frequency and severity of extreme conditions has a material impact on overall project scope and costs.
- 7.1.3 Please confirm or otherwise explain, that but for those occasions when maximum day operating conditions are experienced, Interruptible load can generally be met without interruption?

**8.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
BCUC IR 1.7.1, 7.2.1
Topic: Coincident/Non-Coincident Peak**

Preamble: FEI states:

FEI builds system-wide peak demand based on the loads originating from within the distribution system. The vast majority of industrial customers served by the ITS are located within distribution systems operating at a maximum pressure of 420 kPa. These distribution systems are designed on a peak hour basis as they have no capacity or useable line pack to accommodate hourly load swings. The system capacity is therefore designed to support the maximum hourly load and industrial customer load is assessed to determine their maximum hourly loads. These loads are applied to the distribution system models and roll up into the Transmission system models. The metered data for industrial customers does not have a high degree of consistency as customers can have daily periods of extended high flow, daily periods of extended low flow, or daily periods of intermittent high flow and low flow. **(BCUC IR 1. 7.1)**

FEI provides the figure below that shows the total hourly load profile of firm industrial customers on the system for the coldest days in 2018, 2019, and 2020 with flow sustained through the day. The data indicates a relatively steady cumulative industrial firm demand, with flow varying through the day but not significantly. The time of day when the peak occurs is also variable, with the maximum flows aligned at different points in the day. FEI also notes that the industrial demand on February 21, 2018 was higher than on January 14, 2020, a day that was 5.3 degrees colder. This indicates the industrial demand is not well correlated to temperature, and colder days could also experience much higher industrial demand than that represented in the figure. As a result of this uncertainty around when, and how sustained, the peak industrial flow will be on any given day, FEI models system capacity to support a sustained maximum industrial demand equal to the highest hourly value observed for each customer. **(BCUC IR 1.7.1.2)**

- 8.1 Please explain whether FEI's view and methodology approach to capacity determination related to the Okanagan Capacity Upgrade is one that is more consistent with a coincidental peak or a non-coincidental peak?

**9.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
BCUC IR 1.6.3.1
Topic: Capacity Planning and Rate-Setting**

Preamble: FEI states:

There are no differences in the objectives of forecasting customer accounts for rate-setting and forecasting for capacity planning. The sole objective of the customer forecast process is to develop a single, accurate forecast that can be aggregated and disaggregated with consistency and reasonableness.

For the purposes of capacity planning, FEI considers a longer forecast period up to 20 years and considers the future impact of the peak demand on the system. Peak demand occurs over a short period of hours or days. Capacity planning takes a longer forecast view in order to identify and plan for upgrade projects that may take many years to construct. In addition, capacity planning is concerned with where on the system peak demand occurs and so the more granular information from the BC Stat/LHA forecasts meets that objective.

For the purposes of rate setting, a shorter forecast period is considered. The rate setting demand forecast considers regional annual demand and is not impacted by peak demand or the locality of the demand on the system. **(BCUC IR 1.6.3.1)**

- 9.1 Please discuss the relative impact on overall project costs of meeting peak demand requirements vs. capacity planning that considers a longer forecast view.

B. PROJECT COSTS, ACCOUNTING TREATMENT AND RATE IMPACT

**10.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
Updated Application, page 1
BCUC IR 1.34.1
Topic: Rate Impacts**

Preamble: FEI states:

This population growth has led to a corresponding increase in natural gas demand, and FEI forecasts a shortfall in its existing Interior Transmission System (ITS) capacity, which needs to be addressed prior to the winter peak of 2023/2024. The OCU Project would add adequate capacity to FEI's existing ITS so that FEI can

continue to provide long-term safe and reliable gas service to its customers in Okanagan region. **(Updated Application, page 1);**

FEI did not consider growth in customer accounts, growth in volumes, or growth in delivery margin revenue when calculating the Project rate impacts. This approach is consistent with previous FEI CPCN applications. The purpose of the rate impact calculations in the Updated Application is to show the impact to existing rates, or in this case, relative to what was approved in the FEI Annual Review for 2021 Rates; i.e. holding the delivery margin revenue and volumes constant over the years. This results in a high-level estimate of the rate impact relative to the most recently approved rates. The actual rate impacts of the Project will not be known until a future Annual Review or Revenue Requirements proceeding when the costs of the Project are added to rate base at that time. **(BCUC IR 1.34.1)**

- 10.1 Please explain whether FEI anticipates disproportionate future rate impacts (compared to the 2.21%) to customers taking service at, for example, the Transmission level, once the costs of this project (and other upgrade projects) are incorporated into the Corporation's revenue requirement and cost allocation study (as transmission-related) and/or as a result of large differences between embedded and current cost?

C. ENVIRONMENT AND ARCHAEOLOGY

- 11.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
BCUC IR 1.36.1
Topic: MoTI Variance Application**

Preamble: In response to BCUC IR 1.36.1, FEI states:

The second meeting was held to discuss the specific details of and the need for variances. FEI submitted the variance application in January 2021 and expects a response from the MoTI in March 2021.

- 11.1 Please advise whether FEI's requested variance application was approved by the MoTI as anticipated.
- 11.2 Does FEI anticipate that its variance application will be approved by the MoTI as proposed or does it anticipate any significant approval conditions that will drive material impacts on the project schedule in terms of timing and cost? Please explain.

- 12.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
BCUC IR 1.37.1**

Topic: Gas Line Construction Through Landfill

Preamble: In response to BCUC IR 1.37.1, FEI states:

FEI is currently working with the Campbell Mountain Landfill operator's preferred environmental consultant, Sperling Hansen, to better understand the environmental implications of constructing a gas line through a short section of the landfill. FEI will continue to consult with the operators of the Campbell Mountain Landfill until all outstanding issues are resolved.

- 12.1 Please explain whether FEI anticipates material construction schedule delays or cost impacts related to gas line construction through a landfill, with reference to lessons learned from past practice, if possible.

D. CONSULTATION AND ENGAGEMENT

**13.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN
BCUC IR 1.39.2, 39.2.1
Topic: Expropriation**

- 13.1 In response to BCUC IR 1.39.2, FEI advises that none of the Municipal City of Penticton rights-of-way have thus far been completed. Please provide an update on the rights-of-way negotiations with the Municipality and whether FEI anticipates any material schedule delays or project cost impacts.

In response to BCUC IR 1.39.2.1, FEI states:

FEI's objective is to reach mutually acceptable negotiated agreements with landowners. Should an agreement not be reached and result in the potential for Project construction delays, FEI will take steps to expropriate the required land rights. Should FEI need to proceed with expropriation in a particular situation, FEI would make an application under Section 6 of the Gas Utility Act or section 34(3) of the Oil and Gas Activities Act as appropriate for approval to expropriate the necessary land. Should FEI have to undertake expropriation, costs are not expected to vary beyond those in the estimate.

- 13.2 Please discuss FEI's views on the impact of an expropriation process to the project schedule.

E. PROVINCIAL GOVERNMENT ENERGY OBJECTIVES

14.0 Reference: FEI Okanagan Capacity Upgrade Project CPCN

BCUC IR 1.40.1**Topic:**

In response to BCUC IR 1.40.1, FEI states:

More generally, the Project is aligned with the provincial energy objective to reduce greenhouse gas emissions. The gas energy delivery system, including the Project, delivers low carbon energy (i.e. renewable gas) to customers in the province. FEI continues to increase its supply of renewable gas in alignment with the provincial CleanBC target to achieve 15 percent renewable gas content by 2030. Over the longer term to 2050, FEI envisions a future where the majority of the energy it delivers, including through the Project, is renewable.

- 14.1 Please elaborate on FEI's perspective that it envisions a future where the majority of energy it delivers will be renewable.