British Columbia Utilities Commission

Suite 410, 900 Howe Street
Vancouver, BC Canada V6Z 2N3
bcuc.com

P: 604.660.4700
TF: 1.800.663.1385
F: 604.660.1102

Kyuquot Power Ltd.

Revenue Requirements Application

Decision
and Order G-213-21

July 12, 2021

Before:
K. A. Keilty, Panel Chair

TABLE OF CONTENTS

Page no.

Executive Summary ..... **i**

1.0 Introduction **1**

1.1 Overview of the Application 1

1.2 Background 2

1.3 Legislative and Regulatory Framework 3

1.4 Regulatory Process and Participants 4

2.0 KPL's Revenue Requirement **4**

2.1 Selling, General and Administrative Expenses 5

2.2 Depreciation and Amortization 5

2.2.1 Change in Depreciation Rates and Deferred Depreciation Regulatory Account 5

2.2.2 Capital Additions and LTM Regulatory Account 8

2.3 Deemed Interest and Allowed ROE 10

2.4 Load Forecast and BC Hydro Charges 11

2.4.1 Load Forecast 11

2.4.2 BC Hydro Charges 11

3.0 Proposed Amendments to Rate Schedules **14**

3.1 Basic Charge 15

3.2 Energy Charge 16

COMMISSION ORDER G-213-21

APPENDICES

Appendix A: List of Acronym

Appendix B: List of Exhibits

Executive Summary

Kyuquot Power Ltd. (KPL) operates a 14.4 kV single phase distribution line in the area extending from British Columbia Hydro and Power Authority's electrical grid at Oclucje to Kyuquot. KPL has supplied electrical power to customers principally in and around Fair Harbour, Chamiss Bay and Kyuquot since June 2006. KPL serves commercial and residential customers under Tariff Rate Schedule 1101 (RS 1101) and the Ka:yu:'k't'h'/Che:k'tles7et'h' First Nations (KCFN) under Tariff Rate Schedule 1102 (RS 1102). In 2008, RS 1102 was created to reflect a funding arrangement between the KCFN and the Government of Canada that provided KPL a contribution in aid of construction (KCFN CIAC) totalling $2,550,000. The KCFN CIAC was recorded as CIAC towards KPL's distribution plant assets and was to be reflected as a reduction in the KCFN's electricity rates. The rate structure for both rate schedules consists of a Basic Charge and Energy Charge per kWh.

Concurrent with this proceeding, the British Columbia Utilities Commission (BCUC) is also conducting a proceeding to investigate the safety and reliability of the KPL system (KPL Safety and Reliability Investigation).

In this proceeding, KPL requests that the BCUC approve a permanent increase of $1.00 per month in the RS 1101 and 1102 Basic Charges and an increase of $0.036 per kWh[1] in the RS 1102 Energy Charge, effective the date of this Decision. KPL proposes to retain its existing rate structure and after accounting for the increase in the Basic Charges, it requests that the balance of the rate increase necessary to cover the increase in the Revenue Requirement, be recovered through the RS 1102 Energy Charge.

The rate increases are necessary to cover KPL's forecast cost of service or revenue requirement (Revenue Requirement) of $480,658[2] for the period from July 1, 2020 to June 30, 2021 (2021 Test Year). Revenues at the existing rates would result in a revenue deficiency of $46,704 primarily due to increases since 2018 in property taxes, depreciation and amortization and BC Hydro charges offset by increases in revenue from higher customer load.

KPL also seeks approval to establish and set amortization rates for two new rate base regulatory accounts:

- The Deferred Depreciation Asset regulatory account to facilitate a revised accounting treatment and proposed changes in depreciation rates for distribution plant assets and related CIAC, effective July 1, 2020; and
- The Long Term Maintenance (LTM) Asset regulatory account to capture costs resulting from recommendations in BCUC directed powerline maintenance and vegetation management plans.

The Panel makes the following key findings and determinations in this Decision:

- The 2021 Test Year forecast Revenue Requirement and related load and revenue forecast provide a reasonable basis for setting rates for the 2021 Test Year.

[1] KPL requested an increase of $0.0272 in the Application and a further increase of $0.0088 per kWh between the Application and Final Submission, for a total increase of $0.036 per KWH.
[2] KPL Final Submission, p. 10.

- The proposed accounting treatment and changes in depreciation rates for distribution plant assets and related CIAC are approved. The changes are based on a BCUC directed depreciation study that gives due consideration to the depreciation rates used by comparable utilities and the resulting depreciation rates appropriately reflect the remaining service lives of KPL's Distribution Plant assets.
- The request to establish a Deferred Depreciation regulatory account including recognition of $454,556 in deferred deprecation in the account and a four percent annual amortization rate is approved. Since KPL commenced operations in 2006, recognition of some or all depreciation on distribution plant assets has been deferred in revenue requirements. In 2018, the BCUC directed KPL to develop a plan to recover the total deferred depreciation expense over the remaining service lives of the distribution plant assets. KPL's proposal to recognize the amount of deferred depreciation and to commence amortization of this amount through the Deferred Depreciation regulatory account is a reasonable approach to address the BCUC directive.
- The request to establish and set an amortization rate for the LTM Asset regulatory account is approved. The regulatory account will capture actual LTM costs incurred related to the BCUC directed powerline maintenance and vegetation management plans. This recovery mechanism mitigates the 2021 rate impacts and smooths the costs over the expected period of benefit. In addition, the $50,000 allowance for capital additions related to anticipated recommendations resulting from the KPL Safety and Reliability Investigation is a reasonable initial estimate for inclusion in the 2021 Test Year.
- The proposal for a $1.00 increase in the Basic Charge for RS 1101 and 1102 is approved. This increase is warranted since there has been no increase in Basic Charge and the amount of the increase is reflective of inflationary cost increases since the last increase in 2012.
- The proposal to allocate the balance of the rate increase necessary to cover the increase in the Revenue Requirement to RS 1102 Energy Charge is not approved. This proposed rate does not properly reflect an appropriate allocation of the KCFN CIAC to RS 1102. The Panel finds an RS 1101 Energy Charge of $0.4026 per kWh and an RS 1102 Energy Charge of $0.2270 per kWh result in a more appropriate apportionment of costs amongst the two rate schedules. Accordingly, the Panel directs the following Energy Charges:
    - RS 1101 Energy Charge of $0.4026 per kWh, an increase of $.0056 per kWh or 1.4 percent; and
    - RS 1102 Energy Charge of $0.2270 per kWh, an increase of $.034 per kWh or 17.6 percent.

Regarding rate stability, the Panel acknowledges that a 17.6 percent Energy Charge increase is a significant increase for KCFN that exceeds the 10 percent threshold often considered to constitute rate shock. However, for KPL to be provided with an opportunity to fully recover its cost of service, any mitigation of the rate increase for RS 1102 could only be accomplished by shifting more of the necessary rate increase to RS 1101 customers or by establishing a rate smoothing mechanism to phase in increases over time. Mitigating the RS 1102 rate increase by shifting more of the increase to RS 1101 would not result in the fair apportionment of rates amongst customers. With respect to establishing a rate smoothing mechanism, the Panel notes that while the KCFN is facing a big increase in one year, it has not had a rate increase in since 2012. The Panel is also mindful of both KCFN's and KPL's comments that additional costs may arise out of the KPL Safety and Reliability Investigation that may require future rate increases. Further, a rate smoothing mechanism would add additional administrative and carrying costs.

The Panel acknowledges the KCFN’s concerns regarding KPL’s proposal to include certain costs related to the KPL Safety and Reliability Investigation in KPL’s Revenue Requirement. However, in the Panel’s view there is no regulatory justification to approve KCFN’s request to exclude costs associated with KPL addressing issues on its powerline that have existed since construction. Just and reasonable rates must enable a utility the opportunity to recover its cost of service consisting of reasonable and necessary costs, including those related to maintaining safety and reliability, that are prudently incurred.

1.0 Introduction

Kyuquot Power Ltd. (KPL) requests that the British Columbia Utilities Commission (BCUC) approve a permanent increase of $1.00 per month to the Basic Charge under Rate Schedules (RS) 1101 and 1102 and an increase of $0.036 per kWh[3] to the RS 1102 Energy Charge. The rate increases are based on KPL's forecast cost of service or revenue requirement (Revenue Requirement) of $480,658[4] and related load and revenue forecast for the period from July 1, 2020 to June 30, 2021 (2021 Test Year).

KPL also seeks approval to establish and set amortization rates for two new rate base regulatory accounts:

- The Deferred Depreciation Asset regulatory account to facilitate a revised accounting treatment and proposed changes in depreciation rates for distribution plant assets and related contributions in aid of construction (CIAC), effective July 1, 2020; and
- The Long Term Maintenance (LTM) Asset regulatory account to capture costs resulting from recommendations in BCUC directed powerline maintenance and vegetation management plans.

KPL proposes to retain the existing structure of its Tariff rate schedules but to increase the Basic Charge for both RS 1101 and 1102 and to apply the balance of the rate increase necessary to cover the increase in the Revenue Requirement to the Energy Charge for RS 1102.

This Decision sets out the key issues to be decided by the Panel, provides an overview of relevant evidence, considers KPL's proposals and outlines the reasons for setting permanent rates effective the date of this Decision.

The Panel addresses the following key issues:

- The reasonableness of the forecast 2021 Test Year Revenue Requirement and load forecast for the purpose of setting the rates;
- The appropriateness of KPL's requests related to new regulatory accounts; and
- The determination of just and reasonable and not unduly discriminatory rates effective the date of this Decision, including the consideration of the proposal to apply the necessary rate increase to the RS 1102 Energy Charge.

1.1 Overview of the Application

On November 30, 2020, KPL filed an application to the BCUC for amendment to its Revenue Requirement along with certain rate matters and its proposals were supplemented with additional information and requests during the proceeding (Application). KPL outlines the following in the Application:[5]

- The utility's financial information including rate base, depreciation rates, debt rate, return on equity (ROE) and related items;

[3] KPL requested an increase of $0.0272 in the Application and a further increase of $0.0088 per kWh between the Application and Final Submission, for a total increase of $0.036 per KWH.
[4] KPL Final Submission, p. 10.
[5] Exhibit B-1, Application, p. 4; KPL Final Argument, p. 3.

- The details of the proposed Deferred Depreciation Asset regulatory account, the revised accounting treatment and proposed changes in depreciation rates for Distribution Plant assets and the supporting Distribution Asset Depreciation Study;
- The details of the proposed LTM Asset regulatory account;
- The proposal to increase the RS 1101 and 1102 Basic Charge by $1.00 per month; and
- The proposal to increase the RS 1102 Energy Charge by $0.036 per kWh.

1.2 Background

KPL holds a Certificate of Public Convenience and Necessity (CPCN) to operate a 14.4 kV single phase distribution line in the area extending from the British Columbia Hydro and Power Authority (BC Hydro) electrical grid at Oclucje to Kyuquot. Since June 2006, KPL has supplied electrical power to customers principally in and around Fair Harbour, Chamiss Bay, and Kyuquot. KPL is a wholly owned subsidiary of Synex Energy Resources Ltd. (SERL), which is a wholly owned subsidiary of the parent company, Synex International Inc. SERL develops and operates electrical energy facilities.[6]

The BCUC initially approved KPL's Electric Tariff, Terms and Conditions of Service, and Rates in 2006.[7] On February 26, 2008, the BCUC approved KPL's application for a revision to RS 1101 and the creation of a new rate schedule for the Ka:yu:'k't'h'/Che:k'tles7et'h' First Nations (KCFN) (RS 1102) , subject to KPL receiving a Contribution to Aid of Construction (KCFN CIAC) from the KCFN. Under a funding arrangement between the KCFN and the Government of Canada, KPL received $2,550,000 in four tranches over the period from February 18, 2008 to March 23, 2012, and the amounts were recorded as CIAC towards the distribution plant assets. The KCFN CIAC was to be reflected as a reduction in the electricity rates for KCFN.

On March 18, 2008, the BCUC approved a revision to RS 1102 to reflect the second KCFN CIAC payment.[8] On March 5, 2009, the BCUC approved two further amendments to RS 1102, to reflect the third and fourth (final) KCFN CIAC payment. KPL's current RS 1101 consisting of a Basic Charge of $8.00 per month and an Energy Charge of $0.3970 per kWh[9], and RS 1102 with a Basic Charge of $8.00 and an Energy Charge of $0.1930 per month, were approved in 2012.[10]

The BCUC approved KPL's 2018 application for amendments to its revenue requirement along with certain rate matters.[11] While there were no changes to the existing rates that were approved in 2012, the depreciation rates were increased. The BCUC determined that the increase in annual depreciation expense was warranted because revenue growth had exceeded the increase in expenditures and KPL's interest rate on notional debt had declined, thereby causing its actual ROE to exceed its approved ROE. The amendment to its depreciation expense was to allow KPL to earn its allowed return without impacting customer rates. The BCUC also directed KPL to file its next revenue requirements application by December 1, 2020, and to include in the filing a depreciation study for its distribution plant assets.[12]

---

[6] Exhibit B-1, Application, p. 5.
[7] BCUC Order G-11-06.
[8] BCUC Order G-58-07; Exhibit B-1, Application, p. 5.
[9] Order G-111-12.
[10] Exhibit B-1, Application, p. 17.
[11] Order G-103-18.
[12] Exhibit B-1, Application, p. 6.

Concurrent with this proceeding, the BCUC is also conducting a proceeding to investigate the safety and reliability of the KPL system (KPL Safety and Reliability Investigation). In February 2020, a representative of the KCFN filed a complaint with the BCUC concerning, amongst other things, a safety matter regarding KPL, stating concerns regarding the reliability, service, and maintenance of the KPL system. On May 15, 2020, the BCUC established a hearing for the KPL Safety and Reliability Investigation.[13] As part of this hearing, the BCUC ordered, among other things, that KPL provide the BCUC with a vegetation management plan approved by a qualified electrical engineer and a maintenance plan approved by a certified utility arborist.[14] The KPL Safety and Reliability Investigation is currently ongoing in a separate BCUC proceeding and the review of these plans is not within the scope for this current proceeding except for the associated costs proposed to be captured in the LTM Asset account.

1.3 Legislative and Regulatory Framework

KPL filed its Application pursuant to sections 58 to 61 of the *Utilities Commission Act* (UCA). The UCA sets out the framework for approval of rates which includes the following:

- Section 59(5) defines what an "unjust" or "unreasonable" rate is, while section 59(4) states the determination of what is "unjust" or "unreasonable" is a question of fact of which the BCUC is the sole judge;
- Sections 58 and 60 authorize the BCUC to establish rates and includes mandatory considerations, including the requirement that rates not be "unjust, unreasonable, unduly discriminatory or unduly preferential"; and
- Section 60(1)(b.1) provides that in setting a rate, the BCUC 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."

In addition, section 56 of the UCA sets out the authority for the BCUC with respect to setting deprecation rates.

The Panel conducts its review of the Application based on the legislative authority outlined above, using a traditional Cost of Service (COS) approach. To apply this COS approach, the Panel must first determine KPL's total "cost of service" or revenue requirement. A utility's revenue requirement reflects the total amount of revenue that must be collected in rates to recover its costs and provide the utility with an opportunity to earn a reasonable return on its invested capital or its return on equity (ROE). This COS approach links rates to recovery of the operating and capital costs based on forecast revenues and costs. The COS elements of a forecast revenue requirement include the following basic components:

- Reasonable and necessary costs;
- Return of investment through recovery of depreciation expense; and
- Return on investment through an allowed rate of return on invested capital.

To determine the appropriate allocation of the Revenue Requirement to the two classes of customers (RS 1101 and 1102), the Panel is also guided by accepted Bonbright rate design principles[15], including the fair apportionment of costs amongst customers.

---

[13] Kyuquot Power Ltd. Investigation into the Safety and Reliability of the KPL System, Order G-115-20, May 15, 2020.
[14] Kyuquot Power Ltd. Investigation into the Safety and Reliability of the KPL System, Order G-261-20, October 19, 2020.
[15] Bonbright, Principles of Public Utility Rates (2nd), 1988.

1.4 Regulatory Process and Participants

The BCUC established a written public hearing process and regulatory timetables[16] for the review of the Application, which included a request for letters of comment, a round of BCUC information requests (IRs), and written final argument.

One letter of comment was submitted to the BCUC, from the KCFN.

2.0 KPL's Revenue Requirement

In this Section, the Panel reviews KPL's Revenue Requirement cost components including:

- Selling, general and administrative costs;
- Depreciation and amortization, including the request to establish and commence amortization on the Deferred Depreciation Asset and the LTM Asset regulatory accounts;
- Deemed interest and allowed ROE; and
- BC Hydro charges and load and revenue forecast.

As noted above, KPL's Revenue Requirement reflects the total amount of revenue that must be collected in revenue through rates designed to recover its forecast costs of service and to provide KPL an opportunity to earn a reasonable return. Table 1 sets out KPL's forecast 2021 Revenue Requirement and revenue deficiency compared to the 2018 Approved Revenue Requirement and actual amounts for 2018 through 2021.

Table 1 – KPL 2021 Test Period Revenue Requirement and Revenue Deficiency[17]

Component	2018 Approved	2018 Actual	2019 Actual	2020 Actual	2021 Forecast
Total Selling, General and Administration Expenses	**$ 131,207**	**$ 122,540**	**$ 173,262**	**$ 193,997**	**$ 165,982**
Depreciation	$ 36,351	$ 19,753	$ 35,567	$ 35,487	$ 38,379
Amortization of Deferred Depreciation Regulatory Account	$ -	$ -	$ -	$ -	$ 18,178
LTM Amortization	$ -	$ -	$ -	$ -	$ 7,500
Total Depreciation and Amortization	**$ 36,351**	**$ 19,753**	**$ 35,567**	**$ 35,487**	**$ 64,057**
ROE	$ 51,838	$ 51,928	$ 50,799	$ 48,406	$ 51,726
Deemed Interest	$ 42,316	$ 42,390	$ 41,468	$ 39,515	$ 40,802
Additional earned return/(Shareholder loss)	$ -	$ 32,199	$ (28,686)	$ (39,010)	$ -
Total Return	**$ 94,154**	**$ 126,518**	**$ 63,581**	**$ 48,911**	**$ 92,528**
BC Hydro Charges	$ 137,597	$ 143,166	$ 152,228	$ 129,414	$ 158,092
Total Cost of Service/Revenue Requirement	$ 399,309	$ 411,977	$ 424,638	$ 407,809	$ 480,658
Total Revenues at Existing Rates	$ 399,309	$ 411,977	$ 424,638	$ 407,809	$ 433,954
Revenue Deficiency	$ -	$ -	$ -	$ -	$ (46,704)

[16] Orders G-2-21 and G-102-21 dated January 5, 2021 and April 6, 2021 respectively

[17] Table compiled based on values taken from Exhibit B-1, Application, Appendix 1 and KPL's Final Argument, Appendix 3D. KPL's fiscal year ends on June 30. 2018 Approved values taken from KPL's Revenue Requirement Application approved by BCUC Order G-103-18.

2.1 Selling, General and Administrative Expenses

Selling, general, and administrative expenses are forecast to increase $34,775 compared to the 2018 approved amount primarily due to increased property taxes. Forecast selling, general, and administrative expenses for the 2021 Test Year are $165,982, a decrease of $28,015 (14.4 percent) compared to the 2020 actual costs. KPL demonstrates that most of the change relates to a $35,413 decrease in forecast repairs and maintenance, partially offset by higher forecast property taxes of $8,564.[18]

KPL explains that it developed the repairs and maintenance estimate of $44,407 by:

- Analyzing expenses over the past seven fiscal years to determine a baseline maintenance expense (BME) and an amount due to power outages;
- Deducting the BME values from total expense to determine net expense;
- Calculating the assumed daily outage costs by dividing net expense by the days of outage in that fiscal year;
- Determining the standard deviation of the various daily outage and various BME values and removing the highest and lowest expense values;
- Selected the BME that resulted in the lowest standard deviation between the annual daily outage costs; and
- Determining the forecast power outage expense by averaging the power outage cost per day during the past seven fiscal years (excluding the highest and lowest value) and multiplying by the average number of outages in those years.[19]

KPL forecasts an increase property taxes of $8,564 (39 percent) compared to 2020. The increase results from BC Assessment advising KPL that the value of improvements was erroneously omitted in the 2019 and earlier assessments. KPL states it canvassed the BC Assessment Authority, which confirmed the validity of the improvement valuation.[20]

2.2 Depreciation and Amortization

Forecast Depreciation and Amortization expense for the Test Year is $28,570 (81 percent) higher than 2020 actuals. This increase is consistent with the $27,706 increase over the 2018 approved amount and primarily relates to the amortization of the Deferred Depreciation and the LTM Asset regulatory accounts, both described in further detail below.

2.2.1 Change in Depreciation Rates and Deferred Depreciation Regulatory Account

Since KPL commenced operations in 2006, recognition of some or all depreciation on distribution plant assets has been not been recognized in its revenue requirements. KPL now seeks approval of a new rate base Deferred Depreciation regulatory account to facilitate a revised accounting treatment and proposed changes in

[18] KPL Final Argument, Appendix 3D.
[19] Exhibit B-1, Application, p. 12.
[20] KPL Final Argument, p. 10.

depreciation rates for distribution plant assets and related KCFN CIAC, effective July 1, 2020[21] and to set the amortization rates for the new regulatory account.[22]

When the BCUC approved the initial Electric Tariff for KPL in 2006, it stated:

> The Commission accepts the deferral of the depreciation expense to allow the Company a return on its investment to the extent that the approved Return on Equity ("ROE") is not exceeded.[23]

KPL outlines that the rates of depreciation for the distribution plant assets as approved by the BCUC have been as follows:[24]

- For fiscal years 2007-2014: 0.00%
- For fiscal years 2015-2018: 1.00%
- For fiscal years 2019-2020: 2.10%

To date, KPL has applied these depreciation rates to the KCFN CIAC.[25] Depreciation expense for the 2021 Test Year includes a credit of $68,636 relating to the depreciation of the KCFN CIAC.[26]

KPL notes that in 2018 the BCUC directed it to include a depreciation study for its distribution plant assets in its next revenue requirement application to be filed by December 1, 2020. This depreciation study was also to include a plan for the recovery of the total deferred depreciation expense over the remaining useful life of the assets.[27]

Based on this directive, KPL states it monitored recent BCUC electrical distribution utilities proceedings regarding depreciation rates, including the BC Hydro F2020-F021 Revenue Requirement Application and Boralex's Application for Rates and Terms and Conditions for Service to BC Hydro. KPL notes that BC Hydro is the largest electrical utility in BC and KPL is connected to the BC Hydro grid. Additionally, KPL explains that Boralex owns and operates a 25kv distribution line connecting Ocean Falls to Shearwater, which is like the KPL system as it includes both overhead and submarine cable sections. KPL submits that both proceedings confirmed that a depreciation study by recognized experts was not considered necessary or cost effective due to the very small size of KPL.[28]

<u>Proposed Depreciation Rates for Distribution Plant</u>

In the Distribution Plant Depreciation Study, KPL provides the following service life information for BC Hydro, Boralex and Alectra Inc. (Alectra) for each of KPL's asset categories, stating that KPL's operating conditions are like Boralex, Alectra and BC Hydro.[29]

[21] Exhibit B-1, Application, Appendix 2, Distribution Plant Depreciation Study, pp. 9 and 10.
[22] Exhibit B-1, p. 4.
[23] BCUC Order G-11-16.
[24] Exhibit B-1, Appendix 2, Distribution Plant Depreciation Study, p. 11.
[25] Ibid., Distribution Plant Assets Depreciation Study, p. 3.
[26] Exhibit B-1, Supplementary Appendix 1B, Schedule 4.
[27] Order G-103-18.
[28] Exhibit B-1, Appendix 2, Distribution Plant Depreciation Study, p. 8.
[29] Exhibit B-3, BCUC IR 5.3.

Table 2 – Comparative Asset Service Lives[30]

Asset Category	Boralex	Alectra	BCH	
Overhead Line	45 yrs	45-60 yrs	45 yrs	Alectra includes poles (45yr) or conductors (60yr); BCH is pole structures and overhead conductors
Submarine Cable	30 yrs	30-40 yrs	40 yrs	Alectra and BCH are Underground Cables
Distribution Line	Same as OH	Same as OH	Same as OH	
Meters			25 yrs	
Transformers	45	40 yrs	35 yrs	Boralex pad/substation; Alectra pole mount;

Based on the information in Table 2, KPL proposes the following asset service lives and depreciation rates for its assets:

Table 3 – Proposed KPL Service Lives and Depreciation Rates[31]

Asset Category	Service Life	Depreciation Rate	Comments
Overhead Line	45 years	2.222% per year Straight Line	Dep'n Rate equates to 45 yrs
Submarine Cable	32 years	3.125% per year Straight Line	Dep'n Rate equates to 32 yrs
Distribution Line	40 years	2.500% per year Straight Line	Dep'n Rate equates to 40 yrs
Meters	25 years	4.000% per year Straight Line	Dep'n Rate equates to 25 yrs
Transformers	40 years	2.500% per year Straight LIne	Dep'n Rate equates to 40 yrs

The proposal to use 45 years for overhead line assets matches both BC Hydro and Boralex, while the proposed 32 years for submarine cable is based on the Alectra range with more weighting on Boralex than BC Hydro because the Boralex estimate is specifically for submarine cable.

For distribution line assets, KPL proposes 40 years partially due to the mix of some local submarine cable (with a 32-year service life) and the higher than average service requirements of the assets. KPL states that the distribution line assets are located mostly on Walters Island and are subject to very high winds and saltwater spray, which may involve early asset replacement.[32]

KPL proposes 40 years for transformers which match the Alectra service life for pole mounted transformers and are the mid-way between the Boralex and BC Hydro rates. This proposal also matches the service life of distribution line assets, and both would likely be replaced/renewed concurrently due to the high labour cost of replacing assets.[33]

<u>Proposed Depreciation Rates for KCFN CIAC</u>

KPL proposes that individual CIAC categories be depreciated at rates using the remaining service life of the allocated asset on the date of the CIAC contribution. KPL explains that the annual depreciation rate for the components of the KCFN CIAC depend on the date received and allocation of each contribution. KPL states the service life variation for CIAC for overhead lines is from 39-43 years, for submarine cables is from 26-30 years,

[30] Exhibit B-1, Appendix 2, Distribution Plant Depreciation Study, p. 8.
[31] Ibid.
[32] Ibid., p. 9.
[33] Ibid.

and for distribution lines is 34-38 years. As a result, KPL proposes the following depreciation rates for KCFN CIAC:[34]

- CIAC for Overhead Powerlines – 2.408%;
- CIAC for Submarine Cables – 3.507%; and
- CIAC for Distribution Lines – 2.738%.

Calculation of Deferred Depreciation Amount

To determine the amount of deferred depreciation since KPL commenced operations, KPL calculates the difference between the net depreciated value of distribution plant assets as of June 30, 2020 using current depreciation rates and the theoretical net depreciated distribution plant assets at July 1, 2020 calculated as if the proposed rates been in effect. KPL submits that, in this way, consistency and fairness is maintained in the rate base for KPL. The calculated difference is $454,556, as of July 1, 2020.[35]

KPL proposes to recognize $454,556 in a new rate base Deferred Depreciation regulatory account and to amortize the regulatory account at a rate of four percent annually. KPL states the overhead line, submarine cable, and distribution line have service lives of 45 years, 32 years, and 40 years respectively and have been in service for 15 years at June 30, 2021. KPL proposes an initial rate of four percent based on limiting rate increases but also setting the amortization period less than or equal to the average remaining service life of the assets of approximately 25 years. KPL expects the rate of depreciation on the regulatory account may change over the years to eliminate the deferral account as promptly as reasonable, without causing undue rate increases.[36] The 2021 Test Year includes expense of $18,178 relating to the annual amortization of the Deferred Depreciation regulatory account.[37]

2.2.2 Capital Additions and LTM Regulatory Account

KPL states that the only capital additions since the 2018 revenue requirement application were $8,973 in 2018 for a pad-mounted transformer and new electrical meters and $27,215 incurred in 2019 for the remaining supply and installation of the pad-mounted transformer.[38]

The 2021 Test Year includes an allowance for $50,000 in forecast additions for new powerline construction costs to partially address anticipated recommendations resulting from the KPL Safety and Reliability Investigation.[39] KPL states that the costs to be incurred are highly dependent on the timing and extent of any BCUC orders, and accordingly KPL does not have an overall estimate of the costs. KPL states that depending on the timing of the expenditures incurred, it may result in KPL filing another RRA in 2022.[40] As an additional response to the recommendations arising from the BCUC directed powerline maintenance and vegetation management plans, KPL also includes a $100,000 allowance for LTM described below.[41]

[34] Exhibit B-1, Appendix 2, Distribution Plant Assets Depreciation Study, p. 10.
[35] Exhibit B-1, Appendix 2, Distribution Plant Assets Depreciation Study, p. 14, subsequently corrected in Exhibit B-3, BCUC IR 5.5.
[36] Exhibit B-3, BCUC IR 5.4.
[37] KPL Final Argument, Appendix 3D.
[38] Exhibit B-1, Application, p. 8.
[39] Ibid., p. 9.
[40] Exhibit B-3, BCUC IR 4.2.
[41] KPL Final Argument, p. 6.

LTM Regulatory Account

KPL proposes to establish a rate base LTM Asset regulatory account to capture costs related to the BCUC directed powerline maintenance and vegetation management plans. KPL proposes the regulatory account to be amortized by 15 percent annually to reflect the expected service life of the costs.

KPL initially forecast $50,000 in the 2021 Test Year for these plans, including $35,000 for plan preparation and $15,000 for removal of danger trees. This work has an expected service life of four years, consistent with annual vegetation management carried out over the past 10 years. KPL initially proposed a depreciation rate of 25 percent and calculated amortization expense in the 2021 Test Year of $6,250.[42]

Subsequently, KPL states that most of the LTM costs have now been completed and a total of $93,497 has been incurred as of March 31, 2021. The incurred LTM costs consist of powerline inspections and maintenance work. KPL now forecasts LTM total expenditures of $100,000 including approximately $1,500 in respect of powerline maintenance and approximately $5,000 with respect to danger tree removal in the remainder of the 2021 Test Year.[43] in addition , KPL expects that further LTM costs will be incurred in subsequent years and states that depending on the timing of the expenditures incurred, the financial impact may result in KPL filing another revenue requirement application during fiscal 2022.[44]

As a result of these additional incurred expenditures, KPL amends its proposed amortization to 15 percent based on a service life of 6.7 years, since the incurred LTM expenditures include a higher proportion of powerline maintenance than danger tree removal work. KPL states that the service life of powerline maintenance work is considered longer (e.g. more than 10 years), compared to the service life danger tree removal (4 years). As a result, KPL amended the proposed amortization expense for the 2021 Test Year to $7,500.[45]

Positions of the Parties

KCFN

The KCFN notes that in the KPL Safety and Reliability Investigation proceeding, KPL was required to hire third party professional engineers and utility arborists to undertake assessments of the powerline and that these assessments have raised code compliance concerns with the original construction and operational concerns to do with vegetation management. The KCFN is concerned that KPL is proposing a rate increase for KCFN to cover the costs to address deficiencies in the powerline that have existed since construction.

The KCFN references KPL's statement that a reason for the additional work being required is due to "…the change in standards resulting from the change in qualified professionals." KCFN submits based on consultation with TEBurns Engineering, it understands that there are not different standards that apply for the design/construction of powerlines that depend on the qualified professional responsible.

---

[42] Exhibit B-1, Application, p. 10.
[43] KPL Final Argument, p. 6.
[44] Exhibit B-3, BCUC IR 4.2.1.
[45] KPL Final Argument, p. 6.

Since the KPL Safety and Reliability Investigation proceeding is ongoing at this time, the KCFN also expresses concern that in addition to the replacement of power poles due to ground clearance issues being recommended by Primary Engineering, there is a real possibility for additional work items being required once a comprehensive review is completed. The KCFN requests that all costs associated with KPL addressing code compliance issues on their powerline that have existed since construction be excluded from expenses used for determining rate increases to KCFN. The KCFN submits this includes management, engineering, and construction costs.[46]

KPL Response

In response, KPL submits that the KCFN's request that the costs of capital improvements to the KPL powerline resulting from of the need to address code compliance matters be excluded from KPL's revenue requirements is neither just or reasonable.[47] KPL argues, based on the evidence,[48] it is inaccurate that recent assessments raise concerns with the original powerline construction.[49]

KPL submits that all capital expenditures on the KPL system, if incurred prudently, should be included in the rate base.[50] KPL states it 'strongly disagrees' that prudently incurred costs resulting from actions undertaken in compliance with BCUC orders should be excluded from rate base.[51]

In KPL's view, KCFN's comments only relate to the treatment of code compliance with original construction and not to the proposed treatment by KPL of LTM costs, such as powerline maintenance and vegetation management costs.[52]

2.3 Deemed Interest and Allowed ROE

KPL proposes to continue the previous BCUC approved notional capital structure of 60 percent debt and 40 percent equity. KPL has credit agreements with the Canadian Western Bank (CWB) and proposed to set its interest rate based on the previously approved deemed interest rate equal to the CWB interest rate plus a 0.5 percent for the loan guarantee to account for CWB required security and guarantees required by provided by Synex International Inc., SERL, and Sigma Engineering Ltd.[53] KPL notes that the BCUC approved KPL's application to amend the credit agreement to fix the interest rate payable to CWB at a rate not to exceed 5.04 percent.[54] The interest rate payable to CWB was 4.67 percent with a fixed rate term ending July 13, 2020.[55]

Effective July 13, 2020, the fixed rate term of the CWB credit agreement expired. KPL notes that the CWB credit agreement provides for a floating interest rate 2.0 percent above the CWB Prime Commercial Rate, which is currently 2.5 percent, in the absence of a fixed rate. KPL states that due to the ongoing pandemic, the current CWB Prime Commercial Rate is not expected to vary significantly, and therefore the KPL proposes an interest rate for the 2021 Test Year of 5.0 percent (calculated as 4.5 percent being the CWB loan rate plus maintaining

[46] Exhibit E-1, KCFN Letter of Comment, dated March 24, 2021.
[47] KPL Final Argument, p. 7.
[48] Ibid., pp. 7-8.
[49] Ibid., p. 8.
[50] Ibid
[51] KPL Errata No 1 to Final Argument.
[52] KPL Final Argument, p. 8.
[53] Order G-158-14.
[54] Order G-97-16.
[55] Exhibit B-1, Application, p. 10.

the 0.5 percent additional portion in respect of loan guarantees provided by KPL's parent company) on the debt component of 60 percent of rate base.[56]

On June 21, 2021, KPL provided an update that the CWB Loan has been repaid with funds provided from its parent company. It states the repayment of the CWB loan may warrant a future change in the deemed interest rate. However, KPL submits that the proposed 5.0 percent deemed interest does not warrant revisiting at this time since the CWB debt rate was derived as competitively sourced in the financial market. In addition, KPL states that it has not historically been able to achieve corporate lending of its allowed debt/equity ratio and has not been able to achieve lending without a 100 percent parent company guarantee.[57]

KPL also submits that the new financing provided by its parent company has a long-term fixed annual interest rate of 4.767 percent, which is higher than the CWB interest rate. KPL expects to prepare an application to the BCUC for approval of a revised deemed interest rate, however it anticipates time will be needed for a decision on the application, once filed. Therefore, it submits that the notional debt interest rate of 5.0 percent is both fair and reasonable.[58]

KPL also proposes to continue using the allowed ROE of 9.50 percent, which it calculates based on the benchmark utility rate of 8.75 percent plus a risk premium of 75 basis points above the benchmark utility rate, providing a comparison to Boralex's allowed ROE.[59]

2.4 Load Forecast and BC Hydro Charges

2.4.1 Load Forecast

KPL estimates 1,739 MWh in electricity sales to customers for the 2021 Test Year. KPL forecast customer load using the percentage average increase and the average load over the past five, six, or seven years, or by using the percent average increase and the load from the previous year. These methods were then compared to remove outliers. KPL submits that the 2021 Test Year forecast is primarily based on actual load KPL from July 1, 2013 to June 30, 2020. In KPL's view, data prior to this timeframe was considered a period of initial growth. Outliers and anomalies were assessed with the only revision being the deletion of consumption for the Fiscal 2020 for certain customers since consumption was estimated during this period.[60]

2.4.2 BC Hydro Charges

The cost of electricity from BC Hydro during the Test Year was determined by multiplying the forecast BC Hydro average annual cost per kWh by the forecast energy purchases from BC Hydro. KPL states that the cost of electricity is determined based on seven years of historical data and includes allowances for an increased volume of electricity purchases over KPL electricity sales volume by about 7.5 percent to account for distribution system losses. The resulting cost of electricity from BC Hydro for the Test Year is $158,092.[61] KPL provided the following scenario analysis showing the impact an increase/decrease in sales or BC Hydro rates would have on the Revenue Requirement and proposed RS 1102 Energy Cate increase:

[56] Ibid., Application, p. 11 and KPL Errata No. 2 to Final Argument, June 21, 2021.
[57] KPL Errata No. 2 to Final Argument, June 21, 2021.
[58] Ibid.
[59] Exhibit B-1, Application, p. 11.
[60] Ibid., p. 13.
[61] Ibid., p. 15.

Table 4 – BC Hydro Charges/Load Forecast Scenario Analysis[62]

	Schedule 2 Data	Electricity Sales increase	Electricity Sales decrease	BCH rate increase	BCH rate decrease
Increase/Decrease		10%	(10)%	10%	(10)%
1101 kWh	1283.0	1411.3	1154.7	1283.0	1283.0
1102 kwh	456.5	502.1	410.8	456.5	456.5
BCH Costs	$158,092	$173,901	$142,283	$173,901	$142,283
1101 Revenue	$436,482	$479,291	$447,673	$479,291	$447,673
1102 Revenue	$282,263	$279,950	$284,575	$298,072	$266,453
Total Revenue	$181,220	$199,342	$163,098	$181,220	$181,220
1102 Tariff	$ 0.2200	$0.1984	$0.2464	$0.2323	$0.2077
Change 1102 in $		($0.0216)	$0.0264	$0.0123	$(0.0123)
Change 1102 in %		(9.48)%	12.02%	5.60%	(5.60)%

Panel Determination

Based on the findings and determinations on the components of the forecast Revenue Requirement set out below, the Panel finds the forecast Revenue Requirements set out in Table 1 reasonable for setting rates for the 2021 Test Period. The forecast Revenue Requirement reasonably reflects KPL's forecast cost of service and is an appropriate basis on which to establish rates.

Selling, General and Administrative Expenses

The Panel finds the 2021 forecast selling, general and administrative expenses provide a reasonable basis for determining the Revenue Requirement for the 2021 Test Year. Forecast selling, general and administrative expenses are less than actual expenditures incurred in 2019 and 2020. The forecast decrease in repairs and maintenance is sufficiently supported by a detailed analysis of actual repairs and maintenance over the last seven years. The offsetting increase in forecast property taxes is supported by a recent tax assessment from BC Assessment.

Change in Depreciation Rates and Deferred Depreciation Regulatory Account

Pursuant to section 56 of the UCA, the Panel approves the following distribution plant depreciation rates:

Asset Category	Service Life	Depreciation Rate
Overhead Line	45 years	2.222% per year Straight Line
Submarine Cable	32 years	3.125% per year Straight Line
Distribution Line	40 years	2.500% per year Straight Line
Meters	25 years	4.000% per year Straight Line
Transformers	40 years	2.500% per year Straight LIne

The Panel also approves the following depreciation rates for the KCFN CIAC:[63]

- **KCFN CIAC for overhead powerlines – 2.408%;**
- **KCFN CIAC for submarine cables – 3.507%; and**
- **KCFN CIAC for distribution lines – 2.738%.**

[62] Exhibit B-3, BCUC IR 14.4.
[63] Exhibit B-1, Appendix 2, Distribution Plant Assets Depreciation Study, p. 10.

KPL's request for approval of revised depreciation rates for distribution plant assets and related KCFN CIAC is responsive to the BCUC's 2018 directive for KPL to provide a depreciation study for its distribution plant assets. The proposed depreciation rates based on this study give due consideration to the depreciation rates used by comparable utilities and are adapted to take into account KPL's unique circumstances. The resulting depreciation rates appropriately reflect the remaining service lives of KPL's distribution plant assets. **Accordingly, the Panel finds the calculated deprecation expense of $38,379 provides a reasonable basis for determining the Revenue Requirement for the 2021 Test Year.**

The Panel approves the establishment of the Deferred Depreciation regulatory account, the recognition of $454,556 in deferred deprecation in the account and a four percent annual amortization rate. The rate base regulatory account is approved to attract interest based on KPL's Weighted Average Cost of Capital (WACC). KPL's proposal to establish the Deferred Depreciation regulatory account is a reasonable approach to the 2018 BCUC directive to develop a plan to recover the total deferred depreciation expense over the remaining service lives of the Distribution Plant assets. KPL's method of calculating the amount of deferred depreciation is reasonable and its amortization proposal balances rate impact considerations with the recovery of the regulatory account over a reasonable period**. Accordingly, the Panel finds the $18,178 in amortization of the Deferred Depreciation regulatory account provides a reasonable basis for determining the Revenue Requirement for the 2021 Test Year.**

Capital Additions and LTM Regulatory Account

The Panel acknowledges the KCFN's concerns regarding KPL's proposal to include in Revenue Requirement the management, engineering, and construction costs related addressing recommendations arising from the BCUC directed powerline maintenance and vegetation management plans. The Panel calculates the incremental impact of capital additions and LTM costs on the 2021 Revenue Requirement to be approximately $18,000[64] which makes up 7.5 percent of the proposed increase of 18.7 percent in KCFN's Energy Charge. Further, consistent with the KCFN's view that there is a real possibility for additional work items being required once a comprehensive review is completed, KPL also expects that the additional costs will be incurred in subsequent years. This could lead to further rate increases in the future.

However, in the Panel's view there is no regulatory justification for the KCFN's request to exclude all management, engineering, and construction costs associated with KPL addressing issues on its powerline that have existed since construction from costs used for determining rate increases.

Given the legislative and regulatory framework set out in Section 1 of this Decision, if the Panel sets rates that are insufficient to yield a fair and reasonable compensation for the service provided by the KPL, such rates would be unjust and unreasonable.[65] Just and reasonable rates must enable a utility the opportunity to recover its cost of service consisting of reasonable and necessary costs that are prudently incurred, a return of its investment in capital through recovery of depreciation expense, and a return on its investment through a charge for deemed interest and an allowed rate of return on invested capital.

[64] Calculated using KPL Final Argument, Appendix 3D. Revenue Requirement impact of $150,000 of additions includes ROE impact of $5,700, deemed interest of $4,500, and depreciation of $8,125.
[65] UCA, section 59(5).

KPL outlines in its response to KCFN that the evidence supports that the costs associated with the recommendations in the BCUC ordered vegetation management and maintenance plans do not arise from concerns with original construction. Further, the Panel sees no evidence to suggest that the forecast capital additions and LTM costs included in the Revenue Requirement are unnecessary or imprudent. The Panel agrees with KPL's submission that prudently incurred capital additions and LTM costs resulting from actions undertaken in compliance with BCUC orders should be recoverable in rates.

The Panel finds the proposed LTM cost recovery mechanism and forecast LTM costs and capital additions provide a reasonable basis for determining the Revenue Requirement for the 2021 Test Year. The proposed regulatory account treatment mitigates the rate 2021 impacts by smoothing the costs over the expected service life of the expenditures. The $100,000 LTM expenditure forecast is primarily based on actual expenditures that address recommendations in the vegetation management and maintenance plans. The $50,000 allowance for capital additions related to anticipated recommendations resulting from the KPL Safety and Reliability Investigation is a reasonable initial estimate and as noted by both the KCFN and KPL, further associated costs may be incurred in future years. **The Panel also approves the establishment of the LTM Asset regulatory account to capture actual LTM costs incurred related to the BCUC directed powerline maintenance and vegetation management plans and a 15 percent annual amortization rate. The rate base regulatory account is approved to attract interest based on KPL's WACC.**

<u>**Deemed Interest and Allowed ROE**</u>

The Panel finds the forecast deemed interest and allowed ROE provides a reasonable basis for determining the Revenue Requirement for the 2021 Test Year. The forecast deemed interest and allowed ROE amounts are based on the BCUC approved deemed capital structure and allowed ROE for KPL. The proposed interest rate of 5.0 percent is consistent with its recent third-party borrowing rates plus an additional portion in respect of loan guarantees provided by the parent and affiliated companies.

<u>**BC Hydro Charges and Load Forecast**</u>

The Panel finds the forecast load and BC Hydro charges reasonable for the purpose of determining the forecast BC Hydro charges and revenue deficiency set out in Table 1. The forecast amounts are sufficiently supported by a detailed analysis of historical energy sales and purchases which provides a reasonable basis for forecasting the expected load and BC Hydro charges.

3.0 Proposed Amendments to Rate Schedules

KPL's existing Electric Tariff RSs consists of:

- RS 1101 – Residential and Commercial Services with a Basic Charge of $8.00 per month and an Energy Charge of $0.3970 per kWh; and
- RS 1102 - KCFN with a Basic Charge of $8.00 per month and an Energy Charge of $0.1930 per kWh.[66]

KPL proposes to retain the existing structure and to incorporate an increase of $1.00 per month to the monthly Basic Charge for both RSs 1101 and 1102. KPL also initially proposed an increase the RS 1102 Energy Charge

[66] Exhibit B-1, Application, p. 17.

from $0.1930 per kWh to $0.2202 per kWh.[67] The proposed increase in the RS 1101 Basic Charge results in an estimated annual bill increase of $12, or 1.1 percent. The initial proposal for RS 1102 results in an annual bill increase of $34,778, or 14 percent.[68]

During the proceeding, KPL revises its proposal for the RS 1102 Energy Charge to $0.2290 per kWh. The additional increase is primarily due to the revision of the forecast property taxes and amortization of the LTM regulatory account.[69]

The final proposed rate increases provide sufficient incremental revenue to cover the revenue deficiency, as shown below:

Table 5 – Incremental Revenue from Proposed Rate Increases[70]

Component	2021 Forecast Volumes (kWh)	Calculated Rate ($/kWh)	2021 Forecast
Total Cost of Service/Revenue Requirement (Table 1)			**$ 480,658**
Energy Sales for Rate Schedule 1101 at Existing Rates	456,000	0.3970	$ 181,032
Energy Sales for Rate Schedule 1102 at Existing Rates	1,283,000	0.1930	$ 247,619
Revenue from Basic Charge at Existing Rates			$ 4,128
Other Revenue			$ 1,174
Total Revenue at Existing Rates			**$ 433,954**
Revenue Deficiency (Table 1)			**$ 46,704**
Incremental Revenue from Increase in Basic Charge - RS 1101 and 1102			$ 516
Incremental Revenue from Proposed Energy Charge Increase - RS 1102	1,283,000	0.036	$ 46,188
Incremental Revenue from Proposed Rate Increases			**$ 46,704**

3.1 Basic Charge

KPL submits its proposal to increase the Basic Charge for all KPL customers from $8.00 per month to $9.00 per month reflects an approximate inflationary increase in the KPL costs of accounting, billing, and meter reading functions. KPL states that the monthly basic charge for RS 1101 and 1102 was last increased in 2012. KPL notes the historical Canadian Consumer Price Index increase over the seven years totals 11.8 percent and applying this amount to the existing Basic Charge results in an increase to $8.94.[71] KPL also notes that current monthly Basic Charge for BC Hydro residential service is $6.29 and $10.98 for small general service.[72]

67 Ibid.
68 Exhibit B-1, Application, p. 18.
69 KPL Final Argument, p. 3.
70 Staff Calculation based on values taken from KPL's Final Argument, Appendix 3D. Incremental Revenue from Basic Charge taken from the difference between Test Year A and Test Year B in Appendix 3D. Incremental Rate of $0.036/kWh for RS 1102 equals the proposed rate of $0.2290 minus the existing rate of $0.1930/kWh.
71 Exhibit B-1, Application, p. 17.
72 Ibid., p. 18.

3.2 Energy Charge

After allowing for the increase in revenue from the Basic Charge, KPL proposes to cover the remaining revenue deficiency by increasing the RS 1102 Energy Charge.[73] KPL's rationale for allocating this increase to RS 1102 is outlined below.

KPL states for Fiscal 2020 RS 1102 electricity sales represented over 75 percent of total electricity sales. KPL explains that the rates collected under RS 1102 must exceed the average operating cost per kWh by a reasonable margin to cover operating and non-operating costs such as depreciation, interest on debt and return on equity. For 2020 and 2019, KPL's total operating expenses on a per kWh sold basis was $0.1975 per kWh and $0.1962 per kWh, respectively. Further, the proposed RS 1102 Energy Rate of $0.2290 per kWh provides a 23.1 percent margin over the forecast 2021 per kWh operating cost of $0.186.[74]

Prior to recognition of the $2.55 million KCFN CIAC the energy rates for all customers were equal. In 2008, it was determined that the KCFN CIAC would fairly equate to a discount of $0.204 per kWh from the Rate Schedule 1101 energy rate. However, KPL explains that as the powerline assets and the KCFN CIAC are depreciated, the difference between the RS 1101 and 1102 rates should decrease such that at the end of the service life of the assets, there should be no difference between the energy charges.

To approximate a reasonable differential for the 2021 Test Year KPL provides a breakdown of revenue requirements, updated to reflect its final proposal, as follows:

Table 6 – Revenue Requirement on a Cost Per kWh of Sales Basis[75]

	Total in $	Cost per kWh of sales
Operating expense excluding electricity purchases from BC Hydro	$165,982	$0.09545
Electricity purchases from BC Hydro	$158,092	$0.09091
Depreciation and amortization	$64,057	$0.03683
Return on Rate Base (includes return on debt and equity)	$92,528	$0.05321
Total Revenue Requirement	$480,658	$0.2764

KPL's analysis, after adjusting to reflect its updated proposal, illustrates that both RS 1101 and 1102 would have an energy charge of $0.2764 before any adjustment for the KCFN CIAC. KPL submits that this represents an upper limit for the RS 1102 Energy Charge.

Since the difference between RS 1101 and 1102 should be calculated based on the Revenue Requirement impacts of the KCFN CIAC, KPL shows the impact of the KCFN CIAC as follows:

[73] Exhibit B-1, Application, p. 18; KPL Final Argument, p. 3.
[74] Projected Operating Costs of $324,074 divided by projected sales of 1,739,000 kWh.
[75] Adapted from Exhibit B-3, BCUC IR 15.1, using KPL's updated proposal reflected in its Final Argument.

Table 7 – Impact of the KCFN CIAC on Revenue Requirement and Energy Charges[76]

	Total in $	Cost per kWh of sales
CIAC Depreciation and Amortization	$(68,636)	$(0.0534)
Net CIAC Balance	$(1,724,407)	
Return on CIAC Balance (includes return on debt and equity) at 6.90%	$(118,984)	$(0.0927)
Net CIAC Deferred Depreciation Balance	$(547,857)	
Return on Net CIAC Deferred Depreciation Balance at 6.90%	$(37,082)	$(0.0295)
Calculated Total Difference between Schedule 1102 and Schedule 1101		$(0.1756)

KPL submits that deducting $0.1756 from the existing RS 1101 Energy Charge of $0.3970 per kWh, would result in an RS 1102 Energy Charge of $0.2214 per kWh. KPL views this as the lower limit for the RS 1102 Energy Charge.

As a result, KPL's submits that its analysis, which has been adjusted to reflect its updated proposal, illustrates that under the just and reasonable rates criteria, the RS 1102 Energy Charge for the 2021 Test Year should be between $0.2214 per kWh and $0.2764 per kWh. Therefore, KPL's updated proposal for no change to the RS 1101 Energy Charge and an RS 1102 Energy Charge of $0.2290 per kWh is within this range.[77]

In addition to this analysis, KPL states the average consumption levels of residential and commercial customers under RS 1101 reflect a consumption level necessary for essential use only. KPL submits that these customers have limited capacity to reduce their electrical consumption and are particularly vulnerable to electricity affordability.[78]

The proposed RS 1102 Energy Charge of $0.2290 per kWh results in an annual Energy Charge increase of 18.7 percent[79] for the KCFN. KPL notes that generally rate shock is considered as an increase of greater than 10 percent. However, KPL states that it did not consider alternatives to potential limit rate shock. KPL submits that cost of electricity billed to KCFN has varied considerably over the past few years due to increased energy consumption. Therefore, KPL argues that a definition of rate shock based on a percentage bill increase KCFN should be considered using an amount higher than 10 percent.

KPL also notes that it did consider increasing the RS 1101 Energy Charge to minimize rate shock to RS 1102, however it believes that the "fairness" supersedes the "rate shock" aspects. Additionally, KPL believes that the increased carrying costs of implementing rate changes over a period of two or three years are excessive for a utility the size of the KPL.[80]

KPL submits that the KCFN had the opportunity to comment in its letter of comment on the fairness of the increased costs being allocated to RS 1102, or to highlight a concern regarding "rate shock" but did not do so.[81]

[76] Exhibit B-3, BCUC IR 15.1
[77] Ibid., BCUC IR 15.3, updated with values from KPL's final argument.
[78] Exhibit B-1, Application, p. 18.
[79] Calculated based on: (Requested Rate of $0.2290/kWh minus existing rate $0.1930/kWh), divided by existing rate of $0.1930/kWh.
[80] Exhibit B-3, BCUC IR 15.1.
[81] KPL Final Argument, p. 15.

Panel Determination

The Panel sets out below its findings and determinations on KPL's proposed rate structure and rates for the 2021 Test Period, including its determination on the RS 1101 and 1102 Basic and Energy Charges.

Basic Charge Increase

Pursuant to section 58 to 61 of the UCA, the Panel approves a $9.00 Basic Charge for RS 1101 and 1102. The $1.00 increase is warranted since there has been no increase in Basic Charge for seven years. The increase reflects inflationary cost increases over that period. All customers are impacted equally by the increase and the bill impact is not significant.

Energy Charge Increase

KPL proposes to retain the existing rate structure including a per kWh Energy Charge. Consistent with Bonbright rate design principles, the Energy Charge component maintains price signals that encourage efficient energy use, is easier for customers to understand and rate changes can be implemented in a cost-effective manner. To ensure KPL's revenue is sufficient to recover its cost of service, most of the increase in Revenue Requirement must be recovered through increases in the Energy Charge component. Below the Panel reviews additional rate design principles regarding fair apportionment of the increase in Revenue Requirement amongst customers and rate stability.

Consideration of the fair apportionment of costs is necessary to determine whether a rate is just, reasonable, and not unduly discriminatory. Key to this principle is the concept of 'cost causality' which involves identifying which customer classes cause specific expenses to be incurred by the utility. Generally, the customer class that causes specific expenses should be expected to pay those costs.

While a utility often prepares a comprehensive cost allocation study to apportion utility assets and expenses between customer classes, in the Panel's view, such an approach is not warranted given KPL's size and the limited scope of its system. In this proceeding, KPL's evidence sufficiently supports that the assets are used jointly by both customer classes and the operating costs relate to services that benefit all customers. Further, prior to the BCUC approval of the creation of RS 1102 to reflect in a reduction in the Energy Charge for KCFN attributable to the KCFN CIAC, the energy rates for all customers were equal.

The Panel agrees with KPL's statement that the difference between RS 1101 and 1102 should be based on the allocation of the Revenue Requirement impacts of the KCFN CIAC to RS 1102[82], consistent with the approach set out in Table 7 above. **However, the Panel finds KPL's final proposed RS 1101 Energy Charge of $0.2290 per kWh does not properly reflect an appropriate allocation of the KCFN CIAC impacts to RS 1102.** Using the differential of 0.1756 per kWh differential calculated in KPL's analysis shown in Table 7 above, the Panel recalculates the Energy Charges as follows:

- The amount of the Revenue Requirement that must be recovered from the RS 1101 and 1102 Energy Charges is $474,840[83];

[82] Exhibit B-3, BCUC IR 15.1
[83] Consisting of: Revenue Requirement of $480,658 less revenue from Basic Charges of $4,644 and other revenue of $1,174 equals Revenue to be recovered from Energy Charge of $ 474,840.

- Formulaically, total revenue from the Energy Charges must be: (456,000 kWh x RS 1101 rate) + [1,283,000 kWh x (RS 1101 rate - $0.1756/kWh)] = $474,840; and
- Solving the above equation for the RS 1101 rate results in a RS 1101 Energy Charge of $0.4026 per kWh and a RS 1102 Energy Charge of $0.2270 per kWh.

These rates result in KPL recovering its Revenue Requirement as follows:

Table 8: Total Revenue Using Recalculated Energy Charges[84]

Component	2021 Forecast Volumes (kWh)	Recalculated Energy Charges per kWh	2021 Forecast ($)
Total Cost of Service/Revenue Requirement (Table 1)			**480,658**
Energy Sales for Rate Schedule 1101 at using recalculated rates	456,000	0.4026	183,589
Energy Sales for Rate Schedule 1102 at using recalculated rates	1,283,000	0.2270	291,251
Revenue from Basic Charge of $9 per month			4,644
Other Revenue			1,174
Total Revenue Using Recalculated Energy Charges			**480,658**

Accordingly, the Panel finds an RS 1101 Energy Charge of $0.4026 per kWh and an RS 1102 Energy Charge of $0.2270 per kWh results in more appropriate apportionment of costs amongst the two rate schedules.

With respect to rate stability, the Panel notes the above recalculated Energy Charges results in a 17.6 percent increase in the RS 1102 Energy Charge.[85] This is a significant increase for the KCFN and is more than the 10 percent threshold often considered to constitute rate shock. Since the KCFN is faced with a significant large rate increase, the Panel must determine whether the increase will result in sufficient rate shock to warrant some form of rate mitigation. The Panel notes that for KPL to be provided with an opportunity to fully recover its cost of service, any mitigation of the rate increase for RS 1102 can only be accomplished by shifting more of the necessary rate increase to RS 1101 customers or by establishing a rate smoothing mechanism to phase in increases over time.

Mitigating the RS 1102 rate increase by shifting more of the increase to RS 1101 would not result in the fair apportionment of rates as discussed above. The Panel agrees with KPL that in this circumstance the fair apportionment of costs outweighs rate stability and rate shock considerations.

Regarding the possibility of establishing a rate smoothing mechanism, the Panel notes that while the KCFN is facing a big increase in one year, it has not had a rate increase in since 2012. The Panel is also mindful that both KCFN's and KPL's comments that additional costs may arise out of the KPL Safety and Reliability Investigation that may require rate future increases. Further, the Panel agrees with KPL that a rate smoothing mechanism would result add additional administrative and carrying costs.

[84] BCUC Staff Calculation based on values taken from KPL's Final Argument, Appendix 3D.
[85] Calculated based on: (Calculated Rate of $0.2270/kWh minus existing rate $0.1930/kWh), divided by existing rate of $0.1930/kWh.

The Panel acknowledges KPL's argument that none of the Energy Charge increase should go to RS 1101 because these customers have limited capacity to reduce their electrical consumption and are vulnerable to electricity affordability. However, affordability is not an accepted rate design principle, and the current regulatory and legislative framework does not allow for undue discrimination in rates based on affordability considerations. Accordingly, the Panel disregards this proposal and instead determines the RS 1101 rate increase should be based on fair apportionment of costs.

For the reasons outlined above, pursuant to section 58 to 60 of the UCA, the Panel directs the following Energy Charges:

- **RS 1101 Energy Charge of $0.4026 per kWh, an increase of $.0056 per kWh or 1.4 percent; and**
- **RS 1102 Energy Charge of $0.2270 per kWh, an increase of $.034 per kWh or 17.6 percent.**

Given the concerns of the parties that further changes in capital and operating costs may result from the ongoing KPL Safety and Reliability Investigation proceeding, the Panel recommends that KPL file its next Revenue Requirement Application once it has more visibility into these expected costs or when otherwise determined by the BCUC.

DATED at the City of Vancouver, in the Province of British Columbia, this 12th day of July 2021.

Original signed by:

K. A. Keilty
Panel Chair / Commissioner

bcuc
British Columbia
Utilities Commission

Suite 410, 900 Howe Street
Vancouver, BC Canada V6Z 2N3
bcuc.com

P: 604.660.4700
TF: 1.800.663.1385
F: 604.660.1102

ORDER NUMBER
G-213-21

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

and

Kyuquot Power Ltd.
Revenue Requirements Application

BEFORE:
K. A. Keilty, Panel Chair

on July 12, 2021

ORDER

WHEREAS:

A. On November 30, 2020, Kyuquot Power Ltd. (KPL) filed an application with the British Columbia Utilities Commission (BCUC) for approval of amendments to its revenue requirements along with certain rate matters and its proposals were supplemented with additional information and requests during the proceeding (Application);

B. In the Application, KPL requests, among other things, approval for the following:

1. Depreciation rates;
2. The establishment of a new asset category named Deferred Depreciation Asset;
3. The setting of an annual amortization of the Deferred Depreciation Asset in a fixed dollar amount;
4. The establishment of a new asset category named Long Term Maintenance Asset (LTM);
5. The setting of an annual depreciation rate on the LTM Asset of 15 percent straight-line;
6. An increase of $1.00 per month to the Basic Charge under Rate Schedules 1101 and 1102; and
7. An increase of $0.036 per kWh to the Energy Charge under Rate Schedule 1102;

C. By Orders G-2-21 and G-102-21 dated January 5, 2021 and April 6, 2021 respectively, the BCUC established the regulatory timetable for the review of the Application, which included, among other things, BCUC information requests, request for letters of comment on KPL's Application, and KPL's final argument; and

D. The BCUC has reviewed the Application, evidence, and arguments filed in the proceeding and finds that the following approvals are warranted.

NOW THEREFORE pursuant to sections 56, and 58 to 61 of the *Utilities Commission Act* and the Decision issued concurrently with this order, the BCUC orders as follows:

1. KPL is granted the following approvals, effective the date of this Decision:
    a. Distribution Plant depreciation rates as follows:
        i. Overhead Line – 2.222 percent per year Straight Line;
        ii. Submarine Cable – 3.125 percent per year Straight Line;
        iii. Distribution Line – 2.5 percent per year Straight Line;
        iv. Meters – 4 percent per year Straight Line;
        v. Transformers – 2.5 percent per year Straight Line;
        vi. KCFN Contribution In Aid of Construction (CIAC) for overhead powerlines – 2.408 percent per year Straight Line;
        vii. KCFN CIAC for submarine cables – 3.507 percent per year Straight Line; and
        viii. KCFN CIAC for distribution lines – 2.738 percent per year Straight Line;
    b. The establishment of the Deferred Depreciation regulatory account, the recognition of $454,556 in deferred depreciation in the account, and a four percent annual amortization rate. The rate base regulatory account is approved to attract interest based on KPL's Weighted Average Cost of Capital (WACC);
    c. The establishment of the Long Term Maintenance Asset (LTM) regulatory account to capture actual LTM costs incurred related to the BCUC directed powerline maintenance and vegetation management plans and a 15 percent annual amortization rate. The rate base regulatory account is approved to attract interest based on KPL's WACC; and
    d. A $9.00 per month Basic Charge for Rate Schedules 1101 and 1102.
2. KPL is directed to set the following Energy Charges:
    a. A Rate Schedule 1101 Energy Charge of $0.4026 per kWh, an increase of $0.0056 per kWh or 1.4 percent over the current Energy Charge; and
    b. A Rate Schedule 1102 Energy Charge of $0.2270 per kWh, an increase of $0.034 per kWh or 17.6 percent over the current Energy Charge.

DATED at the City of Vancouver, in the Province of British Columbia, this 12th day of July 2021.

BY ORDER

Original signed by:

K. A. Keilty
Commissioner

Kyuquot Power Ltd.
Revenue Requirements Application

List of Acronym

Acronym	Description
Application	Application for amendment to its Revenue Requirement along with certain rate matters and its proposals were supplemented with additional information and requests during the proceeding
Alectra	Alectra Inc.
BC Hydro	British Columbia Hydro and Power Authority
BCUC	British Columbia Utilities Commission s
BME	Baseline maintenance expense
CIAC	Contributions in Aid of Construction
COS	Cost of Service
CPCN	Certificate of Public Convenience and Necessity
CWB	Canadian Western Bank
IRs)	Information requests
KCFN	Ka:yu:’k’t’h’/Che:k’tles7et’h’ First Nations
KPL	Kyuquot Power Ltd.
kWh	kilowatt-hour
LTM	Long Term Maintenance
ROE	Return on equity
RS 1101	Tariff Rate Schedule 1101
RS 1102	Tariff Rate Schedule 1102.
SERL	Synex Energy Resources Ltd.
UCA	*Utilities Commission Act*
WACC	Weighted Average Cost of Capital

Kyuquot Power Ltd.
Revenue Requirements Application

EXHIBIT LIST

Exhibit No.	Description
COMMISSION DOCUMENTS	
A-1	Letter dated December 16, 2020 – Appointing the Panel for the review of Kyuquot Power Ltd. Revenue Requirements Application
A-2	Letter dated January 5, 2021 – BCUC Order G-2-21 establishing a regulatory timetable for the review of the Application
A-3	Letter dated February 26, 2021 – BCUC Information Request No. 1 to KPL
A-4	Letter dated April 6, 2021 – BCUC Order G-102-21 establishing a further regulatory timetable
APPLICANT DOCUMENTS	
B-1	**KYUQUOT POWER LTD. (KPL)** - Revenue Requirements Application dated November 30, 2020
B-2	Letter dated January 25, 2021 – KPL submitting a Notice of Application
B-3	Letter dated March 18, 2021 – KPL submitting responses to BCUC Information Request No. 1
LETTERS OF COMMENT	
E-1	**KA:YU:'K'T'H' / CHE:K'TLES7ET'H' FIRST NATIONS (KCFN)** – Letter dated March 25, 2021 – Letter of Comment