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ORDER NUMBER
C-4-24

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Inc.
Certificate of Public Convenience and Necessity for the Fruitvale Substation Project

BEFORE:
M. Jaccard, Panel Chair
A. C. Dennier, Commissioner

on September 4, 2024

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

WHEREAS:

A. On February 29, 2024, pursuant to sections 41, 45 and 46 of the *Utilities Commission Act* (UCA), FortisBC Inc. (FBC) filed an application with the British Columbia Utilities Commission (BCUC) for a Certificate of Public Convenience and Necessity (CPCN) for the Fruitvale Substation Project (Fruitvale Project) (Application);

B. The Project includes construction of a new Fruitvale substation with two new 20 MVA transformers, and the subsequent decommissioning and demolition of the existing Fruitvale and Hearns substations. The existing Fruitvale substation and the new Fruitvale substation are located at different sites in the village of Fruitvale, BC. The Hearns substation is in the community of Park Siding, BC;

C. In the Application, FBC requests that certain information in Appendices C-1, C-2, C-3, D and F-2, along with responses to confidential information requests, be held confidential due to the commercially sensitive nature of the information, in accordance with Part IV of the BCUC's Rules of Practice and Procedure (together, Confidential Information);

D. By Order G-97-24, dated March 28, 2024, the BCUC established a regulatory timetable for the review of the Application, which included one round of information requests to FBC from the BCUC and interveners;

E. By Order G-159-24, dated June 12, 2024, the BCUC established a further regulatory timetable for FBC and interveners to file final arguments, as well as reply arguments from FBC;

F. British Columbia Old Age Pensioners' Organization et al.; Commercial Energy Consumers Association of British Columbia; Industrial Customers Group; Residential Consumer Intervener Association; and Vivian Lenardon registered as interveners in this proceeding; and

G. The BCUC has considered the Application, evidence and submissions in this proceeding and finds that the following determinations are warranted.

NOW THEREFORE, pursuant to sections 41, 45 and 46 of the *Utilities Commission Act* and for the reasons outlined in the decision accompanying this order, the BCUC orders as follows:

1. A CPCN is granted to FBC for the Fruitvale Project, consisting of the construction of a new Fruitvale substation and decommissioning and demolition of the existing Fruitvale and Hearns substations.

2. FBC is directed to file Fruitvale Project reporting as directed in Section 9 of the decision accompanying this order.

3. FBC must comply with all other directives and determinations outlined in the decision accompanying this order.

4. The Confidential Information will be held confidential until the BCUC determines otherwise.

DATED at the City of Vancouver, in the Province of British Columbia, this 4th day of September 2024.

BY ORDER

Original signed by:

M. Jaccard
Commissioner

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APPENDICES

Executive Summary

FortisBC Inc. (FBC) filed an application with the British Columbia Utilities Commission (BCUC) on February 29, 2024 (Application) for a Certificate of Public Convenience and Necessity (CPCN) for the Fruitvale Substation Project (Project), pursuant to sections 41, 45 and 46 of the *Utilities Commission Act.* The Project includes building a new substation to serve the Village of Fruitvale and surrounding area (New Fruitvale Substation) followed by the subsequent decommissioning of the existing Fruitvale and Hearns substations. The New Fruitvale Substation will include two new 20 MVA 63/25/13 kV transformers. The estimated cost of the Project is $18.867 million, including allowance for funds used during construction and the cost of equipment removal.

The BCUC established a written hearing process for review of the Application, which comprised of notice and intervener registration, one round of information requests, and final and reply arguments. Five interveners registered in this proceeding: British Columbia Old Age Pensioners' Organization et al.; Commercial Energy Consumers Association of British Columbia; Industrial Customers Group; Residential Consumer Intervener Association; and Ms. Vivian Lenardon.

The Panel finds that FBC has established the need to: (a) address the equipment condition and aging infrastructure at both the current Fruitvale and Hearns substations, and (b) address the risks to the reliability of the electricity supply in Fruitvale and the surrounding area.

The Panel finds that the Project is the most appropriate alternative to meet the established Project needs. The Panel agrees that it is not feasible to maintain the status quo, rebuild the substations, or build a new substation at one of the existing sites, resulting in the determination that it is necessary to build a new substation at a new site. The Panel is satisfied that FBC has adequately evaluated the available locations to select 2064 Grieve Road as the most appropriate location for the Project.

The Panel finds that FBC's engagement with Indigenous communities as well as its consultation with local governments and stakeholders to date has been reasonable. The Panel recognizes that there remain outstanding concerns from the local community, and notes FBC's commitment to continue working with affected parties.

The Panel is satisfied with FBC's design for the Project and the development of its cost estimate. The Panel finds that the Project is consistent with the objectives of the *Clean Energy Act* and with FBC's approved 2021 Long-Term Electric Resource Plan.

The Panel finds that the Project is in the public interest and that the public convenience and necessity require the Project to proceed. Accordingly, the Panel grants FBC a CPCN for the Project. The Panel directs FBC to file annual progress reports providing updates on community engagement activities, a final report within three months of substantial completion of the Project, and material change reports as required.

1.0 Introduction

1.1 Background

On May 22, 2023, a complaint was filed with the British Columbia Utilities Commission (BCUC) concerning, amongst other things, the location of a substation that FortisBC Inc. (FBC) is proposing to build (Proposed Substation) at 2064 Grieve Road, in Fruitvale, BC (Grieve Location). The Proposed Substation is part of the Fruitvale Station Upgrade project described in FBC's 2023 Annual Rates Application.[1] By Order G-135-23, dated June 9, 2023, the BCUC directed FBC to file an application for a Certificate of Public Convenience and Necessity (CPCN) related to the Proposed Substation prior to the start of construction for the project.

On February 29, 2024, in response to the BCUC's directive in Order G-135-23, FBC filed an application (Application) with the BCUC for a CPCN for the Fruitvale Substation Project (Project) and approval of the decommissioning of the existing Fruitvale and Hearns substations, pursuant to sections 41, 45 and 46 of the *Utilities Commission Act* (UCA).[2]

The Project includes construction of a new Fruitvale substation with two new 20 MVA transformers (New Fruitvale Substation), and the subsequent decommissioning and demolition of the existing Fruitvale and Hearns substations. The existing Fruitvale substation and the New Fruitvale substation are located at different sites in the village of Fruitvale, BC. The Hearns substation is in the community of Park Siding, BC. FBC considers that the need for the Project is driven by equipment condition and aging infrastructure at both the Fruitvale and Hearns substations as well as risks to the reliability of the electricity supply in Fruitvale and the surrounding area.[3]

The estimated cost of the Project is $18.867 million, which includes allowance for funds used during construction (AFUDC) and the cost of equipment removal. FBC expects the Project to be completed by the end of 2026.[4]

1.2 Regulatory Process

By Order G-97-24, dated March 28, 2024, the BCUC established a regulatory timetable for review of the Application, which comprised of public notice and intervener registration as well as one round of information requests (IRs). By Order G-159-24, dated June 12, 2024, the BCUC established a further regulatory timetable comprising of written final and reply arguments.

Five parties registered as interveners in the proceeding: British Columbia Old Age Pensioners' Organization et al. (BCOAPO); Commercial Energy Consumers Association of British Columbia (the CEC); Industrial Customers Group (ICG); Residential Consumer Intervener Association (RCIA); and Vivian Lenardon (Lenardon).

The BCUC received 41 letters of comment, including two petitions.[5]

1.3 Legislative and Regulatory Framework

Section 45(1) of the UCA states that except as otherwise provided, after September 11, 1980, a person must not begin the construction or operation of a public utility plant or system, or an extension of either, without first

[1] FBC Annual Review for 2023 Rates proceeding, Exhibit B-1, Appendix C2, p. 10.
[2] Exhibit B-1, p. 1.
[3] Ibid.
[4] Ibid.
[5] Exhibit D-13, Beaver Valley Concerned Citizens, Petition against change of use of agricultural lands & wildlife corridor; Exhibit D-13-1, Beaver Valley Concerned Citizens, Signatures from impacted neighbors;

obtaining from the BCUC a certificate that public convenience and necessity require, or will require, the construction or operation of the plant system (i.e., a CPCN).

Section 46(3.1) of the UCA provides that in deciding whether to issue a CPCN applied for by a public utility other than British Columbia Hydro and Power Authority, in addition to considering the public interest, the BCUC must also consider:

a) The applicable of British Columbia's energy objectives, which are set out in section 2 of the *Clean Energy Act*;

b) The most recent long-term resource plan, if any, filed by the public utility under section 44.1 of the UCA; and

c) The extent to which the application for the certificate is consistent with the applicable requirements under sections 6 and 19 of the *Clean Energy Act*.

Section 41 of the UCA provides that a public utility that has begun operation must not cease the operation or a part of it without first obtaining the permission of the BCUC.

The BCUC's CPCN Guidelines provide general guidance regarding the BCUC's expectation of the information that should be included in a CPCN application while providing the flexibility for an application to reflect the specific circumstances of the applicant, the size and nature of the project and issues raised.[6] The BCUC's CPCN Guidelines state that a CPCN application submitted under sections 45 and 46 of the UCA should contain information on the applicant, project need, alternatives and justification, consultation, project description, project cost estimate, provincial government energy objectives and policy considerations, and new service areas.[7]

1.4 Structure of Decision

The structure of this Decision largely follows that of the Application and the BCUC's CPCN Guidelines, as follows:

- Section 2 addresses the Project need and justification;
- Section 3 provides a description and evaluation of Project alternatives;
- Section 4 provides a description of the proposed Project;
- Section 5 outlines the Project costs and rate impact;
- Section 6 addresses the Project consultation and engagement;
- Section 7 addresses alignment with the provincial energy objectives and FBC's long-term resource plan;
- Section 8 provides the Panel's CPCN determination; and
- Section 9 outlines reporting requirements for the Project.

Relevant evidence and submissions submitted by the applicant and interveners are summarized in each section.

[6] Appendix A to Order G-20-15, BCUC 2015 Certificate of Public Convenience and Necessity Application Guidelines (CPCN Guidelines), p. 1.
[7] CPCN Guidelines, pp. 4-9.

2.0 Project Need and Justification

FBC identifies two key drivers of the need for the Project:[8]

1. The condition of the equipment and age of infrastructure at both the Fruitvale and Hearns substations; and
2. The need to address the reliability of the electrical supply for Fruitvale and the surrounding area.

The following subsection provides an overview of the existing facilities and equipment that supply power to the customers in the Village of Fruitvale and its surrounding area. Sections 2.2 and 2.3 then discuss the two key Project drivers identified by FBC.

2.1 System Overview

The Fruitvale and Hearns substations are located within the Beaver Valley, east of the City of Trail in the Kootenay Region of BC.[9] The Fruitvale substation is situated in and serves the Village of Fruitvale while the Hearns substation serves local residential and commercial load in the Park Siding area, approximately nine kilometres from the Village of Fruitvale. Both substations are supplied by the 20 Line (20L) 63 kilovolt (kV) transmission line.[10]

2.1.1 Fruitvale Substation

The Fruitvale substation was constructed in the 1960s and is comprised of a single 63/13kV transformer (FRU T1) which is nominally rated at 6/8 MVA on a footprint of approximately 640 square metres, and is one of the smallest substations in FBC's service territory.[11] The Fruitvale substation supplies 1,140 customers, primarily residential and commercial customers as well as one large industrial customer.[12]

The Fruitvale substation is tied to the Hearns substation as well as the neighboring Beaver Park substation in Trail. FBC states that in the event of an unplanned outage, a portion of customers served by the Fruitvale substation can be transferred to the Beaver Park substation.[13] FBC states that load cannot be transferred to the Hearns substation as it does not have sufficient capacity.[14]

2.1.2 Hearns Substation

The Hearns substation was constructed in the 1950s to supply an industrial customer adjacent to the property. Since then, the industrial customer has ceased operations and the substation now supplies electricity to 226 residential, commercial and irrigation customers in the Park Siding area.[15]

The Hearns substation comprises of three single phase 66/13kV transformers, each rated at 0.5/0.625 MVA, which, due to their configuration and operation, are referred to by FBC as a single transformer (HER T1). The Hearns substation has one station intertie to the Fruitvale substation. FBC states that in the event of an

[8] Exhibit B-1, p. 20.
[9] Ibid., p. 12.
[10] Ibid.
[11] Exhibit B-3, BCUC IR 7.4.1.
[12] Exhibit B-1, p. 13.
[13] Ibid., p. 22.
[14] Ibid.
[15] Ibid., pp. 17-18.

unplanned outage to HER T1, the substation load can be transferred to the Fruitvale substation. However, this requires field personnel to manually reconfigure the system.[16]

2.2 Age and Condition of Existing Infrastructure

FBC submits that due to its age and condition, the transformer and other major station equipment at the Fruitvale substation requires replacement.[17] FBC provided copies of a 2023 condition assessment report, which recommended replacement of FRU T1 in the next two to three years, citing the deterioration of its solid and liquid insulation, age, and industrial transformer design, which results in a shorter useful life than network transformers.[18] FBC also provides a comprehensive 2017 condition assessment report, which assessed the metal-clad switchgear as poor.[19] FBC further states that the switchgear was in the poorest condition of all stations evaluated and identified it as the highest priority for replacement.[20]

FBC provides the following table, summarizing the condition of major equipment at the Fruitvale substation:

Table 1: Fruitvale Substation Major Equipment Condition Summary[21]

Equipment	Actual Age	Current Condition Summary	Requires Replacement?	Rationale if Replacement is Required
FRU T1	37	Please refer to the response to BCUC IR1 1.1.	Yes. FBC report (Attachment 1.1a to BCUC IR1 1.1) recommends replacement in next 2-3 years.	Risk of failure due to condition.
FRU Switchgear	57	As per the third-party condition assessment report (Appendix A to the Application), the condition is poor.	Yes. Third-party condition assessment report (Appendix A to the Application) recommends immediate replacement.	Risk of failure due to poor condition. Attempts to repair were completed in 2018 and 2024, with no improvement to condition.
FRU FDR1 (Breaker)	57			
FRU FDR2 (Breaker)	57			
FRU CAP BNK-1 (Capacitor Bank)	22	Condition is suitable for operation.	No. Unit may be repurposed.	N/A

FBC also states that the Hearns substation is at end of life.[22] FBC provides a copy of a 2023 condition assessment report, which recommended replacement of HER T1 in the next two to three years due to its age and deterioration of its insulation. FBC also provided industry statistics, which indicate HER T1 has a high probability of failure due to its age of 74 years.[23] FBC further clarifies that the probability of failure for network transformers like HER T1 increases exponentially after 40 years, and FBC has no other network transformers in its fleet older than 70 years still in service.[24]

2.3 Reliability of Electricity Supply

FBC submits that reliability in the Fruitvale area is a driver of the Project. FBC states the single transformer configuration of the Fruitvale substation negatively impacts reliability.[25] FBC states that while a portion of

[16] Ibid., p. 24.
[17] Exhibit B-3, BCUC IR 1.1.1.
[18] Ibid., BCUC IR 1.1, Attachment 1.1a.
[19] Exhibit B-1, Appendix A.
[20] Ibid., p. 20.
[21] Exhibit B-3, BCUC IR 1.2.
[22] Exhibit B-1, p. 21.
[23] Exhibit B-3, BCUC IR 1.1, Attachment 1.1b.
[24] Ibid., BCUC IR 1.1.1.
[25] Exhibit B-1, p. 22.

customers may be offloaded to the Beaver Park substation in the event of an unplanned FRU T1 outage during peak loading conditions, 39 percent of customers representing 59 percent of the load served by the Fruitvale substation would be without electricity until a mobile transformer is able to be transported to site.[26] FBC states that this would be a 24 hour outage at a minimum, potentially extended to several days depending on storm conditions, road restrictions or mobile transformer availability.[27] Further, FBC states that the extended use of a mobile transformer at the Fruitvale substation could result in power quality issues for customers as FBC's mobile transformers do not have automatic voltage control.[28]

Regarding historical reliability, FBC states that, excluding station outages resulting from a loss of transmission supply, between 2014 and 2023 the Fruitvale substation did not experience a station unplanned outage, while the Hearns substation experienced one 25-minute unplanned outage in 2015.[29]

FBC provides further historical reliability information in the System Average Interruption Duration Index and System Average Interruption Frequency Index of the Fruitvale, Hearns, as well as two comparable substations, Beaver Park and Salmo.[30] FBC explains that these metrics measure all outages on the system that impact supply to customers. Therefore, it expects that the New Fruitvale Substation, if sited at the proposed Grieve Location, will have similar outage metrics compared to the existing Fruitvale and Hearns substations.[31] However, FBC notes that if the New Fruitvale Substation were to be sited further from the load centre (such as at the Hearns substation), it is expected that reliability, as measured by these metrics, would be negatively impacted.[32]

Positions of the Parties

RCIA supports the Project need based on the requirement for reliable electrical supply.[33]

The CEC submits that the substations have been adequately maintained but require replacement. The CEC also recognizes FBC's assessment that reliability in the Fruitvale area is negatively impacted by the single transformer configuration of the existing Fruitvale substation.[34] The CEC recommends that the BCUC find that FBC has reasonably established the need for the Project.[35]

BCOAPO questions whether reliability considerations on their own are enough to justify the Project, but agrees that there is a need to address the equipment condition and aging infrastructure.[36]

ICG and Lenardon disagree with FBC's claim that the Fruitvale substation equipment is beyond its useful life, providing examples of other large industrial transformers which are older than FRU T1 and still in service[37] and submit that the maintenance records provided do not substantiate the need for replacement.[38]

[26] Ibid.
[27] Ibid., p. 23.
[28] Ibid., p. 24.
[29] Exhibit B-3, BCUC IR 2.1.
[30] Ibid., BCUC IR 2.1.1.
[31] Ibid., BCUC IR 2.2.
[32] Ibid., BCUC IR 2.2.
[33] RCIA Final Argument, p. 9.
[34] CEC Final Argument, p. 4.
[35] Ibid., p. 5.
[36] BCOAPO Final Argument, p. 7.
[37] ICG Final Argument, p. 2.
[38] Lenardon Final Argument, p. 2.

In reply, FBC cites the report prepared by FBC engineers in 2023 that indicates the FRU T1 requires replacement within 2 to 3 years.[39]

ICG disagrees with FBC's claim that, for reliability purposes, substations with non-redundant transformers are no longer acceptable, expressing concern that this may set a precedent, which, given the large number of small rural substations on FBC's system, will dramatically increase costs to all ratepayers.[40]

Lenardon submits that outage records do not support the premise of unreliable power issues in the Fruitvale area.[41]

In response to ICG and Lenardon's arguments, FBC submits that the Project is not driven by historical outages but by the future risk of significant outages.[42] FBC reiterates that an unplanned FRU T1 outage during peak load conditions would result in 39 percent of customers and 59 percent of load served by the Fruitvale substation being without power for a minimum of 24 hours and potentially up to several months.[43]

Panel Determination

The Panel finds that FBC has established the need for the Project to address the equipment condition and reliability of supply for customers served by both the Fruitvale and Hearns substations.

The Panel finds there is a need to address equipment conditions at the Hearns and Fruitvale substations. The Panel specifically notes the advanced age and deteriorating insulation of the transformers at both substations, as well as the poor condition of the switchgear at the Fruitvale substation.[44] Further, FBC's condition assessments of the HER T1 and FRU T1 transformers in addition to the third-party condition assessment of the Fruitvale switchgear all recommend replacement of the equipment.[45] In the Panel's view, the circumstances presented by the age and condition equipment at the Hearns and Fruitvale substations warrant replacement. Further, the expected remaining life of two to three years for certain equipment presents a compelling driver for the need for the Project at this time.

The Panel also finds there is a need to address the risk to the reliability of the electricity supply for Fruitvale and the surrounding area. The Panel accepts FBC's assessment of risk of prolonged customer outages in the event of an unplanned FRU T1 outage and the ongoing challenges associated with sustaining the Fruitvale substation load utilizing a mobile transformer. FBC identifies that without a redundant transformer at the Fruitvale substation, a significant number of customers would be without power for a minimum of 24 hours or longer since transfer capability in the Fruitvale area is limited. Further, the construction constraints and automatic voltage control associated with extended use of a mobile transformer is an issue that should be addressed. The Panel finds the risk of prolonged outages undesirable considering the weather conditions of the Interior of BC and resultant risk to public health and safety.

The Panel notes that historical reliability performance is not a measure of future performance considering the advanced age and deteriorating condition of the equipment and finds the risk of a future significant outage is a stronger driver of the Project need than past reliability performance.

[39] FBC Reply Argument, p. 6.
[40] ICG Final Argument, p. 2.
[41] Lenardon Final Argument, p. 2.
[42] FBC Reply Argument, p. 6.
[43] Ibid., pp. 6-7.
[44] Exhibit B-3, BCUC IR 1.2.
[45] Ibid., Attachment 1.1a, p. 9; Attachment 1.1b, p. 12.

The Panel disagrees with ICG that approval of the Project could set a precedent for all rural substations on FBC's system to be built with a two-transformer configuration. The Panel finds such consideration is out of scope of the approvals sought in this proceeding, and further, we do not wish to speculate on future applications and related decisions.

3.0 Description and Evaluation of Project Alternatives

FBC identified four alternatives for the Project, and assessed them against the Project objectives. The alternatives are:[46]

- Status Quo;
- Replace both the Fruitvale and Hearns substations at existing locations;
- Replace the Fruitvale and Hearns substations with a new Substation on either the existing Fruitvale site or the existing Hearns site; and
- Replace the Fruitvale and Hearns substations with a sew substation at a new location.

3.1 Evaluation of Alternatives Considered Not Feasible

Status Quo

The status quo alternative would continue operation of the existing Fruitvale and Hearns substations. FBC states that this alternative is infeasible for two reasons. First, because it does not address the high probability of failure due to the age and condition of the Fruitvale and Hearns equipment. Second, it does not address the reliability risks of operating with a single-transformer configuration, where a transformer failure causes customer outages. For these reasons, FBC states that the status quo is not a viable option.[47]

Replace both the Fruitvale and Hearns Substations at Existing Locations

FBC states that this alternative is infeasible as the Fruitvale substation cannot be replaced at its current location and a replacement of the Hearns substation, while possible, is not economically efficient or practical.[48]

FBC states that the Fruitvale substation property is too small to accommodate a two-transformer configuration. Further, even if a one-transformer substation were an acceptable option, the existing site is too small for a one-transformer substation that meets FBC's current design standards.[49] FBC states it did consider non-standard designs, but the station footprint was still determined to be too small.[50]

FBC states that rebuilding the Hearns substation at its current location would be possible, but not economically efficient.[51] As stated above, the Hearns substation was originally built in the 1950s to supply an industrial customer adjacent to the property, which has since shut down. FBC states that since the Hearns substation is no longer required for the historical industrial customer, any of the load it serves can be permanently transferred to the Fruitvale substation, thus avoiding the substantial costs associated with rebuilding it.[52]

[46] Exhibit B-1, pp. 25-26.
[47] Ibid., p. 26.
[48] Ibid.
[49] Ibid., p. 27.
[50] Exhibit B-3, BCUC IR 7.4.
[51] Exhibit B-1, p. 28.
[52] Ibid., p. 29.

Replace the Fruitvale and Hearns Substations with a New Substation on Either the Existing Fruitvale or Hearns Sites

FBC acknowledges that replacing the Fruitvale and Hearns substations with a single new substation with two transformers on either the existing Fruitvale or Hearns sites is a potentially more cost-effective solution than replacing two separate substations.[53] However, FBC states that, building a new substation at the existing Fruitvale site would require its spatial expansion.[54] Moreover, even if FBC were to acquire sufficient parcels for an adequate station footprint, the expanded site would present severe construction barriers. The existing substation would need to be demolished prior to constructing the new substation and a mobile transformer would need to be used to supply customers during construction, which may require distribution and transmission line upgrades.[55]

FBC states that re-building at the existing Hearns substation site is also not practical. While the site is large enough to accommodate a new two-transformer substation, FBC rejected this option due to the Hearns substation's nine kilometre distance from the load centre in Fruitvale.[56] FBC states that the further the substation is sited from the load centre, the greater the exposure to outages.[57] FBC further explains that building a two-transformer substation on the existing Hearns site would require a complete rebuild of the transmission and distribution line infrastructure between the Hearns site and Fruitvale to meet voltage limits[58] and stay within thermal limits.[59] FBC states that the line infrastructure work required would increase project costs by as much as $10 million. Further, FBC states this alternative would have greater negative visual impact.[60]

3.2 Single Feasible Project Alternative

Given the above assessment, FBC states that replacement of both substations with a single new substation on new property with a two-transformer configuration is the only feasible option.[61]

3.2.1 Site Identification and Evaluation

FBC states that the process for identifying an appropriate site for the New Fruitvale Substation was lengthy and complex, but otherwise generally consistent with the process used for past projects of a similar nature.[62] FBC states that between 2019 and 2023, it worked with its lands department and engaged with the Village of Fruitvale, the general public, and a local realtor to identify and review possible locations. It considered bare properties and properties containing structures, regardless of whether properties were available for sale. Through this process, 18 possible new locations were identified.[63]

Of these 18, landowners for nine locations were unwilling to sell. On July 12, 2021, the Village of Fruitvale offered land it owned beside Mazzocchi Park (Mazzocchi Location). FBC determined that it was a suitable location and began working with the Village of Fruitvale and an adjacent landowner to purchase sufficient land to meet the station footprint requirements.[64] However, after public opposition during the process of rezoning

[53] Ibid.
[54] Ibid.
[55] Exhibit B-4, BCOAPO IR 12.1.
[56] Exhibit B-1, p. 30.
[57] Ibid., p. 35.
[58] Per CSA standard C235-95.
[59] Exhibit B-1, p. 31.
[60] Ibid.
[61] Exhibit B-1, p. 32.
[62] Exhibit B-3, BCUC IR 4.1.1.
[63] Ibid., BCUC IR 4.1.
[64] Exhibit B-1, p. 69.

the land for substation use, the Village of Fruitvale voted on April 11, 2022 not to sell the Mazzocchi Location to FBC.[65]

FBC then evaluated each of the nine remaining identified locations against a common set of criteria, including categories such as financial, technical, land ownership and use, environment, archaeology, hazards and community and stakeholder relations.[66] Several of the criteria were chosen based on stakeholder feedback.[67] Each property was scored against these criteria in a land evaluation matrix.[68]

Eight of the remaining properties were ultimately rejected due to their distance from the load centre or flooding, terrain and infrastructure challenges. FBC provided a summary of the sites and the primary reason for their elimination as shown in Table 2 below:

Table 2: Properties Rejected due to Distance from Load Centre and/or Geographical Challenges[69]

Property Number	Property Name	Primary Reason for Elimination
1	Atco Wood Products Property A	Distance from load centre
2	Former Atco Wood Products Property	Distance from load centre
3	Hepburn Road	Flooding
4	Atco Wood Products Property B	Flooding
5	Old Salmo Road	Terrain and size
6	Atco Wood Products Property C	Terrain
7	Highway 3B Property A	Terrain
8	Highway 3B Property B	Flooding

Distance from Load Centre

Properties 1 and 2 were rejected, primarily due to their distance from the load centre. These two sites are in close proximity to the existing Hearns substation, which is approximately nine kilometres from the Village of Fruitvale.[70] FBC states that while there is no typical distance between its substations and their load centres, FBC seeks to minimize this distance where possible.[71] FBC further states that a site's distance from its load centre impacts the distribution reconfiguration complexity, constructability complexity, customer reliability, and relative capital cost criteria on the land evaluation matrix.[72]

FBC states that building the New Fruitvale Substation at either of these properties (as well as the existing Hearns substation) would require the rebuilding of approximately 7.4 kilometres of transmission and distribution line between the sites and the Village of Fruitvale. FBC explains that the amount of load that can be carried through a distribution line is constrained by voltage and thermal limits. As a result, the cost to ensure that line infrastructure adheres to these limits increases the further a substation is from its load centre.[73] FBC estimates that if property 1 or 2 as shown in Table 2 above were selected as the location for the New Fruitvale Substation, the resulting line work would add approximately $9.6 million in cost.[74] If the existing Hearns substation were

[65] Ibid., p. 70.
[66] Exhibit B-1, p. 34.
[67] Exhibit B-3, BCUC IR 15.3.1.
[68] Exhibit B-1, Appendix B.
[69] Ibid., p. 33, BCUC staff generated table.
[70] Ibid., p. 1.
[71] Exhibit B-3, BCUC IR 5.3.
[72] Exhibit B-1, p. 34.
[73] Exhibit B-3, BCUC IR 5.6.
[74] Ibid.; estimated at an AACE Class 5 level.

chosen, FBC states that the incremental Project costs due to the required line work would be slightly offset as FBC would not incur any land acquisition costs. FBC therefore estimates the incremental Project costs in this case to be $8 to $9 million.[75]

FBC also states that the further the substation is sited from the load centre, the lower the customer reliability.[76] FBC explains that the required 7.4 kilometre stretch of line infrastructure would be in close proximity to trees, which could damage the line infrastructure, causing an outage to the entire Village of Fruitvale while repairs are completed.[77]

Flooding, Terrain and Infrastructure Factors

FBC states that a number of the available sites considered by FBC were ultimately rejected because of the potential for flooding, challenging terrain, and the need to reconfigure transmission and distribution lines.[78]

FBC considers it unacceptable to relocate an existing substation into an area where overland flooding is a known issue, as would be the case for properties 3 and 4.[79] Additionally, the extreme elevation profiles present at properties 6 and 7 were also deemed unacceptable, and FBC notes moreover that it has never constructed a substation on land with a similar profile to these properties.[80] While property 8 does not have as extreme of an elevation profile, FBC states it still considered the complexity of the terrain to be unacceptable due to the risk of falling trees on the mountain side of the property. FBC further explains that this risk is not easily mitigated as the steep terrain would require the removal of trees situated considerably far away from the substation and outside the property boundaries.[81]

Grieve Location – the Selected Alternative

Through this evaluation process, FBC determined that of the 18 new locations, the only one that is available, zoned for utility use, close to the load centre, and does not present flooding, terrain, and other constructability challenges is the Grieve Location.[82] Adjacent properties to this Location include residential properties, vacant properties, and an industrial site (ATCO Wood Products Ltd). These are shown in Figure 1 below with the green square indicating the Grieve Location, orange stars indicating nearby residential properties, blue stars indicating vacant properties, and the green star indicating the industrial property. FBC proposes to construct the New Fruitvale Substation on this property.

[75] Ibid.
[76] Exhibit B-1, p. 35.
[77] Exhibit B-3, BCUC IR 5.6.
[78] Exhibit B-1, p. 36.
[79] Ibid.
[80] Exhibit B-3, BCUC IR 5.8.
[81] Ibid.
[82] Exhibit B-1, p. 41.

Figure 1: Aerial View of the Grieve Location and Adjacent Properties[83]

3.3 Additional Options Considered

Through information requests during this proceeding, two additional potential Project alternatives were suggested and subsequently evaluated by FBC:

- Transferring the entire load for the Village of Fruitvale over to the Beaver Park substation; and
- A non-standard substation design at the existing Fruitvale site.

Transferring the Entire Load for the Village of Fruitvale Over to the Beaver Park Substation

As discussed above, the Fruitvale substation is currently able to transfer a portion of its load to the neighboring Beaver Park substation, via the single distribution tie between the two substations.[84] While the existing Beaver Park substation could potentially be expanded to supply electricity to Fruitvale and the surrounding area, FBC states that this is not a practical solution as it is a similar distance from the Fruitvale load centre as the Hearns substation (eight kilometres) and therefore would require similar costly line upgrades in order to adhere to voltage and thermal limits (see Section 3.2.1 above for further discussion on voltage and thermal limits).[85] In addition, FBC states that the Beaver Park substation is on an archaeological site, which would make site expansion complex.[86]

[83] Exhibit B-1, p. 73.
[84] Ibid., p. 3.
[85] Exhibit B-3, BCUC IR 7.1.
[86] Ibid.

Non-standard Substation Design at the Existing Fruitvale Site

As discussed above, FBC considers the existing Fruitvale site to be too small to accommodate the New Fruitvale Substation under FBC's current standard design practices. FBC states that it did consider non-standard one-transformer and two-transformer designs, however the property is still too small to accommodate the required equipment and maintenance access.[87]

Positions of the Parties

RCIA states that it is not opposed to FBC's preferred alternative.[88]

The CEC accepts FBC's preferred alternative due to the inappropriateness of the other alternatives.[89] The CEC further submits that FBC made reasonable efforts to locate an appropriate site based on its selection criteria.[90]

ICG and Lenardon submit that FBC provided inadequate evidence to show that the option of serving Fruitvale from the Beaver Park substation is unfeasible. Specifically, ICG questions whether FBC considered the use of voltage regulators on the interconnection between the Beaver Park and Fruitvale substations to ensure voltage limits are met.[91] Lenardon notes that many places are supplied with reliable power further than eight kilometres from source.[92]

In reply, FBC states that the addition of voltage regulators does not address thermal constraints, reiterating that serving Fruitvale from the Beaver Park substation remains an impractical alternative as it would still require costly line upgrades to accommodate the aforementioned thermal constraints as well as a complex site expansion.[93] FBC further states that damage at any point along the eight kilometre line between Beaver Park and Fruitvale would cause an outage to the entire area.[94]

BCOAPO submits that FBC has not adequately explored an alternative whereby sufficient land could be acquired adjacent to the current Fruitvale substation to meet the minimum station footprint requirements.[95]

In reply, FBC states it did fully investigate locations adjacent to the existing Fruitvale site but would need to purchase multiple adjacent residential properties.[96] FBC states It approached the landowner of one of these properties but the landowner was unwilling to sell.[97]

Panel Determination

The Panel finds that the best alternative to meet the Project objectives is to replace the Fruitvale and Hearns substations with a single substation at the Grieve Location.

The Panel determines that the status quo is unacceptable due to the age and condition of the infrastructure at the existing sites, and that rebuilding the Fruitvale and Hearns substations at their existing locations would not

[87] Exhibit B-3, BCUC IR 7.4.
[88] RCIA Final Argument, p. 9.
[89] CEC Final Argument, p. 7.
[90] Ibid., p. 9.
[91] ICG Final Argument, p. 4.
[92] Lenardon Final Argument, p. 5.
[93] FBC Reply Argument, p. 13.
[94] Ibid.
[95] BCOAPO Final Argument, p. 9.
[96] FBC Reply Argument, p. 8.
[97] Ibid., pp. 10-11.

be as cost-effective or reliable as combining Fruitvale and Hearns into a single substation closer to the load centre. The Panel is satisfied that building the New Fruitvale Substation at either of the existing sites is not feasible or practical due to the inadequate footprint of the existing Fruitvale substation site and the Hearns substation's distance from the load centre.

The Panel notes that counter to BCOAPO's submission that FBC inadequately explored the alternative of purchasing land adjacent to the existing Fruitvale substation, FBC was unable to convince a key property owner to sell.

The Panel accepts that expanding the Beaver Park substation to serve the entire load for Fruitvale and the surrounding area is not a feasible alternative given the necessary line upgrades and archaeological site. The Panel is satisfied with FBC's effort to identify all suitable locations for the New Fruitvale Substation, and evaluating only the available locations after determining if the landowners were willing to sell. The Panel accepts FBC's chosen criteria for the land evaluation matrix and notes that some criteria were included in response to stakeholder input.

The Panel also finds FBC's evaluation of the 18 sites against the criteria in the land evaluation matrix to have been appropriate. The Panel agrees with FBC that it would be inappropriate to build a new substation on a floodplain or on complex terrain that has the potential to negatively impact substation operation. The Panel agrees that distance from the load centre is an important consideration given its impact on customer reliability, construction complexity, and capital cost. The Panel acknowledges that the Mazzocchi Location, while deemed to meet the Project requirements, was ultimately rejected due to public opposition and the withdrawal of the local governments' earlier support.

Based on the evaluation matrix, the only location that is available, zoned for utility use, close to the load centre, incorporates stakeholders' feedback and does not present flooding, terrain, and other constructability challenges is the 2064 Grieve Road location. The Panel is aware that there is no perfect location for the new substation, but is convinced that the Grieve Location, given its superior performance on the evaluation matrix, is the most suitable.

4.0 Project Description

4.1 Project Scope

The Project consists primarily of the construction of the New Fruitvale Substation and associated line work at the Grieve Location and the subsequent decommissioning and removal of equipment from the existing Fruitvale and Hearns substations. The New Fruitvale Substation will comprise of:[98]

- Three 63kV circuit breakers and isolation switches;
- Two 20 MVA 63/25/13 kV auto transformers with secondary oil containment with oil-water separation and fire quenching stone;
- Seven 25 kV breakers;
- One 25 kV 2.4 MVAR capacitor bank;
- Three 25 kV distribution feeders (to be operated at 13 kV) leaving the station via underground cables;
- Isolation and bypass switches, surge arrestors, support structures, conduit, grounding, connectors, and bus work;

[98] Exhibit B-1, pp. 49-50.

- Control, metering, protection and telecom equipment housed in a control building; and
- A concrete or screening fence.

In addition to the substation work listed above, transmission and distribution line work is planned, including tree clearing for two new transmission line extensions to supply the New Fruitvale Substation.[99] FBC submits that the New Fruitvale Substation meets its standard substation design, which includes a two-transformer layout along with a high side breaker ring bus configuration.[100] Further, as FBC states, its substation design standard follows good utility practices, consistent with those established by the Center for Energy Advancement through Technological Innovation and the Institute of Electrical and Electronic Engineers.[101]

FBC states that the Project schedule should meet an in-service target of Q4 2026, assuming the CPCN is granted by Q4 2024. Engineering and procurement for the Project will begin immediately upon BCUC approval. FBC notes that it has standard equipment specifications, which reduces risk for ordering long-lead material, and that the selection of the Grieve Location allows for a "green Field" construction site, reducing Project staging and outage risks.[102]

4.2 Environment and Archaeology

FBC conducted a desktop review and an on-site assessment of the Grieve Location and concluded that the risk of environmental impacts are low. Qualified Environmental Professionals from both FBC and Seepanee Ecological Consulting conducted an on-site habitat assessment, with a finding of low risk. To ensure appropriate controls are in place to manage the environmental risks of the Project, FBC states that a comprehensive Environmental Management Plan will be prepared with site specific environmental mitigations.[103]

With respect to archaeological impacts, FBC states it will complete an Archaeological Impact Assessment of the selected substation site with support from Nupqu Resource Limited Partnership. This will be completed under the *Heritage Conservation Ac*t Section 12.2 multi-assessment permit which is held by Nupqu.[104] It will be designed to identify and evaluate any archaeological resources within the selected substation site and provide recommendations on the management of archaeological resources during Project activities.[105]

Positions of the Parties

The CEC is satisfied with FBC's proposed Project description.[106]

ICG submits that using a "cookie cutter" approach to substation design and configuration, as proposed by the Project may lead to excessive costs and contribute to unnecessary rate increases.[107] ICG argues that a substation design with a single smaller 10 MVA transformer would be adequate to address customer loads as far out as FBC has forecast in the application.[108]

[99] Ibid., p. 50.
[100] Exhibit B-3, BCUC IR 7.4.1.
[101] Ibid.
[102] Exhibit B-1, p. 53.
[103] Ibid., p. 64.
[104] Exhibit B-3, BCUC IR 12.1.1.
[105] Exhibit B-1, p. 66.
[106] CEC Final Argument, p. 1.
[107] ICG Final Argument, pp. 3-4.
[108] Ibid., p. 1.

Lenardon submits that FBC should have more flexibility in their "current design standard," arguing that either two 7.5/10MVA or a single 7.5/10MVA transformer is adequate to supply the Fruitvale area and could be configured within the existing substation footprint at FRU.[109]

In reply to Lenardon and ICG, FBC submits that 20 MVA transformers is both cost-effective and prudent.[110] FBC explains that 20 MVA is the smallest FBC standard transformer, which, when standardized across its fleet promotes efficiency with procurement, supply chain dependability, operational flexibility and reduced spare parts inventory.[111] FBC also notes that the use of 10 MVA units as suggested by Lenardon, would not mitigate the existing Fruitvale site size issues as the resulting substation design would still not fit the property and satisfy utility standard practice. [112]

Panel Determination

The Panel is satisfied with FBC's proposed plan to complete the Project, including the proposed substation design. The Panel considers FBC's use of two transformers for the New Fruitvale Substation to be appropriate given the Fruitvale substation's load transfer constraints limiting its ability to transfer load under peak contingency conditions. Further, the use of two transformers provides superior reliability compared to the existing Fruitvale and Hearns substations, eliminating customer impact in the event of a transformer outage, meeting the Project objective.

The Panel disagrees with ICG and Lenardon's assertion that a standardized design approach may result in excessive costs and rate increases. The Panel notes that adhering to standard design follows good utility practice and industry standards and results in operational and supply chain efficiencies.

5.0 Project Cost and Rate Impact

5.1 Project Cost

The total Project cost estimate is $18.867 million in as-spent dollars[113] and is based on an Association for the Advancement of Cost Engineering (AACE) Class 4 level of definition.[114] FBC states it has not undertaken a Class 3 cost estimate at the time of the Application (as specified in the BCUC's CPCN Guidelines), as this would first require FBC to determine where on the Grieve Location the station would be sited, which was not known until February 2024.[115] FBC states it intends to complete the Class 3 estimate in the summer of 2024, once snow-free conditions at the Grieve Location allow it to do so.[116] FBC used two separate firms, Breton, Banville and Associates and Primary Engineering, to support the cost estimate.[117] A breakdown of the Project cost estimate is provided by FBC in the following table:

[109] Lenardon Final Argument, pp. 2-3.
[110] FBC Reply Argument, p. 11.
[111] Ibid.
[112] FBC Reply Argument, p. 12
[113] "As-spent dollars" refers to money that has been spent, as well as future spending adjusted for inflation; Exhibit B-1, p. 57.
[114] Exhibit B-1, pp. 1, 57-58.
[115] Ibid., p. 46.
[116] Ibid., pp. 46-47.
[117] Ibid., p. 57.

Table 3: Breakdown of the Project Cost Estimate ($ millions)[118]

Line	Particular	2023$	As-Spent-$
1	Land Costs	0.794	0.818
2	Station Construction Costs	11.162	11.746
3	Transmission and Distribution Construction Costs	1.604	1.690
4	Removal Costs	0.439	0.468
5	Project Management and Owner's Costs	0.555	0.586
6	**Subtotal Project Capital Cost**	**14.554**	**15.308**
7	Contingency	1.759	1.864
8	**Subtotal Project Capital Costs with Contingency**	**16.312**	**17.172**
9	CPCN & Preliminary Engineering Costs	0.160	0.160
10	AFUDC	-	1.535
11	**Total Project Costs**	**16.472**	**18.867**

Accounting Treatment

FBC outlines its proposed accounting treatment for the various costs associated with the Project, as follows:

- Preliminary and investigative engineering costs ($0.160 million) will be recorded in the approved CPCN & Project Preliminary Engineering deferral account and, upon BCUC approval of the Application, transferred to FBC's construction work-in-progress and included in the total Project capital cost.[119]
- The Project capital costs will be recorded as construction work-in-progress as they are incurred, attracting AFUDC. FBC will include the capital costs in its rate base and start depreciating them the following year after they enter service, which is estimated to be January 1, 2027.[120]
- Decommissioned assets, specifically the existing Fruitvale and Hearns substations, will be retired from FBC's rate base by crediting the original value ($1.735 million) to FBC's plant-in-service and debiting the same amount in accumulated depreciation, reflected in the opening balance of 2027.[121]
- Removal costs ($0.439 million) will be treated consistently with FBC's existing regulatory accounting treatment and will be charged to accumulated depreciation.[122]

5.2 Rate Impact

The incremental revenue requirement impact of the Project on January 1, 2027 is expected to be $1.440 million, resulting in a projected rate increase of 0.31 percent compared to FBC's 2024 approved rates, and levelized rate increase of 0.29 percent over a 53-year analysis period.[123] For an average FBC residential customer, the total annual bill increase is approximately $4.56 in 2027.[124] The 53-year analysis period is derived from the three-year construction period from 2024 to 2027 and a 50-year post-Project period.[125] FBC submits that 50 years is the

[118] Exhibit B-1, p. 57, Table 6-1.
[119] FBC Multi-Year Performance Based Ratemaking Plan for the years 2014 through 2018 Decision and Order G-139-14 dated September 15, 2014, p. 230.
[120] Ibid.
[121] Ibid.
[122] Exhibit B-1, p. 62.
[123] Ibid., pp. 5, 62-63.
[124] Ibid., p. 63; For an average residential customer consuming 11,000 per year.
[125] Ibid., p. 60.

average service life for the station equipment in the transmission plant based on its most recently approved depreciation study.[126]

Positions of the Parties

BCOAPO and the CEC were satisfied with the information provided by FBC regarding the financial aspects and the rate impact of the Project.[127]

Panel Determination

The Panel accepts FBC's total Project cost estimate of $18.867 million in as-spent dollars and is satisfied with FBC's use of independent experts to support the establishment of a cost estimate. Further, the proposed accounting treatment for the capital costs of the Project is consistent with its past practice as previously approved by the BCUC for projects of this nature. The Panel is satisfied with FBC's submission of a Class 4 estimate considering the delays that would result in waiting for a Class 3 cost estimate. The Panel notes that the Project was previously approved as part of the 2023 Annual Rates Application and FBC had initiated the Project until the BCUC directed FBC to file a CPCN because of a complaint filed regarding the siting of the Project. The Panel finds that waiting for a Class 3 estimate would not be in the public interest in this case since the main issue of consultation and siting was ready for the BCUC review at the time of the Application. However, **the Panel directs FBC to file a Class 3 cost estimate, with the same itemized breakdown as Table 6-1 in the Application, with the BCUC in a compliance filing, within 30 days of the date of this decision.**

The Panel also finds FBC's calculation of the indicative rate impacts of the Project to be reasonable for the purposes of this Application, in addition to the use of a 53-year period for the financial analysis. This timeframe reflects the average service life of the station equipment in FBC's transmission plant based on FBC's most recently approved depreciation study.

6.0 Project Consultation and Engagement

Section 3 of the BCUC's CPCN Guidelines outlines the information expected from an applicant regarding consultation and engagement with First Nations and the public, including: a summary of consultation activities to date; issues and concerns raised; the applicant's assessment of the sufficiency of the consultation process; and a statement of planned future consultation.[128]

6.1 Indigenous Engagement

FBC used the BC Government's Consultative Areas Database (CAD) and Nations Connect to generate a list of Indigenous Communities with asserted interests in the Project area, as shown in Table 4 below, which FBC then used to guide its engagement activities.[129] Following the purchase of the Grieve Location, on September 5, 2023, FBC issued notification packages to these eleven communities, which contained a Project description and map of the Fruitvale area with the Grieve Location identified.[130]

[126] Ibid.
[127] BCOAPO Final Argument, p. 13; CEC Final Argument, p. 17.
[128] BCUC CPCN Guidelines, Section 3, pp. 5-6.
[129] Exhibit B-1, p. 82.
[130] Ibid.

Table 4: CAD Generated List of Potentially Affected Indigenous Communities[131]

Indigenous Communities	
Adams Lake	Osoyoos Indian Band
Colville Confederated Tribes	Penticton Indian Band
Ktunaxa Nation Council	Shuswap Indian Band
Lower Similkameen Indian Band	Splatsin
Okanagan Indian Band	Upper Nicola Indian Band
Okanagan Nation Alliance	

FBC states that, to date, no substantive concerns have been raised by Indigenous communities regarding the Project.[132] FBC received replies from three Indigenous communities, which are tracked in the Project's Indigenous engagement log and summarized below:[133]

- The Penticton Indian Band requested any further consultation and engagement be deferred to the Osoyoos Indian Band.
- The Okanagan Indian Band requested any further consultation and engagement be deferred to the Osoyoos Indian Band and Lower Similkameen Indian Band. They also asked to be informed of any major changes to the Project in the event they change their initial assessment and view on the need for further consultation.
- The Sinixt reviewed the Project and requested participation in the archaeological and environmental work.

FBC states that it will accommodate the above noted requests and will continue to track and respond to any future requests. FBC submits its Indigenous engagement activities and engagement plan to be appropriate for the Project.[134]

Panel Determination

The Panel finds that FBC's engagement to date with Indigenous communities affected by the Project has been adequate. The Panel is satisfied that FBC has identified the potentially affected Indigenous communities from the Province's CAD and has made adequate effort to contact and engage with them over the Project to date. The Panel notes that FBC has committed to continue engagement and collaboration with Indigenous communities for the remainder of the Project.

6.2 Public Engagement

FBC states that its consultation and engagement activities for the Project provide stakeholders, including residents, landowners, businesses, organizations, and local governments, a meaningful opportunity to learn about the Project, provide feedback, and provide input to FBC to inform decision making.[135] FBC states that stakeholders raised common concerns during the four-year consultation process, including: station aesthetics, location, noise, electromagnetic frequency (EMF), zoning, visual impacts, and property values.[136]

[131] Ibid., Table 8-4.
[132] FBC Final Argument, p. 25.
[133] Exhibit B-1, p. 83.
[134] Ibid., pp. 82-83.
[135] Ibid., p. 67.
[136] Ibid., p. 77, Table 8-3.

6.2.1 Stakeholder Identification

FBC states that throughout the four-year consultation process, it has engaged with stakeholders including the Village of Fruitvale; the Regional District of Kootenay Boundary; Scouts Canada; Beaver Valley Minor Soccer; Beaver Valley Concerned Citizens; area residents; landowners; industry; and businesses.[137]

FBC explains that it uses a consistent approach when identifying stakeholders for substation projects and prioritizes stakeholders near the Project. To determine potentially impacted property owners, FBC states that it first generates a list of property owners within a 300-meter radius of the site. Next, FBC undertakes a desktop review which may result in the addition or removal of property owners based on the specific site characteristics. FBC also conducts a field assessment of the neighborhood to ensure all potentially impacted stakeholders are identified, as it did for both the Mazzocchi and Grieve Locations. FBC also notes that it is open to including additional stakeholders as the Project progresses.[138]

6.2.2 Engagement Process

FBC states that the stakeholder consultation process for the Project has been generally similar to the processes for its other recent projects, while acknowledging that there are always some differences.[139] The engagement process for the Project was broken into two periods of consultation, throughout which several potential sites for the New Fruitvale Substation were discussed with stakeholders before FBC ultimately decided to proceed with the Grieve Location.

Consultation Period: September 2019 to April 2022

In September 2020, FBC reviewed the Project need with the Village of Fruitvale and shared that a suitable location had not been secured to date.

On July 12, 2021, the Village of Fruitvale offered the Mazzocchi Location as an option, which the Fruitvale Council ultimately voted against selling to FBC due to opposition from residents, as discussed in Section 3.2.1 above. Prior to its rejection, FBC delivered 31 project notification letters to neighboring residents of the Mazzocchi Location, spoke with 16 residents, and held a public open house.[140]

On April 6, 2022, FBC invited stakeholders with an asserted interest[141] in the Project to a design workshop to review the Project locations FBC had investigated to date, solicit ideas for other locations, share substation design and layout information, and learn about general stakeholder interests in the Project. Invited participants included: residents on Walnut Avenue; residents in the Fruitvale area; the Beaver Valley Concerned Citizens); BC Minor Soccer; BC Scouts; and local government. At the design workshop, an additional six new site recommendations were brought forward by stakeholders for investigation.[142]

Consultation Period: May 2022 to April 2023

[137] Exhibit B-1, p. 68.
[138] Exhibit B-3, BCUC IR 13.1.
[139] Ibid., BCUC IR 13.2.
[140] Exhibit B-1, p. 70.
[141] FBC explains that stakeholders with an "asserted interest" refers to someone who demonstrates a high level of interest in the Project after initial notification; Exhibit B-3, BCUC IR 13.4.
[142] Exhibit B-3, BCUC IR 13.4.

FBC investigated the six new potential locations that were brought forward by the public during the design workshop on April 6, 2022, as well as two additional properties. Concurrent to the investigation into these sites, FBC became aware of the Grieve Location.

Further Consultation

On May 4, 2023, FBC hand delivered 37 project notification letters to neighboring property owners to the Grieve site, including an invitation to attend an in-person meeting on June 1, 2023. The notification included notice of FBC's intent to purchase the land and construct the substation, as well as contact information for FBC's Community and Indigenous Relations team. Subsequently, FBC received and responded to further questions from property owners and from the Beaver Valley community.[143]

On June 1, 2023, a meeting was held with both in-person and virtual attendance. 45 residents attended along with a multi-disciplinary FBC team. FBC's presentation at the meeting covered the history of the Project, the Project need, the property search from 2019 to date, and the reasons for selection of the Grieve Location. FBC fielded questions from residents regarding the Project need and the locations considered and responded with information consistent with the Application. The meeting was an invitation-only event with neighboring residents, despite requests from the Beaver Valley Concerned Citizens that it be opened to the broader public.[144] Although unable to attend the June 1, 2023 meeting, the Beaver Valley Concerned Citizens emailed FBC questions regarding the Project. FBC addressed these questions and concerns, providing a log of its responses in Appendix F-6 of the Application.

On June 8, 2023, the day after FBC completed the purchase of the Grieve Location, FBC sent an email notification advising neighboring residents that it had taken possession of the property and requested to visit each property to view sightlines.[145] To date, FBC has conducted eight site visits with property owners that border the Grieve Location. FBC states that it is not planning any more formal meetings for the broader public, however FBC plans to continue organizing in-person meetings with adjacent landowners to discuss greening, screening, and aesthetics for the Project.[146]

6.2.3 Incorporation of Feedback

FBC states that it received valuable feedback from stakeholders during consultation period 1 from 2019 to 2022, and that the feedback collected during this time helped inform FBC's subsequent property search after the Village of Fruitvale voted against selling the Mazzocchi Location.[147] The following criteria were added to the land evaluation matrix, after incorporating feedback from the design workshop in April 2022:[148]

- Community Land Use Impact;
- Electromagnetic Field Impact;
- Indigenous Consultation Requirements;
- Property Rezoning;
- Customer Reliability Impact;
- Land Vacancy;

[143] Exhibit B-1, pp. 72-73.
[144] Ibid., p. 74.
[145] Ibid., p. 75.
[146] Exhibit B-3, BCUC IR 15.1.
[147] Exhibit B-1, p. 70.
[148] Exhibit B-3, BCUC IR 15.3.1.

- Critical Habitat for Species at Risk;
- Archaeological Site within 250 metres;
- Operations Accessibility; and
- Relative Capital Cost.

FBC explains that the general public submitted possible Project locations through channels such as email, social media, FBC's website, directly with FBC's Community and Indigenous Relations Manager, as well as through letters of comment to the BCUC.[149] Of the 18 new properties evaluated by FBC, 11 of them were proposed by the public.[150]

Additionally, FBC sought input from neighboring residents of the Grieve Location regarding the siting of the substation within the property. The invitation for feedback went out to 39 residents, comprised of 16 who share a border with the Grieve Location and 23 who are one or more houses away. FBC states that at the time of the Application it had received 17 responses.[151]

6.2.4 Continued Engagement

FBC states that it will continue to conduct in-person consultation with neighboring property owners to discuss feedback on greening, screening, and station aesthetics.[152] Specifically, FBC states it intends to work with residents by:[153]

- Continuing to be available to receive feedback from residents about station aesthetics;
- Sharing recent examples of the concrete fencing and low-lying vegetation FBC has used for similar projects;
- Continuing to conduct site visits with individual land owners;
- Discussing vegetation options within the resident's property on a case-by-case basis; and
- Using the feedback collected from residents to inform FBC's decision making.

Additionally, FBC states it is working to address the remaining interests though direct engagement with the adjacent landowners either by email, phone, or in-person. These interests include safety, station aesthetics, siting, noise, tree management, and wildlife management.[154] During construction, FBC states it will work with the surrounding property owners to mitigate any issues.[155]

Positions of the Parties

RCIA submits that the evidence indicates that FBC has made reasonable efforts to engage in stakeholder consultation and engagement, and notes that FBC has made a commitment to further consult with affected parties as the Project progresses.[156] RCIA also submits that FBC has taken reasonable and measured efforts to

[149] Exhibit B-3, BCUC IR 13.5, 15.1.
[150] Ibid., BCUC IR 13.5.
[151] Exhibit B-1, p. 76.
[152] Exhibit B-3, BCUC IR 13.6.
[153] Ibid., BCUC IR 14.4.
[154] Ibid., BCUC IR 15.4.
[155] Ibid., BCUC IR 13.6.
[156] RCIA Final Argument, p. 6.

appropriately undertake customer consultations and to address concerns raised, specifically regarding noise and electromagnetic field concerns.[157]

The CEC submits that in the absence of community concerns, it would typically find FBC's consultation to be acceptable, noting that the general public was provided an opportunity to recommend property sites with 11 out of the 18 properties evaluated by FBC proposed by the public. The CEC further notes that it appears evident that the consultation to date has not resulted in a reasonable level of community satisfaction. The CEC subsequently recommends that the BCUC approve the Project with an additional $2 to $3 million, or an amount the BCUC deems reasonable, to mitigate community concerns. Additionally, the CEC recommends the BCUC direct FBC to engage with relevant communities to mitigate concerns and accommodate solutions, then provide the FBC recommended mitigation solution to the BCUC as part of a compliance filing.[158]

In reply, FBC submits that an additional $2 to $3 million could not be reasonably spent to further mitigate concerns, and states that it has already allocated funds for mitigation measures. FBC further states that the amount it has budgeted for mitigation will not prevent FBC from taking reasonable measures to mitigate concerns.[159]

BCOAPO[160] and Lenardon[161] submit that there was little to no consultation initiated by FBC with local stakeholders between the April 2022 design workshop and FBC purchasing the Grieve site in May 2023.

In reply, FBC states that it was actively seeking and taking recommendations from the public for possible locations between April 2022 and May 2023, which was the most relevant form of consultation needed at the time. FBC further submits that due to the competitive nature of the real estate market, it would not have been practical to consult on whether to purchase the Grieve Location, as doing so may have compromised FBC's negotiating position.[162]

BCOAPO also acknowledges that there is likely to be some opposition to any site close to the load centre, given that such sites are likely to be adjacent to some local residents, and questions whether FBC can realistically mitigate remaining concerns by working with individual stakeholders, as proposed by FBC.[163]

In its final argument, FBC restates its commitment to continue to work with stakeholders to mitigate potential impacts from the new substation.[164]

Lenardon submits that if FBC had "listened" to feedback from the community regarding the Mazzocchi Location, the Grieve Location would not have been considered.[165]

In reply, FBC submits that it did listen to feedback from the community from the Mazzocchi Park experience, and took that into account in its choice of the Grieve Location, noting that concerns raised about the Mazzocchi Location guided its subsequent property search, namely, that the site not be located next to public infrastructure such as a park, is currently zoned to allow for utilities, is not used for public parking, and does not impact public land use.[166]

[157] Ibid., p. 8.
[158] CEC Final Argument, pp. 19-20.
[159] FBC Reply Argument, p. 24.
[160] BCOAPO Final Argument, p. 13.
[161] Lenardon Final Argument, pp. 5-6.
[162] FBC Reply Argument, pp. 15-16.
[163] BCOAPO Final Argument, p. 13.
[164] FBC Reply Argument, p. 15.
[165] Lenardon Final Argument, p. 7.
[166] FBC Reply Argument, pp. 14-15.

Lenardon also submits that several of their concerns regarding the impact of the Project, specifically relating to electromagnetic fields, lighting, property devaluation, and environmental risk, were disregarded by FBC.[167]

In reply, FBC addresses each of these concerns with applicable references from the evidentiary record for this proceeding, stating that EMF modelling undertaken by FBC shows EMF levels will remain well below exposure guidelines[168], station access lighting will be on a photocell with a very low level porchlight with the remaining station lighting only to be turned on in an emergency situation[169], there is no information to substantiate the alleged property value impacts[170], and the Project's risk to the environment and wildlife is low based off of a desktop review completed by FBC.[171]

Panel Determination

The Panel finds that FBC's consultation to date with the stakeholders, local government and the public has been adequate. The Panel acknowledges that despite FBC's consultation efforts with the local community, there remains significant concerns from stakeholders with the Project. However, the Panel notes that the adequacy of consultation does not necessitate agreement by all stakeholders. Rather, an acceptable consultation effort requires a utility to provide evidence that it gave sufficient opportunity for stakeholder feedback, genuinely considered the feedback, and reasonably accommodated stakeholder interests.

The Panel finds that FBC gave sufficient opportunity for stakeholders to provide input throughout the Project, to date. The Panel specifically notes that while certain in-person consultation meetings were limited to invitation-only, the general public remained able to provide Project feedback to FBC via several platforms. Further, the Panel notes that FBC did solicit and receive recommended locations from stakeholders, and incorporated stakeholder feedback from the April 2022 workshop into the property search. The Panel notes that most locations FBC considered for the new substation were proposed by the public. The Panel agrees that consultation with the public prior to purchasing the Grieve site would have compromised FBC's negotiating position in the real estate market, potentially resulting in FBC paying a higher price, which would come at a cost to all ratepayers. For these reasons, the Panel is satisfied that FBC's public consultation was sufficient.

The Panel disagrees with Lenardon's assertion that FBC did not "listen" to feedback from the community regarding the Mazzocchi Location. The Panel is convinced by the evidence presented that FBC made a reasonable effort to incorporate learnings from its experience with the Mazzocchi Location into its subsequent property search by siting the New Fruitvale Substation away from public recreation sites and near its largest local customer, while considering the technical merits of sites discussed in Section 3 above. The Panel is satisfied with FBC's evidence that it genuinely considered the feedback it received from stakeholders throughout the consultation process, including both the consideration and subsequent dismissal of the Mazzocchi Location. The Panel notes that several of the criteria for the land evaluation matrix were added as a result of feedback received during the April 2022 workshop, which guided FBC's subsequent property search.

The Panel finds that FBC has reasonably accommodated stakeholder interests after receiving stakeholder input, and is satisfied that FBC is working to address stakeholder concerns by continuing to work with property owners on mitigation efforts.

The Panel rejects the CEC's recommendation to provide for additional funding for FBC to mitigate remaining community concerns. The Panel agrees that there is a need for additional spending but notes that FBC has

[167] Lenardon Final Argument, pp. 6-8.
[168] FBC Reply Argument, p. 18.
[169] Ibid.
[170] Ibid., p. 20.
[171] Ibid., p. 21.

already allocated Project funds for this purpose, and that directing FBC to incur yet more funds for a project such as this would have adverse consequences for ratepayers. The Panel does not believe additional spending, beyond what has already been allocated, would be a prudent expenditure that is in the broader public interest.

The Panel recognizes that there remain outstanding concerns from the community, and encourages FBC to meet its commitment to continue to maintain open lines of communication with stakeholders, and address interests and concerns brought forward throughout the duration of the Project. **The Panel directs FBC to provide an update on the costs spent on station aesthetics in its final project compliance reporting**, as outlined in Section 9.0 below.

7.0 Provincial Energy Objectives and the Long-Term Resource Plan

Section 46 (3.1) of the UCA provides that in deciding whether to issue a CPCN, the BCUC must consider:

a) The applicable of British Columbia's energy objectives, which are defined in section 2 of the *Clean Energy Act*;

b) The most recent long-term resource plan, if any, filed by the public utility under section 44.1; and

c) The extent to which the application for the certificate is consistent with the applicable requirements under sections 6 and 19 of the *Clean Energy Act*.

FBC states that sections 6 and 19 of the *Clean Energy Act* are not applicable to the Project as it does not involve either the construction or extension of generation facilities, nor is FBC a prescribed public utility for the purpose of section 19.[172]

British Columbia's energy objectives are set out in section 2 of the *Clean Energy Act*. FBC states that the Project is aligned with or advances the objectives outlined in Table 5 below.[173]

Table 5: British Columbia's Energy Objectives[174]

Item	Objective	FBC Comments
(c)	By 2030, to ensure that 100% of the electricity generated in British Columbia and supplied to the integrated grid is generated from clean or renewable resources, and to ensure that the infrastructure necessary to transmit that electricity is built;	The Project is aligned with this energy objective, as the infrastructure involved is for the purpose of transmitting electricity within the Province.
(g)	To reduce BC greenhouse gas emissions in accordance with certain targets;	The Project advances this objective as it increases reliability to the area and accommodates incremental load switching from higher emitting sources of energy to electricity.
(h)	To encourage the switching from one kind of energy source or use to another that decreases greenhouse gas emissions in British Columbia;	The Project increases reliability in the Beaver Valley, which is necessary to accommodate incremental load switching from higher emitting sources of energy to electricity.
(k)	To encourage economic development and the creation and retention of jobs; and	The Project will benefit the local community during the construction phase and will ensure

[172] Exhibit B-1, p. 88.
[173] Ibid., pp. 85-87.
[174] Ibid. Table prepared by BCUC staff.

Item	Objective	FBC Comments
		adequate distribution capacity is available to support future economic growth.
(m)	To maximize the value, including the incremental value of the resources being clean or renewable resources, of British Columbia's generation and transmission assets for the benefit of British Columbia.	The Project increases available distribution capacity for the benefit of FBC's customers, which are located within the Province.

FBC's most recent long-term resource plan is the 2021 Long Term Electric Resource Plan (2021 LTERP), which was filed on August 4, 2021, pursuant to section 44.1 of the UCA. By Order G-380-22, dated December 21, 2022, the BCUC accepted the 2021 LTERP. FBC states that the Project was not specifically discussed in the 2021 LTERP as the Fruitvale and Hearns substations are part of FBC's distribution infrastructure and the LTERP only identifies projects at the transmission level. However, FBC submits that the Project is consistent with the 2021 LTERP objectives of ensuring cost-effective, secure, and reliable power for customers.[175]

Positions of the Parties

Lenardon disagrees with FBC's assertion that the Project will benefit the local community during the construction phase and that the Project will ensure adequate distribution capacity to support future economic growth, stating that there is minimal industrial zoned land available in the Beaver Valley.[176]

Panel Determination

The Panel finds that the Project aligns with the applicable British Columbia's energy objectives as outlined in section 2 of the *Clean Energy Act*. In particular, the Panel agrees with FBC that the Project will increase reliability in the Beaver Valley, accommodate load switching from higher emitting sources of energy to electricity and will ensure adequate distribution capacity is available thereby supporting economic development.

The Panel agrees with FBC's assessment that sections 6 and 19 of the *Clean Energy Act* are not applicable to the Project.

The Panel accepts that despite the Project not being specifically mentioned in the 2021 LTERP, it is aligned with the general 2021 LTERP objective of ensuring cost-effective, secure, and reliable power for customers.

8.0 CPCN Determination

Positions of the Parties

RCIA states it is not opposed to the approval of FBC's CPCN for the Project.[177]

The CEC recommends the BCUC approve the Project with specific directives regarding additional consultation efforts.[178]

[175] Exhibit B-1, p. 88.
[176] Lenardon Final Argument, p. 12.
[177] RCIA Final Argument, p. 9.
[178] CEC Final Argument, p. 1.

ICG recommends that the BCUC deny FBC's CPCN Application and order FBC to design a Project with changed scope.[179]

BCOAPO submits that the Application should not be approved and that FBC should be directed to more fully explore Project alternatives and engage in more fulsome stakeholder consultation.[180]

Lenardon submits that the Project does not warrant approval and should not be approved, as presented.[181]

Panel Determination

The Panel finds that the Project is in the public interest and that the public convenience and necessity require it to proceed.

The Panel finds that FBC has established a need for the Project to address the equipment aging and reliability concerns at the existing Fruitvale and Hearns substations. The Panel finds that FBC's selected project alternative is reasonable.

The Panel also finds that FBC's engagement and consultation activities to date have been reasonable, while acknowledging that there remain community concerns, which FBC has committed to continue addressing.

For the foregoing reasons, the Panel, grants a CPCN to FBC for the Project, consisting of:

a) The construction of the New Fruitvale Substation at 2064 Grieve Road;

b) The installation of two new 20 MVA 63 /25/13 kV transformers and associated protection and auxiliary equipment at the New Fruitvale Substation;

c) The installation of three new 63 kV circuit breakers and isolation switches at the New Fruitvale Substation; and

d) The required station, transmission and distribution line work to accommodate the New Fruitvale Substation.

The Panel approves FBC's request to decommission the existing Fruitvale and Hearns substations.

9.0 Project Reporting

The Panel directs FBC to provide the following reports:

1. Annual Progress Reports
    a. A progress report is to be filed within 30 days of the end of each annual reporting period, with the first report covering the period ending December 31, 2024. Each report is required to detail:
        i. Cost update
        ii. Risk update
        iii. Schedule update
        iv. Public consultation update.

[179] ICG Final Argument, p. 4.
[180] BCOAPO Final Argument, p. 14.
[181] Lenardon Final Argument, p. 14.

2. Material Change Report

    a. A material change is a change in FBC's plan for the Project that would reasonably be expected to have a significant impact on the schedule, cost or scope, such that:

        i. The Project schedule and/or the in-service date of December 2026 is delayed by 3 months or longer;

        ii. The total Project cost exceeds 30 percent of the Class 3 estimated Project cost; or

        iii. There is a change to the Project scope provided in section 5.3 of the Application.

    b. In the event of a material change, FBC must file a material change report with the BCUC explaining the reasons for the material change, FBC's consideration of the Project risk and the options available, and actions FBC is taking to address the material change. FBC must file the material change report as soon as practicable and in any event within 30 days of the date on which the material change occurs.

3. Final Report

    a. A Final Report is to be filed within three months of substantial completion of the Project. The report is to include:

        i. A complete breakdown of the final costs of the Project;

        ii. A comparison of these costs to the cost items provided in the Class 3 estimate

        iii. An explanation of all material cost variances for any of the cost items provided in the Class 3 estimate that exceed 10 percent; and

        iv. A summary of the station aesthetics measures implemented by FBC at the New Fruitvale Substation site, including a cost breakdown, any outstanding concerns from adjacent property owners, and FBC's plan to address these concerns.

DATED at the City of Vancouver, in the Province of British Columbia, this 4th day of September 2024.

Original signed by:

_____

M. Jaccard
Panel Chair/Commissioner

Original signed by:

_____

A. C. Dennier
Commissioner

FortisBC Inc.
Certificate of Public Convenience and Necessity for the Fruitvale Substation Project

LIST OF ACRONYMS

Acronym	Description
HER T1	Hearns substation transformer
2021 LTERP	2021 Long Term Electric Resource Plan
20L	20 Line
AACE	Association for the Advancement of Cost Engineering
AFUDC	Allowance for Funds Used During Construction
Application	Application for a Certificate of Public Convenience and Necessity for the Fruitvale Substation Project
BCOAPO	British Columbia Old Age Pensioners' Organization et al.
BCUC	British Columbia Utilities Commission
CAD	Consultative Areas Database
CEC	Commercial Energy Consumers Association of British Columbia
CPCN	Certificate of Public Convenience and Necessity
EMF	Electromagnetic Frequency
FBC	FortisBC Inc.
FRU T1	Fruitvale substation transformer
Fruitvale Project	Fruitvale Substation Project
Grieve Location	2064 Grieve Road location
New Fruitvale Substation	A new substation to serve the Village of Fruitvale and surrounding area
ICG	Industrial Customers Group

Acronym	Description
IRs	Information Requests
kV	Kilovolt
Lenardon	Vivian Lenardon
MVA	Megavolt Amperes
RCIA	Residential Consumer Intervener Association
UCA	*Utilities Commission Act*

FortisBC Inc.
Certificate of Public Convenience and Necessity for the Fruitvale Substation Project

EXHIBIT LIST

Exhibit No. **Description**

COMMISSION DOCUMENTS

A-1	March 18, 2024 - Appointing the Panel for the review of the FBC Certificate of Public Convenience and Necessity for the Fruitvale Substation Project
A-2	March 28, 2024 – BCUC Order G-97-24 establishing a regulatory timetable
A-3	April 3, 2024 – BCUC amending the panel for the review of the FBC CPCN for the Fruitvale Substation Project
A-4	April 5, 2024 – BCUC Order G-100-24 amending the regulatory timetable
A-5	April 23, 2024 – BCUC guidance regarding the scope and quantity of intervener information requests
A-6	April 23, 2024 – BCUC Information Request No. 1 to FBC
A-7	June 12, 2024 – BCUC Order G-159-24 establishing a further regulatory timetable

APPLICANT DOCUMENTS

B-1	**PUBLIC** – February 29, 2024 - **FORTISBC INC. (FBC)** - Certificate of Public Convenience and Necessity (CPCN) for the Fruitvale Substation Project
B-1-1	**CONFIDENTIAL** - February 29, 2024 – FBC CPCN for the Fruitvale Substation Project – Confidential Appendices
B-1-2	May 23, 2024 – FBC submitting erratum to Appendix B
B-2	April 12, 2024 – FBC submitting confirmation of public notice
B-3	**PUBLIC** – May 23, 2024 – FBC submitting public response to BCUC Information Request No. 1
B-3-1	**CONFIDENTIAL** - May 23, 2024 – FBC submitting confidential response to BCUC Information Request No. 1
B-4	May 23, 2024 – FBC submitting response to BCOAPO Information Request No. 1
B-5	May 23, 2024 – FBC submitting response to CEC Information Request No. 1

B-6	**PUBLIC** – May 23, 2024 – FBC submitting public response to ICG Information Request No. 1
B-6-1	**CONFIDENTIAL** - May 23, 2024 – FBC submitting confidential response to ICG Information Request No. 1
B-7	**PUBLIC** – May 23, 2024 – FBC submitting public response to RCIA Information Request No. 1
B-7-1	**CONFIDENTIAL** - May 23, 2024 – FBC submitting confidential response to RCIA Information Request No. 1
B-8	**PUBLIC** – May 23, 2024 – FBC submitting public response to Lenardon Information Request No. 1
B-8-1	**CONFIDENTIAL** - May 23, 2024 – FBC submitting confidential response to Lenardon Information Request No. 1

INTERVENER DOCUMENTS

C1-1	April 8, 2024 – **COMMERCIAL ENERGY CONSUMERS OF BC (CEC)** – Request to intervene by David Craig
C1-2	April 30, 2024 – CEC submitting Confidentiality Declaration and Undertaking Forms
C1-3	May 2, 2024 – CEC Information Request No. 1 to FBC
C2-1	April 8, 2024 - **LENARDON, VIVIAN (LENARDON) –** Request to intervene
C2-2	April 26, 2024 – Lenardon submitting Confidentiality Declaration and Undertaking Form
C2-3	May 2, 2024 – Lenardon submitting Confidentiality Declaration and Undertaking Form for I. Scott
C2-4	May 2, 2024 – Lenardon Information Request No. 1 to FBC
C3-1	April 19, 2024 – **INDUSTRIAL CUSTOMERS GROUP (ICG)** – Request to intervene by Robert Hobbs
C3-2	April 23, 2024 – ICG submitting Confidentiality Declaration and Undertaking Forms
C3-3	May 2, 2024 – ICG Information Request No. 1 to FBC
C4-1	April 22, 2024 – **RESIDENTIAL CONSUMER INTERVENER ASSOCIATION (RCIA)** – Request to intervene by Matthew Matusiak
C4-2	April 25, 2024 – RCIA submitting Confidentiality Declaration and Undertakings forms
C4-3	**PUBLIC** – May 2, 2024 – RCIA Information Request No. 1 to FBC
C4-3-1	**CONFIDENTIAL** – May 2, 2024 – RCIA confidential Information Request No. 1 to FBC

C5-1	April 22, 2024 – **BRITISH COLUMBIA OLD AGE PENSIONERS' ORGANIZATION, COUNCIL OF SENIOR CITIZENS' ORGANIZATIONS OF BC, ACTIVE SUPPORT AGAINST POVERTY, DISABILITY ALLIANCE BC, AND TENANT RESOURCE AND ADVISORY CENTRE (BCOAPO**) – Request to intervene by Irina Mis
C5-2	May 4, 2024 – BCOAPO Information Request No. 1 to FBC

LETTERS OF COMMENT

D-1	April 2, 2024 - Larson, G. and J. (Larson) Updated Letter of Comment
D-2	April 6, 2024 - MacGillivray, K. (MacGillivray) Letter of Comment
D-2-1	April 12, 2024 – MacGillivray – Additional Letter of Comment
D-3	April 12, 2024 – Hoodicoff, R. (Hoodicoff, R.) Letter of Comment
D-4	April 12, 2024 – Hoodicoff, E. (Hoodicoff, E.) Letter of Comment
D-5	April 12, 2024 – Pedersen, E. (Pedersen) Letter of Comment
D-6	April 17, 2024 – Pengelly, C. (Pengelly) Letter of Comment
D-7	April 17, 2024 – Guglielmin, H. (Guglielmin) Letter of Comment
D-8	April 17. 2024 – Coffin, C. (Coffin) Letter of Comment
D-9	April 17, 2024 – Guglielmin, M. (Guglielmin, M.) Letter of Comment
D-10	April 17, 2024 – Mason, H. (Mason) Letter of Comment
D-11	April 18, 2024 – Lenardon, D. (Lenardon, D.) Letter of Comment
D-11-1	April 24, 2024 – Lenardon, D. Additional Letter of Comment
D-12	April 18, 2024 – Girardo, N. (Girardo) Letter of Comment
D-13	April 19, 2024 – Beaver Valley Concerned Citizens (BVCC) Letter of Comment
D-13-1	July 9, 2024 – BVCC Additional Letter of Comment
D-14	April 23, 2024 – Hornseth, K. (Hornseth) Letter of Comment
D-15	April 20, 2024 – Mason, B. (Mason, B.) Letter of Comment
D-16	April 24, 2024 – Hornseth, C. (Hornseth, C.) Letter of Comment
D-17	April 24, 2024 – Hornseth, L. (Hornseth, L.) Letter of Comment
D-18	April 29, 2024 – Bressanutti, C. (Bressanutti) Letter of Comment

D-19	April 29, 2024 – Simonetta, B. (Simonetta) Letter of Comment
D-20	April 29, 2024 – White, A. (White) Letter of Comment
D-21	April 29, 2024 – White, C. (White, C.) Letter of Comment
D-22	April 29, 2024 – Starchuck, J. (Starchuck) Letter of Comment
D-23	April 26, 2024 – Beaver Valley Concerned Citizens (BVCC) Letter of Comment
D-24	May 1, 2024 – Grieve, G. (Grieve) Letter of Comment
D-25	May 2, 2024 – Feddersen, T. (Feddersen) Letter of Comment
D-26	May 2, 2024 - MacGillivray, J. (MacGillivray) Letter of Comment
D-27	May 2, 2024 – Morrow, C. (Morrow) Letter of Comment
D-28	May 2, 2024 – Simonetta, L. (Simonetta) Letter of Comment
D-29	May 2, 2024 – Tingley, L. (Tingley) Letter of Comment
D-30	May 5, 2024 – Kaetler, S. (Kaetler) Letter of Comment
D-31	May 3, 2024 – Moisson, G. (Moisson) Letter of Comment
D-32	May 6, 2024 – Margoreeth, J. (Margoreeth-J) Letter of Comment
D-33	May 6, 2024 – Margoreeth, S. (Margoreeth-S) Letter of Comment
D-34	May 6, 2024 – Proulx, J. (Proulx-J) Letter of Comment
D-35	May 6, 2024 – Proulx, G. (Proulx-G) Letter of Comment
D-36	May 10, 2024 – Buchner, T. (Buchner) Letter of Comment
D-37	May 13, 2024 – Kapral, J. (Kapral-J) Letter of Comment
D-38	May 13, 2024 – Kapral, K. (Kapral-K) Letter of Comment
D-39	May 12, 2024 – Robertson, W. (Robertson) Letter of Comment
D-40	May 13, 2024 – Limbert, M. (Limbert) Letter of Comment
D-40-1	May 13, 2024 – Limbert - Additional Letter of Comment
D-41	May 16, 2024 – Robertsen, J. (Robertsen-J) Letter of Comment