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Nelson Hydro

2023 Revenue Requirement Application

Decision
and Order G-330-23

December 5, 2023

Before:
E.B. Lockhart, Panel Chair
A.C. Dennier, Commissioner
T.A. Loski, Commissioner

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Executive summary

On October 28, 2022, Nelson Hydro filed a revenue requirement application (RRA) with the British Columbia Utilities Commission (BCUC) for approval of a general annual rate increase of 9.87 percent for Nelson Hydro's nonmunicipal (Rural) service area for the 2023 calendar year, pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA) (Application). Nelson Hydro proposes the rate increase take effect as of January 1, 2023.

Nelson Hydro is, in part, excluded from regulation under the UCA because it is owned and operated by the City of Nelson (City) and therefore, any services provided within the City's boundaries (Urban) do not fall within the UCA's definition of a public utility. Thus, the BCUC's review of Nelson Hydro's revenue requirements pertains solely to its Rural ratepayers.

The BCUC established a regulatory timetable for review of the Application, which included public notification, submissions on intervener collaboration, two rounds of BCUC and intervener information requests (IR), letters of comment with Nelson Hydro's reply, one round of Panel IRs, and final and reply arguments. The BCUC received 49 letters of comment from the public, four interested parties registered and three interveners actively participated in this proceeding.

Nelson Hydro prepared the Application in accordance with a cost of service analysis (COSA) that was approved in 2022 as part of Decision and Order G-196-22 (COSA Decision), subject to modifications (Modified COSA). Nelson Hydro states that the rate increase is largely driven by expenditures in the Rural area, which are now approved to be allocated to Rural ratepayers through the Modified COSA.

The Panel finds, however, that Nelson Hydro has not assigned forecast power purchases in accordance with the COSA Decision and therefore directs Nelson Hydro to assign forecast power purchases between Rural service area and Urban service area in a manner that is consistent with the COSA Decision by using the 2023 forecast power purchase amount in Common[1] in the COSA model.

The Panel is satisfied that Nelson Hydro's methodology to determine the 2023 Rural blended inflation rate of 4.24 percent is reasonable. In addition, the Panel finds that Nelson Hydro's operations and maintenance budget for 2023, including its forecast expenditure for vegetation management, is reasonable.

The Panel approves Nelson Hydro's request to use 4.38 percent as its deemed cost of debt but denies Nelson Hydro's request to add a 1 percent premium, or 100 basis points (bps), to the 4.38 percent deemed cost of debt. Nevertheless, the Panel acknowledges that Nelson Hydro incurs costs to acquire debt, such as the administrative costs related to the process for the City to incur new debt, and therefore the Panel directs Nelson Hydro to establish a non-rate base deferral account to capture the Rural service area portion of the actual debt issuance costs incurred, up to $79,000, to acquire new debt in 2023 and to amortize the balance over the remaining term of the underlying debt beginning in 2023.

[1] Assets and costs that cannot be allocated 100 percent to the Urban or Rural service areas and are broken out to all customers based on usage.

The Panel considers that Nelson Hydro's 2023 capital additions for Rural and Common are reasonable, except for the capital additions regarding the Mill St. Substation upgrade project. The Panel directs Nelson Hydro to remove from rate base the capital additions it included for 2022 ($1,051,700) and 2023 ($2,125,000).

Nelson Hydro requests two deferral accounts, both of which the Panel approves, with modifications. The Panel approves the establishment of a storm regulatory deferral account (SRDA), on an ongoing basis, that captures the difference between the forecast and actual costs of storm-related and other emergency or widespread outage response events in the Rural service area. The Panel approves the SRDA to be non-rate base that attracts carrying costs at Nelson Hydro's weighted average cost of capital (WACC) and directs an amortization period of five years.

The Panel also approves a revenue variance deferral account to record the revenue resulting from any differences between the BCUC's final decision on the Application and the 2023 rate increase of 9.87 percent that was approved on an interim and recoverable basis. The Panel approves the deferral account to be non-rate base, with carrying costs at Nelson Hydro's WACC.

The Panel approves Nelson Hydro's applied for rate increase of 9.87 percent for Rural ratepayers on a permanent basis, effective January 1, 2023. Nelson Hydro is directed to recalculate its revenue requirements, based on the determinations and directives in this decision, in a compliance filing and file updated tariff pages reflecting permanent 2023 rates for Nelson Hydro Rural customer classes by January 8, 2024.

Nelson Hydro provided its 2023 major capital project forecast for information, noting its plans for an advanced metering infrastructure project and a battery energy storage system project. The Panel notes that although there is no dollar threshold above which Nelson Hydro must apply for a Certificate of Public Convenience and Necessity for a major project, Nelson Hydro has the responsibility to ensure that expenditures are prudently incurred before the BCUC approves such addition to rate base.

1.0 Introduction

1.1 Approval Sought, Background, and Jurisdiction

On October 28, 2022, Nelson Hydro filed a revenue requirement application (RRA) with the British Columbia Utilities Commission (BCUC) for approval of a general annual rate increase of 9.87 percent for Nelson Hydro's nonmunicipal (Rural) service area for 2023, pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA) (Application). Nelson Hydro proposes the general annual rate increase become effective on January 1, 2023.[2] Nelson Hydro submits that the proposed percentage rate increase is based on the utility's 2023 budget figures used in a cost of service analysis (COSA) that was approved by Order G-196-22. In addition, Nelson Hydro seeks to transition to providing information focused on the Rural portion of the utility rather than the utility as a whole.[3] Nelson Hydro also requests approval to create two deferral accounts.[4]

The BCUC reviews applications for changes to rates and rate schedules in accordance with sections 59 to 61 of the UCA. However, Nelson Hydro is, in part, excluded from the definition of a public utility under the UCA. By the definition in section 1(1) of the UCA, a public utility does not include "a municipality or regional district in respect of services provided by the municipality or regional district within its own boundaries." Nelson Hydro is owned and operated by the City of Nelson (City) and serves customers within the City's boundaries (Urban), as well as Rural customers outside the City's boundaries. The BCUC's review of the Application pertains solely to Nelson Hydro's Rural ratepayers because the BCUC only has jurisdiction to regulate Nelson Hydro's public utility operations outside the City's boundaries.

1.2 Regulatory Process

By Orders G-332-22, G-61-23, and G-185-23, the BCUC established the regulatory timetable, which included public notice, two rounds of BCUC and intervener information requests (IR), letters of comment with Nelson Hydro's reply, submissions on intervener collaboration, one round of Panel IRs, final arguments, and Nelson Hydro's reply argument.

Order G-332-22 dated November 22, 2022, approved the applied for 9.87 percent general rate increase, effective January 1, 2023, on an interim and refundable or recoverable basis, pending the outcome of this proceeding.

The following interveners participated in this proceeding:

- BC Old Age Pensioners' Organization, Council of Senior Citizens' Organizations of BC, Active Support Against Poverty, Disability Alliance BC, and Tenant Resource and Advisory Centre (BCOAPO);
- Residential Consumer Intervener Association (RCIA); and
- Randy Evanchuk (Evanchuk).

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[2] Exhibit B-1, p. 2.

[3] Exhibit B-1, p. 4.

[4] Exhibit B-1, p. 2.

The BCUC received 49 letters of comment from the public, most of which opposed the rate increase and focused primarily on the unfairness of a rate differential between Urban and Rural ratepayers.[5] On March 27, 2023, Nelson Hydro provided a reply to the letters of comment.[6]

1.3 Previous and Concurrent Applications

For many years, Nelson Hydro's RRAs were based on its forecast costs for the utility as a whole, resulting in the same rate for the Urban and Rural service Areas. In 2020, however, Nelson Hydro filed a COSA and Rate Design Application with the BCUC, proposing a rate differential between Urban and Rural customers. That application presented detailed information regarding Nelson Hydro's proposed cost allocations between service areas and the rate of return.[7]

By Decision and Order G-196-22 dated July 19, 2022 (COSA Decision), the BCUC approved Nelson Hydro's COSA, subject to Nelson Hydro amending the COSA in accordance with certain directives. The BCUC directed Nelson Hydro to recalculate the COSA and submit the modified COSA to the BCUC (Modified COSA), and to use the Modified COSA in Nelson Hydro's subsequent RRAs. The BCUC did not approve the rate design component of the application because it could not determine whether changes to rates for Nelson Hydro's Rural customers were justified until it reviewed the Modified COSA.[8]

The BCUC reviewed the Modified COSA, and in March 2023, it dismissed the Rate Design Application because the Modified COSA indicated a Rural residential revenue to cost coverage ratio of 95.1 percent and it was therefore reasonable to not require any rate changes.[9] From this point of this decision, the COSA and Rate Design Application proceeding will be referred to as the COSA proceeding.

In December 2022, Nelson Hydro filed an application for a reconsideration of the COSA Decision (Reconsideration Application) on the grounds that the BCUC erred in fact and law in regard to the generation and power purchase allocation and deemed capital structure.[10]

By Decision and Order G-311-23 dated November 15, 2023 (Reconsideration Decision), the BCUC denied Nelson Hydro's Reconsideration Application to vary the directives in Order G-196-22 and confirmed the directives set out in the COSA Decision.

1.4 Decision Framework

This decision is structured as follows:

- Section 2.0 describes various elements of Nelson Hydro's revenue requirements and provides the overall determination on the 2023 rate increase.

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[5] Exhibit E-10, Aikins Letter of Comment; E-17, McMichael Letter of Comment; Exhibit E-38, Nasmyth Letter of Comment.

[6] Exhibit B-7.

[7] Nelson Hydro COSA and RDA, Exhibit B-1.

[8] COSA Decision, pp. 60, 83.

[9] Order G-40-23 dated March 2, 2023.

[10] Nelson Hydro Reconsideration and Variance of Order G-196-22, Exhibit B-1, p. 4.

- Section 3.0 discusses issues that arose during this proceeding but do not impact the 2023 revenue requirement.

2.0 Revenue Requirement

The COSA Decision directed Nelson Hydro to use the Modified COSA as the basis for its subsequent RRA.[11] Therefore, Nelson Hydro states that it is requesting a rate increase of 9.87 percent for the Rural area based on the Modified COSA and using the 2023 budgetary figures.[12] Nelson Hydro states that the rate increase is largely driven by expenditures in the Rural area, which are now approved to be allocated to the Rural ratepayers through the Modified COSA.[13] Nelson Hydro describes the drivers of the rate increase as follows:[14]

- Cost methodology change which captures the difference between the rate adjustments to date that have been on an overall utility level and the rate adjustments that reflect the allocation of costs between Urban and Rural service areas based on the Modified COSA methods as per Order G-196-22;
- FortisBC Inc. (FBC) general rate increases which result in higher power purchase costs (Section 2.2);
- Inflationary pressures (Section 2.4);
- Increased vegetation management expense (Section 2.5.1);
- Transition to rate base / rate of return model (Section 2.9); and
- Nelson Hydro 2023 capital plan which increases the electricity infrastructure asset base and related rate adjustments (Section 2.7).

2.1 Load Forecast

Nelson Hydro has estimated 1.2 percent energy growth for 2023 in comparison to the 1.5 percent energy growth forecasted in 2022.[15] Nelson Hydro explains that actual energy consumption is assessed against planned energy consumption from time to time, and the expected energy demand growth rate is adjusted if necessary.[16]

Table 1 below provides the actual number of customers, sales and revenues for 2021 and forecasted numbers for 2022 and 2023. The 2022 numbers consist of 10 months (January to October) of actual results with the last two months (November and December) being forecast. The revenues are annualized revenues for 2021 and 2022 calculated at present rates. The revenues are annualized for 2023, including projected load growth, and are calculated to include the rate increase proposed in the Application.[17]

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[11] COSA Decision, p. 60.

[12] Exhibit B-1, p. 23.

[13] Exhibit B-6, BCOAPO IR 1.2, 1.3.2; Exhibit B-9, BCUC IR 38.2.1.

[14] Exhibit B-9, BCUC IR 38.1

[15] Exhibit B-5, BCUC IR 7.3; Nelson Hydro 2022 RRA Order G-198-22 with Reasons, p. 6.

[16] Exhibit B-5, BCUC IR 7.3.

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

Table 1: Actual and Forecast Customers, Sales, and Revenues for the Rural Service Area[18]

	Rural Residential	Rural Commercial	Rural Streetlight	Total		Rural
2021 (actual)						
Customer Count	4,275	346	35	4,656		42.4%
Metered Energy (kWh)	58,011,699	7,878,656	-	65,890,355		42.2%
Revenue	$ 6,662,817	$ 1,115,787	$ -	$ 7,778,604		41.9%
2022 (forecast)						
Customer Count	4,380	365	35	4,780		42.8%
Metered Energy (kWh)	59,427,335	8,809,408	-	68,236,743		42.1%
Revenue	$ 7,065,753	$ 1,240,260	$ -	$ 8,306,013		41.8%
2023 (budget)						
Customer Count	4,446	370	35	4,851		42.8%
Metered Energy (kWh)	60,318,745	8,941,549	-	69,260,294		42.1%
Revenue	$ 7,879,590	$ 1,383,114	$ -	$ 9,262,703		43.2%

Nelson Hydro explains that extended periods of cold weather in 2022 resulted in higher than forecast power purchases, as heating drove the power demand. Nelson Hydro notes, between November and December 2022, it consumed 4,500,000 kilowatt hours (kWh) more than the average for the same period in the previous five years.[19] Nelson Hydro states that anticipated load growth and associated revenue forecasts are derived from historic system-wide power consumption data. Although adoption of technology can have a minor influence on system loading, Nelson Hydro notes that seasonal weather is unpredictable.[20]

Positions of Parties

Interveners did not oppose the load forecast in their arguments.

Panel Determination

The Panel is satisfied with the 1.2 percent growth based on the information provided by Nelson Hydro. Therefore, the Panel finds Nelson Hydro's load forecast for the purpose of the 2023 revenue requirement to be reasonable.

2.2 Power Purchases

Nelson Hydro states that the 2023 operating budget includes $7,744,000 in power purchase expenses for 2023, of which it assigns $3,315,000 to the Rural service area. This projection incorporates the 3.99 percent general rate increase for FBC, Nelson Hydro's power supplier, recently approved by the BCUC on April 19, 2023.[21]

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[18] Exhibit B-1, p. 17.

[19] Exhibit B-5, BCUC IR 7.4.

[20] Exhibit B-6, Evanchuk IR 4.1.

[21] Exhibit B-1, p.18, Exhibit B-5, BCUC IR 9.4; Order G-382-22 and Order G-87-23.

Nelson Hydro assigns power purchase expenses between Urban and Rural in the Application based on the ratios from 2019 actual metered numbers. Nelson Hydro explains that it conducted a load profile analysis based on the 2019 actual sales and generation data for the Modified COSA compliance filing. Given that annual load profiles by customer class are typically relatively stable from year to year, and considering the effort required to update the analysis for the most recent actual year (2021), Nelson Hydro used the actual 2019 load analysis in the COSA model used for the Application.[22]

Nelson Hydro states that it used a calculation outside the COSA model instead of the "COS (Common)" tab calculation in the COSA model because the COSA model is too coarse to reflect the different load characteristics of Rural versus Urban customers.[23] Nelson Hydro explains the "COS (Common)" tab treats all annual kWh and kilowatts (kW) as equal, whereas purchased power costs vary by month, reflecting the different load characteristics of Rural versus Urban customers.[24]

Nelson Hydro explains that it does not have a load profile (such as monthly usage and peak demand breakdown) for 2023 forecast sales and generation for the Rural and Urban areas, as load forecasts are done at a system level.[25] Nelson Hydro states that the use of the 2019 actual sales data in calculating Rural and Urban shares of energy usage is only for the purposes of developing the relative amount of energy used in each monthly period. Nelson Hydro states that it sees changes in its load forecast from year to year but has no reason to expect that 2019 actual monthly ratios will have changed significantly by 2023.[26]

Nelson Hydro states that power purchase costs vary significantly by month, as winter costs drive both more purchase power requirements and the need to pay ratchet costs as part of the FBC demand charge. Nelson Hydro states that Rural customers use more power in winter than Urban customers therefore the Rural load profile is more expensive to serve, even if the costs of purchase power are assigned to Common which is defined as assets and costs that cannot be allocated 100 percent to the Urban or Rural service areas and are broken out to all customers based on usage.[27] Nelson Hydro states that the 2019 load profile analysis is a requirement for a proper implementation of the power purchase assignment to Common and fully complies with the COSA Decision, as costs are assigned to common and allocated based on monthly usage.[28]

Nelson Hydro clarifies that it is not requesting a variance to the COSA Decision regarding the allocation of power purchases on a monthly basis as Order G-196-22 does not specify the specific mechanism to apply power purchase cost assignment 100 percent to Common costs. Nelson Hydro states that monthly allocation does not undermine a common allocation. All consumption of Nelson Hydro's customers is metered and the load profile analysis of Urban and Rural customers based on actual monthly consumption is available, which simply produces a more accurate annualized ratio of electricity use between Urban and Rural customers.[29]

[22] Exhibit B-5, BCUC IR 20.1.
[23] Exhibit B-9, BCUC IR 41.2.
[24] Exhibit B-9, BCUC IR 41.2.
[25] Exhibit B-5, BCUC IR 7.5 and 20.1.2.
[26] Exhibit B-9, BCUC IR 41.1.
[27] COSA Decision, p. 9.
[28] Exhibit B-9, BCUC IR 41.3.
[29] Exhibit B-13, Panel IR 8.1.

The COSA Decision described three key steps in a COSA:

- Functionalization (determining what function or role the costs relate to, such as generation, transmission/distribution and general);
- Classification (for each function, determining what types of use drive the cost, such as demand, and/or energy, customer or direct assigned); and
- Allocation (determining which users impose loads of the specified type).[30]

Nelson Hydro's COSA included an assignment step prior to functionalization, and where possible, costs were first assigned directly to the service area where the cost responsibility arises (i.e. Urban or Rural). Costs that could not be allocated 100 percent to the Urban or Rural service areas are considered Common and are broken out to all customers based on usage which is done within the COSA model in the "COS (Common)" tab.[31] The total costs are added to the "COS (Common)" tab, then functionalized, classified and allocated to each customer class and service area based on usage.

In the COSA Decision, the BCUC determined that Nelson Hydro's power purchases are used by both Urban and Rural customers with no clear separation, and that power purchase costs should be allocated 100 percent to Common and thereafter allocated on a sound regulatory basis (discussed below).[32]

The BCUC disagreed with Nelson Hydro's premise that Rural ratepayers should pay for proportionately more of the power purchase costs than the Urban ratepayers. Nelson Hydro submitted that it would not purchase "nearly the same amount of power from FBC but for the fact that it services the Rural service area," but the same could be said of the Urban service area. Further, Nelson Hydro acknowledged that the need to purchase additional power was only added as demand grew "in the Urban and Rural areas", undermining the notion that Rural ratepayers are proportionately more responsible for power purchase costs than Urban ratepayers.[33]

Positions of Parties

Interveners did not comment directly on Nelson Hydro's power purchase allocation, however, RCIA submits that the BCUC intentionally retained the latitude to reconsider the COSA and its implications in future proceedings that relate to the COSA – including this proceeding.[34]

In reply, Nelson Hydro states that it does not dispute that the BCUC has the authority to direct additional modifications and refinements to the COSA. Nelson Hydro states that it modified the COSA as directed and complied with the BCUC directive to use the Modified COSA in the Application. Nelson Hydro states that it received no other direction from the BCUC following its submission of the Modified COSA.[35]

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[30] COSA Decision, p. 9.
[31] COSA Decision, p. 9.
[32] COSA Decision, p. 31.
[33] COSA Decision, p. 31.
[34] RCIA Final Argument, p. 6.
[35] Nelson Hydro Reply Argument, pp. 10–11.

Panel Determination

The Panel finds that Nelson Hydro has not assigned forecast power purchases in accordance with the COSA Decision**. The Panel directs Nelson Hydro to assign forecast power purchases between Rural service area and Urban service area in a manner that is consistent with the COSA Decision by using the 2023 forecast power purchase amount in Common in the COSA model.**

During the COSA proceeding, The BCUC considered how power purchase costs should be assigned and rejected Nelson Hydro's proposed assignment of power purchase costs between Rural and Urban ratepayers. The BCUC directed Nelson Hydro to recalculate its COSA with power purchase costs assigned 100 percent to Common costs.

The Panel finds that by assigning power purchase expenses between Urban and Rural, outside the "COS (Common)" tab based on the ratios from 2019 actual metered numbers, Nelson Hydro has not complied with the BCUC's directive from the COSA Decision. The COSA decision stated that power purchases were to be assigned to Common on the basis that the total costs were added to "COS (Common)" tab, then functionalized, classified and allocated to each customer class and service area based on usage. Regardless of its rationale for ignoring the directive, that is not Nelson Hydro's prerogative.

2.3 Water License

Nelson Hydro's revenue requirement includes an item identified as City of Nelson Purchase, in the amount of $311,000. Nelson Hydro explains that this is a transfer payment from Nelson Hydro to the City and represents compensation for 265 cubic feet per second (cfs) of water obtained by the City through the Water Rights Agreement between the City and BC Hydro (Water License). Nelson Hydro states that the payment of $311,000 represents the Rural portion of the transfer payment.[36] The water licence reserve payment is transferred to the City's water licence reserve fund, which can only be used for funding new capital works and maintenance, extensions or renewals of existing capital works.[37] Order G-124-18 found this water license reserve payment, which is based on the rate charged by FBC for the purchase of power, to be reasonable.[38]

Positions of Parties

Evanchuk submits that Rural customers are not party to the agreement between the City and BC Hydro and therefore should not have to bear any costs relating to it. Evanchuk submits that charging Rural customers for the Water Licence violates Bonbright Principles, as it is not an operating cost and is therefore not applicable to Rural customers.[39] Evanchuk requests the BCUC rule on the applicability of this internal budgeting tool of the City to Rural customers, as all monies from the water transfer licence are used by the City, with zero benefit to Rural customers.[40]

[36] Exhibit B-11, Evanchuk IR 10.1.
[37] Exhibit B-11, Evanchuk IR 10.2 and 10.3.
[38] Exhibit B-6, Evanchuk IR 5; Nelson Hydro 2018 Rate Application Order G-124-18 with Reasons.
[39] Evanchuk Final Argument, p. 12.
[40] Evanchuk Final Argument, p. 13.

In reply, Nelson Hydro states that the COSA treats the acquisition by Nelson Hydro of the rights to generate using 265 cfs of water from the City as a power purchase similar to the power purchases from FBC. In the COSA Decision, the BCUC directed that these expenses be allocated as Common and as a result, for this Application, the 2023 revenue requirement reflects that directive and the 265 cfs power purchase cost was assigned to Urban and Rural groups based on their share of annual energy usage.[41]

Panel Determination

The Panel finds that Nelson Hydro's classification of the Rural portion of the water licence transfer payment is appropriate. The water license allows Nelson Hydro to use 265 cfs of water to generate power, which is to the benefit of all ratepayers and should therefore be assigned as Common. We disagree with Evanchuk that Rural customers are entitled to avoid costs on the basis that such costs arise from an agreement to which they are not party. That viewpoint disregards the fact that all of Nelson Hydro's customers benefit from this arrangement.

2.4 Inflation

Nelson Hydro uses a 5.35 percent inflation rate for materials and contractors based on the trailing 12-month Statistics Canada Consumer Price Index (CPI) for British Columbia (BC) (CPI-BC) index as of July 2022.[42] By comparison, in 2022, it used 1.6 percent for materials and contractors, based on the trailing 12-month CPI-BC index as of July 2021 and 1.75 percent in 2021, consistent with the City 's budget assumptions.[43] Nelson Hydro explains that the change in methodology from 2021 to 2022 was to ensure that budget figures keep up with the real cost of goods and services in the market and allows for a more consistent approach to budgeting for inflation.[44] Nelson Hydro also includes a 2.5 percent inflationary raise in 2023 for wages based on on-going union negotiations, which results in an overall blended inflation rate of 4.24 percent for 2023.[45]

Nelson Hydro states that CPI-BC is appropriate to use as an inflationary measure for 2023 because it accounts for the actual cost increase of goods and services in the market and is the same process Nelson Hydro uses to determine the Urban utility rate.[46] Nelson Hydro notes that, although it is not incorrect to use forward-looking inflationary forecasts, its preference is to use 12-month trailing CPI-BC data for the following reasons:

- FBC uses backwards-looking data from CPI-BC;
- Backward-looking CPI-BC data is based on actual data collected and published by Statistics Canada; and
- Forward-looking forecasts are not as accurate as historical actual pricing data.[47]

[41] Nelson Hydro Reply Argument, p. 14.
[42] Exhibit B-1, Section 5.3, p. 19.
[43] Nelson Hydro 2022 RRA, Exhibit B-1, Section 5.3, p. 19; Nelson Hydro General Rate Increase Application 2021, Exhibit B-1, Section 5.3, p. 13
[44] Exhibit B-5, BCUC IR 8.3.
[45] Exhibit B-1, p. 19; Exhibit B-9, Appendix 38.1; (5.35 percent * 0.6108 materials and contractors weighting + 2.5 percent * 0.3892 labor weighting).
[46] Exhibit B-5, BCUC IR 8.4.
[47] Exhibit B-5, BCUC IR 8.6.

Positions of Parties

BCOAPO disagrees with the methodology that Nelson Hydro uses to develop the inflation factor for materials and contractor expenses, as well as the resulting 5.35 percent number that Nelson Hydro proposes.[48]

BCOAPO submits that, while the current economic environment may make it more challenging to use forward-looking CPI forecasts, it is not appropriate to "abandon a methodology that remains an industry-wide best practice."[49] BCOAPO submits that Nelson Hydro has failed to present a convincing argument for its choice to use backward-looking data, as there remains reputable sources for forecasts.[50] BCOAPO submits that revenue requirement forecasting methodologies should maintain internal consistency whenever possible and take into account whether they are consistent with the "spirit and purpose of the future test year rate-setting approach."[51] BCOAPO strongly opposes a methodology that "cherry picks" forward-looking forecasts or backward-looking data and results in an inflation rate generated using data that "inflexibly assume[s] that past economic trends will continue into the coming fiscal [period]."[52]

BCOAPO asks the BCUC to direct Nelson Hydro to:

1. Develop a forward-looking estimate of CPI for rate-setting purposes using reputable and publicly available Canadian financial institutions; and
2. Present this estimate, as well as the impacts on its operating expenditures and capital expenditures and proposed revenue requirements for this and future RRAs.[53]

While Nelson Hydro is not opposed to revising its methodology in future rate applications, Nelson Hydro submits that BCOAPO has not offered any compelling reasons why the current methodology is not adequate.[54] Nelson Hydro notes that BCOAPO has not provided any support for its statement that forward-looking CPI forecasts remain an "industry-wide best practice".[55] Nelson Hydro again notes that use of the 12-month average trailing inflation is consistent with the methodology used by FBC.[56]

Panel Determination

The Panel is satisfied that Nelson Hydro's methodology to determine the 2023 Rural blended inflation rate of 4.24 percent is reasonable. Nelson Hydro explains that it uses a 5.35 percent inflation rate for materials and contractors. The Panel notes FBC uses backward-looking CPI data to determine its annual inflation factors which is also the methodology used by Nelson Hydro for its Urban service area. In addition, we accept that 2.5 percent is a reasonable inflation rate for Nelson Hydro to use for wages based on on-going union negotiations.

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48 BCOAPO Final Argument, pp. 5–6.
49 BCOAPO Final Argument, pp. 5–6.
50 BCOAPO Final Argument, pp. 5–6.
51 BCOAPO Final Argument, pp. 5–6.
52 BCOAPO Final Argument, pp. 5–6.
53 BCOAPO Final Argument, pp. 5–6.
54 Nelson Hydro Reply, p. 3.
55 Nelson Hydro Reply, p. 3.
56 Nelson Hydro Reply, p. 3.

Although BCOAPO refers to the use of forward-looking CPI data as an 'industry-wide best practice' methodology, it has not provided evidence to support this claim. We see no merit in directing Nelson Hydro to explore different ways to calculate inflation, and therefore we reject BCOAPO's request that we direct Nelson Hydro to develop a forward-looking estimate of CPI.

2.5 Operations & Maintenance

Nelson Hydro states that since it is facing significant inflationary increases for 2023, it analyzed the Rural budget to alleviate any unnecessary rate pressures.[57] In doing so, Nelson Hydro was able to keep the Rural 2023 Operations and Maintenance (O&M) budget to $3,358,383[58] compared to the actual/projected Rural O&M costs for 2022 of $3,421,211.[59] Vegetation management expense of $750,000 comprises the largest proportion of Rural 2023 O&M, and is discussed in Section 2.5.1.

Nelson Hydro points to the following items as having contributed to the year-over-year change in the budget remaining flat: [60]

a. The Rural major storm repair budget decreased from $450,000 in 2022 to $100,000 in 2023 due to the storm regulatory deferral account (SRDA) discussed in Section 2.8.1.

b. The budget for plant operations is expected to decrease by 0.14 percent from $665,700 in 2022 to $664,760 in 2023 due to decreased maintenance costs for the G5 turbine.

c. The pole test and treat program budget has decreased 65 percent year over year from $113,000 in 2022 to $40,000 in 2023 due to more efficient methods.

Positions of Parties

Evanchuk submits that the escalation of operating costs from 2018 to 2022 by Nelson Hydro follows an "alarming trend of not managing costs", whether for operations, project management or the effective supervision of vegetation management and calls into question the veracity of operating costs related to Rural distribution.[61] He also submits that the trend shown by past operating cost increases means that the 2023 operating budget serves as a higher base for Rural customers on a go forward basis.[62]

Evanchuk therefore proposes a deferral account to "true over and under ages" in O&M costs.[63] He states that this deferral account would "avoid sand bagging (applying for high O&M and then coming in lower)" and account for volatility in weather and its effect on demand charges.[64] Evanchuk also requests the BCUC conduct

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57 Exhibit B-1, pp.23, 27.

58 Exhibit B-13, Attachment "BCUC-Panel IR-1 - Attachment 1", tab "O&M Expense Allocation Summary" Rural Subtotal $6,673,925 less Rural Power Purchases of $3,315,087.

59 Exhibit B-3, Attachment "BCUC-Panel IR-1 - Attachment 1", tab "O&M Expense Allocation Summary", Rural Subtotal $6,540,125 less Rural Power Purchases of $3,118,915.

60 Exhibit B-5, BCUC IR 8.9.2.

61 Evanchuk Final Argument, pp. 16–17.

62 Evanchuk Final Argument, pp. 16–17.

63 Evanchuk Final Argument, pp. 16–17.

64 Evanchuk Final Argument, pp. 16–17.

an independent audit of all of Nelson Hydro's operating costs over the period 2021/2022 due to the alarming rise of costs.[65]

Nelson Hydro did not reply to Evanchuk's argument regarding a deferral account for O&M costs or his request for an independent audit.

Panel Determination

The Panel finds that the O&M budget for 2023 is reasonable; there is no evidence to indicate otherwise. The Panel is not persuaded by Evanchuk's submission that the escalation of operating costs is due to Nelson Hydro's mismanagement. Simply because expenses increased between 2018 and 2022, as Evanchuk states, does not necessarily demonstrate mismanagement. Moreover, the BCUC has previously reviewed and approved those costs in each year's RRA and thus those costs are deemed to be reasonable and prudent for setting Rural rates. There is no merit to the suggestion that Nelson Hydro is "sandbagging" expenses to Rural ratepayers. Finally, we note, there is no evidence of imprudent activity in this or previous proceedings to warrant additional BCUC review and do not find it necessary to direct that Nelson Hydro establish a deferral account for variances in operating expenses at this time.

2.5.1 Vegetation Management

Nelson Hydro states that it has been following its comprehensive Five-Year Vegetation Management Plan to address the current and future vegetation management issues and improve its reliability metrics.[66] Nelson Hydro assigns a rotating focus area each year and allocates additional budget to that area on a three-year cycle to smooth the workload, improve prescription and crew efficiency, and ensure every line in each area is looked at within the typical growth rate of vegetation in the area.[67]

Nelson Hydro's 2023 vegetation management budget of $885,000 aligns with the Five-Year Vegetation Management Plan, with $750,000 planned to be expended in the Rural service areas.[68] Nelson Hydro explains that vegetation management is related to controlling tree growth on its distribution lines and therefore the expense is categorized as a distribution cost which is assigned based on the location of the asset that benefits.[69] Nelson Hydro states that no transmission line vegetation management (brushing) work is planned in the 2023 budget.[70]

The focus for 2023 is primarily the South Shore and consequently that area has additional resources allocated to it. The vegetation, terrain and weather are different on the South Shore than the other Rural service area of the North Shore. Nelson Hydro notes, while vegetation management is a factor affecting reliability, it also prevents wildfires and allows access for maintenance and must be done on a regular basis even if it is not causing outages.[71]

[65] Evanchuk Final Argument, p. 6.
[66] Exhibit B-1, p. 12.
[67] Exhibit B-9, BCUC IR 26.1.
[68] Exhibit B-1, p. 12.
[69] Exhibit B-1, p.18; Exhibit B-5, BCUC IR 5.1; COSA Decision, p. 33.
[70] Exhibit B-5, BCUC IR 5.1.
[71] Exhibit B-9, BCUC IR 26.1.

Nelson Hydro states that its vegetation management approach is improving reliability because total outage minutes due to trees and wind are significantly down in the North Shore area over the past two years, and trending down in the South Shore area. Nelson Hydro states that the number of customer service minutes out due to trees and wind by service area has decreased from approximately 6.6 million minutes in 2017 to approximately 1.4 million minutes in 2022 through to September.[72]

Nelson Hydro uses a certified utility arborist to identify and assess hazardous or dangerous trees. Nelson Hydro uses the arborist's annual and adhoc tree risk assessments to identify hazard trees and prioritizes those with significant risk indicators for removal to protect public and worker safety, property, and power system assets.[73] Nelson Hydro estimates it spent $860,000 on vegetation management in 2022 which represents a variance of 1.2 percent over the budgeted $850,000. The Rural portion of these expenditures is expected to be approximately $776,000.[74]

Positions of Parties

Evanchuk submits that Nelson Hydro's Vegetation Management program has been executed extremely poorly, and documents instances where tree limbs "were in the wires, directly above, or single long limbs left which could drop onto the lines." He requests the BCUC direct Nelson Hydro to conduct an inventory of untreated trees along 39 kilometres including 8.5 kilometres along the Harrop-Procter Road and 30.5 kilometres along highway 3a from Balfour to Nelson to determine a scope of work and fix the problem at no cost to Rural ratepayers.[75]

In reply, Nelson Hydro stands behind the work of its contract and in-house certified arborists who perform and supervise the vegetation management work around its powerlines.[76]

BCOAPO submits a vegetation management deferral account could capture the differences between actual and forecast expenditures and smooth these expenditures into revenue requirements over time to the benefit of ratepayers. BCOAPO requests the BCUC direct Nelson Hydro to present, as part of its next RRA, the advantages and disadvantages of smoothing Rural vegetation management expenditures in using a deferral account, as well as a summary report on this review, a calculation of the carrying costs, and the basis upon which those carrying costs are calculated.[77]

In reply, Nelson Hydro does not oppose BCOAPO's request that it addresses this matter in its next RRA.[78]

Panel Determination

The Panel finds that Nelson Hydro's forecast expenditure for vegetation management for 2023 is reasonable. We are not persuaded by Evanchuk that Nelson Hydro's vegetation management, which is done under the

[72] Exhibit B-1, pp. 13 and 14.
[73] Exhibit B-6, Evanchuk IR 11.1.
[74] Exhibit B-5, BCUC IR 5.5.
[75] Evanchuk Final Argument, p. 16.
[76] Nelson Hydro Reply Argument, p. 14.
[77] BCOAPO Final Argument, pp. 7–8.
[78] Nelson Hydro Reply Argument, p. 4.

direction of certified utility arborists, is carried out imprudently. If this work needs to be done, then the cost of such work is appropriately absorbed by ratepayers and not the shareholder. If the work has been executed improperly, in other words imprudently, then the Panel can deny recovery of such costs from ratepayers. In this case, however, there is no evidence to support a finding of imprudence.

In contrast to Evanchuk's assertion, we find that the evidence establishes that Nelson Hydro's reliability has been increasing over the years, which is consistent with improved vegetation management.

The Panel finds that Nelson Hydro's forecast expenditures allocated to Rural for 2023 are appropriately allocated. Vegetation management is a distribution cost, the focus of which is Rural in 2023, which explains why such a high proportion of the budget is allocated to Rural.

A vegetation management deferral account could be a helpful rate smoothing mechanism for ratepayers and therefore we recommend the Panel in the next RRA review the advantages and disadvantages of a vegetation management deferral account**.**

2.6 Cost of Debt

Nelson Hydro seeks approval to use up-to-date debt rates available in the market for the purposes of pricing its deemed debt. Nelson Hydro states that its past debt rate of 4.11 percent was the actual debt rate calculated as part of the 2019 COSA application. Nelson Hydro explains that its embedded debt cost will reflect stale debt rates from past borrowing and this old debt rate could be higher or lower than new debt. Nelson Hydro states, in either case, it is inappropriate to charge ratepayers for deemed debt based on rates only available in the past. [79] Therefore, Nelson Hydro is requesting approval of a debt rate of 5.38 percent for its 2023 revenue requirement based on a 10-year Municipal Finance Authority (MFA) indicative borrowing rate of 4.38 percent at the time of submission plus 1 percent to address the fully loaded cost of securing the debt.[80]

Nelson Hydro states that its 2023 forecasted weighted average cost of debt (WACD) without new debt is 3.23 percent.[81] Nelson Hydro also confirms that $790,000 of new debt for the Rural service areas is included in the 2023 forecasts using the forecast interest rate of 4.38 percent based on the MFA 10-year rate.[82]

Nelson Hydro explains that the 1 percent estimate of borrowing costs reflects the administrative time related to the City's process to incur the debt, which is not included in Nelson Hydro's budgeted O&M expenses.[83] The administrative costs included in the budgeted O&M expenses are for regular administrative tasks related to the day-to-day administration. Nelson Hydro states that debt acquisition tasks are outside of regular administrative services provided by the City to Nelson Hydro.[84] Nelson Hydro estimates that based on its deemed debt estimate of $10.3 million, 1 percent issuance cost for the new debt translates to $103,000.[85]

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[79] Exhibit B-3, pp.1–2
[80] Exhibit B-5, BCUC IR 19.1.
[81] Exhibit B-9, BCUC IR 39.4.
[82] Exhibit B-9, BCUC IR 39.4 and 39.5.
[83] Exhibit B-5, BCUC IR 19.1.
[84] Exhibit B-9, BCUC IR 39.3.
[85] Exhibit B-9, BCUC IR 39.1 and 39.5.

Nelson Hydro estimates that the forecast actual issuance cost per bond issuance would be between $37,500 and $75,000 regardless of the amount of long-term borrowing. The method proposed in the Application to account for this is to apply a 1 percent premium on the borrowing over the life of the debt. A 10-year term and borrowing of $790,000 would equate to $79,000 over the 10-year period. For 2023 specifically, the 1 percent premium equates to $7,900 in the 2023 forecast, all of which Nelson Hydro expects would be paid to City staff.[86] Nelson Hydro states, if it is deemed to have a capital structure similar to a private utility, such as Boralex Falls, then both its debt issuance costs and the interest rates would be higher and notes that borrowing rates for Boralex is 350 basis points above the Canada Bonds rates and the bond issuance costs for small placements are estimated to be 8.5 percent of the face value of the bond.[87] Nelson Hydro submits, if the BCUC upholds its decision to require a deemed capital structure, a deemed interest rate and debt issuance costs should be also adopted based on an equivalent small private utility, such as Boralex Falls.[88]

Positions of Parties

BCOAPO questions the fairness of using the current MFA indicative borrowing cost of 4.38 percent for the $10.129 million of deemed debt.[89]

BCOAPO argues that there is no real relationship between the projected cost of new debt in the 2023 Test Year and the deemed debt, and the 4.38 percent does not reflect real underlying costs. BCOAPO submits that the historical debt rate of 3.23 percent should be applied to both the existing and deemed debt. The current debt rate of 4.38 percent should only be applied to the new debt for the 2023 Test Year.[90]

BCOAPO submits that the imposition of a notional one percent debt issuance fee is an expensive option for ratepayers and should be denied.[91]

BCOAPO submits that the BCUC should approve a regulatory deferral account that captures the Rural portion of any debt issuance cost incurred and that these deferred costs be amortized over the term of each of the related debt issues.[92]

In reply, Nelson Hydro submits that the debt rate of 3.23 percent does not reflect “the real underlying costs to Nelson Hydro”, as the historic debt rate no longer exists and is a fictional below-market cost. The figure proposed by Nelson Hydro is a more accurate approximation of the real underlying costs. Nelson Hydro submits that the use of a debt rate figure of 5.38 percent is fair and reasonable.[93]

RCIA submits that a 50/50 debt equity split, 4.11 percent return on debt and 9.5 percent return on equity are appropriate given the financial advantages and lower risks faced by Nelson Hydro relative to Boralex Falls.[94]

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[86] Exhibit B-13, Panel IR 7.1 and 7.2.
[87] Exhibit B-9, BCUC IR 39.1.
[88] Exhibit B-13, Panel IR 7.1.
[89] BCOAPO Final Argument, p. 20.
[90] BCOAPO Final Argument, p. 20.
[91] BCOAPO Final Argument, p. 20.
[92] BCOAPO Final Argument, pp. 20–21.
[93] Nelson Hydro Final Argument, pp. 8–9.
[94] RCIA Final Argument, p. 9.

In reply, Nelson Hydro submits that assigning it a deemed debt/equity ratio similar to that of Boralex Falls without using a similar debt rate is neither fair nor reasonable. Nelson Hydro submits that it has fully explained why the proposed 5.38 percent debt rate is reasonable and should be approved and that RCIA has provided no persuasive rebuttal arguments on this matter.[95]

Panel Determinations

The Panel approves Nelson Hydro's request to use 4.38 percent as its deemed cost of debt for 2023. Since this is the finance rate that the MFA would charge Nelson Hydro, the Panel accepts that this is a reasonable component and reflects Nelson Hydro forecast cost of borrowing in 2023. We disagree with BCOAPO that the historical debt rate of 3.23 percent is appropriate because this rate no longer reflects the current cost to Nelson Hydro.

The Panel denies Nelson Hydro's request to add a 1 percent premium, or 100 basis points, to the 4.38 percent deemed cost of debt. Nelson Hydro has not provided sufficient support for this component to its proposed deemed debt rate. We acknowledge that Nelson Hydro incurs costs to acquire debt, such as the administrative costs related to the process for the City to incur new debt. A one percent premium on Nelson Hydro's deemed debt, which it estimates for 2023 is $10.3 million, is disproportionate to the forecast actual cost it will incur to acquire $790,000 in new debt in 2023. On the other hand, applying the one percent premium on the borrowing over the life of the debt, in this case a 10-year term and borrowing of $790,000, equates to $7,900 in the 2023 forecast, which the Panel finds to be a reasonable amount.

Accordingly, the Panel directs Nelson Hydro to establish a non-rate base deferral account to capture the Rural service area portion of the actual debt issuance costs incurred, up to $79,000, to acquire new debt in 2023 and to amortize the balance over the remaining term of the underlying debt beginning in 2023. The Panel acknowledges Nelson Hydro's statement that a 10-year term and borrowing of $790,000 would equate to $79,000 of debt issuance costs over the term of the underlying debt or $7,900 annually. It is reasonable and appropriate for Nelson Hydro to be given the opportunity to recover its debt issuance costs (in this case up to $79,000) and the timing of the recovery of these costs should be matched with the timing of the benefits of the underlying debt (in this case over the 10-year term).

2.7 Capital

Nelson Hydro provides in the following table, the 2023 capital budget for the utility as a whole:

[95] Nelson Hydro Reply Argument, p. 12.

Table 2: 2023 Capital Budget[96]

Category	Description		Budget (2023)
Rebuilds / Pole Placement	Pole Placement - City	$	20,000
	Pole Placement - North Shore	$	481,300
	Pole Placement - South Shore	$	53,900
New Services	New Services - City	$	205,000
	New Services - North Shore	$	153,800
	New Services - South Shore	$	102,500
Power Plant Capital	G3&G4 Excitation System Replace	$	320,000
	G5 Fire Protection	$	80,000
	Power Plant Intake Repairs	$	25,000
Substation Upgrades	Mill Street Substation Upgrade	$	2,000,000
	Other - North Shore	$	25,000
SCADA Capital	SCADA Upgrade	$	150,000
Hydro Meters	AMI Meter Upgrade	$	1,000,000
	Meter Replacement	$	60,000
Other Projects	Hydro Software (EAM)	$	300,000
	PLC Replacement - Selkirk	$	80,000
	Distribution Upgrades	$	100,000
	Other new project scoping	$	115,000
Total Capital		$	**5,271,500**

During this proceeding, Nelson Hydro provides the following updates on its 2023 capital budget:

- The capital items '[advanced metering infrastructure (AMI)] Meter Upgrade' ($1,000,000), 'meter replacement' ($60,000) and 'Other new project scoping' ($115,000) are not expected to be capitalized in 2023, and therefore they are not included in the calculation of the proposed rate increase for 2023.[97] Further, Nelson Hydro identifies that the scope of work associated with the AMI project planned for 2023 has been deferred to 2024 due to cost increases on the Mill St. Substation upgrade project.[98]

- $213,700 has been removed from the total capital budget as this amount is offset by capital revenue for new services. Nelson Hydro explains that this is the forecast amount of revenue earned from new services (new customers) in both Rural and Urban regions. New customers are charged a fee that partially offsets the cost of the assets required to establish the utility connection. As such, Nelson Hydro considers it prudent to offset the capital costs expended on new services with the revenue collected. This amount was determined based on historical revenue earned and projected revenue earned.[99]

Therefore, Nelson Hydro identifies that the total capital additions proposed for 2023 is $3,882,800 for the utility as a whole, instead of $5,271,500 as noted in Table 2 above, with $3,418,600 identified as Rural and Common.[100] Nelson Hydro confirms regular and major projects as capital additions into Rural rate base in the year it is deemed to be complete and "in-use". For clarity Nelson Hydro explains that while a capital project is being constructed, the costs associated with the asset will be temporarily placed in a Work-In-Progress account. Once the construction is complete and the asset is commissioned for use, the asset is added to the rate base.[101]

[96] Exhibit B-1, Table 5-5, p. 21.
[97] Exhibit B-5, BCUC IR 15.1.
[98] Exhibit B-9, BCUC IR 34.3.
[99] Exhibit B-5, BCUC IR 15.2.
[100] Exhibit B-1, p. 22.
[101] Exhibit B-5, IR 15.4

In the next section, we discuss the largest item included in Nelson Hydro's 2023 capital budget, the Mill St. Substation upgrade project. Later in this decision, in section 3.2, we discuss the AMI project, which as noted above, is not expected to be capitalized in 2023 and therefore not included in the calculation of the proposed rate increase for 2023.

2.7.1 Mill St. Substation Upgrade Project

The Mill St. Substation upgrade project replaces end-of-life assets at the Mill St. Substation, including the installation of two 20/25 megavolt amperes (MVA) transformers, installation of a new 72.5 kilovolt (kV) vacuum circuit breaker, and conversion of all 25 kV substation infrastructure from outdoor reclosers to indoor switchgear.[102] In its 2022 RRA, Nelson Hydro identified that an unexpected, wildlife-initiated failure had occurred on one of its transformers (T41) at the Mill St. Substation in July 2021. As such, Nelson Hydro states that it had to accelerate its plans to upgrade this facility.[103]

The Mill St. Substation upgrade project is a multi-year project which Nelson Hydro identified in its 2022 RRA as having a projected total cost of $2.3 million.[104] In the Application, Nelson Hydro updates the total projected cost to $4.5 million.[105] Nelson Hydro explains that the $2.3 million estimate is an Advancement of Cost Engineering International (AACE) Class 5 estimate informed primarily by the cost of a previously constructed substation project and that planning activities resulted in an updated project estimate of $4.5 million.[106]
During this proceeding, Nelson Hydro provided a further update to the total projected cost to $8.3 million, of which at least $2 million is expected to be recouped from an insurance claim against the T41 failure.[107] Nelson Hydro states that several factors contributed to this cost escalation, including: geotechnical investigations; significant civil work required to design and install foundations to meet current engineering and regulatory standards; contaminated soil requiring remediation; and supply chain and inflationary pressures. Nelson Hydro recognizes that this cost escalation will impact ratepayers and is making every effort to control expenditures while safely restoring this critical asset.[108]

Nelson Hydro confirms that it has begun construction on the project[109] and that at the time it prepared the Application, it hoped that portions of the Mill St. Substation upgrade project would be in use in 2022 and 2023. As such, Nelson Hydro forecasts capital additions in respect of this project of $1,051,700[110] and $2,125,000[111] for 2022 and 2023, respectively. During this proceeding, Nelson Hydro confirms that due to delays, no portion of the Mill St. Substation upgrade project was in-service in 2022,[112] and confirms that phase 1 (replacement of

[102] Exhibit B-5, BCUC IR 11.7.
[103] Nelson Hydro 2022 RRA, Exhibit B-1, p. 23.
[104] Nelson Hydro 2022 RRA, Exhibit B-21, p. 24.
[105] Exhibit B-1, p. 21.
[106] Exhibit B-5, BCUC IR 11.8.
[107] Exhibit B-9, BCUC IR 33.1.
[108] Exhibit B-9, BCUC IR 32.3.
[109] Nelson Hydro reply argument, p. 5.
[110] Exhibit B-9, BCUC IR 33.5.
[111] Exhibit B-9, BCUC IR 33.6.
[112] Exhibit B-9, IR 33.5.

transformer T41) is expected to be complete and in use by March 2024; with phase 2 expected to be complete in 2024.[113]

Nelson Hydro states that if the BCUC were to direct a CPCN for the Mill St. Substation upgrade project, it does not expect that it will make any different decisions. Nelson Hydro states that given the already protracted schedule and the reliability risk, work on the project would not stop and efforts to complete a CPCN application would redirect resources away from the project management, monitoring and control, and would increase costs.[114]

Positions of Parties

BCOAPO submits that a 1.96 percent increase arising from Nelson Hydro's proposed operating expenditures and capital expenditures is not unreasonable.[115]

BCOAPO notes the significant cost increases associated with the Mill St. Substation upgrade project and submits that it is difficult to assess the cost/benefit of a recommendation for the BCUC to direct Nelson Hydro to file a CPCN for this project. BCOAPO submits that if the BCUC finds that there is insufficient benefit to be gained by directing Nelson Hydro to file a CPCN, it asks this Panel to direct Nelson Hydro to file regular reports on this project consistent with the types of reporting commonly directed or received by the BCUC regarding projects approved through a CPCN process.[116]

Nelson Hydro does not believe the Mill St. Substation upgrade project requires a CPCN, in part because it is below the $5 million CPCN filing threshold that Nelson Hydro proposed during its 2022 RRA.[117] Nelson Hydro also notes that this project is a priority given the reliability risk that exists if this project is not completed. However, Nelson Hydro is not opposed to the project reporting recommended by BCOAPO.[118]

Evanchuk raises concern with respect to cost increases of the Mill St. Substation upgrade project and asks the BCUC to order that work on this project be halted until Nelson Hydro can provide detailed justification for the cost increases.[119]

In reply, Nelson Hydro acknowledges the cost increases to the Mill St. Substation upgrade project but submits they are not out of line with what Nelson Hydro and other organizations have been experiencing with the delivery of capital projects. Nelson Hydro submits that it has taken action to manage these costs, including procuring long lead time equipment ahead of time. Nelson Hydro states that no different decisions would have been made if these costs were known when it initiated the project.[120]

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[113] Nelson Hydro Reply Argument, p. 5.
[114] Exhibit B-9, BCUC IR 32.3.
[115] BCOAPO Final Argument, p. 4.
[116] BCOAPO Final Argument, p. 12.
[117] Nelson Hydro Reply Argument, pp. 5-6. Nelson Hydro notes that the total projected allocation to rural ratepayers for the Mill St. Substation upgrade project is $3.6 million and therefore, this project still falls below Nelson Hydro's cost threshold proposed for a CPCN application.
[118] Nelson Hydro Reply Argument, pp. 5–6.
[119] Evanchuk Final Argument, p. 5.
[120] Nelson Hydro Reply Argument, pp. 5–6.

Panel Determinations

The Panel considers that Nelson Hydro's 2023 capital additions for Rural and Common are reasonable, except for the capital additions regarding the Mill St. Substation upgrade project. During this proceeding, Nelson Hydro confirms that it has not completed the work supporting these capital additions and these portions of the project are not yet in service. Therefore, these expenditures should not form part of its rate base, which leaves $1,293,600 ($3,418,600 - $2,125,000) as the forecast of actual amount of 2023 capital additions. Accordingly, **the Panel directs Nelson Hydro to remove from rate base the capital additions it included for 2022 ($1,051,700) and 2023 ($2,125,000)**.

The Panel is not making a finding that the Mill St. Substation project is in the public interest, or that these costs have been prudently incurred. The BCUC will address these issues when Nelson Hydro seeks to add corresponding capital expenditures to its rate base for Rural ratepayers. Therefore, we do not find it necessary to order Nelson Hydro to stop work on the project, as Evanchuk suggests, or to direct Nelson Hydro to report on the project, as BCOAPO recommends, because Nelson Hydro performs this work at shareholder risk until the BCUC determines the costs can be recovered from ratepayers.

2.8 Deferral Accounts

2.8.1 Storm Regulatory Deferral

Nelson Hydro is seeking approval of an SRDA to address the costs of storm-related and other emergency or widespread outage events.[121] Nelson Hydro proposes a defined annual budgeted appropriation to the SRDA, with all actual costs for storms and other emergency or widespread outage events being charged to the account. Nelson Hydro states that its storm costs are non-controllable extraordinary events that cannot be readily addressed by annual budgeting.[122]

Nelson Hydro outlines historical budget to actual storm expenses for the past five years in the following table:

Table 3: Budget vs. Actual Rural Storm Expenses 2017 to 2022[123]

2017		2018		2019		2020		2021		2022	
Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Forecast
$ 61,000	$ 45,539	$ 62,034	$ 73,743	$ 63,680	$ 140,602	$ 66,000	$ 210,306	$ 389,800	$ 673,440	$ 473,500	$ 90,962

Nelson Hydro provides historical actual storm expenses by region for the past ten years as follows:

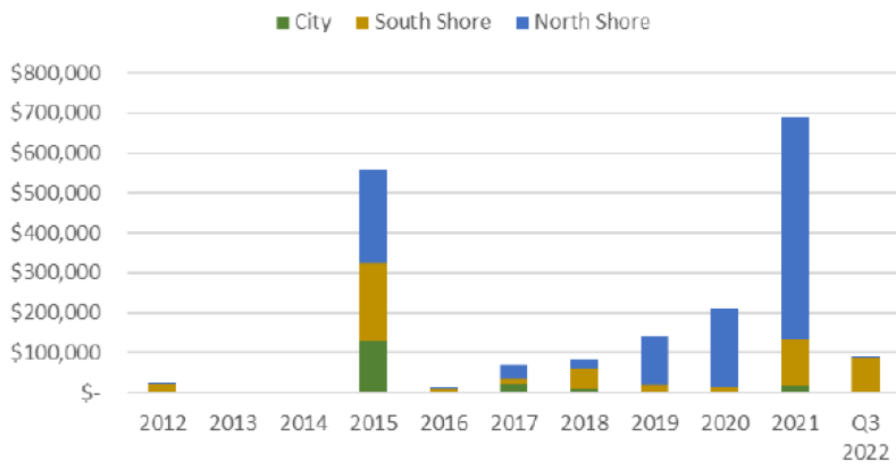
Figure 1: Major Storm Expenses 2012 to 2022[124]

[121] Exhibit B-1, Section 5.5, p. 22.

[122] Exhibit B-1, Section 5.5, p. 22.

[123] Exhibit B-5, BCUC IR 17.4.

[124] Exhibit B-1, Section 5.1, p. 16; Exhibit B-5, BCUC IR 17.9.



Historically, Nelson Hydro has forecast storm expenses based on historical expenditures.[125] Nelson Hydro proposes to start the SRDA in 2023 with a zero balance, with any amounts remaining from the proposed 2023 Major Storm Repair budget of $124,100 to be transferred to the SRDA in 2024.[126] Nelson Hydro caveats this proposed budget of $124,100 by noting that it excludes the "statistical outlier" in 2021 in anticipation of approval of an SRDA.[127] It also notes, however, that it would not change its proposed 2023 Major Storm Repair budget should the BCUC not approve the proposed SRDA.[128]

Nelson Hydro clarifies the mechanics of its proposed SRDA, noting that it would function as a "reserve fund".[129] Nelson Hydro states that "the intent of the [SRDA] is to top up the account over several years where major storm costs are relatively low and to draw on the reserve as required in years where major storm costs are relatively high."[130] Nelson Hydro believes that the impact on intergenerational equity from the SRDA is minimal and no different from a capital reserve account.[131]

Nelson Hydro proposes that the SRDA operate outside of rate base but be subject to an annual interest rate adjustment based on the mid-year balance at its approved Weighted Average Cost of Capital (WACC).[132] Nelson Hydro states that both WACC and WACD would be fair to customers and the utility, but considers WACC to represent the more neutral measure of the cost or benefit of financing the account.[133]

Nelson Hydro also notes that BC Hydro has maintained a storm cost forecast variance regulatory deferral account since 2007,[134] which the BC Auditor General described as follows: "The account relates to costs of storm-related damage to BC Hydro's infrastructure (such as a storm damaging BC Hydro's power lines or transformers). BC Hydro forecasts its storm related costs at the beginning of a test period and bases its projects on an average of the five most recent normal weather years. Differences between what BC Hydro projects that it

[125] Exhibit B-5, BCUC IR 17.5.
[126] Exhibit B-1, Section 5.5, p. 22.
[127] Exhibit B-5, BCUC IR 17.6.
[128] Exhibit B-5, BCUC IR 17.20; Exhibit B-9, BCUC IR 37.2 to 37.2.1
[129] Exhibit B-5, BCUC IR 17.15.
[130] Exhibit B-5, BCUC IR 17.13.
[131] Exhibit B-5, BCUC IR 17.18; Exhibit B-9, BCUC IR 37.7.1.
[132] Exhibit B-1, Section 5.5, p. 22.
[133] Exhibit B-6, RCIA IR 13.1.
[134] Exhibit B-1, Section 5.5, p. 22.

will incur for storm damage and what it actually incurs are then recovered over the next test period (usually 2-3 years). […]"[135]

When comparing Nelson Hydro's proposed reserve fund SRDA to BC Hydro's forecast variance regulatory deferral account, Nelson Hydro notes that the same ultimate objective of smoothing storm costs to ratepayers year over year is achieved under both approaches.[136]

Nelson Hydro notes that the pros of using BC Hydro's forecast variance regulatory deferral account approach include:

- BCUC's familiarity with BC Hydro's forecast variance regulatory deferral account mechanics;
- In both methods, the ratepayer is ultimately responsible for the cost of service or repair related to unexpected natural events as opposed to a utility bearing "excessive risk"; and
- Both approaches are structured and formulaic. [137]

Nelson Hydro notes that the cons of using BC Hydro's forecast variance regulatory deferral account approach include:

- Variances to be recovered over the subsequent test period, as in BC Hydro's forecast variance regulatory deferral account, may result in rate shock for Nelson Hydro customers if the period is short. Nelson Hydro submits that its approach may be a better smoothing mechanism for ratepayers to provide more predictable rates before and after a storm event;
- BC Hydro may be charging carrying costs on deferred storm expenses which could ultimately result in increased costs for the ratepayer; and
- Nelson Hydro is not familiar with the details of BC Hydro's variance account. [138]

Positions of Parties

BCOAPO and RCIA support the concept of an SRDA but have different views on the mechanics of such an account,[139] while Evanchuk did not comment on the SRDA.

BCOAPO recommends that the BCUC deny Nelson Hydro's proposal for an SRDA that functions like a reserve fund and instead, approve an SRDA that is consistent with a forecast variance regulatory deferral account, like that used by BC Hydro.[140] BCOAPO states that Nelson Hydro's proposal appears to be "more complex, convoluted and uncertain than the functioning of a forecast variance [regulatory deferral account]".[141] BCOAPO

[135] Exhibit B-9, BCUC IR 37.10; Office of the Auditor General, Rate Regulated Accounting at BC Hydro, February 2019, p. 10, available at: https://www.bcauditor.com/sites/default/files/publications/reports/OAGBC_RRA_RPT.pdf.
[136] Exhibit B-13, Panel IR 3.1.
[137] Exhibit B-13, Panel IR 3.1.
[138] Exhibit B-13, Panel IR 3.1.
[139] BCOAPO Final Argument, pp. 24–25; RCIA Final Argument, p. 17.
[140] BCOAPO Final Argument, pp. 24–25.
[141] BCOAPO Final Argument, pp. 24–25.

supports Nelson Hydro's proposed 2023 Major Storm Repair budget of $124,100.[142] BCOAPO notes that an amortization period of two to three years like that used by BC Hydro may not be sufficient to smooth out major storms costs for Nelson Hydro.[143] BCOAPO recommends a five-year amortization period based on the size of Nelson Hydro's revenue requirement and the cost of two major storm events in the 10-year period from 2012 to 2021.[144] BCOAPO also notes that these parameters could be adjusted over time as Nelson Hydro gains experience with the SRDA.[145] BCOAPO "agrees with [Nelson Hydro's] proposal to apply carrying costs on the SRDA at the WACD,[146] as this is appropriate for a multi-year, non-rate base [regulatory deferral account]".[147]

RCIA recognizes that Nelson Hydro faces unique challenges related to the terrain and topography of its service region.[148] RCIA does not oppose an SRDA in principle, however RCIA submits that an SRDA should apply to Nelson Hydro as a whole (i.e. Rural and Urban).[149]

Nelson Hydro is not opposed to BCOAPO's recommendation with regard to how the account is structured as long as the costs are deferred, all actual costs are recovered, and all balances are paid a financing cost.[150] Nelson Hydro also does not disagree with BCOAPO's point regarding use of a WACD for carrying costs.[151]

Nelson Hydro notes that RCIA's argument regarding cost allocation among Rural and Urban "ignore[s] the legislative and regulatory landscape under which Nelson Hydro operates" and "would have been more appropriately raised in the COSA & RD Application."[152]

Panel Determination

The Panel does not approve the SRDA as proposed by Nelson Hydro. Instead, the Panel approves the establishment of an SRDA, on an ongoing basis, that captures the difference between the forecast and actual costs of storm-related and other emergency or widespread outage response events in the Rural service area. The Panel approves the SRDA to be non-rate base that attracts carrying costs at Nelson Hydro's WACC and directs an amortization period of five years.

The Panel agrees with BCOAPO's submission that Nelson Hydro's proposal that the SRDA function as a reserve fund is more complex and convoluted than a deferral account that captures the variance between forecast and actual costs for future recovery or repayment to ratepayers. The Panel notes that Nelson Hydro is not opposed to a deferral account like BC Hydro's storm variance regulatory account, so long as costs are deferred, actual costs are recovered, and the balances attract a finance cost. The Panel finds that BC Hydro's storm variance regulatory account includes these elements. The Panel is persuaded that the potential variance between

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[142] BCOAPO Final Argument, pp. 24–25
[143] BCOAPO Final Argument, pp. 24–25.
[144] BCOAPO Final Argument, pp. 24–25.
[145] BCOAPO Final Argument, pp. 24–25.
[146] Nelson Hydro did not originally propose WACD, but rather WACC. However, Nelson Hydro did not disagree with BCOAPO's statement on WACD in its Reply Argument.
[147] BCOAPO Final Argument, pp. 24–25.
[148] RCIA Final Argument, p. 17.
[149] RCIA Final Argument, p. 17.
[150] Nelson Hydro Reply, p. 10.
[151] Nelson Hydro Reply, p. 10.
[152] Nelson Hydro Reply, pp. 11–12.

forecast and actual costs of storms and other emergency or widespread outage response events in the Rural service area could be material each year and that these costs are largely non-controllable by Nelson Hydro.

The Panel also agrees with BCOAPO's argument that an amortization period of two to three years like that used by BC Hydro may not be sufficient to smooth out major storm costs for Nelson Hydro. The Panel finds that an amortization period of five years, as recommended by BCOAPO, balances potential rate volatility resulting from major storm costs and intergenerational equity for Rural ratepayers.

However, with respect to carrying costs, the Panel is not persuaded by BCOAPO's argument that Nelson Hydro's WACD should be applied to the SRDA. There is no evidence to suggest that the balance in the SRDA would be financed only with debt instead of the more reasonable assumption that Nelson Hydro finances all of its operations with a combination of both debt and equity.

With respect to RCIA's submission that an SRDA should apply to Nelson Hydro as a whole, the Panel notes that the BCUC only has jurisdiction to regulate Nelson Hydro's Rural service area and therefore cannot direct that the SRDA also apply to its Urban service area.

2.8.2 Revenue Variance Deferral Account

Nelson Hydro is seeking approval of a deferral account to record additional revenues that Nelson Hydro may be entitled to between January 1, 2023 and the BCUC's decision on the Reconsideration Application and to record any differences in revenue that might result from any differences between the BCUC's final decision on the Application and the 2023 rate increase of 9.87 percent that had been approved on an interim and recoverable basis (Revenue Variance Deferral Account).[153] Nelson Hydro proposes the account be non-rate base and attract carrying costs at Nelson Hydro's cost of capital.[154] It also states that it would propose the recovery mechanism for the account in its next RRA and it would consider an amortization period greater than one year depending on whether it would result in rate shock.[155]

Nelson Hydro expects that if the BCUC approves the Reconsideration Application as applied for, it would result in additional required revenue of $1.592 million.[156] Without the requested deferral account, Nelson Hydro would recover this additional revenue, along with any differences in revenue resulting from the difference between the final rate increase approved by the BCUC for 2023 and the rate increase approved on an interim basis immediately after the BCUC's determinations on the respective applications. This approach would result in Nelson Hydro incurring additional administrative costs to modify its billing system to accommodate any necessary collections or refunds. In contrast, if the deferral account is approved, then any surplus or shortfall in revenue would be recovered or refunded to ratepayers through a subsequent year's rate adjustment allowing for adequate time to notify customers and manage cost.[157]

Nelson Hydro submits that the proposed deferral account would benefit both the utility and its ratepayers, and as such it is necessary and warranted and should be approved as requested.[158]

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[153] Exhibit B-1, p. 2; Exhibit B-5, BCUC IR 16.1.
[154] Exhibit B-5, BCUC IR 16.12.
[155] Exhibit B-1, p. 5; Exhibit B-5, BCUC IR 16.11.
[156] Exhibit B-5, BCUC IR 16.5.
[157] Exhibit B-5, BCUC IR 16.2.
[158] Nelson Hydro Final Argument, p. 14.

Positions of Parties

BCOAPO recommends that any recoveries flowing from the BCUC's decision on the Reconsideration Application and any recoveries or refunds flowing from the BCUC's decision on the Application be captured in separate deferral accounts rather than in a single deferral account as proposed by Nelson Hydro. BCOAPO submits that since the difference in the magnitude of the variances could lead to two significantly different amortization periods, it is more transparent to approve separate deferral accounts.[159]

BCOAPO further recommends that any refunds flowing from the BCUC's decision related to the Application should be amortized over a period of one to two years, depending on the magnitude of the refund, while any recovery flowing from the BCUC's decision related to the Reconsideration Application be amortized over a period of five years. In addition, BCOAPO recommends that the carrying costs applied to these deferral accounts be based on Nelson Hydro's WACD because these are non-rate base deferral accounts. BCOAPO submits that it is not appropriate for Nelson Hydro to earn a return on equity on these deferral accounts through the application of its WACC because these are recoveries or refunds of regulatory timing differences.[160]

In reply, Nelson Hydro submits that while it is not opposed to BCOAPO's recommendation for two separate deferral accounts, it notes that two separate deferral accounts may require additional time and resources compared to the administration of one account. With respect to the amortization periods recommended by BCOAPO, Nelson Hydro notes only that the longer amortization periods would result in greater costs to ratepayers. Regarding the carrying costs, Nelson Hydro does not disagree with BCOAPO's recommendation that it be based on the WACD.[161]

Panel Determination

The Panel approves Nelson Hydro's request for the Revenue Variance Deferral Account to record the revenue resulting from any difference between the BCUC's final decision on this Application and the 2023 rate increase of 9.87 percent that was approved on an interim and recoverable basis. The Panel also approves the deferral account to be non-rate base, with carrying costs at Nelson Hydro's WACC. For clarity, the deferral account is only intended to capture variances for the 2023 fiscal year. We recommend Nelson Hydro address the amortization period for the recovery or refund of the deferral account in its 2024 RRA**.**

The BCUC has rendered its Reconsideration Decision, denying Nelson Hydro's request to vary Order G-196-22. Therefore, a deferral account to record additional revenues that Nelson Hydro may be entitled to between January 1, 2023 and the Reconsideration Decision is not required. However, the Panel accepts that there could be variances resulting from the BCUC's decisions on this Application and the current interim rate. Such variances could be material and could result in greater administrative costs to recover from or refund to ratepayers compared to the recovery or refund through a subsequent year's rate adjustment via the use of a deferral account. Therefore, the Revenue Variance Deferral Account is still justified.

[159] BCOAPO Final Argument, p. 22.

[160] BCOAPO Final Argument, pp. 22–23.

[161] Nelson Hydro Reply Argument, pp. 9–10.

The Panel notes that BCOAPO filed its final argument on August 24, 2023, before the Reconsideration Decision was issued. Given that a deferral account is only required for one BCUC decision, BCOAPO's submissions in support of two deferral accounts are no longer applicable.

With respect to the requested carrying costs, there is no evidence to suggest that this deferral account would be financed only with debt instead of the more reasonable assumption that Nelson Hydro finances all of its operations with a combination of both debt and equity.

2.8.3 Rate Shock Deferral Account

Nelson Hydro submits that the proposed 9.87 percent rate increase does not constitute rate shock and can be implemented without the need for the rate shock deferral account that BCOAPO proposes.[162] Nelson Hydro acknowledges that while a deferral account would ease the impact of the rate increase on ratepayers, it would delay cost recovery to a later date and defer revenue required to operate in a sustainable manner.[163] Further, Nelson Hydro explains that before the COSA model was implemented, all costs were absorbed by both Rural and Urban ratepayers. Now that there is an approved COSA model, however, costs related to the Rural service area can be allocated to Rural ratepayers.[164]

Nelson Hydro notes that for all consumption levels at the proposed 2023 rate, its Rural residential rates result in a lower bill amount than at FBC's rates.[165]

Positions of Parties

BCOAPO submits that the proposed rate increase of 9.87 percent represents rate shock for Rural ratepayers. BCOAPO recommends that a deferral account be established such that the 9.87 percent impact be phased in over five years with carrying costs at Nelson Hydro's WACD, given that this would be a non-rate base deferral account.[166]

In reply, Nelson Hydro, notes that the rate increase has been in effect on an interim basis since January 1, 2023, and it has not seen a higher default or late payment rate as compared to other years. Nelson Hydro states a residential Rural ratepayer who consumes an average of 1,000 kWh/month would see an increase of $13/month or $156/year and notes that customers also received a one-time cost of living $100 credit to their bills earlier this year, which offsets approximately two-thirds of the 2023 rate increase.[167]

Panel Discussion

The Panel notes that the rate has been in effect on an interim basis since the beginning of this year and has not resulted in increased defaults or late payments when compared to other years. In addition, as Nelson Hydro

[162] Exhibit B-6, BCOAPO IR 1.3.2.
[163] Exhibit B-6, BCOAPO IR 1.3.1.
[164] Nelson Hydro Reply Argument, p. 7.
[165] Exhibit B-1, p.26.
[166] BCOAPO Final Argument, pp.17–18.
[167] Nelson Hydro Reply Argument, p. 7.

points out, the Rural rates are currently lower than those of FBC. The Panel is satisfied that a deferral account to smooth any rate increases is not necessary.

2.9 The COSA as the Basis for the RRA

The COSA Decision directed Nelson Hydro to "use the Modified 2019 COSA as the basis for its subsequent revenue requirement applications."[168] Accordingly, Nelson Hydro explains that it is proposing a 9.87 percent rate increase for the Rural area based on the Modified COSA using the utility's 2023 budget figures.[169]

Positions of Parties

RCIA submits that Nelson Hydro should determine cost-of-service allocations on a cost causation basis between standard customer classes (e.g. residential, small/medium/large commercial, industrial, streetlights/flat rate, etc.), using a methodology similar to that applied by other regulated BC utilities, without consideration of separate Urban or Rural designations among customer classes. After having done that exercise, the City would have the jurisdiction as a municipality to set whatever rates it deemed appropriate for its Urban customer classes. Those rates could be either higher or lower than the equivalent Rural rates but would not impact the Rural rates which would have been established by more typical regulatory processes.[170]

In reply, Nelson Hydro submits that RCIA's comments on how the COSA should be applied would have been more appropriate during the COSA proceeding. Nelson Hydro was directed to use the Modified COSA in rate setting for this Application, and it is outside the scope of this Application to now question how the COSA should be used.[171]

Panel Discussion

The Panel is satisfied that it was appropriate for Nelson Hydro to prepare its request for a rate increase based on the COSA Decision, as the BCUC directed Nelson Hydro to use the Modified COSA in its RRA and Nelson Hydro complied with that directive. Nelson Hydro's Modified COSA adheres to cost causation principles, not unlike other BC utilities. However, Nelson Hydro is unique from other BC utilities in that the Rural service area is subject to BCUC regulation whereas the Urban service area is not. RCIA's suggestion that we apply cost causation principles without consideration of Urban and Rural designations overlooks the fact that the BCUC has no jurisdiction over the rates that Nelson Hydro charges its Urban customers, or indeed its cost to serve its Urban customers, and that it can set those rates however it chooses. The Panel is not bound by previous decisions[172] made by the BCUC,[173] however, there is no evidence to support changing the use of the Modified COSA as the basis for this RRA. Therefore, the Panel disagrees with RCIA's proposed methodology.

2.10 Overall Panel Determination on 2023 Rates

The Panel approves Nelson Hydro's applied for rate increase of 9.87 percent for Rural ratepayers on a permanent basis, effective January 1, 2023.

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[168] COSA Decision, p. 60.
[169] Exhibit B-1, p.3.
[170] RCIA Final Argument, p. 8.
[171] Nelson Hydro Reply Argument, p. 12.
[172] COSA Decision and Order G-196-22; Reconsideration Decision and Order G-311-23.
[173] UCA, section 75.

Nelson Hydro is directed to recalculate its revenue requirements, based on the determinations and directives in this decision, in a compliance filing and file updated tariff pages reflecting permanent 2023 rates for Nelson Hydro Rural customer classes by January 8, 2024. The difference between the revenue collected from the rate increase of 9.87 percent and the revenue collected from the rate increase adjusted to reflect the determinations and directives in this Decision is to be captured in the Revenue Variance Deferral Account approved in Section 2.8.2 of this decision.

3.0 Other Issues Arising

3.1 Major Capital Project Forecast

Nelson Hydro provides its major project forecast, as shown in Table 4 below, updated from its 2022 RRA to reflect only projects that will impact Rural ratepayers. The "Area" column reflects which of the two Rural service areas the project is intended to benefit. Nelson Hydro explains that it removed projects that only impact Urban, as well as any reference to Urban for projects that benefit both Rural and Urban. [174]

Table 4: Nelson Hydro's Major Project Forecast as Provided in the Application[175]

Project Name	Projected Date	Projected Cost	Area
Advanced Metering Infrastructure	2022-2027	$9,000,000	All
Coffee Creek Transformer	TBD*	$1,500,000	North Shore
Granite Tie Breaker	2027	$350,000	South Shore
Mill St. Substation Upgrade	2022-2024	$4,500,000	North Shore
Taghum Voltage Conversion	2024-2028	$4,300,000	South Shore
North Shore Substation	TBD*	$4,500,000	North Shore
Battery Energy Storage System	2023-2026	$4,600,000**	North Shore

*Schedule depends on grant funding approval for the Battery Energy Storage System project
**City of Nelson Funding only. The total project cost is estimated at $16,700,000

During this proceeding, Nelson Hydro provides an update to its major project forecast, which includes updated costs for the Mill St. Substation upgrade project and the AACE cost estimate classification and expected accuracy range, and COSA assignment for each project. [176] Nelson Hydro's updated major project forecast is as follows:

[174] Exhibit B-1, p. 21; Exhibit B-5, IR 11.3.
[175] Exhibit B-1, p. 21.
[176] Exhibit B-9, BCUC IR 32.1.

Table 5: Nelson Hydro's Updated Major Project Forecast[177]

Project Name	Projected Date	Projected Cost	Cost Estimate Classification and Expected Accuracy Range	Assignment
Advanced Metering Infrastructure	2022-2027	$9,000,000	AACE Class 4 (-30% to +50%)	Common
Coffee Creek Transformer	TBD*	$1,500,000	AACE Class 5 (-50% to +100%)	Rural
Granite Tie Breaker	2027	$350,000	AACE Class 5 (-50% to +100%)	Rural
Mill St. Substation Upgrade	2022-2024	$8,336,000	AACE Class 3 (-10% to +20%)	Common
Taghum Voltage Conversion	2024-2028	$4,300,000	AACE Class 5 (-50% to +100%)	Rural
North Shore Substation	TBD*	$4,500,000	AACE Class 5 (-50% to +100%)	Rural
Battery Energy Storage System	2023-2026	$4,600,000	AACE Class 4 (-30% to +50%)	Common

Nelson Hydro explains in the Application that it would consider filing a CPCN application if the project: (i) directly benefits the Rural service area; (ii) is significant enough to affect Rural customer rates; and (iii) there are other concerns the public might have regarding the project. Nelson Hydro explains that none of the projects included in the original major project forecast provided in the Application or its updated major project forecast meet the $5 million threshold (cost allocation to Rural ratepayers) that it proposed in its 2022 RRA.[178] Nelson Hydro does, however, expect to file a CPCN for the AMI and battery energy storage system (BESS) projects because the unique nature of these projects may generate other concerns from the public.[179]

Positions of Parties

BCOAPO observes that by applying Nelson Hydro's proposed $5 million threshold for a CPCN filing to its major project forecast, only $13.6 million or 42 percent of the capital costs would be the subject of a CPCN application. Therefore, 58 percent of these major capital projects would be limited to examination through Nelson Hydro's RRAs, which BCOAPO considers to be a far less comprehensive review.[180] BCOAPO raises concerns that there is considerable potential for these costs to increase and states that "one need only look to the recent examples of utilities' experiences with capital cost estimates and actual capital costs to appreciate that this poses no minor or unlikely risk." BCOAPO also raises concerns that Nelson Hydro does not have any rate impact estimates or range of rate impact estimates for these major capital projects and that the major project forecast may have significant rate impacts.[181]

BCOAPO recommends that the BCUC direct Nelson Hydro to file information on its planned major capital projects as part of minimum filing requirements for future RRAs, as opposed to piecemeal through information requests. BCOAPO recommends that the filing requirements include:[182]

- A breakdown of the major capital projects costs for the next five years;
- The total projected cost;

[177] Exhibit B-9, BCUC IR 32.1.

[178] Exhibit B-9, IR 32.2. Nelson Hydro notes that the total projected allocation to rural ratepayers for the Mill St. Substation upgrade project is $3.6 million and therefore, this project still falls below Nelson Hydro's cost threshold proposed for a CPCN.

[179] Exhibit B-9, IR 32.2.

[180] BCOAPO Final Argument, p. 10.

[181] BCOAPO Final Argument, p. 10.

[182] BCOAPO Final Argument, p. 11.

- The class of cost estimate/accuracy range for each project;
- The projected allocation to Rural, Urban, or Common; and
- Estimates of the revenue requirement impacts or ranges of revenue requirement impacts for each project for Nelson Hydro's Rural ratepayers in the next five years and in total.

In reply, Nelson Hydro notes that it is actively working to improve its project management methodologies to generate more accurate estimates and that it is not opposed to BCOAPO's recommendations regarding capital project reporting in future RRAs.[183]

Evanchuk raises concern with Nelson Hydro's ability to define and execute projects. He states that it would be appropriate for the BCUC to order Nelson Hydro to file a CPCN for projects over $5 million, including the battery storage project.[184]

Panel Discussion

The Panel acknowledges that Nelson Hydro has included its major project forecast for informational purposes. We have the following comments about two aspects of the major project forecast: the dollar threshold for a CPCN application for a major project and Nelson Hydro's project management.

Although there is no dollar threshold above which Nelson Hydro must apply for a CPCN for a major project, Nelson Hydro has the responsibility to ensure that expenditures are prudently incurred before the BCUC approves such costs to rate base. Thus, by deciding to proceed with a major project without the rigorous review that accompanies a CPCN, Nelson Hydro risks not being able to recover the costs from its Rural ratepayers. On the other hand, the Panel recognizes that preparing CPCN applications imposes regulatory burden on a utility. Therefore, establishing a threshold for a CPCN must be approached carefully.

The Panel considers the $5 million project estimate that Nelson Hydro proposed is too high. As BCOAPO points out, this would result in 42 percent of Nelson Hydro's capital costs being available for BCUC review as a CPCN, while the remaining 58 percent could only be reviewed during an RRA, when Nelson Hydro has completed the project and seeks approval to add the cost to its Rural rate base. Using another metric, Nelson Hydro's Rural rate base is approximately $24.5 million,[185] and a $5 million threshold would mean it would file a CPCN application only where a project would increase its rate base by 20 percent, which in our view does not adequately protect Rural ratepayers.

Although the Panel is not establishing a CPCN threshold for Nelson Hydro in this proceeding, we consider that a threshold closer to $2 million may be more appropriate.

Our second comment relates to Nelson Hydro's project management. Both Evanchuk and BCOAPO comment on this as well. Nelson Hydro notes that it is experiencing significant cost increases on at least two of the major projects from which it intends to recover costs from its Rural ratepayers, the Mill St. Substation upgrade project and the AMI project.

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[183] Nelson Hydro Reply Argument, pp. 4–5.
[184] Evanchuk Final Argument, p. 5.
[185] Exhibit B-13, Exhibit B-13, Attachment "BCUC-Panel IR-1 - Attachment 1", tab "Tables", Table 4: Effective ROE for 2023 ($000).

The Panel agrees that providing standardized information, including that proposed by BCOAPO, to support Nelson Hydro's major project forecast will assist the BCUC and interveners in reviewing projects. Nelson Hydro states that it is amenable to providing this information. Therefore, we recommend that the panel in the next RRA review the following information in the major project forecast:

- Breakdown of the major capital projects costs for the next five years;
- The total projected cost;
- The class of cost estimate/accuracy range for each project;
- The alternatives Nelson Hydro has considered or is considering for each project;
- The benefits the project would provide to Rural ratepayers;
- The projected allocation to Rural, Urban, or Common; and
- Estimates of the revenue requirement impacts, or ranges of revenue requirement impacts, for each project for Rural ratepayers for the next five years and in total.

3.2 AMI Project

As identified in Nelson Hydro's major project forecast provided in the previous section, Nelson Hydro is planning a project for AMI with a projected capital cost of $9 million, which it states is an AACE Class 4 estimate.[186] This is an update from its 2022 RRA, where Nelson Hydro had identified the AMI project in its major project forecast with a projected cost of $3.5 million.[187] Nelson Hydro explains that the projected cost provided in its 2022 RRA was an AACE Class 5 cost estimate and the level of scope development was only at the one to two percent range.[188]

Nelson Hydro states that in 2023, it hired a third-party consultant with expertise in AMI projects to complete a pre-feasibility study that included a cost estimate to an AACE Class 4 level.[189] Nelson Hydro explains that the primary deliverables of the pre-feasibility study were a technology assessment report and a business case report. The technology assessment provided information on the conversion from Automated Meter Reading (AMR) to AMI technology. The business case outlined the benefits and drivers of AMI, a market assessment and emerging trends analysis, as well as defined a scope of work, and a risks and mitigation strategy, and provided a financial analysis and future benefits analysis. Nelson Hydro states that the business case concluded that the direct benefits of conversion from Nelson Hydro's current AMR technology to AMI do not support the investment, however there are many other intangible benefits that AMI brings to modern utilities. The report recommended further planning and a procurement process to further define the scope, costs and benefits of the project prior to approval.[190]

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[186] Exhibit B-9, BCUC IR 32.1.

[187] Nelson Hydro 2022 RRA, Exhibit B-1, p. 24.

[188] Exhibit B-5, BCUC IR 12.1.

[189] Exhibit B-5, BCUC IR 12.1.

[190] Exhibit B-5, BCUC IR 12.2.

Nelson Hydro uses AMR technology, specifically the Itron AMR drive-by system to read meters. Nelson Hydro states that these meters were installed starting in 2005 and are approaching end of life.[191] Nelson Hydro states that in 2022, commercial meters were read 12 times, residential meters were read six times and the total cost for meter reading in Rural areas was $17,284. Nelson Hydro states that the number of meter reads will not change in 2023 and the 2023 budget for meter reading in Rural areas is $16,800.[192]

Nelson Hydro considers that the implementation of AMI will address many high-level challenges including: (i) improving productivity and efficiency in meter services; (ii) managing the electrification of the grid as adoption of roof top solar generation, distributed storage and electric vehicles increases; (iii) enabling customers with enhanced service and choice, including demand side management initiatives; (iv) optimizing grid operations and planning by enabling decision-making for system and asset management; and (v) enhancing the safety of staff and customers by automating processes such as disconnects.[193]

Nelson Hydro confirms that the amount spent to date on the AMI project is $68,067, which is composed of internal labour ($1,712), the pre-feasibility study ($62,000), and project management ($4,355).[194] In the Application, Nelson Hydro has budgeted $1 million dollars to be spent in 2023 associated with this project, comprising procurement processes, vendor engineering and design, project plan development, CPCN development and a vendor deposit.[195] However, Nelson Hydro provided an update during this proceeding that due to the cost increases associated with the Mill St. Substation upgrade project, all capital allocated to the AMI project in 2023 had been re-allocated to the Mill St. Substation upgrade project. As a consequence, the scope planned for 2023 has been deferred to 2024.[196] Nelson Hydro expects to perform some customer engagement in 2023, such as using social media and quarterly newsletters to continue to educate all customers about Nelson Hydro generally and AMI specifically, and will hold open houses and other events in the fall of 2023 about Nelson Hydro's plans and proposed 2024 budget, which will include the AMI project.[197]

Nelson Hydro confirms that none of the expenditures on the AMI project that it spent in 2022 or proposed to spend in 2023 forms part of rate increase for Rural ratepayers requested in 2023.[198] Nelson Hydro explains that it retains these costs in Work-in-Progress until the capital asset is in service or the project is abandoned. If the former, it capitalizes the costs, along with all other capital costs for the project. If the latter, it expenses the costs in the year it decides to abandon the project.[199] Nelson Hydro identifies that engineering study costs are eligible for capitalization under Public Sector Accounting Board (PSAB) standard PS 3150.[200]

As noted in Section 3.1, Nelson Hydro expects to file an application for a CPCN for the AMI project.

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[191] Exhibit B-5, BCUC IR 12.2.1.

[192] Exhibit B-5, BCUC IR 12.4, 12.5.

[193] Exhibit B-5, BCUC IR 12.2.1.

[194] Exhibit B-13, Panel IR 2.1; Exhibit B-6, BCOAPO IR 8.4.

[195] Exhibit B-5, BCUC IR 12.6.

[196] Exhibit B-9, BCUC IR 34.3

[197] Exhibit B-13, Panel IR 2.4.

[198] Exhibit B-6, BCOAPO IR 8.9.

[199] Exhibit B-9, IR 35.5.

[200] Exhibit B-9, IR 34.5.

Positions of Parties

BCOAPO raises concerns with respect to the AMI project and considers there is considerable potential for capital cost increases and significant rate impacts. BCOAPO also submits that there is no indication that customers have been provided any estimate of the potential rate impacts.[201]

BCOAPO submits that some form of a comprehensive and focused regulatory review through a CPCN proceeding is required, but also notes that it would be a significant expenditure for Nelson Hydro to prepare a CPCN application. BCOAPO recommends that the BCUC, Nelson Hydro and interested parties consider if there are some "one off" modifications possible to the normal BCUC CPCN guidelines for the AMI project that could significantly reduce the cost of preparing a CPCN application without compromising the benefits of regulatory review.[202]

In reply, Nelson Hydro notes that a project of this magnitude and complexity comes with costs to define enough of the scope to develop an accurate cost/benefit estimate and determine if it is viable and supported by ratepayers. Nelson Hydro agrees with BCOAPO's recommendation.[203]

RCIA has concerns about a potential AMI project and submits that the evidence does not demonstrate customer support for it. RCIA submits that Nelson Hydro should carry out significant public consultation in advance of a CPCN application.[204] RCIA also notes that AMR, the meter reading technology that Nelson Hydro uses, is a modern and mature technology that meets many of the needs of modern utilities.[205]

RCIA strongly opposes BCUC allowance of the treatment of costs proposed by Nelson Hydro that would result in the Rural portion of the utility to take responsibility for the portion of the costs necessary to allow the BCUC to come to its conclusion to deny the CPCN. These costs should be at Nelson Hydro's own risk and not at the risk of its regulated ratepayers.[206]

In reply, Nelson Hydro submits that assignment of costs to the Rural area for capital projects – even for those that do not advance beyond a CPCN filing – is appropriate, fair and reasonable. Project scoping and phase gates prior to project approval are part of project management best practices and costs incurred prior to approval are incorporated into approved projects and expensed in rejected projects. Nelson Hydro submits that this is standard practice by regulated utilities and cites BC Hydro's Fiscal 2020 to Fiscal 2021 RRA in which the BCUC's Decision and Order G-246-20 acknowledged that "some project write-offs are reasonable and to be expected in a utility's normal course of business."[207]

Panel Discussion

The Panel acknowledges that Nelson Hydro is no longer planning to spend money in 2023 on the AMI project. In addition, we note that the BCUC has yet to determine whether the project is in the public interest. Based on the

[201] BCOAPO Final Argument, pp. 15–16.
[202] BCOAPO Final Argument, pp. 15–16.
[203] Nelson Hydro Reply Argument. p. 6.
[204] RCIA Final Argument, p. 13.
[205] RCIA Final Argument, p. 14.
[206] RCIA Final Argument, p. 14.
[207] Nelson Hydro Reply Argument, p. 13.

information provided, however, including that an external consultant concluded the direct benefits of converting from AMR technology to AMI do not support the investment, and that throughout 2022 Nelson Hydro read a total of 18 Rural commercial and residential meters, we question whether the $9 million price tag is a prudent investment. We expect Nelson Hydro to apply for a CPCN if it decides to pursue this project for its Rural customers.

Finally, Nelson Hydro indicates that it has spent approximately $68,000 to date on the AMI project. If and when Nelson Hydro applies to the BCUC for approval to add capital additions to rate base for the AMI project, it will need to reconcile all previous expenditures associated with this project spent from its capital reserve that may have already been recovered from Rural ratepayers.

3.3 Battery Energy Storage System Project

As identified in Nelson Hydro's major project forecast, Nelson Hydro is planning a BESS project, which has a projected net cost to Nelson Hydro of $4.6 million. Nelson Hydro explains that it initiated the BESS project following a recommendation from a peak load management study completed in 2022, which recommended battery storage over other options to reduce Nelson Hydro's load during peak usage and thus reduce demand charges from FBC.

Nelson Hydro explains that in May 2022, it applied to the CleanBC Communities Fund for a grant to partially fund this project.[208] The BESS project would be a 5 megawatt (MW), 20 megawatt hour (MWh) storage system designed to charge during low load nighttime hours and discharge into the system, effectively reducing the load during peak daytime/evening hours. The scope of the project includes stakeholder engagement and communication, land acquisition and site preparation, civil works including grounding and fencing, purchase and installation of the battery storage system and controls, interconnection with Nelson Hydro's 25 kV primary grid and commissioning and testing of the system.[209]

Nelson Hydro states that from a peak load management perspective, the BESS project is a benefit to all customers because demand charges from purchased power are allocated to both Urban and Rural in the COSA model.[210] One site identified for the BESS installation is in Nelson Hydro's North Shore service area. Nelson Hydro states that this site provides additional benefits for Rural customers in the North Shore area because it will be used as an alternate source of supply during power outages and significantly reduce the frequency and duration of outages experienced by North Shore residents.[211]

Nelson Hydro explains that until it determines a location and quantifies the benefits, it is too early to state how it will assign, functionalize, classify, and allocate the asset and associated costs. It anticipates that in the COSA, the BESS project will be functionalized to generation and classified 100 percent to demand.[212]

[208] Exhibit B-1, p. 20.
[209] Exhibit B-5, BCUC IR 13.4.
[210] Exhibit B-5, BCUC IR 13.6.
[211] Exhibit B-5, BCUC IR 13.6.
[212] Exhibit B-5, BCUC IR 13.8

Nelson Hydro explains that the scope of work in 2023 relating to the BESS project is limited to progressing the lands application for a potential site. This is included in its 2023 capital budget item 'Other new project scoping' at $115,000.[213]

Nelson Hydro confirms that it expects to file a CPCN application for the BESS project.[214] If the grant application is approved in the summer of 2023, it expects to file a CPCN application at the end of September or early October 2023.[215]

Positions of Parties

RCIA agrees with the need to file a CPCN application for this project.[216] RCIA considers there are risks associated with the BESS project, specifically that: reliance on grant funding may affect financial feasibility; benefits assume batteries can be charged using Nelson Hydro's own low-cost generation, which may be risky with a facility of its age; and financial returns seem low.[217] RCIA is concerned that Nelson Hydro may ultimately seek to allocate a disproportionate portion of the BESS project to Rural ratepayers on the basis of a notional backup capability that may result from the BESS for customers located closer to the BESS (in this case, Rural customers). RCIA sees the primary purpose of the BESS and the primary driver of its development will be its financial returns in the form of avoided power purchases from FBC – a benefit that is common to both Urban and Rural ratepayers.[218]

In reply, Nelson Hydro reiterates that it anticipates that in the COSA, the BESS project will be functionalized to generation and classified 100 percent to demand. Nelson Hydro states that a generation asset is a common allocation as per the 2019 COSA Decision and as such, believes that RCIA's concerns with regard to allocation of the BESS are not warranted.[219]

RCIA submits that the BCUC should consider all costs incurred in pursuit of a BESS project in advance of a CPCN approval to be borne at Nelson Hydro's risk.[220]

Nelson Hydro submits that assignment of costs to the Rural area for capital projects – even for those that do not advance beyond a CPCN filing – is appropriate, fair and reasonable.[221]

Evanchuk raises concern with respect to the cost of this project and potential for cost increases given the cost increases seen on other projects such as the Mill St. Substation upgrade project. Evanchuk asks the BCUC to direct a CPCN for this project.[222]

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213 Exhibit B-5, BCUC IR 13.5; Exhibit B-9, BCUC IR 35.4.
214 Exhibit B-5, BCUC IR 13.7.
215 Exhibit B-5, BCUC IR 13.7.1.
216 RCIA Final Argument, p. 9.
217 RCIA Final Argument, p. 10.
218 RCIA Final Argument, p. 11.
219 Nelson Hydro Reply Argument, p. 13.
220 RCIA Final Argument, p. 10.
221 Nelson Hydro Reply Argument, p. 13.
222 Evanchuk Final Argument, p. 19.

Panel Discussion

The Panel acknowledges that Nelson Hydro intends to file a CPCN application for the BESS project, however, it is too early in the project for a finding that the BESS project is in the public interest, or that the 2023 capital budget item for new project scoping was prudently incurred. The BCUC will address these issues when Nelson Hydro applies for a CPCN.

DATED at the City of Vancouver, in the Province of British Columbia, this 5th day of December 2023.

Original signed by:

E.B. Lockhart
Panel Chair / Commissioner

Original signed by:

A.C. Dennier
Commissioner

Original signed by:

T.A. Loski
Commissioner

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ORDER NUMBER
G-330-23

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

and

Nelson Hydro
2023 Revenue Requirement Application

BEFORE:
E.B. Lockhart, Panel Chair
A.C. Dennier, Commissioner
T.A. Loski, Commissioner

on December 5, 2023

ORDER

WHEREAS:

A. On October 28, 2022, Nelson Hydro filed an application with the British Columbia Utilities Commission (BCUC) seeking approval of a general annual rate increase of 9.87 percent for the service area outside its municipal boundaries (Rural Service Area), effective on January 1, 2023, pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA) (Application);

B. Nelson Hydro is owned and operated by the City of Nelson and is excluded from regulation under the UCA to the extent it is serving customers within its municipal boundaries (Urban Service Area). Accordingly, the BCUC's review of the Application pertains solely to Nelson Hydro's ratepayers in the Rural Service Area (Rural Ratepayers);

C. Nelson Hydro requests that the 9.87 percent general rate increase for the Rural Service Area be effective on January 1, 2023, pending the outcome of the 2023 Revenue Requirement proceeding. By Order G-332-22A, the BCUC approved the 9.87 percent general rate increase on an interim, refundable and recoverable basis, effective January 1, 2023;

D. As part of the Application, Nelson Hydro also requests approval to establish the following deferral accounts:

   i. A revenue variance deferral account to record additional revenues that Nelson Hydro may be entitled to between January 1, 2023 and the BCUC's decision on Nelson Hydro's Application for Reconsideration and Variance of Order G-196-22 which may result in modifications to the Cost of Service Analysis (COSA) that is being used in the Application and any surplus or deficit in revenue that might result from the BCUC's final decision on the Application and the interim 9.87 percent rate increase approved in Order No. G-332-22, effective January 1, 2023.

ii. A storm regulatory deferral account (SRDA) to smooth out the budgetary impact of major storms and other emergency outage response events, such as wildfires.

E. Nelson Hydro submits that the proposed rate increase is based on the utility's 2023 budget figures used in a COSA that was approved in Order G-196-22 and seeks to transition to providing information focused on the Rural Service Area of the utility rather than the utility as a whole;

F. By Order G-332-22A, Order G-25-23, Order G-61-23, Order G-185-23 and Order G-190-23, the BCUC established the regulatory timetable for the review of the Application, which provided for intervener registration, two rounds of BCUC and intervener information requests (IR), one round of Panel IRs, letters of comment, Nelson Hydro's reply to letters of comment, and final and reply arguments;

G. The BCUC received 49 letters of comment from members of the public in this proceeding;

H. By Order G-311-23 dated November 15, 2023, the BCUC issued Decision and Order G-311-13 on the Nelson Hydro Reconsideration and Variance of BCUC Order G-196-22 Application in which the BCUC denied Nelson Hydro's request to vary the directives in Order G-196-22 and confirmed the directives set out in Order G-196-22; and

I. The Panel has considered the Application, evidence, and submissions filed in the proceeding and makes the following determinations.

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

1. Nelson Hydro is approved to increase rates by 9.87 percent for Nelson Hydro's Rural Ratepayers on a permanent basis, effective January 1, 2023.

2. Nelson Hydro is directed to recalculate its revenue requirements, based on the determinations and directives in the decision issued concurrently with this order, in a compliance filing, and file updated tariff pages reflecting permanent 2023 rates for Nelson Hydro Rural Ratepayer customer classes by January 8, 2024.

3. Nelson Hydro is directed to assign forecast power purchases between the Rural Service Area and Urban Service Area in a manner that is consistent with Decision and Order G-196-22 by using the 2023 forecast power purchase amount in Common in the COSA model. Common is defined as assets and costs that cannot be allocated 100 percent to the Urban or Rural Service Areas and are broken out to all customers based on usage.

4. Nelson Hydro is approved to use 4.38 percent as its deemed cost of debt for 2023.

5. Nelson Hydro is denied its request to add 1 percent, or 100 basis points, to the 4.38 percent deemed cost of debt and is directed to establish a non-rate base deferral account to capture the Rural Service Area portion of the actual debt issuance costs incurred, up to $79,000, to acquire new debt in 2023 and to amortize the balance over the remaining term of the underlying debt beginning in 2023.

6. Nelson Hydro is directed to remove from rate base the Mill St. Substation upgrade project capital additions included for 2022 ($1,051,700) and 2023 ($2,125,000).

7. Nelson Hydro's request for an SRDA as proposed is denied. Nelson Hydro is approved to establish an SRDA, on an ongoing basis as a non-rate base account with carrying costs at Nelson Hydro's weighted average cost of capital (WACC), that captures the difference between the forecast and actual costs of storm-related and other emergency or widespread outage response events in the Rural Service Area, to be amortized over five years.

8. Nelson Hydro is approved to establish a revenue variance deferral account, as a non-rate base account with carrying costs at Nelson Hydro's WACC, to record the revenue resulting from any differences between the BCUC's final decision on the Application and the 2023 rate increase of 9.87 percent that was approved on an interim and recoverable basis.

DATED at the City of Vancouver, in the Province of British Columbia, this 5th day of December 2023.

BY ORDER

Original signed by:

E.B. Lockhart
Commissioner

Glossary of Terms and Acronyms

Acronym	Description
AACE	Advancement of Cost Engineering International
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
Application	On October 28, 2022, Nelson Hydro filed a revenue requirement application with the British Columbia Utilities Commission for approval of a general annual rate increase of 9.87 percent for Nelson Hydro's nonmunicipal (Rural) service area for the 2023 calendar year, pursuant to sections 59 to 61 of the *Utilities Commission Act*
BCOAPO	BC Old Age Pensioners' Organization, Council of Senior Citizens' Organizations of BC, Active Support Against Poverty, Disability Alliance BC, and Tenant Resource and Advisory Centre
BCUC	British Columbia Utilities Commission
BESS	Battery Energy Storage System
bps	Basis points
cfs	Cubic feet per second
City	City of Nelson
Common	Assets and costs that cannot be allocated 100 percent to the Urban or Rural service areas and are broken out to all customers based on usage
COS (Common) tab	Spreadsheet within the COSA Model that allocated assets and costs based on usage
COSA	Cost of Service Analysis
COSA Decision	By Decision and Order G-196-22 dated July 19, 2022, the BCUC approved Nelson Hydro's Cost of Services Analysis (COSA), subject to Nelson Hydro amending the COSA in accordance with certain directives
Evanchuk	Randy Evanchuk
FBC	FortisBC Inc.
IR	Information requests
kV	Kilovolt
kWh	Kilowatt hour
MFA	Municipal Finance Authority
Modified COSA	The BCUC directed Nelson Hydro to recalculate the COSA and submit this modified COSA to the BCUC/ COSA model with encompassed all the directives laid out in the Decision and Order G-196-22
MVA	Megavolt amperes
MW	Megawatt
MWh	Megawatt hour

O&M	Operations and maintenance
PSAB	Public Sector Accounting Board
RCIA	Residential Consumer Intervener Association
Reconsideration Application	In December 2022, Nelson Hydro filed an application for a reconsideration of Decision and Order G-196-22
Reconsideration Decision	Decision and Order G-311-23 dated November 15, 2023
RRA	Revenue requirement application
Rural	Nonmunicipal, outside the City of Nelson boundaries
SRDA	Storm Regulatory Deferral Account
UCA	*Utilities Commission Act*
Urban	Within the City of Nelson's boundaries
WACC	Weighted average cost of capital

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

and

Nelson Hydro
2023 Revenue Requirements

EXHIBIT LIST

Exhibit No.	Description
COMMISSION DOCUMENTS	
A-1	Letter dated November 22, 2022 – Appointing the Panel for the review of Nelson Hydro 2023 Revenue Requirements Application
A-2	Letter dated November 22, 2022 – BCUC Order G-332-22 establishing a regulatory timetable
A-2-1	Letter dated December 2, 2022 – BCUC Order G-332-22A with amended regulatory timetable
A-3	Letter dated December 9, 2022 – BCUC request to Nelson Hydro for further information
A-4	Letter dated January 16, 2023 – BCUC Information Request No. 1 to Nelson Hydro
A-5	Letter dated January 20, 2023 – BCUC response to Evanchuk extension request to file Information Request No. 1
A-6	Letter dated February 2, 2023 – BCUC Order G-25-23 amending the regulatory timetable
A-7	Letter dated March 21, 2023 – BCUC Order G-61-23 establishing a further regulatory timetable and requesting submissions
A-8	Letter dated April 6, 2023 – BCUC response to submissions regarding Intervener Collaboration
A-9	Letter dated April 12, 2023 – BCUC Information Request No. 2 to Nelson Hydro
A-10	Letter dated June 6, 2023 – Panel Information Request No. 1 to Nelson Hydro
A-11	Letter dated July 13, 2023 – BCUC Order G-185-23 establishing a further regulatory timetable
A-12	Letter dated July 19, 2023 – BCUC Order G-190-23 amending the regulatory timetable

Exhibit No.	Description
APPLICANT DOCUMENTS	
B-1	**NELSON HYDRO (NELSON HYDRO)** – 2023 Revenue Requirements Application dated October 28, 2022
B-2	Letter dated December 16, 2022 – Nelson Hydro submitting confirmation of Public Notice
B-3	Letter dated December 19, 2022 – Nelson Hydro submitting Supplemental Information to the Application
B-3-1	Letter dated December 21, 2022 – Nelson Hydro submitting revised Bylaw No. 3559 to reflect correct rates
B-4	Letter dated February 1, 2023 – Nelson Hydro submitting extension request to file Information Request responses
B-5	Letter dated February 27, 2023 – Nelson Hydro submitting responses to BCUC Information Request No. 1
B-6	Letter dated March 6, 2023 – Nelson Hydro submitting responses to Interveners Information Requests No. 1
B-7	Letter dated March 27, 2023 – Nelson Hydro submitting responses to Letters of Comment
B-8	Letter dated April 3, 2023 – Nelson Hydro submitting reply on Intervener collaboration
B-9	Letter dated May 17, 2023 – Nelson Hydro submitting responses to BCUC Information Requests No. 2
B-10	Letter dated May 17, 2023 – Nelson Hydro submitting responses to RCIA Information Requests No. 2
B-11	Letter dated May 17, 2023 – Nelson Hydro submitting responses to Evanchuk Information Requests No. 2
B-12	Letter dated May 17, 2023 – Nelson Hydro submitting responses to BCOAPO Information Requests No. 2
B-13	Letter dated June 22, 2023 – Nelson Hydro submitting responses to BCUC Panel Information Requests No. 1

Exhibit No.	Description
B-14	Letter dated July 18, 2023 – Nelson Hydro submitting request to amend the regulatory timetable

INTERVENER DOCUMENTS

C1-1	**EVANCHUK, RANDY (EVANCHUK)** - Letter dated December 5, 2022 Request to Intervene representing rural customers
C1-2	Letter dated January 11, 2023 - Evanchuk submitting Information Request No. 1 to Nelson Hydro
C1-2-1	**REMOVED**
C1-2-2	Letter dated February 1, 2023 - Evanchuk submitting supplemental Information Request No. 1 to Nelson Hydro
C1-3	Letter dated January 18, 2023 - Evanchuk submitting extension request to file comments regarding BCUC Information Request No. 1
C1-3-1	Letter dated January 19, 2023 - Evanchuk submitting clarification regarding extension request to file comments regarding BCUC Information Request No. 1
C1-4	Letter dated March 28, 2023 - Evanchuk submitting response to Exhibit A-7
C1-5	Letter dated April 12, 2023 - Evanchuk submitting Information Request No. 2 to Nelson Hydro
C2-1	**RESIDENTIAL CONSUMER INTERVENER ASSOCIATION (RCIA)** – Letter dated January 11, 2023 submitting request to intervene by Samuel Mason
C2-2	Letter dated January 23, 2023 - RCIA submitting Information Request No. 1 to Nelson Hydro
C2-3	Letter dated March 28, 2023 - RCIA submitting response to Exhibit A-7
C2-4	Letter dated April 19, 2023 - RCIA submitting Information Request No. 2 to Nelson Hydro

Exhibit No.	Description
C3-1	**BRITISH COLUMBIA OLD AGE PENSIONERS' ORGANIZATION, ACTIVE SUPPORT AGAINST POVERTY, DISABILITY ALLIANCE BC, COUNCIL OF SENIOR CITIZENS' ORGANIZATIONS OF BC, TENANTS RESOURCE AND ADVISORY CENTRE, AND TOGETHER AGAINST POVERTY SOCIETY (BCOAPO)** – Letter dated January 11, 2023 submitting request to intervene by Irina Mis, Leigha Worth, Rene Kimmett and William Harper
C3-2	Letter dated January 23, 2023 - BCOAPO submitting Information Request No. 1 to Nelson Hydro
C3-3	Letter dated March 28, 2023 - BCOAPO submitting response to Exhibit A-7
C3-4	Letter dated April 19, 2023 - BCOAPO submitting Information Request No. 2 to Nelson Hydro

INTERESTED PARTY DOCUMENTS

D-1	**YANKE, N. (YANKE)** - Submission dated January 23, 2023 request for Interested Party Status
D-2	**MCCARTHY, J. (MCCARTHY)** - Submission dated January 31, 2023 request for Interested Party Status
D-3	**FAUST, R. (FAUST)** - Submission dated February 3, 2023 request for Interested Party Status
D-4	**LENGSFELD, R. (LENGSFELD)** - Submission dated February 3, 2023 request for Interested Party Status

LETTERS OF COMMENT

E-1	REID, B. (REID) – Letter of Comment dated December 14, 2022
E-2	BRAITHWAITE, K. (BRAITHWAITE) – Letter of Comment dated December 16, 2022
E-3	BLAIR, K. (BLAIR) – Letter of Comment dated December 16, 2022
E-4	NACHBAUR, P. (NACHBAUR) – Letter of Comment dated December 19, 2022
E-5	HUMPHRIES, S. (HUMPHRIES) – Letter of Comment dated December 18, 2022
E-6	VAHAAHO, J. (VAHAAHO) – Letter of Comment dated December 17, 2022

Exhibit No.	Description
E-7	Carmichael, A. (Carmichael) - Letter of Comment dated December 22, 2022
E-8	Matfin, A. (Matfin) - Letter of Comment dated December 23, 2022
E-9	Taylor, J. (Taylor) - Letter of Comment dated December 29, 2022
E-9-1	Taylor – Additional Letter of Comment dated April 25, 2023
E-10	Aikins, L. (Aikins) - Letter of Comment dated December 29, 2022
E-11	Hunter, G. (Hunter) - Letter of Comment dated December 19, 2022
E-12	Simon, M. (Simon) - Letter of Comment dated January 2, 2023
E-13	Lucas, B. (Lucas) - Letter of Comment dated January 4, 2023
E-14	Lucas, J. (Lucas) - Letter of Comment dated January 4, 2023
E-15	Gagnon, P. (Gagnon) - Letter of Comment dated January 5, 2023
E-16	Burton, C. (Burton) - Letter of Comment dated January 5, 2023
E-17	McMichael, D. (McMichael) - Letter of Comment dated January 7, 2023
E-18	Allarie, B. (Allarie) - Letter of Comment dated January 9, 2023
E-19	Dreyfus, P. (Dreyfus) - Letter of Comment dated January 10, 2023
E-20	Postnikoff, C. (Postnikoff) - Letter of Comment dated January 11, 2023
E-21	Hale, J. (Hale) - Letter of Comment dated January 11, 2023
E-22	Etter, A. (Etter) - Letter of Comment dated December 28, 2022
E-23	Wallach, A. and R. (Wallach) - Letter of Comment dated January 5, 2023
E-24	Nelson, C. (Nelson) - Letter of Comment dated January 20, 2023
E-25	Dawson, A. (Dawson) - Letter of Comment dated January 26, 2023
E-26	Yanke, N. (Yanke) - Letter of Comment dated January 29, 2023
E-27	O'Neill, M. & L. (O'Neill) – Letter of Comment dated January 28, 2023

Exhibit No.	Description
E-28	McCarthy, J. (McCarthy) - Letter of Comment dated January 31, 2023
E-29	Sharpe, D. (Sharpe) - Letter of Comment dated January 31, 2023
E-30	Lengsfeld, R. (Lengsfeld) – Letter of Comment dated February 3, 2023
E-31	Murphy, J. (Murphy) – Letter of Comment dated February 5, 2023
E-32	Dominelli, H. (Dominelli) – Letter of Comment dated January 9, 2023
E-33	Demers, J. (Demers) – Letter of Comment dated February 6, 2023
E-34	Witton, L. (Witton) – Letter of Comment dated February 8, 2023
E-35	Duggan, D. (Duggan) – Letter of Comment dated February 9, 2023
E-36	Graham, C. (Graham) – Letter of Comment dated February 10, 2023
E-37	Hawe, A. (Hawe) – Letter of Comment dated February 13, 2023
E-38	Nasmyth, D. (Nasmyth) – Letter of Comment dated February 16, 2023
E-39	Lehnert, F. (Lehnert) – Letter of Comment dated February 20, 2023
E-40	Ames, N. and Russell, G. (Ames-Russell) – Letter of Comment dated January 12, 2023
E-41	Faust, R. (Faust) – Letter of Comment dated February 23, 2023
E-42	McKeen-Brown, S. (McKeen-Brown) – Letter of Comment dated December 31, 2022
E-43	Munroe, R. (Munroe) – Letter of Comment dated February 20, 2023
E-44	McEachern, D. (McEachern) – Letter of Comment dated February 18, 2023
E-45	Landry, A. (Landry) – Letter of Comment dated March 13, 2023
E-46	Gulayets, J. (Gulayets) – Letter of Comment dated March 13, 2023
E-47	Miller, D. and R-A. (Miller) – Letter of Comment dated March 13, 2023
E-48	Fellowes, T. (Fellowes) – Letter of Comment dated March 13, 2023
E-49	McKim, L. (McKim) – Letter of Comment dated February 19, 2023