



Newfoundland and Labrador Hydro
Hydro Place, 500 Columbus Drive
P.O. Box 12400, St. John's, NL
Canada A1B 4K7
t. 709.737.1400 | f. 709.737.1800
nlhydro.com

June 30, 2023

Newfoundland Power
55 Kenmount Road
PO Box 8910
St. John's, NL A1B 3P6

Attention: Dominic Foley
Legal Counsel

Re: 2022 Annual Financial Return

Enclosed with this letter please find Newfoundland and Labrador Hydro's 2022 Annual Financial Return filed with the Board of Commissioners of Public Utilities on March 31, 2023 pursuant to Section 59(2) of the *Public Utilities Act*.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

A handwritten signature in blue ink, appearing to read "Shirley A. Walsh", written over a horizontal line.

Shirley A. Walsh
Senior Legal Counsel, Regulatory
SAW/kd

Encl.

ecc:

Board of Commissioners of Public Utilities
Cheryl Blundon
Jacqui H. Glynn
PUB Official Email

Newfoundland Power Inc.
Lindsay S.A. Hollett
Regulatory Email

2022 Annual Return

(Return 20 pursuant to Section 59(2) of the *Public Utilities Act*)

March 31, 2023

A report to the Board of Commissioners of Public Utilities



Contents

Return	Title
1	Annual Audited Non-Consolidated Financial Statements
2	Newfoundland and Labrador Hydro's Board and Officer List
3	Computation of Rate Base
4	Capital Assets - Original Cost
5	Capital Expenditures - Overview
6	Accumulated Depreciation
7	Contributions in Aid of Construction
8	Working Capital
9	Statement of Operating Costs
9(A)	Significant Operating Expense Variance
10	Inventory
11	Deferred Charges
12	Return on Rate Base
13	Return on Regulated Average Retained Earnings
14	Capital Structure
15	Cost of Debt
16	Interest Expense
17	Rate Stabilization Plan - Activity
18	Rate Stabilization Plan - Balances
19	Assessable Revenue
20	2022 Annual Report on the Rural Deficit
21	Conservation and Demand Management Report for the Year Ended December 31, 2022
	2022 Report on the Rural Deficit – Summary of Specific Initiatives

NEWFOUNDLAND AND LABRADOR HYDRO
NON-CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2022

Independent Auditor's Report

To the Directors of Newfoundland and Labrador Hydro

Opinion

We have audited the non-consolidated financial statements of Newfoundland and Labrador Hydro (the "Company"), which comprise the non-consolidated statement of financial position as at December 31, 2022, and the non-consolidated statements of profit and comprehensive income, changes in equity and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying non-consolidated financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2022, and the results of its financial performance and its cash flows for the year then ended in accordance with the financial reporting provisions of Section 59 of the Public Utilities Act.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter - Basis of Accounting

We draw attention to Note 2 to the non-consolidated financial statements, which describes the basis of accounting. The non-consolidated financial statements are prepared to assist the Company in complying with the financial reporting provisions of Section 59 of the Public Utilities Act. As a result, the non-consolidated financial statements may not be suitable for another purpose.

Other Matter

Newfoundland and Labrador Hydro has prepared separate consolidated financial statements for the year ended December 31, 2022 in accordance with International Financial Reporting Standards on which we issued an unmodified auditor's report to the Lieutenant-Governor in Council, Province of Newfoundland and Labrador dated March 21, 2023.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the financial reporting provisions of Section 59 of the Public Utilities Act, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Deloitte LLP

Chartered Professional Accountants
March 21, 2023

**NEWFOUNDLAND AND LABRADOR HYDRO
NON-CONSOLIDATED STATEMENT OF FINANCIAL POSITION**

<i>As at December 31 (millions of Canadian dollars)</i>	Notes	2022	2021
ASSETS			
Current assets			
Cash		16	42
Trade and other receivables	5	112	123
Inventories	6	99	84
Current portion of sinking fund investments	9	9	5
Prepayments		6	7
Deferred asset	7	86	56
Related party loan receivable	24	30	53
Total current assets		358	370
Non-current assets			
Property, plant and equipment	8	2,236	2,230
Sinking fund investments	9	193	187
Investments in joint arrangements	10	703	654
Other non-current assets		8	8
Total assets		3,498	3,449
Regulatory deferrals	11	540	184
Total assets and regulatory deferrals		4,038	3,633
LIABILITIES AND EQUITY			
Current liabilities			
Short-term borrowings	13	131	55
Trade and other payables	12	161	106
Contract payable	24	165	18
Current portion of long-term debt	13	7	7
Derivative liability	23	86	56
Other current liabilities		5	6
Total current liabilities		555	248
Non-current liabilities			
Long-term debt	13	2,032	2,041
Deferred contributions	14	35	25
Decommissioning liabilities	15	16	13
Employee future benefits	17	71	98
Other long-term liabilities		4	4
Total liabilities		2,713	2,429
Shareholder's equity			
Share capital	18	23	23
Contributed capital	18	144	145
Reserves		31	(6)
Retained earnings		1,094	1,015
Total equity		1,292	1,177
Total liabilities and equity		4,005	3,606
Regulatory deferrals	11	33	27
Total liabilities, equity and regulatory deferrals		4,038	3,633

Commitments and contingencies (Note 25)

See accompanying notes

On behalf of the Board



DIRECTOR



DIRECTOR

**NEWFOUNDLAND AND LABRADOR HYDRO
NON-CONSOLIDATED STATEMENT OF PROFIT AND COMPREHENSIVE INCOME**

<i>For the year ended December 31 (millions of Canadian dollars)</i>	Notes	2022	2021
Energy sales		709	589
Other revenue		47	37
Revenue		756	626
Fuels		188	122
Power purchased	19	524	170
Operating costs	20	136	130
Transmission rental		19	21
Depreciation and amortization		80	84
Net finance expense	21	94	91
Other expense	22	24	2
Expenses		1,065	620
(Loss) profit for the year from operations		(309)	6
Share of profit of joint arrangement	10	44	41
Preferred dividends		13	11
(Loss) profit before regulatory adjustments		(252)	58
Regulatory adjustments	11	(352)	(33)
Profit for the year		100	91
Other comprehensive income			
Items that may or have been reclassified to profit or loss:			
Items related to employee future benefits		32	13
Total items that may be reclassified to profit or loss		32	13
Items that will not be reclassified to profit or loss:			
Share of other comprehensive income of joint arrangement		5	3
Total items that will not be reclassified to profit or loss		5	3
Other comprehensive income for the year		37	16
Total comprehensive income for the year		137	107

See accompanying notes

**NEWFOUNDLAND AND LABRADOR HYDRO
NON-CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

<i>(millions of Canadian dollars)</i>	Note	Share Capital	Contributed Capital	Reserves	Retained Earnings	Total
Balance at January 1, 2022		23	145	(6)	1,015	1,177
Profit for the year		-	-	-	100	100
Other comprehensive income for the year		-	-	37	-	37
Total comprehensive income for the year		-	-	37	100	137
Regulatory adjustment	18	-	(1)	-	-	(1)
Dividends	18	-	-	-	(21)	(21)
Balance at December 31, 2022		23	144	31	1,094	1,292
Balance at January 1, 2021		23	146	(22)	939	1,086
Profit for the year		-	-	-	91	91
Other comprehensive income for the year		-	-	16	-	16
Total comprehensive income for the year		-	-	16	91	107
Regulatory adjustment	18	-	(1)	-	-	(1)
Dividends	18	-	-	-	(15)	(15)
Balance at December 31, 2021		23	145	(6)	1,015	1,177

See accompanying notes

NEWFOUNDLAND AND LABRADOR HYDRO
NON-CONSOLIDATED STATEMENT OF CASH FLOWS

<i>For the year ended December 31 (millions of Canadian dollars)</i>	Notes	2022	2021
Operating activities			
Profit for the year		100	91
Adjustments to reconcile profit to cash (used in) provided from operating activities:			
Depreciation and amortization		80	84
Regulatory adjustments	11	(352)	(33)
Amortization of rate stabilization plan fuel credit		-	33
Share of profit of joint arrangement	10	(44)	(41)
Finance income	21	(16)	(14)
Finance expense	21	110	105
Loss on disposal of property, plant and equipment		19	6
Other		6	(1)
		(97)	230
Changes in non-cash working capital balances	27	203	(12)
Interest received		2	2
Interest paid		(109)	(107)
Net cash (used in) provided from operating activities		(1)	113
Investing activities			
Additions to property, plant and equipment	8	(102)	(112)
Additions to intangible assets		(1)	(1)
Contributions to sinking funds	9	(7)	(7)
Decrease (increase) in related party loan receivable		23	(53)
Proceeds on disposal		-	5
Changes in non-cash working capital balances	27	(4)	2
Net cash used in investing activities		(91)	(166)
Financing activities			
Proceeds from long-term debt	13	-	287
Dividends paid		(13)	(15)
Increase (decrease) in short-term borrowings		76	(207)
Rate stabilization plan fuel credit		-	(3)
Other		11	5
Changes in non-cash working capital balances	27	(8)	-
Net cash provided from financing activities		66	67
Net (decrease) increase in cash		(26)	14
Cash, beginning of the year		42	28
Cash, end of the year		16	42

See accompanying notes

NEWFOUNDLAND AND LABRADOR HYDRO**NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS**

1. DESCRIPTION OF BUSINESS

Newfoundland and Labrador Hydro (Hydro or the Company) is incorporated under a special act of the Legislature of the Province of Newfoundland and Labrador (the Province). The principal activity of Hydro is the generation, transmission and sale of electricity. Hydro's operations include both regulated and non-regulated activities. Hydro is a 100% owned subsidiary of Nalcor Energy (Nalcor). Hydro's head office is located at 500 Columbus Drive in St. John's, Newfoundland and Labrador, A1B 0C9, Canada.

Hydro holds interests in the following entities:

A 65.8% interest in Churchill Falls (Labrador) Corporation Limited (Churchill Falls). Churchill Falls is incorporated under the laws of Canada and owns and operates a hydroelectric generating plant and related transmission facilities situated in Labrador which has a rated capacity of 5,428 megawatts (MW).

A 51.0% interest in Lower Churchill Development Corporation (LCDC), an inactive subsidiary. LCDC is incorporated under the laws of Newfoundland and Labrador and was established with the objective of developing all or part of the hydroelectric potential of the Lower Churchill River.

2. SIGNIFICANT ACCOUNTING POLICIES**2.1 Statement of Compliance and Basis of Measurement**

These annual audited non-consolidated financial statements (financial statements) have been prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB) with the exception of Hydro's investments in joint arrangements and related disclosures. These statements are non-consolidated as the investments in joint arrangements have been accounted for using the equity method of accounting, as described in Note 2.8. Consolidated statements for the same period have been prepared for presentation to the Lieutenant Governor in Council of the Province.

These financial statements have been prepared on a historical cost basis, except for financial instruments at fair value through profit or loss (FVTPL) which have been measured at fair value. The financial statements are presented in Canadian Dollars (CAD) and all values rounded to the nearest million, except when otherwise noted. The financial statements were approved by Hydro's Board of Directors (the Board) on March 10, 2023.

2.2 Cash and Cash Equivalents and Short-Term Investments

Cash and cash equivalents consist of amounts on deposit with Schedule 1 Canadian Chartered banks, as well as highly liquid investments with maturities of three months or less. Investments with maturities greater than three months and less than twelve months are classified as short-term investments.

2.3 Inventories

Inventories are carried at the lower of cost and net realizable value. Cost is determined on a weighted average basis and includes expenditures incurred in acquiring inventories and bringing them to their existing condition and location. Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

2.4 Property, Plant and Equipment

Items of property, plant and equipment are recognized at cost less accumulated depreciation and accumulated impairment losses. Cost includes materials, labour, contracted services, professional fees and, for qualifying assets, borrowing costs capitalized in accordance with Hydro's accounting policy outlined in Note 2.6. Costs capitalized with the related asset include all those costs directly attributable to bringing the asset into operation.

NEWFOUNDLAND AND LABRADOR HYDRO**NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS**

When significant parts of property, plant and equipment are required to be replaced at intervals, Hydro recognizes such parts as individual assets with specific useful lives and depreciation rates. Likewise, when a major inspection is performed, its cost is recognized in the carrying amount of the asset as a replacement if the recognition criteria are satisfied. All other repairs and maintenance costs are recognized in profit or loss as incurred.

Depreciation commences when the assets are ready for their intended use. Residual values and useful lives are reviewed at the end of each year and adjusted prospectively, if appropriate. As per Board Order P.U. 30 (2019), Hydro was approved to recover gains and losses through accumulated amortization and to record removal costs through depreciation. To comply with International Accounting Standard (IAS) - 16, the adjustments related to the recovery of gains and losses through accumulated amortization and removal depreciation are presented as a regulatory adjustment in Note 11. The depreciation rates used are as follows:

Generation plant	
Hydroelectric	25 to 110 years
Thermal	20 to 70 years
Diesel	3 to 70 years
Transmission	
Lines	26 to 65 years
Terminal stations	20 to 60 years
Distribution system	20 to 60 years
Other assets	3 to 70 years

Hydroelectric generation plant includes the powerhouse, turbines, governors and generators, as well as water conveying and control structures, including dams, dikes, tailraces, penstocks and intake structures. Thermal generation plant is comprised of the powerhouse, turbines and generators, boilers, oil storage tanks, stacks, and auxiliary systems. Diesel generation plant includes the buildings, engines, generators, switchgear, fuel storage and transfer systems, dikes and liners and cooling systems.

Transmission lines include the support structures, foundations and insulators associated with lines at voltages of 230, 138 and 69 kilovolt (kV). Terminal station assets are used to step up voltages of electricity for transmission and to step down voltages for distribution. Distribution system assets include poles, transformers, insulators, and conductors.

Other assets include telecontrol, buildings, vehicles, furniture, tools and equipment.

The carrying amount of a replaced asset is derecognized when replaced. Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recorded in Other expense. Pursuant to Board Order No. P.U. 30 (2019), the gains and losses are deferred on retirement of property, plant and equipment. The deferral will be recovered through future depreciation expense.

2.5 Intangible Assets

Intangible assets that are expected to generate future economic benefit and are measurable, including computer software costs and feasibility studies, are capitalized as intangible assets in accordance with IAS 38.

Intangible assets with finite useful lives are carried at cost less accumulated amortization and accumulated impairment losses. The estimated useful life and amortization method are reviewed at the end of each year with the effect of any changes in estimate being accounted for on a prospective basis. Intangible assets with indefinite useful lives are carried at cost less accumulated impairment losses.

Amortization is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Feasibility studies	22 years
Computer software	7 years

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

2.6 Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in the Non-Consolidated Statement of Profit and Comprehensive Income in the period in which they are incurred.

2.7 Impairment of Non-Financial Assets

Property, plant and equipment and other non-financial assets are reviewed for impairment losses whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Where it is not possible to estimate the recoverable amount of an individual asset, Hydro estimates the recoverable amount of the cash generating unit (CGU) to which the asset belongs. The recoverable amount is the higher of fair value less costs of disposal and value in use. Value in use is generally computed by reference to the present value of future cash flows expected to be derived from non-financial assets. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is reduced to its recoverable amount and an impairment loss is recognized immediately in the Non-Consolidated Statement of Profit and Comprehensive Income.

2.8 Investments in Joint Arrangements

A joint arrangement is an arrangement in which two or more parties involved have joint control. Control exists when Hydro has the power, directly or indirectly, to govern the financial and operating policies of another entity, so as to obtain benefits from its activities. A joint arrangement is either classified as a joint operation or a joint venture based on the rights of the parties involved. Hydro's investment in Churchill Falls is classified as a joint operation.

Hydro's investment in Churchill Falls is recorded using the equity method of accounting. Under the equity method, the interest in the investment is carried in the Non-Consolidated Statement of Financial Position at cost plus post acquisition changes in Hydro's share of net assets of the investment. The Non-Consolidated Statement of Profit and Comprehensive Income reflects the share of the profit or loss of the joint operation.

2.9 Employee Future Benefits**(i) Pension Plan**

Employees participate in the Province's Public Service Pension Plan (Plan), a multi-employer defined benefit plan. Contributions by Hydro to this Plan are recognized as an expense when employees have rendered service entitling them to the contributions. Liabilities associated with this Plan are held with the Province.

(ii) Other Benefits

Hydro provides group life insurance and health care benefits on a cost-shared basis to retired employees, in addition to a retirement allowance.

The cost of providing these benefits is determined using the projected unit credit method, with actuarial valuations being completed on an annual basis, based on service and Management's best estimate of salary escalation, retirement ages of employees and expected health care costs.

Actuarial gains and losses on Hydro's defined benefit obligation are recognized in reserves in the period in which they occur. Past service costs are recognized in operating costs as incurred. Pursuant to Board Order No. P.U. 36 (2015), Hydro recognizes the amortization of employee future benefit actuarial gains and losses in the Non-Consolidated Statement of Profit and Comprehensive Income as a regulatory adjustment.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

The retirement benefit obligation recognized in the Non-Consolidated Statement of Financial Position represents the present value of the defined benefit obligation.

2.10 Provisions

A provision is a liability of uncertain timing or amount. A provision is recognized if Hydro has a present legal obligation or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are not recognized for future operating losses. The provision is measured at the present value of the best estimate of the expenditures expected to be required to settle the obligation using a discount rate that reflects the current market assessments of the time value of money and the risks specific to the obligation. Provisions are re-measured at each Non-Consolidated Statement of Financial Position date using the current discount rate.

2.11 Decommissioning, Restoration and Environmental Liabilities

Legal and constructive obligations associated with the retirement of property, plant and equipment are recorded as liabilities when those obligations are incurred and are measured as the present value of the expected costs to settle the liability, discounted at a rate specific to the liability. The liability is accreted up to the date the liability will be incurred with a corresponding charge to net finance expense. The carrying amount of decommissioning, restoration and environmental liabilities is reviewed annually with changes in the estimates of timing or amount of cash flows added to or deducted from the cost of the related asset or expensed in the Non-Consolidated Statement of Profit and Comprehensive Income if the liability is short-term in nature.

2.12 Revenue from Contracts with Customers

Hydro recognizes revenue from contracts with customers related to the sale of electricity to regulated Provincial industrial, utility and direct customers in rural Newfoundland and Labrador and to non-regulated industrial, utility and external market customers.

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. Hydro recognizes revenue when it transfers control of a product or service to a customer.

Revenue from the sale of energy is recognized when Hydro satisfies its performance obligation by transferring energy to the customer. Sales within the Province are primarily at rates approved by the Newfoundland and Labrador Board of Commissioners of Public Utilities (PUB), whereas export sales and sales to other certain major industrial customers are either at rates under the terms of the applicable contracts, or at market rates. Hydro recognizes revenue at the amount to which it has the right to invoice, which corresponds directly to the value of Hydro's performance to date.

2.13 Leasing**Lessee Accounting**

Hydro assesses whether a contract is or contains a lease, at inception of a contract. Hydro recognizes a right-of-use asset and a corresponding lease liability with respect to all lease agreements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets. For these leases, Hydro recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, Hydro uses its incremental borrowing rate.

Lease payments included in the measurement of the lease liability comprise:

- Fixed (and in-substance) lease payments less any lease incentives;

NEWFOUNDLAND AND LABRADOR HYDRO**NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS**

- variable lease payments that depend on an index or rate; and
- payments expected under residual value guarantees and payments relating to purchase options and renewal option periods that are reasonably certain to be exercised (or periods subject to termination options that are not reasonably certain to be exercised).

The lease liability is subsequently measured at amortized cost using the effective interest rate method. Lease liabilities are remeasured, with a corresponding adjustment to the related right-of-use assets, when there is a change in variable lease payments arising from a change in an index or rate, or when Hydro changes its assessment of whether purchase, renewal or termination options will be exercised. Hydro did not make any such adjustments during the periods presented.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and accumulated impairment losses.

Whenever Hydro incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognized and measured under *IAS 37 – Provisions, Contingent Liabilities and Contingent Assets*. The costs are included in the related right-of-use asset.

Right-of-use assets are depreciated over the shorter period of the lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that Hydro expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. Depreciation starts at the commencement date of the lease.

Variable rents that do not depend on an index or rate are not included in the measurement of the lease liability and the right-of-use asset. The related payments are recognized as an expense in operating costs in the period in which the event or condition that triggers those payments occurs.

As a practical expedient, IFRS 16 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. Hydro has elected to apply this practical expedient.

2.14 Foreign Currencies

Transactions in currencies other than Hydro's functional currency (foreign currencies) are recognized using the exchange rate in effect at the date of transaction, approximated by the prior month end close rate. At the end of each reporting period, monetary items denominated in foreign currencies are translated at the rates of exchange in effect at the period end date. Foreign exchange gains and losses not included in regulatory deferrals are recorded in the Non-Consolidated Statement of Profit and Comprehensive Income as Other expense.

2.15 Income Taxes

Hydro is exempt from paying income taxes under Paragraph 149(1) (d.2) of the Income Tax Act.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

2.16 Financial InstrumentsClassification and Initial Measurement

Financial assets and financial liabilities are recognized in the Non-Consolidated Statement of Financial Position when Hydro becomes a party to the contractual provisions of the instrument and are initially measured at fair value.

Financial assets are classified at amortized cost, fair value through other comprehensive income (FVTOCI), FVTPL or as derivatives designated as hedging instruments in an effective hedge. Financial liabilities are classified at FVTPL, amortized cost or as derivatives designated as hedging instruments in an effective hedge. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at FVTPL) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognized immediately in profit or loss.

Financial Assets at Amortized Cost

Financial assets with contractual cash flows arising on specified dates, consisting solely of principal and interest, and that are held within a business model whose objective is to collect the contractual cash flows are subsequently measured at amortized cost using the effective interest rate method and are subject to impairment. Gains and losses are recognized in profit or loss when the asset is derecognized, modified or impaired.

Hydro's financial assets at amortized cost include cash, trade and other receivables, related party loan receivable and sinking fund investments.

Financial Assets at FVTPL

Financial assets that do not meet the criteria for being measured at amortized cost or FVTOCI are measured at FVTPL. Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not a part of a designated hedging relationship. Currently, Hydro has no financial assets measured at FVTPL.

Financial Liabilities at Amortized Cost

Hydro subsequently measures all financial liabilities at amortized cost using the effective interest method. Gains and losses are recognized in profit or loss when the liability is derecognized.

Hydro's financial liabilities at amortized cost include trade and other payables, short-term borrowings, contract payable and long-term debt.

Financial Liabilities at FVTPL

Financial liabilities that do not meet the criteria for being measured at amortized cost or FVTOCI are measured at FVTPL. Financial liabilities at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not part of a designated hedging relationship.

Hydro's financial liabilities measured at FVTPL include derivative instruments not part of a designated hedging relationship.

Derecognition of Financial Instruments

Hydro derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

Hydro derecognizes financial liabilities when, and only when, its obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

Impairment of Financial Assets

Hydro recognizes a loss allowance for expected credit losses (ECL) on investments in debt instruments that are measured at amortized cost or at FVTOCI. The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

Hydro always recognizes lifetime ECL for trade and other receivables. The ECL on these financial assets are estimated based on Hydro's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate. Hydro also records 12-month ECL for those financial assets which have low credit risk and where the low credit risk exemption has been applied. The classes of financial assets that have been identified to have low credit risk are cash and sinking funds.

For all other financial instruments, Hydro recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, Hydro measures the loss allowance for that financial instrument at an amount equal to 12-month ECL. The assessment of whether lifetime ECL should be recognized is based on significant increases in the likelihood or risk of a default occurring since initial recognition instead of on evidence of a financial asset being credit-impaired at the reporting date or an actual default occurring.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

2.17 Government Grants

Government grants are recognized when there is reasonable assurance that Hydro will comply with the associated conditions and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which Hydro recognizes as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that Hydro should purchase, construct or otherwise acquire non-current assets are recognized as deferred revenue in the Non-Consolidated Statement of Financial Position and transferred to the Non-Consolidated Statement of Profit and Comprehensive Income on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to Hydro with no future related costs are recognized in the Non-Consolidated Statement of Profit and Comprehensive Income in the period in which they become receivable.

2.18 Regulatory Deferrals

Hydro's revenues from its electrical sales to most customers within the Province are subject to rate regulation by the PUB. Hydro's borrowing and capital expenditure programs are also subject to review and approval by the PUB. Rates are set through periodic general rate applications utilizing a cost of service methodology. Hydro's allowed rate of return on rate base based upon Board Order No. P.U. 30 (2019) is 5.4% in 2022 and 5.4% in 2021. Hydro applies various regulator approved accounting policies that differ from enterprises that do not operate in a rate regulated environment. Generally, these policies result in the deferral and amortization of costs or credits which are expected to be recovered or refunded in future rates. In the absence of rate regulation, these amounts would be included in the determination of profit or loss in the year the amounts are incurred. The effects of rate regulation on the financial statements are disclosed in Note 11.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

3. SIGNIFICANT ACCOUNTING JUDGMENTS AND ESTIMATES

The preparation of the financial statements in conformity with IFRS requires Management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenues and expenses. Actual results may differ materially from these estimates, including changes as a result of future decisions made by the PUB. The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognized in the period in which the estimate is reviewed if the revision affects only that period or future periods.

3.1 Use of Judgments

(i) Property, Plant and Equipment

Hydro's accounting policy relating to property, plant and equipment is described in Note 2.4. In applying this policy, judgment is used in determining whether certain costs are additions to the carrying amount of the property, plant and equipment as opposed to repairs and maintenance. If an asset has been developed, judgment is required to identify the point at which the asset is capable of being used as intended and to identify the directly attributable borrowing costs to be included in the carrying value of the development asset. Judgment is also used in determining the appropriate componentization structure for Hydro's property, plant and equipment.

(ii) Revenue

Management exercises judgment in estimating the value of electricity consumed by retail customers in the period, but billed subsequent to the end of the reporting period. Specifically, this involves an estimate of consumption for each retail customer, based on the customer's past consumption history.

When recognizing deferrals and related amortization of costs or credits, Management assumes that such costs or credits will be recovered or refunded through customer rates in future years. Recovery of some of these deferrals is subject to a future PUB order. As such, there is a risk that some or all of the regulatory deferrals will not be approved by the PUB which could have a material impact on Hydro's profit or loss in the year the order is received.

(iii) Determination of CGUs

Hydro's accounting policy relating to impairment of non-financial assets is described in Note 2.7. In applying this policy, Hydro groups assets into the smallest identifiable group for which cash flows are largely independent of the cash flows from other assets or groups of assets. Judgment is used in determining the level at which cash flows are largely independent of other assets or groups of assets.

(iv) Discount Rates

Certain of Hydro's financial liabilities are discounted using discount rates that are subject to Management's judgment.

(v) Regulatory adjustments

Regulatory assets and liabilities recorded in Hydro arise due to the rate setting process for regulated utilities governed by the PUB. The amounts relate to costs or credits which Management believes will be recovered or settled through customer rates in future periods, pursuant to the proceedings and outcomes of future PUB orders. Certain estimates are necessary since the regulatory environment often requires amounts to be recognized at estimated values until these amounts are finalized pursuant to regulatory decisions or other regulatory proceedings. The final amounts approved by the PUB for deferral as regulatory assets and liabilities and the approved recovery or settlement periods may differ from those originally expected. Any resulting adjustments to original estimates could have a material impact and are recognized in profit or loss in the period in which they become known.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

3.2 Use of Estimates

(i) Property, Plant and Equipment

Amounts recorded for depreciation are based on the useful lives of Hydro's assets. The useful lives of property, plant and equipment are determined by independent specialists and reviewed annually by Hydro. These useful lives are Management's best estimate of the service lives of these assets. Changes to these lives could materially affect the amount of depreciation recorded.

(ii) Decommissioning Liabilities

Hydro recognizes a liability for the fair value of the future expenditures required to settle obligations associated with the retirement of property, plant and equipment. Decommissioning liabilities are recorded as a liability at fair value, with a corresponding increase to property, plant and equipment. Accretion of decommissioning liabilities is included in the Non-Consolidated Statement of Profit and Comprehensive Income through net finance expense. Differences between the recorded decommissioning liabilities and the actual decommissioning costs incurred are recorded as a gain or loss in the settlement period.

(iii) Employee Future Benefits

Hydro provides group life insurance and health care benefits on a cost-shared basis to retired employees, in addition to a severance payment upon retirement. The expected cost of providing these other employee benefits is accounted for on an accrual basis, and has been actuarially determined using the projected unit credit method prorated on service, and Management's best estimate of salary escalation, retirement ages of employees and expected health care costs.

(iv) Deferred Assets and Derivative Liabilities

Effective October 1, 2015, Hydro entered into a power purchase agreement (PPA) with Nalcor Energy Marketing Corporation (Energy Marketing) which allows for the purchase of available Recapture energy from Hydro for resale by Energy Marketing. Additionally, the PPA allows for the use of Hydro's transmission service rights by Energy Marketing to deliver electricity, through rights which are provided to Hydro pursuant to a Transmission Service Agreement with Hydro-Québec dated April 1, 2009. The current terms of the PPA require a 60 day termination notice by either party. Management's assumption is that the term of the PPA at December 31, 2022, will continue for at least the next 12 months.

Fair values relating to Hydro's financial instruments and derivatives that have been classified as Level 3 have been determined using inputs for the assets or liabilities that are not readily observable. Certain of these fair values are classified as Level 3 as the transactions do not occur in an active market, or the terms extend beyond the period for which a quoted price is available.

Hydro's PPA with Energy Marketing is accounted for as a derivative instrument. Where Hydro determines that the fair value at initial recognition differs from the transaction price and the fair value is evidenced neither by a quoted price in an active market for an identical asset or liability nor based on a valuation technique that uses only data from observable markets, then the derivative transactions are initially measured at fair value and the expected difference is deferred. Subsequently, the deferred difference is recognized in profit or loss on an appropriate basis over the life of the related derivative instrument but not later than when the valuation is wholly supported by observable market data or the transaction has occurred.

Hydro has elected to defer the difference between the fair value of the power purchase derivative liability upon initial recognition and the transaction price of the power purchase derivative liability and to amortize the deferred asset on a straight-line basis over its effective term (Note 7). These methods, when compared with alternatives, were determined by Management to most accurately reflect the nature and substance of the transactions.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

4. CURRENT AND FUTURE CHANGES IN ACCOUNTING POLICIES

The following is a list of amendments that have been issued and are effective for accounting periods commencing on or after January 1, 2022, as specified.

- *IAS 37 – Provisions, Contingent Liabilities and Contingent Assets – Onerous Contracts – Costs of Fulfilling a Contract (Amendments to IAS 37)*¹
- *IAS 1 – Presentation of Financial Statements– Disclosure of Accounting Policies (Amendments to IAS 1)*²
- *IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors – Definition of Accounting Estimates (Amendments to IAS 8)*²
- *IAS 1 – Presentation of Financial Statements – Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)*³

¹ Effective for annual periods beginning on or after January 1, 2022.

² Effective for annual periods beginning on or after January 1, 2023, with earlier application permitted.

³ These amendments were originally effective for annual periods beginning on or after January 1, 2023, however, in 2022 the IASB deferred the effective date to January 1, 2024, with earlier application permitted.

4.1 IAS 37 – Provisions, Contingent Liabilities and Contingent Assets – Onerous Contracts – Costs of Fulfilling a Contract (Amendments to IAS 37)

The amendments to IAS 37 specify that the cost of fulfilling a contract comprises the costs that relate directly to the contract. Costs that relate directly to a contract can either be incremental costs of fulfilling that contract, such as direct labour and materials, or an allocation of other costs that relate directly to fulfilling contracts, such as the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract. These amendments apply to contracts for which the entity has not yet fulfilled all its obligations at the beginning of the annual reporting period in which the entity first applies the amendments and are currently not applicable to Hydro, however, may apply to future transactions.

4.2 IAS 1 – Presentation of Financial Statements– Disclosure of Accounting Policies (Amendments to IAS 1)

The IASB issued amendments to IAS 1, which change the requirements with regard to the disclosure of accounting policies. The amendments replace all instances of the term ‘significant accounting policies’ with ‘material accounting policy information’. Accounting policy information is material if, when considered together with other information included in an entity’s financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. Management does not expect this change will have a material impact on the financial statements.

4.3 IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors – Definition of Accounting Estimates (Amendments to IAS 8)

The IASB issued amendments to IAS 8 to clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. The amendments are intended to improve the understanding of the existing requirements and therefore will not have an impact on Hydro’s financial statements.

4.4 IAS 1 – Presentation of Financial Statements – Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)

The IASB issued amendments to IAS 1 to promote consistency in applying the requirements by helping companies determine whether, in the Statement of Financial Position, debt and other liabilities with an uncertain settlement date should be classified as current (due or potentially due to be settled within one year) or non-current. The classification is based on rights that are in existence at the end of the reporting period and specify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability. Additional information was added to clarify that only covenants with which an entity is required to comply on or before the reporting date affect the classification of a liability as current or non-current. In addition, an entity has to disclose information in the notes that enables users of financial statements to understand the risk that non-current liabilities with covenants could become repayable within twelve months. The amendments are applied retrospectively upon adoption. The application of these amendments is not expected to have a material impact on Hydro’s financial statements.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

5. TRADE AND OTHER RECEIVABLES

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Trade receivables	116	121
Other receivables	9	13
Due from related parties	6	6
Loss allowance	(19)	(17)
	112	123

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
0-60 days	112	120
60+ days	-	3
	112	123

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Loss allowance, beginning of the year	(17)	(17)
Change in balance during the year	(2)	-
Loss allowance, end of the year	(19)	(17)

6. INVENTORIES

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Fuel	59	46
Materials and other	40	38
	99	84

Fuel inventory includes No. 6 fuel in the amount of \$42.1 million (2021 - \$34.8 million). The cost of inventories recognized as an expense during the year is \$190.9 million (2021 - \$124.8 million) and is included in operating costs and fuels.

7. DEFERRED ASSET

The deferred asset related to Hydro's PPA with Energy Marketing is amortized into income on a straight-line basis over the assumed twelve month term of the contract, which commenced on January 1, 2022. In December 2022, Management assessed the anticipated contract term and determined that a new deferred asset and derivative liability was required. This resulted in a deferred asset addition of \$85.7 million to be amortized into income on a straight-line basis over the assumed twelve month term, commencing on January 1, 2023. The components of change are as follows:

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Deferred asset, beginning of the year	56	23
Additions	86	63
Amortization	(56)	(30)
Deferred asset, end of the year	86	56

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

8. PROPERTY, PLANT AND EQUIPMENT

<i>(millions of Canadian dollars)</i>	Generation Plant	Transmission and Distribution	Other	Assets Under Development	Total
Cost					
Balance at January 1, 2021	1,363	1,196	136	27	2,722
Additions	1	-	-	113	114
Disposals	(10)	(1)	(2)	-	(13)
Transfers	68	46	9	(122)	1
Other adjustments	(1)	(2)	-	-	(3)
Balance at December 31, 2021	1,421	1,239	143	18	2,821
Additions	-	-	-	103	103
Disposals	(16)	(14)	(2)	-	(32)
Transfers	39	38	6	(83)	-
Other	1	-	-	-	1
Balance at December 31, 2022	1,445	1,263	147	38	2,893
Depreciation					
Balance at January 1, 2021	296	172	48	-	516
Depreciation	47	28	7	-	82
Disposals	(5)	-	(2)	-	(7)
Balance at December 31, 2021	338	200	53	-	591
Depreciation	42	30	7	-	79
Disposals	(8)	(4)	(1)	-	(13)
Balance at December 31, 2022	372	226	59	-	657
Carrying value					
Balance at January 1, 2021	1,067	1,024	88	27	2,206
Balance at December 31, 2021	1,083	1,039	90	18	2,230
Balance at December 31, 2022	1,073	1,037	88	38	2,236

Capitalized interest for the year ended December 31, 2022 was \$0.9 million (2021 - \$1.6 million) related to assets under development.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

9. SINKING FUND INVESTMENTS

As at December 31, 2022, sinking funds include \$201.9 million (2021 - \$191.7 million) related to repayment of Hydro's long-term debt. Sinking fund investments consist of bonds, debentures, short-term borrowings and coupons issued by, or guaranteed by, the Government of Canada, provincial governments or Schedule 1 banks, and have maturity dates ranging from 2023 to 2033.

Hydro debentures, which are intended to be held to maturity, are deducted from debt while all other sinking fund investments are shown separately on the Non-Consolidated Statement of Financial Position as assets. Annual contributions to the various sinking funds are in accordance with bond indenture terms, and are structured to ensure the availability of adequate funds at the time of expected bond redemption. Effective yields range from 1.42% to 6.82% (2021 - 1.42% to 6.82%).

The movement in sinking funds for the year is as follows:

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Sinking funds, beginning of the year	192	183
Contributions	7	7
Change in sinking fund investments in own debentures	(10)	(11)
Earnings	13	13
Sinking funds, end of the year	202	192
Less: sinking fund investments maturing within one year	(9)	(5)
	193	187

Sinking fund instalments due over the next five years are as follows:

<i>(millions of Canadian dollars)</i>	2023	2024	2025	2026	2027
Sinking fund instalments	7	7	7	4	4

10. INVESTMENTS IN JOINT ARRANGEMENTS

<i>As at December 31 (millions of Canadian dollars)</i>	Ownership Interest	2022	2021
Churchill Falls	65.8%		
Shares, at cost		167	167
Equity in retained earnings, beginning of the year		487	446
Accumulated other comprehensive loss, beginning of the year		-	(3)
Other comprehensive gain		5	3
Equity in profit for the year		44	41
		703	654

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

11. REGULATORY DEFERRALS

		January 1	Reclass &	Regulatory	December 31	Remaining
		2022	Disposition	Activity	2022	Recovery
						Settlement
						Period
						(years)
<i>(millions of Canadian dollars)</i>						
Regulatory asset deferrals						
Supply cost variance deferral account	(a)	18	-	172	190	n/a
Power purchase expense recognition	(b)	18	-	148	166	n/a
Rate stabilization plan (RSP)	(c)	56	12	(16)	52	n/a
Foreign exchange losses	(d)	44	-	(2)	42	19.0
Retirement asset pool	(e)	19	-	16	35	n/a
Muskrat Falls PPA monetization	(f)	-	-	26	26	n/a
Supply deferrals	(g)	12	(12)	9	9	n/a
Business system transformation program	(h)	5	-	3	8	n/a
Deferred energy conservation costs	(i)	8	-	(1)	7	n/a
Other	(l-t)	4	-	1	5	n/a
		184	-	356	540	
Regulatory liability deferrals						
Removal provision	(j)	(17)	-	(5)	(22)	n/a
Insurance amortization and proceeds	(k)	(7)	-	3	(4)	n/a
Other	(u,v)	(3)	-	(4)	(7)	n/a
		(27)	-	(6)	(33)	

11.1 Regulatory Adjustments Recorded in the Non-Consolidated Statement of Profit and Comprehensive Income

		2022	2021
<i>For the year ended December 31 (millions of Canadian dollars)</i>			
RSP amortization		19	(24)
RSP fuel deferral		-	33
RSP interest		(3)	(3)
Rural rate adjustment		-	2
Total RSP activity	(c)	16	8
Supply deferral recovery		-	4
Supply deferrals		(9)	(12)
Total supply deferral activity	(g)	(9)	(8)
Supply cost variance deferrals	(a)	(172)	(18)
Power purchase expense recognition	(b)	(148)	(18)
Loss on disposal	(e)	(16)	(6)
Muskrat Falls PPA monetization	(f)	(26)	-
Removal provision	(j)	5	5
Other	(d,h,i,k-v)	(2)	4
		(352)	(33)

The following section describes Hydro's regulatory assets and liabilities which will be, or are expected to be, reflected in customer rates in future periods and have been established through the rate setting process. In the absence of rate regulation, these amounts would be reflected in operating results in the year and profit for 2022 would have decreased by \$352.0 million (2021 - \$32.7 million).

NEWFOUNDLAND AND LABRADOR HYDRO**NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS**

11.(a) Supply Cost Variance Deferral Account

In Board Order No's. P.U. 33 (2021) and P.U. 4 (2022), the PUB approved Hydro's proposal to establish an account to defer payments under the Muskrat Falls Project agreements, rate mitigation funding, project cost recovery from customers and supply cost variances. The deferral commenced activity on November 1, 2021. During 2022, Hydro deferred \$172.1 million (2021 - \$18.3 million) for future recovery from customers resulting in a total balance owing from customers of \$190.4 million (2021 - \$18.3 million).

11.(b) Power Purchase Expense Recognition

In Board Order No's. P.U. 9 (2021) and P.U. 33 (2021), the PUB approved Hydro's proposal to deviate from IFRS to allow recognition of expenses related to the purchase of energy in accordance with the commercial terms of the Muskrat Falls Power Purchase Agreement. For the year ended December 31, 2022, IFRS power purchase expenses were \$148.2 million (2021 - \$17.6 million) higher than commercial payments which resulted in a total regulatory asset of \$165.8 million (2021 - \$17.6 million).

11.(c) RSP

In 1986, the PUB ordered Hydro to implement the RSP which primarily provides for the deferral of fuel expense variances resulting from changes in fuel prices, hydrology, load and associated interest. Adjustments required in utility rates to cover the amortization of the balance are implemented on July 1 of each year. Similar adjustments required in industrial rates are implemented on January 1 of each year.

Per Board Order No. P.U. 33 (2021) and Hydro's compliance filing, the RSP was discontinued for purposes of deferring variations in hydraulic production, No.6 fuel and load as at October 31, 2021. The Board ordered that the RSP should be maintained to provide timely recovery of the remaining balance which results in the continuation of recovery and interest charges and, in 2022, Hydro recovered \$19.1 million (2021 - \$23.9 million refund) from customers; which was partially offset by Board Order No. P.U. 16 (2022) which approved the recovery of the 2021 Supply deferrals from the RSP Current Plan of \$12.4 million. This activity and associated interest and other adjustments in 2022 of \$2.5 million (2021 - \$3.2 million) resulted in a remaining balance for future recovery from customers of \$52.3 million (2021 - \$56.5 million).

11.(d) Foreign Exchange Losses

In 2002, the PUB ordered Hydro to defer realized foreign exchange losses related to the issuance of Swiss Franc and Japanese Yen denominated debt and amortize the balance over a 40 year period. Accordingly, these costs were recognized as a regulatory asset. During 2022, amortization expense of \$2.2 million (2021 - \$2.2 million) was recorded.

11.(e) Retirement Asset Pool

As per Board Order No. P.U. 30 (2019), the Board approved Hydro's proposed depreciation methodology which includes the deferral of gains and losses on retirement of assets. The deferral will be recovered through future depreciation expense. In 2022, Hydro deferred \$16.1 million (2021 - \$6.1 million) of retirement asset activity resulting in a total balance of \$35.4 million (2021 - \$19.3 million).

11.(f) Muskrat Falls PPA Monetization

Under the Muskrat Falls PPA, 30 days following the calendar year end Hydro is able to monetize an amount of undelivered Schedule II energy at an Annual Average Sales Price of Muskrat Falls energy exports for the previous year. In Board Order No's. P.U. 33 (2021) and P.U. 4 (2022), the Board approved Hydro's proposal to recognize an estimate of the monetized energy in the year in which the energy was exported by Muskrat Falls, instead of waiting until Hydro can monetize in the following year. In 2022, Hydro recorded an estimate of \$25.8 million (2021 - \$nil).

11.(g) Supply Deferrals

Pursuant to Board Order No. P.U. 22 (2017), the Board approved supply cost deferrals using three specific deferral accounts: the Energy Supply, Holyrood Conversion and Isolated Systems Supply cost deferrals. As per Board Order No. P.U. 33 (2021) and Hydro's compliance application, the Energy Supply and Holyrood Conversion deferrals were discontinued with the account maintained to provide for a timely recovery of the remaining balance. During 2022, Hydro recorded a net decrease in the supply deferral asset of \$3.4 million (2021 - \$47.4 million) resulting in a balance from customers of \$8.9 million (2021 - \$12.3 million). The decrease in the supply deferral asset is primarily due to the

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

recovery of the 2021 supply cost variance deferral, which resulted in a net decrease to the supply deferral of \$12.4 million as per Board Order No. P.U. 16 (2022); and normal operation of the supply deferral, resulting in a net increase of \$9.0 million (2021 - \$12.3 million), with recovery of the period's activity to be determined through an annual application process.

11.(h) Business System Transformation Program

As per Board Order No.'s P.U. 23 (2019) and P.U. 30 (2019), the Board approved the deferral of business system transformation program costs. The recovery of the deferral is subject to a future Board order. During the year, Hydro deferred \$3.1 million (2021 - \$1.0 million), resulting in a total deferral of \$7.7 million (2021 - \$4.6 million). As per Board Order No. P.U. 27, (2022), the Board approved the recovery of a portion of the deferred costs up to the end of 2022, which totalled \$6.7 million, through customer rates to be established in Hydro's next general rate application.

11.(i) Deferred Energy Conservation Costs

In 2022, Hydro deferred \$1.1 million (2021 - \$1.1 million) in Energy Conservation Costs associated with an electrical conservation demand management program for residential, industrial, and commercial sectors. As per Board Order No. P.U. 22 (2017), Hydro recovered \$1.9 million (2021 - \$1.5 million) of the balance through a rate rider which resulted in a total deferred balance of \$7.5 million (2021 - \$8.3 million)

11.(j) Removal Provision

As per Board Order No. P.U. 30 (2019), the Board approved Hydro's proposed depreciation methodology which includes the provision for removal costs. Hydro recorded a net increase to the provision relating to 2022 activity of \$5.0 million (2021 - \$4.9 million) resulting in a total balance of \$21.9 million (2021 - \$16.9 million). The increase was driven by removal depreciation of \$5.5 million (2021 - \$5.2 million) which was partially offset by removal costs of \$0.5 million (2021 - \$0.3 million).

11.(k) Insurance Amortization and Proceeds

Pursuant to Board Order No. P.U. 13 (2012), Hydro records net insurance proceeds against the capital costs and amortizes the balance over the life of the asset. Under IFRS, Hydro is required to recognize the insurance proceeds and corresponding amortization in regulatory liabilities. During 2022, Hydro recorded a net decrease of \$2.8 million (2021 - \$4.2 million net increase) to the regulatory liability. The decrease was driven by an adjustment of \$2.6 million (2021 - \$nil) and insurance amortization of \$0.2 million (2021 - \$0.3 million).

11.(l) Deferred Lease Costs

In Board Order No.'s P.U. 17 (2016), P.U. 23 (2016) and No. P.U. 49 (2016) the Board approved amortization of lease costs associated with mobile diesel units at Holyrood Thermal Generating Station (HTGS) over a period of five years. In 2022, Hydro recorded amortization of \$nil (2021 - \$0.1 million) of the deferred lease costs.

11.(m) Deferred Foreign Exchange on Fuel

Hydro purchases fuel for HTGS in USD. There are regulatory mechanisms that allow Hydro to defer variances in fuel prices (including foreign exchange fluctuations). During 2022, Hydro recognized an increase to regulatory assets due to foreign exchange losses on fuel purchases of \$0.4 million (2021 - \$0.6 million gains).

11.(n) Phase Two Hearing Costs

Pursuant to Board Order No. P.U. 13 (2016), Hydro received approval to defer consulting fees and salary related costs relating to Phase Two of the investigation into the reliability and adequacy of power on the Island Interconnected system after the interconnection with the Muskrat Falls generating station. In 2019, Phase Two of the Board's investigation was concluded with recovery to be addressed in a future Board Order. There were no additions in 2022 or 2021. The total deferred balance is \$1.4 million (2021 - \$1.4 million).

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

11.(o) Asset Disposal

As per Board Order No. P.U. 49 (2016), the Board ordered that Hydro recognize a regulatory asset of \$0.4 million related to the Sunnyside transformer that was disposed of in 2014. Hydro is required to recover the deferred asset in rate base and amortize the asset for 22.4 years commencing in 2015. Hydro is required to exclude the new Sunnyside transformer from rate base until the Sunnyside transformer original asset deferral has been fully amortized.

11.(p) Non-Customer Contributions in Aid of Construction

Pursuant to Board Order No. P.U. 1 (2017), Hydro recognized amortization of deferred contributions in aid of construction (CIAC) from entities which are non-customer related parties in profit or loss. During 2022, Hydro recorded \$1.2 million (2021 - \$1.2 million) in non-customer CIAC amortization as a regulatory adjustment. In the absence of rate regulation, IFRS requires these non-customer CIACs to be recorded as contributed capital with no corresponding amortization. As a result, during 2022 Hydro also recorded a decrease of \$1.2 million (2021 - \$1.2 million) to contributed capital to recognize the amount that was reclassified to profit or loss.

11.(q) Employee Future Benefits Actuarial Loss

Pursuant to Board Order No. P.U. 36 (2015), Hydro has recognized the amortization of employee future benefit actuarial gains and losses in net income. During 2022 Hydro recorded \$nil (2021 - \$0.2 million) employee future benefits losses as a regulatory adjustment. In the absence of rate regulation, IFRS would require Hydro to include employee future benefits actuarial gains and losses in other comprehensive income. As a result, during 2022 Hydro also recorded a decrease of \$nil (2021 - \$0.2 million) to other comprehensive income to recognize the amount that was reclassified to profit or loss.

11.(r) Reliability and Resource Adequacy Study

Pursuant to Board Order No. P.U. 29 (2019), the Board approved the deferral of costs associated with the Reliability and Resource Adequacy proceeding. Hydro deferred \$0.3 million in 2022 (2021 - \$1.3 million) resulting in a regulatory asset of \$2.4 million (2021 - \$2.1 million). The recovery of the balance is to be determined in a future Board Order.

11.(s) Frequency Converter Revenue Deferral Account

In Board Order No. P.U. 35 (2020), the Board approved the deferral of the cumulative revenue requirement impact associated with the loss on the sale of a frequency converter, commencing December, 2019. The disposition of the cumulative revenue requirement impact included in the deferral account balance will be addressed as part of Hydro's next general rate application. During 2022, Hydro deferred \$0.2 million as a regulatory liability (2021 - \$0.2 million).

11.(t) Muskrat Falls PPA Sustaining Capital

In Board Order No. P.U. 33 (2021), the PUB approved Hydro's proposal to defer contributions required to be made by Hydro for sustaining capital investments pursuant to the Muskrat Falls PPA with recovery to be addressed in Hydro's next general rate application. As at December 31, 2022 Hydro has deferred \$0.5 million (2021 - \$nil) in the Muskrat Falls PPA Sustaining Capital deferral account.

11.(u) Hydraulic Resources Optimization Deferral Account

In Board Order No. P.U. 49 (2018), a deferral account to capture the revenues and costs associated with the hydraulic optimization activities was approved. For the year ended December 31, 2022, the balance of hydraulic optimization activities is a net gain of \$3.2 million (2021 - \$1.3 million) recorded as a deferred liability.

11.(v) Deferred Purchased Power Savings

In 1997, the PUB ordered Hydro to defer \$1.1 million related to reduced purchased power rates resulting from the interconnection of communities in the area of L'Anse au Clair to Red Bay to the Hydro-Québec system and amortize the balance over a 30 year period. The remaining unamortized savings in the amount of \$0.1 million (2021 - \$0.2 million) are deferred as a regulatory liability.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

12. TRADE AND OTHER PAYABLES

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Trade payables	82	51
Due to related parties	42	15
Accrued interest payable	17	17
Other payables	20	23
	161	106

13. DEBT

13.1 Short-term Borrowings

Hydro has a \$300.0 million government guaranteed promissory note program to fulfil its short-term funding requirements. As at December 31, 2022, there was a \$131.0 million promissory note outstanding with a maturity date of January 3, 2023 bearing an interest rate of 4.27% (2021 - \$55.0 million relating to two promissory notes bearing an average interest rate of 0.20%). Upon maturity, the promissory note was reissued.

Hydro maintains a \$500.0 million CAD or USD equivalent committed revolving term facility with a maturity date of July 31, 2023. As at December 31, 2022, there were no amounts drawn on the facility (2021 - \$nil). Borrowings in CAD may take the form of Prime Rate Advances, Bankers' Acceptances (BAs), and letters of credit, with interest calculated at the Prime Rate or BA fee. Borrowings in USD may take the form of Base Rate Advances, Secured Overnight Financing Rate (SOFR) Advances and letters of credit. The facility also provides coverage for overdrafts on Hydro's bank accounts, with interest calculated at the Prime Rate.

13.2 Long-term Debt

The following table represents the value of long-term debt measured at amortized cost:

<i>As at December 31 (millions of Canadian dollars)</i>	Face Value	Coupon Rate %	Year of Issue	Year of Maturity	2022	2021
Hydro						
Y *	300	8.40	1996	2026	298	297
AB *	300	6.65	2001	2031	304	304
AD *	125	5.70	2003	2033	124	124
AF	500	3.60	2014/2017	2045	482	482
1A	600	3.70	2017/2018	2048	637	638
2A	300	1.75	2021	2030	288	287
Total	2,125				2,133	2,132
Less: Sinking fund investments in own debentures					94	84
					2,039	2,048
Less: Sinking fund payments due within one year					7	7
					2,032	2,041

*Sinking funds have been established for these issues.

Hydro's promissory notes and debentures are unsecured and unconditionally guaranteed as to principal and interest and, where applicable, sinking fund payments, by the Province with the exception of Series 1A and 2A. The Province charges Hydro a guarantee fee of 25 basis points annually on the total debt (net of sinking funds) with a remaining term to maturity of less than or equal to 10 years and 50 basis points annually on total debt (net of sinking funds) with a remaining term to maturity greater than 10 years for debt outstanding as of December 31, 2010. For debt issued subsequent to December 31, 2010, the guarantee rate is 25 basis points annually on the total debt (net of sinking funds) with an original term to maturity of less than or equal to 10 years and 50 basis points annually on total debt (net of sinking funds) with an original term to maturity greater than 10 years. The guarantee fee recorded for the year ended December 31, 2022 was \$8.7 million (2021 - \$8.6 million).

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

14. DEFERRED CONTRIBUTIONS

Hydro has received contributions in aid of construction of property, plant and equipment. These contributions are deferred and amortized to other revenue over the life of the related property, plant and equipment asset.

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Deferred contributions, beginning of the year	26	22
Additions	11	5
Amortization	(1)	(1)
Deferred contributions, end of the year	36	26
Less: current portion	(1)	(1)
	35	25

15. DECOMMISSIONING LIABILITIES

Hydro has recognized liabilities associated with the retirement of portions of the HTGS and the disposal of Polychlorinated Biphenyls (PCB).

The reconciliation of the beginning and ending carrying amounts of decommissioning liabilities for December 31, 2022 and 2021 are as follows:

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Decommissioning liabilities, beginning of the year	15	15
Revisions	2	-
Decommissioning liabilities, end of the year	17	15
Less: current portion	(1)	(2)
	16	13

The total estimated undiscounted cash flows required to settle the HTGS obligations at December 31, 2022 are \$25.0 million (2021 - \$15.2 million). Payments to settle the liability are expected to occur between 2023 and 2033. The fair value of the decommissioning liabilities was determined using the present value of future cash flows discounted at Hydro's credit adjusted risk free rate of 4.3% (2021 - 1.3%). Hydro has recorded \$17.0 million (2021 - \$14.6 million) related to HTGS obligations.

The total estimated undiscounted cash flows required to settle the PCB obligations at December 31, 2022 are \$0.2 million (2021 - \$0.2 million). Payments to settle the liability are expected to occur between 2023 and 2025. The fair value of the decommissioning liabilities was determined using the present value of future cash flows discounted at Hydro's credit adjusted risk free rate of 4.3% (2021 - 1.3%). Hydro has recorded \$0.2 million (2021 - \$0.2 million) related to PCB obligations.

Hydro's assets include generation plants, transmission assets and distribution systems. These assets can continue to run indefinitely with ongoing maintenance activities. As it is expected that Hydro's assets will be used for an indefinite period, no removal date can be determined and consequently, a reasonable estimate of the fair value of any related decommissioning liability cannot be determined at this time. If it becomes possible to estimate the fair value of the cost of removing assets that Hydro is required to remove, a decommissioning liability for those assets will be recognized at that time.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

16. LEASES

Amounts Recognized in the Non-Consolidated Statement of Profit and Comprehensive Income

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Variable lease payments not included in the measurement of leases	(a) 29	29

(a) Variable lease payments not included in the measurement of leases include payments made to Nalcor for power generated from assets which are owned by the Province. These variable lease payments are included in power purchased in the Non-Consolidated Statement of Profit and Comprehensive Income.

The total cash outflow for leases for the year ended December 31, 2022 amount to \$28.8 million (December 31, 2021 - \$28.7 million).

17. EMPLOYEE FUTURE BENEFITS

17.1 Pension Plan

Employees participate in the Province's Public Service Pension Plan, a multi-employer defined benefit plan. The employer's contributions for the year ended December 31, 2022 of \$8.1 million (2021 - \$8.0 million) are expensed as incurred.

17.2 Other Benefits

Hydro provides group life insurance and health care benefits on a cost shared basis to retired employees, and in certain cases their surviving spouses, in addition to a retirement allowance. In 2022, cash payments to beneficiaries for its unfunded other employee future benefits were \$2.9 million (2021 - \$3.2 million). An actuarial valuation was performed as at December 31, 2022.

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Accrued benefit obligation, beginning of the year	98	107
Current service cost	4	4
Interest cost	3	3
Benefits paid	(3)	(3)
Actuarial gain	(32)	(13)
Transfers (a)	1	-
Accrued benefit obligation, end of the year	71	98

(a) When an employee transfers to a related party, the associated accrued benefit obligation is allocated to each respective party based upon years of service.

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Component of benefit cost		
Current service cost	4	4
Interest cost	3	3
Total benefit expense for the year	7	7

The significant actuarial assumptions used in measuring the accrued benefit obligations and benefit expenses are as follows:

	2022	2021
Discount rate - benefit cost	3.35%	2.70%
Discount rate - accrued benefit obligation	5.20%	3.35%
Rate of compensation increase	3.50%	3.50%

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

Assumed healthcare trend rates:

	2022	2021
Initial health care expense trend rate	5.42%	5.53%
Cost trend decline to	3.60%	3.60%
Current rate 5.42%, reducing linearly to 3.6% in 2040 and thereafter.		

A 1% change in assumed health care trend rates would have had the following effects:

<i>Increase (millions of Canadian dollars)</i>	2022	2021
Current service and interest cost	1	2
Accrued benefit obligation	8	15
<i>Decrease (millions of Canadian dollars)</i>		
Current service and interest cost	(1)	(1)
Accrued benefit obligation	(7)	(12)

18. SHAREHOLDER'S EQUITY

18.1 Share Capital

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Common shares of par value of \$1 each		
Authorized: 25,000,000		
Issued, paid and outstanding: 22,503,942	23	23

18.2 Contributed Capital

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Contributed capital for the year	150	150
Regulatory adjustment, beginning of the year	(5)	(4)
Amortization recognized as a regulatory adjustment	(1)	(1)
	144	145

During 2022, Lower Churchill Management Corporation contributed \$0.2 million (2021 - \$0.2 million) in additions to property, plant and equipment. Pursuant to Board Order No. P.U. 1 (2017), Hydro recognized \$1.2 million (2021 - \$1.2 million) in amortization as a regulatory adjustment.

18.3 Dividends

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Declared during the year		
Final dividend for prior year: \$0.04 per share (2021 - \$0.03)	1	1
Dividend for current year: \$0.91 per share (2021 - \$0.64)	20	14
	21	15

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

19. POWER PURCHASED

The supply period under the Power Purchase Agreement with Muskrat Falls and the contractual payments commenced in November 2021. For the year ended December 31, 2022, Hydro recognized power purchase expense of \$411.6 million (2021 - \$57.4 million) associated with energy and capacity delivered from the Muskrat Falls Plant. These Muskrat Falls power purchase expenses are deferred in either the Supply Cost Variance Deferral account or the Power Purchase Expense Recognition account as described in Note 11.

20. OPERATING COSTS

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Salaries and benefits	87	83
Maintenance and materials	23	24
Professional services	9	8
Insurance	5	4
Travel and transportation	4	4
Other operating costs	8	7
	136	130

21. NET FINANCE EXPENSE

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Finance income		
Sinking fund	14	13
Other	2	1
	16	14
Finance expense		
Long-term debt	98	96
Debt guarantee fee	9	9
Other	4	2
	111	107
Interest capitalized during construction	(1)	(2)
	110	105
Net finance expense	94	91

22. OTHER EXPENSE

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Loss on disposal of property, plant and equipment	19	6
Insurance proceeds	-	(5)
Other	5	1
	24	2

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

23. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

23.1 Fair Value

The estimated fair values of financial instruments as at December 31, 2022 and 2021 are based on relevant market prices and information available at the time. Fair value estimates are based on valuation techniques which are significantly affected by the assumptions used including the amount and timing of future cash flows and discount rates reflecting various degrees of risk. As such, the fair value estimates below are not necessarily indicative of the amounts that Hydro might receive or incur in actual market transactions.

As a significant number of Hydro's assets and liabilities do not meet the definition of a financial instrument, the fair value estimates below do not reflect the fair value of Hydro as a whole.

Establishing Fair Value

Financial instruments recorded at fair value are classified using a fair value hierarchy that reflects the nature of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1 - valuation based on quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - valuation techniques based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3 - valuation techniques using inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The fair value hierarchy requires the use of observable market inputs whenever such inputs exist. A financial instrument is classified to the lowest level of the hierarchy for which a significant input has been considered in measuring fair value. For assets and liabilities that are recognized at fair value on a recurring basis, Hydro determines whether transfers have occurred between levels in the hierarchy by reassessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period. There were no transfers between Level 1, 2 and 3 fair value measurement for the year ended December 31, 2022 and December 31, 2021.

	Level	Carrying Value	Fair Value	Carrying Value	Fair Value
<i>As at (millions of Canadian dollars)</i>		December 31, 2022		December 31, 2021	
Financial assets					
Sinking funds - investments in Hydro debt issue	2	94	93	84	94
Sinking funds - other investments	2	202	209	192	230
Financial liabilities					
Derivative liability	3	86	86	56	56
Long-term debt (including amount due within one year before sinking funds)	2	2,133	2,017	2,132	2,508

The fair value of cash, trade and other receivables, related party loan receivable, short-term borrowings and trade and other payables approximates their carrying values due to their short-term maturity.

The fair values of Level 2 financial instruments are determined using quoted prices in active markets, which in some cases are adjusted for factors specific to the asset or liability. Level 2 derivative instruments are valued based on observable commodity future curves, broker quotes or other publicly available data. Level 2 fair values of other risk management assets and liabilities and long-term debt are determined using observable inputs other than unadjusted quoted prices, such as interest rate yield curves and currency rates.

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

Level 3 financial instruments include the derivative liability relating to the PPA with Energy Marketing and represents the future value provided to Energy Marketing through the contract.

The following table summarizes quantitative information about the valuation techniques and unobservable inputs used in the fair value measurement of Level 3 financial instruments as at December 31, 2022:

<i>(millions of Canadian dollars)</i>	Carrying Value	Valuation Techniques	Significant Unobservable Input(s)	Range
Derivative liability (PPA)	87	Modelled pricing	Volumes (MWh)	36%-42% of available generation

The derivative liability arising under the PPA is designated as a Level 3 instrument as certain forward market prices and related volumes are not readily determinable to estimate a portion of the fair value of the derivative liability. Hence, fair value measurement of this instrument is based upon a combination of internal and external pricing and volume estimates. As at December 31, 2022, the effect of using reasonably possible alternative assumptions for volume inputs to valuation techniques may have resulted in a +\$1.8 million to +\$5.5 million change in the carrying value of the derivative liability.

The components of the change impacting the carrying value of the derivative liability for the year ended December 31, 2022 and 2021 are as follows:

<i>(millions of Canadian dollars)</i>	(Level 3)
Balance at January 1, 2022	(56)
Purchases	(86)
Changes in profit or loss	
Mark-to-market	(34)
Settlements	90
Total	56
Balance at December 31, 2022	(86)

<i>(millions of Canadian dollars)</i>	(Level 3)
Balance at January 1, 2021	(23)
Purchases	(63)
Changes in profit or loss	
Mark-to-market	(21)
Settlements	51
Total	30
Balance at December 31, 2021	(56)

23.2 Risk Management

Hydro is exposed to certain credit, liquidity and market risks through its operating, investing and financing activities. Financial risk is managed in accordance with Hydro's Board approved Financial Risk Management Policy, which outlines the objectives and strategies for the management of financial risk, including the use of derivative contracts. Permitted financial risk management strategies are aimed at minimizing the volatility of Hydro's expected future cash flows.

Credit Risk

Hydro's expected future cash flow is exposed to credit risk through its operating activities, primarily due to the potential for non-performance by its customers, and through its financing and investing activities, based on the risk of non-performance by counterparties to its financial instruments. The degree of exposure to credit risk on cash and cash equivalents and derivative assets as well as from the sale of electricity to customers, including the associated accounts receivable, is determined by the financial capacity and stability of those customers and counterparties. The maximum exposure to credit risk on these financial instruments is represented by their carrying values on the Non-Consolidated Statement of Financial Position at the reporting date.

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

Credit risk on cash is minimal, as Hydro's cash deposits are held by a Schedule 1 Canadian Chartered Bank with a rating of A+ (Standard and Poor's).

Credit exposure on Hydro's sinking funds is limited by restricting the holdings to long-term debt instruments issued by the Government of Canada or any province of Canada, Crown corporations and Schedule 1 Canadian Chartered Banks. The following credit risk table provides information on credit exposures according to issuer type and credit rating for the remainder of the sinking funds portfolio:

	Issuer Credit Rating	Fair Value of Portfolio (%)	Issuer Credit Rating	Fair Value of Portfolio (%)
	2022		2021	
Provincial Governments	AA- to AAA	16.03%	AA- to AAA	16.62%
Provincial Governments	A- to A+	25.41%	A- to A+	26.02%
Provincially owned utilities	AA- to AAA	24.28%	AA- to AAA	23.31%
Provincially owned utilities	A- to A+	34.28%	A- to A+	34.05%
		100.00%		100.00%

Hydro's exposure to credit risk on its energy sales and associated accounts receivable is determined by the credit quality of its customers. Hydro's three largest customers account for 78.9% (2021 - 82.8%) of total energy sales and 68.5% (2021 - 62.2%) of accounts receivable.

Liquidity Risk

Hydro is exposed to liquidity risk with respect to its contractual obligations and financial liabilities. Liquidity risk management is aimed at ensuring cash is available to meet those obligations as they become due.

Short-term liquidity is mainly provided through cash on hand, funds from operations and a \$300.0 million promissory note program. In addition, Hydro maintains a \$500.0 million (2021 - \$500.0 million) committed revolving term credit facility with a maturity date of July 31, 2023. Long-term liquidity risk is managed by the issuance of a portfolio of debentures with maturity dates ranging from 2026 to 2048. Sinking funds have been established for these issues, with the exception of the issues maturing in 2030, 2045 and 2048.

The following are the contractual maturities of Hydro's financial liabilities, including principal and interest, as at December 31, 2022:

<i>(millions of Canadian dollars)</i>	< 1 Year	1-3 Years	3-5 Years	> 5 Years	Total
Trade and other payables	161	-	-	-	161
Short-term borrowings	131	-	-	-	131
Contract payable	165	-	-	-	165
Derivative liability	87	-	-	-	87
Debt guarantee fee	9	17	16	123	165
Long-term debt including sinking funds	7	13	127	1,607	1,754
Interest	98	195	158	926	1,377
	658	225	301	2,656	3,840

Market Risk

In the course of carrying out its operating, financing and investing activities, Hydro is exposed to possible market price movements that could impact expected future cash flow and the carrying value of certain financial assets and liabilities. Market price movements to which Hydro has significant exposure include those relating to prevailing interest rates, foreign exchange rates, most notably the USD/CAD, and current commodity prices, most notably the spot prices for fuel and electricity.

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

The derivative liability relates to the PPA with Energy Marketing and represents the future value provided to Energy Marketing through the contract. On September 14, 2016, the terms of the PPA were amended. Under the amendment, the PPA can be terminated by either party with notice provided 60 days prior to the intended termination date.

Interest Rates

Changes in prevailing interest rates will impact the fair value of financial assets and liabilities, which includes Hydro's cash and sinking funds. Expected future cash flows associated with those financial instruments can also be impacted. The impact of a 0.5% change in interest rates on net income and other comprehensive income associated with cash and short-term debt was negligible throughout 2022 due to the short time period to maturity. Hydro is not exposed to interest rate risk on its long-term debt as all of Hydro's long-term debt has fixed interest rates.

Foreign Currency and Commodity Exposure

Hydro is exposed to USD foreign exchange and commodity price risk arising from its purchases of No. 6 fuel for consumption at the HTGS. Hydro is also exposed to commodity price risk associated with electricity prices. These risks are mitigated through the operation of the regulatory mechanisms.

24. RELATED PARTY TRANSACTIONS

Hydro enters into various transactions with its parent and other related parties. Unless otherwise noted, these transactions occur within the normal course of operations and are measured at the exchange amount, which is the amount of consideration agreed to by the related parties. Outstanding balances due to or from related parties are non-interest bearing with settlement within 30 days, unless otherwise stated.

Related parties with which Hydro transacts are as follows:

Related Party	Relationship
Nalcor	100% shareholder of Hydro
The Province	100% shareholder of Nalcor
Churchill Falls	Joint arrangement of Hydro
Twin Falls	Wholly owned subsidiary of Churchill Falls as of November 1, 2022
Energy Marketing	Wholly-owned subsidiary of Nalcor
Lower Churchill Management Corporation (LCMC)	Wholly-owned subsidiary of Nalcor
Labrador-Island Link Operating Corporation (LIL Opco)	Wholly-owned subsidiary of Nalcor
Muskrat Falls Corporation (Muskrat Falls)	Wholly-owned subsidiary of Nalcor
Nalcor Energy – Oil and Gas Inc.	Wholly-owned subsidiary of Nalcor
Board of Commissioners of Public Utilities (PUB)	Agency of the Province

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

Significant related party transactions, which are not otherwise disclosed separately in the financial statements, are summarized below:

<i>As at December 31 (millions of Canadian dollars)</i>	2022	2021
Trade and other receivables:		
Parent	-	2
Other related parties	6	4
Related party loan receivable:		
Other related parties (a)	30	53
Trade and other payables:		
Parent	4	-
Joint operation	4	4
The Province	9	8
Other related parties	25	3
Contract payable:		
Other related parties (b)	165	18
Long-term debt:		
The Province	925	925
<hr/>		
<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Energy sales:		
Other related parties (c)	28	6
Other revenue:		
Parent	6	4
Other related parties	9	4
Power purchases:		
Joint operation	50	48
Parent	29	29
Other related parties	415	60
Net operating recoveries:		
Other related parties	17	14
Net finance expense:		
The Province	36	35

(a) Hydro has a related party loan receivable from Muskrat Falls which includes interest charged at 5.43% and is repayable by Muskrat Falls as cash becomes available.

(b) Hydro entered into a Power Purchase Agreement with Muskrat Falls for the purchase of energy and capacity from the Muskrat Falls Plant. The contract payable balance represents the timing difference between the value of the energy and capacity delivered to Hydro and the contractual payments made under the Power Purchase Agreement.

(c) In April 2022, Energy Marketing and Hydro amended the Energy Marketing - Hydro PPA to allow Energy Marketing to purchase incremental Recapture energy.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

24.1 Key Management Personnel Compensation

Compensation for key management personnel, which Hydro defines as its executives who have the primary authority and responsibility in planning, directing and controlling the activities of the entity, includes compensation for senior executives. Salaries and employee benefits include costs such as base salaries and contributions to employee benefit plans. Post-employment benefits include contributions to the Province's Public Service Pension Plan.

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Salaries and employee benefits	2	2

25. COMMITMENTS AND CONTINGENCIES

- (a) Hydro is subject to various legal proceedings and claims in the normal course of business. Although the outcomes of such actions cannot be predicted with certainty, Management believes the Company's exposure to such claims and litigation will not materially affect its financial position or results of operations.
- (b) Outstanding commitments for capital projects total approximately \$36.5 million as at December 31, 2022 (2021 - \$24.8 million).
- (c) Hydro has entered into a number of long-term power purchase agreements as follows:

Type	Rating	Effective Date	Term
Hydroelectric	6.5 MW	2021	24 years
Hydroelectric	4 MW	1998	25 years
Hydroelectric	300 MW	1998	43 years
Hydroelectric	225 MW	2015	25 years
Hydroelectric	824 MW	2021	50 years
Cogeneration	15 MW	2003	20 years
Wind	390 kW	2004	Continual
Wind	27 MW	2008	20 years
Wind	27 MW	2009	20 years
Hydroelectric, Solar, Battery	240 kW Hydro 189 kW Solar 334.5 kW Battery	2019	15 years
Solar	103 kW	2022	Continual
Biomass	450 kW	2018	1 year post in-service of Lower Churchill Project

Estimated payments due in each of the next five years are as follows:

<i>(millions of Canadian dollars)</i>	2023	2024	2025	2026	2027
Power purchases	682.1	801.8	804.2	818.4	830.6

- (d) Through a power purchase agreement signed October 1, 2015, with Energy Marketing, Hydro maintains the transmission services contract it entered into with Hydro-Québec TransÉnergie which concludes in 2024.

The transmission rental payments for the next two years are estimated to be as follows:

2023	\$18.9 million
2024	\$4.8 million

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

- (e) In May 2021, Hydro entered into an amended Capacity Assistance Agreement with CBPP for the purchase of relief power during the winter period that expires on April 30, 2023. Payment for services will be dependent on the successful provision of capacity assistance for the winter period by CBPP.

26. CAPITAL MANAGEMENT

Hydro's principal business requires ongoing access to capital in order to maintain assets to ensure the continued delivery of safe and reliable service to its customers. Therefore, Hydro's primary objective when managing capital is to ensure ready access to capital at a reasonable cost, to minimize its cost of capital within the confines of established risk parameters, and to safeguard Hydro's ability to continue as a going concern.

The capital managed by Hydro is comprised of debt (long-term debentures, short-term borrowings, bank credit facilities and bank indebtedness) and equity (share capital, shareholder contributions, reserves and retained earnings).

A summary of the capital structure is outlined below:

<i>(millions of Canadian dollars)</i>	2022		2021	
Debt				
Sinking funds	(202)		(192)	
Short-term borrowings	131		55	
Current portion of long-term debt	7		7	
Long-term debt	2,032		2,041	
	1,968	60.4%	1,911	61.9%
Equity				
Share capital	23		23	
Contributed capital	144		145	
Reserves	31		(6)	
Retained earnings	1,094		1,015	
	1,292	39.6%	1,177	38.1%
Total Debt and Equity	3,260	100.0%	3,088	100.0%

Hydro's approach to capital management encompasses various factors including monitoring the percentage of floating rate debt in the total debt portfolio, the weighted average term to maturity of its overall debt portfolio, its percentage of debt to debt plus equity, and its interest coverage.

For the regulated portion of Hydro's operations, Management targets a capital structure comprised of 75% debt and 25% equity, a ratio which Management believes to be optimal with respect to its cost of capital. This capital structure is maintained by a combination of dividend policy, shareholder contributions and debt issuance. The issuance of any new debt with a term greater than one year requires prior approval of the PUB. Hydro's committed operating facility has a covenant requiring Hydro to ensure that its consolidated debt to total capitalization ratio does not exceed 85%. As at December 31, 2022, Hydro was in compliance with this covenant.

Legislation stipulates that the total of the short-term loans issued by Hydro and outstanding at any time shall not exceed a limit as fixed by the Lieutenant-Governor in Council. Short-term loans are those loans issued with a term not exceeding two years. On April 7, 2022, the Lieutenant-Governor in Council issued Order in Council OC2022-090 to maintain the level of short-term borrowings permitted by Hydro at \$500.0 million, effective until March 31, 2023. As at December 31, 2022, there are \$131.0 million in short term borrowings outstanding (2021 - \$55.0 million). The Hydro Corporation Act, 2007 (the Act) limits Hydro's total borrowings outstanding at any point in time, which includes both short-term borrowings and long-term debt to \$2.6 billion.

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

Historically, Hydro addressed longer-term capital funding requirements by issuing government guaranteed long-term debt in the domestic capital markets. Beginning in December 2017, the Province now issues debt in the domestic capital markets, on Hydro's behalf, and in turn loans the funds to Hydro on a cost recovery basis. Any additional funding to address long-term capital funding requirements requires approval from the Province and the PUB.

27. SUPPLEMENTARY CASH FLOW INFORMATION

<i>For the year ended December 31 (millions of Canadian dollars)</i>	2022	2021
Trade and other receivables	11	(26)
Inventories	(15)	8
Prepayments	1	1
Trade and other payables	47	(11)
Contract payable	147	18
Changes in non-cash working capital balances	191	(10)
Related to:		
Operating activities	203	(12)
Investing activities	(4)	2
Financing activities	(8)	-
	191	(10)

NEWFOUNDLAND AND LABRADOR HYDRO
NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

28. SEGMENT INFORMATION

Hydro operates in three business segments. The designation of segments is based on a combination of regulatory status and management accountability.

Hydro Regulated activities encompass sales of electricity to customers within the Province that are regulated by the PUB and export markets. Hydro Non-Regulated activities include the sale of energy to mining operations in Labrador West and for export markets as well as Hydro's costs that are excluded from the determination of customer rates. Energy Marketing activities includes the sale of electricity and transmission to Hydro's affiliate, Energy Marketing.

	Hydro Regulated	Non-Regulated Activities	Energy Marketing	Total
<i>(millions of Canadian dollars)</i>				
For the year ended December 31, 2022				
Energy sales	649	56	4	709
Other revenue	31	-	16	47
Revenue	680	56	20	756
Fuels	188	-	-	188
Power purchased	473	47	4	524
Operating costs	135	1	-	136
Transmission rental	3	-	16	19
Depreciation and amortization	80	-	-	80
Net finance expense	94	-	-	94
Other expense	23	1	-	24
Expenses	996	49	20	1,065
(Loss) profit for the year from operations	(316)	7	-	(309)
Share of profit of joint arrangement	-	44	-	44
Preferred dividends	-	13	-	13
(Loss) profit for the year before regulatory adjustments	(316)	64	-	(252)
Regulatory adjustments	(352)	-	-	(352)
Profit for the year	36	64	-	100
Capital expenditures*	104	-	-	104
Total assets	3,237	709	92	4,038

*Capital expenditures include non-cash additions of \$0.2 million contributed by Lower Churchill Management Corporation and \$0.9 million of interest capitalized during construction.

NEWFOUNDLAND AND LABRADOR HYDRO

NOTES TO THE NON-CONSOLIDATED FINANCIAL STATEMENTS

	Hydro Regulated	Non-Regulated Activities	Energy Marketing	Total
<i>(millions of Canadian dollars)</i>	For the year ended December 31, 2021			
Energy sales	538	47	4	589
Other revenue	16	-	21	37
Revenue	554	47	25	626
Fuels	122	-	-	122
Power purchased	123	43	4	170
Operating costs	129	1	-	130
Transmission rental	-	-	21	21
Depreciation and amortization	84	-	-	84
Net finance expense	91	-	-	91
Other expense	2	-	-	2
Expenses	551	44	25	620
Profit for the year from operations	3	3	-	6
Share of profit of joint arrangement	-	41	-	41
Preferred dividends	-	11	-	11
Profit for the year before regulatory adjustments	3	55	-	58
Regulatory adjustments	(33)	-	-	(33)
Profit for the year	36	55	-	91
Capital expenditures*	115	-	-	115
Total assets	2,910	664	59	3,633

*Capital expenditures include non-cash additions of \$0.2 million contributed by Lower Churchill Management Corporation and \$1.6 million of interest capitalized during construction.

Newfoundland and Labrador Hydro

Directors¹

Officers

Albert Williams

Chairperson, Nalcor Energy and NL Hydro
Retired Engineer

Jennifer Williams

President and Chief Executive Officer

John Green

Retired Lawyer, McInnes Cooper

Kevin Fagan

Vice President, Regulatory and Stakeholder Relations

Donna Brewer

Retired Deputy Minister of Finance

Robert Collett

Vice President, Hydro Engineering and NLSO

Chris Loomis

Retired Professor
Memorial University of Newfoundland and Labrador

Lisa Hutchens

Vice President, Chief Financial Officer

Jennifer Williams

President and Chief Executive Officer, NL Hydro
President and Interim Chief Executive Officer, Nalcor Energy

Walter Parsons

Vice President, Transmission Interconnections and
Business Development

David Oake

President, Invenio Consulting Inc.

Gail Collins

Vice President, People and Corporate Affairs

Fraser Edison

President and CEO, Rutter Inc.

Scott Crosbie

Vice President, Hydro Operations

John Mallam

Retired NL Hydro Executive

Gerard Dunphy

Vice President, Churchill Falls and Muskrat Falls

Brian Walsh

Retired FortisTCl Executive

Michael Ladha

Vice President, Chief Legal Officer and Corporate
Secretary

Trina Troke

Director of Projects, Cahill Group

Meredith Baker

Assistant Corporate Secretary

Head Office

Newfoundland and Labrador Hydro
PO Box 12400
Hydro Place, 500 Columbus Drive
St. John's, NL
Canada A1B 4K7

¹ Newfoundland and Labrador Hydro Board of Directors as at December 31, 2022.

Newfoundland and Labrador Hydro
Computation of Rate Base
Year Ended December 31, 2022
(\$000)

	2022	2021
Capital Assets - Return 4	2,869,697	2,816,362
Work in Progress ¹	22,755	9,164
	2,892,452	2,825,526
Deduct:		
Accumulated Depreciation - Return 6 ²	654,859	598,649
Contributions in Aid of Construction - Return 7 ¹	50,987	51,605
	2,186,606	2,175,272
Total Capital Assets		
Deduct Items Excluded from Rate Base:		
Work in Progress ¹	(22,755)	(9,164)
Asset Retirement Obligations (net of amortization)	(2,734)	(352)
	2,161,118	2,165,756
Net Capital Assets		
Net Capital Assets, Previous Year	2,165,756	2,132,758
Unadjusted Average Capital Assets	2,163,437	2,149,257
Deduct:		
Average Net Capital Assets Excluded from Rate Base	(8,628)	(8,154)
Average Capital Assets	2,154,809	2,141,103
Cash Working Capital Allowance - Return 8	10,312	122
Fuel Inventory - Return 10	70,512	55,803
Supplies Inventory - Return 10	38,856	38,326
Average Deferred Charges - Return 11	59,632	86,402
	2,334,120	2,321,756
Average Rate Base at Year End - Return 12	2,334,120	2,321,756

¹ Contributions of \$13.7 million (2021 - \$4.4 million) related to capital assets not in service have been net in work in progress. In addition, insurance proceeds of \$1.0 million (2021 - \$3.6 million) related to capital assets not in service have been net in work in progress.

² Accumulated amortization is net of the Retirement Asset Pool and Removal Provision. Please refer to Return 6 for further details.

Newfoundland and Labrador Hydro
Capital Assets - Original Cost
Year Ended December 31, 2022
(\$000)

	Balance 31-Dec-21	Adjustments During 2022	Additions During 2022	Retirements During 2022	Balance 31-Dec-22
Power Generation					
Steam	210,285	1,874	13,310	(7,718)	217,751
Hydro	894,387	(119)	17,249	(1,094)	910,423
Diesel	119,144	9	5,249	(6,126)	118,275
Gas Turbine	191,333	(32)	2,714	(829)	193,185
	1,415,149	1,731	38,522	(15,767)	1,439,634
Substations	395,228	188	22,294	(1,510)	416,201
Transmission	564,619	26	2,414	(11,424)	555,635
Distribution	275,864	4	13,712	(1,133)	288,448
General Plant	85,735	(6)	3,321	(403)	88,647
Telecontrol	54,929	115	2,261	(2,003)	55,302
Total Depreciable Plant	2,791,523	2,059	82,525	(32,240)	2,843,867
Non-Depreciable Land	5,073	-	-	-	5,073
Plant Investment	2,796,596	2,059	82,525	(32,240)	2,848,940
Intangible	19,766	67	925	-	20,757
Total - Return 3	2,816,362	2,125	83,449	(32,240)	2,869,697

Newfoundland and Labrador Hydro
Capital Expenditures - Overview
Year Ended December 31, 2022
(\$000)

	Total Board Approved Expenditures 2022	Total Actual Expenditures 2022	Variance From 2022 Budget
Generation	36,450	33,366	3,084
Transmission and Rural Operations	65,125	50,710	14,415
General Properties	11,223	7,384	3,839
Allowance for Unforeseen Events	1,402	801	601
Supplemental Projects	23,664	11,033	12,631
New Projects Less than \$50,000 Approved by Hydro	272	115	158
Total Capital Budget	138,136	103,408	34,728
2022 Capital Budget Approved by Board Order No. P.U. 37(2021)	84,163		
New Project Approved by Board Order No. P.U. 27(2021)	12,282		
New Project Approved by Board Order No. P.U. 28(2021)	2,011		
New Project Approved by Board Order No. P.U. 30(2021)	171		
Top-up Approved by Board Order No. P.U. 9(2022)	402		
New Project Approved by Board Order No. P.U. 12(2022)	177		
New Project Approved by Board Order No. P.U. 14(2022)	-	¹	
New Project Approved by Board Order No. P.U. 17(2022)	18		
New Project Approved by Board Order No. P.U. 18(2022)	959		
New Project Approved by Board Order No. P.U. 24(2022)	-	²	
New Project Approved by Board Order No. P.U. 26(2022)	444		
New Project Approved by Board Order No. P.U. 28(2022)	230	³	
New Project Approved by Board Order No. P.U. 30(2022)	1,604	²	
New Project Approved by Board Order No. P.U. 32(2022)	1,270		
2022 New Projects under \$50,000 Approved by Hydro	272		
Total Approved Capital Budget Before Carryovers	104,004		
Carryover Projects 2020–2021	34,132	⁴	
Total Approved Capital Budget	138,136		
Less:			
Carryover CIAC's	(890)	⁴	
Supplemental CIAC's	(14,446)		
Net Capital Expenditures	122,801		

¹ The capital expenditure for Mary's Harbour Diesel Generating Station was approved in 2022 but the spend is projected to commence in 2023.

² In Board Order No. P.U. 30(2022), it was approved that Order No. P.U. 24(2022) would be modified to include the refurbishment of the Holyrood Thermal Generating Station Tank 1, rather than Tank 2.

³ The project to relocate a distribution line and for the contribution by Anaconda Mine, which was approved in Board Order No. P.U. 28(2022), was subsequently cancelled.

⁴ The 2022 carryover is \$33,242 million net of Contributions in aid of Construction ("CIAC") of \$0.890 million (\$34,132 - \$0.890 = \$33,242).

Newfoundland and Labrador Hydro
Accumulated Depreciation
Year Ended December 31, 2022
(\$000)

	<u>Property, Plant and Equipment</u>	<u>Intangible</u>	<u>Total</u>
Balance, December 31, 2021	587,385	13,450	600,835
Add:			
Depreciation	78,611	1,499	80,110
Deduct:			
Retirements, Transfers and Adjustments	(12,745)	-	(12,745)
Accumulated Amortization Balance, December 31, 2022	<u>653,250</u>	<u>14,949</u>	<u>668,199</u>
 Retirement Asset Pool			
Balance, December 31, 2021	(19,286)	95	(19,191)
Add:			
Net Loss on Retirement	(18,717)	-	(18,717)
Disposal Proceeds	2,599	-	2,599
	<u>(35,404)</u>	<u>95</u>	<u>(35,309)</u>
 Removal Provision			
Balance, December 31, 2021	17,005	-	17,005
Add:			
Removal Depreciation	5,449	-	5,449
Less:			
Removal Costs	(486)	-	(486)
	<u>21,968</u>	<u>-</u>	<u>21,968</u>
 Total Accumulated Amortization Balance, December 31, 2022	<u><u>639,814</u></u>	<u><u>15,044</u></u>	<u><u>654,859</u></u>

Depreciation Rates - 2022

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Generation Plant	
Hydroelectric	25 to 110 years
Thermal	20 to 70 years
Diesel	3 to 70 years
Transmission	
Lines	26 to 65 years
Terminal Stations	20 to 60 years
Distribution System	20 to 60 years
Other Assets	3 to 70 years

**Newfoundland and Labrador Hydro
Contributions in Aid of Construction
Year Ended December 31, 2022
(\$000)**

	<u>Customers</u>	<u>Government/ Hydro Corporate¹</u>	<u>Total</u>
Gross Contributions December 31, 2021	22,908	39,597	62,504
2022 Additions ²	1,694	708	2,402
2022 Disposals	(895)	-	(895)
December 31, 2022	23,707	40,305	64,012
Less: Accumulated Amortization			(13,024)
Net Balance December 31, 2022 - Return 3			<u><u>50,987</u></u>

¹ Hydro Corporate includes Newfoundland and Labrador Hydro's other lines of business, including but not limited to the Lower Churchill Project.

² Contributions of \$13.7 million (2021 - \$4.4 million) related to capital assets not in service have been net in work in progress. In addition, insurance proceeds of \$1.0 million (2021 - \$3.6 million) related to capital assets not in service have been net in work in progress.

Newfoundland and Labrador Hydro
Working Capital
Year Ended December 31, 2022
(\$000)

	2022	2021
Calculation of Cash Working Capital Allowance		
Operating Expenses for the Year - Return 9	130,494	126,062
Add: Power Purchases	324,460	105,514
Add: Transmission Expenses	2,908	386
Total	457,862	231,962
Net Lag % ¹	2.38%	1.52%
Working Capital Allowance	10,897	3,526
Deduct: HST Adjustment	585	3,404
Working Capital Allowance - Return 3	10,312	122

¹ Net Lag % is calculated as Net Lag Days (Revenue Lag less Expense Lag) divided by 365 days. In 2022, Newfoundland and Labrador Hydro's Revenue Lag was 36 days (2021 - 36 days) and the Expense Lag was 27 days (2021 - 30 days) resulting in a Net Lag of 9 days (2021 - 6 days).

Newfoundland and Labrador Hydro
Statement of Operating Costs
Year Ended December 31, 2022
(\$000)

	<u>2022</u>	<u>2021</u>
Salaries and Benefits	82,437	79,000
System Equipment Maintenance	22,299	21,819
Office Supplies and Expenses	2,315	2,082
Professional Services	8,279	7,560
Insurance	4,703	4,412
Equipment Rentals	2,255	2,285
Travel	2,037	1,591
Miscellaneous Expenses	5,011	4,978
Building Rental and Safety	972	932
Transportation	2,358	1,863
Customer (Recoveries) Costs	(511)	(703)
Cost (Recoveries) Charges	(1,661)	243
Operating Costs - Return 8	<u>130,494</u>	<u>126,062</u>

Newfoundland and Labrador Hydro
Significant Operating Expense Variance
Year Ended December 31, 2022
(\$000)

	2022	2021	Increase (Decrease)
Salaries and Benefits	82,437	79,000	3,437
Increase is primarily due to variations in labour recharge and other salary related costs, partially offset by decrease in overtime and salaries and benefits which was driven by additional vacancies in 2022.			
System Equipment Maintenance	22,299	21,819	480
Variance is primarily due to normal fluctuations in contract labour and materials associated with variations in operating projects year over year.			
Professional Services	8,279	7,560	719
Variance is primarily due to an increase in software and maintenance costs, as well as increased consulting costs related to work management, legal support and environmental studies.			
Travel	2,037	1,591	446
Increase in travel is primarily due to the pandemic-related travel restrictions in place in 2021. Travel returned to more normal levels in 2022.			
Transportation	2,358	1,863	495
Increase due to higher average vehicle fuel prices in 2022.			
Cost (Recoveries) Charges	(1,661)	243	(1,904)
Variance is primarily due to the reversal of prior years allowance taken on the Business System Project Deferral, an increase in intercompany administrative fee recoveries, an increase in external cost recoveries, partially offset by a reduction in the Phase II Deferral.			

Newfoundland and Labrador Hydro
Inventory
Year Ended December 31, 2022
(\$000)

	Fuel		Supplies	
	2022	2021	2022	2021
Opening Balance	46,103	53,721	38,051	38,622
January	47,349	54,561	38,415	38,707
February	47,589	36,841	38,452	38,685
March	49,788	35,995	39,181	38,949
April	66,587	41,073	38,899	38,793
May	89,080	52,146	38,918	38,765
June	93,460	53,627	39,059	38,202
July	87,874	73,056	39,143	37,958
August	91,953	72,313	38,878	37,879
September	91,108	71,982	38,843	37,847
October	85,481	71,194	38,841	37,858
November	60,662	62,832	39,073	37,917
December	59,623	46,103	39,369	38,051
13-Month Average - Return 3	70,512	55,803	38,856	38,326

Newfoundland and Labrador Hydro
Deferred Charges
Year Ended December 31, 2022
(\$000)

	<u>Board Order No.</u>	<u>2022</u>	<u>2021</u>
Foreign Exchange Losses	P.U. 7(2002-2003)	40,982	43,139
Foreign Exchange on Fuel	P.U. 30(2019)	401	(16)
Conservation Demand Program	P.U. 30(2019)	7,527	8,300
Phase II Hearing Costs	P.U. 13(2016)	1,364	1,364
Asset Disposal	P.U. 13(2016)	273	292
Energy Supply Deferral	P.U. 30(2019)	8,955	12,323
Deferred Power Purchases	P.U. 5(1996-1997)	(140)	(177)
2018 Revenue Deficiency	P.U. 30(2019)	(1)	(1)
2019 Revenue Deficiency	P.U. 30(2019)	77	77
Business Systems Transformation Program	P.U. 16(2019)	1,027	4,600
Business Systems Transformation Program (approved for recovery)	P.U. 27(2022)	6,687	-
Reliability and Resource Adequacy	P.U. 29(2019)	2,343	2,057
Hydraulic Resource Optimization	P.U. 49(2018)	(5,712)	(2,548)
Frequency Converter	P.U. 35(2020)	(702)	(473)
Power Purchase Expense Recognition	P.U. 9(2021) and P.U. 33(2021)	165,728	17,573
Muskrat Falls Export Revenue Recognition Deferral	P.U. 33(2021) and P.U. 4(2022)	25,757	-
Muskrat Falls PPA Sustaining Capital	P.U. 33(2021) and P.U. 4(2022)	536	-
Deferred Charges		<u>255,102</u>	<u>86,510</u>
Deduct:			
Deferred Charges Excluded from Rate Base			
Phase II Hearing Costs ¹		(1,364)	(1,364)
Business System Transformation P.U. 27 (2022) ¹		(1,027)	(4,600)
Sustaining Capital ¹		(536)	-
Reliability and Resource Adequacy ¹		(2,343)	(2,057)
Power Purchase Expense Recognition ²		(165,728)	(17,573)
Muskrat Falls Export Revenue Recognition Deferral ³		<u>(25,757)</u>	<u>-</u>
		<u>(196,755)</u>	<u>(25,594)</u>
Deferred Charges, End of Current Year		58,347	60,916
Deferred Charges, End of Prior Year		60,916	111,887
Average Deferred Charges for Rate Base - Return 3		<u><u>59,632</u></u>	<u><u>86,402</u></u>

¹ Recovery of these expenditures is subject to approval by the Board of Commissioners of Public Utilities and therefore have been excluded from rate base.

² These expenditures are not eligible for recovery as per Board Order Nos. P.U. 9(2021) and P.U. 33(2021).

³ This revenue represents a timing difference in revenue recognition and therefore excluded from rate base as per Board Order No P.U. 33(2021).

Newfoundland and Labrador Hydro
Return on Rate Base
Year Ended December 31, 2022
(\$000)

	2022	2021
(a) Corporate Net Income - Return 1	99,981	91,327
Deduct: Unregulated Earnings	63,668	55,528
Regulated Net Income	36,313	35,799
Add: Compliance Adjustments	-	-
Add: Cost of Service Exclusions ¹	7,620	7,108
Add: Regulated Interest - Return 16	81,686	83,813
(b) Regulated Return	125,619	126,720
(c) Average Rate Base - Return 3	2,334,120	2,321,756
(d) Rate of Return on Average Rate Base	5.38%	5.46%
Lower end of Approved Range - 0.20	5.23%	5.23%
Higher end of Approved Range + 0.20	5.63%	5.63%

¹ The Cost of service exclusions are comprised of the disallowed portion of the debt guarantee fee of \$6.7 million (2021 - \$6.3 million) and depreciation on assets excluded from rate base of \$0.9 million (2021 - \$0.8 million).

Newfoundland and Labrador Hydro
Return on Regulated Average Retained Earnings
Year Ended December 31, 2022
(\$000)

	2022	2021
Total Equity - Hydro as per Balance Sheet, Return 1	1,291,795	1,177,109
Add: Compliance Adjustments	-	-
	1,291,795	1,177,109
Deduct Share capital	22,504	22,504
Contributed surplus	144,261	145,262
Accumulated OCI	31,267	(5,759)
Ending Retained Earnings as Per Balance Sheet	1,093,763	1,015,103
Deduct: Non-Regulated Retained Earnings		
Beginning Non-Regulated Retained Earnings	603,497	563,078
Non-Regulated Net Income for the year	63,668	55,528
Non-Regulated Dividends for the year	(21,321)	(15,109)
Ending Non-Regulated Retained Earnings	645,844	603,497
Regulated Retained Earnings, End of Year	447,919	411,606
Add:		
Regulated Contributed Surplus	100,000	100,000
Retained Earnings Cost of Service Exclusions	57,840	50,221
Total Regulated Equity, End of Year	605,760	561,826
Regulated Equity, Beginning of Year	561,826	518,920
Regulated Average Equity	583,793	540,373
Net Income - Return 1	99,981	91,327
Add: Compliance Adjustments	-	-
Deduct: Non-Regulated Net Income	63,668	55,528
Hydro Regulated Earnings	36,313	35,799
Cost of Service Exclusions	7,620	7,108
Regulated Earnings	43,933	42,907
Rate of Return on Regulated Equity	7.53%	7.94%

Newfoundland and Labrador Hydro
Capital Structure
Year Ended December 31, 2022
(\$000)

	2022		2021		Average	
	Amount	Percent	Amount	Percent	Amount	Percent
Hydro						
Debt (Return 15)	1,968,390	60.4%	1,911,328	61.9%	1,939,859	61.1%
Equity (Return 13)	1,291,795	39.6%	1,177,109	38.1%	1,234,452	38.9%
	3,260,186	100.0%	3,088,437	100.0%	3,174,311	100.0%
Hydro Regulated						
Debt (Return 15)	1,965,679	73.4%	1,896,516	74.1%	1,931,097	73.7%
Funded Employee Future Benefits	91,509	3.4%	87,830	3.4%	89,670	3.4%
Funded Asset Retirement Obligation	14,344	0.5%	14,396	0.6%	14,370	0.5%
Equity (Return 13)	605,760	22.6%	561,826	21.9%	583,793	22.3%
	2,677,292	100.0%	2,560,568	100.0%	2,618,930	100.0%

Newfoundland and Labrador Hydro
Cost of Debt
Year Ended December 31, 2022
(\$000)

	2022	2021	Average
Long-Term Debt	2,039,320	2,048,049	2,043,685
Promissory Notes	131,000	55,000	93,000
Sinking Funds	(201,930)	(191,721)	(196,826)
Total Debt	1,968,390	1,911,328	1,939,859
Add back Mark to Market Value	-	-	-
Net Debt	1,968,390	1,911,328	1,939,859
Non-Regulated Debt Pool	(2,711)	(14,812)	(8,762)
Total Regulated Debt - Return 14	1,965,679	1,896,516	1,931,097
Current Year Interest Expense - Return 16			89,996
Cost of Debt			4.66%

Newfoundland and Labrador Hydro
Interest Expense
Year Ended December 31, 2022
(\$000)

	2022	2021
Gross Interest		
Long-Term Debt	97,749	96,220
Promissory Notes and Short Term	2,320	1,141
	100,069	97,361
Amortization of Debt Discount and Financing Expenses	1,339	885
Provision for Foreign Exchange	2,157	2,157
Interest Earned	(15,635)	(14,209)
Debt Guarantee Fee - Hydro ¹	8,703	8,602
Other	184	184
	96,817	94,980
(Deduct):		
Cost of Service Exclusions ¹	(6,724)	(6,326)
Non-Regulated Interest	(97)	(94)
	89,996	88,560
Interest for Cost of Debt - Return 15	89,996	88,560
Add:		
Interest Capitalized During Construction	(882)	(1,556)
Interest on Supply Cost Variance Deferral Account	(4,603)	9
Interest on LCP Sustaining Capital IDC	(22)	-
Interest charged on RSP	(2,803)	(3,200)
	81,686	83,813
Regulated Net Interest - Return 12	81,686	83,813
(Deduct):		
Provision for Foreign Exchange	(2,157)	(2,157)
Add:		
Cost of Service Exclusions ¹	6,724	6,326
Accretion of ARO	186	77
	86,439	88,059
Regulated Interest (PUB Quarterly)	86,439	88,059
(Deduct):		
Interest on Supply Cost Variance Deferral Account	4,603	(9)
Interest Charged on RSP	2,803	3,200
Add:		
Non-Regulated Interest	97	94
	93,942	91,344
Interest (Return 1)	93,942	91,344

¹ As per Board Order No. P.U. 49(2016), Newfoundland and Labrador Hydro has excluded the disallowed portion of the debt guarantee fee.

Newfoundland and Labrador Hydro
Rate Stabilization Plan - Activity
Year Ended December 31, 2022
(\$000)

Month	Utility					Industrial					Cumulative Net Balance		
	Load Variation	Allocation Fuel Variation	Rural Rate Alteration	Financing Charges	Adjustment	Transfers ¹	Cumulative Net Balance	Load Variation	Allocation Fuel Variation	Financing Charges		Adjustment	Transfers ¹
Opening Balance	-	-	-	-	-	7,503	7,503	-	-	-	-	-	4,320
January	-	-	-	33	(3,978)	-	3,558	-	-	19	145	-	4,484
February	-	-	-	16	(3,600)	-	(26)	-	-	20	(139)	-	4,365
March	-	-	-	(0)	(3,790)	11,443	7,627	-	-	19	(143)	1,009	5,251
April	-	-	-	34	(2,995)	-	4,666	-	-	23	(110)	-	5,164
May	-	-	-	21	(2,443)	-	2,243	-	-	23	(136)	-	5,051
June	-	-	-	10	(1,942)	-	311	-	-	22	(136)	-	4,937
July	-	-	-	1	67	-	379	-	-	22	(111)	-	4,848
August	-	-	-	2	69	-	449	-	-	21	(126)	-	4,744
September	-	-	-	2	68	-	519	-	-	21	(114)	-	4,652
October	-	-	-	2	79	-	600	-	-	21	(85)	-	4,587
November	-	-	-	3	120	-	723	-	-	20	(123)	-	4,484
December	-	-	-	3	143	-	870	-	-	20	(126)	-	4,378
Year-to-Date	-	-	-	126	(18,202)	11,443	870	-	-	251	(1,202)	1,009	4,378
Hydraulic Allocation	-	-	-	-	-	16,094	16,094	-	-	-	-	-	1,172
Total	-	-	-	-	-	16,964	16,964	-	-	-	-	-	5,550
													To Return 18

¹Recovery of Supply Deferrals was approved in Board Order No. P.U. 16(2022).

Newfoundland and Labrador Hydro
Rate Stabilization Plan - Balances
Year Ended December 31, 2022
(\$000)

Month	Hydraulic			From Return 17			
	Net Hydraulic Production Variation	Financing Charges	Transfers	Cumulative Variation and Financing Charges	Utility Balance	Industrial Balance	Cumulative Net Balance
Opening Balance				44,665	7,503	4,320	56,487
January	-	197	-	44,862	3,558	4,484	52,905
February	-	198	-	45,060	(26)	4,365	49,399
March	-	199	-	45,259	7,627	5,251	58,137
April	-	200	-	45,459	4,666	5,164	55,289
May	-	201	-	45,660	2,243	5,051	52,954
June	-	202	-	45,862	311	4,937	51,110
July	-	203	-	46,064	379	4,848	51,292
August	-	203	-	46,268	449	4,744	51,461
September	-	204	-	46,472	519	4,652	51,643
October	-	205	-	46,677	600	4,587	51,864
November	-	206	-	46,883	723	4,484	52,090
December	-	207	-	47,090	870	4,378	52,338
Year-to-Date	-	2,425	-	2,425	(6,633)	58	(4,150)
Hydraulic Allocation	(14,888)	(2,425)	-	(17,314)	16,094	1,172	(48)
Total	(14,888)	-	-	29,776	16,964	5,550	52,290

Newfoundland and Labrador Hydro
Assessable Revenue
Year Ended December 31, 2022
(\$000)

	<u>2022</u>	<u>2021</u>
Electricity Sales	668,768	607,195
Rate Stabilization ¹	19,121	(23,944)
CDM Rider	1,855	1,586
Energy Supply Deferral and Revenue deficiency	-	4,464
Supply Cost Variance Deferral Utility Rate Rider	18,942	-
Energy Sales (Return 1)	<u>708,685</u>	<u>589,300</u>
Other Revenue	<u>46,588</u>	<u>37,165</u>
Total Revenue (Return 1)	755,274	626,465
Deduct Regulated Hydro Revenue That Is Not Assessable:		
Input Tax Credits	133	183
Contribution in Aid of Construction	993	1,016
Rural Rate Alteration	5,095	2,281
CBPP Frequency Converter	229	229
Ponding Revenue	3,224	1,390
Export Revenue	32,299	-
Greenhouse Gas Credits	9,316	3,096 ¹
Transmission Tariff Revenue	9,413	700 ¹
Deduct Non-Regulated Revenue:		
Legacy Recapture	3,654	4,266
Incremental Recapture	3,831	-
Iron Ore Company of Canada	43,573	39,248
Tacora/Wabush Mines	8,944	7,717
Other Revenue	<u>15,645</u>	<u>20,632</u>
	<u>136,349</u>	<u>80,758</u>
Assessable Revenue	<u><u>618,925</u></u>	<u><u>545,707</u></u>

¹ 2021 Revenue adjusted for items included in the energy supply cost deferral.

**Newfoundland and Labrador Hydro
2022 Annual Report on the Rural Deficit**

	2022 ¹			
	Revenues (\$)	Cost of Service before Deficit and Revenue Allocation (\$)	Revenue Credits (\$)	Deficit ² (\$)
Rural Deficit Areas				
Island Interconnected	55,511,844	78,568,904	-	(23,057,060)
Island Isolated	1,435,571	11,043,911	-	(9,608,340)
Labrador Isolated	9,097,804	42,532,362	-	(33,434,558)
L'Anse-au-Loup	3,275,764	9,183,301	-	(5,907,537)
Total	69,320,983	141,328,479	-	(72,007,496)

	2022				
	Number of Communities ³	Number of Customers	Cost per kWh (\$)	Deficit per Customer (\$)	Cost Recovery Ratio
Rural Deficit Areas					
Island Interconnected	146	23,227	0.19	(993)	0.71
Island Isolated	6	654	1.95	(14,692)	0.13
Labrador Isolated	15	2,741	1.03	(12,198)	0.21
L'Anse-au-Loup	8	1,062	0.38	(5,563)	0.36
Total	175	27,684	0.29	(2,601)	0.49

NOTE: Newfoundland and Labrador Hydro ("Hydro") has not provided forecast deficit figures for 2023–2027 due to the uncertainty of future rate increases pending finalization of the Rate Mitigation Plan.

¹The 2022 Rural Deficit calculation is based on *pro forma* Cost of Service Studies.

²On March 31, 2023, Government announced that as part of initial steps on implementation of rate mitigation, Government will pay the remaining 2022 balance of approximately \$190.4 million in the Supply Cost Variance Deferral Account. As there is currently no methodology approved for allocation amongst customer classes, the Rural Deficit amounts provided have not yet been updated to reflect this reduction.

³Hydro's definition of Community corresponds to the "Town Code" in its customer information system. Some smaller communities may be combined if they share a single postal code.

Conservation and Demand Management Report

For the Year Ended December 31, 2022

March 31, 2023

A report to the Board of Commissioners of Public Utilities



Contents

1.0	Introduction	1
1.1	2021-2025 Plan	1
2.0	Coordination and Context.....	2
2.1	Utility Planning	2
2.2	Government Engagement and Funding Programs.....	2
2.2.1	Low Carbon Economy Leadership Funding Program	3
2.2.2	Electric Vehicle Rebate Program.....	3
2.2.3	Oil-to-Electric Rebate Program	3
2.2.4	Commercial EV Charger Rebate Program	3
2.3	Electrification System Impacts.....	4
3.0	2022 CDM Program Costs and Energy Savings	4
3.1	Portfolio Level Program Costs and Energy Savings.....	4
3.2	Residential Programs	6
3.3	Commercial Programs.....	6
3.4	Isolated System Community Program	7
3.5	Industrial Program	8
4.0	Electrification	9
5.0	Planning and Evaluation.....	10
6.0	Outreach and Support.....	10
7.0	Program Energy Savings and Program Costs	12
8.0	Program Participation and Savings	13
9.0	Levelized Utility Costs	14
10.0	Conclusion.....	15

List of Appendices

Appendix A: Conservation and Demand Management Program Descriptions

1.0 Introduction

Conservation and Demand Management (“CDM”) activities undertaken by Newfoundland and Labrador Hydro (“Hydro”) include joint utility programs offered by Newfoundland Power Inc. (“Newfoundland Power”) and Hydro (collectively, the “Utilities”) through the takeCHARGE partnership, as well as programs specifically targeted to Hydro’s customers. The purpose of this report is to provide a summary of the costs and initiatives implemented by Hydro, including Hydro’s portion of costs related to the delivery of joint initiatives in 2022.

In 2022, Hydro’s residential, commercial, and industrial CDM programs exceeded energy savings targets, yielding a total 1,724 MWh of annual incremental energy savings (112% of target). Since 2009, these programs have accumulated energy savings of 55,079 MWh.

1.1 2021-2025 Plan

The Electrification, Conservation and Demand Management Plan 2021–2025 (“ECDM Plan 2021-2025”) was developed in 2020 and an application was submitted to the Board of Commissioners of Public Utilities (“Board”) for review.¹ While awaiting a decision, the Utilities continued to execute new and existing CDM programming that meets economic testing requirements approved in Board Order No. P.U. 18(2016).² On November 10, 2022, the Board released its decision on the application for approvals required to execute programming identified in the ECDM Plan 2021-2025.³

According to Board Order No. P.U. 33(2022), the proposals from the Utilities to use a modified Total Resource Cost test for the economic evaluation of customer electrification programs were not approved. Additionally, the Board did not approve the proposed revisions to the existing CDM Cost Deferral Account and the existing CDM Cost Recovery Adjustment to allow deferral and recovery of costs associated with the delivery of electrification programs on the Island Interconnected System.

¹ “Application for Approvals Required to Execute Programming Identified in the Electrification, Conservation and Demand Management Plan 2021–2025,” Newfoundland and Labrador Hydro, rev. July 8, 2021 (originally filed June 16, 2021).

² *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 18(2016), Board of Commissioners of Public Utilities, June 8, 2016, p. 50, para. 9.

³ *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 33(2022), Board of Commissioners of Public Utilities, November 10, 2022, p. 19, para. 3.

1 Hydro's proposed revision to the existing CDM Cost Deferral Account to allow deferral of CDM costs
2 incurred for customers on the Labrador Interconnected System was approved.⁴

3 **2.0 Coordination and Context**

4 **2.1 Utility Planning**

5 Starting with the initial CDM plan in 2008, the Utilities have designed and implemented a joint utility
6 portfolio of programs for electricity customers in Newfoundland and Labrador.^{5,6} Currently, programs
7 offered through the joint utility model are available for residential, commercial, and industrial
8 customers and provide rebate options to address energy savings for electricity customers. The Utilities
9 continuously evaluate customer conservation programs and periodically undertake third-party program
10 evaluations to refine program design and support future planning.

11 CDM activities for 2022 included the continuation of the residential and commercial rebate programs,
12 the Isolated Communities Energy Efficiency Program, the industrial program, and the delivery of four
13 government-funded programs.⁷ The Utilities also developed and launched new CDM programming such
14 as the low-income energy-efficiency kit program and an expansion of the existing residential insulation
15 program to include air sealing and duct sealing rebates. The description of the programs offered during
16 2022 through the joint utility partnership as well as those specific to Hydro's customers are provided in
17 Appendix A to this report.

18 **2.2 Government Engagement and Funding Programs**

19 Hydro has a strong, long-term partnership with the Nunatsiavut Government and the NunatuKavut
20 Community Council. We currently work with both governments on the delivery of many energy
21 efficiency programs in their communities. Building upgrades, direct install of energy efficient products,
22 and the co-delivery of programs benefit the local communities and strengthens Hydro's partnerships.

⁴ *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 33(2022), Board of Commissioners of Public Utilities, November 10, 2022, p. 19, para. 7.

⁵ The Five-Year Energy Conservation Plan: 2008–2012 was filed with the Board on June 27, 2008. The Five-Year Energy Conservation Plan: 2012–2016 was filed with the Board on September 14, 2012.

⁶ Excluding customers on the Labrador Interconnected System.

⁷ The Low Carbon Economy Leadership Funding Program, the Electric Vehicle Rebate Program, the Oil to Electric Rebate Program and the Commercial Electric Vehicle Charger Rebate.

1 Hydro continues to have a positive working relationship with both the provincial and federal
2 governments and remains engaged in dialogue on potential programming, policy, and partnership
3 opportunities. Through these partnerships, Hydro delivered four government-funded programs to
4 customers in 2022—the Low Carbon Economy Leadership Funding Program, the Electric Vehicle Rebate
5 Program, the Oil-to-Electric Rebate Program were provincially funded and the Commercial Electric
6 Vehicle Charger Rebate Program was funded through Natural Resources Canada’s Zero-Emission Vehicle
7 Infrastructure Program. These four programs are fully cost recovered and required no funds from
8 ratepayers.

9 **2.2.1 Low Carbon Economy Leadership Funding Program**

10 Hydro continued to deliver the Low Carbon Economy Leadership Funding Program to its oil heated
11 customers on behalf of the federal and provincial governments through insulation and thermostat
12 rebates. Seven insulation rebates were approved in areas served by Hydro in 2022.

13 **2.2.2 Electric Vehicle Rebate Program**

14 The Electric Vehicle Rebate Program is intended to encourage the purchase of an electric vehicle (“EV”)
15 through a \$2,500 rebate for all EVs and a \$1,500 rebate for plug-in hybrid vehicles. Year two of the
16 program launched April 1, 2022 and ended March 15, 2023. The program approved 317 rebate
17 applications from April 1 to December 31, 2022.

18 **2.2.3 Oil-to-Electric Rebate Program**

19 The Oil-to-Electric Rebate Program provides rebates to help transition oil heated homes to electric. Year
20 Two of the program launched April 1, 2022 and ended March 15, 2023. In the second year of the
21 program, rebates were increased to a maximum of \$5,000 from the maximum of \$2,500 offered in year
22 one of the program. The program approved 963 applications from April 1 to December 31, 2022.

23 **2.2.4 Commercial EV Charger Rebate Program**

24 With the launch of the Commercial EV Charger Rebate Program in May 2022, qualified applicants can
25 receive a rebate toward the cost to purchase and install qualifying Level 2 and Level 3 EV chargers at
26 workplaces, in public places, or on street. Qualified applicants can receive a rebate for up to 50% of the
27 costs to purchase and install eligible chargers, for a maximum of up to \$5,000 per Level 2 charger, and
28 up to \$50,000 per Level 3 Direct Current Fast Charger. To the end of December 2022, there were
29 22 applications received, with 1 project completed, and 21 pre-approved and awaiting completion.

1 **2.3 Electrification System Impacts**

2 Hydro is closely monitoring the results of these government-funded programs to better understand the
3 potential impacts on the electrical system from electrification. Hydro's experience with these programs
4 will help inform demand management strategies and customer education opportunities to limit the cost
5 impacts on the electrical system from electrification. For example, customer data indicates that a
6 majority of oil-to-electric conversions are using resistance heat sources (i.e., electric baseboard, central
7 electric boilers, and electric forced air). Hydro is actively working to develop programming in response
8 to these technology choices.

9 Data and trends seen through this programming will also help inform Hydro's load forecasts for system
10 planning purposes.

11 **3.0 2022 CDM Program Costs and Energy Savings**

12 **3.1 Portfolio Level Program Costs and Energy Savings**

13 Hydro's total CDM program expenses and energy savings from 2009 to 2022 across all of Hydro's
14 systems are described in Table 1 and Table 2. Further detail and a breakdown of the costs that will be
15 recovered through the CDM Deferral Account⁸ and the associated energy savings are provided in
16 Section 7.0.

17 Historically, Hydro has not recovered CDM costs incurred on the Labrador Interconnected System
18 through customer rates, as CDM initiatives contributed to an increase in available exports of Recapture
19 Energy for which the benefits accrued to Energy Marketing. Following the commissioning of the Muskrat
20 Falls Project, it is anticipated the benefits of exports of Recapture Energy will accrue to Hydro's
21 customers. As such, in the ECDM Plan 2021-2025, Hydro proposed modifications to the CDM Cost
22 Deferral Account definition and CDM Cost Recovery Adjustment to permit recovery of Labrador
23 Interconnected System costs from those customers, including their portion of the Rural Deficit allocation
24 related to CDM investments for Hydro Rural customers. In Board Order No. P.U. 33(2022), Hydro's

⁸ As per Board Order No's. P.U. 49(2016), P.U. 22(2017), and P.U. 33(2022), Hydro defers costs associated with delivering CDM programs in the CDM Cost Deferral Account (excludes program costs for the Labrador Interconnected System).

Return 21: Conservation and Demand Management Report for the Year Ended December 31, 2022

- 1 proposed revisions to the existing CDM Cost Deferral Account to allow deferral of CDM costs incurred
- 2 for the Labrador Interconnected System was approved beginning in 2023.

Table 1: Hydro's CDM Portfolio Spending (\$000)^{9,10,11}

Program	2009–2017	2018	2019	2020	2021	2022
Residential						
Windows	498	-	-	-	-	-
Insulation	848	88	198	96	83	70
Thermostats	293	44	75	41	58	19
Residential Benchmarking	94	23	27	9	-	-
Coupon Program	275	-	-	-	-	-
Block Heater Timer	47	-	-	-	-	-
Heat Recovery Ventilator	47	10	11	3	4	2
Isolated Systems Community (Residential)	4,261	981	577	239	775	556
Instant Rebate	898	169	140	47	102	36
Appliance Retirement Pilot	44	-	-	-	-	-
Isolated Load Control Pilot	181	5	17	-	-	-
Energy Savers Kit	-	-	-	-	-	17
Commercial						
Isolated System Community (Commercial)	-	-	412	52	349	310
Commercial Lighting	166	-	-	-	-	-
Isolated Systems Business Efficiency Program	397	99	24	23	43	18
Business Efficiency Program	658	155	118	60	77	83
Industrial	1,854	20	142	-	14	14
Total	10,562	1,593	1,741	570	1,505	1,126

⁹ Credits are due to an overstated accrual in a prior year.

¹⁰ Program costs for 2020 were less than previous years due to lower program participation attributed to the COVID-19 pandemic and delayed implementation of the Isolated Systems Community Program.

¹¹ Numbers may not add due to rounding.

Table 2: Hydro's CDM Portfolio Annual Energy Savings (MWh)¹²

Program	2009–2017	2018	2019	2020	2021	2022	Life-to-Date
Residential							
Windows	441	-	-	-	-	-	441
Insulation	2,216	139	80	156	129	111	2,832
Thermostats	327	62	46	60	52	12	559
Residential Benchmarking	131	234	155	-	-	-	520
Coupon Program	320	-	-	-	-	-	320
Block Heater Timer	288	-	-	-	-	-	288
Heat Recovery Ventilator	20	12	5	1	-	1	38
Isolated Systems Community (Residential)	7,208	1,064	749	394	606	451	10,473
Instant Rebate	594	300	350	95	120	123	1,582
Energy Savers Kit	-	-	-	-	-	203	203
Commercial							
Isolated Systems Community (Commercial)	-	-	448	75	388	302	1,213
Commercial Lighting	637	-	-	-	-	-	637
Isolated Systems Business Efficiency Program	472	205	41	49	103	20	890
Business Efficiency Program	2,547	429	234	120	61	207	3,598
Industrial	25,772	162	5,092	-	165	294	31,485
Total	40,974	2,608	7,200	950	1,624	1,724	55,079

1 3.2 Residential Programs

2 Hydro's residential portfolio included five programs offered jointly by the Utilities (insulation, high-
3 performance thermostats, heat recovery ventilators ("HRV"), instant rebates, and the low-income
4 energy savers kit) and one offered solely by Hydro (the Isolated Systems Community Energy Efficiency
5 Program). Throughout 2022, Hydro continued to promote the takeCHARGE programs and technologies.
6 Local advertising and building partnerships with retailers remains a priority and is an integral factor in
7 the promotion of customer rebate programs.

8 3.3 Commercial Programs

9 Hydro's commercial portfolio includes the Business Efficiency Program, offered jointly through the
10 Utilities to provide prescriptive and custom rebates for commercial energy efficiency projects. Hydro
11 also offers the Isolated Systems Business Efficiency Program to commercial customers in its isolated
12 regions to provide technical support to identify economical energy efficiency opportunities and financial
13 support for capital upgrades. Additionally, Hydro provides direct installs to several commercial
14 customers in isolated communities through the Isolated Systems Community Energy Efficiency Program.
15 Cumulatively, these programs exceed Hydro target, yielding 529 MWh (170% of target) of energy
16 savings in 2022.

¹² Numbers may not add due to rounding.

1 In 2022, Hydro approved 17 prescriptive business rebates for energy saving upgrades such as light
2 emitting diode (“LED”) high-bay lighting and LED luminaires. One custom project was completed in the
3 Isolated Systems Business Efficiency Program for a lighting upgrade project in Hydro’s isolated service
4 area.

5 In addition to existing commercial programs, takeCHARGE launched a Small Business Direct Install Pilot
6 Program. This pilot program is designed to help small businesses in select communities improve their
7 energy efficiency through direct installations of LED lighting and water saving technologies. Installations
8 for this program will begin in early 2023.

9 **3.4 Isolated System Community Program**

10 The Isolated Systems Community Energy Efficiency Program targets residential and commercial
11 customers in Hydro’s isolated diesel systems. The objective of the program is to provide outreach,
12 education, and energy-efficient products free of charge to residential and business customers in the
13 diesel system communities within Newfoundland and Labrador. From 2012 to 2022, the program
14 installed 150,056 energy-efficient products, resulted in a total energy savings of over 11 GWh, and
15 provided employment for over 55 residents of these communities.

16 The Isolated Systems Community Energy Efficiency Program includes residential and commercial direct
17 installations and focuses on building knowledge and capacity in the communities by hiring and training
18 local representatives. These representatives work within their own communities to promote the
19 program, offer useful information on energy use, and provide direct installation of energy-efficient
20 products. In 2022, 167 residential and 29 business customers received direct installations totalling
21 5,718 products, consisting of water saving technologies, LED specialty bulbs, smart power strips, and
22 weather-stripping products.

23 Smart and programmable thermostat installations were offered to residential customers with electric
24 baseboard heating in the communities in the Labrador Straits region. The type of thermostat offered
25 depended on criteria such as internet Wi-Fi capability and the availability of a smart phone or tablet in
26 the home. In total, 168 programmable and 62 smart thermostat were installed in 2022, resulting in
27 84 MWh of annual electrical energy savings.

1 Two pilots programs were executed through the Isolated Systems Community Energy Efficiency Program
2 in 2022. These pilot programs included the installation of shifted energy units and ductless mini-split
3 heat pumps. The shifted energy pilot program involved installing 35 shifted energy units on hot water
4 tanks, which provided consumption savings through timed use and learning algorithms as well as
5 demand savings by providing demand response options. The heat pump pilot program involved
6 installing single zone, cold-climate, ductless mini-split heat pumps with energy monitors in 11 residences
7 in the Labrador Straits. Collectively, these pilot programs yielded 73 MWh of annual energy savings in
8 Hydro's isolated communities.

9 Direct installations of LED commercial lighting was completed based on opportunities identified during
10 audits preformed by local representatives and data collected during previous surveys. Across 7
11 communities, 37 commercial buildings received lighting upgrades, which resulted in annual energy
12 savings of 246 MWh. Additional commercial energy audits were also performed to identify new energy-
13 saving opportunities in high-priority communities.

14 In 2022, the Isolated Systems Community Energy Efficiency Program continued to utilize the SimpTek
15 Energy Advisor platform, which links existing customer data with utility data. The SimpTek platform is a
16 lead generation tool that identifies the highest energy users in isolated diesel communities. Once
17 identified, these high-usage customers can be provided with a customized plan to reduce their energy
18 use. This is a significant change from the previous program delivery, transitioning from a broader
19 approach consisting of lower-cost, energy-efficient upgrades to a more targeted, data-driven strategy
20 with deeper energy retrofits across the isolated communities. To date, 1,149 customer profiles have
21 been successfully on-boarded to the platform.

22 **3.5 Industrial Program**

23 Since 2010, Hydro has delivered the Industrial Energy Efficiency Program, which offers support and
24 financial incentives for Hydro's industrial customers based on projects for lighting retrofits, process
25 improvements, equipment changes, loss prevention (e. g., heat, steam energy), and funding for energy
26 audit consultant reports. Promotion of the Industrial Energy Efficiency Program is facilitated through
27 Hydro's Key Account Management Framework to support improved project planning, scheduling, and
28 execution. Within this framework, industrial customers are directly engaged with their Key Accounts
29 Specialist to assist with the Industrial Energy Efficiency Program. This also permits Hydro to better

1 understand customer facilities, processes, plans, and schedules for potential efficiency improvement
2 projects. In 2022, one industrial energy efficiency project was completed, which resulted in annual
3 electrical savings of 294 MWh. Hydro's Key Accounts Specialist remains engaged with industrial
4 customers to assist with future projects.

5 **4.0 Electrification**

6 In 2022, takeCHARGE worked to expand the existing public EV charging network in the province.¹³
7 Funding for the charging network expansion was provided by the Utilities and the federal government
8 through Natural Resources Canada's Electric Vehicle and Alternative Fuel Infrastructure Deployment and
9 Zero-Emission Vehicle Infrastructure Program. With the ongoing EV charging network expansion, the
10 province has an additional 19 public fast charging stations available, 3 of which will be located in
11 Labrador. While approval was granted for 2020 and 2021 capital expenditures for utility EV charging
12 infrastructure, there are outstanding issues with respect to the accounting treatment and recovery of
13 the costs associated with this infrastructure, as noted by the Board in Order No. P.U. 33(2022).

14 In 2022, takeCHARGE received funding from Natural Resources Canada's Zero-Emission Vehicle
15 Awareness Initiative to increase awareness, knowledge, and public confidence in electric vehicles
16 through outreach and educational campaigns in the province. Through this funding, takeCHARGE
17 created an online EV awareness campaign and EV fleet toolkit. takeCHARGE also held four EV
18 demonstration events, which allowed the public to learn about EVs from experts and owners.

19 In 2022, Hydro worked with the federal government to implement a province-wide funding program
20 through rebates to assist commercial/municipal sites in installing EV chargers. The rebate launched in
21 May 2022 and enables qualified applicants to receive a rebate for up to 50% of the cost to purchase and
22 install qualifying Level 2 and Level 3 EV chargers at workplaces, in public places, or on street.

¹³ Since milestone deadlines for federal funding programs were set to pass before a final decision from the Board was expected, the Board evaluated and approved the proposal to expand the EV charging network separately from the remainder of the ECDM Plan 2021–2025, in *Public Utilities Act*, RSNL 1990, Board Order No. P.U. 30(2021), Board of Commissioners of Public Utilities, September 29, 2021.

1 **5.0 Planning and Evaluation**

2 During 2022, the following external evaluations and surveys were completed to measure customer
3 awareness, interest, and uptake in current programs:

- 4 • Socket Saturation Survey: to determine the prevalence of LEDs used for lighting in customers'
5 homes, as a means of informing future program planning;
- 6 • Annual Marketing Survey: to assess home energy use and energy saving practices, as well as
7 awareness of, and participation in, the takeCHARGE programs; and
- 8 • Residential Insulation and Business Efficiency Program Evaluation: an external review was
9 initiated in 2022 to assess program effectiveness, participation, satisfaction, as well as energy
10 and demand savings.

11 **6.0 Outreach and Support**

12 During 2022, Hydro continued to partner with Newfoundland Power to deliver the takeCHARGE
13 program, which offers customer education and conservation awareness activities, primarily through
14 promotion of its takeCHARGE rebate programs and outreach activities. Residential and business
15 programs were promoted through activities including mass media marketing, targeted promotions,
16 community outreach, school contests, trade ally development, and partnerships. Advertising campaigns
17 included radio, online, and social media advertisements. Campaigns run throughout the year for
18 insulation, thermostats, HRVs, instant rebates, heat pump education, and the Business Efficiency
19 Program. The media chosen is based on the time of year that programs are in market and consumer
20 purchasing behaviours.

21 The takeCHARGE team is also active on social media through a joint utility Facebook page (which has
22 garnered over 15,600 likes), a YouTube channel, accounts on social media platforms Twitter, Instagram,
23 and LinkedIn, as well as a website. The takeCHARGE website continues to be a leading source of
24 information for customers seeking energy-efficiency information. In 2022, the website saw
25 441,000 users with 676,000 sessions. The top three pages visited were the insulation rebates, the home
26 page, and the Business Efficiency Program.

27 The takeCHARGE Town Challenge initiative invites municipalities to submit proposals that will support
28 their efforts to develop or improve energy conservation or energy-efficiency projects. In 2022, Hydro

1 awarded the Great Northern Peninsula Community Place, in partnership with the Town of Port-au-Choix,
2 \$10,000 to install heat pumps in the building, which is used for visiting health care practitioners and
3 community events.

4 The “Make the Switch” Bulb Giveaway by takeCHARGE provides LED bulbs to selected non-profit
5 organizations and other groups to help reduce operational lighting costs in their facilities or to help their
6 members/residents be more energy efficient. In 2022, Hydro distributed 2,000 bulbs to 14 groups within
7 Hydro’s territories.

8 takeCHARGE offered contests for schools with students from kindergarten to sixth grade and students
9 from seventh to twelfth grade. These contests aim to support student understanding of why saving
10 energy is important and to demonstrate what they can do to conserve energy. Five groups were
11 awarded prizes, including two grand prizes and three second prizes.

12 The 13th annual takeCHARGE Energy Efficiency Week (October 1 to 7, 2022) and Business Efficiency
13 Week (November 21 to 27, 2022) were dedicated to providing customers with information to assist
14 them in saving energy and money through reducing their energy consumption. A full social media
15 campaign was launched during each week and online webinars were held to engage customers.

16 The 4th annual takeCHARGE Luminary Awards were held in 2022. The awards program provides an
17 opportunity to recognize companies, individuals, and communities contributing to energy efficiency in
18 Newfoundland and Labrador. On October 26, 2022, the Luminary Awards event was held in-person and
19 virtually, allowing all award winners to attend. Each utility awarded a winner in nine categories.

20 In 2022, takeCHARGE received an award for utility program of the year from the ENERGY STAR Canada
21 Awards. The award recognizes a utility that has shown leadership and innovation in developing and
22 marketing ENERGY STAR products. This award is takeCHARGE’s 5th ENERGY STAR Canada award in three
23 years.

24 Hydro’s costs to provide education and outreach, support, and planning for its CDM programs from
25 2009–2022 is provided in Table 3.

Table 3: Hydro's Support Costs (\$000)¹⁴

	2009-2017	2018	2019	2020	2021	2022
Education	1,476	63	124	68	67	69
Support	425	47	41	46	47	23
Planning	2,106	128	178	142	135	138
Total	4,007	238	343	257	249	230

1 7.0 Program Energy Savings and Program Costs

2 The estimated annual energy savings from programs for which costs are deferred by Hydro in the CDM
3 Cost Deferral Account for future recovery from customers pending approval of the Board is provided in
4 Table 4.

Table 4: Energy Savings from Island Interconnected and Isolated Systems
CDM Program Activities (MWh)^{15,16}

Program	2009-2017	2018	2019	2020	2021	2022	Life-to-Date
Residential							
Windows	197	-	-	-	-	-	197
Insulation	873	76	54	117	96	70	1,286
Thermostats	192	46	34	44	38	5	360
Residential Benchmarking	131	234	155	-	-	-	520
Coupon Program	213	-	-	-	-	-	213
Block Heater Timer	-	-	-	-	-	-	-
Heat Recovery Ventilator	3	1	1	-	-	1	4
Isolated Systems Community (Residential)	7,208	1,064	749	394	606	451	10,473
Instant Rebate	181	86	153	18	43	71	553
Energy Savers Kit	-	-	-	-	-	196	196
Commercial							
Isolated System Community (Commercial)	-	-	448	75	388	302	1,213
Commercial Lighting	207	-	-	-	-	-	207
Isolated Systems Business Efficiency Program	472	205	41	49	103	20	890
Business Efficiency Program	2,186	295	99	97	42	64	2,783
Industrial	25,772	162	-	-	-	294	26,228
Total	37,635	2,170	1,735	794	1,316	1,473	45,123

5 A breakdown of annual CDM program costs included in the CDM Cost Deferral Account is provided in
6 Table 5. Deferred costs associated with the delivery of programs include direct costs for advertising,
7 salaries, rebates, and other expenses directly associated with a specific program. The deferred costs are

¹⁴ Numbers may not add due to rounding.

¹⁵ Hydro's CDM Cost Deferral Account does not capture spending associated with CDM programs offered to customers on the Labrador Interconnected System; therefore, Table 5 does not reflect energy savings associated with these programs.

¹⁶ Numbers may not add due to rounding.

- 1 recovered from customers through the CDM Cost Recovery Adjustment and vary depending on the
 2 uptake of the program and the number of programs offered.

Table 5: CDM Program Costs Included in the CDM Cost Deferral Account^{17,18,19}(\$000s)

Program	2009–2017	2018	2019	2020	2021	2022
Residential						
Windows	438	-	-	-	-	-
Insulation	728	80	193	88	76	64
Thermostats	272	43	75	40	57	18
Residential Benchmarking	94	23	27	9	-	-
Coupon Program	236	-	-	-	-	-
Block Heater Timer	-	-	-	-	-	-
Heat Recovery Ventilator	24	5	10	3	4	2
Isolated Systems Community (Residential)	4,261	981	577	239	775	556
Instant Rebate	653	130	108	41	95	33
Appliance Retirement Pilot	44	-	-	-	-	-
Isolated Load Control Pilot	181	5	17	-	-	-
Energy Savers Kit	-	-	-	-	-	17
Commercial						
Isolated Systems Community (Commercial)	-	-	412	52	349	310
Commercial Lighting	104	-	-	-	0	0
Isolated Systems Business Efficiency Program	398	99	24	23	43	18
Business Efficiency Program	611	141	100	60	75	63
Industrial						
	1,800	20	(30)	-	6	14
Total	9,844	1,528	1,512	555	1,480	1,095

3 **8.0 Program Participation and Savings**

- 4 Statistics on participation in each of Hydro's programs are provided in Table 6. The transaction units are
 5 specific to each program. The Residential Energy Star Window, Insulation, Thermostat, and HRV
 6 Programs reflect approved rebates. The Coupon Program reflects numbers of coupons redeemed on
 7 energy-efficient products. The Commercial Lighting and Instant Rebate Programs reflect the number of
 8 products rebated through the programs. The Block Heater Timer Program reflects the number of timers
 9 determined to be installed through post-giveaway surveys or coupon redemption. The Isolated Systems
 10 Business Efficiency Program, Business Efficiency Program, and Industrial Efficiency Program reflect the
 11 number of completed retrofit projects. The Isolated Systems Program denotes the number of residential

¹⁷ Credits are due to an overstated accrual in a prior year.

¹⁸ Program costs for 2020 were less than previous years due to lower program participation attributed to the COVID-19 pandemic and delayed implementation of the Isolated Systems Community program.

¹⁹ Numbers may not add due to rounding.

Return 21: Conservation and Demand Management Report for the Year Ended December 31, 2022

- 1 and commercial customer premises that received direct installations. The Residential Benchmarking
 2 Program indicates the number of customers included in the treatment group. Finally, the Energy Savers
 3 Kit program participation indicates the number of kits that have been mailed to approved applicants.

Table 6: Life-to-Date Program Participation²⁰

Program	2009-2017	2018	2019	2020	2021	2022	Total
Residential							
Windows	211	-	-	-	-	-	211
Insulation	372	42	32	57	45	32	580
Thermostats	286	66	46	56	47	32	533
Residential Benchmarking	2,000	1,000	1,000	-	-	-	4,000
Coupon Program	9,010	-	-	-	-	-	9,010
Block Heater Timer	629	-	-	-	-	-	629
Heat Recovery Ventilator	36	21	8	1	-	1	67
Isolated Systems Community (Residential)	6,006	727	940	633	329	253	8,888
Instant Rebate	47,836	19,285	23,293	2,863	3,648	4,008	100,933
Energy Savers Kit	-	-	-	-	-	260	260
Commercial							
Isolated Systems Community(Commercial)	-	-	220	87	59	66	432
Commercial Lighting	1,930	-	-	-	-	-	1,930
Isolated Systems Business Efficiency Program	15	10	4	2	4	1	36
Business Efficiency Program	85	34	13	22	15	17	186
Industrial	6	1	2	-	1	1	11
Total	68,422	21,186	25,558	3,721	4,148	4,671	127,706

4 **9.0 Levelized Utility Costs**

- 5 Levelized Utility Cost is a method used to compare costs associated with conservation programs to the
 6 value of energy saved. The Levelized Utility Cost represents the economic cost to the utility (cents per
 7 kWh) to achieve those energy savings. Levelized Utility Cost is an industry metric that is calculated by
 8 discounting future energy savings resulting from conservation programs to a present value. The
 9 Levelized Utility Cost for Hydro's 2022 programs is provided in Table 7. The energy savings represent the
 10 annual savings resulting from individual program participation during 2022.

²⁰ Numbers may not add due to rounding.

Table 7: Hydro Program Participation, Savings, and Levelized Utility Costs for 2022²¹

Program	Participation	Energy Savings (MWh)	Non-Coincident Demand Savings (kW)	Levelized Utility Costs (¢/kWh)	Life-to-Date Levelized Utility Cost (¢/kWh)
Insulation	32	111	45	6.3	4.5
Thermostats	32	12	4	17.9	10.5
Industrial	1	294	34	1.1	1.6
Isolated Systems Community	319	753	232	26.2	15.7
Isolated Systems Business Efficiency Program	1	20	7	11.7	9.7
Heat Recovery Ventilator	1	1	-	43.4	21.2
Business Efficiency Program (Custom and Prescriptive)	17	207	46	6.2	4.8
Instant Rebate	4,008	123	17	5.0	16.2
Energy Savers Kit	260	203	56	1.6	1.5
Total Programs	4,671	1,724	441	12.2	5.8

1 10.0 Conclusion

2 In 2022, Hydro continued to promote CDM as a component of resource planning in Newfoundland and
3 Labrador. CDM is encouraged through joint utility programs offered by Hydro and Newfoundland Power
4 through takeCHARGE as well as through programming specifically targeted to Hydro's isolated and
5 industrial customers. CDM programs have been successful in providing education and fostering the
6 development of a culture of energy conservation in the province.

7 Hydro has continued to work with its customers to understand needs and drivers of electrical
8 consumption to support the achievement of sustainable energy savings through its programming.
9 Additionally, Hydro has worked in partnership with the provincial government on various programs and
10 initiatives to support energy efficiency and a lower carbon economy. Hydro will use the information
11 gathered from these programs to help inform future program requirements and manage system costs
12 for customers.

13 Overall, Hydro's efforts in 2022 supported annual incremental energy savings of 1,724 MWh and
14 cumulative energy savings of 55,079 MWh since 2009. In 2023, the Utilities will begin a Conservation
15 Potential Study to determine the achievable and economic energy efficiency and demand response
16 potential in the province. After completion of this study, the Utilities will begin to develop their next
17 multi-year CDM plan.

²¹ Numbers may not add due to rounding.

Appendix A

Conservation and Demand Management Program Descriptions



1 **Residential takeCHARGE Rebate Programs**

2 Program incentives are processed primarily through customer applications. The programs are promoted
3 in partnership with trade allies in the retail, home building and renovation industries.

4 **Insulation Rebate Program**

5 The objective of this program is to provide incentives to increase the insulation R-value in residential
6 basements, crawl spaces, and attics, thereby increasing the efficiency of the home's building envelope.
7 Eligibility for the programs is limited to electrically heated homes, determined based on annual energy
8 usage. Home retrofit projects are eligible. Customers can receive an incentive of 75% of basement wall
9 and ceiling insulation materials up to \$1,000 and 50% of attic insulation material costs up to \$1,000. In
10 October 2022, a duct-insulation rebate was added to the existing insulation rebate program, which
11 offers rebates of 50% of the cost up to \$500 for insulating ductwork of a resident's primary heating
12 source. In December 2022, an air-sealing rebate was also added on to the existing insulation rebate
13 program, which offers rebates of up to \$500 for improvements in their air-leakage score based on a pre-
14 and post-retrofit home energy assessment.

15 **Thermostat Rebate Program**

16 This program encourages installation of programmable and electronic thermostats to allow customers
17 better control of the temperature in their home and to save energy. These high-performance
18 thermostats provide accurate temperature control while the programmable option allows customers to
19 set back the temperature automatically during the night or when they are away. Eligibility for the
20 program is limited to electrically heated homes, determined on the basis of annual energy usage. Home
21 retrofit projects and new home developments are eligible. Incentives of \$10 for each programmable
22 thermostat and \$5 for each electronic high-performance thermostat are offered.

23 **HRV Rebate Program**

24 This program encourages customers to purchase a high-efficiency HRV to improve the efficiency of their
25 home. Eligible measures in this program include HRV models that have a Sensible Recovery Efficiency of
26 70% or more. Customers who purchase a high efficiency HRV can receive a rebate of \$175. All customers
27 are eligible for this program regardless of the age of the home or its heat source.

1 **Isolated System Community Energy Efficiency Program**

2 This Hydro program includes both residential and commercial components targeting customers in
3 isolated diesel communities and L'Anse-au-Loup. The focus is on residential customers through the
4 direct installation of a kit of technologies; at-cash-register coupons on small technologies and mail-in
5 rebates on energy-efficient appliances. Commercial customers also receive a direct installation of a kit of
6 technologies. The kit includes items for water savings, draft proofing, lighting, and other measures.

7 Homeowners receive education on energy efficiency and existing takeCHARGE rebate programs.
8 Community events, social media promotions, and exchanges are held to promote the program and
9 energy-efficiency awareness.

10 **Energy Savers Kit**

11 This low-income program provides income-qualified customers with a kit containing energy savings
12 measures, educational materials, and instructions. The Energy Savers Kit contains products to help
13 customers save on lighting costs, reduce hot water use, and seal drafts in their homes.

14 **Block Heater Timer Program**

15 This Hydro program targeted customers in the Labrador Interconnected System to encourage the
16 purchase of energy-saving block heater timers through in-store discounts offered at partnering retailers.
17 The program launched with a giveaway of the technology to create awareness of the product as there
18 was little or no use of the technology before the program. The incentive was offered over two winter
19 seasons (2012–2013 and 2013–2014) and ended in spring 2014.

20 **Small Technologies Program**

21 **Instant Rebates**

22 This program promotes a variety of smaller technologies, such as LED lighting and smart power bars,
23 through instant rebates available at the cash registers of participating retailers. All customers are eligible
24 for this program regardless of the age of the home or its heat source.

25 **Appliances and Electronics**

26 This program encouraged customers to purchase high-efficiency appliances. Participants received
27 incentives of \$100 for select energy-efficient washers, freezers, and \$20 for eligible televisions. All

1 customers were eligible for this program regardless of the age of the home or its heat source. This
2 program ended December 31, 2017.

3 **Residential Benchmarking Program**

4 This program encouraged customers to adopt energy-efficient behavioural changes. Participants
5 received home energy reports that provided insight into their home’s electricity use. The reports helped
6 customers understand changes in their usage over time, how they compared to similar homes, and
7 included practical tips on how to save energy moving forward. The program also included an online
8 component that allowed customers to engage even further through weekly challenges and personalized
9 saving plans. Hydro ended this program in December 2019.

10 **Energy Efficient Loan Program**

11 This program was offered jointly by the Government of Newfoundland and Labrador and takeCHARGE,
12 making it easier to save energy and money. On-bill financing with a 2.5 % interest rate reduction from
13 standard utility financing rates was available for insulation, heat pumps, and home energy assessments.
14 Through the Energy Efficient Loan Program, eligible applicants could receive low-interest financing for
15 up to \$10,000 over a maximum of five years. This program ended March 31, 2020.

16 **Commercial takeCHARGE Rebate Programs**

17 **Business Efficiency Program**

18 The objective of this program is to improve electrical energy efficiency in a variety of commercial
19 facilities and equipment types. The program components include financial incentives based on energy
20 savings and other financial and educational supports to enable commercial facility owners to identify
21 and implement energy-efficiency and demand-reduction projects.

22 This program is available for existing commercial facilities that can save energy or reduce demand by
23 installing more efficient equipment and systems. The program includes custom project incentives and
24 prescriptive rebates for specific measures on a per unit basis.

25 **Isolated Systems Business Efficiency Program**

26 Hydro’s Isolated Systems Business Efficiency Program was launched in 2012 and targets commercial
27 customers in the isolated diesel communities and L’Anse-au-Loup. The program provides a custom

1 approach to finding energy-efficiency solutions and financial assistance for feasibility studies and for
2 retrofit projects. It has the same program design and offerings as the joint utility Business Efficiency
3 Program but has higher incentive levels for retrofit work because of the higher avoided cost of
4 generation in these systems.

5 **Industrial Energy Efficiency Program**

6 The objective of this program is to improve electrical energy efficiency in a variety of industrial
7 processes. The program components include financial incentives based on energy savings and other
8 supports to enable industrial facilities to identify and implement efficiency and conservation
9 opportunities. This program is a custom program designed to respond to the unique needs of the
10 industrial market rather than a prescriptive technology approach.

2022 Report on the Rural Deficit

Summary of Specific Initiatives

March 31, 2023

A report to the Board of Commissioners of Public Utilities



Contents

1.0	Introduction	1
2.0	Rural Deficit Overview	1
3.0	Operating Initiatives.....	3
3.1	Internal Energy Efficiency Initiatives.....	3
3.2	Conservation and Demand Management Program Initiatives	4
3.3	Hydro-Québec Power Purchase Contract Renewal	5
3.4	Cost Effective Renewables	5
3.4.1	Mary’s Harbour Mini Hydro Facility	5
3.4.2	Net Metering.....	5
3.4.3	Solar Photovoltaic	5
3.5	Long-Term Supply for Southern Labrador	6
3.6	Other Cost Management Initiatives.....	7
4.0	Capital Initiatives.....	7
4.1	Replace Metering System	7
4.2	Diesel Asset Management Strategy	8
4.3	Diesel Unit Sizes	8
4.4	LED Street Lights	8
4.5	Diesel Plant Communication Upgrades	9
5.0	Conclusion.....	9

1 1.0 Introduction

2 Newfoundland and Labrador Hydro (“Hydro”) provides electrical service to approximately 27,600
3 customers on the Hydro Rural Interconnected System and Hydro Rural Diesel Systems. As a result of
4 policy set out by the Government of Newfoundland and Labrador, these customers are served at an
5 operating loss (“Rural Deficit”) as the electricity rates in these areas do not recover Hydro’s full cost of
6 providing service. Additionally, Hydro serves approximately 11,500 rural customers on the Labrador
7 Interconnected System, whose rates recover the cost to serve as well as a contribution to funding a
8 portion of the Rural Deficit. Over 96%¹ of the Rural Deficit funding is provided through the Utility Rate
9 charged to Newfoundland Power Inc. (“Newfoundland Power”).

10 This report provides an overview of Hydro’s Rural Deficit, as well as the direct operating and capital
11 initiatives undertaken by Hydro to manage costs associated with serving customers in rural areas,
12 thereby mitigating the Rural Deficit.

13 2.0 Rural Deficit Overview

14 Table 1 provides the estimated annual Rural Deficit for 2018–2022, as well as year-over-year variances.
15 The Rural Deficit for 2022 was calculated using actual revenues and expenses allocated to Hydro’s Rural
16 Deficit areas based on the 2019 Test Year Cost of Service Study allocations.

Table 1: Hydro Rural Deficit Estimates (\$ millions)

	Annual Amounts					Year-Over-Year			
	2018 ²	2019	2020	2021	2022	2019/18	2020/19	2021/20	2022/21
Revenues (A)	63.6	67.2	68.3	67.4	69.3	3.6	1.1	(0.9)	1.9
Costs ³									
Operating Expenses	44.0	44.8	44.0	40.8	41.0	0.8	(0.8)	(3.2)	0.2
Fuel	28.1	29.3	21.8	19.5	34.1	1.2	(7.5)	(2.3)	14.6
Purchased Power	8.5	9.1	7.8	10.1	22.4	0.6	(1.3)	2.3	12.3
Depreciation	19.3	19.3	18.7	19.6	18.9	0.0	(0.6)	0.9	(0.7)
Return	22.9	23.4	25.1	25.1	24.9	0.5	1.7	-	(0.2)
Total Costs (B)	122.8	125.9	117.4	115.1	141.3	3.1	(8.5)	(2.3)	26.2
Rural Deficit (B-A)	59.2	58.7	49.1	47.7	72.0	(0.5)	(9.6)	(1.4)	24.3

¹ In accordance with the 2019 Test Year Cost of Service Study, allocation is 96.1% for Newfoundland Power and 3.9% for customers on the Hydro Rural Labrador Interconnected System.

² 2018 figures were restated in 2019 to reflect the outcome of Hydro’s 2017 General Rate Application, Compliance Application (Board Order No. P.U. 30(2019)), consistent with the 2019 Annual Financial Returns.

³ Table 1 does not include the costs incurred for Conservation Demand Management (“CDM”) programs offered in rural communities as they are captured in Hydro’s CDM Cost Deferral Account, approved in Board Order Nos. P.U. 49(2016), P.U. 22(2017) and P.U.37(2022).

1 The \$72.0 million Rural Deficit in 2022 represents an increase of approximately \$24.3 million, or 50.9%,
2 from 2021. The primary drivers of the change are as follows:

- 3 • Fuel costs increased mainly as a result of an average 8.2 cents per kWh increase in No. 6 fuel⁴
4 price, an increase in rural sales, and an increase of 20.9 cents per kWh in diesel fuel used to
5 serve isolated customers in 2022 relative to 2021;⁵ and
- 6 • Purchased power costs increased primarily as a result of the implementation of the Muskrat
7 Falls Purchase Power Agreement effective November 2021.

8 One of the main drivers in the increase in the rural deficit is the increase in Muskrat Falls power
9 purchases. This additional purchased power expense is reflected in the balance of the Supply Cost
10 Variance Deferral Account. On March 31, 2023, Government announced that as part of initial steps on
11 implementation of rate mitigation, Government will pay the remaining 2022 balance of approximately
12 \$190.4 million in the Supply Cost Variance Deferral Account.⁶ As there is currently no methodology
13 approved for allocation amongst customer classes, the Rural Deficit amounts provided in this report has
14 not yet been updated to reflect this reduction. Chart 1 shows the annual Rural Deficit including and
15 excluding the fuel costs, Muskrat Falls power purchases, exports and tariff revenue.⁷ Chart 1
16 demonstrates that fuel costs have consistently been one of the primary cost drivers in Rural Deficit
17 areas. Effective November 2021, with the commencement of Hydro payments under the Muskrat Falls
18 Power Purchase Agreement,⁸ the deficit is also being impacted by the unmitigated Muskrat Falls supply
19 costs.

⁴ A portion of Holyrood No. 6 fuel costs are allocated to rural customers on the Island Interconnected System.

⁵ Changes in the price of diesel directly impact the purchase price that Hydro pays to serve customers on the L'Anse-au-Loup System, and for wind generation purchases supplying Ramea.

⁶ "Implementing Initial Steps of Rate Mitigation," Government of Newfoundland and Labrador, Industry, Energy and Technology, March 31, 2023, <<https://www.gov.nl.ca/releases/2023/iet/0331n03/>>.

⁷ A portion of the Muskrat Falls supply costs less export and tariff revenues are allocated to the rural customers on the Island Interconnected System. The costs included do not reflect the funding provided to offset the balance of the the Supply Cost Variance Deferral Account as announced by Government.

⁸ "Muskrat Falls Project Asset Update," Newfoundland and Labrador Hydro, November 29, 2021.

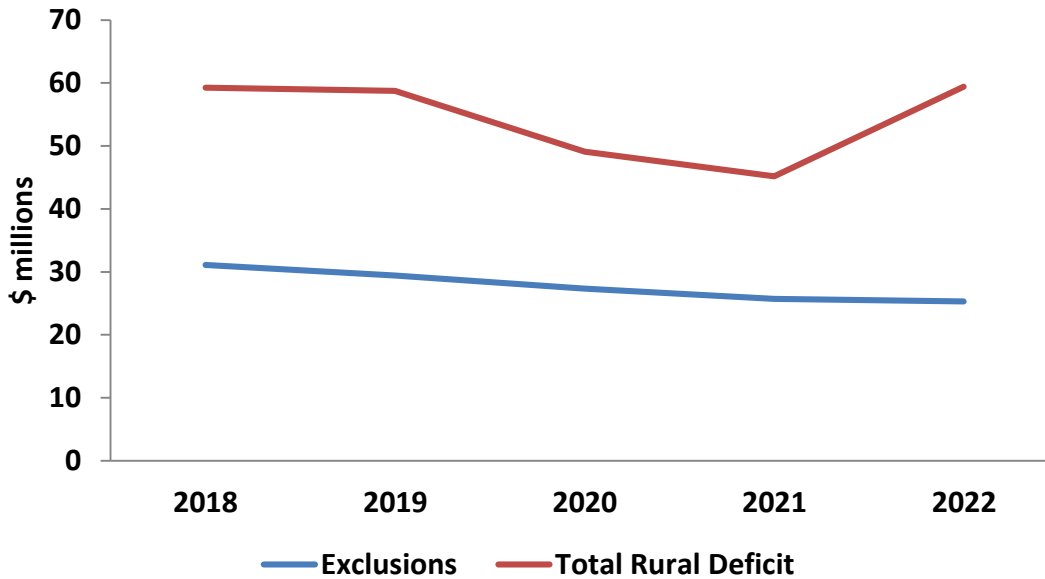


Chart 1: Five-Year Rural Deficit (\$ millions)⁹

1 Chart 1 also demonstrates that, excluding the cost of fuel and the Muskrat Falls power purchase cost,
 2 Hydro’s costs are typically stable. Although there has been an increase in the rural deficit in 2022, the
 3 supply cost increase was outside of Hydro’s control.¹⁰

4 **3.0 Operating Initiatives**

5 **3.1 Internal Energy Efficiency Initiatives**

6 Hydro continued its internal energy efficiency efforts in 2022 with programs that aim to achieve
 7 reductions in energy usage in all facilities within the areas contributing to the Rural Deficit, including
 8 diesel plants, offices, and line depots. Since it began in 2008, the program has provided cumulative
 9 energy savings of 17,943 MWh.

10 In 2022, Hydro continued the following initiatives to support its management of the Rural Deficit:¹¹

- 11 • Capturing waste heat in several of Hydro’s diesel plants to heat Hydro premises;

⁹ Exclusions include fuel costs, Muskrat Falls power purchase costs, exports and tariff revenue.

¹⁰ Rural deficit is higher in 2022 compared to 2021 due to increase fuel prices and inclusion of unmitigated Muskrat Falls supply costs.

¹¹ Savings achieved through this initiative are primarily through avoided costs or productivity improvements; therefore, Hydro is not able to quantify the exact impact on the Rural Deficit.

- 1 • Planning the sizes of replacement units at Hydro’s diesel generating stations to optimize fuel
2 efficiency;
- 3 • Monitoring diesel system fuel efficiency to identify poor performers so that corrective action
4 may be taken; and
- 5 • Choosing the most fuel-efficient combination of engines, where possible,¹² to supply community
6 loads.

7 **3.2 Conservation and Demand Management Program Initiatives**

8 The high cost of generation in isolated diesel communities and the increased system load in the L’Anse-
9 au-Loup area continues to support the need for effective delivery of energy-efficiency programs in these
10 areas. In 2012, two programs were launched to offer energy-efficiency incentives for residential and
11 commercial customers located in Hydro’s isolated diesel communities. These programs continued
12 through 2022 and are further detailed in the sections that follow:

- 13 • The Isolated Systems Community Energy Efficiency Program is a program specifically targeted to
14 residential and commercial customers in Hydro’s Isolated Diesel Systems. From 2012 to 2022,
15 the program installed 150,056 energy-efficient products, saving a total of approximately
16 12 GWh of electricity (753 MWh¹³ in 2022).
- 17 • The Isolated Systems Business Efficiency Program is a program that provides rebates and
18 technical assistance for commercial customers in isolated diesel communities on coastal
19 Newfoundland and Labrador. In 2022, one energy efficiency project was completed under this
20 program involving an upgrade to LED lighting in Hydro’s isolated areas. Since 2012, it has
21 achieved 890 MWh of annual energy savings, 20 MWh of which were achieved in 2022.

22 These programs continued through 2022 and are further detailed in the Conservation and Demand
23 Management Report.¹⁴

¹² Completed automatically in some plants.

¹³ These savings may be updated if further audit in 2022 indicates adjustments are required.

¹⁴ “Conservation and Demand Management Report For the Year Ended December 31, 2022,” Newfoundland and Labrador Hydro, March 31, 2023, sec. 3.3 and 3.4.

3.3 Hydro-Québec Power Purchase Contract Renewal

Hydro executed a new Power Purchase Agreement with Hydro-Québec for the L'Anse-au-Loup System effective September 1, 2021.¹⁵ This agreement enables Hydro to continue to purchase surplus hydroelectric energy from Hydro-Québec's Lac Robertson Plant to supply Hydro's customers in the L'Anse-au-Loup area. The terms and conditions of the new agreement are similar to the original and will continue to enable Hydro to supply the majority of customer load in L'Anse-au-Loup with deliveries from Hydro-Québec at approximately 50% of the cost of diesel generation. The approximate savings in 2022¹⁶ were \$5.4 million.

3.4 Cost Effective Renewables

Hydro is actively engaged with Indigenous groups and stakeholders, with a particular focus on communities served primarily by diesel powered generation, to foster development of cost-effective renewables. The standard model for such developments involve a third party developing and operating the renewables, with Hydro purchasing the output at a cost below that which would be incurred to generate equivalent energy in Hydro's diesel generating stations.

3.4.1 Mary's Harbour Mini Hydro Facility

The Mary's Harbour mini hydro facility began operations in September 2019. The photovoltaic and battery energy storage facility began operations in November 2021. Together they generated approximately 705 MWh in 2022, displacing diesel fuel generation. The purchase of energy from this facility resulted in net savings of approximately \$32,000 in 2022.

3.4.2 Net Metering

Net metering initiatives are undertaken by customers, not by Hydro directly; however, there is an impact on Hydro's system as a result of net metering activity.¹⁷ Hydro currently has one net metering customer in an isolated diesel community under Hydro's net metering service option. In 2022, this customer's net metering resulted in the displacement of approximately 32 MWh of diesel generation.

3.4.3 Solar Photovoltaic

Four new solar photovoltaic projects were put into service in Hopedale, Rigolet, Nain, and Postville during 2022. The new projects combined can provide up to 73 kW of renewable power to our isolated

¹⁵ The previous agreement expired August 31, 2021.

¹⁶ Compared to supplying the service area with diesel generators.

¹⁷ The customer is located in Makkovik, Labrador and has a 48 kW solar energy generator.

1 diesel systems. Hydro continues to work with renewable energy developers to enable further renewable
2 energy integration and anticipates additional projects to be developed in the coming year.

3 **3.5 Long-Term Supply for Southern Labrador**

4 Currently, southern Labrador communities are served by four separate, isolated diesel systems (13
5 engines total) serving each community individually (Charlottetown and Pinsent’s Arm, Mary’s Harbour,
6 Port Hope Simpson, and St. Lewis (“Southern Labrador Communities”).

7 The communities of Charlottetown and Pinsent’s Arm were previously served by the Charlottetown
8 Diesel Generating Station until a fire occurred in 2019. Since the fire a temporary configuration was
9 completed with mobile generation to serve as an interim solution.

10 Hydro has been exploring a long-term solution to address reliability, safety, and environmental concerns
11 associated with the long-term use of mobile generation as a primary source of power. In Hydro’s Long-
12 Term Supply for Southern Labrador Application,¹⁸ Hydro proposed the construction of a regional diesel
13 generating station in Port Hope Simpson with four diesel gensets and the construction of 50 kilometres
14 of 25 kV distribution line to connect the existing Charlottetown distribution system. The proposed
15 centralized plant will provide a stable, reliable source of supply for the region.

16 The proposed interconnection of southern Labrador communities will result in eight fewer diesel units
17 (i.e., a reduction from 13 units to 5) and three fewer diesel plants (i.e., individual plants in each of the
18 four communities vs. one regional plant). This reduction in diesel units and plants will result in more
19 efficient operations and is anticipated to reduce fuel consumption by approximately 600,000 litres
20 annually and contribute to a projected reduction of approximately \$152.7 million in the Rural Deficit
21 over the 50-year planning horizon of Hydro’s analysis. It would also significantly increase the potential
22 for renewable energy penetration on the system.

23 In October 2022 Hydro engaged an external consultant to perform an independent assessment of its
24 proposal at the request of the Board.¹⁹ The external consultant recommended that Hydro to proceed
25 with the interconnection of the communities of southern Labrador and the establishment of a regional
26 diesel generating station, based on its conclusion that it is the most cost-effective and reliable solution

¹⁸ “Long-Term Supply for Southern Labrador – Phase 1,” Newfoundland and Labrador Hydro, July 16, 2021.

¹⁹ Refer to Board April 7, 2022 correspondence to Hydro regarding the “Long-Term Supply for Southern Labrador – Phase 1,” Newfoundland and Labrador Hydro, July 16, 2021 application.

1 for the provision of service to the communities. Hydro expects to file an update with the Board on its
2 application before the end of April 2023.²⁰

3 **3.6 Other Cost Management Initiatives**

4 During 2022, Hydro continued to manage its operating costs in an effort to minimize its impact on the
5 Rural Deficit. Examples of such initiatives are as follows:

- 6 • Utilizing cost-effective commercial air flights during regular work hours, where practical, rather
7 than helicopter use;
- 8 • Having running maintenance (e.g., oil changes) completed by diesel system representatives
9 rather than deploying maintenance crews to diesel communities;
- 10 • Participating in the Off-Grid Utility Association to work with other utilities with diesel plants for
11 comparison of operating procedures and new technology to enhance efficiency in operations
12 and maintenance; and
- 13 • Focusing on identifying planning and scheduling efficiencies, including a significant coordination
14 effort to ensure that delays and duplicate asset outages are minimized.

15 **4.0 Capital Initiatives**

16 **4.1 Replace Metering System**

17 Through its 2022 Capital Budget Application, Hydro received Board approval²¹ for replacement of
18 approximately 31,000²² manually-read meters and TS1 AMI²³ meters by the end of 2024. Completion of
19 this project is projected to result in average annual Rural Deficit savings of approximately \$765,000
20 when compared to continuing with manually-read meters.

21 During 2022, Hydro has received most of the meters required for the replacement with the remainder to
22 be received in 2023. Hydro has developed an integration plan for the new meter reading software with a
23 rollout plan for 2023.

²⁰ “Long-Term Supply for Southern Labrador – Phase 1 – Midgard Consulting Inc. Report,” Newfoundland and Labrador Hydro, March 31, 2023.

²¹ *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 37(2021), Board of Commissioners of Public Utilities, December 20, 2021.

²² 28,056 energy-only meters and 3,131 demand and energy meters.

²³ Automated Metering Infrastructure (“AMI”).

1 **4.2 Diesel Asset Management Strategy**

2 Hydro has continued to evolve its asset management strategy, resulting in isolated system cost savings.
3 Hydro has changed its approach to its diesel unit overhauls for 1,200 RPM units,²⁴ running for the units
4 for 30,000 hours between overhauls and replacing them at 120,000 hours instead of 100,000 hours,
5 thereby extending the useful life of the units.

6 Hydro has also continued to replace engines rather than overhaul them when it is cost effective to do so
7 and when engines are available. As prices fluctuate from year-to-year, this approach will continue to be
8 evaluated on a case-by-case basis to ensure that Hydro is availing of the least-cost alternative in the
9 provision of reliable service.

10 **4.3 Diesel Unit Sizes**

11 In response to increasing loads in certain isolated diesel communities, Hydro has been replacing some of
12 its 1,800 RPM diesel units with larger, slower turning 1,200 RPM units. This has resulted in lower
13 operating costs in isolated systems as a result of material reductions in labour costs and travel
14 associated with corrective maintenance,²⁵ as well as increased reliability.

15 **4.4 LED Street Lights**

16 The Nain LED street light pilot project,²⁶ implemented in 2015, provided direct cost savings as a result of
17 the displacement of fuel costs. As a result, Hydro converted the street lights in the community of Ramea
18 to LED street lights in 2018 and submitted a two-year capital proposal in its 2019 Capital Budget
19 Application to convert street lights to LED in the remaining diesel systems. The proposal was approved
20 and execution began in 2019 with the conversion of street lights in the community of Cartwright. In
21 2020, all remaining isolated Labrador communities' street lights were converted to LED. This project
22 produces annual energy savings of approximately 120 MWh. LED street lights are also expected to
23 contribute to lower operating and maintenance costs than high-pressure sodium ("HPS") street lights
24 due to the elimination of relamping requirements and longer life.

²⁴ Hydro has seven 1,200 RPM units.

²⁵ Savings achieved through this initiative are primarily through avoided costs or productivity improvements; therefore, Hydro is not able to quantify the exact impact on the Rural Deficit.

²⁶ Hydro initiated a pilot LED street light replacement project for the Town of Nain with a total of 125 HPS street light fixtures replaced with LED street light fixtures. The street light retrofit yields savings of approximately 45 MWh annually, which offsets approximately 12,000 litres of fuel consumption.

1 Hydro submitted a capital proposal in its 2021 Capital Budget Application to replace all HPS street lights
2 by 2026 for both the Island and Labrador. In 2022, an estimated 1084 HPS street lights were replaced
3 resulting in approximate annual savings of 328 MWh.

4 **4.5 Diesel Plant Communication Upgrades**

5 In 2022, Hydro completed an upgrade in the communications technology at Cartwright²⁷ Diesel Plant
6 through a conversion from service provided from copper cables to fibre optic technology. The copper
7 cables were prone to frequent communications outages. Fibre optic services are less prone to electrical
8 interference and are more reliable which will result in reduced maintenance costs. Additional
9 conversions to fibre optic technology are planned for the St. Lewis²⁸ and Hopedale Diesel Plant in 2023.
10 The upgraded communications with diesel plants will improve the ability to monitor plants loads and
11 may provide opportunities to implement demand management initiatives in diesel areas that can
12 contribute to deferral of capacity additions on isolated diesel systems.

13 **5.0 Conclusion**

14 Hydro continues to pursue initiatives and activities to manage the Rural Deficit, including cost reduction
15 and energy conservation initiatives. Management of the Rural Deficit is challenging as it is impacted by
16 government policy initiatives resulting in energy pricing in diesel areas that can be lower than the energy
17 pricing on the Island Interconnected System (i.e., as a result of the Northern Strategic Plan Billing Credit
18 provided in Labrador diesel communities). These pricing signals can promote load growth and result in
19 higher fuel usage and capacity requirements that can lead to additional capital investments and higher
20 cost to provide service.

21 In general, variability in the Rural Deficit over recent years has primarily been the result of changes in
22 fuel cost. Since 2021, the Rural Deficit has increased further as a result of Hydro's commencement of
23 payments under the Muskrat Falls Purchase Power Agreement, effective November 25, 2021.²⁹ This
24 additional purchased power expense is reflected in the balance of the Supply Cost Variance Deferral
25 Account. On March 31, 2023, Government announced that as part of initial steps on implementation of
26 rate mitigation Government will pay the remaining 2022 balance of approximately \$190.4 million in the

²⁷ The conversion of the Cartwright diesel plant began in 2021 and was completed in 2022. Previous conversions have been completed in Mary's Harbour, Makkovik, L'Anse-au-Loup, Nain and Rigolet.

²⁸ The conversion of the St. Lewis diesel plant was planned for 2022 however, there was a telecommunications delay with the service provider.

²⁹ "Muskrat Falls Project Asset Update," Newfoundland and Labrador Hydro, November 29, 2021.

- 1 Supply Cost Variance Deferral Account.³⁰ As there is currently no methodology approved for allocation
- 2 amongst customer classes, the Rural Deficit amounts provided in this report have not yet been updated
- 3 to reflect this reduction. Hydro's costs, excluding supply cost variability, have been stable over the
- 4 period 2018–2022, demonstrating Hydro's ongoing effort to limit growth in the Rural Deficit.

³⁰ "Implementing Initial Steps of Rate Mitigation," Government of Newfoundland and Labrador, Industry, Energy and Technology, March 31, 2023, <<https://www.gov.nl.ca/releases/2023/iet/0331n03/>>.

Affidavit



IN THE MATTER OF the *Public Utilities Act* ("Act"); and

IN THE MATTER OF Newfoundland and Labrador Hydro's Annual Return for 2022 filed in pursuant to Section 59(2) of the Act.

AFFIDAVIT

I, Carol Anne Lutz, Certified Professional Account, of St. John's in the province of Newfoundland and Labrador, make oath and say as follows:

- 1) I am the Controller for Newfoundland and Labrador Hydro, and as such I either have personal knowledge of, or I have been so informed and verily believe, the matters and things contained within the Newfoundland and Labrador Hydro 2022 Annual Return.
- 2) I have read the contents of the 2022 Annual Return and they are true to the best of my knowledge, information, and belief.

SWORN at St. John's in the)
province of Newfoundland and)
Labrador this 31st day of)
March 2023, before me:)



Commissioner for Oaths, Newfoundland and Labrador

KIMBERLEY DUGGAN
A Commissioner for Oaths in and for
the Province of Newfoundland and Labrador.
My commission expires on December 31, 2027.



Carol Anne Lutz, CMA, CPA, MBA