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July 15, 2020

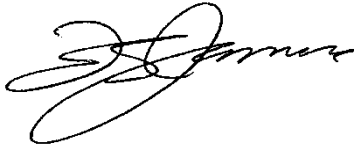
Ms. Marija Tresoglavic
Acting Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Ms. Tresoglavic:

RE: Project No. 1599046
British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Boralex Ocean Falls Limited partnership (Boralex LP)
Application for Rates and Terms and Conditions for Service to BC Hydro
BC Hydro Final Argument

BC Hydro writes in compliance with BCUC Order No. G-142-20 to provide its Final Argument.

Yours sincerely,



Fred James
Chief Regulatory Officer

bf/rh

Copy to: **Boralex**
Attention: Maxime Tremblay
Maxime.tremblay@boralex.com

**Boralex LP Application for Rates and Terms
and Conditions for Service to BC Hydro**

**Counsel's Final Written Submission
on behalf of
British Columbia Hydro and Power Authority**

July 15, 2020

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1 **Summary and Recommendations**

2 The British Columbia Hydro and Power Authority (**BC Hydro**) makes the following
3 recommendations as elaborated in the body of this Final Argument.

- 4 • Capital Structure and Returns on Equity and Debt: Boralex LP's capital
5 structure and allowed return on equity (**ROE**) for ratemaking purposes should
6 be reduced from what is proposed in the Application. BC Hydro submits that the
7 utility capital structure should be set at 42.5 per cent equity : 57.5 per cent debt,
8 and its Risk Premium set at 75 basis points above the benchmark with a
9 resulting allowed ROE of 9.5 per cent.

10 Boralex requests an equity ratio and ROE, for ratemaking purposes, in excess
11 of what the BCUC has allowed for any utility in the province. Boralex believes
12 that it is the highest risk utility in the province.¹

13 BC Hydro submits that Boralex LP's overall risk is similar to other smaller
14 utilities in British Columbia. Those circumstances that could be considered to
15 result in higher risks for Boralex LP (e.g., the remote location of its facility) are
16 more than offset by those circumstances that significantly lower risks for the
17 utility (e.g., the form of energy produced is clean hydroelectricity, the facilities
18 and technology employed are very well established and BC Hydro provides
19 about 85 per cent of Boralex LP's revenue) relative to the benchmark utility.

20 The deemed debt interest rate should also be reduced from what is proposed in
21 the Application, from 5.5 per cent to a lower rate in the range of 3.0 per cent to
22 3.8 per cent to be consistent with the benchmark utility.

¹ Exhibit B-7, Boralex response to BC Hydro IR 1.10.2.

1 • Operation and Maintenance (**O&M**) Costs: Boralex LP's planned O&M costs
2 are high and can reasonably be reduced by an average approximately
3 \$0.6 million per year. This is a function of the following appropriate changes:

- 4 ▶ Allocating a portion of O&M costs as capitalized overhead;
- 5 ▶ Removing employee retirement allowance costs incurred prior to the test
6 period of the Application;
- 7 ▶ Reducing the planned two-year overlap of new and retiring operators;
- 8 ▶ Reducing the planned site manager two-year overlap with the replacement
9 manager;
- 10 ▶ Setting corporate services at a maximum of 30 per cent of total salaries,
11 plus 30 per cent of the amount of the new regulatory affairs employee
12 Boralex Inc. intends to hire, capped at a total of \$100,000/year; and
- 13 ▶ Reducing regulatory costs allowed for recovery.

14 BC Hydro submits that Boralex LP has presented inadequate evidence on the
15 actual costs incurred to date by Boralex LP and on the costs Boralex LP will
16 incur during the test period, which makes the determination of just and
17 reasonable rates extremely challenging.

18 These issues are exacerbated by a lack of reasonable and transparent
19 accounting between Boralex Inc. and Boralex LP and the value of the time
20 Boralex Inc. employees spend on behalf of Boralex LP, which hampers
21 appropriate determinations of O&M costs.

22 BC Hydro recommends that the BCUC request Boralex LP to employ a more
23 transparent and robust methodology for accounting for the actual employment
24 costs they are accruing and anticipate accruing.

25 • Capital Expenditures and Additions: Boralex LP has presented insufficient
26 evidence to justify maintaining both of its two smaller turbines (G1 and G2) on

1 standby. Similarly, Boralex LP has not shown why the rehabilitation of
2 Penstock 2 is the most prudent solution to the issue of the ageing penstock.

3 BC Hydro acknowledges that some of the key equipment at the Ocean Falls
4 Facilities are old. However, the age of the equipment in and of itself does not
5 establish that rehabilitation or replacement is necessary now, nor does it
6 establish that the specific projects outlined by Boralex LP are the most
7 cost-effective solutions, nor does it establish that Boralex LP has the necessary
8 resources to complete these projects on the timetable assumed in the
9 Application.

10 Boralex LP should maintain only one of the smaller turbine units (either G1 or
11 G2, whichever is in better condition) and maintain both larger units (G3 and G4)
12 for N-1 redundancy to replace the loss of a large unit. BC Hydro considers that
13 any spending on the second smaller unit would be imprudent at this time and
14 should be excluded from revenue requirements.

15 The capital additions and related expenses in the Application relating to the
16 Penstock 2 rehabilitation project should be excluded from revenue
17 requirements and rates at this time. Boralex LP should be required to apply for
18 and obtain a CPCN from the BCUC before proceeding with the Penstock 2
19 rehabilitation project and recovering associated costs in rates. BC Hydro would
20 encourage Boralex LP to bring forward the CPCN application as soon as
21 practicable.

22 The BCUC should require Boralex LP to establish a deferral account to record
23 the impact of differences between forecast capital additions, as set out in the
24 Application, and actual capital additions, and to carry forward the balance in the
25 account for consideration in future revenue requirement applications.

- 26 • Revenues from Other Customers: BC Hydro submits that a deferral account
27 should be established and that BC Hydro should benefit from any increase in

1 revenues from Ocean Falls Blockchain or other industrial customers not
2 forecast in the Application.

- 3 • Rate Structure for Service to Other Customers: BC Hydro does not take issue
4 with maintaining the existing methodology for setting rates for service to the
5 other customers of the Ocean Fall Facilities. BC Hydro submits that this
6 methodology is acceptable for the time being but may need to be revisited in
7 the future in the event that Boralex LP diversifies its customer/revenue base.

8 **2 Introduction**

9 **2.1 Background**

- 10 1. The communities of Bella Bella, Shearwater, and Waglisla are located on the
11 central coast of British Columbia within a BC Hydro Non-Integrated Area (**Bella
12 Bella NIA**) which is also referred to as BC Hydro's Rate Zone 1B. For
13 approximately 30 years, BC Hydro has been purchasing electricity from the
14 privately-owned hydroelectric project at Ocean Falls (**Ocean Falls Facilities**),
15 owned by Boralex Ocean Falls LP (**Boralex LP**) since 2009, to serve BC Hydro
16 customers in the Bella Bella NIA.
- 17 2. The Ocean Falls Facilities are interconnected by a 45 km, 25 kV
18 distribution-voltage transmission line to BC Hydro's diesel generation station
19 substation at Shearwater on Denny Island. Boralex LP owns and operates this
20 transmission line. BC Hydro relies on the Ocean Falls Facilities to serve the
21 Bella Bella NIA and has been receiving reliable service from the project.
- 22 3. The Ocean Falls Facilities have customers other than BC Hydro. These
23 customers are located in the area of the Ocean Falls community and include
24 several residences and two small industrial operations (a salmon aquaculture
25 operation owned by Mowi Canada West and a cryptocurrency mining operation
26 owned by Ocean Falls Blockchain).

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- 1 4. Approximately 85 per cent of Boralex LP's revenue comes from BC Hydro,²
2 with the remaining 15 per cent coming from the residential and small industrial
3 customers in Ocean Falls.
- 4 5. The original electricity purchase agreement between BC Hydro and the
5 previous owner of the Ocean Falls Facilities became effective in 1986 and its
6 initial term expired on December 31, 2016.³ BC Hydro and Boralex LP
7 discussed terms for an EPA renewal with respect to the facilities for several
8 years but the negotiations were not successful. Specifically, the parties could
9 not reach agreement with respect to pricing and terms for an EPA renewal.
- 10 6. BC Hydro's focus in the negotiations was on a reasonable Boralex LP cost of
11 service (including a reasonable rate of return). BC Hydro also considered its
12 opportunity cost and Boralex LP's opportunity cost. Unlike independent power
13 producers (**IPPs**) connected to BC Hydro's integrated system, the Ocean Falls
14 Facilities are connected to a non-integrated area and therefore Boralex LP is
15 not subject to competitive forces with respect to its opportunity cost. In addition,
16 BC Hydro has very limited resource options to supply its customers in this
17 non-integrated area which means that BC Hydro has a high opportunity cost.
18 Further, the Ocean Falls Facilities have surplus capacity. All these factors make
19 the situation quite different as compared to IPPs connected to the integrated
20 system.
- 21 7. In short, BC Hydro needs service from the Ocean Falls Facilities. The facilities
22 likely would not be financially viable without BC Hydro as a customer, but
23 BC Hydro was not able to obtain through negotiation a just and reasonable
24 price and terms for the service resulting in this application by Boralex LP for the

² Exhibit B-7, Boralex response to BC Hydro IR 1.10.6, see also Exhibit B-1, Boralex Application, 4.3 at paras. 38, 39.

³ The original EPA was extended several times after its initial December 31, 2016 expired date, until the BCUC by Order No. G-143-19 set a rate for Boralex's service to BC Hydro effective July 1, 2019 and on an interim and refundable basis.

1 BCUC to set the rates and terms and conditions for Boralex LP's service to
2 BC Hydro.

3 8. Boralex LP is a limited partnership that was formed for the sole purpose of
4 acquiring, owning and operating the Ocean Falls Facilities.

5 9. Boralex LP is a subsidiary of Boralex Inc., a public company listed on the
6 Toronto Stock Exchange that develops, builds and operates renewable energy
7 power facilities in Canada, France, the United Kingdom and the United States.
8 Boralex Inc. describes itself as a "major player in renewable energy".⁴ Its
9 operating facilities include wind, hydro, thermal and solar energy facilities with a
10 combined capacity of approximately 2,000 MW. In British Columbia, in addition
11 to the Ocean Falls Facilities, Boralex Inc. owns and operates the Jamie Creek
12 hydroelectric facility north of Pemberton and the Moose Lake wind facility near
13 Tumbler Ridge.⁵

14 **2.2 Regulatory Proceeding**

15 10. BC Hydro has actively participated in this BCUC regulatory proceeding,
16 including submitting two rounds of information requests (**IRs**) to Boralex LP.⁶

17 11. BC Hydro finds that Boralex LP has responded to the IRs in a transparent and
18 constructive manner.

19 12. BC Hydro considers that Boralex LP has been forthcoming in providing
20 requested information to the extent the information is available. The issue
21 overall, however, is that certain information Boralex LP ought to have does not
22 exist. Boralex LP has been forthcoming in acknowledging where information
23 requested does not exist.

⁴ <https://www.boralex.com/who-we-are/>

⁵ Exhibit B-1, Boralex Application, 2.0 at para. 14.

⁶ BC Hydro's IRs to Boralex are Exhibits C1-3 and C1-4.

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- 1 13. Perhaps the most problematic instance of this shortcoming in information that
2 ought to be, but is not, available is with respect to Boralex LP's forecast capital
3 expenditure and capital additions. For the 11-year period from 2009 through
4 2019, Boralex spent \$8.1 million in capital expenditures; whereas forecast
5 capital additions over the next three years are \$7.1 million, which is a significant
6 increase in both annual work and spending. The increase in capital additions
7 and related increases in return on total capital are major drivers of the rates
8 Boralex LP is requesting. In many instances, Boralex LP's replies to BC Hydro's
9 IRs often contained admissions that they simply had not engaged with key
10 considerations that ought to have been factored into their analysis. In other
11 instances, Boralex LP did claim to have considered these factors, but their IR
12 responses indicate the consideration was somewhat superficial.
- 13 14. The onus is on Boralex LP to demonstrate that its requested rates are not
14 unjust or unreasonable within the meaning of section 59 of the *Utilities*
15 *Commission Act*. This would include a robust foundation for its Application,
16 including underlying policies and methodologies that are in keeping within the
17 context of the utility's operations. BC Hydro is not suggesting that Boralex LP
18 should be held to the same standards as are expected of BC Hydro, for
19 example. Boralex LP is not a large utility or a publicly-accountable Crown
20 corporation and should not be held to the standards for such entities.
- 21 15. However, Boralex LP should be held to standards that are reasonable in the
22 context of its utility operations. But in many instances, the foundation of
23 Boralex LP's Application does not meet a reasonable standard because
24 information is either lacking or does not exist.

1 **3 Deemed Capital Structure, Allowed ROE and Debt**
2 **Rate**

3 **3.1 Equity Ratio and Allowed ROE**

4 16. As part of its Application, Boralex LP claimed that it faces significantly higher
5 risks compared to the benchmark utility, FortisBC Energy Inc. (FEI), such that
6 Boralex LP believes the appropriate common equity ratio and risk premium for
7 the Ocean Falls Facilities is as follows:⁷

Table 22: Equity Ratio and Return on Equity

Equity Ratio	50%
Benchmark Utility ROE	8.75%
Boralex LP Risk Premium	125 basis points
Resulting Boralex LP ROE	10.0%

8 17. BC Hydro addresses each of these elements below but notes that a
9 determination of the appropriate equity ratio and return on equity is a holistic
10 and not a mechanical exercise.

11 18. In BC Hydro IR 10.1 to Boralex LP, we inquired as to whether Boralex LP is
12 aware of any utility operating in British Columbia that the BCUC has awarded a
13 higher allowed ROE and a higher deemed equity weighting as a percentage of
14 total capital than that which Boralex LP is proposing in its Application.⁸

15 19. Boralex LP stated that it was not aware of any such utilities operating in British
16 Columbia and was also not aware of any other utility operating in the province
17 that faces the same overall level of risk as Boralex LP.⁹

⁷ Exhibit B-1, Boralex Application, 9.1 at para. 132.

⁸ Exhibit C1-3, BC Hydro Round 1 IR to Boralex, 10.1.

⁹ Exhibit B-7, Boralex response to BC Hydro IR 1.10.1.

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- 1 20. BC Hydro conducted an evaluation of the approved equity ratio of a number of
2 utilities in order to determine whether any utility had an approved equity ratio at
3 50 per cent. BC Hydro was unable to find a single utility with an approved
4 equity ratio higher than 46.5 per cent. There are only two utilities with a deemed
5 equity ratio of 46.5 per cent, both of which are offshoots of Pacific Northern
6 Gas.
- 7 21. BC Hydro submits that Boralex LP's analysis of risks¹⁰ puts too much weight on
8 risks associated with the remote location of the Ocean Falls Facilities, which is
9 reasonably a risk factor, and not enough weight on the factors that significantly
10 lower this utility's risk.
- 11 22. In its Application, Boralex LP included a modified version of the BCUC's risk
12 matrix to compare the risks faced by Boralex LP to those faced by FEI.¹¹ While
13 it is correct to evaluate risk against the benchmark in this exercise, the exercise
14 should not ignore the risk profiles and approved capital structures and allowed
15 ROE of other relevant utilities. BC Hydro notes that Boralex LP in its Application
16 has largely glossed over the risks and allowed capital structures of other utilities
17 and in particular other hydroelectric utilities.
- 18 23. BC Hydro, having reviewed all of the evidence, believes that there are a
19 number of factors that greatly reduce the risks Boralex LP faces as compared
20 to the benchmark. The evidence suggests that Boralex LP has overall risk
21 similar to other small-scale utilities such as Corix SFU UniverCity, FortisBC
22 Energy Whistler (prior to amalgamation), and PNG-West, and also similar to the
23 overall risk of FortisBC Inc. (another hydroelectric utility with ageing generation
24 facilities). This is due to a number of factors, including:
- 25 ▶ The Ocean Falls Facilities produce clean hydroelectricity with very well-
26 established technology and facilities. The Ocean Falls Facilities have been

¹⁰ Exhibit B-1, Boralex Application, 9.1.

¹¹ Exhibit B-1, Boralex Application, 9.1 at para. 131.

1 operating for about 100 years and for all intents and purposes have more
2 than sufficient fuel (water) readily available at all times;

3 ► BC Hydro is Boralex LP's primary customer and provides it with
4 approximately 85 per cent of its revenue;¹²

5 ► BC Hydro has a low to insignificant risk of defaulting;¹³

6 ► The rate design assumes that BC Hydro takes the volume risk;

7 ► Energy sales to BC Hydro have been stable and growing at 1.6 per cent
8 year over year;¹⁴ and

9 ► Boralex LP is likely to continue relying on this model due to difficulties in
10 load forecasting¹⁵ and due to having BC Hydro as a backstop in the event
11 that revenue attributable to other customers is lower in the future.¹⁶

12 24. A number of significant risk factors that are faced by other utilities (e.g., other
13 utilities are making significant capital investments in greenfield plants, have
14 technology risks, and need to build customer bases from zero while facing
15 competition from established alternatives) are simply not present for
16 Boralex LP. Accordingly, BC Hydro submits that Boralex LP's position that it is
17 the riskiest utility in the province¹⁷ is not reasonable.

18 25. For similar reasons, BC Hydro also submits that Boralex LP's requested
19 125 basis point risk premium is not reasonable. 125 basis points represents
20 50 additional points above any other utility in British Columbia, big or small, gas
21 or electric, thermal or hydro.

¹² Exhibit B-7, Boralex response to BC Hydro IR 1.10.9.

¹³ Exhibit B-7, Boralex response to BC Hydro IR 1.10.10.

¹⁴ Exhibit B-7, Boralex response to BC Hydro IR 1.10.11.

¹⁵ Exhibit B-7, Boralex response to BC Hydro IR 1.10.12.1.

¹⁶ Exhibit B-7, Boralex response to BC Hydro IR 1.10.13.

¹⁷ Exhibit B-7, Boralex response to BC Hydro IR 1.10.2.

- 1 26. Further to this, Boralex LP has submitted that the history of its facilities and its
2 inexperience with BCUC regulation also contribute to higher risks in terms of
3 'regulatory uncertainty' as compared to the benchmark utility FEI's regulatory
4 uncertainty risk.¹⁸ BC Hydro does not agree with that assessment by
5 Boralex LP and notes that Boralex LP is part of a large multinational group and
6 has retained experienced counsel to support its Application. BC Hydro submits
7 that any regulatory uncertainty Boralex LP is facing in connection with its rate
8 application does not result from regulation by the BCUC pursuant to the *Utilities*
9 *Commission Act*, but rather is due to Boralex LP's approach to its Application,
10 including, for instance, the request for a higher risk premium and equity ratio
11 than any other utility in the province. Boralex LP should not be compensated for
12 the risk that its requests for extremely favourable treatment, in its Application,
13 might not be approved.
- 14 27. Additionally, there are a number of significant risks that Boralex LP has low to
15 no exposure to. These include exposure to foreign exchange risks, fluctuating
16 price risk,¹⁹ interest rate risk,²⁰ credit risk,²¹ and liquidity risks.²²
- 17 28. Finally, in Boralex LP's Final Argument, it notes that its actual equity ratio is
18 higher than 50 per cent due to previous injections of additional equity and the
19 paying down of long term debt.²³ As a result, Boralex LP suggests that it is not
20 the case that they are seeking a higher equity ratio and that they anticipate, if
21 cost effective to do so, refinancing or raising additional debt to balance out their
22 equity ratio.²⁴

¹⁸ Exhibit B-7, Boralex response to BC Hydro IR 1.10.20.

¹⁹ Boralex has a long-term indexed fixed-price energy sales contract which is not subject to fluctuations in electricity prices.

²⁰ Term loans bear interest at fixed rates.

²¹ As previously noted, BC Hydro is Boralex's largest customer.

²² Boralex, like other utilities, manages its cash based on future financial forecasting. The forecasting Boralex has put forward thus far does not suggest any risk of being unable to meet obligations as they come due.

²³ Boralex Final Argument, paras. 137-138.

²⁴ Boralex Final Argument, para. 138.

1 29. BC Hydro submits that Boralex LP's actual equity ratio at this time is not
2 justification for the BCUC to approve for Boralex LP a higher equity ratio than
3 any other utility in the province. As Boralex LP acknowledges in its Final
4 Argument, it is able to rebalance its actual equity ratio.

5 30. BC Hydro submits that an appropriate deemed equity ratio for Boralex LP is
6 42.5 per cent and an appropriate allowed ROE is 9.5 per cent in line with a
7 number of other utilities in the province with similar levels of risk overall.

8 **3.2 Debt Interest Rate**

9 31. After reviewing the evidence, BC Hydro has concerns about the 5.5 per cent
10 deemed debt interest rate proposed by Boralex LP.²⁵

11 As noted in its Final Argument, Boralex LP has received third party, arms length
12 debt at a fixed rate of 6.55 per cent per annum.²⁶ That debt rate is under an
13 agreement Boralex LP entered into in July 2011 with a 13-year term. The
14 6.55 per cent rate is not relevant to determining a deemed debt interest rate for
15 the test period of the Application given that it predates the risk mitigation
16 Boralex LP now has as a result of rate regulation. Further, that rate is from debt
17 secured in 2011, and the current market cost of debt is much lower as
18 discussed below.²⁷

19 32. The irrelevance of the 6.55 per cent rate is further evidenced by:

- 20 ► Boralex LP's parent company closing in 2017 of a long-term tranche of
21 \$51.3 million with an all-in interest rate of approximately 4.9 per cent for its
22 Moose Lake wind project,²⁸ which is a project that was not yet built or

²⁵ Exhibit B-1, Boralex Application, 9.2 at para. 138; Boralex Final Argument, para. 142.

²⁶ Boralex Final Argument, para. 139.

²⁷ In Corix Multi-Utility Services Inc.'s recent CPCN application for the Burnaby Mountain District Energy Utility ([Decision and Order C-5-17, dated September 15, 2017](#)), Corix determined the interest rate on debt financing as 3.8 per cent, 5.4, page 44.

²⁸ <https://www.newswire.ca/news-releases/boralex-closes-the-financing-of-moose-lake-wind-farm-project-659711873.html>

1 operating and therefore had construction risk exposure at the time of
2 securing that loan; and

3 ► In Corix Multi-Utility Services Inc.'s recent CPCN application for the Burnaby
4 Mountain District Energy Utility, the interest rate on debt financing was
5 3.8 per cent.²⁹

6 33. Boralex LP's proposed deemed debt interest rate eschewed using the 10-year
7 Government of Canada (**GoC**) benchmark rate, citing its issuance of debt to a
8 third-party lender, its reliance on its lender's judgment that a 30-year term as
9 issued in current rate markets would warrant a 350 basis point spread over a
10 GoC bond yield of equivalent term, and its intention to refinance its existing
11 debt with a 30-year debt.³⁰

12 34. Boralex LP did not provide any evidence from their lender as to why the 30-year
13 GoC bond yield is the appropriate comparator, nor did Boralex LP provide any
14 evidence as to what canvassing, if any, their lender had done to gauge broader
15 financial markets for competitive rates that may have been to their benefit.
16 Similarly, Boralex LP did not provide any evidence about a 30-year term being
17 "the norm for hydroelectric facilities." Notably, Boralex LP's existing debt was
18 issued with an original term of 13 years.

19 35. Boralex LP was asked in IRs about the merits of using the spot rate as part of
20 the methodology to calculate a deemed debt interest rate. Boralex LP also
21 eschewed using the spot rate indicating that it would prefer a three-year moving
22 average based on the 10-year GoC yield as between February 2017 to
23 February 2020.³¹

24 36. Again, Boralex LP has not provided sufficient evidence to support the use of a
25 three-year average in lieu of a spot rate. It is not enough to simply cite how spot

²⁹ BCUC [Decision and Order C-5-17, dated September 15, 2017](#), page 44.

³⁰ Exhibit B-15, Boralex Response to BC Hydro IR 2.34.1.

³¹ Exhibit B-16, Boralex response to BCOAPO IR 2.43.1.

1 rates reflect a specific moment in time as the only justification for not using
2 them. Furthermore, were Boralex LP to go to market, their lenders would not
3 use this form of historical averaging to determine the borrowing rate for a new
4 loan.

5 37. This is not to say that historical data has not been used in setting a debt interest
6 rate. However, Boralex LP has adduced no evidence suggesting that their
7 seeking of debt would be treated in this fashion by third-party lenders.

8 38. Finally, despite correctly identifying that the BCUC's Stage 2 GCOC decision
9 mandates the use of debt that tracks a benchmark credit spread that reflects
10 BBB or BBB(low) rated debt relative to the 10-year GoC bond yield,³²
11 Boralex LP arrives at a 350 basis point spread without any justification for how
12 they arrived at the spread and for varying from the approach specified in the
13 BCUC's Stage 2 GCOC decision.

14 39. Recent BBB+/BBB/BBB- indices indicate a spread over a 10-year GoC bond
15 yield in the range of 200 basis points, far short of Boralex LP's 350 suggested
16 basis points. BC Hydro submits that the evidence in this proceeding is
17 insufficient to justify Boralex LP's request for such a high deemed debt rate.

18 40. BC Hydro submits that the 10-year GoC bond yield rate and its current market
19 yields are more appropriate than Boralex LP's 30-year yield with the use of a
20 three-year average for determining market yield. In conjunction with this, the
21 average spread for the 10-year BBB+/BBB/BBB- indices over the GoC rate is
22 more appropriate than Boralex LP's suggested 350-point spread.

23 41. In conclusion, BC Hydro submits that the deemed debt interest rate for the test
24 period should be set in the range of 3.0 per cent to 3.8 per cent.

³² Exhibit B-15, Boralex response to BC Hydro IR 2.34.1.

1 **4 Working Capital**

2 42. Boralex LP proposes that its rates for service to BC Hydro reflect a working
3 capital amount of \$400,000, such amount equalling approximately three months
4 of its 2019 forecast of O&M expenses.³³ This amount was arrived at, as
5 Boralex LP acknowledged, by calculating the difference between its balance
6 sheet receivables and payables. This was not determined through the use of a
7 lead-lag study or other such study.

8 43. Boralex LP's working capital amount is the subject of a number of concerns, not
9 the least of which is Boralex LP's admission that it potentially represents a
10 negative working capital amount as it relates to the example years used (2014
11 to 2017).³⁴

12 44. Boralex LP suggested that the \$400,000 amount, while an estimate, also has
13 regard to the greater demand on Boralex LP's liquidity and cash over the 2019
14 to 2022 test period and does not include any amount for AFUDC.³⁵

15 45. BC Hydro submits that estimates of this nature are not a sufficient basis for
16 setting Boralex LP's rates for utility service.

17 46. In the BCUC's IR 2.41.3 to Boralex LP, the BCUC has suggested using a
18 45-day lag rule as a potential substitute to a lead lag study and put it to
19 Boralex LP to confirm that, based on a calculation of a 45-day lag, Boralex LP's
20 Working Capital Requirement would be \$231,904. Boralex confirmed this
21 amount as accurate.³⁶

22 47. The 45-day lag rule represents a principled and fact-based estimation of
23 working capital requirements. BC Hydro accordingly submits that:

³³ Exhibit B-13, Boralex Response to BCUC IR 2.41.1.

³⁴ Exhibit B-13, Boralex response to BCUC IR 2.41.1.

³⁵ Exhibit B-13, Boralex response to BCUC IR 2.41.2. Boralex did not include any amount of working capital in lieu of AFUDC. Regardless, the working capital amount would be the same if Boralex recovered AFUDC.

³⁶ Exhibit B-13, Boralex response to BCUC IR 2.41.3.

- 1 ▶ The BCUC should not accept Boralex LP's \$400,000 proposal in lieu of firm
2 evidence or studies to support such a high amount, and in lieu of such
3 evidence; and
- 4 ▶ The 45-day lag rule should be used as a reasonable approach for estimating
5 Boralex LP's working capital requirements for use in rate setting.

6 **5 Cost Escalation Factors**

7 48. In its Application and Final Argument, Boralex LP has included actual and
8 forecasted inflation for property and school taxes, salaries and wages, and
9 capital costs. BC Hydro generally agrees that Boralex LP's projections are
10 reasonable but submits that some values should be slightly modified based on
11 the evidence.

12 49. Boralex LP has forecast that property and school taxes will be exposed to a
13 3 per cent inflation rate as shown as the following table:³⁷

Table 25: Forecast Property Taxes and Water Rentals (\$000's)

	2019 (Q3-Q4)	2020	2021	2022
Property and School Taxes	\$176	\$362	\$373	\$384
Water Rentals	\$33	\$66	\$68	\$69

14 50. This projection suggests that property and school taxes will increase at a rate
15 higher than generally forecast inflation of 2 per cent.

16 51. Similarly, Boralex LP has forecasted that labour costs will increase by
17 3 per cent per year starting in 2020.³⁸

³⁷ Exhibit B-1 Boralex Application, 9.5 at para. 141.

³⁸ Exhibit B-5, Boralex Supplemental Information of Directive 2, BCUC Order No. G-3-20, 2.0.

1 52. Lastly, BC Hydro traditionally has used a 2 per cent inflation rate for its own
2 capital cost forecasts.

3 53. In the absence of clear evidence demonstrating that Boralex LP's costs are
4 subject to inflationary pressures in excess of the general rate of inflation,
5 BC Hydro submits that it is appropriate to use a 2 per cent inflation rate for
6 projections of general costs, property and school taxes, labour, and capital
7 costs.³⁹

8 **6 Operating Costs**

9 54. Boralex LP's operation and management costs have been estimated at
10 \$1,881,000, \$2,347,000, and \$2,299,000 for each year over the test period as
11 shown in Table 3 of the Application Update.⁴⁰

³⁹ BC Hydro notes that the impact on the rates would be minimal. If estimated against property tax and capital inflation only, the impact on the rates would be a reduction of approximately \$0.56/MWh or \$7,400 yearly.

⁴⁰ Exhibit B-11, Boralex Application Update dated April 29, 2020, page 4-5.

Table 3: Revenue Requirement 2019 to 2022 (\$000's)

	2019	2020	2021	2022
<i>Rate Base</i>	\$13,507	\$13,904	\$15,905	\$19,749
<i>Deemed Equity</i>	\$6,754	\$6,952	\$7,952	\$9,874
<i>Deemed Debt</i>	\$6,754	\$6,952	\$7,952	\$9,874
	2019 (Q3-Q4)	2020	2021	2022
Return on Equity	\$331	\$678	\$737	\$882
Return on Debt	\$182	\$373	\$406	\$485
Depreciation Expense	\$134	\$282	\$311	\$368
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
Gross Revenue Requirement	\$1,844	\$3,642	\$4,241	\$4,487
Ocean Falls Retail Customer Revenue	\$50	\$94	\$96	\$98
Ocean Falls Industrial Customer Revenue	\$304	\$533	\$503	\$512
Total	\$354	\$627	\$599	\$610
Net Revenue Requirement	\$1,490	\$3,015	\$3,642	\$3,877

- 1 55. Boralex LP has also provided line item projections for its operations and
 2 management costs as further detailed in Table 27 of the Application Update.

Table 27: Forecast O&M Expenses (\$000's)

O&M Line Item	2019 (Q3-Q4)	2020	2021	2022
Employee Costs	-	-	-	-
<i>Salaries and Benefits</i>	\$275	\$606	\$793	\$776
<i>Expenses</i>	\$77	\$224	\$225	\$164
<i>Recruitment</i>	-	\$5	\$5	-
<i>Training</i>	\$2	\$15	\$38	\$46
Corporate Services	-	-	-	-
<i>Corporate Services</i>	\$59	\$157	\$268	\$276
<i>Engineering and Environment</i>	\$25	\$59	\$61	\$63
<i>Operations Senior Management</i>	\$9	\$18	\$19	\$19
<i>Operations Site Management</i>	\$48	\$104	\$185	\$191
Maintenance and Repairs	-	-	-	-
<i>Control Systems</i>	\$166	\$138	\$140	\$143
<i>Machinery</i>	\$49	\$35	\$35	\$36
<i>Turbines-Generators</i>	\$1	\$50	\$51	\$52
<i>Heavy Machinery & Mobile Equipment</i>	\$17	\$28	\$28	\$29
O&M Line Item	2019 (Q3-Q4)	2020	2021	2022
<i>Dam, Buildings and Land</i>	\$44	\$73	\$74	\$76
<i>Oil, Fuel and BC Hydro Power</i>	\$18	\$25	\$77	\$78
Health, Safety and Environment	\$24	\$23	\$23	\$23
Insurance	\$52	\$105	\$107	\$109
Permits and Land Rights	\$1	\$6	\$6	\$6
Third Party Services	\$21	\$15	\$15	\$15
Regulatory Costs	\$97	\$195	\$195	\$195
Total O&M Expenses	\$987	\$1,881	\$2,347	\$2,299

1 56. BC Hydro submits that a careful evaluation of Boralex LP's projected costs and
2 historical costs indicates certain items of concern.

3 **6.1 Capitalized Overhead**

4 57. In its IRs 12.2, 12.2.1 and 12.2.1.1 to Boralex LP, BC Hydro asked about the
5 parent company Boralex Inc.'s corporate policy and process documentation for
6 capitalization of overheads, and about the merits of allocating a portion of
7 Boralex LP's operating expenditures as capitalized overhead.

8 58. Boralex LP provided the following responses:

9 "Boralex Inc. does not have a corporate policy and process
10 documentation for the capitalization of overheads for its
11 operating facilities, including the Ocean Falls Facilities."

12 "Boralex LP agrees that it may be appropriate to allocate a
13 portion of Boralex LP's operating expenditures as capitalized
14 overhead and is amenable to doing so."

15 and,

16 "Boralex LP currently does not have a view on what percentage
17 of O&M costs may be appropriate to treat as capitalized
18 overheads."

19 59. BC Hydro submits that it is appropriate to allocate a portion of Boralex LP's
20 O&M costs as capitalized overhead, as accepted by Boralex LP, and suggests
21 that an allocation of 5 per cent is reasonable.

22 **6.2 Employee Costs**

23 **6.2.1 Overlapping Employment**

24 60. Under normal circumstances, Boralex LP has five full time employees (four
25 operators and one maintenance staff) and four part time employees.⁴¹ Of these
26 staff, four of the five full time staff members are anticipated to retire between

⁴¹ Exhibit B-8, Boralex response to BCOAPO IR 1.10.1.

- 1 2021 and 2023.⁴² Boralex LP has stated that due to impending staff
2 retirements, there will be a need for additional recruitment and training.⁴³
- 3 61. Boralex LP plans to overlap new and retiring operators for periods of
4 approximately two years,⁴⁴ and proposes to recover the costs of both the new
5 and retiring operators in rates. BC Hydro questions whether it is necessary to
6 overlap new and retiring operators for such a long time period.
- 7 62. Although Boralex LP has detailed the employee training costs and necessary
8 certifications in its IR responses,⁴⁵ no justification is given for why a two-year
9 overlap in employment is required. The suggestion would be that the new
10 employee will need to shadow the experienced, retiring employee for two years
11 to develop the necessary experience to operate the Ocean Falls Facilities
12 equipment. This seems an unnecessarily long time period given that Boralex LP
13 is undoubtedly seeking employees with previous training and experience and
14 the equipment at Ocean Falls is not unusual or complex as compared to other
15 hydroelectric generating facilities.
- 16 63. Exacerbating this issue is the contention from Boralex LP that salary savings
17 that may have accrued from replacing, retiring workers with many years of
18 experience, with less experienced workers will not materialize due to the newly
19 hired workers being paid salaries equivalent to those retiring workers.⁴⁶
- 20 64. BC Hydro submits that the revenue requirements should be reduced reflecting
21 a shorter overlap of retiring employees and new employees. BC Hydro submits
22 that the revenue requirements should reflect an overlap time period of three to
23 six months which ought to be sufficient for the new employees to gain sufficient

⁴² Exhibit B-6, Boralex response to BCUC IR 1.15.1.

⁴³ Exhibit B-1 Boralex Application, 9.2.

⁴⁴ Exhibit B-6, Boralex response to BCUC IR 1.15.1.

⁴⁵ Exhibit B-6, Boralex response to BCUC IR 1.15.4.

⁴⁶ Exhibit B-6, Boralex response to BCUC IR 1.15.2.

1 familiarity with the equipment and procedures at the Ocean Falls Facilities, and
2 to complete the listed trainings and certifications.

3 **6.2.2 Retirement Allowances**

4 65. Boralex LP submits that each of the retiring employees is entitled to a one-time
5 retirement allowance, the total of which exceeds \$200,000 over the
6 three years.⁴⁷ These retirement allowances are paid out at the time the
7 employee retires.

8 66. BC Hydro has no issue with these employees being provided the retirement
9 allowance specified in their employment contracts. The fundamental concern in
10 this instance is that several years ago Boralex LP incurred the obligation to
11 make these retirement payments,⁴⁸ but Boralex LP did not at that time record
12 the resulting liabilities in its financial statements.⁴⁹ The retirement allowances
13 are defined post-employment benefits that are required to be accrued over the
14 period of service provided by the employee under IAS 19 Employee Benefits.⁵⁰

15 67. Boralex LP's practice is not to record these liabilities in accordance with IAS 19,
16 but is rather to record the retirement allowances as lump sums in the year they
17 are actually paid to the retiring employee. Due to the deferral of retirements,
18 Boralex LP's accounting practice avoided recognition of these costs when the
19 EPA with BC Hydro was in place, places the retirement allowance payments
20 entirely in the test period revenue requirements and also increases the amount
21 to pay out due to the gradual increase in the obligation as the employees age
22 past 62.⁵¹

⁴⁷ Exhibit B-1, Boralex Application, 9.6 at para. 145.

⁴⁸ Exhibit B-15, Boralex response to BC Hydro IR 2.32.3.

⁴⁹ Exhibit B-15, Boralex response to BC Hydro IR 2.32.0.

⁵⁰ Exhibit B-15, Boralex response to BC Hydro IR 2.32.0.

⁵¹ Exhibit B-15, Boralex response to BC Hydro IR 2.32.2.

1 68. BC Hydro submits that the retirement allowances should be removed from
2 current revenue requirements in their entirety, or pro-rated such that only the
3 years between becoming a regulated entity and the retirement of the worker are
4 included in Boralex LP's revenue requirements.

5 **6.3 Corporate Services**

6 69. Boralex LP has identified significant amounts, both historically and in forecast
7 revenue requirements, for allocation of Boralex Inc. corporate services costs to
8 Boralex LP. However, while Boralex LP has endeavored to provide an accurate
9 accounting of its corporate services costs, it admits that the actual amounts
10 used are estimates as it has not undertaken a study to quantify the actual costs
11 incurred.⁵²

12 70. The fundamental problem underlying the estimates is that there is not a
13 transparent, documented transfer pricing policy in place to ensure that
14 corporate services costs allocated to Boralex LP by its corporate parent Boralex
15 Inc. are reasonable.⁵³

16 71. BC Hydro acknowledges that prior to rate regulation, as a limited partnership
17 there might not have been a need for a transparent transfer pricing to allocate
18 Boralex Inc. corporate services costs to Boralex LP. However, Boralex LP upon
19 moving to a utility cost of service model, must demonstrate that the costs
20 included in revenue requirements are both accurate and reasonable.

21 72. Boralex LP stated in its evidence that the methodology for determining the
22 appropriate cost allocation between Boralex Inc. and Boralex LP is to estimate
23 the time spent by Boralex Inc. employees and multiply the hourly rate by the

⁵² Exhibit B-13, Boralex response to BCUC IR 2.46.2. BC Hydro does not ascribe any fault to Boralex for being unable to conduct such a study due to the impact of COVID-19.

⁵³ Exhibit B-6, Boralex response to BCUC IR 1.16.1.

1 level of service provided.⁵⁴ Boralex LP has further stated that it intends to keep
2 this estimation model for future rate applications.⁵⁵

3 73. BC Hydro submits that estimations in this fashion are not sufficiently accurate
4 for determining the amount of corporate services costs to factor into cost of
5 service revenue requirements.

6 74. In lieu of a more robust methodology for estimating the corporate services costs
7 appropriately allocated to Boralex LP, BC Hydro submits that corporate
8 services costs ought to be set at 30 per cent of salaries plus 30 per cent of the
9 amount of the new regulatory affairs employee Boralex Inc. intends to hire,
10 capped at a total of \$100,000/year.

11 **6.3.1 Boralex Time Accounting**

12 75. In response to BCUC IR 1.17.1, Boralex LP provided a breakdown of the actual
13 corporate services allocated to Boralex LP from 2016 to 2018 as follows:⁵⁶

Corporate Services by Department	2016	2017	2018
Accounting			
Finance & Tax			
Communications	\$0	\$0	\$96
Human Resources			
Legal	\$5,395	\$0	\$0
Information Technology	\$2,697	\$4,009	\$3,518
Development	\$0	\$0	\$5,467
Regulatory Affairs			
Engineering and Technical Support	\$85,337	\$57,121	\$62,211
General Fee for Corporate Services	\$36,012	\$35,856	\$38,240
TOTAL	\$129,441	\$96,986	\$109,531

⁵⁴ Exhibit B-6, Boralex response to BCUC IR 1.16.2; Boralex Final Argument at para. 163.

⁵⁵ Exhibit B-13, Boralex response to BCUC IR 2.46.2.

⁵⁶ Exhibit B-6, Boralex response to BCUC IR 1.17.1.

- 1 76. Boralex LP also provided a table showing the calculation of corporate services
2 rendered using the same methodology applied to forecasted corporate services
3 costs for the period July 1, 2019 to December 31, 2022:⁵⁷

Corporate Services by Department			
Department	2016	2017	2018
Accounting	\$79,893	\$82,290	\$84,759
Finance & Tax	\$2,837	\$2,922	\$3,010
Communications	\$1,939	\$1,997	\$2,057
Human Resources	\$7,730	\$7,961	\$8,200
Legal	\$2,038	\$2,100	\$2,163
Information Technology	\$3,352	\$3,453	\$3,556
Development	\$3,624	\$3,733	\$3,845
Regulatory Affairs	\$0	\$0	\$0
TOTAL	\$101,414	\$104,456	\$107,590

- 4 77. As is clear from the differing costs, the estimation method being used does not
5 reconcile with the actual costs deemed to have been incurred by Boralex LP.
6 This underscores the potential inaccuracy of a method that is based on
7 self-reporting and estimations, particularly as those estimations are prepared by
8 Boralex Inc. which has an incentive to allocate more than an appropriate
9 amount of costs to Boralex LP now that it is regulated on a cost of service
10 basis.⁵⁸

- 11 78. BC Hydro does not suggest that Boralex LP's figures are completely incorrect
12 or have been modified prejudicially. Instead, BC Hydro simply underscores the

⁵⁷ Exhibit B-5, Boralex Supplemental Information of Directive 2, BCUC Order No. G-3-20, 2.0.

⁵⁸ BC Hydro also notes that Boralex Inc. did not prepare corporate services cost allocations for 2016 to 2018; Exhibit B-6, Boralex response to BCUC IR 1.17.4.

1 value of transparent and consistent accounting to ensure that amounts
2 allocated to Boralex LP are both accurate and reasonable, and verifiably so.

3 **6.3.2 Specific Allocations**

4 79. As detailed in Boralex LP's historical costs for corporate services, it expended
5 approximately \$112,000 on average per year from 2016 to 2018. However,
6 Boralex LP anticipates corporate services costs to grow at a compound annual
7 growth rate of 48.8 per cent to \$549,210/year⁵⁹ in 2022 due to a number of
8 factors, including:

- 9 ▶ The inclusion of engineering and environment costs due to those costs not
10 being included in Boralex LP's capital projects expenditures;⁶⁰
- 11 ▶ Operation site management costs being allocated to the Ocean Falls
12 Facilities at 56 per cent⁶¹ of the total salary and benefit costs;⁶²
- 13 ▶ The hiring of an additional supervisor who will have a significant amount of
14 overlap with the current supervisor;⁶³ and
- 15 ▶ The hiring of an additional person responsible for providing utility regulatory
16 support to Boralex LP on a full-time basis.⁶⁴

17 80. Fundamentally, Boralex LP proposes revenue requirements based on an
18 increase to the number of full-time equivalent employees providing corporate
19 services from 1.85 to 3.4 from 2016 to 2022. They also propose to grow the

⁵⁹ Exhibit B-11, Boralex Application Update, Table 27.

⁶⁰ Exhibit B-7, Boralex response to BC Hydro IR 1.15.2.

⁶¹ Boralex owns three renewable energy facilities in B.C. (Ocean Falls, Jamie Creek and the Moose Lake) but it is estimated the operations supervisor spends 56 per cent of his time at Ocean Falls.

⁶² Exhibit B-7, Boralex response to BC Hydro IR 1.16.1. \$48,000 worth of costs are associated with the operation site management costs for only half of 2019 and represent 56 per cent of the managers time presumably spent at Ocean Falls.

⁶³ Exhibit B-6, Boralex response to BCUC IR 1.18.5. The supervisor is scheduled to retire in 2024, thereby generating approximately three years of overlap if the new supervisor is hired in Q1 2021 as anticipated.

⁶⁴ Exhibit B-6, Boralex response to BCUC IR 1.18.2.

1 proportion of corporate overhead employees from approximately 31 per cent to
2 59 per cent.⁶⁵

3 81. These projections seem high considering the work needed to support this
4 Application is largely complete at this time. Furthermore, putting in place a
5 simple, transparent and consistent transfer pricing policy between Boralex Inc.
6 and Boralex LP could obviate the need for increased corporate services
7 personnel.

8 82. The above submissions are further examples of BC Hydro's concern, as noted
9 above, about the lack of a solid foundation of appropriate corporate policies,
10 methodologies and accounting to demonstrate projected needs and costs are
11 reasonable, whether in regard to the dramatic increase in full time equivalent
12 employee corporate services costs or otherwise.

13 **6.4 Regulatory Costs**

14 83. Boralex LP's is incurring regulatory costs including third party consulting and
15 legal costs associated with the drafting of its Application and support for this
16 proceeding. Boralex LP indicates that these costs were incurred from
17 June 2019 to the end of December 2019 but are amortized over the forecast
18 period.⁶⁶

19 84. Boralex LP initially identified \$306,000 as the amount required to draft the
20 Application, participate in the hearing, and to produce further materials relating
21 to the Application.⁶⁷ This amount later increased by \$375,000.⁶⁸

22 85. BC Hydro submits that the regulatory costs Boralex LP included in its revenue
23 requirements seem high for a small utility. Moreover, these costs appear to

⁶⁵ The FTE growth has been estimated based on information Boralex provided in several IR responses related to corporate services costs.

⁶⁶ Exhibit B-1, Boralex Application, 9.6.

⁶⁷ Exhibit B-1, Boralex Application, Table 27; Exhibit B-6, Boralex response to BCUC IR 1.18.2.

⁶⁸ Exhibit B-11, Boralex Application Update, 2(g).

1 include costs Boralex LP incurred negotiating an EPA renewal, which are not in
2 support of a regulated rate. BC Hydro submits that such costs should not be
3 included in the test period revenue requirements and rates.

4 **7 Capital Expenditures and Additions**

5 86. It bears repeating that the capital additions included in Boralex LP's Application
6 are a major driver of the proposed revenue requirements and requested rates
7 for approval. The capital additions in the Application drive up the rate base and
8 the returns on the deemed equity and deemed debt components.

9 87. Boralex LP's historical capital additions were on average approximately
10 \$760,000 per year (\$7.6 million over 10 years) as detailed in the Application as
11 follows:⁶⁹

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
Total	\$922	\$1,371	\$2,050	\$218	\$384	\$353	\$257	\$1,336	\$381	\$352	\$7,625

12 88. Boralex LP's forecast capital additions in the Application increase to an average
13 of approximately \$3.1 million per year (\$9.4 million over the three-year period
14 2020 to 2022) as follows:⁷⁰

⁶⁹ Exhibit B-1 Boralex Application, 7.2 at para. 76

⁷⁰ Exhibit B-1 Boralex Application, 8.0 para 82.

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

Project #	Project	2019	2020	2021	2022	Total
1	Penstock Rehabilitation	\$225	\$787	\$2,929	\$2,166	\$6,107
2	Turbine Rehabilitation	\$75	\$261	\$268	\$244	\$847
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	\$75	\$125	\$125	\$354	\$680
	Total	\$375	\$1,414	\$4,171	\$3,816	\$9,776

- 1 89. Boralex LP is thus forecasting, and assuming it can complete, roughly a
 2 quadrupling of work and expenditures. In addition, Boralex LP’s proposed
 3 revenue requirements assume the capital expenditures are added to rate base
 4 as additions in the same year spent rather than when the asset is put in
 5 service.⁷¹
- 6 90. BC Hydro supports Boralex LP undertaking those projects that are necessary
 7 and prudent for providing reliable service. The concerns are (i) the lack of
 8 information evaluating proposed capital investments at the Ocean Falls
 9 Facilities for cost-effectiveness in the context of risks, costs and benefits over a
 10 reasonable time horizon, and (ii) doubt that Boralex LP can actually complete
 11 quadruple its recent workload on the schedule assumed in its forecasts.
- 12 91. Given the large increase (quadrupling) in capital work and expenditures relative
 13 to recent expenditure levels and reasonable doubt that Boralex LP can actually
 14 complete the forecast work on the assumed schedule, BC Hydro submits that
 15 the BCUC should require Boralex LP to establish a deferral account to record
 16 the impact of differences between forecast capital additions, as set out in the
 17 Application, and actual capital additions. The deferral account balance can be

⁷¹ Exhibit B-11, Boralex Application Update, 2(g)

1 reviewed in future revenue requirement applications and any credit balance
2 refunded.

3 **7.1 Capital Project Planning Process**

4 92. Before evaluating Boralex LP's individual proposed capital expenditure projects
5 impacting the proposed revenue requirements, BC Hydro highlights the lack of
6 formal written policies in place for Boralex LP and Boralex Inc. to evaluate
7 proposed capital investments at the Ocean Falls Facilities.

8 93. Boralex Inc. does not have a formal written corporate policy for the approval of
9 capital expenditures by its subsidiaries with operating facilities, including
10 Boralex LP.⁷² Boralex LP does not have a 10-year capital plan or other longer
11 term planning document for investments in the Ocean Falls Facilities.⁷³
12 Boralex LP has not historically produced a long term capital plan for the Ocean
13 Falls Facilities,⁷⁴ notwithstanding that some of the equipment at the facility is
14 100 years old and in need of investment.

15 94. In lieu of formal corporate policy documentation governing submission and
16 approval of capital expenditure proposals, Boralex LP has outlined a process
17 for approving yearly budgets and authorized capital expenditures.⁷⁵ Boralex LP
18 has also outlined a four-step process Boralex Inc. has used for determining
19 when to make capital expenditures including for the Ocean Falls Facilities.⁷⁶

20 95. Although Boralex Inc. has some informal processes in place to assist in making
21 decisions on capital investments in operating facilities, the lack of formal written
22 policies explicitly laying out the process and requirements for internal approval
23 of a proposed capital expenditure project means that there is no such

⁷² Exhibit B-7, Boralex response to BC Hydro IR 1.2.1.

⁷³ Exhibit B-7, Boralex response to BC Hydro IR 1.2.2.

⁷⁴ Exhibit B-13, Boralex Response to BCUC, IR 2.39.2.

⁷⁵ Exhibit B-7, Boralex response to BC Hydro IR 1.2.1.

⁷⁶ Exhibit B-7, Boralex response to BC Hydro IR 1.2.2.1.

-
- 1 completed documentation in respect of the specific projects included in the
2 Application. This is a concern, particularly given the large scope of capital
3 project work included in the Application and the large impact on revenue
4 requirements.
- 5 96. Boralex Inc. had a process in 2019 to approve 2020 capital expenditures.
6 Boralex LP explained that the Board of Directors of Boralex Inc. met in mid-
7 December 2019 in regards to capital expenditures; however, the list of capital
8 projects and expenditures presented to the Board of Directors at that time was
9 in respect of development projects only. None of the Ocean Falls projects were
10 presented or approved. There was no specific material or references pertaining
11 to Boralex LP capital expenditures at Ocean Falls.
- 12 97. As further detailed in these submissions, there is no formal documentation for a
13 number of Boralex LP's recently undertaken projects or proposed projects. This
14 includes the seven forecasted capital additions in the Application.
- 15 98. There is also no formal policy documentation governing changes to
16 Boralex LP's capital projects. For example, the scope and timing of the project
17 to address the ageing penstock has changed several times since Boralex LP
18 acquired the facilities in 2009, and there is no documentation of the governance
19 of the decisions to make those changes.
- 20 99. BC Hydro is unable to verify whether Boralex LP's proposed capital projects in
21 the Application are reasonably needed at the time Boralex LP proposes to
22 undertake them (or whether the projects can reasonably be deferred, for
23 example); whether the projects are the most cost-effective solution to the need
24 in terms of costs, benefits and risks; or whether Boralex LP has the resources
25 to complete the projects on time and on budget as forecast in the revenue
26 requirements.

1 **7.2 Evidence Supporting Proposed Capital Projects**

2 100. The aforementioned issues with Boralex LP's lack of formal planning policies
3 and documentation have resulted in a lack of evidence demonstrating the need
4 for and cost effectiveness of certain proposed capital projects.

5 101. Boralex LP forecasts seven different capital additions, all of which directly affect
6 Boralex LP's proposed rate base and returns on equity and debt. Boralex LP's
7 contention regarding these capital additions is largely the same in each case:
8 the equipment is old and therefore in need of rehabilitation or replacement.

9 102. BC Hydro acknowledges that some of the key equipment at the Ocean Falls
10 Facilities is old. However, the age of the equipment in and of itself does not
11 establish that rehabilitation or replacement is necessary now, nor does it
12 establish that the specific projects outlined by Boralex LP are the most
13 cost-effective solutions, nor does it establish that Boralex LP has the necessary
14 resources to complete these projects on the timetable assumed in the
15 Application. The recurring concern is that there has been insufficient business
16 case analysis to support the inclusion of these capital additions in revenue
17 requirements and rates during the test period.

18 In the following subsections of this argument, BC Hydro provides submissions
19 regarding the three largest projects proposed by Boralex LP. BC Hydro does
20 not intend to provide detailed submissions specifically regarding the many
21 smaller projects Boralex LP is planning.

22 **7.2.1 G2 and G3 Turbine Rehabilitation Project**

23 103. In its Application, Boralex LP identified turbine rehabilitation as one of its major
24 capital projects. Despite previous rehabilitations, all four generator units exhibit
25 a number of issues relating to water leaks, oil leaks, shaft erosion at the turbine

1 water bearings and deterioration of thrust and guide bearings and bearing
2 pedestals.⁷⁷

3 104. Boralex LP anticipated staggering the rehabilitation yearly, with turbine G3, G4,
4 and G2 being rehabilitated in 2020, 2021, and 2022 respectively.⁷⁸

5 105. Historically, the Ocean Falls Facilities have used one of the larger generators
6 (G3 (5.2 MW) or G4 (4.2 MW)) simultaneously with one of the smaller
7 generators (G1 (1.9 MW) or G2 (1.9 MW)). Boralex LP states that G3 and G4
8 are sometimes run simultaneously during peak load periods to provide
9 additional operating headroom.⁷⁹

10 106. All four units are not required to serve current load or forecast load growth.
11 Boralex LP stated in its Application that its practice of maintaining all four
12 generating units ensures service reliability and that incremental industrial load
13 in Ocean Falls cannot be reliably supported without maintaining all four existing
14 units.⁸⁰

15 107. In response to BC Hydro's IR 1.5.2, Boralex LP maintains that, even in the face
16 of water license restrictions and load requirements which may limit their use, all
17 four units should be kept operational and maintained.⁸¹ BC Hydro asked for
18 "any documentation or reports regarding the options assessed and the
19 preferred alternative" in relation to the rehabilitation of the turbines. Boralex's
20 reply stated, "No such formal documentation or reports are available".⁸²

21 108. Similarly, when asked by BC Hydro to "discuss the incremental risks and
22 expected impact on unit reliability if the Turbine Rehabilitation was staged such

⁷⁷ Exhibit B-1, Boralex Application, 8.1.2 at para. 90.

⁷⁸ Exhibit B-1, Boralex Application, 8.1.2 at para. 91.

⁷⁹ Exhibit B-6, Boralex response to BCUC IR 1.1.7.

⁸⁰ Exhibit B-6, Boralex response to BCUC IR 1.1.2.

⁸¹ Exhibit B-7, Boralex response to BC Hydro IR 1.5.2.

⁸² Exhibit B-7, Boralex response to BC Hydro IR 1.5.2.2. Boralex's response refers to its responses to BCUC IRs 1.1 and 1.2, but these responses similarly do not detail options assessed or preferred alternatives, they just state Boralex's choice of using four turbines.

1 that the rehabilitation of G1 was completed in 2020 but the implementation of
2 G2 and G3 rehabilitation were undertaken in 2022 and 2024 respectively”,
3 Boralex LP’s reply was that it was “unable to quantify the incremental risks and
4 expected impacts on unit reliability that would arise by deferring or reordering
5 any of the turbine rehabilitation projects”.⁸³

6 109. Respectfully, BC Hydro believes that Boralex LP is able to quantify the risks but
7 has not done so.

8 110. Boralex LP has not provided any documentation of analysis demonstrating that
9 maintaining all four turbines is the most cost-effective alternative. Despite
10 Boralex LP’s assertion that all four turbines will be needed to accommodate
11 future load growth, this has not been adequately demonstrated through
12 appropriate documentation.

13 111. Boralex LP’s justification for rehabilitating all four turbines appears to be
14 singularly focused on maintaining the existing turbine operating regime that has
15 been in place for decades, without reviewing the ongoing merits of that regime.
16 BC Hydro questions the value of maintaining such turbine redundancy given
17 also that there is no transformer redundancy, no circuit breaker redundancy,
18 and no transmission line redundancy.⁸⁴

19 112. A review of the evidence does not verify that maintaining all four turbines is
20 necessary to ensure a reliable and most cost-effective service. Since 2009, the
21 Ocean Fall Facilities have only suffered three unit in-service failures that
22 triggered plant outages, all of which were occasioned by turbine G3 service
23 issues.⁸⁵ Otherwise, service interruptions are predominantly caused by
24 overhead distribution line failures.⁸⁶

⁸³ Exhibit B-7, Boralex response to BC Hydro IR 1.5.3.

⁸⁴ Exhibit B-6, Boralex response to BCUC IR 1.1.1.

⁸⁵ Exhibit B-7, Boralex response to BC Hydro IR 1.3.6.

⁸⁶ Exhibit B-7, Boralex response to BC Hydro IR 1.3.8.

1 113. Although Boralex LP's desire to ensure a high level of reliable service is
2 commendable, particularly due to the effect on BC Hydro in the event of an
3 outage, based on the evidence available BC Hydro submits that there is
4 insufficient justification for spending to rehabilitate and maintain all four units at
5 this time and including the costs in capital additions and rates, as proposed.

6 114. BC Hydro submits that Boralex LP should maintain only one of the smaller units
7 (either G1 or G2, whichever is in better condition) and that it may be in the
8 public interest to maintain both larger units (G3 and G4) for N-1 redundancy to
9 replace the loss of a large unit, particularly given Ocean Falls unique
10 operational challenges. BC Hydro considers that any spending on the second
11 smaller unit would be imprudent at this time and should be excluded from
12 revenue requirements.

13 **7.2.2 Powerhouse Breakers Project**

14 115. The Application identifies a number of powerhouse electrical components and
15 systems to be replaced or upgraded, including the generator unit breakers.⁸⁷
16 The breakers are noted as being near "end of life" and Boralex LP states that
17 deferring replacement of this equipment poses risks to safety and reliability.⁸⁸

18 116. BC Hydro acknowledges that the breakers are old and likely will be in need of
19 replacement at some point in time. Oil filled circuit breakers of this nature not
20 only pose environmental risks in the event of leaks, but also represent obsolete
21 technology which has long since been improved upon.

22 117. Unfortunately, Boralex LP has not put forward any evidence or reports
23 assessing the risk the breakers will fail or will otherwise not operate reliably.⁸⁹

⁸⁷ Exhibit B-1 Boralex Application, 8.1.3 at para. 93.

⁸⁸ Exhibit B-7, Boralex response to BC Hydro IR 1.3.2.

⁸⁹ Exhibit B-7, Boralex response to BC Hydro IR 1.6.1. Boralex highlights circuit breaker 25CB51 experiencing reclosing issues. No more information is given about when this began occurring, its duration, severity, etc.

1 That the assets are fully depreciated does not necessarily justify replacement at
2 this time.

3 118. Further, it is not clear what investigations Boralex LP has done to determine
4 whether other low-cost alternatives are available other than determining that
5 emergency spare components are not available due to the age of the units.⁹⁰

6 119. BC Hydro also notes that these breakers are just as obsolete now as they were
7 when Boralex LP acquired the Ocean Falls Facilities in 2009. It is unclear why a
8 project to replace these breakers is included in the test period of the Application
9 when, by all accounts, the breakers have been near “end of life” for many years
10 and could have been replaced at any time in the 11 years prior to this test
11 period for regulated cost of service rate setting.

12 120. The issue is not that these types of repairs and upgrades should not be made.
13 Instead, the issue is and remains that Boralex LP has put forward an insufficient
14 evidentiary basis for including associated capital additions in rate base in its
15 Application.

16 121. BC Hydro is supportive of Boralex LP undertaking the breakers project at some
17 point in time; however, BC Hydro is concerned that the project is not as urgent
18 as suggested in the Application. BC Hydro is concerned that Boralex LP will
19 continue to defer the breakers project, for example as a result of prioritising
20 other work, and that the associated capital additions will actually occur later
21 than assumed in the Application quite possibly after the test period.

22 **7.3 Penstock 2 Rehabilitation**

23 122. As part of its Application, Boralex LP determined that it was more cost effective
24 to rehabilitate Penstock 2 through a phased, multi-year program, rather than
25 repurposing Penstocks 1(a) and 1(b).⁹¹ The decision to rehabilitate Penstock 2

⁹⁰ Exhibit B-7, Boralex response to BC Hydro IR 1.6.1.2.

⁹¹ Exhibit B-1 Boralex Application, 5.4 at para. 51.

1 by replacing penstock sections with new sections on a staged basis, rather than
2 conducting spot repairs and reinforcing old sections was based, at least in part
3 on the advice of BBA Engineering⁹² and on a desire to avoid extensive
4 outages.⁹³

5 123. BC Hydro acknowledges that Penstock 2 is very old. Indeed, Boralex LP
6 identified rehabilitation of Penstock 2 as an urgent project in 2008 when
7 Boralex LP sought BCUC approval to acquire the Ocean Falls Facilities.
8 However, like other old assets at the Ocean Falls Facilities, Penstock 2 has
9 been in need of repair or replacement for many years, but the work has not
10 been done and the preferred project to address the issues keeps changing and
11 no solution has been completed. A number of different options have been
12 suggested by Boralex LP over the last 10 years, including the installation of a
13 second penstock.⁹⁴ Adding a second penstock was subsequently rejected as
14 rehabilitating Penstock 2 was less costly than installing what would become a
15 redundant penstock.⁹⁵

16 124. Whether or not rehabilitating Penstock 2 or developing a new penstock and
17 decommissioning Penstock 2 was the right decision is unknown to BC Hydro.
18 This is because Boralex LP held their original decision to develop a new
19 penstock in abeyance for some 10 years, instead choosing to regularly inspect
20 Penstock 2.

21 125. When the decision to rehabilitate Penstock 2 was finally made, Boralex LP did
22 not undertake a reasonable trade-off analysis when it decided to stage the
23 Penstock 2 rehabilitation over several years and therefore the different impacts

⁹² Exhibit B-6, Boralex Response to BCUC IR 1.7.1.

⁹³ Exhibit B-7, Boralex response to BC Hydro IR 1.4.4.

⁹⁴ Exhibit B-7, Boralex response to BC Hydro IR 1.4.3.

⁹⁵ Exhibit B-7, Boralex response to BC Hydro IR 1.3.7.

1 of the multi-year staged and single year project execution alternatives are
2 without a formal analysis.

3 126. Similarly, in BC Hydro IR 1.3.7 Boralex LP was asked to “discuss whether
4 Boralex LP evaluated the potential redundancy value that could be available
5 through the addition of a second penstock.” The response was “No.” followed
6 by a justification for why a second penstock was not required which referenced
7 no data or planning material.⁹⁶

8 127. This is not to say that Boralex LP had no data upon which to base its decision.
9 Boralex LP relied on a technical inspection and assessment report and a failure
10 mode and effects analysis provided by BBA Engineering.⁹⁷ It appears however
11 that Boralex LP relied entirely on BBA Engineering’s advice and conducted little
12 further analysis on its own.

13 128. The lack of formal planning and analysis, again made more difficult by the lack
14 of formal corporate policies requiring the same, makes it challenging to verify
15 whether Boralex LP’s preferred approach is reasonable. Boralex LP has stated
16 that deferring the rehabilitation of Penstock 2 past 2022 would have a material
17 adverse impact on system reliability. However, no substantive maintenance,
18 including preventative or condition-based maintenance has been required on
19 Penstock 2 with the exception of inspections and non-destructive testing.⁹⁸

20 129. Additionally, Boralex LP’s preferred multi-year rehabilitation requires at least
21 four mobilizations and demobilizations for contractors, which could present
22 additional procurement and shipping risks and require BC Hydro to run diesel
23 generation to supply the Bella Bella NIA for a longer overall period in a best-
24 case scenario.

⁹⁶ Exhibit B-7, Boralex response to BC Hydro IR 1.3.7.

⁹⁷ Exhibit B-4, Boralex Reply Submission on Regulatory Process, Appendix A-4.

⁹⁸ Exhibit B-7, Boralex response to BC Hydro IR 1.4.2.

1 130. The rehabilitation and replacement of Penstock 2 may be a viable means to
2 address Boralex LP's water supply concerns. However, given that there is
3 insufficient evidence relating to why Boralex LP has (i) chosen to completely
4 replace Penstock 2 in lieu of adding a second penstock, and (ii) waited so long
5 to arrive at this conclusion, BC Hydro and the BCUC cannot have confidence
6 that Boralex LP has identified the best solution or that it will complete the
7 project at the cost and on the schedule assumed in the capital addition forecast
8 in the application.

9 131. Accordingly, BC Hydro submits that the costs of the Penstock 2 rehabilitation
10 project, and all associated expenses, should be excluded from revenue
11 requirements at this time, and Boralex should be required to apply for and
12 obtain a CPCN before proceeding with the project.

13 **8 Additional Issues**

14 **8.1 Share of Revenues from Industrial Customers**

15 132. Ocean Falls Blockchain is a private company that began operating a
16 cryptocurrency mining operation within the Ocean Falls Facilities workshop
17 building in 2018. Boralex LP and Ocean Falls Blockchain have a five-year
18 agreement from July 2018 to July 2023 with an option for an additional five-year
19 term.⁹⁹

20 133. As noted in Boralex LP's historical revenue data, the addition of Ocean Falls
21 Blockchain represented a large increase in revenue.¹⁰⁰

⁹⁹ Exhibit B-1, Boralex Application, 4.2 at para. 36.

¹⁰⁰ Exhibit B-1, Boralex Application, 4.2 at para. 39.

Table 2: Historic Revenue From Energy Sales (\$000's/yr)

Customer	2014	2015	2016	2017	2018	Average
BC Hydro	\$2,536	\$2,558	\$2,614	\$2,789	\$2,625	\$2,624
Ocean Falls Retail and Industrial Customers	\$261	\$255	\$261	\$290	\$434	\$300
Total Revenue	\$2,797	\$2,813	\$2,875	\$3,079	\$3,059	\$2,925

1 134. Based on Boralex LP's data, Ocean Falls Blockchain represents approximately
2 30 to 40 per cent of Boralex LP's revenue from customers other than BC Hydro.

3 135. Ocean Falls Blockchain had plans to expand its cryptocurrency operations at
4 Ocean Falls, which could increase its electricity purchases from Boralex LP by
5 100 per cent or more¹⁰¹. In response to BC Hydro IR 1.22.7, Boralex LP stated
6 that,

7 "Based on recent discussions with Ocean Falls Blockchain,
8 Boralex LP now does not expect Ocean Falls Blockchain to
9 expand its cryptocurrency facility or to increase its electricity
10 load over the forecast period."¹⁰²

11 136. BC Hydro submits that there is uncertainty as to whether Ocean Falls
12 Blockchain or MOWI Canada West will expand their operations, which would
13 increase their electricity purchases from and revenues to Boralex LP. Given the
14 tentative plan of Ocean Falls Blockchain to increase load and the materiality of
15 the potential additional revenue during the test period of the Application,
16 BC Hydro proposes that a deferral account be established to account for any
17 revenue received by Boralex LP due to load growth of its industrial customers.
18 Given the model under which rates are being set for service to BC Hydro, as

¹⁰¹ <https://www.bloomberg.com/news/features/2018-09-04/the-bitcoin-boom-reaches-a-canadian-ghost-town>

¹⁰² Exhibit B-6, Boralex response to BCUC IR 1.22.7.

1 reviewed in section 8.1.2 of this Final Argument, BC Hydro should be the
2 beneficiary of any increase in these revenues.

3 **8.1.1 Load Forecast**

4 137. The Application contains a service load forecast for BC Hydro (Bella Bella NIA)
5 as follows:¹⁰³

151. **Table 28** shows Boralex LP's forecast deliveries of electricity to BC Hydro at the Shearwater interconnection point for the years 2019 (Q3 and Q4) to 2022.

Table 28: BC Hydro Electricity Delivery Forecast (MWh)

	2019 (Q3-Q4)	2020	2021	2022
BC Hydro	6,202	11,630	11,816	12,005

6 138. The forecast reflects actual load plus growth of 1.6 per cent per year based on
7 an understanding of what "BC Hydro believes is a reasonable growth rate in the
8 Bella Bella NIA". Boralex did not undertake an independent load forecast for the
9 Bella Bella NIA.¹⁰⁴ BC Hydro confirms that forecast load growth of 1.6 per cent
10 per year is reasonable for the Bella Bella NIA's demand on the Ocean Falls
11 Facilities.

12 **8.1.2 BCUC Supplementary Questions**

13 139. The Commission invited submissions in relation to the following matters:¹⁰⁵

¹⁰³ Exhibit B-1, Boralex Application, 10.1 at para. 151.

¹⁰⁴ Exhibit B-1, Boralex Application, 10.1 at para. 152.

¹⁰⁵ Exhibit A-12.

In their final arguments, in addition to any other submissions they may wish to make, the parties are invited to make submissions on the following matters:

- i. The extent to which the methodology used by Boralex to allocate costs and set a rate for British Columbia Hydro and Power Authority (BC Hydro) (i.e. forecasting the entire utility's gross revenue requirement and deducting Boralex Ocean Falls Limited Partnership's (Boralex) forecast revenue from its retail and industrial customers in Ocean Falls) is just and reasonable; and
- ii. To the extent a party submits the methodology used by Boralex to allocate costs and set a rate for BC Hydro is not just and reasonable, submissions as to what other methodology(ies) may be just and reasonable in the setting of a rate for BC Hydro.

1 140. BC Hydro does not object to the methodology Boralex LP proposes for
2 allocating costs and setting a rate for its service to BC Hydro. That is,
3 calculating a revenue requirement and rates for service to BC Hydro by
4 forecasting Boralex LP's gross revenue requirement and deducting forecasted
5 revenue from its retail and industrial customers in Ocean Falls.¹⁰⁶

6 141. BC Hydro considers that the methodology proposed by Boralex LP is just and
7 reasonable in the circumstances.

8 142. The methodology maintains for Boralex LP's other customers the rate
9 structures that have been in place pursuant to exemption orders issued by the
10 BCUC, since Boralex LP began serving them. For the two small industrial
11 customers of Boralex LP, the methodology maintains the rate structures that
12 were offered to them, in accordance with terms of the BCUC's exemption order,
13 when they made their decisions to develop facilities at Ocean Falls. Maintaining
14 the methodology is therefore likely to be non-contentious. However, in the event
15 that more customers become available to Boralex LP or diversified revenue
16 streams present themselves, the Commission may wish to revisit this
17 methodology in the future.

18 143. BC Hydro reiterated its submission in paragraph [136](#), above, that as the
19 customer effectively backstopping Boralex LP's forecast revenue requirement it
20 is appropriate for any additional revenue Boralex LP receives from its industrial

¹⁰⁶ Exhibit B-1, Boralex Application, 1 at para. 4, and 10.2.

1 customers that is not forecasted to be placed into a deferral account for the
2 benefit of BC Hydro.

3 **8.1.3 Rate Structure and Terms and Conditions of Service**

4 144. The Application seeks approval for a two-tier energy charge rate structure for
5 Boralex LP's service to BC Hydro, consisting of a Tier 1 rate for the first
6 13.1 GWh of electricity supplied to BC Hydro in any year and a lower Tier 2 rate
7 for all electricity supplied above 13.1 GWh for that year.¹⁰⁷

8 145. Boralex LP proposes that the Tier 2 rate be set at \$50/MWh starting in 2019
9 and escalating at 2 per cent per year. Boralex LP further proposes that the
10 Tier 1 rate be set on a "levelized" or "smoothed" basis to recover the balance of
11 the net revenue requirement after deduction of forecast Tier 2 revenue and
12 after deduction of forecast revenues from other customers as noted in the
13 section above.

14 146. BC Hydro confirms that it supports approval of the two-tier energy charge rate
15 structure as proposed by Boralex LP in its Application, including:

- 16 ▶ The 13.1 GWh threshold between Tier 1 and Tier 2;
- 17 ▶ The setting of the Tier 2 rate at \$50/MWh initially and escalating at
18 2 per cent per year;
- 19 ▶ The setting of the Tier 1 rate to recover the forecast net revenue
20 requirement; and
- 21 ▶ The setting of Tier 1 rates on a levelized basis with 2 per cent escalation
22 applied per year to the initial approved rate.

23 147. As explained in this Final Argument, above, BC Hydro does not agree with the
24 the initial Tier 1 rate (\$/MWh) proposed by Boralex LP. BC Hydro believe the

¹⁰⁷ Exhibit B-1, Boralex Application, 11. The original Application proposed Tier 1/Tier 2 threshold at 11.63 GWh, and this was revised to 13.1 GWh pursuant to the Application Update (Exhibit B-11, 1(c), page 3).

1 initial Tier 1 rate should be reduced from that applied for by Boralex LP, as
2 detailed in this Final Argument.

3 148. BC Hydro also notes that Boralex LP has proposed to temporarily adjust the
4 Tier 1 / Tier 2 threshold (from 13.1 GWh to 11.63 GWh) on account of a
5 forecast reduction in electricity supply to BC Hydro as a result of plant shut-
6 downs for planned penstock rehabilitation work, which Boralex LP has now
7 deferred.¹⁰⁸ BC Hydro submits that the Tier 1 / Tier 2 threshold should be set at
8 13.1 GWh, and that Boralex LP's proposal to temporarily reduce the threshold
9 in connection with penstock rehabilitation ought to be deferred until the
10 penstock project is better defined through the CPCN, as proposed in
11 section [7.3](#) of this Final Argument.

12 149. The Application also includes a request for approval of proposed terms and
13 conditions for Boralex LP's service to BC Hydro. The terms and conditions
14 proposed are substantially the same as the terms and conditions of service
15 approved by the Commission on an interim basis effective July 1, 2019
16 pursuant to Order No. G-143-19. A blacklined version of the proposed final
17 terms and conditions of service, with explanatory notes, showing the changes
18 to the interim terms and conditions of service is included in Appendix B of the
19 Application.

20 150. BC Hydro has reviewed the proposed terms and conditions and supports the
21 BCUC approving them as filed subject to the following relatively minor
22 revisions:

23 ► Section 4 – Rates, Terms and Conditions:

- 24 ■ The initial wording of section 4 of the proposed terms and conditions
25 provides that “BC Hydro shall take and pay for electricity supplied...”.

26 BC Hydro submits that the words “take and” should be removed. This is

¹⁰⁸ *Ibid.*

1 not a 'take and pay' service, and removing the words "take and" would
2 help avoid any potential for confusion in that respect.

- 3 ▪ For greater certainty, BC Hydro does not agree with the initial Tier 1 rate
4 proposed by Boralex LP as set forth in section 4(b) of the proposed terms
5 and conditions.

6 ▶ Section 10 – Land Lease:

7 ▪ Currently, there is not a written lease between the parties in relation to
8 lands owned by BC Hydro and used by Boralex LP in connection with
9 providing service to BC Hydro. BC Hydro therefore submits that
10 section 10 of the proposed terms and conditions should be revised to
11 state that BC Hydro "will provide" a lease to Boralex LP and that the
12 lease will continue for so long as Boralex LP supplied electricity to
13 BC Hydro and has an interconnection agreement with BC Hydro. A
14 simple lease and interconnection agreement would then be settled as
15 between the parties. BC Hydro otherwise supports approval of section 10
16 as proposed by Boralex LP.

17 **9 Conclusion**

18 151. BC Hydro submits that the ultimate issue with the Application continues to be
19 the general across the board lack of robust evidence supporting Boralex LP's
20 claims of high risks, high and increasing operating costs, and urgent need for
21 very high capital expenditures.

22 152. BC Hydro proposes that the BCUC issue a decision directing changes to
23 Boralex LP's proposal, as outlined in this argument, and directing Boralex LP to
24 address the required changes in a compliance filing that will then determine the
25 initial Tier 1 rate to be charged BC Hydro.

1 **ALL OF WHICH IS RESPECTFULLY SUBMITTED JULY 15, 2020**

2 Per: 

3 Ian Webb, Partner, Lawson Lundell LLP