



BCUC File 64537

Suite 101, 310 Ward Street, Nelson, British Columbia, V1L 5S4

November 30, 2020

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Attention: Marija Tresoglavic, Acting Commission Secretary

RE: 2021 General Rate Increase Application

In accordance with Commission Order G-119-17 directing Nelson Hydro to file its Annual Rate Increase Applications at least 30 days in advance of January 1, please find attached Nelson Hydro's 2021 General Rate Increase Application. If further information is required, please contact the undersigned at 250-352-8254 or dco@nelson.ca.

Sincerely,

A handwritten signature in black ink, appearing to read "Gabriel", with a long, sweeping flourish extending to the right.

Gabriel Bouvet-Boisclair,
Deputy Corporate Officer
City of Nelson

Copies: Scott Spencer, Nelson Hydro General Manager
Kevin Cormack, City Manager



NELSON HYDRO

2021 General Rate Increase Application

November 30, 2020

NELSON HYDRO 2021 GENERAL RATE INCREASE APPLICATION
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1. EXECUTIVE SUMMARY

Nelson Hydro files this 2021 General Rate Increase Application (the Application) requesting Commission approval of a general annual rate increase of 2.3 percent for the Rural service area for the calendar year (a 3.32 percent increase effective April 1, 2021). City of Nelson Council, which has rate-setting authority for the Urban service area, has directed Nelson Hydro to apply this same rate increase to the Urban service area. The rate increase requested is largely attributable to the 4.36 percent general rate increase sought by Nelson Hydro's power supplier, FortisBC, which seeks an effective date of January 1, 2021.¹ The remainder of the requested increase (less than one-third) relates to modest inflationary increases in the utility's operating budget.

Consistent with Nelson Hydro's past practice for annual rate applications, this Application presents the public engagement process, the operating and capital budgets, and the revenue requirement calculations evidencing the need for the requested rate increase. Nelson Hydro also takes this opportunity to present a brief overview of its 2020 operations (reliability and outages) and customer service highlights. The information presented shows that the requested rate increase is necessary and justified while maintaining fair and competitive rates for ratepayers.

Notably, Nelson Hydro has also filed a Cost of Service Analysis (COSA) and Rate Design Application with the Commission, dated November 27, 2020, which provides detailed information regarding other aspects of the utility and seeks to respond to a number of outstanding Commission directives from past proceedings. As explained in Section 2.4, Nelson Hydro is proposing that the issues addressed in the COSA and Rate Design Application not be explored in this Application.

¹ See FortisBC, Project No. 1599119, Annual Review for 2020 and 2021 Rates, Request for Approval of Interim Rates effective January 1, 2021, available at https://www.bcuc.com/Documents/Proceedings/2020/DOC_59758_B-17-FBC-Request-Approval-Interim-Rates.pdf.

2. APPLICATION AND APPROVALS SOUGHT

2.1 Application

Nelson Hydro files this Application in compliance with the Commission's Order G-119-17, which directed Nelson Hydro to file its annual rate applications at least thirty days before January 1. Nelson Hydro's proposed general rate increase as set out in this Application is a 2.3 percent rate increase for the calendar year (a 3.32 percent increase effective April 1, 2021) over the existing rates approved effective April 1, 2019. The increase is primarily due to an increase in power purchase costs from Nelson Hydro's power supplier, as well as to a more limited degree, inflationary increases in the utility's operating budget.

2.2 Approvals Sought

With this Application and pursuant to sections 59 to 61 of the *Utilities Commission Act*, Nelson Hydro requests Commission approval of a general annual rate increase of 2.3 percent for the Rural service area for the calendar year.²

Nelson Hydro is proposing that this general annual rate increase become effective on April 1, 2021, which results in a compounded rate increase of 3.32 percent.³ Attached to this Application as Appendix 2-1 are the Proposed Rural Rate Pages reflecting the proposed rate increase.⁴

Nelson Hydro further requests that, in the event final approvals cannot be granted by the Commission in this proceeding in sufficient time, the 3.32 percent general rate increase be approved on an interim and refundable basis prior to April 1, 2021, to permit implementation as of April 1, 2021, pending the outcome of this proceeding. Interim approval will ensure that Nelson Hydro is able to implement the rate increase on the requested date regardless of when the Commission is able to issue a final ruling.

2.3 Implementation

As set out above, Nelson Hydro is requesting that the annual rate increase requested be implemented on April 1, 2021. This implementation date is consistent with Nelson Hydro's past practices and results in implementation of the rate increase following the winter season, where ratepayers are generally incurring higher consumption levels as compared to the remainder of the calendar year.

² Pursuant to a decision of City Council, this general annual rate increase (i.e. 2.3 percent annual, 3.32 percent effective April 1, 2021) is also being applied to the Urban service area. As recognized by the Commission, Nelson Hydro's Urban service area is not subject to regulation by the Commission and accordingly no approval is sought for the general rate increase as it relates to the Urban service area. *See, e.g.* Order G-274-19, November 7, 2019, Appendix A, Reasons for Decision, p. 3 available at https://www.bcuc.com/Documents/Proceedings/2019/DOC_56196_G-274-19-NelsonHydro-2019RuralRate-Final-Order-Reasons.pdf ("Nelson Hydro is in part exempt from regulation under the UCA as it is owned and operated by the City of Nelson and therefore any services provided within the City's boundaries do not fall with the UCA's definition of a public utility. Therefore, the BCUC's review of the Application pertains solely to Nelson Hydro's Rural ratepayers.").

³ Calculation of the annual rate increase compressed into 9-month period beginning April 1 has been performed consistent with the methodology in years past which was explained in Nelson Hydro's 2017 Annual Rate Application. *See* Nelson Hydro 2017 Rate Application IR1 – Supplementary Information Request dated March 16, 2017, available at https://www.bcuc.com/Documents/Proceedings/2017/DOC_48954_B-2_Nelson-Hydro_Filing-Supplementary-Information.pdf, p. 8.

⁴ Since 2019 the Urban and Rural rates as shown in the City's Hydro Services Bylaw No. 3196, 2012 have been separated into two individual schedules. If the Commission would like to review the Urban rate schedule that will be presented to City Council for approval, it is available upon request.

Nelson Hydro notes that if interim approval is granted and the final approved rates by the Commission differ from the interim rates, Nelson Hydro does have the capability to adjust the rates in its billing system to show a refund in the current year.

2.4 Other Nelson Hydro Applications – COSA & Rate Design Application

Nelson Hydro filed a COSA & Rate Design Application on November 27, 2020 requesting approval for, among other things, a Cost of Service Analysis and proposed rate changes with regard to the Rural residential rates.

The COSA & Rate Design also presents the Commission with detailed information regarding the utility’s proposed cost allocations between service areas and the utility’s rate of return with regard to the Rural portion of the utility. Notably, the COSA & Rate Design Application presents a rate design that results in a rate differential between the Rural residential and Urban residential customer classes, along with various information and evidence supporting the proposed rate design.

In this Application Nelson Hydro is proposing a percentage rate increase based on forecast costs for the utility as a whole. Nelson Hydro submits that exploration of the COSA and Rate Design issues is not necessary for this Application as no rate differential between the Urban and Rural service areas is being sought as part of this Application.⁵ As the Commission set out in Order G-274-19, an approved COSA is needed to support the differentiation of rates between these service areas.⁶ Until this approval is in place, the Commission noted that Nelson Hydro should continue “with the past practice of setting rates for the Rural customers based on the forecast costs of the utility as a whole.”⁷ Accordingly, Nelson Hydro is using this approach in this Application.

For the sake of efficiency, Nelson Hydro proposes that the various issues addressed in the COSA and Rate Application not be explored in this Application but rather, be addressed as part of the Cost of Service Analysis and Rate Design Application.

2.5 Application Organization

The remainder of this Application is organized as follows:

- **Section 3: Stakeholder Engagement and Communication.** Describes the opportunities that have been available to date, and that will be available in the future, for ratepayers and other stakeholders to learn about this Application and provide input.
- **Section 4: 2020 Operations and Customer Service Review.** Provides a brief overview of Nelson Hydro’s operations in 2020 with regard to reliability, power outages and customer service.
- **Section 5: Budget Forecasting.** Provides a review of Nelson Hydro’s 2020 budget versus 2020 actuals to date and provides an overview of the operating and capital budgets for 2021.

⁵ City Council has directed staff to move forward with the bylaw adoption process to apply the same rate increase requested here to the Urban service area. City staff anticipate the bylaw amendment will be presented to City Council for first three readings at a Council Meeting in December 2020.

⁶ Commission Order G-274-19, November 7, 2019, Appendix A, p. 17, available at https://www.bcuc.com/Documents/Proceedings/2019/DOC_56196_G-274-19-NelsonHydro-2019RuralRate-Final-Order-Reasons.pdf.

⁷ *Ibid.*

- **Section 6: General Rate Increase for 2021.** Sets out Nelson Hydro's 2021 revenue requirement and provides the calculation for the 2021 proposed rate increase. This section also compares Nelson Hydro's current rates with those of other utilities regulated by the Commission and finally provides a rate increase forecast for future years.
- **Section 7: Summary and Conclusion.** Reviews the information presented in this Application in support of the proposed rate increase.

3. STAKEHOLDER ENGAGEMENT AND COMMUNICATION

Nelson Hydro strives to ensure that its customers and other stakeholders are given the opportunity to learn about the utility, its offerings and operations, and also its rate applications and any other regulatory proceedings.

Nelson Hydro is a department of the City of Nelson and accordingly it participates in the City's annual budget cycle. This typically involves a number of budget meetings and workshops with the City of Nelson Council. Such meetings and workshops are open to the public and provide a forum where staff are able to present on the utility and its successes and challenges, its annual budget, and any anticipated rate increases.

For the 2020 year, stakeholder engagement opportunities have been challenging as a result of the Covid-19 pandemic and the need to limit in-person gatherings. Still, Nelson Hydro staff presented to Council with regard to this Application and the 2021 budget on November 12, 2020. On November 27, 2020 Nelson Hydro staff again presented to Council on these topics and also included a broader overview of the utility's operations over the course of the year. Both of these meetings were open to the public and notice was provided through the online posting and publication of the City Council agendas.

Notably, Nelson Hydro has also typically held an in-person Annual Open House specifically for members of the public in November of each year. This year the Annual Open House is scheduled to take place on a virtual platform on the evening of December 10, 2020. Among other matters, Nelson Hydro will present to those attending with regard to this Application and allow time for questions to be asked and answered. The Annual Open House has been advertised to the public using the City's website, social media accounts, and in the local newspapers. Additionally, Nelson Hydro will comply with any other stakeholder engagement that is recommended or directed by the Commission following the filing of this Application.

4. OPERATIONS REPORT

Nelson Hydro is focused on delivering value to its customers by managing costs, ensuring a reliable electrical system and committing to safe and environmentally sound practices. This requires that Nelson Hydro continuously maintain, refurbish and renew its generation, transmission, distribution assets, and supporting systems. This section provides a brief overview of the electric utility’s reliability and outage information from the beginning of 2020 through the third quarter as well as some information on its customer service successes.

Notably, Nelson Hydro notes that it has not made significant changes to its operating or capital budget that are contributing to the rate increase sought in this Application. However, in an effort to be consistent with prior annual rate applications, Nelson Hydro is providing a brief overview of its reliability and power outage data in 2020.

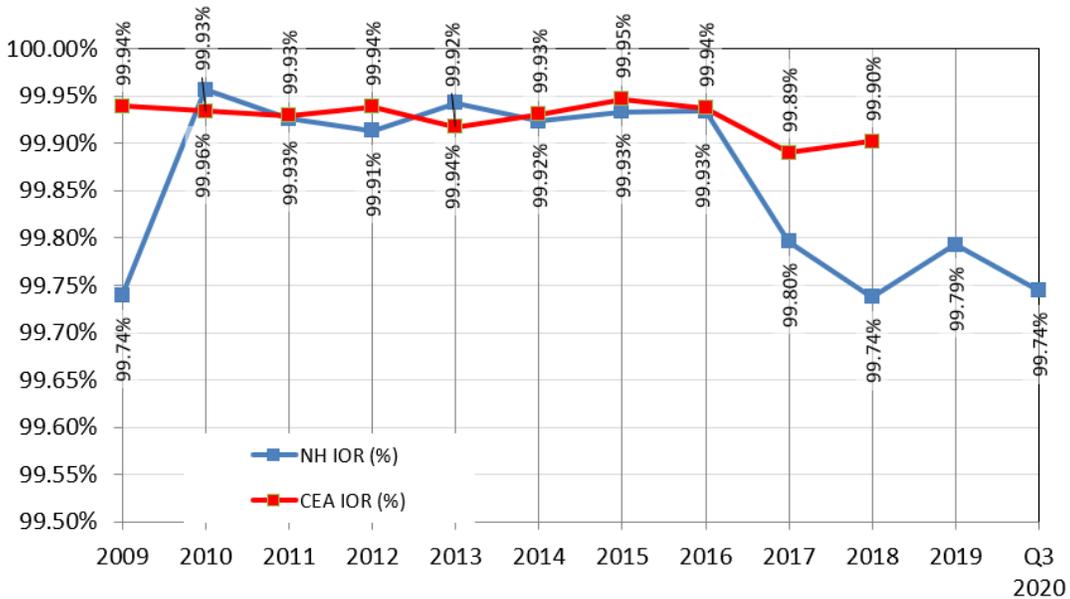
4.1 Reliability and Power Outages

Nelson Hydro has faced challenging circumstances over the past three years that have resulted in a decline in reliability from 2017 through the third quarter of 2020. As detailed below, these challenging circumstances primarily include: loss of supply from FortisBC, tree-related outages, and wind-related outages. The decline in reliability that the utility has faced is not limited to Nelson Hydro, but appears to be consistent with declining reliability from other regulated utilities operating in the region.

Figure 4-1 shows Nelson Hydro’s index of reliability (i.e. availability) over the past decade:

Figure 4-1: Nelson Hydro Index of Reliability

Note: Major Storm Events Excluded



Nelson Hydro operates in a challenging area that is subject to strong storm systems and large amounts of precipitation. It also relies on FortisBC for a significant portion of its power supply. As Figure 4-2 shows, for total outage time in 2020 to date (through the third quarter) loss of supply from FortisBC is responsible for 54.84 percent of total outage time while tree and wind related outages are responsible for 32.9 percent of total outage time. Figure 4-2 shows the cause of outages in 2020, while Figure 4-3 shows outage minutes from 2014-2020 grouped by cause:

Figure 4-2: 2020 Outages by Cause

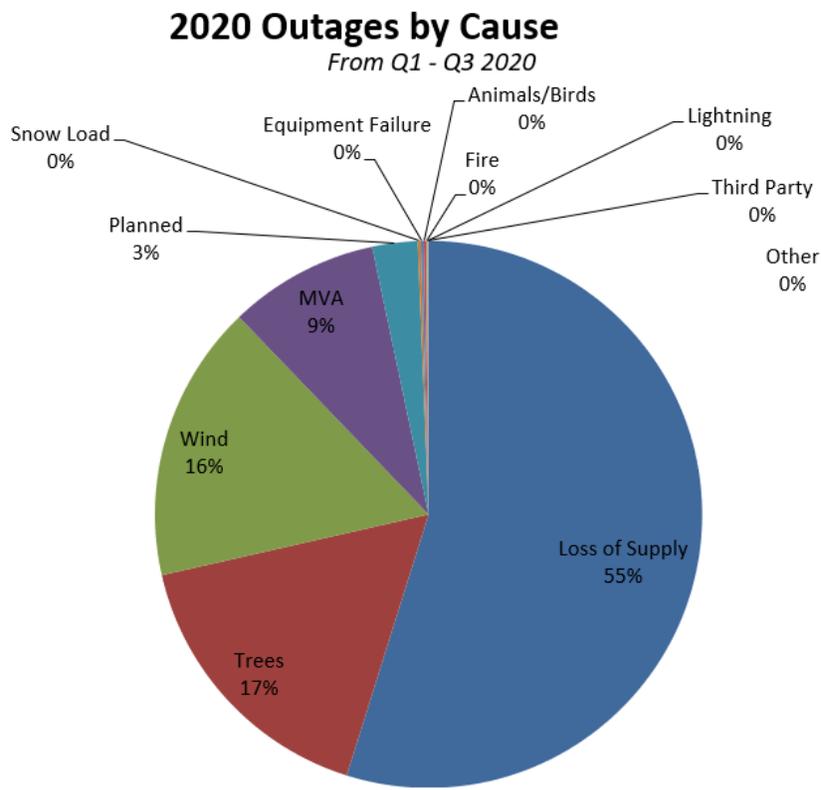
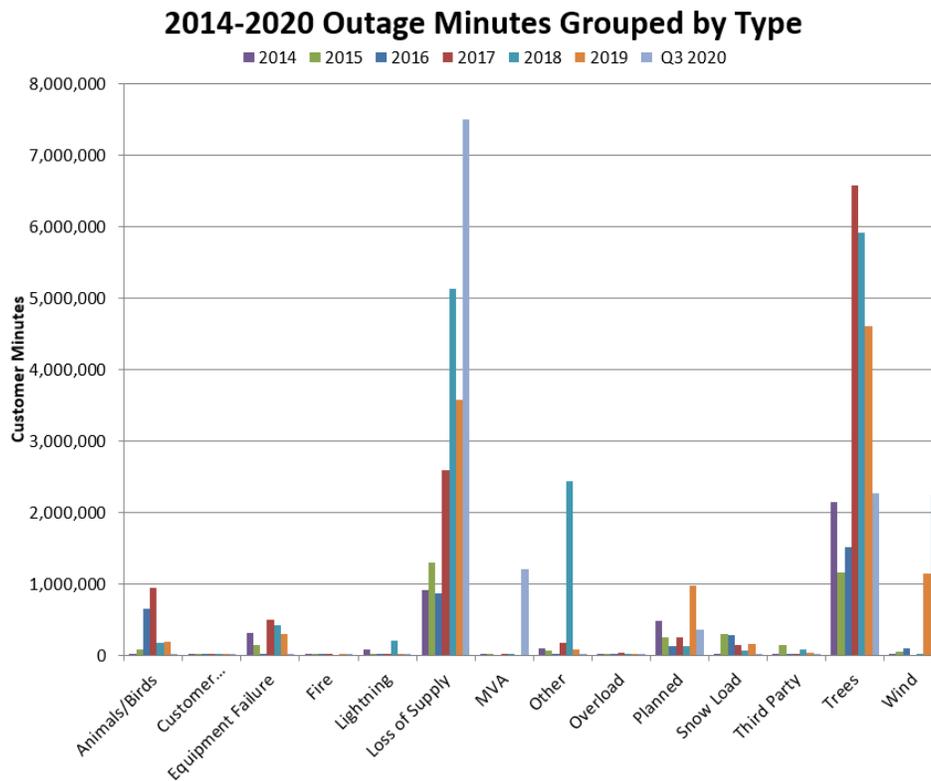


Figure 4-3: Outage Minutes Grouped by Cause 2014-2020



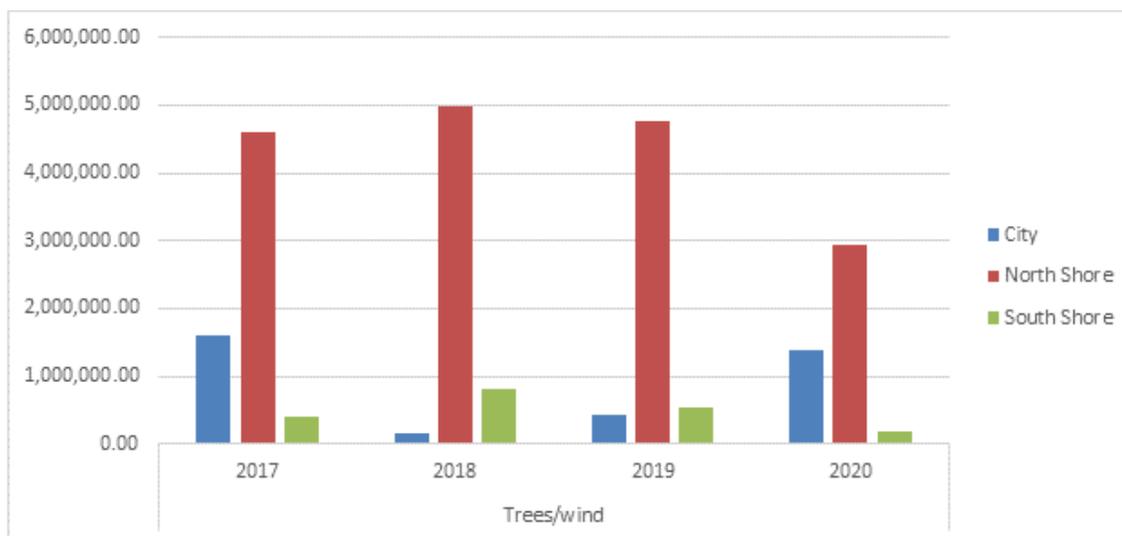
Loss of Supply from FortisBC. As shown above, the primary factor contributing to reliability and outage issues is loss of power supply from FortisBC, which accounts for 54.84 percent of total outage time in 2020 (through the third quarter of the calendar year). Nelson Hydro services a significant portion of its load with power purchases from FortisBC. The primary cause of loss of supply from the FortisBC system is attributed to trees, winds and other storm-related events. The Coffee Creek Substation is the primary point of failure when supply from FortisBC is lost. The Coffee Creek Substation is particularly challenging because the substation is fed by long, exposed FortisBC transmission lines that are more vulnerable to wind, storms and snow events. Additionally, the Coffee Creek Substation is a radial feed making restoration from alternate sources of supply particularly challenging.

Nelson Hydro and FortisBC communicate regularly with regard to the power supply and its reliability challenges. FortisBC appears committed to improving the reliability of the power supply as evidenced by the fact that it has performed substantial vegetation management on the transmission line supplying the Coffee Creek Substation. Likewise, Nelson Hydro has been performing system upgrades on the North Shore of the Rural service area to improve the reliability of the power supply. This is discussed in Section 5 in reviewing the Capital Budget.

Trees and Wind. The other primary factor impacting reliability and outages is service interruption because of trees and wind.

Figure 4-4 shows the customer minutes out due to trees/wind by service area:

Figure 4-4: Customer Outages in Minutes due to Tree/Wind by Area



The data presented shows that the weather events impacting reliability are disproportionately experienced on the North Shore – a part of the Rural service area that is particularly challenging in this regard due to its larger geographic footprint and high density of vegetation that can disrupt service provision.

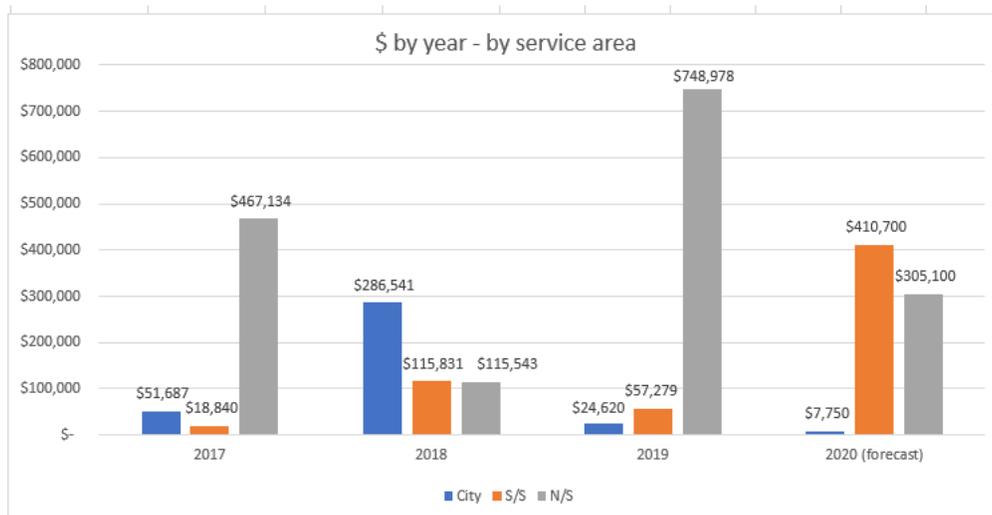
Nelson Hydro’s practice is to conduct vegetation management on a three-year cycle by service area (Urban, North Shore, South Shore). The manner in which the vegetation management work is carried out is that each year the service area designated as a “focus area” receives additional attention, but necessary vegetation management is completed as needed in the other areas. This normally results in

significant vegetation management on the North Shore even in years where this area is not the focus simply because this area requires it given the amount of vegetation spanning that service area. In addition to the routine vegetation trim cycle that Nelson Hydro undertakes, the utility focuses on “danger trees” – trees that are outside the scope of the routine vegetation trim cycle but that are leaning, dead or otherwise pose a hazard to power lines and the system’s reliability.

In 2019, the North Shore was the focus area and the utility spent approximately \$750,000 on vegetation management in that area and approximately \$830,000 in total. In 2020 the focus was the South Shore and the utility spent approximately \$410,000 in that area and approximately \$722,000 in total (with the North Shore accounting for \$305,000). In 2021 the focus area will be the Urban service area and the utility has budgeted a total of approximately \$500,000 for vegetation management.

Figure 4-5 shows the amounts spent on vegetation management by service area since 2017.

Figure 4-5: Vegetation Management Expenses by Service Area



4.2 Customer Service Highlights

Beyond providing reliable service to its ratepayers, Nelson Hydro strives to provide excellent customer service and to adapt to changing circumstances and leverage technology in order to provide its ratepayers with the best service experience possible. Some highlights in this regard from 2020 include the following:

- *Software Upgrade.* The utility has implemented a software upgrade that allows for improved accounting reports and improved meter inventory. This upgrade will also allow for Nelson Hydro to begin to offer e-billing and an online account payment portal, which is expected to be available in 2021.
- *Covid-19 Response.* In response to the onset of the Covid-19 pandemic in March 2020, Nelson Hydro successfully applied⁸ to the Commission in order to waive late-fee penalties. Nelson Hydro also advertised its bill deferment option for customers that had been negatively impacted by the pandemic.

⁸ See Commission Order G-197-20 dated July 21, 2020 available at https://www.bcuc.com/Documents/Orders/2020/DOC_58762_2020-07-21-G-197-20-NelsonHydro-COVID-19-FinalOrder.pdf.

5. BUDGET FORECASTING

5.1 2020 Budget versus Actual

Nelson Hydro's 2020 budget is turning out to be very accurate as shown by comparison with the 2020 full year forecast (based on actuals through the third quarter of 2020). This is proving to be consistent with what the Commission has previously observed regarding Nelson Hydro's budgeting process, namely that the utility applies a "rigorous and methodological approach" in its budgeting and forecasting processes.⁹ Despite the departure of Nelson Hydro's longtime General Manager in September 2020, City and Nelson Hydro staff have continued using the budgeting methodology developed by the previous General Manager in past years as reviewed in previous rate applications, with some exceptions as explained below in discussing the 2021 operating budget (Section 5.3). Table 5-1 below shows the 2020 budget as compared to the 2020 forecast based on the actuals through the third quarter of 2020.

2020 Revenues: Nelson Hydro is expecting the revenues for 2020 will be close to the budget forecasts and also close to the previous year revenues (notably, there was no rate increase in 2020). However, the Covid-19 global pandemic changed usage especially during the spring shutdown period with commercial usage dropping during the April – June period, but with an offsetting increase through increased residential use.

2020 Expenses: Nelson Hydro expenses are in line with budget, but slightly ahead of the prior year. Two significant storms, on August 6, 2020 and over the Labour Day weekend, led to increases in labour and contractor costs to restore power, repair system components and clean up downed vegetation. Additional vegetation management expenses were also incurred to reduce the impact of future storms. This has been partially offset with lower than forecast power purchases costs and an extended freshet season that allowed for additional Nelson Hydro generation well into July.

2020 Capital: As described in Section 5.4, the electrical utility completed a number of important projects in 2020, some of which were executed significantly under budget. This resulted in a projected increase to the net transfer to the Capital Reserve.

⁹ Order G-124-18, Appendix B, Reasons for Decision, p. 10 available at https://www.bcuc.com/Documents/Proceedings/2018/DOC_52014_2018-07-11_Order_G-124-18.pdf. In examining Nelson Hydro's operating budget, the Commission noted that the utility applies a "rigorous and methodological approach to budgeting which incorporates a combination of inflationary adjustments, management judgment and zero-based budgeting, where appropriate."

Table 5-1: 2020/21 Budget Highlights (draft)

<u>2020/21 Budget Highlights</u>				
	<u>2020 Forecast</u>	<u>2020 Budget</u>	<u>2020 Forecast</u> <u>/ Budget</u>	<u>2021 Budget</u>
Revenue				
Rates	18,600,000	18,450,000	101%	19,100,000
Other	700,000	794,250	88%	712,100
	19,300,000	19,244,250	100%	19,812,100
Expenses				
Power Purchases	6,400,000	6,903,934	93%	7,004,573
Operating Costs	5,725,000	5,443,250	105%	5,514,200
Debt Servicing	459,614	459,614	100%	459,614
	12,584,614	12,806,798	98%	12,978,387
Transfers				
Dividend	2,836,000	2,836,000	100%	2,885,600
Water License Reserve	664,848	664,848	100%	693,835
Capital Reserve	3,214,538	2,936,604	109%	3,254,278
	6,715,386	6,437,452	104%	6,833,713
	-	-		-

5.2 Load & Customer Forecasting

The following Table 5-2 shows the actual number of customers, sales and revenues for 2019 and 2020 (to date with forecast for remainder of year) along with a forecast for 2021.¹⁰ The revenues are annualized revenues for 2019 and 2020 calculated at present rates. The revenues are annualized for 2021 and are calculated to include the rate increase proposed in this Application.

¹⁰ This forecasting has been prepared consistent with the methodology used in past year as explored by the Commission in 2019. See Nelson Hydro Letter submitting Supplemental Information dated April 10, 2019 available at https://www.bcuc.com/Documents/Proceedings/2019/DOC_53787_B-2-NelsonHydro-Supplemental-Information.pdf.

Table 5-2: Load & Customer Actuals for 2019 and 2020 and 2021 Forecast

	Urban Residential	Rural Residential	Urban Commercial	Rural Commercial	Urban Municipal	Urban Streetlight	Rural Streetlight	Total
2019								
Customer Count	5,080	4,203	924	329	86	23	35	10,680
Metered Energy (kWh)	44,779,250	57,521,589	42,595,552	7,687,558	3,516,249			156,100,198
Revenue	\$5,173,180	\$6,435,741	\$5,388,936	\$1,078,193	\$350,135	\$110,147	\$19,812	\$18,556,144
2020								
Customer Count	5,202	4,296	920	331	85	23	36	10,893
Metered Energy (kWh)	45,856,636	58,707,595	39,977,436	7,610,214	3,792,080			155,943,961
Revenue	\$5,296,441	\$6,569,380	\$5,057,146	\$1,067,713	\$367,832	\$110,147	\$19,812	\$18,488,471
2021								
Customer Count	5,243	4,327	919	332	85	23	36	10,964
Metered Energy (kWh)	44,963,179	56,316,023	43,170,080	8,730,184	3,616,041			156,795,508
Revenue	\$5,312,692	\$6,446,704	\$5,586,618	\$1,253,016	\$358,823	\$112,368	\$26,787	\$19,097,009
	2019	Rural	Urban		2021	Rural	Urban	
Customer Count		42.76%	57.24%		Customer Count	42.82%	57.18%	
Energy Sales		41.77%	58.23%		Energy Sales	41.48%	58.52%	
Revenue		40.60%	59.40%		Revenue	40.46%	59.54%	
	2020	Rural	Urban					
Customer Count		42.81%	57.19%					
Energy Sales		42.53%	57.47%					
Revenue		41.41%	58.59%					

5.3 2021 Operating Budget

Table 5-3 shows Nelson Hydro’s 2021 Operating Budget in an abbreviated format.¹¹ Nelson Hydro highlights the following with regard to the 2021 Operating Budget:

- The operating budget includes \$7,004,573 in power purchase expenses for 2021. This projection incorporates the proposed general rate increase of 4.36 percent that has been requested (but not yet approved) by FortisBC, Nelson Hydro’s power supplier.
- The operating budget has reduced the amount budgeted for vegetation management from approximately \$633,000 in 2020 to approximately \$500,000 in 2021. These expenses are categorized as a “Distribution” expense. The reduction in vegetation management reflects the progression of the three-year vegetation management cycle. As described in Section 4, in 2020 the focus area was the North Shore which is part of the Rural service area that requires extensive vegetation management. Although work will continue to be done on the North Shore as required, the “focus area” for 2021 is the Urban service area which requires much less extensive vegetation management work, and as a result the budget has been adjusted to reflect this.

¹¹ For the sake of simplicity, Nelson Hydro is providing snapshots of its budgets in abbreviated form. If the Commission would like to review the spreadsheet version of the budget Nelson Hydro is able to provide these materials upon request.

- The operating budget for 2021 reflects an increase in anticipated regulatory costs relative to applications before the Commission. In 2020 the utility budgeted \$52,000 for regulatory costs. As a result of extensive work on the COSA and Rate Design Application and the use of a regulatory attorney the utility has already incurred approximately \$86,000 in regulatory expenses through the third quarter of 2020. As a result, the utility is budgeting \$80,000 for regulatory costs in 2021 as it anticipates the continued need for its technical consultants and legal counsel as the utility’s COSA and Rate Design Application proceeds. This figure is reflected in the “Electrical Administration” category.
- Finally, with regard to inflation the utility has moved towards using an inflationary figure that is more consistent with what the City uses in budgeting for its other utilities (e.g. water, sewer) which is generally 1.75% with the exception of some pre-determined costs such as unionized electrical utility staff that have a 2% inflationary raise built into their employment contracts.

5.3.1 Proposed Dividend for 2021

For 2021, this Application includes a proposed dividend at \$2.885 million which is about 1.7 percent higher than the approved dividend amount for 2019 at \$2.836 million (an annual average increase of 0.87 percent from 2019 to 2021).

The Commission, in Order G-119-17¹² noted that “the City is well within its rights to expect to earn a return on its assets” and the question is “whether the amount of the dividend, and the methodology for determining the amount of the dividend, is reasonable from a regulatory perspective.”

The Commission in its Order G-274-19,¹³ as amended in Order G-2-2020, directed Nelson Hydro, as part of its next rate application to submit:

a “fully reasoned calculation and approach to determining the City’s ‘allowed return’”, as was requested by the BCUC in 2017 and directed again by the BCUC in 2018. This filing must include detailed supporting calculations on the issues including, but not limited to: an assessment of the utility’s credit rating and risk profile, the ability of the utility to attract capital at reasonable costs and any impact to the utility’s financial integrity. Nelson Hydro must also include a discussion on how any future application for an allowed return will impact and/or reconcile with the current method of the dividend transfer.

Nelson Hydro’s November 27, 2020 COSA and Rate Design Application addresses the Commission’s above noted directive, including the four topics highlighted by the Commission.

In its COSA and Rate Design Application Nelson Hydro proposes a return on equity (ROE) at 9.25%. As reviewed in the COSA and Rate Design Application the rate base for 2019 was \$42.532 million

¹² Commission Order G-119-17, dated August 8, 2017, Appendix A, p. 7, available at: https://www.bcuc.com/Documents/Proceedings/2017/DOC_49757_G-119-17_Nelson-Hydro_2017-Rate-Application_Decision.pdf.

¹³ Commission Order G-274-19, dated November 7, 2019, p. 2, available at: https://www.bcuc.com/Documents/Proceedings/2019/DOC_56196_G-274-19-NelsonHydro-2019RuralRate-Final-Order-Reasons.pdf.

and the equity portion of rate base is projected at \$37.065 million.¹⁴ With a proposed ROE at 9.25%, the ROE for 2019 would be \$3.429 million.¹⁵ The proposed dividend for 2021 at \$2.885 million is much lower than the calculated ROE amount, which helps confirm that the proposed dividend amount for 2021 does not represent an unreasonably high level.

Table 5-3: 2021 Draft Operating Budget (abbreviated)

Nelson Hydro 2021 Operating Budget		
		2021 Budget
Revenues	Electricity Sales	(19,100,000)
	District Heating Revenues	(15,300)
	Ecosave	(93,200)
	Elec Other Revenue of Own Sources	(128,200)
	Electrical Billing & Collections	(1,500)
	Electrical Sale of Services	(43,900)
	Export Sales - Freshette	(55,100)
	Elec Capital Revenues	(374,900)
Revenues Total		(19,812,100)
Expenditures	Distribution	1,532,100
	District Heating Operations	13,200
	Ecosave	281,300
	Electrical Administration	1,379,600
	Electrical Billing & Collections	747,200
	Electrical Debt Charges	459,614
	Electrical Supply	510,700
	Metering	114,600
	Operation	606,100
	Power Purchases	7,004,573
	Share of General Administration	239,200
	Substations	90,200
Utility Expend Total		12,978,387
Transfers	Water License	693,835
	Dividend	2,885,600
Utility Transfer Total		3,579,435
Grand Total		(3,254,278)
Transfer to Capital Reserve		3,254,278
		-

¹⁴ See Nelson Hydro COSA and Rate Design Application (filed November 27, 2020), Cost of Service Analysis (Appendix 8-1), Table 4 (no weblink available at this time).

¹⁵ The rate base for 2021 would be much higher than 2019 actual considering Nelson Hydro investments in 2020 and 2021 (by end of 2020 capital spending at about \$3.2 million and forecast budget for 2021 at \$2.913 million).

5.4 2021 Capital Budget

Table 5-4 shows Nelson Hydro's 2021 Capital Budget in an abbreviated form. Among other things, the Capital Budget funds programs that allow the electric utility to effectively manage, maintain, and invest in its assets to ensure it can continue operating sustainably while improving service reliability and minimizing outages.

For example, capital work that has been completed in recent years to advance these goals include the following:

- North Shore re-conductor work in 2017/2018;
- Marine cable install at Lakeside Crossing in 2019 to allow additional load supply to the North Shore from the Mill Street Substation. This work helps to mitigate some of the power outages as result of the loss of power supply from FortisBC at Coffee Creek Substation.
- Re-sagging feeder conductors where line slap has been identified, primarily in the North Shore. This work involves rearranging conductors to eliminate the potential of contact amongst conductors during inclement weather events to prevent system fault which had occurred at least 3 times in 2020 before the work was subsequently completed.
- Review of feeder protection coordination in 2020. This work effectively results in feeder protection that limits any outages that may occur to a smaller area thus minimizing customer impacts.
- Significant maintenance work at the Bonnington Falls Power Plant including a bridge deck replacement, concrete remediation (ongoing), galvanized grating replacement for Generators 2, 3 & 4 (scheduled completion in December 2020).

Looking forward into 2021, some significant projects that are found in the Capital Budget, which totals \$2,913,300 include the following:

- North Shore Pole Replacement (budgeting \$649,000). Following the “test and treat” pole work that is currently being undertaken in the Harrop Procter area of the North Shore (Rural service area), the utility expects that it will need to replace a minimum of 60 poles.
- Significant work at the Bonnington Falls Power Plant including the installation of a backup generator for Generating Unit 5 (budgeting \$130,000) and Major Turbine Overhaul for Generating Unit 5 (budgeting \$500,000) due to the detection of chronic leaking in water course.
- 25 kV conversion at the Bonnington Substation (budgeting \$350,000) to allow portions of the Rural service area (Taghum and Blewett) where the load is growing to be served from other Substations.

Capital expenditures in 2021 are projected to be lower than in 2020, followed by a significant ramp up in activity in 2022-2025. Part of the reason that the 2021 expenditures are projected to be lower than in 2020 is the arrival of a new General Manager (arrived at the end of October 2020) and Capital Projects Manager (arrived at the end of August 2020). The arrival of new management for Nelson Hydro requires that these individuals have the opportunity to review the planned capital work and ensure that it aligns with their vision for the electric utility. Additionally, the outcome of the COSA & Rate Design Application may impact the planning and timing of certain capital expenditures.

Table 5-4: Draft 2021 Capital Budget (abbreviated)

Nelson Hydro 2021 Capital Budget		
		2021 Budget
▣ Rebuilds/Pole Placement-City	Pole Replacement - City	50,000
▣ Rebuilds Pole Placement-N Shore	Cutouts - replace porcelain	82,000
	Pole Replacement - North Shore	649,000
▣ Rebuilds Pole Placement-S Shore	Pole Replacement - South Shore	51,300
▣ New Services	New Services - Flat Rate - Cit	140,400
	New Services - Flat Rate - SS	70,100
	New Services - Flat Rate NS	113,300
▣ Power Plant Capital	Power Plant backup generator	130,000
	G5 Turbine Major Overhaul	500,000
	Bonnington Sub - 25 kV Conversion	350,000
	INOG5 Refurbishment	50,000
	G5 Intake Operating Gate Ovehaul	50,000
▣ SCADA Capital	SCADA Upgrade	100,000
▣ District Energy System	District Heating System	80,000
▣ Elect Vehicle charging stn	Elec Vehicle charging stn	30,000
▣ Hydro Meters	Hydro Meter Replacement	15,400
▣ Hydro Software	CIS Software V4 Upgrade	20,000
▣ Small Hydro Generation	Small hydro generation	10,300
▣ Submarine Cable	Lakeside Submarine Cable F51/5	11,500
▣ Other Projects	FBC Crossings	50,000
	CYME	150,000
	CMMS Asset Management	150,000
	25F71 Re-Closer	60,000
Grand Total		2,913,300

5.5 2021 Capital Reserves

As described above in Section 5.4, capital expenditures in 2021 are projected to be lower than in 2020. The result is a projected increase in the capital reserve for 2021, with downward pressure and a net transfer out of the reserve in the subsequent four-year period where spending is anticipated to increase. A projected long-term annual rate increase of 2.5 percent has been built into this forecast, as is required in order to stabilize the reserve balance within the target band of \$5M to \$10M. Figure 5-1 shows the capital reserve projection for future years.

Figure 5-1: Capital Reserve Projection



6. GENERAL RATE INCREASE FOR 2021

6.1 2021 Revenue Requirement and Rate Change Calculation

With mainly inflationary increases expected for 2021 in Nelson Hydro's internal costs, and with some budget reallocation, general rate pressure from Nelson Hydro's own costs are forecast to be largely flat. The primary factor necessitating Nelson Hydro's requested rate increase is the 4.36 percent general rate increase requested by Nelson Hydro's power supplier, FortisBC. Without the impact of the requested FortisBC rate increase on power purchase costs, Nelson Hydro would require only a 0.73 percent rate increase for 2021.

The effect of the FortisBC rate change of 4.36 percent, along with modest inflationary increases, equates to a 2.3 percent increase in overall operating costs for 2021 for Nelson Hydro. This is on an annual basis, as the FortisBC increase is projected to be in effect from January 1, 2021, while the Nelson Hydro rate increase is requested to become effective on April 1, 2021. The result is a 3.32 percent increase required on April 1, 2021 for the remaining 9 months of the year in order to recover these additional costs. Figure 6-1 shows Nelson Hydro's 2021 Budget Forecast, including the revenue requirement for 2021 and the corresponding rate impact.

Table 6-1: Nelson Hydro 2021 Budget Forecast

<u>2021 Budget Forecast</u>			
Operating Expenses			
Power Purchases (with 0% increase in Fortis rates)	(a)	6,711,933	
Operating Expenses		5,514,200	
Debt Servicing		459,614	
		<u>12,685,747</u>	
Transfers			
Dividend		2,885,600	
Water License Reserve		693,835	
Capital Reserve		3,254,278	
		<u>6,833,713</u>	
Less: Other revenue		(712,100)	
		<u>18,807,360</u>	
Revenue required from rates	(b)	18,807,360	
2021 Revenue forecast (with 0% increase)	(c)	18,670,000	
Increase required	(b)-(c)	137,360	0.74%
Effect of 4.36% increase in power purchase costs	(a) x 4.36%	292,640	1.57%
Annual increase required		430,000	2.30%
Rate increase required as of April 1, 2021			3.32%

6.2 Nelson Hydro's Requested Rate Increase Maintains Fair and Competitive Rates

As set out in the *Utilities Commission Act*, rate setting should ensure that rates are fair and reasonable for ratepayers and sufficient to yield fair and reasonable compensation for the service provided by the utility.¹⁶ As evidenced by the revenue requirement shown in Section 6.1, Nelson Hydro's requested rate change is necessary for the utility to maintain its current service levels while continuing to make necessary upgrades to sustain and improve the utility.

At the same time, Nelson Hydro's rates continue to be competitive with those of other utilities regulated by the Commission. Notably, FortisBC and BC Hydro have inclining residential rates whereas Nelson Hydro has flat residential rates. Accordingly, a direct comparison of the rates is not possible. Rather, the best comparison is to examine specific levels of consumption as show in Figure 6-2 below.

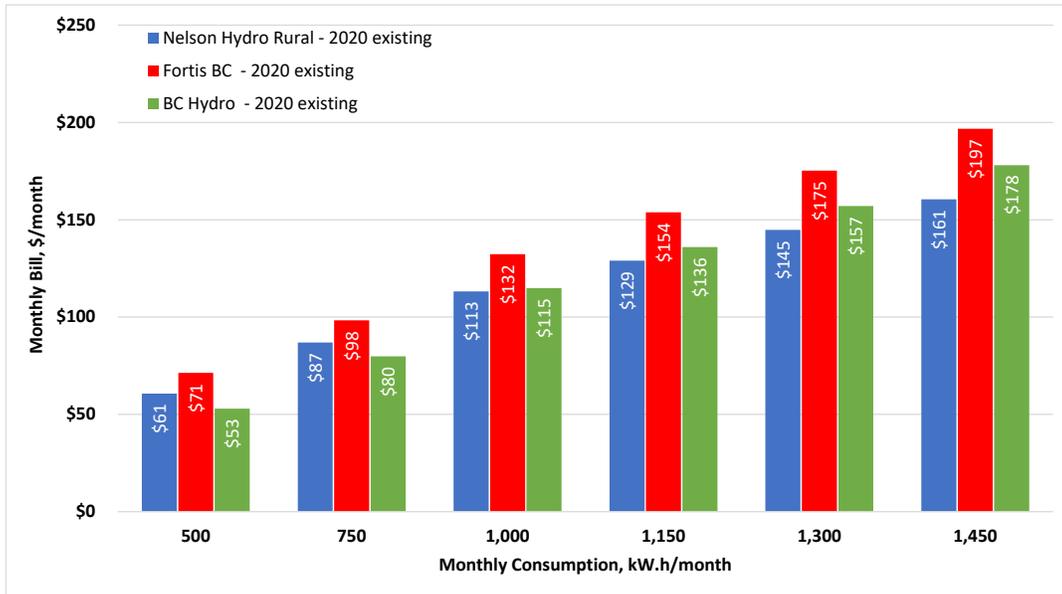
To summarize what is shown in the figure, for very low consumers of energy (e.g. consumption at 500 & 750 kW.h/month), at existing rates, Nelson Hydro's rates result in a higher bill amount than BC Hydro's rates, and a smaller bill amount than FortisBC's rates. Meanwhile, the medium and higher consumers of energy (e.g. consumption at 1,000, 1,150, 1,300 & 1,450 kW.h/month) all result in Nelson Hydro's bills being smaller than both FortisBC and BC Hydro. Notably, Nelson Hydro residential bills at average consumption of 1,150 kW.h/month (average consumption for Rural residential customers) are about 84% of FortisBC bills and 95% of BC Hydro bills for the same consumption level.¹⁷

This analysis evidences that Nelson Hydro's ratepayers are receiving excellent value from Nelson Hydro, especially given that FortisBC customers will be facing a 4.36 percent increase (if FortisBC's application is approved as requested) which will further increase the rate discrepancy between Nelson Hydro and FortisBC rates show in Figure 6-2. Accordingly, not only is the requested rate increase supported by Nelson Hydro's revenue requirement, but the requested rate increase will maintain fair and just rates as compared to the rates of other regulated utilities in British Columbia.

¹⁶ *Utilities Commission Act*, Section 59(5).

¹⁷ As a result of the utility's low Rural residential rates, the utility is not earning a sufficient return on its assets and not adequately recovering the operations and maintenance costs to service the Rural service area. Nelson Hydro is not requesting that this be addressed here, but rather that this matter be explored in Nelson Hydro's Cost of Service Analysis and Rate Design Application (filed November 27, 2020) where the documentation supporting this analysis (i.e. the COSA) is found.

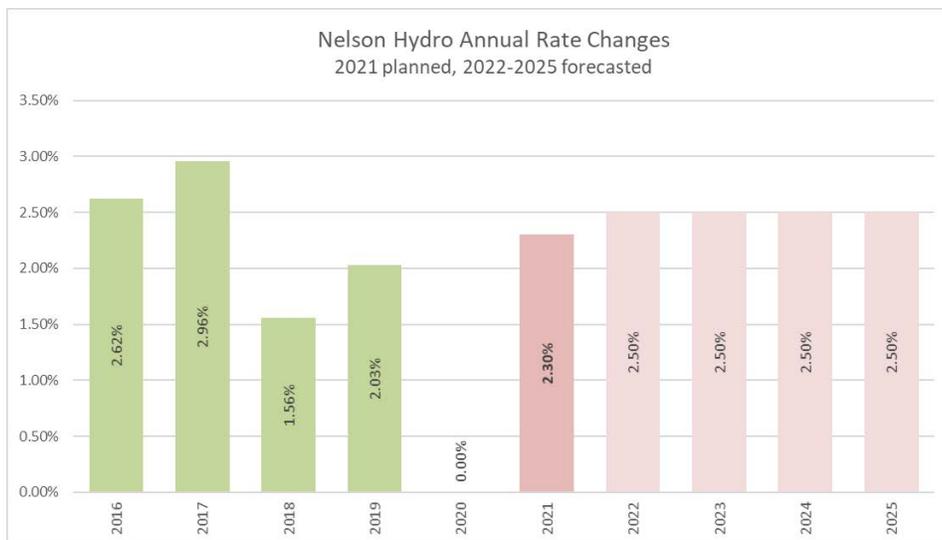
Figure 6-1: Residential Monthly Bill Comparison – Existing Rates



6.3 Future Rate Increase Forecasting

Capital spending for the next 5 years is expected to average \$3.2M annually, requiring a 2.5% average rate increase in future years in order to maintain capital reserves at sufficient levels. In prior years Generator rewinds, Substation construction and voltage conversion projects had driven the need for capital spending above sustaining levels. Nelson Hydro has little debt or other liabilities that would create future rate pressure. Figure 6-3 shows Nelson Hydro’s rates changes (annualized) from 2016 to 2020, and anticipated rate changes from 2021 to 2025.

Figure 6-2: Future Rate Increase Forecasting



7. SUMMARY AND CONCLUSION

Nelson Hydro respectfully submits that the requested general annual rate increase of 2.3 percent for the Rural service area for the calendar year (resulting in a 3.32 percent increase effective April 1, 2021) is necessary for the maintenance of fair and just rates and should be approved by the Commission. As set out above the main factors necessitating this rate increase are a general rate increase of 4.36 by Nelson Hydro's power supplier as well as modest inflationary increases in the operating budget.

APPENDIX 2-1

PROPOSED RURAL RATE SCHEDULES

THE CORPORATION OF THE CITY OF NELSON

BYLAW NO. 3518

A BYLAW TO AMEND “THE CORPORATION OF THE CITY OF NELSON HYDRO SERVICES BYLAW NO. 3196, 2012”

WHEREAS it is deemed necessary to amend “The Corporation of the City of Nelson Hydro Services Bylaw No. 3196, 2012” to increase rates to cover the Non-Municipal (Rural) costs of operating the City of Nelson’s electrical utility;

NOW THEREFORE the Council of the Corporation of the City of Nelson, in open meeting assembled, enacts as follows:

1. That the said Bylaw be amended by deleting in its entirety Schedule “F” – Non-Municipal Service Description and Rates and replacing it with the attached Schedule “F” – Non-Municipal Service Description and Rates.
2. This Bylaw shall receive the approval of the British Columbia Utilities Commission prior to adoption.
3. This Bylaw may be cited as the “**Corporation of the City of Nelson Hydro Services Bylaw Amendment No. 3518, 2021.**”
4. This Bylaw shall come into force and effect on April 1, 2021.

READ A FIRST TIME the _____ day of _____, 2020
READ A SECOND TIME the _____ day of _____, 2020
READ A THIRD TIME the _____ day of _____, 2020

RECEIVED approval of the British Columbia Utilities Commission on
The ___ day of _____ per order No.

FINALLY PASSED AND ADOPTED the ___ day of _____, 2021

SCHEDULE "F"
NON-MUNICIPAL SERVICE DESCRIPTIONS AND RATES

RATE A-3

Residential Service Rates - Rural

Applicable to Rural Customers

Applicable to residential or domestic use

Applicable to common residential use

Applicable to domestic water systems with connected load of 5HP or less

Rate:

Energy Charge - Bi-monthly

Basic Charge \$16.76 per period

All kWh per period @ 10.86 cents per kWh

Demand Charge

First 20 kW - nil

All additional kW @ \$7.61 per kW

Minimum Charge

The minimum charge per period shall be \$16.76

Order No.
Effective Date:
Commission Secretary:

Issued by: The Corporation of the City of Nelson
Accepted for Filing:

SCHEDULE "F"
NON-MUNICIPAL SERVICE DESCRIPTIONS AND RATES

RATE B-4

Commercial Service Rates - Rural

Applicable to Rural Customers

Applicable to small non-residential customers of loads up to 25 KVA where no Demand Meter is installed

Rate:

Energy Charge - Bi-monthly

Basic Charge \$ 39.59 per period

All kWh per period @ 12.75 cents per kWh

Minimum Charge

The minimum charge per period shall be \$ 39.59

Order No.
Effective Date:
Commission Secretary:

Issued by: The Corporation of the City of Nelson
Accepted for Filing:

SCHEDULE "F"
NON-MUNICIPAL SERVICE DESCRIPTIONS AND RATES

RATE C-4

General Service Rates - Rural

Rate:

Energy Charge – Monthly

Basic Charge \$ 39.59 per month
First 15,000 kWh per month @ 11.43 cents per kWh
All additional kWh per month over 15,000 @ 11.43 cents per kWh

Demand Charge

\$8.38 per KVA. of billing demand above 25 KVA

Minimum Charge

- a) \$ 39.59 per month, or
- b) the demand charge

Billing Demand

The greatest of:

- a) The maximum demand in KVA the current billing month, or
- b) Seventy-five percent (75%) of the maximum demand in KVA registered during the months in the previous eleven month period

Discounts

- a) If service under this rate is metered at Primary Voltage, a metering discount of 1.5% shall apply

- b) If the Customer supplies the necessary step down transformers and transmission line voltage protective equipment and installs the same on his premises, a further discount of 66.74 cents per KVA of Billing Demand shall apply

Order No.
Effective Date:
Commission Secretary:

Issued by: The Corporation of the City of Nelson
Accepted for Filing:

SCHEDULE "F"
NON-MUNICIPAL SERVICE DESCRIPTIONS AND RATES

RATE F-2

Commercial Flat Service Rates - Rural

Applicable to Rural Customers

Applicable to Commercial Utilities with usage of energy estimated to be less than 400 kWh per billing period

Rate:

\$64.01 bi-monthly

Order No.
Effective Date:
Commission Secretary:

Issued by: The Corporation of the City of Nelson
Accepted for Filing:

SCHEDULE "F"
NON-MUNICIPAL SERVICE DESCRIPTIONS AND RATES

RATE G-4

Street or Outdoor Lighting - Rural

Applicable to Rural Customers where the City owns, installs and maintains the lamps.

Applicable only to high intensity distribution lamps as may be approved by the City.

A surcharge of \$9.13 per Month will apply if the City installs a pole for the above lighting.

For fixtures with lamp rates different from those above, the Monthly rate shall be 1.5% of the installed cost of the fixtures plus 3.39 cents per watt of the rating of the lamp and ballast.

Maintenance will be conducted by City crews during regular working hours. The customer will be responsible for any willful damage caused by any person or thing.

The original term of the contract shall be for three years and may be renewed for periods of one year until terminated by written notice of at least 30 days by the City or the customer.

Deposit

The minimum deposit shall be an amount equal to 2 1/2 times the average monthly invoice.

Rate:

<u>Lamp Size in Watts</u>	<u>Monthly Charge</u>
150	\$25.96
250	\$32.49

Order No.
Effective Date:
Commission Secretary:

Issued by: The Corporation of the City of Nelson
Accepted for Filing:

SCHEDULE "F"
NON-MUNICIPAL SERVICE DESCRIPTIONS AND RATES

RATE M-1

Manual Meter Reading

Applicable to Rural Residential Customers

An optional service is offered to those customers who prefer not to have a radio read meter at their service entrance. A digital non-radio read meter will be installed as an alternate to the standard digital radio read meter.

The customer will be required to pay a one-time "Setup Charge". For each billing cycle thereafter, the customer will be required to pay a "Manual Read Charge" along with the regular residential service rates applicable under Schedule A-1 or Schedule A-3 of this bylaw.

This service may be discontinued if it is not compatible with the Technology, Practices, Procedures or Capacity of the Electric Utility. In the event of program cancellation a refund of the setup fee will be made to any customer who subscribed to the service less than two years prior.

Rate:

Setup Charge

Each electric meter - Rural \$181.10

Manual Read Charge

Manual Read for each billing cycle – Rural \$24.97

Order No.
Effective Date:
Commission Secretary:

Issued by: The Corporation of the City of Nelson
Accepted for Filing: