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## Boralex Ocean Falls Limited Partnership

### Application for Approval of Rates and Terms and Conditions for Service to British Columbia Hydro and Power Authority

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#### Decision and Order G-270-20

October 27, 2020

Before:

B. A. Magnan, Panel Chair  
W. M. Everett QC, Commissioner  
R. I. Mason, Commissioner

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**ORDER G-270-20**

**APPENDICES**

## Executive Summary

On September 30, 2019, Boralex Ocean Falls Limited Partnership (Boralex) applied to the British Columbia Utilities Commission (BCUC) for approval of interim and permanent rates for service to British Columbia Hydro and Power Authority (BC Hydro) for the period of July 1, 2019 to December 31, 2022 (Test Period), terms and conditions for service to BC Hydro and the First Nations relationship building deferral account (Application). The Application is made pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA) and Order G-143-19. Boralex subsequently filed an Application Update on April 29, 2020, to reflect updates to its Test Period revenue requirements and rates for service to BC Hydro.

The BCUC established a public hearing for the review of the Application involving four interveners. The regulatory review process included two rounds of information requests and written argument.

### Background

Boralex owns and operates hydroelectric generation, transmission and distribution facilities at Ocean Falls and serves approximately 100 retail customers, two industrial customers, and BC Hydro, who in turn supplies customers in the community of Bella Bella NIA, or BC Hydro's Rate Zone IB. Boralex acquired the Ocean Falls Facilities in 2009. At that time, the BCUC accepted the previous owner's estimate of the historic depreciated value of the assets of \$7.2 million. Boralex was granted an exemption from the application of the majority of the UCA by Order G-26-10 and has been providing service to BC Hydro under the terms of an Electricity Purchase Agreement (EPA) established in 1986. Despite lengthy negotiations, Boralex and BC Hydro were unable to agree to terms for a new EPA<sup>1</sup> and BC Hydro subsequently filed an application requesting that the BCUC determine and set a Boralex rate for service to BC Hydro.<sup>2</sup> By Order G-143-19, the BCUC amended Order G-26-10 to allow the BCUC to set a rate for Boralex's service to BC Hydro, granted interim approval effective July 1, 2019 of the rate equal to the then existing EPA rate and terms and conditions for service to BC Hydro, and directed Boralex to file a rate application by August 30, 2019.<sup>3</sup> Order G-26-10 remains in effect with respect to Boralex's service to its other customers.<sup>4</sup>

In order to set a rate for service to BC Hydro, the Panel's review has focused on three broad steps of the rate-making process for public utilities: Boralex's methodology for allocating costs to BC Hydro, the annual revenue requirement to be recovered from its customers, and rate design. The Panel also addressed the other approvals sought by Boralex, including the First Nations deferral account and the terms and conditions for service to BC Hydro.

### Cost Allocation

The Panel accepts Boralex's methodology for allocating costs to BC Hydro, whereby forecast retail and industrial customer revenue is subtracted from the gross forecast revenue requirement, resulting in a net revenue requirement used to set rates for service to BC Hydro. This approval and the appropriateness of this cost allocation methodology is based on Boralex's current circumstances. Accordingly, the Panel directs Boralex to file information on an annual basis to assist the BCUC in monitoring the continued reasonableness of the methodology.

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<sup>1</sup> Exhibit B-1, p. 6.

<sup>2</sup> British Columbia Hydro and Power Authority Application Requesting the Commission Set a Rate for Boralex's Electricity Service to BC Hydro.

<sup>3</sup> <https://www.ordersdecisions.bcuc.com/bcuc/orders/en/417592/1/document.do>.

The BCUC also approved an interim and refundable/recoverable rate effective July 1, 2019 and interim terms and conditions for Boralex's service to BC Hydro.

<sup>4</sup> Pursuant to Order G-26-10, Boralex must charge its retail customers at the same rates as BC Hydro Zone II rates, and charge any new industrial customers at negotiated rates not to exceed the comparable BC Hydro industrial rates.

## Test Period Revenue Requirements

To establish Boralex's revenue requirement, the Panel has examined the reasonableness of the following: the opening rate base for the Test Period, Boralex's planned capital additions, depreciation rates, operations and maintenance costs, customer load forecasts, and cost of capital.

### *Depreciation Rates*

The Panel determines the depreciation rates as filed in the Application are proper and adequate to calculate depreciation expense applicable to Boralex's rate base assets from the beginning of 2009 up to and including the Test Period. In order to make determinations on the depreciation rates used in the calculation of Test Period rates for service to BC Hydro, the Panel considers it necessary to lift the exemption from section 56 of the UCA. Accordingly, the Panel varies the exemption granted by Order G-26-10 and varied by Order G-143-19 to lift the exemption from section 56 of the UCA as it applies to Boralex's service to BC Hydro.

### *Opening Rate Base*

Boralex provides its opening rate base at January 1, 2019, as \$12,834,624, comprised of the historical, depreciated cost of the assets on December 31, 2008, at the time of acquisition, plus the value of capital additions between January 1, 2009 and December 31, 2018, less depreciation expense during the timeframe. The Panel finds the overall approach to calculating opening rate base to be reasonable, but does not accept the value of \$12,834,624. Specifically, the Panel does not consider Boralex's application of the approved depreciation rates to the net book value of the historic, depreciated cost of the assets at the time of the acquisition to be reasonable. Instead, Boralex is directed to apply the approved depreciation rates to the gross book value of these assets in setting its Test Period rates for service to BC Hydro. Boralex is directed to reflect this adjustment in its updated regulatory schedules, in addition to providing specific information, supporting calculations, assumptions and documents.

### *Capital Additions*

Boralex forecasts \$7.4 million of capital additions during the Test Period. BC Hydro has a number of concerns about Boralex's planned capital additions, including the lack of a written planning policy, insufficient information to justify certain projects, and doubts whether Boralex can complete its planned projects on time. BC Hydro submits that Boralex should be required to file for a Certificate of Public Convenience and Necessity (CPCN) for the penstock rehabilitation project. The Panel finds that Boralex's capital additions in the Test Period are reasonable, but directs Boralex to file an annual update of forecast versus actual costs of projects, and to file information regarding its planning process in its next rates application. Further, the Panel directs Boralex to establish a deferral account to capture the revenue requirement impact associated with differences in forecast and actual capital additions in this Test Period.

### *Operating, Maintenance and Other Expenses*

Boralex's annual Test Period operations and maintenance expenses range from about \$2.3 million to \$2.8 million. Several concerns were raised by interveners, and the Panel finds that a number of adjustments to Boralex's recoverable costs are warranted. Namely, the Panel directs Boralex to: capitalize 5 percent of its Operating and Maintenance (O&M) expenses; reduce employee costs related to overlapping tenure of new and retiring operators; account for retirement allowance costs as defined post-employment benefit; and reduce the recoverable costs attributable to a regulatory affairs employee.

### *Cost of Capital*

For the purposes of supporting its proposed deemed capital structure and return on equity, Boralex compares 15 risk factors to those of the benchmark utility, FortisBC Energy Inc. Boralex submits it is higher risk than the benchmark and applies for a common equity ratio of 50% and allowed return on equity of 10.0 percent. Such values would be the highest of any regulated utility in BC, and the Panel considers that Boralex has overstated certain risk factors. The Panel determines a common equity ratio of 46.5 percent and an equity risk premium of 75 basis points (return on equity of 9.5 percent) to be appropriate, having considered the similarities of Boralex's risk profile to other comparable utilities. Boralex proposes a debt rate of 5.5 percent primarily based on the advice of Boralex's third-party debt lender. The Panel approves this rate and considers it appropriate that Boralex's embedded debt cost should be used in setting the debt rate.

### *Load Forecast*

There are two broad aspects of load forecasting relevant to the Application: (i) the load forecast for Boralex's retail and industrial customers, to forecast the net revenue requirement to be allocated to BC Hydro, and (ii) the load forecast for BC Hydro to derive BC Hydro's rates and to establish the threshold between the proposed Tier 1 and Tier 2 rates. Overall, the Panel finds that the load forecasts for BC Hydro and Boralex's retail and industrial customer are reasonable.

### Rate Design

Boralex proposes a two-tier declining block rate design, where the tier threshold is set to approximate BC Hydro's forecast load, adjusted for the shutdown for the penstock rehabilitation project in 2021 and 2022. The Tier 1 rate is designed to approximately recover the net revenue requirement, and the Tier 2 rate is much lower to incent load growth. BC Hydro supports the rate design, but disagrees with the adjustment for the penstock project until the project is defined by a CPCN. The Panel approves Boralex's proposed rate design. However, due to concerns about potential delays in the schedule of the penstock rehabilitation project, the Panel determines that Boralex establish a deferral account to capture BC Hydro revenues above the Tier 1 / Tier 2 threshold if the project is delayed.

### Other Matters

The Panel approves Boralex's request to establish a First Nations Deferral Account. Boralex is negotiating a Memorandum of Understanding with the Heiltsuk Nation, and proposes this account capture any costs incurred as a result of related activities that Boralex cannot reasonably forecast at this time.

The terms and conditions of service included in the Application are substantially similar to those that were in place in the EPA between Boralex and BC Hydro and those that were approved on an interim basis effective July 1, 2019. BC Hydro proposes two minor amendments, which Boralex generally supports. The Panel directs Boralex to update the terms and conditions to reflect BC Hydro's proposed amendments.

Boralex is directed to update its regulatory schedules to reflect the directives and determinations outlined in this decision and submit a compliance filing within 60 days of this decision. In addition, Boralex is directed to make several compliance filings to the BCUC, including specific information to be included in its next rates application.

## 1.0 Introduction

On September 30, 2019, Boralex Ocean Falls Limited Partnership (Boralex LP or Boralex) filed an application with the British Columbia Utilities Commission (BCUC) for rates and terms and conditions for service to the British Columbia Hydro and Power Authority (BC Hydro) for the period July 1, 2019 to December 31, 2022 (Application). In the Application, Boralex seeks the following BCUC approvals pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA):

- a) Approval, on an interim and final basis, of the following rates for Boralex’s electric service to BC Hydro for the period July 1, 2019 to December 31, 2022 (Test Period):<sup>5</sup>

	(\$/MWh)		(\$/MWh)	
	2019*	2020	2021	2022
Tier 1 (up to 13.10 GWh/year)	\$270.81	\$276.23	\$281.75	\$287.39
Tier 2 (greater than 13.1 GWh/ year)	\$50.00	\$51.00	\$52.02	\$53.06

\*July 1 to December 31 for rate and energy amount.

- b) Approval of the terms and conditions of Boralex’s service to BC Hydro that are set out in Appendix B of the Application; and
- c) Approval of the First Nations relationship building deferral account.<sup>6</sup>

The BCUC established a public hearing for review of the Application, which included two rounds of information requests (IRs), and written arguments.<sup>7</sup>

The following parties registered as interveners in this proceeding:

- BC Hydro;
- British Columbia Old Age Pensioners’ Organization *et al.* (BCOAPO);
- Nuxalk Nation; and
- Zone 1B Ratepayers Group (Z1BRG).

The relevant sections of the UCA for this decision include sections 59 (discrimination in rates), 60 (setting of rates) and 61 (rate schedules to be filed with commission). Broadly, these sections provide that public utility rates must not be unjust, unreasonable, unduly discriminatory or unduly preferential, and set out the filing requirements for utility rate schedules. Sections 59 to 61 are outlined in full in Appendix D to this decision.

<sup>5</sup> Exhibit B-11, p. 7. These figures were updated from the rates originally applied for in the Application as outlined in Exhibit B-1, p. 2.

<sup>6</sup> Exhibit B-1, p. 2.

<sup>7</sup> By Orders G-265-19, G-3-20, G-37-20 and G-142-20.

## 1.1 Background

Borex owns and operates hydroelectric generation, transmission and distribution facilities (the Ocean Falls Facilities) at Ocean Falls on the central coast of British Columbia. The Ocean Falls Facilities are used by Borex to supply electricity to BC Hydro, which in turn serves customers in the communities of Bella Bella and Shearwater within a non-integrated area (NIA) referred to as the Bella Bella NIA, or BC Hydro's Rate Zone IB.<sup>8</sup> Borex also supplies electricity directly to approximately 100 retail customers and two industrial customers (Mowi Canada West and Ocean Falls Blockchain) in the community of Ocean Falls.<sup>9</sup> The general partner of the Borex LP partnership is Borex Western Energy Inc., an indirect wholly-owned subsidiary of Borex Inc., and the sole limited partner of Borex LP is Borex Inc.

The Ocean Falls Facilities were originally constructed in 1917 to power a pulp and paper mill and community at Ocean Falls, British Columbia and since then have gone through a number of ownership changes from Crown Zellerbach, to the Province of British Columbia, to Central Coast Power Corporation (CCPC), and currently Borex. Upon its acquisition of the Ocean Falls Facilities in 1986, CCPC established an Electricity Purchase Agreement (EPA) with BC Hydro for a term of 30 years. CCPC was a public utility under the UCA but was granted an exemption by Order G-40-86 from regulation under specific sections of the UCA, with certain conditions.<sup>10</sup>

Borex acquired the Ocean Falls Facilities from CCPC in 2009 as approved by the BCUC pursuant to Order G-180-08, and Borex assumed CCPC's rights and obligations under the 1986 EPA.<sup>11</sup> The BCUC subsequently granted Borex an exemption from the application of the majority of the UCA by Order G-26-10, under the condition that Borex charge its retail customers at the same rates as BC Hydro Zone II rates, and charge any new industrial customers at negotiated rates not to exceed the comparable BC Hydro industrial rates.<sup>12</sup>

The 1986 EPA was due to expire on December 31, 2016, but by Orders E-12-17, E-20-17 and E-18-18, the BCUC approved extensions to the expiry date of the 1986 EPA to June 30, 2017, June 30, 2018 and June 30, 2019, respectively. Despite lengthy negotiations, Borex and BC Hydro were unable to agree to terms for a new EPA<sup>13</sup> and BC Hydro subsequently filed an application requesting that the BCUC determine and set a Borex rate for service to BC Hydro.<sup>14</sup> By Order G-143-19, the BCUC amended the exemption pursuant to Order G-26-10, to exempt Borex from application of the UCA except for certain sections, including sections 58 to 63 of the UCA related to rates.<sup>15</sup> Order G-26-10 remains in effect with respect to Borex's service to its other customers, therefore the rates charged to Borex's retail and industrial customers are currently exempt from BCUC review.<sup>16</sup>

By Order G-143-19, the BCUC also granted interim approval effective July 1, 2019, of the rate equal to the then existing EPA rate and terms and conditions for service to BC Hydro, and directed Borex to file a rate application by August 30, 2019. This interim rate is to remain in place until a further interim and or permanent rate is established, and any differences between interim and permanent rates would then be refundable or

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<sup>8</sup> Exhibit B-1, p. 1.

<sup>9</sup> Exhibit B-1, p. 8.

<sup>10</sup> Exhibit B-1, p. 5.

<sup>11</sup> Exhibit B-1, p. 6.

<sup>12</sup> <https://www.ordersdecisions.bcuc.com/bcuc/orders/en/117721/1/document.do>.

<sup>13</sup> Exhibit B-1, p. 6.

<sup>14</sup> British Columbia Hydro and Power Authority Application Requesting the Commission Set a Rate for Borex's Electricity Service to BC Hydro.

<sup>15</sup> By Order G-143-19, Borex is exempt from the UCA except for sections 2(1), 25, 38, 41, 42, 43, 49, 55, 58 to 63, 99, 117 and Part 6 with respect to Borex's service to BC Hydro.

<sup>16</sup> <https://www.ordersdecisions.bcuc.com/bcuc/orders/en/417592/1/document.do>.

The BCUC also approved an interim and refundable/recoverable rate effective July 1, 2019 and interim terms and conditions for Borex's service to BC Hydro.

recoverable. Order G-143-19, therefore, enables the BCUC to set permanent rates for Boralex's service to BC Hydro for the first time, leading to this Application.

By Order G-265-19 issued at the outset of the public hearing on October 31, 2019, the Panel denied the request for interim approval of the rates set out in the Application, stating that the interim rates approved by Order G-143-19 will remain in place. Any differences between the interim and permanent rate set as part of this decision will be refundable or recoverable with interest calculated at the average prime rate of Boralex's principal bank for its most recent year.

## **1.2 Organization of the Decision**

In order to set a rate for service to BC Hydro, the Panel's review has focused on three broad steps of the rate-making process for public utilities: Boralex's methodology for allocating costs to BC Hydro; the annual revenue requirement to be recovered from its customers, including cost of capital; and rate design.

Section 2.0 addresses the allocation of Boralex's Test Period revenue requirements to BC Hydro.

Section 3.0 examines cost of service issues, including rate base, operating and maintenance (O&M) expenses, load forecast and cost of capital.

Section 4.0 focuses on Boralex's rate design for rates for service to BC Hydro.

Sections 5.0 and 6.0 address the request for approval of the First Nations deferral account and terms and conditions for service to BC Hydro, respectively.

## **2.0 Cost Allocation and Exemptions**

This section of the decision primarily addresses the allocation of Boralex's Test Period revenue requirements among the various rate classes in determining the rates for service to BC Hydro.

The rates Boralex seeks to apply for its service to BC Hydro have been determined using a cost allocation methodology whereby the forecast revenue from Boralex's retail and industrial customers in Ocean Falls during the Test Period is subtracted from Boralex's gross forecast revenue requirement, resulting in a net revenue requirement which is allocated to BC Hydro.<sup>17</sup>

As noted in section 1.0 of this decision, the rates for Boralex's retail and industrial customers are exempt from BCUC review and are set in accordance with Order G-26-10. Further discussion related to Boralex's forecasted load from its retail and industrial customers can be found in section 3.5.2 of this decision. Boralex notes that its gross revenue requirement represents its cost of providing service to all customers, including a return on common equity. However, the revenue that Boralex can recover from its retail and industrial customers is fixed due to those rates being fixed by past BCUC orders.<sup>18</sup>

Section 60(1)(c) of the UCA relates to setting rates when there is more than one class of service and states that the BCUC must: (i) segregate the various kinds of service into distinct classes of service; (ii) in setting a rate to be charged for the particular service provided, consider each distinct class of service as a self-contained unit; and (iii) set a rate for each unit that it considers to be just and reasonable for that unit, without regard to the rates set for any other unit. In this proceeding, Boralex is applying for rates to be set for its service to BC Hydro, but Boralex also provides services to two other classes of service: its retail and industrial customers. Further to

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<sup>17</sup> Boralex Final Argument, p. 7.

<sup>18</sup> Boralex Final Argument, p. 7.

section 60(1)(c), in considering the service provided by Boralex to BC Hydro as a “self-contained unit,” the Panel must evaluate the extent to which Boralex’s methodology for allocating costs to BC Hydro results in rates that are just and reasonable.<sup>19</sup>

Boralex has not considered undertaking a Cost of Service Allocation (COSA) study, and is not aware of such a study taking place since 1986.<sup>20</sup> Boralex submits that virtually all of its capital and operating costs are required to provide service to BC Hydro and the Bella Bella NIA. If Boralex had no retail or industrial customers, the only costs that Boralex would be able to avoid are the relatively minor costs associated with the distribution lines in the Ocean Falls town site and Martin Valley. Boralex states the revenue that Boralex is able to generate from its retail and industrial customers is beneficial to BC Hydro because Boralex is able to use that revenue to reduce its gross revenue requirement.<sup>21</sup>

In response to BCUC information requests, Boralex also provided an estimate of the impact upon the net revenue requirement based on three illustrative alternative methodologies of allocating costs to BC Hydro, whereby costs were allocated based upon: (i) BC Hydro’s actual/forecasted consumption (kWh) as a proportion of the total consumption of all customers; (ii) BC Hydro’s peak load (MW) as a proportion of the sum of peak loads for all customers; and (iii) the estimated proportion of capital costs comprising the rate base which are needed to provide service to BC Hydro. Boralex submits that these alternatives are not appropriate. Due to the fixed nature of the rates to Boralex’s retail and industrial customers, in the case of alternatives (i) and (ii), Boralex would be unable to recover its revenue requirement, and in the case of (iii), Boralex would collect more than the gross revenue requirement.<sup>22</sup>

### *Position of the Parties*

Boralex submits there is a statutory obligation on the BCUC under Sections 59 and 60 of the UCA to fix rates for Boralex’s service to BC Hydro that will permit Boralex the opportunity to recover all of its costs of providing service, including the approved return on equity. Rates that are insufficient to enable a utility to recover its costs, including a fair and reasonable return, are unjust and unreasonable under the UCA. Because the rates for Boralex’s service to its non-BC Hydro customers are already fixed, it will not be possible for Boralex to recover its cost of providing service unless the net revenue requirement is recovered from BC Hydro.<sup>23</sup> In support of its position that the BCUC must allow Boralex to set rates to BC Hydro that would allow Boralex to recover its costs including its allowed return on equity, Boralex provides a summary of case law from *Hemlock Valley Electrical Services Ltd. v. British Columbia (Utilities Commission)* (1992), 66 B.C.L.R. (2d) 1 (C.A.), and *BC Hydro and Power Authority v. Terasen Gas (Vancouver Island) Inc.*, 2004 BCCA 346.<sup>24</sup>

BC Hydro considers the cost allocation methodology proposed by Boralex is just and reasonable in the circumstances. BC Hydro also submits the methodology maintains the rate structures for Boralex’s other customers that have been in place since Boralex started serving them, and that maintaining this methodology is likely to be non-contentious. However, it submits the BCUC may wish to revisit the methodology should more customers or diversified revenue streams become available to Boralex.<sup>25</sup>

BCOAPO submits the BCUC should reject the incremental approach to cost allocation undertaken by Boralex and states that a fully allocated cost of service study using embedded costs would be more appropriate. BCOAPO highlights that Boralex has not allocated costs to retail and industrial customers based on their relative demands and energy use. Further, BCOAPO states there is a “tension” between sections 59 and 60 of the UCA with

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<sup>19</sup> By letter dated June 5, 2020 (Exhibit A-12), the BCUC invited submissions from parties on this matter.

<sup>20</sup> Exhibit B-6, Response to BCUC IR 2.5.

<sup>21</sup> Exhibit B-6, Response to BCUC IR 2.3.2.

<sup>22</sup> Exhibit B-13, Response to BCUC IR 32 series.

<sup>23</sup> Boralex Final Argument, p. 9.

<sup>24</sup> Boralex Final Argument, pp. 9-13.

<sup>25</sup> BC Hydro Final Argument, p. 42.

respect to permitting Boralex an opportunity to recover its costs, including return on equity, and section 59 with respect to setting rates that are not unjust or unreasonable. BCOAPO says this tension arises as all of the rates approved by the BCUC are not set on the same basis: while BC Hydro's rates are to be set on a cost of service basis, the rates for Boralex's retail and industrial customers are set in on a non-cost of service basis in accordance with Order G-26-10. BCOAPO proposes two possible solutions, noting these cannot be applied in this proceeding:

1. Make all customer rates subject to the rate setting provisions of the UCA; or
2. Create a utility and non-utility business for Boralex, for services provided to BC Hydro and services provided to other customers respectively.<sup>26</sup>

Z1BRG takes no issue with the BCUC maintaining the existing methodology for setting rates for service to the other customers of Boralex. However, Z1BRG observes that it would be helpful if over time, rate-setting proceedings for all of Boralex's customers could be considered simultaneously.<sup>27</sup>

In reply to BCOAPO, Boralex submits there is nothing in the UCA which mandates the cost allocation preferred by BCOAPO. Additionally, Boralex says undertaking a COSA study would serve no ratemaking purpose because regardless of the results of such a study, Boralex cannot adjust the rates charged to its retail and industrial customers due to previous BCUC orders. Boralex submits the rates currently charged to these customers are appropriate. Boralex points to examples where the BCUC has previously made determinations that rates for all customer classes are just and reasonable even though the rates for some customers are negotiated or determined on some other basis that does not involve a cost of service study. Specifically, Boralex cites cases involving Pacific Northern Gas<sup>28</sup> and Terasen Gas Vancouver Island.<sup>29</sup> Finally, Boralex submits that if the rates to BC Hydro are not based on the net revenue requirement, Boralex would not be able to recover its cost of service, which would be contrary to sections 59 and 60 of the UCA.<sup>30</sup>

### *Panel Determination*

#### **The Panel accepts the cost allocation methodology set out in the Application for setting Test Period rates for service to BC Hydro.**

The Panel has considered whether the cost allocation methodology results in rates for service to BC Hydro that are just and reasonable in the context of the rate setting provisions of the UCA. Specifically, the Panel notes it must have due regard under sections 59(4) and (5) and 60(1)(b) of the UCA to set a rate that is not unjust or unreasonable and provides the public utility a fair and reasonable return. In addition, section 59(4)(b) states, in part, that it is a question of fact, of which the BCUC is the sole judge, whether there is undue discrimination, preference, prejudice or disadvantage with respect to a rate.

The primary purpose of this proceeding is for the BCUC to set a rate for Boralex's service to BC Hydro for the first time. While the revenue that Boralex is forecast to earn from its retail and industrial customers has a direct impact on the net revenue requirement used to set rates for BC Hydro, the rates which are charged to such customers is not a direct issue in this proceeding. The Panel recognizes the rates charged to Boralex's retail and industrial customers are effectively fixed at this time and the proposed cost allocation methodology allows Boralex to recover its gross revenue requirements, including the opportunity to earn a fair and reasonable return.

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<sup>26</sup> BCOAPO Final Argument, pp. 45-47.

<sup>27</sup> Z1RPG Final Argument, p. 7.

<sup>28</sup> Application by Pacific Northern Gas Ltd. (PNG-West and Granisle) for Approval of 2006 Rates

<sup>29</sup> *BC Hydro and Power Authority v. Terasen Gas (Vancouver Island) Inc.*, 2004 BCCA 346.

<sup>30</sup> Boralex Reply Argument, pp. 36-37.

BC Hydro does not take issue with the proposed cost allocation methodology under the current circumstances, and more particularly states the methodology preserves the rate structures for the industrial customers that was offered to them when they made their decision to develop facilities at Ocean Falls. However, BC Hydro states the cost allocation methodology may need to be revisited in the future if more customers or diversified revenue streams become available to Boralex. The Panel agrees the reasonableness of the cost allocation methodology should be considered in the context of Boralex's current circumstances, and specifically the existing customer and load profile of the utility. BC Hydro is currently Boralex's largest customer and customer class, representing approximately 53-58 percent and 73 to 74 percent of Boralex's total consumption and total peak load, respectively.<sup>31</sup> While Boralex's cost allocation methodology does not precisely allocate costs to each customer class, it is the Panel's view the methodology does address that BC Hydro is Boralex's largest customer and customer class and the rates charged to Boralex's retail and industrial customers are fixed at this time.

The Panel acknowledges BCOAPO's argument that a fully allocated COSA using embedded costs, rather than incremental costs, is appropriate. While the Panel agrees a COSA study would provide a more precise method by which to allocate Boralex's cost of service to its customer classes, including BC Hydro, the Panel notes there is nothing in the UCA that requires the use of a COSA for rate-setting purposes. Specifically, section 60(1)(b.1) allows the BCUC to use any mechanism, formula or other method of setting the rate that it considers advisable. In addition, the Panel notes there are costs associated with completing a COSA study and the regulatory process to review such a study and implement the results, which will ultimately be borne by the ratepayer. Accordingly, the Panel does not consider that a COSA study is warranted at this time.

For the reasons above, specifically considering Boralex's current load and customer profile and the potential costs associated with pursuing a COSA study, the Panel finds that the cost allocation methodology does not result in rates for service to BC Hydro that are unjust or unreasonable, nor does the methodology result in unduly discriminatory or unduly preferential rates.

The Panel agrees with BC Hydro that the cost allocation methodology may need to be revisited in the future if more customers or diversified revenue streams become available to Boralex. Accordingly, it is important the BCUC continues to monitor the reasonableness of the current cost allocation methodology and the existing exemptions in place for retail and industrial customers, particularly in the context of any material changes to Boralex's non-BC Hydro revenue. **To assist future reviews of these matters in an efficient manner, the Panel directs Boralex to file with the BCUC the following information in an annual report, each year beginning no later than April 30, 2021:**

- **Number of retail and industrial customers, and detailed analysis of historic and forecast load and revenue for these customers;**
- **Details of any increase or reduction in the number of retail and industrial customers, accompanied by any applicable contracts and details of the load and revenue profile of these customers;**
- **Details of any other revenue streams or potential revenue streams that may materialize during the test period;**
- **BC Hydro actual load and revenue data; and**
- **Expected cost to complete and file a Cost of Service Allocation study (for the first annual report only).**

### **3.0 Cost of Service Issues**

To establish Boralex's revenue requirement for each year in the Test Period, the Panel examines the reasonableness of the following aspects of the cost of service: the opening rate base for the Test Period,

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<sup>31</sup> Exhibit B-13, BCUC IR 32.2.

Boralex's planned capital additions, depreciation rates, operations and maintenance costs, customer load forecasts, and cost of capital. This section addresses each of these issues.

### **3.1 Rate Base**

This is Boralex's first application to the BCUC for the setting of rates. In order to set Test Period rates for service to BC Hydro, the Panel separately examines the following aspects of Boralex's rate base:

- The depreciation rates to be used when calculating depreciation expense related to Boralex's rate base assets. This is discussed below in section 3.1.1;
- The opening rate base for the Test Period, upon which Boralex may earn a return. This includes an examination of the rate base at the time Boralex LP acquired the facilities in 2009 (2008 Closing Rate Base) and the capital additions and depreciation expense recorded between the acquisition date and the beginning of the Test Period (Prior Period). This is discussed below in section 3.1.2; and
- The capital expenditures and additions during the Test Period, which are discussed below in section 3.1.4).

The Panel also address Boralex's capital planning process and other rate base matters below in sections 3.1.3 and 3.2.

As background, by Order G-180-08, the BCUC approved the acquisition of the Ocean Falls Facilities subject to confirmation that Boralex LP record utility assets at their historical, depreciated value, and directed the filing of a detailed listing of historical depreciated asset values.<sup>32</sup> By letter dated January 10, 2009, CCPC filed with the BCUC the historical, depreciated value of the assets on December 31, 2008, and by letter dated January 20, 2009, the BCUC accepted this value.<sup>33</sup>

#### **3.1.1 Depreciation Rates**

Boralex proposes to use the depreciation rates outlined in Table 7 of the Application reproduced below for calculating depreciation expense related to rate base assets from January 1, 2009 onwards, including the Test Period (Proposed Depreciation Rates).<sup>34</sup> The depreciation rates applicable between the acquisition in 2009 and the beginning of the Test Period are relevant in this decision, as depreciation expense during the Prior Period is a factor in setting the opening rate base for the Test Period.

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<sup>32</sup> Order G-180-08 Decision, p. 28.

<sup>33</sup> Both letters are filed as confidential Exhibit B-7-1 in response to BC Hydro IR 1.1.

<sup>34</sup> Exhibit B-1, pp. 19, 28.

**Table 7: Depreciation Life and Rate by Asset Category**

Asset Category	Asset Category Description	Depreciation Life	Depreciation Rate
1	Major Civil Works (Dam, Spillway, Tailrace)	100 Years	1%
2	Miscellaneous Civil Works (Powerhouse, Workshop, Access Roads)	75 Years	1.33%
3	Inlet Gates	75 Years	1.33%
4	Penstocks	75 Years	1.33%
5	Turbine-Generators	75 Years	1.33%
6	Controls & Ancillary Systems	25 Years	4%
7	Substation Equipment	45 Years	2.22%
8	Overhead Distribution	45 Years	2.22%
9	Subsea Distribution Cable	30 Years	3.33%
10	General Plant	30 Years	3.33%

Borex explains that the depreciation life in Table 7 is the “expected remaining useful life” of the assets in each category from January 1, 2009 onwards.<sup>35</sup>

Borex bases the depreciation rates for asset categories 1 (major civil works), 2 (miscellaneous civil works), 4 (penstocks) and 5 (turbine generators) on a study by Gannet Fleming filed with the Ontario Energy Board (OEB) by Ontario Power Generation (OPG) in 2013. Borex bases the depreciation rates of other asset categories (i.e. distribution, substation, communications and general plant) on the depreciation lives typically used by other Canadian electric utilities. Borex provides the following example in response to an information request:<sup>36</sup>

Borex LP Asset Category	Borex LP Depreciation Life	Alectra Utilities Asset Category	Alectra Depreciation Life
Substation	45 years	Power Transformers	45 years
		Station Switchgear	40 years
		Circuit Breakers	40 years
Overhead Distribution	45 years	Overhead Switches	40 years
		Polemount Transformers	40 years
		Conductor	60 years
		Pad Mount Transformers	40 years
		Distribution Switchgear	30 years
		Wood Poles	45 years
Subsea Distribution Cable	30 years	XLPE Underground Cables (Terrestrial Cable/Not Submarine Cable)	30, 35, & 40 years depending on XLPE cable type

Borex states it has not conducted a depreciation study, as it does not believe the cost to be warranted for the small size of the utility.<sup>37</sup> Specifically, Borex submits its approach is reasonable because of the “very small size of the Ocean Falls asset base and the likelihood that the results of a formal depreciation study would not be materially different than the rates set out” in the Application.<sup>38</sup>

<sup>35</sup> Exhibit B-7, Response to BC Hydro IR 1.1.1; Borex Reply Argument, p. 25.

<sup>36</sup> Exhibit B-6, Response to BCUC IR 6.1.

<sup>37</sup> Exhibit B-6, Response to BCUC IR 6.1.1, 6.1.2.

<sup>38</sup> Borex Final Argument, p. 25.

Borex's 2018 Financial Statements state that the "hydroelectric power station is amortized by component using the straight-line method over their useful life of 40 years"<sup>39</sup> (Accounting Depreciation Rate). However, Borex notes this depreciation rate has not been used to set Test Period rates for service to BC Hydro, given that the financial statements include the value of intangibles and goodwill and were prepared in accordance with International Financial Reporting Standards on the basis that Borex was not subject to rate regulation. Borex states that it has adopted depreciation rates in the Application similar to other rate regulated entities.<sup>40</sup>

### *Positions of the Parties*

BCOAPO does not oppose the use of the Proposed Depreciation Rates in calculating the Test Period depreciation expense but identifies issues with using these rates in calculating the Prior Period Depreciation Expense that is used to set the Opening Rate Base. BCOAPO submits that in the period from 2009 to 2018, Borex's service to BC Hydro was not subject to rate regulation on a cost of service basis, and hence there is no justification for using the Proposed Depreciation Rates instead of the Accounting Depreciation Rate which Borex used in its 2009 to 2018 financial statements. Thus, BCOAPO submits Borex should calculate the Prior Period Depreciation Expense using the rates used in Borex's audited financial statements for the years preceding the proposed test years (Accounting Depreciation Rate), which was straight-line depreciation over 40 years, and recalculate the 2018 closing rate base value.<sup>41</sup>

Borex disagrees with BCOAPO for the following reasons:<sup>42</sup>

- The 2008 Closing Balance was approved by the BCUC in anticipation that the BCUC might in future use it for setting cost of service rates. It would not be consistent with that purpose if the Prior Period Depreciation Expense were to be calculated using the Accounting Depreciation Rate instead of the Proposed Depreciation Rates, which are appropriate for a rate-regulated utility.
- The Proposed Depreciation Rates reflect the "depreciation lives and rates for a rate regulated utility". Using the Accounting Depreciation Rate, which is a higher rate, would artificially shorten depreciation lives of the assets and increase the Prior Period Depreciation Expense.
- The Accounting Depreciation Rate is a blended depreciation rate applicable to both the physical assets and the goodwill on Borex's balance sheet. The 2008 Closing Balance excludes the value of goodwill and only includes the value of physical assets which are applicable to rate regulation. It is not appropriate to apply the Accounting Depreciation Rate to the physical assets in the 2008 Closing Balance once goodwill has been excluded.

BCOAPO considers the Proposed Depreciation Rates to be "less than ideal" but reasonable for the purposes of calculating Test Period depreciation expense. BCOAPO also states that "[g]iven the cost, BCOAPO does not see a full depreciation study as being warranted at this time. However, for future applications the BCUC should direct Borex LP to provide more detailed documentation regarding the basis for the depreciation rates used."<sup>43</sup>

Borex replies it has "adopted a reasonable approach to establishing depreciation rates for the Ocean Falls Facilities, particularly in light of the very small size of the Ocean Falls asset base. Borex LP notes BC Hydro has raised no issues with regard to the proposed depreciation rates or with regard to the application of the rates in determining the 2018 closing rate base value."<sup>44</sup>

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<sup>39</sup> Exhibit B-1, Appendix C, p. 5.

<sup>40</sup> Exhibit B-6, BCUC IR 1.6.1.5.

<sup>41</sup> BCOAPO Final Argument, pp. 11-13.

<sup>42</sup> Borex Reply Argument, p. 25.

<sup>43</sup> BCOAPO Final Argument, p. 26.

<sup>44</sup> Borex Reply Argument, p. 29.

### *Panel Determination*

**The Panel varies the exemption granted by Order G-26-10 and revised by Order G-143-19 to exempt Boralex from application of the UCA except for sections 2(1), 25, 38, 41, 42, 43, 49, 55, 56, 58 to 63, 99, 117 and Part 6 only with respect to setting rates for Boralex’s service to BC Hydro. All other terms and conditions contained in Order G-26-10 under Directives 2 to 6 shall remain in effect with respect to Boralex’s services provided to its other customers.**

Section 56 of the UCA relates to depreciation accounts and funds and section 56(2) states that the BCUC “must determine and, by order after a hearing, set proper and adequate rates of depreciation.” By Order G-143-19, the BCUC amended the exemption pursuant to Order G-26-10 to exempt Boralex from application of the UCA except for certain sections, with the exemption covering section 56 remaining in place. The Panel notes that the Application clearly includes depreciation rates and the justification for these rates was addressed during the regulatory process. In addition, no parties have expressed opposition to the inclusion of depreciation rates in the Application on the basis that the exemption from section 56 of the UCA remains in place. However, in order to make determinations on the depreciation rates used in the calculation of Test Period rates for service to BC Hydro, the Panel considers it necessary to lift the exemption from section 56 of the UCA. .

The Panel notes that typically, the BCUC exempts utilities from Part 3 of the UCA, rather than the entirety of the UCA. The Panel does not view that this Decision is the appropriate place to address the existing exemption, except to the extent that it affects the Test Period rate setting process. However, **the Panel directs Boralex to address the appropriateness of the scope of the existing exemption orders in its next rates application.**

**The Panel determines the Proposed Depreciation Rates are proper and adequate, pursuant to section 56(2) of the UCA, to be applied in the calculation of depreciation expense related to Boralex’s rate base assets from the beginning of 2009 up to and including the Test Period.**

The Proposed Depreciation Rates are based on rates used by other Canadian electric utilities and appear reasonable on their face. BC Hydro and Z1BRG made no submissions on depreciation rates, and BCOAPO has not proposed alternative depreciation rates for any of Boralex’s individual asset classes. The Panel agrees with Boralex and BCOAPO that the cost of a depreciation study is not warranted at this time because of the relatively large expense for a small utility, and the likelihood that there would be no material difference as a result.

BCOAPO submits that Boralex should use the Accounting Depreciation Rate when calculating the depreciation expense in the Prior Period rather than using the Proposed Depreciation Rates. The Panel disagrees. The Accounting Depreciation Rate is a blended rate which incorporates the depreciation of goodwill as well as tangible assets, and goodwill is not and never has been in rate base. Further, even if the Accounting Depreciation Rate had not included a component related to goodwill, it is more accurate to use different rates for each rate class rather than one blended rate. The Panel has separately addressed the application of the Proposed Depreciation Rates in arriving at the Prior Period depreciation expense below in section 3.1.2.3.

#### **3.1.2 Opening Rate Base**

Boralex proposes the following method to calculate the value of assets in opening rate base on January 1, 2019 (Opening Rate Base):<sup>45</sup>

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<sup>45</sup> Exhibit B-1, p. 16.

1. Start with the historical, depreciated cost of the assets on December 31, 2008 (2008 Closing Value), as accepted by the BCUC at the time of the acquisition of the facilities by Boralex from CCPC;
2. Add the value of capital additions that went in service between January 1, 2009 and December 31, 2018 (Prior Period) (Prior Period Capital Additions); and
3. Subtract the depreciation expense for the Prior Period (Prior Period Depreciation Expense)

Boralex submits that the 2008 Closing Value was accepted by the BCUC at the time of the acquisition of the Ocean Falls Facilities by Boralex.<sup>46</sup>

The values proposed by Boralex are:

2008 Closing Value	\$7,242,500 <sup>47</sup>
Prior Period Capital Additions	\$7,625,000 <sup>48</sup>
Prior Period Depreciation Expense	(\$2,033,000) <sup>49</sup>
Opening Rate Base	\$12,834,624 <sup>50</sup>

After setting the Opening Rate Base as at January 1, 2019, Boralex calculates depreciation expense, return on equity and debt for the full 12 months of 2019. In setting the Q3/4 2019 rates for service to BC Hydro, Boralex includes half of calculated 2019 depreciation expense, return on equity and debt in its revenue requirements for this time period.<sup>51</sup>

### *Positions of the Interveners*

BC Hydro and Z1RPG have no submissions on Boralex’s approach to calculating the Opening Rate Base.

BCOAPO has no issues with the overall approach to calculating the Opening Rate Base, but has certain issues with respect to how Boralex calculates its value.<sup>52</sup> Specifically, BCOAPO identifies concerns with whether the Opening Rate Base includes the value of certain items replaced (addressed in section 3.1.2.2 below) and the use of the Proposed Depreciation Rates during the Prior Period (addressed in section 3.1.1 above).

### *Panel Determination*

The Panel finds that Boralex’s overall approach to calculating the Opening Rate Base is appropriate, but does not accept Boralex’s submission that its value is \$12,834,624.

The Panel agrees that the Opening Rate Base is the sum of the 2008 Closing Balance plus the Prior Period Capital Additions less the Prior Period Depreciation Expense. However, the details of the Opening Rate Base calculation are complex, and BCOAPO has identified concerns with several aspects of the calculation. The Panel therefore addresses each aspect of the Opening Rate Base in turn, including Boralex’s proposed approach, BCOAPO’s criticisms and alternatives where appropriate.

With respect to Boralex’s approach to set the Opening Rate Base at January 1, 2019, and apply half of the 2019 depreciation expense, return on equity and debt in setting Q3/4 2019 rates, the Panel accepts this calculation as

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<sup>46</sup> Exhibit B-1, p. 16.

<sup>47</sup> Exhibit B-1, p.16.

<sup>48</sup> Exhibit B-1, p. 18.

<sup>49</sup> Exhibit B-1, p. 20.

<sup>50</sup>From the cost of service model which was attached to Exhibit B-3 (Tariff tab, cell B5). Difference between this and the summation of the numbers above it are due to rounding.

<sup>51</sup> Exhibit B-11, Cost of Service Model, Tab “Tariff.”

<sup>52</sup> BCOAPO Final Argument pp. 9-13.

reasonable. Boralex does not propose to collect the full 12-month amount of depreciation expense from BC Hydro, as only the final six months' volume of BC Hydro's consumption will yield revenues to Boralex. There is no evidence of planned capital additions in the first six months of 2019. Finally, the 2019 closing balance for rate base is correctly calculated as the 2019 Opening Balance plus the full 12-month 2019 Capital Additions less the full 12-month 2019 depreciation expense.

### 3.1.2.1 2008 Closing Value

As noted above, Boralex submits that the 2008 Closing Value of \$7,242,500 was accepted by the BCUC, and was distributed in the following asset categories:<sup>53</sup>

**Table 4: BCUC Accepted Valuation**

Asset Category	Value
Penstocks	\$1,503,000
Powerhouse	\$2,538,700
Ocean Falls Substation	\$332,500
Transmission Line	\$1,433,400
Distribution System	\$200,000
Equipment	\$855,100
Station Service Building and 150 kV Generator Facility	\$135,400
Workshop	\$244,400
<b>Total</b>	<b>\$7,242,500</b>

However, Boralex makes adjustments in the Application to recategorize some assets, which, while not changing the 2008 Closing Value, change the balances in some asset categories:<sup>54</sup>

**Table 5: Rate Base as at December 31, 2008 – Reorganized by Asset Category**

Asset Category	Asset Category Description	Value	Concordance to BCUC Accepted Valuation Category
1	Major Civil Works (Dam, Spillway, Tailrace)	\$0	n/a
2	Miscellaneous Civil Works (Powerhouse, Workshop, Access Roads)	\$744,400	Workshop plus \$500,000 of Powerhouse costs
3	Inlet Gates	\$0	n/a
4	Penstocks	\$1,503,000	Penstocks
5	Turbine-Generators	\$2,038,700	Powerhouse (All, less \$500,000 of costs included with Category 2)
6	Controls & Ancillary Systems	\$135,400	Station Service Building and 150 kW Generator Facility
7	Substation Equipment	\$332,500	Ocean Falls Substation
8	Overhead Distribution	\$1,343,400	Transmission Line (All, less \$290,000 included with Category 9)
9	Subsea Distribution Cable	\$290,000	\$290,000 of Transmission Line costs
10	General Plant	\$855,100	Equipment
	<b>Total</b>	<b>\$7,242,500</b>	

<sup>53</sup> Exhibit B-1, p. 16.

<sup>54</sup> Exhibit B-1, p. 17.

### Positions of the Interveners

BCOAPO, BC Hydro and Z1BRG make no submissions on the 2008 Closing Value.<sup>55</sup>

### Panel Determination

The Panel accepts the 2008 Closing Balance of \$7,242,500 proposed by Boralex. This figure was previously accepted by the BCUC at the time the facilities were acquired by Boralex and is unopposed by interveners.

We note, however, that the 2008 Closing Balance consists of the net book value of the assets on December 31, 2008, and not their gross book value. This is significant when we consider the calculation of Prior Period Depreciation Expense below.

#### 3.1.2.2 Prior Period Capital Additions

Boralex submits there are Prior Period Capital Additions of \$7,625,000 between January 1, 2009 and December 31, 2018, distributed by year and asset category as follows:<sup>56</sup>

**Table 6: Capital Additions (2009 to 2018) (\$000's)**

Asset Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
1	\$795	\$1,350	\$750		\$265	\$73					\$3,233
2			\$1,004	\$73	\$40	\$150			\$7		\$1,274
3						\$110	\$245	\$8	\$288	\$339	\$990
4					\$55				\$33	\$13	\$101
5		\$21						\$99	\$13		\$133
6									\$12		\$12
7				\$14							\$14
8			\$296								\$296
9					\$12	\$20	\$12	\$1,230	\$9		\$1,283
10	\$127			\$131	\$12				\$19		\$289
<b>Total</b>	<b>\$922</b>	<b>\$1,371</b>	<b>\$2,050</b>	<b>\$218</b>	<b>\$384</b>	<b>\$353</b>	<b>\$257</b>	<b>\$1,336</b>	<b>\$381</b>	<b>\$352</b>	<b>\$7,625</b>

### Positions of the Parties

BC Hydro and Z1BRG make no submissions on the matter.

BCOAPO makes no submissions on the Prior Period Capital Additions.<sup>57</sup> However, it notes that three assets (the original powerhouse crane in 2012/13, inlet gates #1 and #2 in 2014 and 2018 respectively, and the Link River Bridge) were replaced during the Prior Period, and the cost of those replacements are included in the Prior Period Capital Additions. BCOAPO states no adjustment was made to remove any outstanding depreciated value that may have been in rate base for the assets which were replaced.<sup>58</sup> BCOAPO submits the BCUC should direct Boralex to remove the depreciated value of those assets from the 2008 Closing Balance.

<sup>55</sup> BCOAPO Final Argument, p. 9.

<sup>56</sup> Exhibit B-1, p. 18.

<sup>57</sup> BCOAPO Final Argument p. 9.

<sup>58</sup> BCOAPO Final Argument, pp. 9-10.

Borex replies that the powerhouse crane had “nominal” depreciated value at the time of its replacement, and the inlet gates had zero value in the BCUC’s accepted valuation of December 31, 2008. Borex adds the original Link River Bridge was owned by the Province of BC and therefore was never in rate base.<sup>59</sup>

### Panel Determination

**The Panel accepts the Prior Period Capital Additions of \$7,625,000 proposed by Borex.** The value appears reasonable on its face and is not challenged by any intervener.

We also accept Borex’s explanation that the powerhouse crane and inlet gates had nominal or zero value at the time of their replacement, and that the original Link River Bridge was never in rate base. For these reasons we find no adjustment to the figure for Prior Period Capital Additions is necessary.

### 3.1.2.3 Prior Period Depreciation Expense

Borex submits the Prior Period Depreciation Expense is \$2,033,000, distributed by year and asset category as follows:<sup>60</sup>

**Table 8: Depreciation Expense (2009 to 2018) (\$000’s)**

Asset Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
1	\$4	\$15	\$25	\$29	\$30	\$32	\$32	\$32	\$32	\$32	\$264
2	\$10	\$10	\$17	\$24	\$25	\$26	\$27	\$27	\$27	\$27	\$218
3	-	-	-	-	-	\$1	\$3	\$5	\$7	\$11	\$26
4	\$20	\$20	\$20	\$20	\$20	\$21	\$21	\$21	\$21	\$21	\$205
5	\$27	\$27	\$27	\$27	\$27	\$27	\$27	\$28	\$29	\$29	\$278
6	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$6	\$6	\$55
7	\$7	\$7	\$7	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$76
8	\$30	\$30	\$33	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$348
9	\$10	\$10	\$10	\$10	\$10	\$10	\$11	\$32	\$52	\$52	\$206
10	\$31	\$33	\$33	\$35	\$37	\$38	\$38	\$38	\$38	\$38	\$357
Total	\$144	\$157	\$178	\$194	\$199	\$204	\$208	\$232	\$256	\$261	\$2,033

The Prior Period Depreciation Expense is based on the Proposed Depreciation Rates in Table 7 of the Application<sup>61</sup> and includes the depreciation expense for assets that are included in 2008 Closing Balance and for capital additions during the Prior Period.

In section 3.1.1 of this decision, the Panel approved the Proposed Depreciation Rates for use in setting rates for service to BC Hydro including during the Prior Period. In setting those rates, Borex used both a Gannett Fleming depreciation study filed with the OEB by OPG in 2013 and information contained in a recent filing by Alectra Utilities.<sup>62</sup>

<sup>59</sup> Borex Reply Argument, p. 25.

<sup>60</sup> Exhibit B-1, p. 20.

<sup>61</sup> Exhibit B-1, p. 19.

<sup>62</sup> Exhibit B-6, Response to BCUC IR 6.1.

### *Positions of the Parties*

BCOAPO submits Boralex has applied the Proposed Depreciation Rates to both the 2008 Closing Balance, which represents the net book value of the assets on that date, and the Prior Period Capital Additions, which are “effectively gross book values.”<sup>63</sup>

BCOAPO notes that Boralex’s sources for the Proposed Depreciation Rates, a depreciation study by Gannett Fleming for the OPG in 2013 and an Alectra Utilities filing to the OEB, both include depreciation rates based on the average service life or useful life, which takes into account the entire expected life of the relevant assets. As such, the depreciation rates in these two sources would be appropriate to apply to the gross book values of the Prior Period Additions, but not to the net book value of the 2008 Closing Balance.<sup>64</sup>

BCOAPO submits the BCUC should direct Boralex to recalculate the 2018 Closing Balance using the Accounting Depreciation Rate.<sup>65</sup>

In reply, Boralex states the Proposed Depreciation Rates in Table 7 of the Application “reflect an estimate of the depreciation life of each asset category as of 2009 when Boralex LP acquired the Ocean Falls Facilities from CCPC. Accordingly, the rates used in Table 7 do reflect the expected life of the relevant assets from the time they were acquired by Boralex LP, and not some shorter ‘remaining life’ as suggested by BCOAPO.”<sup>66</sup>

### *Panel Determination*

The Panel finds the Proposed Depreciation Rates, which have been approved in section 3.1.1 of this decision, have been inappropriately applied to the net book value of the assets in service when Boralex acquired the Ocean Falls Facilities in 2009, rather than to the gross book value of these assets.

There is no indication in the evidence that the Proposed Depreciation Rates are based on anything other than the total estimated life of the assets in each asset class. There is nothing in the depreciation study by Gannett Fleming cited by Boralex as a source to suggest the estimated lives of the assets under consideration are anything other than the total estimated lives when the assets were newly installed. Therefore, in the Prior Period Boralex has appropriately calculated depreciation expense on the Prior Period Additions, which were added at their gross book value, using the Proposed Depreciation Rates.

However, the 2008 Closing Balance consists of assets which had been in use for years at that time, and whose remaining lives are very different to their estimated lives when they were newly installed. The Panel has already found that a depreciation study, which would assess depreciation rates based on the estimated remaining life of the assets rather than their total lives, is not warranted. However, we do not consider it appropriate to apply the Proposed Depreciation Rates, based as they are on the estimated total life of the assets, to the 2008 Closing Balance for the purposes of calculation the Prior Period Depreciation Expense. Instead, the Panel finds the component of the Prior Period Depreciation Expense that reflects depreciation of the assets in 2008 Closing Balance should be calculated as being the Proposed Depreciation Rates multiplied by the gross book value of the assets in rate base on December 31, 2008.

**For these reasons, Boralex is directed to apply the applicable Proposed Depreciation Rates to the gross book value of the assets included in the 2008 Closing Balance in setting its Test Period rates for service to BC Hydro. Boralex is directed to reflect this adjustment in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel, including the following information with supporting calculations, assumptions and documents:**

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<sup>63</sup> BCOAPO Final Argument, p. 12.

<sup>64</sup> BCOAPO Final Argument, pp. 12-13.

<sup>65</sup> BCOAPO Final Argument, p. 13.

<sup>66</sup> Boralex Reply Argument, p. 26.

- **Breakdown of the gross book value of the assets which are included in the 2008 Closing Balance;**
- **Recalculated Prior Period depreciation expense on the 2008 Closing Balance;**
- **Recalculated total Prior Period Depreciation Expense; and**
- **Recalculated total depreciation expense for the Test Period.**

For greater certainty, these calculations should not affect the value of the 2008 Closing Balance.

### 3.1.3 Capital Expenditure Planning Process

Boralex is planning a total of \$7.375 million of capital expenditures within the Test Period, which are discussed further below in section 3.1.4 of this decision. Boralex Inc. does not have a formal corporate policy for the approval of such capital expenditures by its subsidiaries with operating facilities (such as Boralex LP), but states that it does have a rigorous budget and governance process that occurs every year to review and approve the following year's budget and authorized capital expenditures for each operating facility.<sup>67</sup> There are no formal capital expenditure approval documents related to Boralex's planned or recently completed capital expenditures, and it does not have a formal long-term plan for the Ocean Falls facilities outside of the information that was provided to BC Hydro during the course of the confidential EPA negotiations between Boralex and BC Hydro.<sup>68</sup>

#### *Position of the Parties*

BC Hydro is concerned about Boralex's lack of formal written capital approval processes or documentation, given the large scope of planned capital expenditures during the test period and the resulting impact on rates. BC Hydro submits it is unable to verify the reasonableness of or need for the capital expenditures, whether the projects are the most cost-effective solutions, or Boralex's resources to complete the projects on time and on budget.<sup>69</sup>

In reply, Boralex submits that just because its planning process is not written does not mean it is not rigorous. Boralex rejects BC Hydro's assertion there is insufficient information regarding need and cost-effectiveness of Boralex's planned capital projects and submits that a lack of written policy has no bearing on its ability to execute projects.<sup>70</sup>

#### *Panel Determination*

The Panel is not persuaded that the absence of a written planning process alone means that there is insufficient justification for Boralex's planned capital expenditures. As outlined in the following subsection, the Panel has examined the need for and reasonableness of each of Boralex's planned capital projects based on the applicable evidence filed in this proceeding, and has found this evidence to be sufficient for the purposes of making its determinations.

However, the Panel agrees to an extent with the sentiment expressed by BC Hydro, in that Boralex's capital planning process is not fully transparent. While the Panel reserves any comment on the nature of the planning process itself, it observes that insight into the planning and approval process for planned capital expenditures can be valuable and facilitate a more efficient review of the need for and justification of such expenditures. **Accordingly, the Panel directs Boralex to include discussion and documentation regarding its capital planning and approval process in future rate applications.** This should include any long-term capital plans if these are available.

<sup>67</sup> Exhibit B-7, Response to BC Hydro IR 2.1.

<sup>68</sup> Exhibit B-7, Response to BC Hydro IR 2.1.1, 2.1.2, 2.2.

<sup>69</sup> BC Hydro Final Argument, p. 30-31.

<sup>70</sup> Boralex Reply Argument, pp. 17-18.

Finally, the Panel agrees with Boralex that the nature of its planning process does not directly reflect Boralex’s ability to execute its planned capital projects on time and on budget, and believes any related concerns are better addressed in other ways, as discussed in section 3.1.5 of this decision.

### 3.1.4 Test Period Capital Additions

Boralex proposes to complete a number of capital projects to refurbish or rehabilitate some components of the Ocean Falls Facilities during the Test Period. Boralex notes that although the Ocean Falls Facilities are generally in good operating condition, the plant is over 100 years old and these projects are required to address asset conditions or obsolescence and to satisfy BC Hydro’s interconnection standards.<sup>71</sup> Class 3 AACE estimates for Boralex’s proposed capital additions, with an expected average accuracy of +30%/-15%, are outlined in Table 11 of the Application below.<sup>72</sup> While the projects outlined below generally last multiple years, Boralex’s capital additions are added into rate base the same year the work is completed as this reflects the timing of when the capital assets are placed in service.

**Table 11: Forecast Capital Additions (2019 to 2022) (\$000’s)**

Project No.	Project	Q3-Q4 2019	2020	2021	2022	Total
1	Penstock Rehabilitation	\$137	-	\$1,069	\$2,562	\$3,768
2	Turbine Rehabilitation	-	\$313	\$268	\$244	\$824
3	Powerhouse Electrical	-	\$67	\$362	\$371	\$800
4	Ocean Falls Switchyard	-	\$53	-	\$215	\$268
5	Shearwater Substation	-	\$104	\$288	\$262	\$654
6	Interconnection Line	-	\$15	\$200	\$205	\$420
7	General Plant	\$37	\$125	\$125	\$354	\$641
	<b>Total</b>	\$174	\$678	\$2,311	\$4,212	\$7,375

Boralex filed a number of third-party engineering and assessment and inspection reports regarding the condition of Boralex assets. Boralex submits that these engineering reports, together with Boralex’s own internal inspections, engineering assessments, and professional judgement, support the need, timing, and forecast cost of the capital projects to be undertaken.<sup>73</sup>

#### *Positions of the Parties*

As noted previously, BC Hydro submits that due to the lack of formal documentation for the forecasted capital projects, it is unable to verify whether the proposed projects are reasonably needed at the time Boralex proposes to undertake them, whether the projects are the most cost-effective solution, or whether Boralex has the resources to complete the projects on time or on budget as forecast.<sup>74</sup>

Z1BRG also expressed concerns that “more consideration needs to be given to the expected remaining useful life of the assets, the relative merits of repair vs. replacement, and the most appropriate and cost-effective sequencing of equipment upgrades” than is reflected in Boralex’s evidence.<sup>75</sup>

Intervenors expressed project-specific concerns regarding penstock 2 rehabilitation, turbine rehabilitation, powerhouse electrical system upgrades, interconnection line maintenance, and general plant additions, which are discussed in the individual project subsections below.

<sup>71</sup> Exhibit B-1, p. 22.

<sup>72</sup> Boralex Final Argument p. 26.

<sup>73</sup> Boralex Final Argument p. 25.

<sup>74</sup> BC Hydro Final Argument p. 31.

<sup>75</sup> Z1BRG Final Argument p. 4.

No intervenors expressed any opposition to the proposed Ocean Falls Switchyard or Shearwater Substation capital maintenance projects. BCOAPO submits it has no issues with either project and notes that the condition assessments provided support the two projects.<sup>76</sup>

### *Panel Determination*

**The Panel accepts Boralex’s forecast capital additions of \$7.375 million in the Test Period are reasonable, as filed.**

In the Panel’s view, Boralex has provided sufficient evidence to support the reasonableness of its forecast Test Period capital additions. The Panel notes that intervenors did not make any submissions specifically opposing the Ocean Falls Switchyard and Shearwater Substation projects. Intervener concerns regarding the remainder of the capital addition projects are addressed in the respective subsections below.

#### **3.1.4.1 Penstock 2 Rehabilitation Project**

The largest proposed capital project in the Test Period is the replacement of penstock 2, a 3.6m steel riveted penstock originally installed in 1917. Due to the rivet deterioration, localized corrosion pitting, and metal stress incurred over its long service life, Boralex in consultation with its external engineering consultant, BBA Engineering, has determined that it is necessary to commence rehabilitation work during the Test Period.<sup>77</sup> Boralex provided a Failure Mode and Effects Analysis Report prepared by BBA Engineering in confidence, which outlines the likelihood and severity of consequences of various risks related to penstock 2 and issues recommendations to mitigate the highest-risk items.<sup>78</sup>

Boralex evaluated alternatives including spot repairs and localized steel reinforcements to the existing penstock structure with installation of an inner liner and outside coating, and installation of a structural liner within the existing penstock.<sup>79</sup> Based on advice and discussions with BBA Engineering, Boralex ultimately decided to entirely replace penstock 2 in sections on a staged basis over several years to minimize the required shutdown window in any single year. Boralex submitted a comprehensive analysis of mitigation alternatives and a scope and estimate of the selected alternative prepared by BBA Engineering in support of the project, on a confidential basis.<sup>80</sup> The selected alternative will result in a penstock fully up to current design codes that will require less ongoing maintenance and have a life expectancy of 50 years which can be further extended with routine maintenance.<sup>81</sup>

Due to COVID-19, commencement of the project has been delayed by one year from the date proposed in the Application, which is reflected in Table 11 above. The project is expected to continue beyond the Test Period into 2023-2024, with an additional engineering study to be undertaken in 2021 to determine whether gate improvements will be required for the penstock.<sup>82</sup> Boralex has forecast the project costs at \$3.77M within the test period, with additional forecast expenditures of \$1.84M in 2023 and \$1.85M in 2024.<sup>83</sup>

### *Positions of the Parties*

BC Hydro acknowledges penstock 2 has needed repair or replacement for many years, but notes the work has not been done and the preferred project to address the issues has changed multiple times over the past 10

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<sup>76</sup> BCOAPO Final Argument p. 20, 21.

<sup>77</sup> Boralex Final Argument p. 27-28.

<sup>78</sup> Exhibit B-4-1, Attachment 3.

<sup>79</sup> Exhibit B-15, p.8, BC Hydro IR 26.4.

<sup>80</sup> Exhibit B-12.

<sup>81</sup> Boralex Final Argument p. 27-28.

<sup>82</sup> Boralex Final Argument, p. 27-28.

<sup>83</sup> Exhibit B-11, p. 2.

years. BC Hydro submits it is unable to determine whether rehabilitating penstock 2 or installing a new penstock is the right decision or whether the staging of the project is appropriate given the lack of formal trade-off analysis provided by Boralex. BC Hydro notes Boralex has relied on a technical inspection and assessment report and failure mode and effects analysis provided by BBA Engineering, but submits that Boralex has conducted little further analysis of its own.<sup>84</sup>

BC Hydro submits that due to insufficient evidence on project alternatives and timelines, the BCUC cannot have confidence Boralex has identified the best solution. Accordingly, BC Hydro submits the costs of the penstock 2 rehabilitation project and all associated expenses should be excluded from revenue requirements at this time, and that Boralex should be required to obtain a CPCN before proceeding with the project.<sup>85</sup> Z1BRG supports BC Hydro's recommendation to exclude costs associated with the penstock 2 rehabilitation project from Boralex's revenue requirement and rates until a CPCN is obtained.<sup>86</sup>

BCOAPO submits that it has no issues with Boralex's proposed penstock 2 rehabilitation project.<sup>87</sup>

In its reply argument, Boralex submits it has investigated multiple project alternatives over the past decade. After deliberation, comparison of costs and benefits, and collaborative discussions with its third-party engineering consultant, Boralex developed a project scope and staging intended to impose the least economic and service interruption impacts upon its customers, and minimize the risk of extended schedule overruns during any project year or into peak winter load periods. Boralex submits the selected alternative will ultimately deliver a safe, reliable, seismically stable penstock able to supply water to the Ocean Falls generating facilities for many decades.<sup>88</sup>

Boralex submits that the BBA Engineering reports demonstrate it has evaluated different project configurations collaboratively with its engineering consultants. Boralex notes BBA Engineering is a leading engineering firm and the preparation of the reports regarding the penstock project involved collaboration with Boralex over several years, detailed condition assessments, extensive failure analysis, and itemized cost comparisons. Boralex submits that conducting further analysis would only delay the needed rehabilitation work and add to project costs, and the urgency detailed in the latest BBA Engineering report does not allow latitude for ongoing analysis without conclusion.<sup>89</sup>

Boralex further submits requiring a CPCN for the penstock 2 replacement project would incur additional regulatory costs which are unnecessary given that the project is urgently needed and has already been fully justified by Boralex.<sup>90</sup>

### *Panel Determination*

**The Panel accepts Boralex's proposed Test Period capital additions for the penstock 2 rehabilitation project as reasonable and does not require Boralex to file a CPCN for the project.**

With respect to BC Hydro's argument that the penstock rehabilitation project requires a CPCN, the Panel notes that Boralex is currently exempt from sections 45 and 46 of the UCA, pursuant to Order G-143-19. Sections 45 and 46 of the UCA address the requirements under the UCA for public utilities to obtain CPCNs for a specific plant, system or extension. In the absence of lifting the exemption from sections 45 and 46 of the UCA, Boralex is not required to request a CPCN for the penstock 2 rehabilitation project or any other capital project.

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<sup>84</sup> BC Hydro Final Argument, p. 37-38.

<sup>85</sup> BC Hydro Final Argument, p. 39.

<sup>86</sup> Z1BRG Final Argument, p. 4.

<sup>87</sup> BCOAPO Final Argument, p. 17.

<sup>88</sup> Boralex Reply Argument, p. 21.

<sup>89</sup> Boralex Reply Argument, p. 21-22.

<sup>90</sup> BC Hydro Final Argument, p. 22.

Notwithstanding the exemption in place, the Panel views that the evidence filed in this proceeding supports the need for the penstock 2 rehabilitation project, as filed. The Panel has reviewed the engineering reports filed confidentially as exhibits B-4-1<sup>91</sup> and B-12<sup>92</sup> and observes that detailed inspection reports, a failure mode analysis study, and analysis of risk mitigation alternatives are provided. The Panel agrees with Boralex's submission that the engineering reports include sufficient analysis of the condition and replacement alternatives to support the scope, proposed timeframe, and forecast costs of the penstock 2 rehabilitation project as being reasonable. Accordingly, based on the evidence provided to support the need for the project at this time, the Panel finds no compelling reason to lift the exemption for sections 45 and 46 of the UCA for the purposes of requiring a CPCN for the penstock 2 rehabilitation project.

That said, the Panel notes that this does not relieve Boralex of its responsibility to ensure actual costs for the penstock 2 rehabilitation project, or any other capital project, are prudently incurred. Any concerns identified by the BCUC in future could result in a prudency review.

### **3.1.4.2 Turbine Rehabilitation Project**

The turbine rehabilitation project involves dismantling the G2, G3, and G4 turbines, originally manufactured between 1916 and 1923, and performing testing and rehabilitation work to the turbine shafts and bearings.<sup>93</sup> Boralex has identified shaft vibration and bearing problems with the generating units that, if not addressed, could lead to bearing or shaft failures during operation and subsequent damage to or destruction of the associated turbine generator units.<sup>94</sup> Boralex proposes to rehabilitate the larger G3 and G4 turbine units in 2020 and 2021, with forecast capital additions of \$313,000 and \$268,000, respectively, and the smaller turbine G2 in 2022 for a forecast capital addition of \$244,000. Rehabilitation of the small turbine G1 is planned for 2023, beyond the Test Period of the Application.<sup>95</sup>

#### *Positions of the Parties*

BC Hydro notes that historically the Ocean Falls facilities have used one of the larger generators (G3 or G4) simultaneously with one of the smaller generators (G1 or G2), and sometimes G3 and G4 are run simultaneously during peak loads. BC Hydro submits Boralex does not require all four units to serve current or forecast loads, and that Boralex has not submitted any evidence to demonstrate that maintaining all 4 units is the most cost-effective alternative. BC Hydro questions the need to maintain all 4 units given the relatively low number of outages caused by turbine unit failure and the lack of redundancy in Boralex's other facilities.<sup>96</sup>

BC Hydro submits it may be in the public interest to maintain both larger units (G3 and G4), but that Boralex should maintain only one of the smaller units (whichever of G1 or G2 is in better condition). Further, BC Hydro argues any spending on the second smaller unit would be imprudent at this time and should be excluded from revenue requirements.<sup>97</sup> Z1BRG expresses its support for BC Hydro's submission.<sup>98</sup>

BCOAPO submits that it has no issues with Boralex's proposed turbine rehabilitation project.<sup>99</sup>

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<sup>91</sup> Penstock 2 Technical Inspection and Assessment Report dated July 3, 2019 prepared by BBA Engineering; Penstock 2 Failure Mode and Effects Analysis dated September 23, 2019 prepared by BBA Engineering.

<sup>92</sup> BBA Technical Report Penstock 2 dated April 23, 2020 prepared by BBA Engineering.

<sup>93</sup> Exhibit B-1, p. 23.

<sup>94</sup> Exhibit B-6, p. 24, BCUC IR 7.12.

<sup>95</sup> Exhibit B-1, p. 23-24.

<sup>96</sup> BC Hydro Final Argument p. 33-34.

<sup>97</sup> BC Hydro Final Argument p. 35.

<sup>98</sup> Z1BRG Final Argument p. 4.

<sup>99</sup> BCOAPO Final Argument p. 18.

Borex notes in its reply submission that it is unable to meaningfully quantify the expected impact of maintaining all four generating units, but that the practical experience of its operators supports the proposed maintenance. Borex notes that under the terms of a fixed rate EPA, Borex and its predecessor had strong motivation to reduce capital and operating costs to maximize profits yet determined that the optimal Ocean Falls configuration was to maintain all four generating units. Borex further submits the redundancy of its other facilities has no bearing on the value of maintaining both of the smaller generating units.

Borex submits since only three of the units are scheduled to undergo rehabilitation during the Test Period, the cost of maintaining the fourth generating unit, G1, is only a hypothetical consideration for this Application.<sup>100</sup>

### *Panel Determination*

**The Panel accepts Borex’s forecast Test Period capital additions for the turbine rehabilitation project as reasonable.**

The Panel acknowledges BC Hydro’s submission that the evidence on file does not fully justify the need to maintain all four turbine units, but declines to make a finding on the reasonableness of refurbishing the fourth turbine beyond this Test Period which is for a future panel to determine. The Panel notes that although no party has expressed opposition to maintaining the two larger turbine units and at least one of the smaller units, which the Panel agrees is necessary, the potential rehabilitation of the fourth generating unit (i.e. G1 or G2) in a future test period is more than a hypothetical consideration, as suggested by Borex. The condition of the units may have a bearing on whether it is more prudent to proceed with the refurbishment of G2 or G1 within the Test Period. As BC Hydro submits, it may be more prudent to maintain only whichever of the smaller units is in better condition if the second smaller unit is not required to be in-service. However, the Panel expects Borex should prioritize these works based on where there is the most pressing need. If Borex wishes to proceed with refurbishment of the second smaller turbine unit, Borex is recommended to file further justification of the cost-effectiveness of maintaining a fourth turbine unit in its next rate application.

### **3.1.4.3 Powerhouse Electrical System Upgrades**

The proposed powerhouse electrical system upgrades include the replacement or upgrade of a number of powerhouse electrical components or systems identified by asset condition assessments. The most significant component of the project is the replacement of aging powerhouse breakers, which constitutes \$743M of the \$800M of forecast costs.<sup>101</sup> To provide justification for the upgrades, Borex submitted a Gap Analysis conducted by Prime Engineering which assessed compliance of the Ocean Falls facilities with BC Hydro’s distribution interconnection requirements.<sup>102</sup>

### *Positions of the Parties*

BC Hydro acknowledges that the powerhouse breakers are old and will be in need of replacement at some point in time due to their obsolete technology and environmental risks, but submits Borex has not put forward any evidence or reports assessing the risk that the unit breakers will fail or not operate reliably.<sup>103</sup> BC Hydro submits it is unclear what investigations Borex has done to determine whether lower-cost alternatives were available, and that it is unclear why the breakers have not been replaced at any time in the 11 years prior to this test period as they were already obsolete and near “end of life.”<sup>104</sup>

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<sup>100</sup> Borex Reply Argument p. 19.

<sup>101</sup> Exhibit B-1, p. 24.

<sup>102</sup> Borex Reply Argument, p. 20.

<sup>103</sup> BC Hydro Final Argument, p. 35.

<sup>104</sup> BC Hydro Final Argument, p. 36.

BC Hydro supports Boralex undertaking the breaker replacement at some point in time; however, it questions the urgency of the capital expenditures and considers there to be insufficient evidence to support including the capital additions in rate base as part of the Application.<sup>105</sup>

BCOAPO submits that it has no issues with Boralex's proposed powerhouse electrical system upgrades.<sup>106</sup>

In reply, Boralex submits the Prime Engineering Gap Analysis on BC Hydro interconnection standards recommends replacement of the unit breakers due to their age, the inability to confirm their service duty parameters, and the resulting risk posed to system operations. Boralex noted it is not aware of any lower-cost alternatives to breaker replacement, which is supported by the Prime Engineering report findings and the judgement of Boralex engineering and operating staff. Boralex submits additional risk analysis and engineering studies would not be cost effective or result in a materially different outcome.<sup>107</sup>

### *Panel Determination*

**The Panel accepts Boralex's forecast Test Period capital additions for the powerhouse electrical system upgrades as reasonable**, given that components of the powerhouse electrical system have been identified in the Prime Engineering report as not meeting BC Hydro interconnection standards. The Panel agrees with Boralex's submissions that the breakers pose a risk to system operations and that further risk analysis and engineering studies are not likely to be cost effective or result in a materially different outcome. The Panel notes the submissions from Boralex, BC Hydro, and BCOAPO all support the need for the breaker replacement.

#### **3.1.4.4 Interconnection Line Maintenance and General Plant Additions**

The interconnection line maintenance project involves repair or replacement of deteriorated structures along the 45km, 25kV interconnection line based on asset condition assessments, and rebuilding helicopter landing platforms which are installed at key points of the line not accessible by vehicle.<sup>108</sup> The forecast capital additions for the interconnection line maintenance project amount to \$420M within the test period.

The general plant additions category includes assets that do not directly generate, transmit or distribute power. The proposed additions include replacement of vehicles and maintenance equipment at end-of-life, and rehabilitation of operator living quarters and the link lake dock, and amount to \$641,000 within the Test Period.<sup>109</sup>

### *Positions of the Parties*

BCOAPO submits Boralex has not provided sufficient information on the condition of the interconnection line to support the increased capital additions of \$372,000 over the 2021-2022 period as compared to roughly \$50,000 for the entire 10-year period of 2009-2018 apart from major spending of \$296,000 on the distribution line in 2011 and replacement of the submarine cables in 2016. BCOAPO also notes all repairs to identified deficiencies appear to have been completed already. BCOAPO submits that based on historic spending adjusted for inflation, maintenance for the interconnection line should be reduced to \$100,000.<sup>110</sup> BC Hydro and Z1BRG did not make any submissions specific to the interconnection line maintenance project.

Boralex submits the proposed capital work on the interconnection line is not based on historical capital maintenance spending, but is based on the actual condition of the facilities. Boralex notes that requiring any formal third-party condition inspection reports would only add to the project costs without creating additional

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<sup>105</sup> BC Hydro Final Argument, p. 36.

<sup>106</sup> BCOAPO Final Argument, p. 19.

<sup>107</sup> Boralex Reply Argument, p. 20.

<sup>108</sup> Exhibit B-1, p. 27.

<sup>109</sup> Exhibit B-1, p. 27-28.

<sup>110</sup> BCOAPO Final Argument, p. 22-23.

value. Boralex further submits interconnection line outages are already the most frequent cause of interruptions with the Bella Bella NIA, and any interconnection line failures result in additional costs on BC Hydro to run back-up diesel generation.<sup>111</sup>

BCOAPO submits two concerns regarding the proposed General Plant Additions. First, BCOAPO notes the Boralex IR responses and Application Update include an increase in Q1/2 2019 capital additions of \$98,535 as compared to the original Application, related upgrades to staff living quarters. BCOAPO states that no explanation was provided to justify this increased spending as compared to the original Application. Second, BCOAPO expresses concerns with the vehicles, machinery, and equipment capital additions totalling \$563k over the test period, when the total spending in these categories between 2009-2018 was only \$289k. BCOAPO submits Boralex's general plant additions between 2019 (all quarters) and 2022 should be limited to \$680,000, consistent with the initial application.<sup>112</sup>

Boralex acknowledges the cost of the staff living quarter upgrades was greater than the initial application due to increased asbestos abatement costs. Boralex submits although the costs were higher than originally estimated, they were prudently occurred. Regarding vehicles, machinery, and equipment additions, Boralex submits the initial application already deferred all general plant additions which could reasonably be deferred beyond the Test Period without creating unacceptable risks to worker safety and operational and project execution effectiveness.<sup>113</sup>

### *Panel Determination*

The Panel accepts that Boralex's forecast Test Period capital additions relating to the interconnection line maintenance and general plant additions are reasonable. The Panel disagrees with BCOAPO's position that forecast interconnection line maintenance or general plant additions should be tied to historical spending levels, as historical spending may not be indicative of the present needs of the facilities as assessed by Boralex and its line contractors. Boralex has noted that all the projects listed in the forecast of capital additions are essential to be completed within the timelines identified to maintain safe and reliable operation,<sup>114</sup> and the Panel accepts this as reasonable. The Panel finds that the justification provided for need and timing of the capital projects proposed is reasonable.

With respect to the staff living quarter upgrade costs, the Panel notes that in the Application, Boralex identifies that initial demolition activities identified the presence of asbestos. Therefore, the Panel is satisfied that the justification for the increase in costs is reasonable.

### **3.1.5 Timing of Capital Expenditures**

As noted above, Boralex's planned capital expenditures are expected to increase significantly during the Test Period as compared to historic expenditures. Boralex submits that the risks associated with delivering the capital program within the Test Period include: meteorological, geotechnical, procurement and logistics, and normal project management risks associated with delivering a number of projects in a relatively small geographic area. Boralex has considered these risks in developing the capital program and, based on its years of experience at Ocean Falls, is confident that the projects can be completed as planned.<sup>115</sup>

### *Positions of the Parties*

BC Hydro submits that due to the large increase in capital expenditures there is reasonable doubt that Boralex can complete the forecast work on schedule. BC Hydro states the BCUC should require Boralex to "establish a

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<sup>111</sup> Boralex Reply Argument, p. 27-28.

<sup>112</sup> BCOAPO Final Argument, p. 24.

<sup>113</sup> Boralex Reply Argument, p. 28-29.

<sup>114</sup> Exhibit B-6, p. 21, BCUC IR 7.2.

<sup>115</sup> Exhibit B-5, Response to BCUC IR 7.3.1.

deferral account to record the impact of differences between forecast capital additions, as set out in the Application, and actual capital additions, and to carry forward the balance in the account for consideration in future revenue requirement applications.” BC Hydro adds the deferral account balance “can be reviewed in future revenue requirement applications and any credit balance refunded”.<sup>116</sup>

Z1BRG supports BC Hydro’s submission with respect to the creation of a capital additions variance deferral account.<sup>117</sup>

Borex submits in reply it is confident it can complete the work as scheduled, having considerable experience in undertaking and completing capital projects at Ocean Falls. However, Borex acknowledges that the COVID-19 pandemic has “introduced a level of uncertainty no one could have anticipated,” and for this reason is not averse to setting up a deferral account to record the revenue requirement impact associated with any differences between the forecast and actual cost and timing of the capital projects. Borex strongly opposes the asymmetrical treatment of cost differences suggested by BC Hydro.<sup>118</sup>

### *Panel Determination*

The Panel notes that the Penstock Rehabilitation Project has already been delayed one year by the effects of the COVID-19 pandemic. There is every likelihood the pandemic will continue to have effects in 2021, resulting in the possibility that Borex’s planned capital projects will be delayed due to factors beyond its control. Given this uncertainty present in the Test Period, the Panel considers that ratepayers should be reimbursed the amount paid in rates during the Test Period for assets that did not enter rate base as planned. However, the Panel agrees with Borex that it is not appropriate for ratepayers to be reimbursed if capital additions are less than forecast, with no corresponding recovery from ratepayers if capital additions are greater than forecast. Accordingly, the Panel finds a deferral account to record the revenue requirement impact associated with any differences between the forecast and actual cost and timing of the capital projects is warranted.

The deferral account balance will consist of all differences in the revenue requirement impact, positive and negative, associated with differences between forecast and actual capital additions during the Test Period. The recoverability or refundability of the balance and disposition of the deferral account will be determined by the BCUC in a future proceeding on the basis of the evidence and regulatory principles.

**The Panel directs Borex to create a deferral account to record the revenue requirement impact associated with any differences between the forecast and actual capital additions in this Test Period only, attracting interest at Borex’s Weighted Average Cost of Debt (WACD).** The revenue requirement impact added to the deferral account will include several cost components, including any related return on equity and debt. Further, these amounts will remain in the deferral account for several years before being refunded or recovered from ratepayers. Accordingly, the Panel finds Borex’s WACD is appropriate to apply to any amounts recorded in the deferral account.

Additionally, to assist the BCUC with monitoring costs for Borex’s planned capital projects in the Test Period, **Borex is directed to provide a detailed capital additions variance analysis as part of its future rates applications filed with the BCUC.** The analysis should include a table with the dollar and percentage variances between forecast and actual expenditures for each capital project and for each year of the test period, with an explanation of any significant variances.

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<sup>116</sup> BC Hydro Final Argument, pp. 3, 29-30.

<sup>117</sup> Z1BRG Final Argument, p. 5.

<sup>118</sup> Borex Reply, pp. 16-17.

### 3.1.6 Allocation of Costs to Capital

Borex does not allocate a portion of operating and maintenance (O&M) expenses to capital in the calculation of its Test Period revenue requirements. Borex states that it does not currently have a view on what percentage of O&M is appropriate to treat as capitalized overhead and notes that Borex Inc. does not have a corporate policy and process documentation for the capitalization of overheads for its operating facilities, including the Ocean Falls Facilities.<sup>119</sup>

#### *Positions of the Parties*

In its Final Argument, BC Hydro submits that Borex should allocate a portion of its O&M expenses as capitalized overhead and recommends five percent as a reasonable rate.<sup>120</sup> Z1BRG supports BC Hydro's suggestion to allocate "some portion of overall O&M costs to capitalized overhead."<sup>121</sup>

BCOAPO takes no position regarding capitalized overhead.

In its reply, Borex agrees that it may be appropriate to allocate a portion of O&M expenses as capitalized overhead and does not oppose BC Hydro's suggested allocation of five percent for the Test Period. However, Borex states that it will re-evaluate and address this issue in its next rate application to confirm that a five percent allocation remains reasonable and appropriate for Borex's circumstances.<sup>122</sup>

#### *Panel Determination*

**Borex is directed to allocate 5 percent of its Test Period O&M expenses to capital in setting its Test Period rates for service to BC Hydro. Borex must reflect this adjustment, including supporting calculations, in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.**

**Borex is directed to file a comprehensive assessment of its allocations of O&M expenses to capital in the next rates application, including an analysis of the appropriate capital overhead rates and direct allocations to capital, whether a formal policy should be established, and a breakdown of the allocations to capital by year, between direct allocations and capitalized overhead, for the next test period.**

The Panel notes it is common practice for utilities to capitalize a portion of their O&M expenses. This relates to the accounting treatment for expenses required to create an asset and to match the expense recognition with the length of time in which the asset is generating revenue. Utilities usually capitalize both costs directly attributable to capital projects and overheads supporting capital projects. Cost drivers can be identified to allocate the appropriate portion of O&M expenses to capital projects based on cost causation. For example, a portion of the estimated cost of staff time and associated benefit costs devoted to capital activities could be allocated based on applying an estimated percentage of time spent on capital activities.

Based on the above, the Panel finds it reasonable for Borex to capitalize a portion of its Test Period O&M expenses. Considering the limited evidence currently available on the appropriate amount of O&M expenses to be allocated to capital during the Test Period and submissions made by the parties, the Panel finds BC Hydro's suggestion of a five percent capital overhead rate to be a reasonable proposal for the Test Period. The Panel also notes that Borex is amenable to this capital overhead rate. However, further analysis of allocations to capital will be required to determine whether this allocation rate is appropriate for future revenue requirements and to improve the accuracy of the allocation of O&M expenses to capital.

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<sup>119</sup> Exhibit B-1, p. 22; Exhibit B-7, BC Hydro IR 12 Series.

<sup>120</sup> BC Hydro Final Argument, p. 20.

<sup>121</sup> Z1BRG Final Argument, p. 3.

<sup>122</sup> Borex Reply Argument, p. 10.

## 3.2 Other Rate Base Items

The sections below address rate base items that are not exclusively related to capital, specifically the determination of working capital and the method for calculating rate base.

### 3.2.1 Working Capital

Borex includes a working capital allowance of \$400,000 in rate base during the Test Period to address timing issues with respect to the payment of invoices and compensate for approximately three months' worth OM&A expenses.<sup>123</sup>

Two methods are used by Borex to estimate the test period working capital allowance. First, the allowance is based on approximately three months' worth of OM&A expenses, which Borex states is demonstrative of its average working capital requirements.<sup>124</sup> For example, 3/12 of forecast 2019 OM&A expenses of \$1.59 million is approximately \$397,000.

Second, Borex based the working capital allowance on the average annual difference between Borex's balance sheet receivables and payables between 2014 to 2017 of \$407,000, excluding 2018 due an unusually high payables balance at the end of that year.<sup>125</sup> However, Borex acknowledges that the balance sheet payables exceed the receivables during this timeframe, which indicates a negative working capital balance.<sup>126</sup>

Borex did not conduct a lead-lag study to determine the working capital allowance, stating that its estimate of \$400,000 is based on a simple and verifiable methodology and represents its working capital requirements during the test period. During the IR process, Borex addressed the use of the 45-day lag rule to set working capital, in the absence of a formal lead-lag study. Under this method, 1/8 of a year (i.e. 45 days) of the utility's OM&A expenses is designated as the working capital allowance. Borex submits that the use of a 45-day lag rule to estimate working capital requirements is not unreasonable. Applying the 45-day lag rule to the O&M expenses included in the Application Update results in a working capital requirement of \$262,000.<sup>127</sup>

#### *Position of the Parties*

BC Hydro and BCOAPO express concerns with Borex's proposed methodology for calculating the working capital allowance and state that the use of the 45-day lag rule should be applied. Both parties highlight that the allowance is not based on a lead-lag study and that using the difference between balance sheet payables and receivables to determine the working capital allowance indicates negative working capital.<sup>128</sup>

Borex maintains that the requested working capital allowance of \$400,000 is acceptable; however, it also acknowledges that the use of the 45-day lag rule is not unreasonable, assuming it is based on the average forecast O&M requirements over the entire test period and not just 2019.<sup>129</sup>

#### *Panel Determination*

**Borex is directed to recalculate the working capital allowance separately for each year in the Test Period in setting rates for service to BC Hydro, using the forecast OM&A expenses for the corresponding year and applying the 45-day lag rule. The recalculated working capital allowance, including supporting calculations,**

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<sup>123</sup> Exhibit B-1, p. 29.

<sup>124</sup> Exhibit B-6, BCUC IR 1.9.1.

<sup>125</sup> Exhibit B-4, p. A-3 and Exhibit B-6, BCUC IR 1.9.1.

<sup>126</sup> Exhibit B-13, BCUC IR 2.41.1.

<sup>127</sup> Exhibit B-13, BCUC IR 2.41.3.1.

<sup>128</sup> BC Hydro Final Argument, pp. 15-16, BCOAPO Final Argument, pp. 28-29.

<sup>129</sup> Borex Reply Argument pp. 8-9.

**must be included in the updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.**

The Panel agrees with both BC Hydro and BCOAPO that there are issues with the methodology used by Boralex to determine the \$400,000 working capital allowance requested in the Application. First, the Panel notes using the difference between historic balance sheet payables and receivables indicates negative working capital. The Panel recognizes however that this is not the only methodology put forward to support the \$400,000 allowance and Boralex has also indicated that this balance is in place to cover approximately three months worth of OM&A expenses. Second, the Panel agrees that a formal lead-lag study would likely yield a more accurate estimate of working capital requirements but also notes that this may not be a cost-effective approach for Boralex.

The Panel concurs with both BC Hydro and BCOAPO that the use of the 45-day lag rule offers a logical method to estimate working capital requirements in the absence of a lead-lag study. Considering the limitations of Boralex's proposed methodology discussed above, the Panel finds that applying the 45-day lag rule is a reasonable approach.

### **3.2.2 Method for Calculating Rate Base**

Rate base represents the value of a public utility's investment in assets that are used to provide service, less depreciation, and represents the amount on which the utility can earn its specified return on equity. Rate base may also include other items such as working capital. In any given year, Boralex calculates its rate base using the closing net book value (NBV) of its assets in service, excluding any capital additions during the year. 50% of the capital additions are then added, including any depreciation on this amount, plus the working capital allowance.

In response to IRs, Boralex recalculated its revenue requirements using a differing method for calculating rate base, specifically using the average of the opening and closing net book values of the assets in service plus the working capital allowance. Under this method, the revenue requirements were higher than proposed by Boralex in its Application Update by \$5 thousand in 2019, \$11 thousand in 2020, \$12 thousand in 2021 and \$14 thousand in 2022.<sup>130</sup>

#### *Position of the Parties*

BCOAPO argues the BCUC should direct Boralex to recalculate rate base using the average of the opening and closing Net Book Value (NBV) of the assets plus the working capital allowance as this better reflects the value of the assets over the year and is consistent with the methodology used by other utilities regulated by the BCUC.<sup>131</sup> Boralex does not object to BCOAPO's proposed methodology but notes that it would result in a slight increase in revenue requirements and maintains that the methodology proposed in the Application is reasonable.

#### *Panel Determination*

**Boralex is directed to recalculate rate base used in setting Test Period rates for service to BC Hydro using the average of the opening and closing net book value of the assets in service, plus the working capital allowance. Boralex is directed to reflect this adjustment in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.** The Panel agrees with BCOAPO that this method of calculating rate base better reflects the value of the assets in service over the course of a year and is commonly used by public utilities in setting rates.

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<sup>130</sup> Exhibit B-16, BCOAPO IR 2, 39.1. The recalculated revenue requirements are: \$1.495 million in Q3/4 2019, \$3.026 million in 2020, \$3.654 in 2021 and \$3.891 in 2022. This compares to the revenue requirements in the Application Update (Exhibit B-11) of \$1.490 million in Q3/4 2019, \$3.015 million in 2020, \$3.642 million in 2021 and \$3.877 million in 2022.

<sup>131</sup> BCOAPO Final Argument, p. 29.

### 3.3 Operating and Maintenance and Other Expenses

Boralex filed its forecast O&M and other expenses for approval in the Application<sup>132</sup> and this forecast was subsequently updated in the Application Update as outlined in Table 1 of the Application below.<sup>133</sup>

**Table 1: Operating, Maintenance and Other Expenses (\$000's)**

	2019 (Q3-Q4)	2020	2021	2022
Income Taxes	\$0	\$0	\$0	\$0
Property and School Taxes	\$177	\$362	\$373	\$384
Water Rentals	\$33	\$66	\$68	\$69
O&M	\$987	\$1,881	\$2,347	\$2,299
<b>Total</b>	<b>\$1,197</b>	<b>\$2,309</b>	<b>\$2,788</b>	<b>\$2,752</b>

Boralex has provided a breakdown of forecast O&M expenses in Table 27 of the Application Update.<sup>134</sup>

#### *Positions of the Parties*

In general, BC Hydro states that Boralex's planned O&M costs are higher than necessary and could be reduced by an average of approximately \$600,000 per year, considering changes to capitalized overhead; retirement allowances; overlapping tenures of employees; corporate services costs and regulatory costs.<sup>135</sup> Z1BRG supports BC Hydro's recommendation to reduce O&M costs and submits that Boralex's forecast costs appear to have less evidentiary support than necessary.<sup>136</sup>

Boralex states BC Hydro's recommendation would represent about a 28 percent annual reduction in the forecast O&M costs and submits that this reduction is arbitrary, untethered to the evidence and would make it impossible for Boralex to recover its actual costs of providing service, including the allowed Return on Equity (ROE).<sup>137</sup>

BCOAPO takes no position on Boralex's forecast for O&M expenses, other than with respect to employee costs and corporate services costs<sup>138</sup> which are outlined in Sections 3.3.2 and 3.3.4 below.

#### *Panel Determination*

**The Panel accepts the Test Period O&M and other expenses, subject to the Panel determinations for specific items discussed in the subsections below.**

<sup>132</sup> Exhibit B-1, p. 15, Table 3.

<sup>133</sup> Exhibit B-11, p. 5, Table 3.

<sup>134</sup> Exhibit B-11, pp. 6-7.

<sup>135</sup> BC Hydro Final Argument, p. 2.

<sup>136</sup> Z1BRG Final Argument, pp. 3-4.

<sup>137</sup> Boralex Reply Argument, p. 10.

<sup>138</sup> BCOAPO Final Argument, pp. 35-41.

The Panel notes BC Hydro’s statement that O&M and other expenses could be reduced by approximately \$0.6 million per year, after reducing the forecast for several, specific cost categories. The Panel interprets this proposed amount to be related to the specific issues raised by BC Hydro in its Final Argument for various O&M cost categories. In making its determinations on O&M and other expenses included in Boralex’s Test Period revenue requirements, the Panel has reviewed the costs included in each individual expense category and has addressed issues arising individually, including those raised by BC Hydro and other interveners. Notwithstanding the determinations for specific items discussed in the subsections below, the Panel finds Boralex’s O&M and other expenses in the Test Period to be reasonable.

### 3.3.1 Cost Escalation Factors

Boralex applies a 3 percent inflation rate to property and school taxes and labour costs in arriving at the forecast test period costs for these categories.

#### *Position of the Parties*

BC Hydro submits a 2 percent inflation rate should be applied to property and school taxes, labour and capital costs, unless there is well-defined evidence to support a rate in excess of the general inflation rate.<sup>139</sup>

Boralex states 3 percent inflation is appropriate for the property and school taxes, given the historical, actual increase of 39 percent from 2018 to 2019, which was the result of an increase in the Ocean Falls Improvement District tax rate. With respect to labour costs, Boralex submits 3 percent inflation is appropriate due to the difficulty both in hiring qualified personnel to successfully operate the Ocean Falls facilities and in retaining employees in the remote and isolated location.<sup>140</sup>

#### *Panel Determination*

**The Panel accepts the 3 percent inflation rate applied to property and school taxes and labour costs used by Boralex in determining the forecast Test Period costs.**

With respect to property and school taxes, the Panel notes the applicable tax rates have been increasing in recent years and the costs have been escalating beyond inflation. For labour costs, the Panel is cognisant Boralex operates in a unique service territory and the utility may be subject to different labour cost pressures as compared to other utilities. Accordingly, the Panel finds the use of a 3 percent inflation factor for these cost categories to be reasonable.

That said, the Panel notes the current Application is Boralex’s first rates application to the BCUC after many years of operating under the 1986 EPA with BC Hydro and it was developed without the benefit and context of a previous application. As a result, there is limited historical data that has been tested as part of BCUC regulatory proceedings to compare against the forecast test period costs. Participants and BCUC panels assigned to future Boralex RRAs will likely benefit from an analysis of actual cost of service as compared to BCUC approved amounts for the test period. **Accordingly, Boralex is directed to provide a detailed cost of service variance analysis as part of its future RRAs filed with the BCUC.** The analysis should include a table with the dollar and percentage variances between forecast and actual amounts for each cost of service category and for each year of the Test Period, with an explanation of any significant variances.

### 3.3.2 Salaries and Benefits Expense

Boralex requests approval in the Application Update of the following employee costs during the test period, which form part of overall O&M expenses:

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<sup>139</sup> BC Hydro Final Argument, pp. 16-17.

<sup>140</sup> Boralex Reply Argument, p. 9.

	2019 (Q3-Q4)	2020	2021	2022
\$000s				
<b>Employee Costs</b>				
<i>Salaries &amp; Benefits</i>	\$274.5	\$605.5	\$792.8	\$775.8
<i>Expenses</i>	\$77.4	\$224.5	\$225.2	\$164.2
<i>Recruitment</i>	\$0.0	\$4.9	\$4.9	\$0.0
<i>Training</i>	\$2.5	\$15.2	\$38.0	\$45.6

Employee costs relate to costs for staff that are directly employed by Boralex, which is distinct from corporate services costs associated with work performed by Boralex Inc. employees on Boralex matters. Corporate services costs are discussed separately in section 3.4.4 of this decision. Boralex employs five full-time staff that are responsible for the day to day operations of the Ocean Falls facilities, including four operators and one maintenance employee.<sup>141</sup> In addition, Boralex employs five part-time staff that provide cleaning, carpentry and other services. The operators rotate in and out of Ocean Falls, where they stay in employee accommodations.<sup>142</sup>

The main driver for the increase in employee costs in 2020, 2021 and 2022 relates to the planned retirement of two operators and one maintenance employee during or shortly after the test period. The overlapping tenures of the new and retiring operators specifically results in an increase in the expenses and salaries/benefits expense line items. There are also cost increases related to retirement allowances and training the new employees.<sup>143</sup> The increase in salaries and benefits costs between 2019 and 2020, however, relates to an increase in salaries and benefits rates, including a cost of living adjustment, as there is no change in the number of employees between 2019 and 2020.<sup>144</sup>

The Panel specifically addresses the costs associated with the overlapping tenures of the new and retiring operators and the accounting for the retirement allowances in the sections below.

### 3.3.2.1 Overlapping Tenures for Operators

As noted above, three full-time Boralex employees are expected to retire during or shortly after the Test Period. Specifically, one maintenance employee and one operator are expected to retire in 2021 and one operator is expected to retire in 2023. One of the main drivers of the increase in Test Period employee costs relates to the two-year overlapping employment tenures of the new and retiring operators.

Boralex submits a two-year overlap period between the new and retiring operators is necessary due to the broad range of responsibilities undertaken by the operators at Ocean Falls, which would typically be performed by a larger team at a standard integrated utility.<sup>145</sup> These duties include acting as system controllers; operating vehicles, vessels and other heavy equipment; and performing inspection and maintenance activities on the substation facilities, switchyard, transmission line and distribution facilities.<sup>146</sup> Boralex also highlights that the operators work on a shift basis, which will impact training schedules, and notes the existing operators have gained experience over the course of decades.<sup>147</sup>

<sup>141</sup> Exhibit B-6, BCUC IR 1.15.1.

<sup>142</sup> Exhibit B-1, p. 14.

<sup>143</sup> Exhibit B-1, p. 40.

<sup>144</sup> Exhibit B-13, BCUC IR 2.45.2.

<sup>145</sup> Exhibit B-6, BCUC IR 1.15.1.

<sup>146</sup> Exhibit B-13, BCUC IR 45.1.

<sup>147</sup> Exhibit B-13, BCUC IR 2.45.1.

Boralex states the cost per employee will be higher once the existing operators have retired, given that employment costs are higher, and the required set of skills are more scarce today as compared to a decade or more ago when the retiring operators were hired.<sup>148</sup>

### *Position of the Parties*

BC Hydro submits the two-year overlap period between the new and retiring operators appears unreasonable and states the Ocean Falls equipment is not unusual or complicated compared to other hydroelectric generating facilities. Further, BC Hydro expects that Boralex will hire operators with previous training and experience and highlights that the new operators will be paid salaries equivalent to the retiring operators. BC Hydro argues Boralex should only be allowed to include the costs associated with a three to six month overlap period in its revenue requirements.<sup>149</sup>

Boralex submits BC Hydro's recommendation to reduce the overlap period to three to six months is unsubstantiated and highlights that a shorter overlap period would put "operational continuity and system reliability at risk." Boralex reiterates the operators at Ocean Falls have a broader range of responsibilities and the overall number of staff is much smaller than what would be required at a standard integrated utility.<sup>150</sup>

BCOAPO states that a satisfactory explanation for the increase in salaries and benefits expenses from \$550,000 in 2019 to \$606,000 in 2020 has not been provided and the costs for 2020, 2021 and 2022 should therefore be reduced by \$30,000 per year.<sup>151</sup> Boralex states the increase is due to both an increase in base salaries, including a cost of living adjustment and an increase in benefit costs.<sup>152</sup>

### *Panel Determination*

**Boralex is directed to reduce the Test Period employee costs related to the overlapping employment tenure of the new and retiring operators to include an overlap period of 9 months per employee. Boralex is directed to reflect this change in its updated regulatory schedules to be filed within 60 days of this decision and must also include detailed supporting calculations, for review by this Panel.**

The Panel acknowledges the evidence put forward by Boralex to support the two-year overlap period for the operators, specifically that the operators have a broad range of responsibilities, rotate in and out of Ocean Falls on a shift basis and require adequate training in order to perform their duties. In addition, the Panel agrees the required overlap period should consider system reliability and operational continuity. That said, the Panel shares BC Hydro's concerns regarding the length of the overlap period and is not persuaded by the evidence put forward by Boralex that the costs associated with a two-year overlap period are justified.

The Panel notes Boralex employs four operators total at the Ocean Falls facilities, meaning that the retiring operators are not the only Boralex employees with the specific, broad range of responsibilities highlighted by Boralex. The Panel also notes Boralex's submission that the employee costs for the new employees will be higher than the costs for the experienced, retiring employees due to changes in employment costs and available skill-sets since the retiring operators were hired. Finally, the Panel is not persuaded that a two-year overlap period is required to allow for all required training activities, particularly if there is a formal training program in place. For these reasons, the Panel finds the costs associated with a two-year overlap for the new and retiring employees to be excessive.

The Panel recognizes a certain amount of time will be required to allow the new operators to obtain the necessary training and experience in order to perform their duties without putting system reliability at risk.

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<sup>148</sup> Exhibit B-6, BCUC IR 1.15.2.

<sup>149</sup> BC Hydro Final Argument, pp. 20-21.

<sup>150</sup> Boralex Reply Argument, p. 11.

<sup>151</sup> BCOAPO Final Argument, p. 37.

<sup>152</sup> Boralex Reply Argument, p. 32.

Accordingly, the Panel finds the costs associated with an overlap period of 9 months for each new and retiring operator to be reasonable to include in Boralex's Test Period revenue requirements.

The Panel also notes BCOAPO's argument that a satisfactory explanation for the increase in salaries and benefits expenses from \$550,000 in 2019 to \$606,000 in 2020 has not been provided and the costs for 2020, 2021 and 2022 should therefore be reduced by \$30,000 per year.<sup>153</sup> The Panel accepts Boralex's explanation that the increase is due to an increase in base salaries, including a cost of living adjustment and an increase in benefit costs, as being reasonable.<sup>154</sup>

### 3.3.2.2 Accounting for Retirement Allowances

The Test Period revenue requirements include the cost for retirement allowances to be paid during the Test Period. Three full-time Boralex employees will be retiring during or shortly after the Test Period. Specifically, the maintenance employee will be retiring at the end of 2021, one operator will be retiring in March 2022 and a second operator will be retiring after the Test Period in March 2023. Each employee is entitled to a one-time retirement allowance under the terms of their employment contracts,<sup>155</sup> the total of which exceeds \$200,000 over the three years (2021-2023).<sup>156</sup> Only the allowances paid in 2021 and 2022 are included in the Test Period rates for service to BC Hydro.<sup>157</sup>

Boralex states that, if the employee retires at the age of 65, the allowance equals to 3 percent of the employee's annual salary at the time of retirement multiplied by the total years of service provided. Lower percentages apply if the employee retires between the ages of 62 and 65 and no retirement allowance is provided to an employee who retires before the age of 62.<sup>158</sup>

Boralex prepares its financial statements in accordance with International Financial Reporting Standards (IFRS)<sup>159</sup> and International Accounting Standard (IAS) 19 applies to employee benefits, as discussed below. However, Boralex does not account for its retirement allowances under IAS 19. By contrast, Boralex's practice is to record the retirement allowances in their entirety in the year they are paid, which is upon retirement.<sup>160</sup> Therefore, the cost of the retirement allowances has not been accrued in prior years.<sup>161</sup>

#### *Positions of the Parties*

BC Hydro argues the retirement allowances are defined post-employment benefits required to be accrued over the period of service provided by the employee under IAS 19 Employee Benefits. BC Hydro's concern is that several years ago Boralex incurred the obligation to make these retirement payments, but did not record the resulting liabilities in its financial statements at that time.<sup>162</sup>

In its Final Argument, BC Hydro submits the retirement allowances should be removed from current revenue requirements in their entirety, or pro-rated such that only the years between becoming a regulated entity and the retirement of the worker are included in Boralex's revenue requirements.<sup>163</sup>

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<sup>153</sup> BCOAPO Final Argument, p. 37.

<sup>154</sup> Boralex Reply Argument, p. 32.

<sup>155</sup> Boralex Final Argument, pp. 36–37; Exhibit B-7, BC Hydro IR 14.1. The applicable wording from the employment contracts has been provided by Boralex LP in response to BC Hydro IR 32.2 in Exhibit B-15.

<sup>156</sup> Exhibit B-1, p. 40; BC Hydro Final Argument, p. 22; Exhibit B-6-2, BCUC IR 15.3.

<sup>157</sup> Exhibit B-6-2, BCUC IR 15.3.

<sup>158</sup> Exhibit B-7, BC Hydro IR 14.1.

<sup>159</sup> Exhibit B-1, Appendix C.

<sup>160</sup> Exhibit B-15, BC Hydro IR 32.1.

<sup>161</sup> Exhibit B-7, BC Hydro IR 14.4.

<sup>162</sup> BC Hydro Final Argument, p. 22.

<sup>163</sup> BC Hydro Final Argument, p. 23.

Z1BRG supports the changes proposed by BC Hydro to reduce O&M expenses, such as, not including employee retirement allowance costs incurred prior to the Test Period in Boralex's current revenue requirements.<sup>164</sup>

Boralex states the retirement allowances are not pension type obligations. It reiterates that recognizing this expense as a lump sum amount in the year the allowances are actually paid to the retiring employees is consistent with the nature of the obligation and argues that the retirement allowances only become payable (i) if the employee reaches the age of 62 and is still employed at that time, and (ii) when the employee retires. Boralex disagrees with BC Hydro that the accrual of the retirement allowances is the correct accounting treatment.<sup>165</sup>

### *Panel determination*

**Boralex is directed to account for its retirement allowance costs as a post-employment benefit, specifically a defined benefit, in accordance with IAS 19 Employee Benefits in setting Test Period rates for service to BC Hydro. Boralex is directed to reflect this accounting change in its updated regulatory schedules to be filed within 60 days of this decision, including detailed supporting calculations and an explanation for any assumptions used, for review by this Panel.**

BC Hydro raised the accounting treatment of the Test Period retirement allowances during the IR process, and specifically whether these costs should be accounted for under IAS 19. Boralex's response addressed how it accounts for the retirement allowances, stating that they are expensed in the years they are expected to be paid, given that they only become payable if the employee reaches the age of 62 and are only paid out when the employee subsequently retires. However, Boralex did not comment on IAS 19 in its response to BC Hydro. The Panel notes that IAS 19 outlines the accounting requirements for employee benefits, including post-employment benefits.<sup>166</sup> The Panel has reviewed the nature of Boralex's retirement allowances in relation to several pertinent sections of IAS 19 in the analysis below.

The first aspect of IAS 19 that is considered by the Panel is whether the retirement allowances paid by Boralex meet the definition of employee benefits and post-employment benefits outlined in the standard. The Panel has included several excerpts from IAS 19 below, specifically sections 4, 5 and 8.

Section 4 of IAS 19 states:

The employee benefits to which this Standard applies include those provided:

- (a) under formal plans or other formal agreements between an entity and individual employees, groups of employees or their representatives;
- (b) under legislative requirements, or through industry arrangements, whereby entities are required to contribute to national, state, industry or other multi-employer plans; or
- (c) by those informal practices that give rise to a constructive obligation. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.

Section 5(b)(i) of IAS 19 states that employee benefits include post-employment benefits, such as the following:

- (i) retirement benefits (eg pensions and lump sum payments on retirement); and

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<sup>164</sup> Z1BRG Final Argument, p. 3.

<sup>165</sup> Boralex Reply Argument, pp. 11-12.

<sup>166</sup> <https://www.iasplus.com/en/standards/ias/ias19>.

Section 8 of IAS 19 defines post-employment benefits as:

employee benefits (other than termination benefits and short-term employee benefits) that are payable after the completion of employment.

Section 8 of IAS 19 defines post-employment benefit plans as:

formal or informal arrangements under which an entity provides post-employment benefits for one or more employees.

The Panel notes there are several aspects of IAS 19 which indicate Boralex's retirement allowances meet the definition of post-employment benefits under that section. While formal agreements are not required for employee benefits under IAS 19(4), the Panel notes that Boralex's retirement allowances are formalized in existing employment contracts, which indicate the allowance will be paid upon retirement if certain conditions are met. These conditions include the employee reaching the age of 62 and still being employed at that time, and the employee retiring. In addition, while Boralex argues the retirement allowances are not required to be accounted for under IAS 19 because they are not "pension type obligations", the Panel notes that the standard clearly states that post-employment benefits include lump sum payments on retirement, which are distinguished from pensions. For these reasons, the Panel finds Boralex's retirement allowances meet the definition of a post-employment benefit plan under IAS 19.

The second aspect of the retirement allowances in relation to IAS 19 that has been considered by the Panel is the type of post-employment benefit. The Panel has included excerpts from sections 27, 28 and 30 below.

Section 27 of IAS 19 states:

Post-employment benefit plans are classified as either defined contribution plans or defined benefit plans, depending on the economic substance of the plan as derived from its principal terms and conditions.

Section 28 of IAS 19 states:

Under defined contribution plans the entity's legal or constructive obligation is limited to the amount that it agrees to contribute to the fund. Thus, the amount of the post-employment benefits received by the employee is determined by the amount of contributions paid by an entity (and perhaps also the employee) to a post-employment benefit plan or to an insurance company, together with investment returns arising from the contributions. In consequence, actuarial risk (that benefits will be less than expected) and investment risk (that assets invested will be insufficient to meet expected benefits) fall, in substance, on the employee.

In contrast, section 30 of IAS 19 states:

Under defined benefit plans:

- (a) the entity's obligation is to provide the agreed benefits to current and former employees; and
- (b) actuarial risk (that benefits will cost more than expected) and investment risk fall, in substance, on the entity. If actuarial or investment experience are worse than expected, the entity's obligation may be increased.

Post-employment benefits are categorized as either defined benefit plans or defined contribution plans, based on the economic substance of the agreements. This is the case regardless of whether the benefit is a pension plan, as indicated in section 5(b)(i) of IAS 19 above. The Panel notes that Boralex is obligated under the existing

employment contracts to provide a specific amount of benefits upon retirement based on the employee's years of service, if certain conditions are met. Hence, Boralex bears the risks associated with its retirement allowances. Thus, the Panel finds that the retirement allowances should be classified as defined benefit plans.

The third aspect of the retirement allowances in relation to IAS 19 that has been considered by the Panel is the appropriate accounting treatment for the retirement allowances, considering the Panel's findings above that these meet the definition of a post-employment benefit, specifically a defined benefit, under IAS 19. The Panel has included excerpts from sections 1 and 71 to 73 of IAS 19 below.

Section 1 of IAS 19 requires an entity to recognize:

- (a) a liability when an employee has provided service in exchange for employee benefits to be paid in the future; and
- (b) an expense when the entity consumes the economic benefit arising from service provided by an employee in exchange for employee benefits.

Section 71 of IAS 19 states:

An entity attributes benefit to periods in which the obligation to provide post-employment benefits arises. That obligation arises as employees render services in return for post-employment benefits that an entity expects to pay in future reporting periods.

The Panel notes the retirement allowance is based on years of service, which directly relates to section 71 of IAS 19 quoted above. Accordingly, the Panel finds that the retirement allowances should be recognized over the period of service provided by the employee.

Further, section 72 of the standard states:

Employee service gives rise to an obligation under a defined benefit plan even if the benefits are conditional on future employment.

...

Similarly, although some post-employment benefits, for example, post-employment medical benefits, become payable only if a specified event occurs when an employee is no longer employed, an obligation is created when the employee renders service that will provide entitlement to the benefit if the specified event occurs. The probability that the specified event will occur affects the measurement of the obligation, but does not determine whether the obligation exists.

Boralex's retirement allowances are conditional on the employee reaching the age of 62 and still being employed at that time. The Panel interprets the above statements to mean the retirement allowances should be recognized, regardless of the conditions, and the probability of the employee reaching the age of 62 and still being employed should be reflected in the measurement of the obligation.

Finally, section 73 of IAS 19 states:

The obligation increases until the date when further service by the employee will lead to no material amount of further benefits. Therefore, all benefit is attributed to periods ending on or before that date. Benefit is attributed to individual accounting periods under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity attributes benefit on a straight-line basis until the date when further service by the employee will lead to no material amount of further benefits. That

is because the employee's service throughout the entire period will ultimately lead to benefit at that higher level.

Given the retirement allowances are calculated based on the employee's annual salary at the time of retirement, Boralex may determine that this results in a materially higher level of benefit being attributable to the employee's service in later years. The Panel notes that section 73 of IAS 19 allows for accounting for the benefit on a straight-line basis and this could be applied by Boralex.

### 3.3.3 Regulatory Costs

Boralex requests approval in the Application of regulatory costs of \$306 thousand, incurred between June 2019 and December 2019, for third-party services related to the current proceeding. Boralex estimates the costs are approximately 40 percent consulting and 60 percent legal services and include preparation of the Application and the related updates, financial model, submissions and supplemental information.<sup>167</sup>

The Application Update includes an increase in forecast regulatory costs of \$375 thousand, for a total of \$682 thousand for the Test Period. Boralex states the increase is due to several factors, including the "the need to update the Application due to changes to the Penstock Rehabilitation Project and COVID-19, a greater reliance on external services due to the demands placed on Boralex management as a result of COVID-19, and a more involved Application review process than originally anticipated." In addition, Boralex highlights that the hiring of the Boralex Inc. employee to provide regulatory support to Boralex has been delayed from Q1 2020 to Q4 2020.<sup>168</sup> This position is discussed further in section 3.3.4.3 of this decision.

Boralex proposes to allocate the regulatory costs evenly over the Test Period in order to smooth the rate impact of the costs. However, Boralex does not propose to use a deferral account for this purpose and instead allocates the following amount of regulatory costs to the different years in the Test Period: \$97 thousand in Q3/4 2019 and \$195 thousand in each of 2020, 2021 and 2022.

#### *Position of the Parties*

BC Hydro submits the forecast regulatory costs appear high for a small utility and seem to include costs related to the EPA renewal negotiations.<sup>169</sup> Z1BRG agrees that the forecast regulatory costs allowed for recovery should be reduced.<sup>170</sup> However, BC Hydro and Z1BRG do not propose an amount by which the regulatory costs should be reduced.

In reply, Boralex highlights that the current Application is its first rates application to the BCUC after many years of operating under the 1986 EPA with BC Hydro, which addresses numerous subjects including the cost of service model, revenue requirements, load and revenue forecasts, rate design, and terms and conditions of service. Boralex also emphasizes it does not have a regulatory affairs department and has therefore relied on third-party services for the preparation of the Application and participation in the BCUC proceeding. Finally, Boralex submits none of the forecast regulatory costs include costs related to the EPA negotiations with BC Hydro.<sup>171</sup>

#### *Panel Determination*

**The Panel accepts the Test Period regulatory costs of \$682,000 associated with developing the Application and supporting materials and Boralex's participation in the current proceeding as reasonable.**

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<sup>167</sup> Exhibit B-6, BCUC IR 1.18.2 and Exhibit B-7, BC Hydro IR 17.1.

<sup>168</sup> Exhibit B-11, p. 4.

<sup>169</sup> BC Hydro Final Argument, p. 27.

<sup>170</sup> Zone 1B Final Argument, p. 4.

<sup>171</sup> Boralex Reply Argument, p. 15.

The Panel acknowledges BC Hydro's submission that the Test Period regulatory costs appear high for a utility of Boralex's size. However, the Panel also recognizes this is Boralex's first application with the BCUC to set rates for service to BC Hydro, and the Application and supporting materials were developed without the benefit and context of a previous application. The Application also covers several, complex subject matters that are often filed as individual applications by public utilities. This includes revenue requirements, rate design and cost of capital. Due to the complex and multi-faceted nature of the current Application and proceeding, the Panel finds the Test Period regulatory costs to be reasonable.

The Panel notes however that the Test Period regulatory costs may not provide an appropriate benchmark with which to compare forecast regulatory costs for future test periods. As noted above, the current Application and proceeding are unique in that they relate to several complex subject matters beyond revenue requirements. In addition, the current Application is Boralex's first rates application to the BCUC after many years of operating under the 1986 EPA with BC Hydro. These factors may not contribute to regulatory costs for future Boralex applications to the BCUC. Also, Boralex Inc. expects to hire a regulatory affairs employee to assist with Boralex matters during the Test Period and these costs are addressed below in section 3.3.4.3 of this decision. Considering these factors, the Panel encourages Boralex to seek opportunities for cost efficiencies in addressing regulatory matters and developing future applications for the BCUC.

Boralex proposes to allocate the regulatory costs of \$682,000 incurred in Q3/4 2019 and 2020 evenly over the Test Period as follows: \$97 thousand in Q3/4 2019 and \$195 thousand in each of 2020, 2021 and 2022. While this has a similar effect as establishing a rate smoothing deferral account, the Panel notes that Boralex's proposed approach does include interest on the amounts shifted between the cost of service for the different years in the Test Period. The interest applied to amounts recorded in deferral accounts compensates either the shareholder or the ratepayers for the time value of those amounts. It is inappropriate to shift either revenues or costs between various years within a test period without including interest on those amounts. **Accordingly, Boralex is directed to include the regulatory costs of \$682,000 incurred in Q3/4 2019 and 2020 in a rate smoothing deferral account attracting interest at Boralex's WACD and amortize those costs evenly over the Test Period. Boralex must include this adjustment in its updated regulatory schedules filed within 60 days of this decision, for review by this Panel.**

### 3.3.4 Corporate Services Costs

Boralex requests approval in the Application Update for corporate services costs of \$141.3 thousand in Q3/4 2019, \$338.8 thousand in 2020, \$533.2 thousand in 2021 and \$549.2 thousand in 2022.<sup>172</sup>

Corporate services costs relate to services provided by Boralex Inc. on behalf of Boralex, including accounting, finance, tax, legal, communications, public relations, human resources and information technology. In addition, services are provided in relation to Boralex's capital program.<sup>173</sup> Boralex provides a detailed breakdown of these costs for the Test Period, as follows:<sup>174</sup>

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<sup>172</sup> Exhibit B-11, Ocean Falls Cost of Service Model, Forecast OM&A Tab, p. 6;

<sup>173</sup> Exhibit B-1, p. 14.

<sup>174</sup> Exhibit B-11, p. 6; Ocean Falls Cost of Service Model, Forecast OM&A Tab.

Cost Category	Corporate Services Costs			
	2019 (Q3-Q4)	2020	2021	2022
	\$000s			
Corporate Services	\$59.4	\$156.8	\$268.0	\$276.0
Engineering and Environment	\$24.8	\$59.4	\$61.2	\$63.0
Operations Senior Management	\$8.8	\$18.2	\$18.8	\$19.3
Operations Site Management	\$48.3	\$104.4	\$185.3	\$190.8
Total	\$141.3	\$338.8	\$533.2	\$549.2

The historic, actual corporate services cost allocation to Boralex was \$129.44 thousand in 2016, \$96.99 thousand in 2017 and \$109.53 thousand in 2018. The cost allocation has increased significantly during the test period, primarily due to the following factors:

- Full allocation of corporate services costs to Boralex during the test period;
- Increase in services provided by Boralex Inc. in relation to Boralex’s capital program; and
- Hiring of a full time Boralex Inc. regulatory affairs employee in Q4 2020 to provide regulatory support to Boralex.<sup>175</sup>

The factors identified above are discussed individually in the sections below.

### 3.3.4.1 Methodology for Corporate Services Cost Allocation

For the Test Period, Boralex proposes to recover the full corporate services cost allocation in rates. The methodology to determine the cost allocation for each year in the Test Period is based on the estimated hours that will be spent by its parent company, Boralex Inc., employees on Boralex matters, multiplied by the applicable average hourly rates. Boralex Inc. contacts department heads and individual employees to obtain information on the nature of the services provided and the estimated number of hours on an annual basis.<sup>176</sup>

Boralex confirms that Boralex Inc. does not have a formal shared services agreement, code of conduct policy and/or transfer pricing policy in place for the services provided to Boralex and that time studies have not been conducted to compare the actual hours to forecast. Boralex submits that there is no commercial, financial or other business reason to establish formal agreements or policies regarding the corporate services provided by Boralex Inc.<sup>177</sup>

Prior to the Test Period, Boralex Inc. did not allocate the total corporate services costs to Boralex and instead charged a general fee of \$35,000 and an allocation of certain engineering costs. Boralex states that this approach was taken because the rates for service to BC Hydro were set under the 1986 EPA and the full cost allocation could not be recovered through an increase in customer rates.<sup>178</sup> Boralex provides a breakdown of the actual historic corporate services costs allocated by Boralex Inc. to Boralex:<sup>179</sup>

<sup>175</sup> Exhibit B-1, pp. 38-41.

<sup>176</sup> Exhibit B-4, p. A-3 and Exhibit B, BCUC IR 1.16.2.

<sup>177</sup> Exhibit B-6, BCUC IR 1.16.1 and 1.17.3.

<sup>178</sup> Exhibit B-4, p. A-2.

<sup>179</sup> Exhibit B, BCUC IR 1. 17.1.

Cost Category	Corporate Services Costs		
	2016	2017	2018
	(\$000s)		
Corporate Services			
- Accounting			
- Finance and Tax			
- Communications			\$ 0.10
- Human Resources			
- Legal	\$ 5.40		
- Information Technology	\$ 2.70	\$ 4.01	\$ 3.52
- Development			\$ 5.47
- Regulatory Affairs			
- Engineering and Technical Support	\$ 85.34	\$ 57.12	\$ 62.21
- General Fee	\$ 36.01	\$ 35.86	\$ 38.24
Engineering and Environment			
Operations Senior Management			
Operations Site Management			
<b>Total</b>	<b>\$ 129.44</b>	<b>\$ 96.99</b>	<b>\$ 109.53</b>

Borex also provides an estimate of the historic corporate services that would have been allocated if the methodology used to determine the allocation for the test period were used between 2016 and 2019, as follows:<sup>180</sup>

Cost Category	Corporate Services Costs			
	2016	2017	2018	2019
	(\$000s)			
Corporate Services				
- Accounting	\$ 79.89	\$ 82.29	\$ 84.76	\$ 94.60
- Finance and Tax	\$ 2.84	\$ 2.92	\$ 3.01	\$ 3.10
- Communications	\$ 1.94	\$ 2.00	\$ 2.06	\$ 2.12
- Human Resources	\$ 7.73	\$ 7.96	\$ 8.20	\$ 9.42
- Legal	\$ 2.04	\$ 2.10	\$ 2.16	\$ 2.97
- Information Technology	\$ 3.35	\$ 3.45	\$ 3.56	\$ 3.66
- Development	\$ 3.62	\$ 3.73	\$ 3.85	\$ 5.28
- Regulatory Affairs		\$ -	\$ -	\$ -
Engineering and Environment	\$ 45.31	\$ 46.66	\$ 48.06	\$ 49.51
Operations Senior Management	\$ 16.18	\$ 16.67	\$ 17.17	\$ 17.68
Operations Site Management	\$ 88.35	\$ 91.00	\$ 93.73	\$ 96.55
<b>Total</b>	<b>\$ 251.25</b>	<b>\$ 258.79</b>	<b>\$ 266.55</b>	<b>\$ 284.88</b>

### *Position of the Parties*

BC Hydro argues there is a lack of reasonable and transparent accounting of corporate services costs and recommends that the BCUC request Borex to employ a more comprehensive methodology to account for forecast and actual costs in the future. For the Test Period, BC Hydro requests the BCUC set corporate services at a maximum of 30 percent of total salaries plus 30 percent of the new regulatory affairs employees, capped at

<sup>180</sup> Exhibit B-5, p. 2 and Exhibit B-6, BCUC IR 1.17.5.

\$100,000 per year.<sup>181</sup> Z1BRG agrees with the position taken by BC Hydro regarding the cap of \$100,000 per year for corporate services costs.<sup>182</sup>

Borex strongly disagrees that the methodology used to determine the corporate services cost allocation is not sufficiently precise or robust, as suggested by BC Hydro. Further, Borex argues BC Hydro's proposal to set corporate services costs using maximum percentage of employee time and a cap of \$100,000 is arbitrary and not based on any methodology.<sup>183</sup>

BCOAPO also addresses the corporate services cost allocation methodology, stating the methodology is flawed because it does not consider that not all of Borex's rates are set on a cost of service basis. Accordingly, BCOAPO recommends the BCUC approve the full amount for the engineering and environment cost category and 70 percent of the remaining corporate services costs. The 70 percent recommendation is based on the proportion of total forecast deliveries and demand applicable to BC Hydro during the test period of 58 percent and 73 percent, respectively.<sup>184</sup>

In reply, Borex submits that corporate services costs are appropriately part of its gross revenue requirement to be recovered from all customers and that the forecast retail and industrial customer revenue is credited to the gross revenue requirement in determining rates for service to BC Hydro. Accordingly, Borex states "[u]nder BCOAPO's proposal, Borex would have no incentive to service its industrial customers as it would effectively be passing through all the forecast industrial revenue to BC Hydro, but retaining a portion of corporate services costs thereby creating a loss."<sup>185</sup>

### *Panel Determination*

**The Panel accepts the corporate services costs for the Test Period, as filed in the Application and adjusted in the Application Update. This is subject to the specific directives and determinations regarding the regulatory cost components discussed in section 3.3.4.3 below, which require Borex to include approximately 30 percent of the regulatory costs included in the Application Update in its Test Period cost of service. Borex is directed to file the following information pertaining to corporate services costs in its next rates application:**

- **A code of conduct and transfer pricing policy related to the corporate services provided by Borex Inc. and a discussion of how this policy has been applied in determining corporate services costs in the next test period; and**
- **Details of the forecast and actual hours and costs for each Borex Inc. employee that are part of the corporate services cost allocation to Borex, for each year of the Test Period.**

The Panel agrees with the concerns raised by BC Hydro that there is a lack of transparent methodology to account for corporate shared services. Specifically, an analysis of actual versus forecast time spent by Borex Inc. employees has not been undertaken and consequently there is no basis to assess the reasonableness of the forecast corporate services costs as compared to the actual historical costs. The Panel also has concerns regarding the transparency of the corporate services costs and the consistency with which the methods for determining the costs will be applied, given that there are no formal policies or procedures in place for such corporate services costs. Accordingly, the Panel finds it is appropriate for Borex to file detailed information in its next rates application regarding policies and procedures in place for corporate services and the accounting for forecast versus actual costs.

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<sup>181</sup> BC Hydro Final Argument, p. 2.

<sup>182</sup> Z1BRG Final Argument, p. 4.

<sup>183</sup> Borex Reply Argument, pp. 13-14.

<sup>184</sup> BCOAPO Final Argument, pp. 39-40.

<sup>185</sup> Borex Reply Argument, p. 34.

That said, the Panel acknowledges the methodology undertaken by Boralex Inc. to develop the Test Period forecast corporate services costs is detailed and involves communications with all individual Boralex Inc. employees that work on Boralex LP matters. While BC Hydro has proposed an alternative calculation for corporate services costs using maximum percentage of employee time and a cap of \$100,000, the Panel agrees with Boralex that this proposal is arbitrary and does not consider that it offers a better alternative to the detailed work performed by Boralex Inc. The Panel finds that the methodology to determine corporate services costs to be reasonable for the Test Period, except for the regulatory affairs employee costs which are discussed in section 3.4.4.3 below.

The Panel recognizes BCOAPO's argument that the allocation of gross corporate services costs to BC Hydro is flawed, given that not all Boralex rates are set using cost of service. However, the Panel agrees with Boralex that corporate services form part of the utility's gross revenue requirements to be recovered from its customers. It is not appropriate to consider the cost allocation of corporate services in isolation from all components of Boralex's revenue requirements. Instead, the allocation of Boralex's gross revenue requirements, including corporate services costs, should be addressed collectively as part of the overall determination of the appropriate cost allocation methodology used by Boralex to set rates for service to BC Hydro. The Panel has addressed this issue in section 2 of this decision.

### **3.3.4.2 Operations Site Management Costs**

Corporate services costs include operations site management costs of \$48.3 thousand in Q3/4 2019, \$104.35 thousand in 2020, \$185.26 thousand in 2021 and \$190.82 thousand in 2022. These costs relate to time spent by a Boralex Inc. site manager on the supervision and management of the Ocean Falls facilities and the Boralex capital program. The Test Period costs equate to an allocation of salary and benefits costs for 0.28 full-time equivalents (FTE) in Q3/4 2019, 0.56 FTEs in 2020, 1.12 FTEs in 2021 and 1.12 in 2022.<sup>186</sup>

The increase in FTEs and corresponding costs in 2021 is due to the hiring of an additional site manager in Q1 2021 to replace the current site manager upon retirement in 2024. Boralex states that the overlapping tenure is required to ensure proper training and because the planned capital program during the test period requires more on-site management.<sup>187</sup>

In addition to operations site management costs, corporate services costs include the engineering and environment cost category and the operations senior management cost category, both of which also contribute to Boralex's capital program. With respect to engineering and environment costs, Boralex submits that the Test Period costs exceed historical costs due to the significant capital program that will be executed during the Test Period.

#### *Position of the Parties*

BC Hydro submits the two-year overlap between the operations site manager and the replacement employee should be reduced. Z1BRG supports this position and states the overlap should be reduced to one year or less.<sup>188</sup> In reply, Boralex reiterates that the additional supervisor is required because the current supervisor is retiring and because greater on-site management is required for the planned capital program during the Test Period. In addition, Boralex submits that "it is critically important that the overlap period cover at least one full year cycle to ensure that the idiosyncrasies and challenges pertaining to each operational season are subject to the period of overlap."<sup>189</sup>

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<sup>186</sup> Exhibit B-13, BCUC IR 1.49.1.

<sup>187</sup> Exhibit B-6, BCUC IR 1.18.5.

<sup>188</sup> BC Hydro Final Argument, p. 2. Zone 1B Final Argument, p. 4.

<sup>189</sup> Boralex Reply Argument, pp. 13-14.

BCOAPO submits the corporate services costs for the engineering and environment cost category and the corporate services cost category should be reduced by 10 percent to account for the lower level of capital expenditures in the Application Update, mainly due to the delay in the Penstock Rehabilitation Project.<sup>190</sup> In reply, Boralex states BCOAPO's proposed reduction is not warranted given that operating and supervising the Ocean Falls facilities has become more complicated and expensive due to the impacts of COVID-19.<sup>191</sup>

### *Panel Determination*

**The Panel accepts the operations site management costs of \$48.3 thousand in Q3/4 2019, \$104.4 thousand in 2020, \$185.3 thousand in 2021 and \$190.8 thousand in 2022.**

BC Hydro argues that the overlap period between the new and existing site manager should be reduced. The existing site manager is expected to retire in 2024 and Boralex Inc. plans to hire the replacement site manager in Q1 2021. Boralex submits that the purpose of the extended overlap between these two employees is both to allow for training the new employee and to provide additional site management to support Boralex's capital program during the Test Period.

Similar to the views expressed by the Panel above with respect to the overlapping tenures of the operators, the Panel shares BC Hydro's concerns regarding the length of the overlap between the site managers for the purposes of training the new employee. However, the Panel recognizes that the increase in operations site management FTEs from 0.56 in 2019 and 2020 to 1.12 in 2021 and 2022 is required not only for training purposes but also to support Boralex's capital program during the Test Period. The capital expenditures that will be undertaken by Boralex in 2021 and 2022 significantly exceed those in Q3/4 2019, 2020 and prior to the current Test Period between 2008 and 2018. Based on a review of the forecast capital expenditures as compared to historic expenditures, the Panel finds that Test Period operations site management costs are reasonable as they relate to management of Boralex's planned capital program.

That said, the Panel is not persuaded that the increase in costs is justified in order to allow an overlapping tenure between Q1 2021 and 2024 for training purposes. Accordingly, while the Panel finds that the forecast operations site management costs are reasonable in order to support the planned capital program during the Test Period, the Panel does not comment on what level of costs may be reasonable beyond the Test Period and prior to the retirement of the existing site manager in 2024. Future panels will benefit from the reporting in rate applications on forecast and actual time spent by Boralex Inc. employees and the status of Boralex's capital program in order to determine the reasonableness of operations site management costs in future test periods.

### **3.3.4.3 Regulatory Affairs Employee**

Boralex requests approval in the Application Update of regulatory affairs costs included in the corporate services cost allocation of \$nil in Q3/4 in 2019, \$34 thousand in 2020, \$142 thousand in 2021 and \$146 thousand in 2022.<sup>192</sup> All costs are employee costs for one full time Boralex Inc. employee that is expected to be hired in Q4 2020 to provide regulatory support to Boralex. This translates to 0.25 FTEs in 2020 and 1 FTE in each of 2021 and 2022.<sup>193</sup>

Boralex submits that the regulatory affairs employee is required to provide regulatory support to Boralex, including tracking and reporting of information, maintaining utility accounting records, estimating corporate services, overseeing communication with the BCUC and keeping up to date on regulatory developments in

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<sup>190</sup> BCOAPO Final Argument, p. 37.

<sup>191</sup> Boralex Reply Argument, p. 33.

<sup>192</sup> Exhibit B-4, p. A-2, Exhibit B-11, p. 4.

<sup>193</sup> Exhibit B-13, BCUC IR 2.47.1.

British Columbia.<sup>194</sup> Boralex does not expect to have any ongoing applications with the BCUC before its next rates application.<sup>195</sup>

### *Position of the Parties*

Intervenors did not specifically address the new regulatory affairs employee in argument, except for BC Hydro's request that the BCUC set corporate services at a maximum of 30 percent of total salaries plus 30 percent of the new regulatory affairs employees, capped at \$100,000 per year. Z1BRG agrees with BC Hydro's proposal.<sup>196</sup>

### *Panel Determination*

**The Panel accepts the recovery of corporate services regulatory costs of \$nil in Q3/4 2019, \$10 thousand in 2020, \$43 thousand in 2021 and \$44 thousand in 2022 in setting Test Period rates for service to BC Hydro. Boralex must reflect this adjustment in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.** This represents approximately 30 percent of the Test Period regulatory costs included in the Application Update.

Boralex states that costs for a full-time Boralex Inc. regulatory affairs employee are required commencing in Q4 2020 to provide continuing regulatory support. The Panel recognizes that regulatory support will be required on an ongoing basis and the associated costs may be higher than historic costs since Boralex is now required to set rates for service to BC Hydro after many years of operating under the 1986 EPA. Accordingly, regulatory support will be required in order to address matters such as compliance filings, corporate services costs and future rate applications. That said, the Panel is not persuaded that costs in excess of \$140,000 per year for 1 FTE are justified in order to provide regulatory support for a utility of Boralex's size and considering the expected regulatory matters that will need to be addressed over the Test Period. Specifically, the Panel notes Boralex does not expect to have any ongoing applications before the BCUC until its next rates application. Accordingly, the Panel finds that the forecast regulatory costs appear overstated. However, the Panel recognizes that regulatory support will be required during the Test Period for matters such as compliance filings and preparation for the next rates application. Accordingly, the Panel finds that BC Hydro's proposal that regulatory costs for the Test Period be limited to 30 percent of those included in the Application Update is reasonable.

## **3.4 Cost of Capital**

This section of the decision addresses Boralex's cost of capital, including the deemed capital structure, return on equity (ROE) and return on debt. As noted above, the primary purpose of this proceeding is to set a rate for Boralex's service to BC Hydro for the first time and accordingly a comprehensive examination of Boralex's cost of capital is required.

Section 59 of the UCA requires the BCUC to ensure that the rates charged by a utility are not unjust or unreasonable and include an opportunity to earn a fair and reasonable return. Specifically, section 59 (5)(b) of the UCA states<sup>197</sup>:

[A] rate is "unjust" or "unreasonable" if the rate is... insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property.

In 2013, the BCUC broadly examined cost of capital for public utilities in two separate proceedings. In the Generic Cost of Capital (GCOC) – Stage 1 proceeding (GCOC Stage 1 Proceeding), the BCUC determined the cost of capital for the benchmark utility, FortisBC Energy Inc. (FEI). In the GCOC – Stage 2 Proceeding, the BCUC

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<sup>194</sup> Exhibit B-6, BCUC IR 1.18.2.

<sup>195</sup> Exhibit B-6, BCUC IR 1.18.3.

<sup>196</sup> BC Hydro Final Argument, p. 2 and Zone 1B Final Argument, p. 4.

<sup>197</sup> [https://www.bclaws.ca/civix/document/id/complete/statreg/96473\\_01#section59](https://www.bclaws.ca/civix/document/id/complete/statreg/96473_01#section59).

established the cost of capital for other public utilities by comparing to the benchmark. In the GCOC proceedings, the BCUC noted that the Fair Return Standard and the Stand-Alone Principle are applicable in assessing a public utility's capital structure and allowed return on equity. The Fair Return Standard is fundamental to cost of equity proceedings and has three requirements to be met for a fair and reasonable return on capital: (i) the comparable investment requirement, (ii) the financial integrity requirement, and (iii) the capital attraction requirement.<sup>198</sup> The Stand-Alone Principle stipulates that the determination of a small size utility's ROE and capital structure must be considered on an individual and independent basis. If the small utility is owned by a larger parent company, this relationship should have no impact on cost of capital determinations.<sup>199</sup>

### **3.4.1 Capital Structure and Rate of Return on Common Equity**

In its Application, Boralex proposes a common equity ratio of 50 percent and allowed ROE of 10.0 percent. This proposal is by reference to the benchmark utility, FEI, used by the BCUC to establish the capital structure and ROE for other public utilities.<sup>200</sup> The FEI common equity ratio is 38.5 percent and the allowed ROE is 8.75 percent, as established in the GCOC Stage 1 Proceeding.

The evidentiary record explored risk factors faced by Boralex, with the parties providing varying views on how Boralex compares with FEI, and in some instances, how Boralex compares with thermal energy systems (TES). A risk assessment is necessary in order to determine the appropriate common equity component and allowed ROE. Boralex submits that it has significantly higher risks than FEI and accordingly, an equity risk premium of 125 basis points over FEI's common equity ratio is warranted.

In the Application, Boralex assessed its business risk using a modified version of the risk matrix from the GCOC Stage 1 Decision. Of the 15 risk factors assessed, Boralex views that 11 risk factors are higher than the FEI benchmark and seven key risk factors, which are bolded in the table below, are significantly higher than the FEI benchmark:

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<sup>198</sup> [2013 GCOC Stage 1 Decision](#), pp. 7-8.

<sup>199</sup> [2013 GCOC Stage 1 Decision](#), pp. 96, 100.

<sup>200</sup> Exhibit B-1, pp. 31-36.

Risk factor (1-5)	Comparison	Risk factor (6-10)	Comparison	Risk factor (11-15)	Comparison
1. Technology risk with chosen technology	Similar	6. Load Forecast Uncertainty	Higher	11. Fixed/Variable rate design	Higher
2. System performance risk with chosen technology	Higher	7. Utility size	Higher	12. Competitive challengers	Higher
3. Fuel Risk cost and Availability	Lower	8. Future construction cost risk	Higher	13. Provincial climate change and energy policies	Lower
4. Customer Base (e.g.: diversity, certainty, growing, declining)	Higher	9. Operating cost risk	Higher	14. Regulatory uncertainty	Higher
5. Default risk of customer	Higher	10. Public Acceptance and Aboriginal Rights Risk	Similar	15. Business development risk	Higher

In both its Application and Final Argument, Boralex identified seven key risk factors which it argues supports its position that it is a significantly higher risk than FEI. The key risk factors are:

*System Performance Risk (Item 2)*

Boralex submits that it generates, transmits and distributes electricity in a remote and isolated location. It is dependent on a single non-redundant 45 km transmission line over extremely difficult and hard to access terrain to deliver electricity to the Bella Bella NIA, which is its primary load and revenue source. FEI owns and operates a diversified natural gas distribution system in large urban areas.<sup>201</sup>

*Customer base and customer default risk (Items 4 and 5)*

Boralex submits that its customer base is very small with very low diversity, and notes the slow growth in the Bella Bella NIA, and uncertainty with respect to the load of industrial customers.<sup>202</sup> Boralex views that its fish farming and cryptocurrency mining industrial customers are risky and their rates have no minimum take or fixed charge obligations. Approximately 12 percent of Boralex’s gross revenue requirement comes from these two industrial customers. FEI has no equivalent single customer default risk and significantly lower overall customer related risks.<sup>203</sup>

<sup>201</sup> Boralex LP Final Argument, p. 30.

<sup>202</sup> Exhibit B-1, pp. 32-33.

<sup>203</sup> Boralex LP Final Argument, p. 31.

### *Load forecast risk (Item 6)*

Borex takes all load forecasting risk under its 100% energy charge rate structure with BC Hydro and under electricity sales agreements with its two industrial customers. FEI faces minimal short-term load forecasting risk.<sup>204</sup>

### *Utility size (Item 7)*

Borex views that it is a very small utility operating in a remote and isolated location. Any increases in Borex's operating or construction costs or decreases or losses in load can have a disproportionately higher adverse impact on Borex's earnings as compared to FEI.<sup>205</sup>

### *Construction cost risk (Item 8)*

Borex submits that the isolated location poses a significantly higher risk in forecasting, planning and executing capital projects because water access is the only practical means of bringing in materials, equipment and personnel for construction work. Borex has no capital-related deferral accounts to transfer construction cost risks to BC Hydro.<sup>206</sup>

### *Operating cost risk (Item 9)*

Borex's Ocean Falls Facilities are located in an isolated and remote location with harsh operating environment, and water access is the only reliable year-round access. Access to the transmission line is by water, on foot, or by helicopter. Borex submits that this imposes much higher risks in operating and maintaining the Ocean Falls Facilities and responding to emergencies than FEI. Borex has no deferral accounts to transfer operating cost risks to BC Hydro.<sup>207</sup>

In addition, Borex in its risk matrix notes that an adverse regulatory decision could have a disproportionate impact upon the ability of Borex to achieve its allowed ROE, relative to the impact upon FEI for a similar adverse decision. Regulatory uncertainty is exacerbated by the small size, location, configuration and unique history of the Ocean Falls Facilities and given that this is Borex's first rate application.<sup>208</sup>

### *Position of the Parties*

All interveners view that Borex's proposed common equity ratio of 50 percent and allowed ROE of 10.0 percent are too high relative to the risk faced by the utility. BC Hydro, BCOAPO, and Z1BRG suggest a 42.5 percent common equity component as being appropriate for Borex. BC Hydro and Z1BRG submit that an allowed ROE of 9.5 percent, based on an equity risk premium of 75 basis points (bps), is appropriate for Borex. BCOAPO suggests an equity risk premium of no greater than 100 bps.<sup>209</sup> Intervenors submit that the ROE and capital structure proposed by Borex is higher than any other approvals in BC, and the conclusion that Borex is the riskiest utility in BC is not reasonable.<sup>210</sup>

With respect to the risk factors, BC Hydro argues that Borex puts too much weight on the risk associated with the remote location of the Ocean Falls Facilities.<sup>211</sup> BC Hydro believes that there are a number of factors that greatly reduce the risks Borex face as compared to FEI, including:

- Ocean Falls Facilities produce clean hydroelectricity with very well-established technology and facilities. The Facilities have been operating for approximately 100 years, and have more than enough fuel

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<sup>204</sup> Borex LP Final Argument, p. 31.

<sup>205</sup> Borex LP Final Argument, p. 32.

<sup>206</sup> Borex LP Final Argument, p. 31.

<sup>207</sup> Borex LP Final Argument, p. 31.

<sup>208</sup> Exhibit B-1, p. 35.

<sup>209</sup> BC Hydro Final Argument, p. 12; BCOAPO Final Argument, p. 32; Z1BRG Final Argument, p. 2.

<sup>210</sup> BC Hydro Final Argument, p. 10; Z1BRG Final Argument, p. 12.

<sup>211</sup> BC Hydro Final Argument, p. 9.

(i.e. water) readily available at all times;

- BC Hydro is Boralex’s primary customer and provides 85 percent of its revenue. BC Hydro has low to insignificant risk of defaulting. Energy sales to BC Hydro have been stable and growing at 1.6 percent year over year;
- Boralex’s rate design assumes that BC Hydro takes the volume risk;
- Boralex is likely going to have BC Hydro as a backstop for any loss of revenue from other customers in the future.<sup>212</sup>

Additionally, BC Hydro disagrees with Boralex’s assessment of regulatory uncertainty, citing that Boralex is part of a large multinational group and has retained experienced counsel to support its Application. BC Hydro views that Boralex has low to no exposure to price risk, interest rate risk, credit risk, and liquidity risk.<sup>213</sup>

Z1BRG submits that there is an abundance of water for hydro generation in excess of load requirements or forecast customer growth. Further, BC Hydro accounts for approximately 85 percent of Boralex’s gross revenue, and BC Hydro has an obligation to service its customers in Zone 1B.<sup>214</sup>

BCOAPO acknowledges that Boralex faces higher risk factors than the FEI benchmark. BCOAPO suggests that it would be more relevant to compare Boralex against risks faced by smaller utilities to determine the appropriate capital structure and risk premium.<sup>215</sup> BCOAPO views that Boralex is no riskier than TES utilities, and views that Boralex has overstated several risk factors.<sup>216</sup>

### *Boralex Reply*

In response to BCOAPO’s arguments that Boralex’s hydroelectric technology is no riskier than TES utilities’ greenfield technology, Boralex submits that TES utilities do not face the risks associated with operating and maintaining facilities like those at Ocean Falls, with major and critical components that are over 100 years old. In addition, Boralex submits that TES utilities:<sup>217</sup>

- Do not build their customer bases from “zero” and the economics of these projects are designed from the outset to be cost competitive with the alternatives;
- Operate in urban areas, not in a remote and isolated location with a harsh physical environment; and
- Do not face the single customer risk that Boralex faces with its two industrial customers.

In its reply, Boralex submits that the BCUC should recognize that Boralex faces significantly higher overall risks than FEI, and higher overall risks than the other utilities regulated by the BCUC. Therefore, Boralex views that it warrants a higher equity ratio and equity risk premium than FEI and the other utilities.<sup>218</sup>

### *Panel Determination*

**The Panel determines an equity component of Boralex’s capital structure of 46.5 percent and an equity risk premium of 75 bps above the FEI benchmark for use in calculating the revenue requirement, and in turn setting rates for service to BC Hydro.**

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<sup>212</sup> BC Hydro Final Argument, p. 10.

<sup>213</sup> BC Hydro Final Argument, p. 11.

<sup>214</sup> Z1BRG Final Argument, pp. 2-3.

<sup>215</sup> BCOAPO Final Argument, p. 30.

<sup>216</sup> BCOAPO Final Argument, p. 32.

<sup>217</sup> Boralex LP Reply, p. 5.

<sup>218</sup> Boralex LP Reply, p. 6.

In making the determination regarding Boralex's capital structure and return on equity, the Panel has taken into consideration the following:

1. Whether the FEI benchmark is an appropriate reference point for considering the risk factors faced by Boralex, and if so, how Boralex's risk factors compare to the benchmark; and
2. Whether there are comparable utilities with similar circumstances as Boralex to inform the Panel in its consideration of the appropriate capital structure and ROE for Boralex.

*Using the FEI benchmark as a Reference Point in Considering Boralex's Risk Factors*

Boralex proposes a capital structure based on a comparison to the FEI benchmark established in the GCOE Stage 1 Proceeding. Many public utilities regulated by the BCUC compare themselves with the benchmark and no interveners in this proceeding oppose Boralex using this approach. The Panel considers that using the FEI benchmark is helpful as a reference point for assessing the various risk factors identified by Boralex and interveners. For the reasons discussed in this section, the Panel finds that Boralex's overall risk factors are higher than the FEI benchmark.

Boralex submits its facility's remote and isolated location, its relatively small size, and its lack of customer diversification support the argument that it faces significantly higher risks compared to the benchmark. More specifically, Boralex refers to its systems performance risk, operating cost risk, future construction cost risk, amongst other risk factors. Intervenors generally do not dispute that Boralex operates in a remote and isolated location and its relatively small size, which the Panel agrees with and accordingly puts weight on these factors to find that Boralex is of higher risk than the FEI benchmark. However, the Panel is not persuaded that these factors are sufficient to justify Boralex's cost of capital proposals. While the Panel notes Boralex's position that the limited and uncertain nature of its own retail and industrial customer base increases its risk, intervenors argue that BC Hydro provides Boralex with a steady revenue stream. This is discussed below, in addition to other factors brought forward by intervenors that warrant further examination.

Intervenors submit that several factors should be considered which lower Boralex's risk profile. They argue that Boralex operates a traditional clean hydroelectric facility and has a large and stable revenue source from BC Hydro. In addition, intervenors submit that Boralex is relatively larger in size than TES utilities, which would suggest that Boralex is no riskier than TES utilities. The Panel agrees with the first two points. Although the Ocean Falls Facilities have operated for over 100 years, the technology in which electricity is generated by hydro power remains the same and is a traditional, clean power source. The Panel is persuaded that BC Hydro will continue to be a customer of Boralex for the foreseeable future in order to serve the Bella Bella NIA. While the Panel places weight on Boralex's smaller size compared to FEI in the reasons above, the Panel has no views as to whether Boralex is larger than TES utilities because each TES varies in size and scope. Further, the utility size is only one of many factors to consider in determining a utility's cost of capital. Accordingly, the Panel puts weight on Boralex's hydroelectric facility and stable revenue from BC Hydro as lower risk factors which offset the higher risk factors as previously discussed above.

With regard to regulatory risk, Boralex argues that an adverse regulatory decision will have a disproportionate adverse impact to Boralex as a smaller utility compared to FEI. Further, Boralex argues that this proceeding adds to that uncertainty because they are new to the process and it is their first rates application. BC Hydro disagrees with Boralex's regulatory risk assessment, noting that Boralex is part of a larger corporate entity and has retained experienced counsel to support its Application. With respect to Boralex's arguments, the Panel in the reasons above has already discussed and given weight to the risk regarding Boralex's relatively small size. The Panel is not persuaded that Boralex undertaking its first rates application equates to higher regulatory risk. As part of the regulatory review process, the Panel considers all relevant evidence and tests the evidence. Boralex has not presented evidence, in this Application, to show that the utility is being treated differently than other regulatory proceedings. Therefore, the Panel places no weight on Boralex's assessment of regulatory risk.

Additionally, the Panel has not taken into account the benefits or burden from Boralex being part of a larger corporate entity in determining cost of capital because this does not align with the stand-alone principle.

As discussed above, the Panel has placed weight on several risk factors that are higher than the FEI benchmark, notably, Boralex's remote and isolated location and relatively small size. However, the Panel has also placed weight on several offsetting risk factors that it considers lower Boralex's overall risk, specifically Boralex's clean, hydroelectric facilities and stable revenue from BC Hydro. Overall, the Panel finds Boralex's risk profile to be of a higher risk than the FEI benchmark, but not a significantly higher risk.

In the next section, the Panel will further examine Boralex with comparable utilities to consider the appropriate capital structure and allowed ROE.

#### *Assessing Boralex with comparable utilities*

The Panel finds that there are parallels between Boralex and two public utilities whose equity ratio and equity risk premiums were determined in the GCOC Stage 2 Decision. The Panel considers that the business profiles of Corix Multi-Utility Energy Inc. Burnaby Mountain District Energy Utility (Corix BMDEU) and Pacific Northern Gas (N.E.) Ltd. (PNG(N.E.)) Tumbler Ridge (TR) at the time of the GCOC Stage 2 Decision are comparable with Boralex. In the GCOC Stage 2 Decision, Corix BMDEU's equity ratio was set at 42.5 percent and the equity risk premium at 75 bps above the benchmark. PNG(N.E.)-TR's equity ratio was set at 46.5 percent and the equity risk premium at 75 bps above the benchmark.

Corix BMDEU is a district energy system that provides low-carbon energy services to the Simon Fraser University (SFU) campus and customers of the UniverCity development.<sup>219</sup> PNG(N.E.)'s TR Division is the smallest division in PNG(N.E.) and is made up of a distribution system and gas processing plant in northeastern BC. PNG(N.E.) TR has a small customer base relying on a single cyclical mining industry. PNG(N.E.)-TR has a sole industrial customer Canadian Natural Resources Limited (CNRL) representing 80 percent of its throughput volume at the time of the GCOC Stage 2 Decision. The utility also sources natural gas supply from CNRL.<sup>220</sup>

Both PNG(N.E.)-TR and Corix BMDEU have one large primary customer and the rest of their customer base is relatively limited in size or in potential growth. The Panel considers that they are comparable to Boralex in terms of their reliance on a major customer and potentially lack of diversity in their customer base. In particular, the Panel finds that Boralex is most comparable to PNG(N.E.)-TR because both utilities operate in a remote location. Other than their primary sole customer, both utilities' customer base and customer energy load depend highly on the prevailing market conditions. Therefore, the Panel views that Boralex's cost of capital determinations should be comparable to PNG(N.E.)-TR.

The Panel has considered Boralex's proposed common equity ratio of 50 percent and allowed ROE of 10.0 percent, which is based on 125 bps above the benchmark. Although the Panel agrees with some of the risk factors put forward by Boralex to support its position that it faces significantly higher risk than FEI, the Panel is persuaded by the arguments advanced by the interveners that Boralex's cost of capital proposals are too high. Ultimately, the Panel finds above that Boralex faces higher risk than FEI, but not significantly higher risk. The Panel also draws a number of parallels between Boralex, Corix BMDEU, and PNG(N.E.)-TR in order to assess the actual capital structure and equity risk premium that should be approved. These utilities share similar risks and business profiles, particularly between Boralex and PNG(N.E.)-TR. For these reasons, **the Panel determines an equity component of Boralex's capital structure of 46.5 percent and equity risk premium of 75 bps above the FEI benchmark for use in calculating the revenue requirement, and in turn setting rates for service to**

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<sup>219</sup> Decision and Order C-5-17 dated September 15, 2017, Corix Multi-Utility Services Inc. Application for a Certificate of Public Convenience and Necessity for the Burnaby Mountain District Energy Utility, p. 1.

<sup>220</sup> GCOC Decision Stage 2, pp. 87-88, 93, 100.

**BC Hydro.** An equity risk premium of 75 bps above the FEI benchmark equates to an allowed ROE for the Test Period of 9.5% in setting rates for service to BC Hydro.<sup>221</sup>

### 3.4.2 Debt Interest Rate

Boralex proposes a 5.5 percent deemed interest rate on the debt component of its capital structure. The proposed 5.5% is primarily based on the advice of Boralex's third-party debt lender, considering a credit spread based on 30-year Government of Canada (GoC) yields, market factors if Boralex is to acquire additional debt, and capital adequacy test guideline changes applicable to institutional lenders.

Intervenors explored alternative ways to test the appropriateness of Boralex's deemed debt interest rate, particularly a market-based methodology that was discussed in the GCOC proceedings.

In this section, the Panel outlines Boralex's proposal and reviews the alternatives suggested by intervenors. The issue for the Panel to address is the appropriate method to set the debt rate for calculating return on debt in Boralex's revenue requirements. Specifically, whether the cost of debt rate should be set based on the actual cost paid by Boralex on its borrowings (i.e. embedded cost of debt), based on market rates, other, or some combination.

#### *Relevant proceeding – GCOC Stage 1*

In the GCOC Stage 1 Decision, the BCUC noted that the BCUC deems an appropriate common equity ratio for public utilities and the resultant debt ratio is the residual between 100 percent and the deemed equity ratio. The deemed component typically incorporates actual debt issues where rates can be objectively observed and determined. In some cases, the utility manages its actual financing to mirror the deemed debt/equity ratio.<sup>222</sup>

One of the principles that the GCOC Panel reaffirmed related to the deemed debt rate is as follows:

Deemed debt rates and duration should reflect the particular circumstances of each utility. Accordingly, the [BCUC] should continue to address the cost of deemed debt for each utility separately on a case-by-case basis.<sup>223</sup>

In the GCOC Stage 1 Decision, that panel discussed three reasonable options for determining the deemed interest rate applicable to a small utility without third-party debt. These three options generally involve finding a proxy utility of a certain credit rating and calculating a credit spread against a GoC bond benchmark.<sup>224</sup>

Boralex submits that an appropriate deemed interest rate on the debt component of its capital structure is 5.5%. In its Application, Boralex states that it currently has long-term third-party debt that was issued following its acquisition of the Ocean Falls Facilities. The loan was made by a single lender in 2011 and matures in April 2024, at a fixed interest rate of 6.55% per annum.<sup>225</sup>

However, Boralex submits that the debt interest rate should be reflective on what would be available to Boralex if it were to issue long-term debt on a stand-alone basis in today's market. Boralex's current lender advised that if it were to finance the debt component of Boralex's rate base in today's market on a stand-alone basis, the

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<sup>221</sup> The FEI benchmark allowed ROE is 8.75 percent. An equity risk premium of 75 bps above the benchmark equates to an allowed ROE of 9.50 percent.

<sup>222</sup> [2013 GCOC Stage 1 Decision](#), p. 102.

<sup>223</sup> [2013 GCOC Stage 1 Decision](#), p. 105.

<sup>224</sup> [2013 GCOC Stage 1 Decision](#), pp. 107-109.

<sup>225</sup> Exhibit B-1, p. 36.

interest rate on the debt with a 30-year term would be approximately 5.3%. This reflects a 30-year GoC bond yield of 1.80% plus a spread of 350 bps.<sup>226</sup>

Borex notes two factors that will put upward pressure on the quoted 5.3% interest rate. First, the lender advised that if Borex were to raise additional third-party long-term debt over the Test Period to finance the increase in Borex's rate base, then the required interest rate on that additional debt is likely to be higher than 5.3%. Second, Borex was advised that there are certain capital adequacy test guideline changes applicable to life insurance companies, who are institutional lenders to the hydroelectric industry, that will put upward pressure on lending rates.<sup>227</sup>

Borex submits that an appropriate deemed interest rate on the debt component of its capital structure is 5.5%.<sup>228</sup>

### *Position of the Parties*

BC Hydro submits that the deemed debt rate should be lower than that proposed by Borex and in the range of 3.0% to 3.8% to be consistent with the benchmark utility, FEI.<sup>229</sup> BC Hydro provides the following reasons<sup>230</sup>:

- The fixed debt rate of 6.55% per annum under the July 2011 agreement is not relevant to determine a deemed debt interest rate for the Test Period, given that it predates the risk mitigation Borex now has as a result of rate regulation;
- Current market cost of debt is much lower than Borex's proposed rate of 5.5%. BC Hydro cites that Borex's parent company closed a \$51.3 million deal at approximately 4.9% for its Moose Lake wind project. The Corix BMDEU had an interest rate of 3.8% for its debt financing, via Order C-5-17 dated September 15, 2017.
- Borex did not provide evidence to support why using a 30 year GoC bond is appropriate and the corresponding 350 bps spread.
- Recent BBB+/BBB/BBB- indices indicate a spread over a 10-year GoC bond yield in the range of 200 bps. The 10-year GoC bond yield rate and its current market yields are more appropriate than Borex's 30-year yield with the use of a three-year average for determining market yield.

BCOAPO and Z1BRG take a similar position as BC Hydro in that the deemed debt rate should be lower than Borex's proposed 5.5 percent. BCOAPO submits that the GCOC Stage 2 Decision calls for the use of 10-year GoC yields in determining the deemed debt, rather than a 30-year term.<sup>231</sup> BCOAPO notes that 10-year GoC yields are currently at 1.39 percent based on the period from April 15, 2019 to April 15, 2020, and views that using this most recent 12 months average of the 10-year GoC yield is the most appropriate.<sup>232</sup>

BCOAPO submits that the difference between the 10-year and 30-year GoC rates more than address the issues that led Borex to increase the 5.3 percent quote by its lender to 5.5%.<sup>233</sup> BCOAPO submits that the appropriate debt rate should be no more than 5.3 percent.

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<sup>226</sup> Exhibit B-1, p. 36.

<sup>227</sup> Exhibit B-1, pp. 36, 37.

<sup>228</sup> Exhibit B-1, p. 37.

<sup>229</sup> BC Hydro Final Argument, p. 1.

<sup>230</sup> BC Hydro Final Argument, pp. 12-14.

<sup>231</sup> BCOAPO Final Argument, p. 33.

<sup>232</sup> Exhibit B-16, BCOAPO IR 2.43.2; BCOAPO Final Argument, p. 34.

<sup>233</sup> Staff note that BCOAPO should be referring to the situation where Borex LP requires to raise additional third-party long term debt and the OSFI requirements to maintain higher capital reserves when lending to the hydroelectric industry.

Z1BRG agrees with BC Hydro's submission that the deemed debt rate should be lower than 5.5 percent and suggests that "a deemed debt interest rate below 4.0 per cent appears more appropriate."<sup>234</sup>

### *Borex Reply*

In response to BC Hydro's argument that Borex's existing 6.55% debt rate is irrelevant, Borex submits that BC Hydro's position is equivalent to arguing that the cost of any utility's embedded cost of debt is irrelevant because the debt was issued prior to the utility's rate application. Borex also notes that BC Hydro introduced the Moose Lake and Burnaby Mountain projects in its final argument, rather than as evidence in the proceeding, and Borex did not have an opportunity to test its relevance.<sup>235</sup>

With respect to the use of the GCOC Decisions' methodology to calculate deemed debt interest rate, including the consideration of the 10-year GoC yield, Borex notes that the GCOC Decisions do not mandate the use of such methodology. It is a default interest rate methodology that may be appropriate in circumstances where the utility does not issue its own third-party debt. Borex has actual third-party debt and the utility's borrowing cost is observable.<sup>236</sup>

Borex states that "...BC Hydro's recommended deemed interest rate in the range of 3.0% to 3.8% [has] no basis in any evidence in this proceeding... it is demonstrably unreasonable as it would not even cover (or at the high end just barely cover) the 350 basis point credit spread required for Borex." Additionally, Borex notes that BC Hydro's "range of 200 basis points" was newly introduced in its final argument without supporting evidence in the proceeding record.<sup>237</sup>

With respect to BCOAPO's argument, Borex agrees that there is a relatively small difference between 10-year and 30-year GoC rates but maintains that a rate of 5.5% is reasonable considering Borex's current actual cost of debt and its lender's advice.

Borex reiterates that the 6.55% is the actual cost rate on Borex's existing third-party debt. The 5.3% debt interest rate is based on the advice of its current lender if Borex was to finance the debt component of Borex's capital structure.<sup>238</sup>

### *Panel Determination*

#### **The Panel determines a debt rate of 5.5 percent for use in calculating the revenue requirement, and in turn in setting rates for service to BC Hydro.**

The Panel considers that using the embedded cost of debt is appropriate to set the deemed debt rate for Borex. The GCOC Stage 1 proceeding explored options to set the debt rate for utilities that do not have third-party debt. The Panel agrees with Borex that its cost of debt can be observed through its existing debt arrangements with its third-party lender, and places weight on the third-party lender's advice if Borex borrows to finance the debt component of its capital structure. Given Borex's current financing arrangement with a third-party lender, the Panel does not view that it is necessary to approximate Borex's cost of debt using a proxy and a benchmark government bond.

With respect to the appropriate debt rate itself, the Panel considers that Borex has provided a reasonable effort to obtain a debt rate that is reflective of Borex's current financial situation, despite the fixed borrowing rate of 6.55% secured in 2011. The Panel finds that the slight upward adjustment of 0.2% from the lender's 5.3%

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<sup>234</sup> Z1BRG Final Argument, p. 3.

<sup>235</sup> Borex LP Reply, p. 7.

<sup>236</sup> Borex LP Reply, p. 8.

<sup>237</sup> Borex LP Reply, p. 8.

<sup>238</sup> Borex Reply Argument, p. 31.

quote to Boralex's 5.5% proposal is reasonable given the market factors and capital reserve requirements at the time Boralex filed its Application.

### 3.5 Load Forecast

Boralex supplies energy to BC Hydro and to Boralex's own retail and industrial customers.<sup>239</sup> The load and revenue forecast for Boralex's retail and industrial customers is relevant to setting Test Period rates for service to BC Hydro, as Boralex calculates the net revenue requirement applicable to BC Hydro by deducting the forecast retail and industrial customer revenue from its gross forecast revenue requirement. The load forecasts for these individual customer groups are discussed separately below.

#### BC Hydro Load Forecast

Boralex's load data used to set rates in the Test Period consist of BC Hydro's actual consumption in 2019 and forecast deliveries of energy to BC Hydro in years 2020 to 2022, as set out in the following table:<sup>240</sup>

**BC Hydro Electricity Delivery Forecast (MWh)**

	2019 Actual	2020	2021	2022
BC Hydro	12,953	13,100	11,816	12,005

Boralex explains that its forecast for energy sales to BC Hydro in 2020 (13,100 MWh) is calculated as the average of annual energy sales to BC Hydro from 2014 to 2018 (13,072 MWh) rounded up to 13,100 MWh. Boralex submits that the average energy sales for the period 2014 to 2019 (13,052 MWh) and from 2015 to 2019 (13,086 MWh) demonstrate that the forecast for 2020 of 13,100 MWh is reasonable.<sup>241</sup>

The forecast energy sales to BC Hydro in 2021 and 2022 are calculated as the forecast for 2020 escalated by 1.6 percent per year and then reduced by an allowance for the planned shutdown of the plant from mid April to the end of May in each of 2021 and 2022 to allow for rehabilitation work to penstock 2. The reduction in energy sales is based on the average energy sales to BC Hydro from mid April to the end of May over the 2014 to 2018 period.<sup>242</sup> Boralex submits that the 1.6 percent escalator is based on what BC Hydro believes is a reasonable growth rate for its load in the Bella Bella NIA.<sup>243</sup>

#### Retail and Industrial Load and Revenue Forecast

Boralex forecasts its total load from retail and industrial customers and the corresponding revenues as follows:<sup>244</sup>

<sup>239</sup> Exhibit B-1, p. 42.

<sup>240</sup> Boralex Final Argument, p. 15.

<sup>241</sup> Boralex Final Argument, p. 15.

<sup>242</sup> Boralex Final Argument, p. 15.

<sup>243</sup> Exhibit B-1, p. 42.

<sup>244</sup> Exhibit B-13, IR response 32.1.

		2019 (Q3-Q4)	2020	2021	2022
<b>BC Hydro (MWh)</b>		<b>6,083</b>	<b>13,100</b>	<b>11,816</b>	<b>12,005</b>
<b>Industrial Customers (MWh)</b>		<b>4,977</b>	<b>8,873</b>	<b>7,981</b>	<b>7,981</b>
<b>Retail Customers (MWh)</b>		<b>342</b>	<b>751</b>	<b>751</b>	<b>751</b>
<b>TOTAL (MWh)</b>		<b>11,403</b>	<b>22,723</b>	<b>20,548</b>	<b>20,737</b>
<b>BC Hydro</b>		<b>53%</b>	<b>58%</b>	<b>58%</b>	<b>58%</b>
<b>Industrial Customers</b>		<b>44%</b>	<b>39%</b>	<b>39%</b>	<b>38%</b>
<b>Retail Customers</b>		<b>3%</b>	<b>3%</b>	<b>4%</b>	<b>4%</b>

<b>Non-BC Hydro Revenue Forecast (\$000)</b>	<b>2019 (Q3-Q4) Actual</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Ocean Falls Retail Customer Revenue	\$50	\$94	\$96	\$98
Ocean Falls Industrial Customer Revenue	\$304	\$533	\$503	\$512
<b>Total</b>	<b>\$354</b>	<b>\$627</b>	<b>\$599</b>	<b>\$610</b>

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Boralex states its revenue forecast for retail customers is based on historical loads and incorporates a 2 percent annual increase in rates.<sup>246</sup> Boralex submits the forecast revenue from retail customers is based on the average revenue from 2014 to 2018, and that the load from retail customers has been “stable over the years and weather changes are the primary reason for the yearly variations.”<sup>247</sup>

Pursuant to Order G-26-10, the BCUC ordered the rates charged to Boralex’s retail customers to be the same as BC Hydro’s Zone II rates. BC Hydro’s fiscal 2020 to 2021 Revenue Requirements Application includes a request for a 6.85 percent general rate increase effective April 1, 2019, and a 0.99 percent general rate decrease effective April 1, 2020. The BCUC approved the F2020 rate increase of 6.85 percent on an interim basis by Order G-45-19 and on a permanent basis by Order G-246-20. Boralex had regard for the interim Zone II rate increases approved by Order G-45-19, but submits it has no ability to predict BC Hydro’s actual Zone II rates over the Test Period and therefore chose a 2% annual increase which it believes is generally indicative of forecast inflation over this period.<sup>248</sup>

Boralex’s revenue forecast for industrial customers is based on the forecast load for the two customers and their negotiated rates for the Test Period. Boralex submits the load for one of these two industrial customers, Mowi Canada West, has historically been stable and that Boralex assumes there will be no material change in the Test Period. The other industrial customer, Ocean Falls Blockchain, commenced operations in July 2018, and has operated at a high load factor since it commenced operations. In the Application, Boralex notes it has had discussions with Ocean Falls Blockchain regarding a possible expansion,<sup>249</sup> however, Boralex understands that the ongoing viability of the Ocean Falls Blockchain facility depends on cryptocurrency prices in the international market and the efficiency and effectiveness of the servers employed by the facility.<sup>250</sup> Boralex believes there is very little likelihood that Ocean Falls Blockchain will expand its cryptocurrency facility or increase its load over the Test Period, rather there is a significant risk that this load and associated revenue will be far less than

<sup>245</sup> Boralex Final Argument, p. 17.

<sup>246</sup> Exhibit B-1, p. 43.

<sup>247</sup> Boralex Final Argument, p. 17.

<sup>248</sup> Exhibit B-6, Response to BCUC IR 22.5.

<sup>249</sup> Exhibit B-1, p. 43.

<sup>250</sup> Exhibit B-6, Response to BCUC IR 22.1.

forecast.<sup>251</sup> Boralex explains that the revenue forecast for the two industrial customers has been reduced to allow for the planned shutdown of the plant from mid April to the end of May in each of 2021 and 2022, and that there is no planned shutdown in 2020.<sup>252</sup>

### *Position of the Parties*

BCOAPO has no submissions with respect to Boralex's load forecast for BC Hydro or for Boralex's retail and industrial customers.<sup>253</sup> However, BCOAPO submits that Boralex's methodology will understate the revenue forecast for retail customers in the Test Period. BCOAPO states the retail customer revenue forecast is based on the average revenue for the period 2014 to 2018, but does not account for the increases in rates during this period, and adds that the 2 percent increase forecast from 2020 onwards likely understates the true figure. However, BCOAPO acknowledges the impact of this underestimate is likely to be small.<sup>254</sup>

Boralex does not agree the forecast revenue for its retail customers is understated, stating that the base revenue forecast does account for revenue increases in the 2014 to 2018 period, as the number of retail customers is stable and the revenues are based on the rates of BC Hydro for its Zone II customers.<sup>255</sup>

BC Hydro submits the 1.6 percent annual forecast increase in load in the Bella Bella NIA is reasonable.<sup>256</sup> However, BC Hydro submits there is uncertainty whether Boralex's industrial customers will expand their operations, which would increase Boralex's revenues, and notes that one such customer, Ocean Falls Blockchain, has a tentative plan to increase its load during the Test Period. Given the model under which rates are being set for BC Hydro, BC Hydro submits that a deferral account should be established to capture any revenues associated with load growth of Boralex's industrial customers, and that BC Hydro should be the beneficiary of any such revenues.

Boralex disagrees with BC Hydro, stating that the proposed deferral account is "clearly unreasonable and inappropriate." Boralex submits it is entirely at risk if revenue from its industrial customers fails to materialize, and the deferral account would provide Boralex no incentive to grow its industrial load and revenue. Boralex adds that if the BCUC were to consider a deferral account, then such an account should be symmetrical in nature and capture both positive and negative revenue variances.<sup>257</sup>

### *Panel Determination*

**The Panel accepts Boralex's load forecast and revenue forecast for BC Hydro and for its retail and industrial customers as reasonable.** The methodology proposed by Boralex is based on historical data and is adjusted for anticipated price increases and the planned shutdown of the plant for the penstock rehabilitation project.

The Panel agrees with BCOAPO that there is a risk the forecast of retail revenues is understated. Boralex provides two statements which appear to be contradictory: that the revenue from retail customers is "based on historical loads,"<sup>258</sup> and that they are "based on average historical revenue from these customers over the period 2014 to 2018."<sup>259</sup> The two approaches have the potential to yield different results, since while "historical loads" may be "stable over the years," the "average historical revenue" would be increasing as rates have increased between 2014 and 2018. It is not clear to the Panel whether Boralex based its forecast on historical demand or on historical revenues. However, since the forecast revenues from retail customers are less than

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<sup>251</sup> Boralex Final Argument, p. 18.

<sup>252</sup> Exhibit B-1, p. 43, Boralex Final Argument, p. 17.

<sup>253</sup> BCOAPO Final Argument, pp. 41-42.

<sup>254</sup> BCOAPO Final Argument, p. 43.

<sup>255</sup> Boralex Reply, pp. 34-35.

<sup>256</sup> BC Hydro Final Argument, p. 41.

<sup>257</sup> Boralex Reply Argument, pp. 22-23.

<sup>258</sup> Exhibit B-1, p. 43.

<sup>259</sup> Boralex Final Argument, p. 17.

\$100,000 per annum in the Test Period, whereas the forecast total revenue requirement is over \$3 million per annum, the effect of such an error on BC Hydro's rates would be small, as BCOAPO itself notes. Therefore, in the interests of regulatory efficiency, the Panel declines to pursue this matter further, but requests that Boralex clarify its approach to forecasting retail revenues in future rate applications.

BC Hydro proposes a deferral account be set up whereby BC Hydro benefits from revenues associated with increased load from industrial customers; Boralex disagrees with this proposal. The Panel is not persuaded that BC Hydro is entitled to any revenues Boralex earns in the Test Period from increased load from its industrial customers. If Boralex's forecast of industrial customer revenues were higher, then under the cost allocation model the net revenue requirement would be lower, and BC Hydro would have lower rates, all else equal. However, the actual revenue from Boralex's industrial customers in the Test Period is not certain, as there is evidence of both a possible increase and the risk of decrease in load from one industrial customer.

However, the "regulatory compact" offers utilities the opportunity, but not a guarantee, to make a return on its investment. Risks which are reasonably under the utility's control must be managed, and the utility takes the risk that revenues are lower than forecast but gains if revenues are higher than forecast. The utility's rate of return on its investments is set to account for the degree of risk it faces, including the risk of earning less revenue than forecast.

The regulatory compact allows Boralex to benefit from the gains and to suffer the losses associated with variances in revenues from its industrial customers. This risk is reasonably under Boralex's control, and the rate of return on equity for Boralex takes into consideration the possible variance of its revenues between forecast and actual. Further, the opportunity for Boralex to benefit from additional revenues is an incentive for them to increase load, which ultimately is in the interests of all customers, including BC Hydro. If Boralex's industrial customer load increases during the Test Period, then other things being equal, the forecast load for these customers in the next test period will be higher, and under the current cost allocation model BC Hydro would benefit.

For these reasons, the Panel rejects BC Hydro's request for a deferral account to capture variances in industrial customer revenues.

#### **4.0 Rate Design**

In this section the Panel considers the rate structure by which Boralex will recover its required revenues from BC Hydro.

Boralex seeks to recover its required revenues from BC Hydro using a two-tiered energy charge. Tier 1 would include all electricity consumed by BC Hydro up to a threshold of 13.1 GWh in 2020, and up to a threshold of 11.63 GWh in 2021 and 2022, and Tier 2 would include all electricity consumed over the threshold in the appropriate year. Boralex submits that the threshold is equal to the average amount of electricity supplied by Boralex to BC Hydro over the last five years, 13.1 GWh, reduced in 2021 and 2022, to account for scheduled plant outages to undertake the penstock 2 rehabilitation work. Boralex does not seek to impose any fixed charge or "take or pay" obligations on BC Hydro.<sup>260</sup>

Boralex proposes to set the Tier 2 rate first, then establish the Tier 1 rate to collect its remaining revenue requirement from BC Hydro not forecast to be collected under the Tier 2 rate. Boralex proposes to set the Tier 2 rate at \$50 / MWh starting in 2019, escalating at 2 percent a year.<sup>261</sup>

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<sup>260</sup> Exhibit B-1, p. 44; Exhibit B-11, p. 3.

<sup>261</sup> Exhibit B-1, p. 44.

Boralex proposes to structure the Tier 1 rate as a levelized charge to avoid large step changes from one year to the next, and that this levelized charge should increase by 2 percent a year. Boralex calculates the Tier 1 revenue for each year from 2019 to 2022 based on the forecast consumption by BC Hydro, calculates the NPV of the forecast revenue for the four years, then sets the Tier 1 rate such that it will collect sufficient revenue over the four years when escalated by 2 percent per year.<sup>262</sup>

The rates Boralex proposes to charge BC Hydro are set out in the following table:<sup>263</sup>

	(\$/MWh)		(\$/MWh)	
	2019*	2020	2021	2022
Tier 1 (up to 13.10 GWh/year)	\$270.81	\$276.23	\$281.75	\$287.39
Tier 2 (greater than 13.1 GWh/ year)	\$50.00	\$51.00	\$52.02	\$53.06

\*July 1 to December 31 for rate and energy amount.

Boralex submits the proposed rate structure is appropriate, beneficial to BC Hydro, and provides a “very strong incentive for Boralex to continue to provide highly reliable service to BC Hydro.”<sup>264</sup> Boralex adds that the significantly lower Tier 2 rate gives BC Hydro an incentive to encourage greater use of electricity in the Bella Bella NIA, since the proposed Tier 2 rate is lower than BC Hydro’s Zone 1B rates in the Bella Bella NIA.

Boralex states that its rate design objectives are:<sup>265</sup>

1. Recovery of Boralex’s revenue requirement: The BC Hydro rates have been designed to recover the forecast net revenue requirement (i.e., Boralex’s forecast gross revenue requirement less that portion of the gross revenue requirement forecast to be recovered from Boralex’s retail and industrial customers in Ocean Falls).
2. Consistency: The BC Hydro rates are designed to be consistent with the two-tier declining block energy charge rate structure that has been in place since service to BC Hydro commenced under the 1986 EPA.
3. Customer understanding and acceptance: The two-tier rate structure for BC Hydro is well understood, practical and cost effective to implement. Boralex believes that BC Hydro is supportive of the two-tier energy charge rate structure. The rate structure does not impose any fixed charge obligation on BC Hydro (i.e., no payment in circumstances where Boralex fails or is unable to provide service to BC Hydro) and the significantly lower Tier 2 rate allows BC Hydro to reduce its average cost of energy when its consumption exceeds the Tier 1/Tier 2 threshold.
4. Simplicity and freedom from controversies as to proper interpretation: The two-tier energy charge rate structure is not complex and Boralex does not believe there should be any controversies as to its interpretation or application. The rate structure can be adopted without the need to make rate-related modifications to the proposed terms and conditions of service for Boralex’s service to BC Hydro, which are based on the terms and conditions of service set out in the 1986 EPA. Other rate methodologies, such as minimum take or fixed charge methodologies, would require revisions to terms and conditions

<sup>262</sup> Exhibit B-1, pp. 44-45.

<sup>263</sup> Exhibit B-11, p. 7.

<sup>264</sup> Boralex Final Argument, p. 19.

<sup>265</sup> Boralex Final Argument, pp. 20-21.

of service including, for example, to address the circumstances, if any, where BC Hydro would be relieved of the minimum take or fixed charge obligation.

5. Incent high level of service reliability: Under the energy charge rate structure Boralex only receives payment for electricity that is actually delivered to BC Hydro. Accordingly, Boralex has a very strong incentive to continue to provide highly reliable service to BC Hydro in order to recover its annual revenue requirement, including its allowed return on common equity.
6. No curtailment of service to BC Hydro: Similarly, under the energy charge rate structure Boralex has a very strong incentive to not curtail service to BC Hydro. This is beneficial to BC Hydro and the local communities in the Bella Bella NIA and Shearwater because it enables BC Hydro to avoid operating its expensive and environmentally undesirable diesel generating station in Shearwater.
7. Encourage load growth through fuel conversion in the Bella Bella NIA: The lower Tier 2 energy charge rate should give BC Hydro an incentive to encourage the greater use of electricity in the Bella Bella NIA (e.g., through the conversion of oil-fired or propane-fired space heaters to air electric heat pumps) because, as noted in Boralex's response to BCUC IR 24.6, the Tier 2 rate is lower than the Zone IB rates charged by BC Hydro in the Bella Bella NIA.
8. Reduce BC Hydro's average cost of energy: Because the Tier 2 rate is significantly lower than the Tier 1 rate, BC Hydro can, unlike in the case of single energy charge or two-tier inclining block energy charge rate structures, reduce its average cost of energy when its consumption exceeds the Tier 1/Tier 2 threshold.

Boralex adds that the two-tier rate will also provide stability for BC Hydro because both tiers are fixed until the end of 2022 with no deferral account mechanisms to adjust rates.

### *Positions of the Parties*

BC Hydro confirms its support for the proposed two-tier rate structure proposed by Boralex, the setting of the Tier 2 rate at \$50 / MWh initially escalated at 2 percent per year, and the setting of the Tier 1 rate to recover the remaining forecast revenue requirement on a levelized basis escalated at 2 percent per year.<sup>266</sup>

However, BC Hydro does not agree that the threshold between Tier 1 and Tier 2 should be reduced in 2021 and 2022 as proposed by Boralex, but rather should remain at 13.1 GWh for the entire forecast period. BC Hydro argues that Boralex's proposed reduction from 13.1 GWh to 11.63 GWh in 2021 and 2022 as a result of the proposed plant shut-down for planned penstock rehabilitation work should be deferred until the rehabilitation project is better defined.

Neither Z1BRG nor BCOAPO raise any objections to the rate structure proposed by Boralex.

Boralex does not reply to BC Hydro's argument that the Tier 1/Tier 2 threshold should not be reduced in 2021 and 2022 as a result of the planned plant shut-down.

### *Panel Determination*

#### **The Panel approves the rate design proposed by Boralex for its provision of electricity to BC Hydro.**

The proposed two-tier rate structure proposed by Boralex is consistent with the rate structure that has been in place since Boralex's service to BC Hydro commenced under the 1986 EPA and is supported by BC Hydro. The proposed rate structure is simple, well understood, and allows Boralex to collect its forecast revenue requirement from BC Hydro. Further, it provides an incentive for BC Hydro to pursue electrification initiatives in the Bella Bella NIA, and an incentive for Boralex not to curtail service to BC Hydro.

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<sup>266</sup> BC Hydro Final Argument p. 43.

The only contested issue with respect to the rate design is the threshold between the Tier 1 and Tier 2 energy charge rates. Boralex and BC Hydro agree that the threshold should be based on BC Hydro's forecast consumption of 13.1 GWh in 2020. However, Boralex proposes that the threshold be reduced to 11.63 GWh in 2021 and 2022 because it anticipates its plant will be shut down to allow for work on the Penstock Rehabilitation Project, whereas BC Hydro argues the threshold should remain at 13.1 GWh for those two years until the project is better defined.

As discussed in section 3.1.1 above, Boralex's forecast for electricity consumption by BC Hydro for the period 2019 to 2022 is based on actual consumption between 2014 and 2019, and also incorporates the planned shut-down in 2021 and 2022. The Panel accepts this load forecast as being the best available information, and thus it is reasonable to use this forecast for setting the Tier 1 / Tier 2 threshold.

That said, the Panel is concerned about the possibility of the Penstock Rehabilitation Project being delayed further, given the weather, geotechnical, procurement and logistics risks identified by Boralex, and the ongoing COVID-19 pandemic that has already delayed the project by one year. In the event the Penstock Rehabilitation Project is delayed further, Boralex will reduce its capital expenditures and the plant shutdown will be further delayed, a matter addressed by the capital expenditures deferral account in section 3.1.5 above.

The effect of such a delay to the plant shutdown would mean BC Hydro would likely wish to use electricity from Boralex rather than using the diesel backup system to supply the Bella Bella NIA during this timeframe, thus increasing its consumption from Boralex. Since the rate structure is designed to collect approximately the full revenue requirement from BC Hydro at the Tier 1 / Tier 2 threshold, and the threshold in 2021 and 2022 has been reduced to allow for BC Hydro's reduced use during the shut-down, BC Hydro's additional use of electricity during the cancelled shutdown period would be a windfall gain for Boralex.

For these reasons, **the Panel directs Boralex to create a revenue variance deferral account to capture any revenues earned from BC Hydro during 2021 and 2022 above the Tier 1/Tier 2 threshold in the event the Penstock Rehabilitation Project is delayed.** The disposition of any balance in this deferral account will be addressed by the BCUC in the next rates proceeding.

The purpose of this deferral account is to ensure that BC Hydro is reimbursed for the cost of purchasing energy above the Tier 1/Tier 2 threshold to the extent that the Tier 1/Tier 2 threshold was reduced to anticipate the planned shut-down due to the Penstock Rehabilitation Project. The purpose of the deferral account is not to prevent Boralex earning Tier 2 revenues from BC Hydro where BC Hydro's consumption has increased for other reasons. The Panel cannot anticipate all the circumstances which might arise during the Test Period with regards to the Penstock Rehabilitation Project and BC Hydro's consumption of energy, and therefore leaves it to the BCUC to consider the evidence that will be available at the time of Boralex's next rates application in determining the disposition of any balance in the deferral account.

As noted above, Boralex proposes to structure the Tier 1 rate as a levelized charge to avoid large step changes from one year to the next, and that this levelized charge should increase by 2 percent a year. Boralex calculates the Tier 1 revenue for each year from 2019 to 2022 based on the forecast consumption by BC Hydro, calculates the NPV of the forecast revenue for the four years, then sets the Tier 1 rate such that it will collect sufficient revenue over the four years when escalated by 2 percent per year.<sup>267</sup> The Panel has reviewed Boralex's proposal and notes that no interveners expressed opposition. While the Panel considers that the overall approach to smoothing rates is reasonable, the Panel notes that Boralex has applied its Weighted Average Cost of Capital in discounting its revenue requirements to levelized the rates. The Panel views the interest rate used in this case is to compensate for any timing differences between the cost of service and collecting revenues from BC Hydro. The Panel also notes that the revenue requirements already include return on equity to compensate Boralex for its rate base investments. Accordingly, the Panel finds that Boralex's WACD is the appropriate interest rate to

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<sup>267</sup> Exhibit B-1, pp. 44-45.

apply in discounting the revenue requirements over the Test Period in the calculation of the Tier 1 rate. **Boralex is directed to apply its WACD to discount Test Period revenues in order to set a levelized Tier 1 rate and is required to reflect this change in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.**

## 5.0 First Nations Deferral Account

Boralex seeks BCUC approval to establish a deferral account to record any costs incurred by Boralex over the Test Period associated with its ongoing relationship building activities with the Heiltsuk Nation. Boralex and the Heiltsuk Nation have been negotiating a confidential Memorandum of Understanding (MOU) which contemplates that the parties may agree to engage in specific activities that may further the parties' interests. These activities may include employment and training opportunities, contracting and other business opportunities for Heiltsuk members at or in connection with the Ocean Falls Facilities. The draft MOU also contemplates the negotiation of a benefits agreement between the parties regarding the operation of the Ocean Falls Facilities.<sup>268</sup>

Boralex does not have an estimated timeline for the finalization of the MOU and the nature, extent and timing of any such costs cannot be determined at this time. The deferral account would therefore record any additional cost incurred by Boralex arising out of these activities during the test period. Boralex is not seeking approval of the disposition of any amounts that might be recorded in deferral account during the Test Period.<sup>269</sup>

### *Positions of the Parties*

BCOAPO submits that to the extent that activities in the MOU address employment levels, training requirements and third-party contracts required in the Test Period, such costs should already be captured in the revenue requirement. BCOAPO says that if the deferral account is approved, Boralex should have to clearly demonstrate in future applications for disposition of such costs that: (i) the costs concerned were for activities not included in the revenue requirement approved for the Test Period, and (ii) the associated activities provided a net benefit to Boralex's ratepayers.<sup>270</sup>

Z1BRG supports the establishment of the deferral account, conditioned upon the express understanding that Boralex is not seeking any approvals from the BCUC at this time regarding the disposition of any amounts that might be recorded in the proposed deferral account, and that such approvals should be sought as part of Boralex's next rate application.<sup>271</sup>

### *Panel Determination*

**The Panel approves the establishment of the First Nations Deferral Account attracting interest at Boralex's WACD.**

Based upon the evidence provided by Boralex, the Panel considers that the proposed MOU with the Heiltsuk Nation could result in Boralex incurring costs within the Test Period that could not have been reasonably forecasted by management, and that a deferral account is appropriate in the circumstances. The Panel notes that Boralex will need to seek approval for the disposition of any costs recorded in the deferral account in a future rate application. The Panel agrees with BCOAPO that Boralex is advised to demonstrate that any costs are not duplicative of those which were included in the revenue requirement for this application, and that the benefits to Boralex and its ratepayers of the associated activities are clearly explained.

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<sup>268</sup> Boralex Final Argument, p. 38.

<sup>269</sup> Boralex Final Argument, p. 39.

<sup>270</sup> BCOAPO Final Argument, pp. 50-51.

<sup>271</sup> Z1BRG Final Argument, p. 5.

## 6.0 Terms and Conditions

Boralex seeks BCUC approval of terms and conditions of service to BC Hydro as outlined in Appendix B of the Application. The terms and conditions are substantially the same as those approved by the BCUC on an interim basis effective July 1, 2019, pursuant to Order G-143-19, and are based on the terms and conditions of service set out in the 1986 EPA.<sup>272</sup>

BC Hydro supports the terms and conditions subject to two minor revisions. Firstly, the initial wording of section 4 of the proposed terms and conditions (Rates, Terms and Conditions) provides that “BC Hydro shall take and pay for electricity supplied...” BC Hydro submits that to avoid confusion the words “take and” should be removed, since this is not a take and pay service. Secondly, with respect to section 10 (Land Lease), BC Hydro notes that currently, there is not a written lease between the parties in relation to lands owned by BC Hydro and used by Boralex in connection with providing service to BC Hydro. BC Hydro therefore submits that section 10 of the proposed terms and conditions should be revised to state that BC Hydro “will provide” a lease to Boralex (rather than the proposed wording in the Application of “continue to provide”) and that the lease will continue for so long as Boralex supplies electricity to BC Hydro and has an interconnection agreement with BC Hydro. BC Hydro says a simple lease and interconnection agreement would then be settled between the parties.<sup>273</sup>

Boralex does not object to BC Hydro’s proposed section 4. With respect to section 10, while Boralex has no objection to negotiating a simple interconnection agreement with BC Hydro that does not impose additional costs on Boralex that are not reflected in the Application, it says there is no need to tie the continuation of the lease to the interconnection agreement. The lease should simply remain in effect so long as Boralex supplies electricity to BC Hydro.<sup>274</sup>

### *Panel Determination*

**The Panel directs Boralex to update the wording of sections 4 and 10 of the terms and conditions of service as outlined below, and file the updated terms and conditions of service with its regulatory schedules no later than 60 days following this decision, for review by this Panel. The Panel otherwise approves the terms and conditions of service as filed in Appendix B of the Application.**

For clarity, the terms and conditions should be amended to read as follows:

- The first sentence of section 4: “BC Hydro shall pay for electricity supplied hereunder in accordance with the rate, terms and conditions which are set out as follows...”
- The first sentence of section 10: “BC Hydro will provide to Boralex LP for the nominal sum of ONE (\$1.00) DOLLAR a lease of lands owned by BC Hydro for the purpose of owning, operating and maintaining a substation and transmission line to the point of delivery.”

Boralex appears to generally agree with the wording changes proposed by BC Hydro, However, the Panel declines to comment on the matter of whether the lease should be tied to the interconnection agreement with BC Hydro. It is incumbent upon Boralex and BC Hydro to negotiate any such terms of the lease.

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<sup>272</sup> Boralex Final Argument, p. 40.

<sup>273</sup> BC Hydro Final Argument, pp. 44-45.

<sup>274</sup> Boralex Reply Argument, p. 24.

**DATED** at the City of Vancouver, in the Province of British Columbia, this 27th day of October 2020.

*Original Signed By:*

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B. A. Magnan  
Panel Chair/Commissioner

*Original Signed By:*

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W. M. Everett, QC  
Commissioner

*Original Signed By:*

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R. I. Mason  
Commissioner



**ORDER NUMBER**  
**G-270-20**

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

and

Boralex Ocean Falls Limited Partnership  
Application for Approval of Rates and Terms and Conditions for  
Service to British Columbia Hydro and Power Authority

**BEFORE:**

B. A. Magnan, Panel Chair  
W. M. Everett, QC, Commissioner  
R. I. Mason, Commissioner

on October 27, 2020

**ORDER**

**WHEREAS:**

- A. On September 30, 2019, Boralex Ocean Falls Limited Partnership (Boralex) applied to the British Columbia Utilities Commission (BCUC) for approval of interim and permanent rates for service to British Columbia Hydro and Power Authority (BC Hydro) for the period of July 1, 2019 to December 31, 2022, terms and conditions for service to BC Hydro and the First Nations relationship building deferral account (Application). The Application is made pursuant to Orders G-143-19 and G-202-19;
- B. Boralex and BC Hydro had been unable to negotiate an Energy Purchase Agreement (EPA) renewal, and on August 29, 2017, BC Hydro filed an application with the BCUC requesting, amongst other things:
  1. Approval to amend Order G-26-10 to have Boralex subject to the rate regulation provisions of the *Utilities Commission Act* (UCA) with respect to its service to BC Hydro; and
  2. The BCUC determine and set a rate for Boralex's service to BC Hydro, pursuant to sections 58 to 60 of the UCA;
- C. By Order G-143-19 dated June 27, 2019, the BCUC amended Order G-26-10 to exempt Boralex from application of the UCA except for sections 2(1), 25, 38, 41, 42, 43, 49, 55, 58 to 63, 99, 117 and Part 6 with respect to Boralex's service to BC Hydro, with Order G-26-10 remaining in effect with respect to Boralex's service to its other customers. The BCUC also approved an interim and refundable/recoverable rate effective July 1, 2019, and interim terms and conditions for Boralex's service to BC Hydro;
- D. By Order G-265-19 dated October 31, 2019, the BCUC established a public hearing and a regulatory timetable for the review of the Application. The regulatory timetable was updated by Orders G-3-20, G-37-20 and G-142-20;

- E. The following parties registered as interveners: BC Hydro; British Columbia Old Age Pensioners' Organization *et al.* (BCOAPO); Nuxalk Nation; and Zone 1B Ratepayers Group (Z1BRG);
- F. The regulatory process included two rounds of BCUC and Intervener Information Requests and written final and reply arguments;
- G. Boralex filed an application update on April 29, 2020, including revisions to its test period revenue requirements and updated test period rates for service to BC Hydro (Application Update); and
- H. The BCUC has considered the Application, the evidence and the submissions filed in this proceeding and makes the following determinations.

**NOW THEREFORE** pursuant to sections 56, 59 to 61 of the UCA, and for the reasons provided in the Decision issued concurrently with this order, the BCUC orders as follows:

1. Boralex is approved to recover on a permanent basis the rates for electric service to BC Hydro as presented in the Application Update, for the period July 1, 2019, to December 31, 2022, subject to the adjustments resulting from the directives and determinations contained in this Order and the Decision issued concurrently.
2. Order G-143-19 is varied to exempt Boralex from application of the UCA except for sections 2(1), 25, 38, 41, 42, 43, 49, 55, 56, 58 to 63, 99, 117 and Part 6 with respect to Boralex's service to BC Hydro.
3. Boralex is directed to recalculate its revenue requirements and rates for electric service to BC Hydro for the period July 1, 2019, to December 31, 2022, subject to the adjustments resulting from the directives and determinations contained in this Order and the Decision issued concurrently.
4. Boralex is directed to file updated regulatory schedules for approval by this Panel within 60 days of this Order. This compliance filing must contain the specific information outlined in the Decision issued concurrently with this Order.
5. Upon Panel approval of the compliance filing outlined in directive 4, Boralex is directed to recover / refund to BC Hydro the difference between interim and permanent rates, with interest calculated at the average prime rate of Boralex's principal bank for its most recent year.
6. Boralex must submit an annual report each year beginning no later than April 30, 2021, as outlined in section 3.1.5 of the Decision issued concurrently with this order.
7. Boralex's terms and conditions of service to BC Hydro are approved effective July 1, 2019, subject to Boralex filing required amendments outlined in section 6 of the Decision issued concurrently with this Order.
8. Boralex is approved to establish a First Nations Deferral Account as set out in section 5 of the Decision issued concurrently with this Order with interest at Boralex's weighted average cost of debt.
9. Boralex must comply with all other directives and determinations outlined in the Decision issued concurrently with this Order.

**DATED** at the City of Vancouver, in the Province of British Columbia, this 27th day of October 2020.

BY ORDER

*Original Signed By:*

B. A. Magnan  
Commissioner

## BCUC Directives

This summary is provided for the convenience of readers. In the event of any difference between the Directions in this Summary and those in the body of the Decision, the wording in the Decision shall prevail.

	Directive	Page No.
<b>The following directives address updates to Boralex’s regulatory schedules, to be filed no later than 60 days following this decision, for review by this Panel:</b>		
1.	<p>Boralex is directed to apply the applicable Proposed Depreciation Rates to the gross book value of the assets included in the 2008 Closing Balance in setting its Test Period rates for service to BC Hydro. Boralex is directed to reflect this adjustment in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel, including the following information with supporting calculations, assumptions and documents:</p> <ul style="list-style-type: none"> <li>• Breakdown of the gross book value of the assets which are included in the 2008 Closing Balance;</li> <li>• Recalculated Prior Period depreciation expense on the 2008 Closing Balance;</li> <li>• Recalculated total Prior Period Depreciation Expense; and</li> <li>• Recalculated total depreciation expense for the Test Period.</li> </ul>	15-16
2.	Boralex is directed to allocate 5 percent of its Test Period O&M expenses to capital in setting its Test Period rates for service to BC Hydro. Boralex must reflect this adjustment, including supporting calculations, in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.	25
3.	Boralex is directed to recalculate the working capital allowance separately for each year in the Test Period in setting rates for service to BC Hydro, using the forecast OM&A expenses for the corresponding year and applying the 45-day lag rule. The recalculated working capital allowance, including supporting calculations, must be included in the updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.	26
4.	Boralex is directed to recalculate rate base used in setting Test Period rates for service to BC Hydro using the average of the opening and closing net book value of the assets in service, plus the working capital allowance.	27
5.	Boralex is directed to reduce the Test Period employee costs related to the overlapping employment tenure of the new and retiring operators to include an overlap period of 9 months per employee. Boralex is directed to reflect this change in its updated regulatory schedules to be filed within 60 days of this decision and must also include detailed supporting calculations, for review by this Panel.	31
6.	Boralex is directed to account for its retirement allowance costs as a post-employment benefit, specifically a defined benefit, in accordance with IAS 19	33

	Employee Benefits in setting Test Period rates for service to BC Hydro. Boralex is directed to reflect this accounting change in its updated regulatory schedules to be filed within 60 days of this decision, including detailed supporting calculations and an explanation for any assumptions used, for review by this Panel.	
7.	Boralex is directed to include the regulatory costs of \$682,000 incurred in Q3/4 2019 and 2020 in a rate smoothing deferral account attracting interest at Boralex's WACD and amortize those costs evenly over the Test Period.	37
8.	The Panel accepts the recovery of corporate services regulatory costs of \$nil in Q3/4 2019, \$10 thousand in 2020, \$43 thousand in 2021 and \$44 thousand in 2022 in setting Test Period rates for service to BC Hydro. Boralex must reflect this adjustment in its updated regulatory schedules to be filed within 60 days of this decision, for review by this Panel.	43
9.	Boralex is directed to apply its WACD to discount Test Period revenues in order to set a levelized Tier 1 rate and is required to reflect this change in its updated regulatory schedules.	60
10.	The Panel directs Boralex to update the wording of sections 4 and 10 of the terms and conditions of service as outlined in the decision, and file the updated terms and conditions of service with its regulatory schedules no later than 60 days following this decision, for review by this Panel. The Panel otherwise approves the terms and conditions of service as filed in Appendix B of the Application.	61
<b>Boralex must address the following directives in future rates application(s) filed with the BCUC:</b>		
11.	Boralex is directed to address the appropriateness of the scope of the existing exemption orders in its next rates application.	10
12.	The Panel directs Boralex to include discussion and documentation regarding its capital planning and approval process in future rate applications.	16
13.	Boralex is directed to provide a detailed capital additions variance analysis as part of its future rates applications filed with the BCUC.	24
14.	Boralex is directed to file a comprehensive assessment of its allocations of O&M expenses to capital in the next rates application, including an analysis of the appropriate capital overhead rates and direct allocations to capital, whether a formal policy should be established, and a breakdown of the allocations to capital by year, between direct allocations and capitalized overhead, for the next test period.	25
15.	Boralex is directed to provide a detailed cost of service variance analysis as part of its future rates applications filed with the BCUC.	29
16.	Boralex is directed to file the following information pertaining to corporate services costs in its next rates application: <ul style="list-style-type: none"> <li>• A code of conduct and transfer pricing policy related to the corporate services provided by Boralex Inc. and a discussion of how this policy</li> </ul>	40

	<p>has been applied in determining corporate services costs in the next test period; and</p> <ul style="list-style-type: none"> <li>• Details of the forecast and actual hours and costs for each Boralex Inc. employee that are part of the corporate services cost allocation to Boralex, for each year of the Test Period.</li> </ul>	
<b>The remainder of the directives in the decision are as follows:</b>		
17.	The Panel accepts the cost allocation methodology set out in the Application for setting Test Period rates for service to BC Hydro.	5
18.	<p>The Panel directs Boralex to file with the BCUC the following information in an annual report, each year beginning no later than April 30, 2021:</p> <ul style="list-style-type: none"> <li>• Number of retail and industrial customers, and detailed analysis of historic and forecast load and revenue for these customers;</li> <li>• Details of any increase or reduction in the number of retail and industrial customers, accompanied by any applicable contracts and details of the load and revenue profile of these customers;</li> <li>• Details of any other revenue streams or potential revenue streams that may materialize during the test period;</li> <li>• BC Hydro actual load and revenue data; and</li> <li>• Expected cost to complete and file a Cost of Service Allocation study (for the first annual report only).</li> </ul>	6
19.	The Panel varies the exemption granted by Order G-26-10 and revised by Order G-143-19 to exempt Boralex from application of the UCA except for sections 2(1), 25, 38, 41, 42, 43, 49, 55, 56, 58 to 63, 99, 117 and Part 6 only with respect to setting rates for Boralex’s service to BC Hydro. All other terms and conditions contained in Order G-26-10 under Directives 2 to 6 shall remain in effect with respect to Boralex’s services provided to its other customers.	10
20.	The Panel determines the Proposed Depreciation Rates are proper and adequate, pursuant to section 56(2) of the UCA, to be applied in the calculation of depreciation expense related to Boralex’s rate base assets from the beginning of 2009 up to and including the Test Period.	10
21.	The Panel accepts Boralex’s forecast capital additions of \$7.375 million in the Test Period are reasonable, as filed.	18
22.	The Panel accepts Boralex’s proposed Test Period capital additions for the penstock 2 rehabilitation project as reasonable and does not require Boralex to file a CPCN for the project.	19
23.	The Panel directs Boralex to create a deferral account to record the revenue requirement impact associated with any differences between the forecast and actual capital additions in this Test Period only, attracting interest at Boralex’s Weighted Average Cost of Debt (WACD).	24

24.	The Panel accepts the Test Period O&M and other expenses, subject to the Panel determinations for specific items discussed in this decision.	28
25.	The Panel accepts the corporate services costs for the Test Period, as filed in the Application and adjusted in the Application Update. This is subject to the specific directives and determinations regarding the regulatory cost components discussed in section 3.3.4.3, which require Boralex to include approximately 30 percent of the regulatory costs included in the Application Update in its Test Period cost of service.	40
26.	The Panel determines an equity component of Boralex's capital structure of 46.5 percent and an equity risk premium of 75 bps above the FEI benchmark for use in calculating the revenue requirement, and in turn setting rates for service to BC Hydro.	47
27.	The Panel determines a debt rate of 5.5 percent for use in calculating the revenue requirement, and in turn in setting rates for service to BC Hydro.	52
28.	The Panel accepts Boralex's load forecast and revenue forecast for BC Hydro and for its retail and industrial customers as reasonable.	55
29.	The Panel approves the rate design proposed by Boralex for its provision of electricity to BC Hydro.	58
30.	The Panel directs Boralex to create a revenue variance deferral account to capture any revenues earned from BC Hydro during 2021 and 2022 above the Tier 1/Tier 2 threshold in the event the Penstock Rehabilitation Project is delayed.	59
31.	The Panel approves the establishment of the First Nations Deferral Account attracting interest at Boralex's WACD.	60

## Glossary of Terms

Acronym	Description
Boralex LP or Boralex	Boralex Ocean Falls Limited Partnership
BCUC	British Columbia Utilities Commission
BC Hydro	British Columbia Hydro and Power Authority
Test Period	Interim and permanent rates for service to BC Hydro for the period of July 1, 2019 to December 31, 2022
UCA	<i>Utilities Commission Act</i>
EPA	Electricity Purchase Agreement
CPCN	Certificate of Public Convenience and Necessity
O&M	Operating and Maintenance
IR	Information Request
BCOAPO	British Columbia Old Age Pensioners' Organization <i>et al.</i>
Z1BRG	Zone 1B Ratepayers Group
Ocean Falls Facilities	The hydroelectric generation, transmission and distribution facilities Boralex owns and operates at Ocean Falls
NIA	Non-integrated area
CCPC	Central Coast Power Corporation
COSA	Cost of Service Allocation
OEB	Ontario Energy Board
OPG	Ontario Power Generation
WACD	Weighted Average Cost of Debt
NBV	Net Book Value
IAS	International Accounting Standard
IFRS	International Financial Reporting Standards
FTE	Full-time Equivalents
ROE	Return on Equity
GCOC	Generic Cost of Capital
FEI	FortisBC Energy Inc.
bps	Basic points

Corix BMDEU	Corix Multi-Utility Energy Inc. Burnaby Mountain District Energy Utility
PNG(N.E.)-TR	Pacific Northern Gas (N.E.) Ltd. Tumbler Ridge
SFU	Simon Fraser University
CNRL	Canadian Natural Resources Limited
GoC	Government of Canada
MOU	Memorandum of Understanding

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

and

Borex Ocean Falls Limited Partnership  
Application for Rates and Terms and Conditions for Service to  
British Columbia Hydro and Power Authority

**EXHIBIT LIST**

<b>Exhibit No.</b>	<b>Description</b>
<i>COMMISSION DOCUMENTS</i>	
A-1	Letter dated October 17, 2019 - Appointing the Panel for the review of Borex Ocean Falls Limited Partnership Application for Rates and Terms and Conditions for Service to British Columbia Hydro and Power Authority
A-2	Letter dated October 31, 2019 – BCUC Order G-265-19 establishing the Regulatory Timetable
A-3	Letter dated December 10, 2019 – Response regarding late intervener submission
A-4	Letter dated January 3, 2020 – BCUC Order G-3-20 establishing the Regulatory Timetable
A-5	Letter dated January 31, 2020 – BCUC Information Request No. 1 to Borex LP
A-6	<b>CONFIDENTIAL</b> – Letter dated January 31, 2020 – BCUC Confidential Information Request No. 1 Borex LP
A-7	Letter dated March 2, 2020 – BCUC Order G-37-20 establishing the Regulatory Timetable
A-8	Letter dated March 23, 2020 – BCUC Information Request No. 2 to Borex LP
A-9	<b>CONFIDENTIAL</b> – Letter dated March 23, 2020 – BCUC Confidential Information Request No. 2 to Borex LP
A-10	Letter dated March 30, 2020 – BCUC response regarding Borex LP extension request to file responses to Information Requests No. 2
A-11	Letter dated May 11, 2020 – BCUC request for submissions on further process
A-12	Letter dated June 5, 2020 – BCUC Order G-142-20 updating the Regulatory Timetable
A-13	Letter dated June 10, 2020 – BCUC response to Z1BRG question

*APPLICANT DOCUMENTS*

- B-1 **BORALEX OCEAN FALLS LIMITED PARTNERSHIP (BORALEX LP)** Application dated September 30, 2019 for Rates and Terms and Conditions of Service for Service to the British Columbia Hydro and Power Authority - July 1, 2019 to December 31, 2022
- B-2 Letter dated November 13, 2019 – Boralex confirming compliance with Stakeholder notification process
- B-3 Letter dated November 26, 2019 –Boralex submitting financial model
- B-4 Letter dated December 13, 2019 – Boralex submitting Reply Submission on Regulatory Process
- B-4-1 **CONFIDENTIAL** – Letter dated December 13, 2019 – Boralex submitting confidential Reply Submission on Regulatory Process
- B-5 Letter dated January 20, 2020 – Boralex submitting Supplemental Information referred to in Directive 2 of Order G-3-20
- B-5-1 **CONFIDENTIAL** - Letter dated January 20, 2020 – Boralex submitting Confidential Supplemental Information referred to in Directive 2 of Order G-3-20
- B-6 Letter dated February 24, 2020 – Boralex submitting responses to BCUC IR No. 1
- B-6-1 **CONFIDENTIAL** - Boralex submitting confidential responses to BCUC IR No. 1
- B-6-2 **CONFIDENTIAL** - Boralex submitting confidential responses to BCUC IRs 15.3, 22.10, 23.1 and 26.1.1
- B-7 Letter dated February 24, 2020 – Boralex submitting responses to BC Hydro IR No. 1
- B-7-1 **CONFIDENTIAL** - Letter dated February 24, 2020 – Boralex submitting confidential responses to BC Hydro IR No. 1
- B-8 Letter dated February 24, 2020 – Boralex submitting responses to BCOAPO IR No. 1
- B-9 Letter dated March 9, 2020 – Boralex submitting additional responses to BCUC IR No. 1
- B-10 Letter dated March 27, 2020 – Boralex submitting extension request to file responses to Information Requests No. 2
- B-11 Letter dated April 29, 2020 – Boralex submitting update to application
- B-12 **CONFIDENTIAL** - Letter dated April 29, 2020 – Boralex submitting copy of the BBA Technical Report Penstock 2 (the BBA Report) dated April 23, 2020 prepared by BBA Engineering
- B-13 Letter dated April 29, 2020 – Boralex submitting responses to BCUC Information Request No. 2

- B-13-1 **CONFIDENTIAL** - Letter dated April 29, 2020 – Boralex submitting confidential response to BCUC Information Request No. 53.1
- B-14 **CONFIDENTIAL** - Letter dated April 29, 2020 – Boralex submitting responses to confidential BCUC Information Request No. 2
- B-15 Letter dated April 29, 2020 – Boralex submitting responses to BC Hydro Information Request No. 2
- B-16 Letter dated April 29, 2020 – Boralex submitting responses to BCOAPO Information Request No. 2
- B-17 Letter dated April 29, 2020 – Boralex submitting responses to Zone 1B Ratepayers Information Request No. 2
- B-18 Letter dated May 19, 2020 – Boralex Submission on further process
- B-19 Letter dated June 1, 2020 – Boralex Reply Submission on further process

*INTERVENER DOCUMENTS*

- C1-1 **BC HYDRO AND POWER AUTHORITY (BC HYDRO)** - Letter dated November 14, 2019 - Request for Intervener Status by Fred James
- C1-2 Letter dated November 29, 2019 – BC Hydro Submitting response on process
- C1-3 Letter dated February 3, 2020 – BC Hydro Submitting Information Request No. 1 to Boralex
- C1-4 Letter dated March 23, 2020 – BC Hydro submitting IR No. 2 to Boralex
- C1-5 Letter dated May 26, 2020 – BC Hydro Submission regarding further process
- C2-1 **ZONE 1B RATEPAYERS GROUP (Z1BRPG)** - Letter dated November 19, 2019 - Request for Intervener Status by Fred Weisberg, Weisberg Law Corporation
- C2-2 Letter dated December 6, 2019 – Z1BRPG Submitting late response on process
- C2-3 Letter dated March 23, 2020 – Z1BRPG Submitting IR No. 2 to Boralex
- C2-4 Letter dated May 26, 2020 – Z1BRG Submission regarding further process
- C2-5 Letter dated June 8, 2020 – Z1BRG Submission regarding Reasons for Decision for Order G-143-20

- C3-1 **BC OLD AGE PENSIONERS' ORGANIZATION, ACTIVE SUPPORT AGAINST POVERTY, COUNCIL OF SENIOR CITIZENS' ORGANIZATIONS OF BC, DISABILITY ALLIANCE BC, TENANTS RESOURCE AND ADVISORY CENTRE, AND TOGETHER AGAINST POVERTY SOCIETY, KNOWN COLLECTIVELY IN REGULATORY PROCESSES AS "BCOAPO ET AL." (BCOAPO ET AL)** - Letter dated November 19, 2019 - Request for Intervener Status by Leigha Worth and Irina Mis, British Columbia Public Interest Advocacy Centre
- C3-2 Letter dated November 29, 2019 – BCOAPO Submitting response on process
- C3-3 Letter dated February 3, 2020 – BCOAPO Submitting Information Request No. 1 to Boralex
- C3-4 Letter dated March 23, 2020 – BCOAPO submitting IR No. 2 to Boralex
- C3-5 Letter dated May 26, 2020 – BCOAPO Submission regarding further process
- C4-1 **NUXALK NATION (NUXALK NATION)** – Letter dated November 27, 2019 – Request for Intervener Status by Bernie Elkins

*INTERESTED PARTY DOCUMENTS*

- D-1 **HOULE-COUTURE, JUDITH (HOULE-COUTURE)** - Submission dated October 29, 2019 Request for Interested Party Status
- D-2 **HOWARD, A. (HOWARD)** - Submission dated November 18, 2019 Request for Interested Party Status
- D-3 **GJOSHE , E. (GJOSHE)** - Submission dated November 29, 2019 Request for Interested Party Status

## Appendix D – Legislative Framework

The relevant authorities for this decision, sections 56, 59 to 61 of the *Utilities Commission Act (UCA)*, are outlined in full below.

### Depreciation accounts and funds

56 (1) If the commission, after inquiry, considers that it is necessary and reasonable that a depreciation account should be carried by a public utility, the commission may, by order, require the utility to keep an adequate depreciation account under rules and forms of account specified by the commission.

(2) The commission must determine and, by order after a hearing, set proper and adequate rates of depreciation.

(3) The rates must be set so as to provide, in addition to the expense of maintenance, the amounts required to keep the public utility's property in a state of efficiency in accordance with technical and engineering progress in that industry of the utility.

(4) A public utility must adjust its depreciation accounts to conform to the rates set by the commission and, if ordered by the commission, must set aside out of earnings whatever money is required and carry it in a depreciation fund.

(5) Without the consent of the commission, the depreciation fund must not be expended other than for replacement, improvement, new construction, extension or addition to the property of the utility.

### Discrimination in rates

59 (1) A public utility must not make, demand or receive

- (a) an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia, or
- (b) a rate that otherwise contravenes this Act, the regulations, orders of the commission or any other law.

(2) A public utility must not

- (a) as to rate or service, subject any person or locality, or a particular description of traffic, to an undue prejudice or disadvantage, or
- (b) extend to any person a form of agreement, a rule or a facility or privilege, unless the agreement, rule, facility or privilege is regularly and uniformly extended to all persons under substantially similar circumstances and conditions for service of the same description.

(3) The commission may, by regulation, declare the circumstances and conditions that are substantially similar for the purpose of subsection (2) (b).

(4) It is a question of fact, of which the commission is the sole judge,

- (a) whether a rate is unjust or unreasonable,
- (b) whether, in any case, there is undue discrimination, preference, prejudice or disadvantage in respect of a rate or service, or
- (c) whether a service is offered or provided under substantially similar circumstances and conditions.

(5) In this section, a rate is "unjust" or "unreasonable" if the rate is

- (a) more than a fair and reasonable charge for service of the nature and quality provided by the utility,
- (b) insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property, or
- (c) unjust and unreasonable for any other reason.

### **Setting of rates**

60 (1) In setting a rate under this Act

- (a) the commission must consider all matters that it considers proper and relevant affecting the rate,
- (b) the commission must have due regard to the setting of a rate that
  - (i) is not unjust or unreasonable within the meaning of section 59,
  - (ii) provides to the public utility for which the rate is set a fair and reasonable return on any expenditure made by it to reduce energy demands, and
  - (iii) encourages public utilities to increase efficiency, reduce costs and enhance performance,
- (b.1) the commission may use any mechanism, formula or other method of setting the rate that it considers advisable, and may order that the rate derived from such a mechanism, formula or other method is to remain in effect for a specified period, and
- (c) if the public utility provides more than one class of service, the commission must
  - (i) segregate the various kinds of service into distinct classes of service,
  - (ii) in setting a rate to be charged for the particular service provided, consider each distinct class of service as a self contained unit, and
  - (iii) set a rate for each unit that it considers to be just and reasonable for that unit, without regard to the rates set for any other unit.

(2) In setting a rate under this Act, the commission may take into account a distinct or special area served by a public utility with a view to ensuring, so far as the commission considers it advisable, that the rate applicable in each area is adequate to yield a fair and reasonable return on the appraised value of the plant or system of the public utility used, or prudently and reasonably acquired, for the purpose of providing the service in that special area.

(3) If the commission takes a special area into account under subsection (2), it must have regard to the special considerations applicable to an area that is sparsely settled or has other distinctive characteristics.

(4) For this section, the commission must exclude from the appraised value of the property of the public utility any franchise, licence, permit or concession obtained or held by the utility from a municipal or other public authority beyond the money, if any, paid to the municipality or public authority as consideration for that franchise, licence, permit or concession, together with necessary and reasonable expenses in procuring the franchise, licence, permit or concession.

### **Rate schedules to be filed with commission**

61 (1)A public utility must file with the commission, under rules the commission specifies and within the time and in the form required by the commission, schedules showing all rates established by it and collected, charged or enforced or to be collected or enforced.

(2)A schedule filed under subsection (1) must not be rescinded or amended without the commission's consent.

(3)The rates in schedules as filed and as amended in accordance with this Act and the regulations are the only lawful, enforceable and collectable rates of the public utility filing them, and no other rate may be collected, charged or enforced.

(4)A public utility may file with the commission a new schedule of rates that the utility considers to be made necessary by a change in the price, over which the utility has no effective control, required to be paid by the public utility for its gas supplies, other energy supplied to it, or expenses and taxes, and the new schedule may be put into effect by the public utility on receiving the approval of the commission.

(5)Within 60 days after the date it approves a new schedule under subsection (4), the commission may,

(a)on complaint of a person whose interests are affected, or

(b)on its own motion,

direct an inquiry into the new schedule of rates having regard to the setting of a rate that is not unjust or unreasonable.

(6)After an inquiry under subsection (5), the commission may

(a)rescind or vary the increase and order a refund or customer credit by the utility of all or part of the money received by way of increase, or

(b)confirm the increase or part of it.