
Newfoundland & Labrador
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

**IN THE MATTER OF THE
2022 CAPITAL BUDGET APPLICATION**

**FILED BY
NEWFOUNDLAND AND LABRADOR HYDRO**

**REASONS FOR DECISION
ORDER NO. P.U. 37(2021)**

BEFORE:

**Darlene Whalen, P. Eng., FEC
Chair and CEO**

**Dwanda Newman, LL.B.
Vice-Chair**

**John O'Brien, FCPA, FCA, CISA
Commissioner**

**Christopher Pike, LL.B., FCIP
Commissioner**

**NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

REASONS FOR DECISION

ORDER NO. P.U. 37(2021)

IN THE MATTER OF the *Electrical Power Control Act, 1994*, SNL 1994, Chapter E-5.1 (the “EPCA”) and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the “Act”), as amended, and regulations thereunder; and

IN THE MATTER OF an application by Newfoundland and Labrador Hydro for an Order, pursuant to sections 41 and 78 of the *Act*:

- (a) approving its 2022 capital purchases and construction projects in excess of \$50,000;
- (b) approving its 2022 Capital Budget of \$84,714,000; and
- (c) fixing and determining its average rate base for 2020 in the amount of \$2,310,559,000.

BEFORE:

Darlene Whalen, P. Eng., FEC
Chair and CEO

Dwanda Newman, LL.B.
Vice-Chair

John O’Brien, FCPA, FCA, CISA
Commissioner

Christopher Pike, LL.B., FCIP
Commissioner

TABLE OF CONTENTS

1 BACKGROUND..... 1

1.1 Application..... 1

1.2 Regulatory Framework 2

1.3 Procedural Matters 2

2 EVIDENCE AND SUBMISSIONS..... 3

2.1 Overview..... 3

2.2 Submissions 4

3 BOARD DECISIONS..... 5

3.1 Proposed Capital Expenditures over \$50,000..... 5

3.2 Proposed 2022 Capital Budget..... 16

3.3 Proposed 2020 Average Rate Base 17

1 **1 BACKGROUND**

2
3 **1.1 Application**

4
5 On August 2, 2021 Newfoundland and Labrador Hydro (“Hydro”) filed its 2022 Capital Budget
6 Application (the “Application”) with the Board of Commissioners of Public Utilities (the
7 “Board”).¹ In the Application Hydro requested that the Board make an order:

- 8 (a) approving its 2022 capital purchases and construction projects in excess of \$50,000;
9 (b) approving its 2022 Capital Budget in the amount of \$84,714,000; and
10 (c) fixing and determining its average rate base for 2020 at \$2,310,559,000.

11
12 The proposed 2022 Capital Budget includes the following estimated expenditures:

Proposed 2022 Capital Budget

<u>Asset Class</u>	<u>Budget</u>
Generation	
Hydraulic Plant	\$12,214,500
Thermal Plant	10,732,800
Gas Turbines	3,063,700
Tools and Equipment	225,800
General Properties	
Transportation	1,904,100
Administration	1,205,200
Information Systems	2,630,400
Telecontrol	911,900
Transmission and Rural Operations	
Transmission	1,603,500
Distribution	10,321,500
Metering	515,600
Tools & Equipment	1,186,100
Terminal Stations	33,917,700
Generation	3,281,200
Allowance for Unforeseen Items	1,000,000
Total	\$84,714,000

13 On December 20, 2021 the Board issued Order No. P.U. 37(2021) approving, among other things,
14 the proposed capital expenditures and Hydro’s 2022 Capital Budget with reasons to be issued
15 separately.² These are the Board’s Reasons for Decision.

¹ On September 17, 2021 Hydro filed a revision to the Application to include corrected information related to specifically assigned planned expenditures for 2022-2026 and the 2023 revenue requirement impact resulting from proposed 2022 projects.

² The proposed expenditures for the *Additions for Load Growth (2022)-Distribution System-Mary’s Harbour Voltage Conversion* project were not approved as Hydro requested that consideration of these expenditures be deferred.

1.2 Regulatory Framework

Section 41 of the *Act* requires a public utility to submit an annual capital budget of proposed improvements or additions to its property for approval of the Board by December 15th in each year for the next calendar year. Section 41 also requires the utility to include an estimate of contributions toward the cost of improvements or additions to its property which the utility intends to demand from its customers.

Subsection 41(3) of the *Act* prohibits a utility from proceeding with the construction, purchase or lease of improvements or additions to its property without the Board's approval where (a) the cost of the construction or purchase exceeds \$50,000, or (b) the cost of the lease exceeds \$5,000 in a year of the lease.

Section 78 of the *Act* gives the Board the authority to fix and determine the rate base for the service provided or supplied to the public by the utility and gives the Board the power to revise the rate base. Section 78 also provides guidance on elements that the Board may include in the rate base.

In 2007 the Board established capital budget application guidelines. In 2019 the Board commenced a review of the guidelines and in early 2020, as part of this review, the Board implemented additional requirements for the 2021 capital budgets, including:

- (a) introductory presentations outlining the capital budget application;
- (b) additional information respecting the deferral of projects; and
- (c) additional information on the revenue requirement impacts of the proposed capital projects.

This proceeding was conducted pursuant to these guidelines. Late in 2021, after Hydro filed the Application, the Board issued provisional guidelines for the utilities to use in their 2023 capital budget applications.³

1.3 Procedural Matters

Notice of the Application, including an invitation to participate, was published in The Telegram on August 15, 2021 and in The West Coast Wire on August 18, 2021. Details of the Application and supporting documentation were posted on the Board's website.

On August 13, 2021 a group of Industrial customers (the "Industrial Customer Group") filed an intervenor submission.⁴ Newfoundland Power Inc. ("Newfoundland Power") filed an intervenor submission on August 19, 2021. On August 25, 2021 the Consumer Advocate, Dennis Browne, Q.C. (the "Consumer Advocate") filed an intervenor submission.

On September 14, 2021 the Consumer Advocate, the Industrial Customer Group, Newfoundland Power and the Board issued 114 requests for information ("RFIs") to Hydro. On October 5, 2021 Hydro filed its responses.

³ On December 20, 2021, the Board issued Provisional Capital Budget Application Guidelines effective January 2022.

⁴ The Industrial Customer Group consists of Corner Brook Pulp and Paper Limited, Braya Renewable Fuels (Newfoundland) GP Inc. (formerly NARL Refining Inc.), and Vale Newfoundland and Labrador Limited.

1 On October 18, 2021 Grant Thornton LLP (“Grant Thornton”), the Board’s financial consultant,
 2 filed a report on its review of the calculation of the 2020 average rate base. Grant Thornton’s report
 3 was circulated to Newfoundland Power, the Consumer Advocate, the Industrial Customer Group,
 4 and Hydro on October 19, 2021.

5
 6 On October 27, 2021 the Consumer Advocate filed eight additional requests for information. On
 7 November 5, 2021 Hydro filed responses to these requests.

8
 9 Newfoundland Power and the Industrial Customer Group filed their submissions respecting the
 10 Application on November 12, 2021. The Consumer Advocate filed his submission on November
 11 15, 2021. Hydro filed its reply submission on November 19, 2021.

12 13 **2 EVIDENCE AND SUBMISSIONS**

14 15 **2.1 Overview**

16
 17 The Application requests approval of, among other things:

- 18 • capital expenditures in 2022 of \$28,532,700 for projects over \$50,000 scheduled for
 19 completion in 2022;
- 20 • capital expenditures in 2022 of \$12,994,100 for multi-year projects over \$50,000
 21 commencing in 2022;
- 22 • capital expenditures in 2022 of \$2,427,400 related to multi-year projects approved in Order
 23 No. P.U. 6(2020) and \$40,759,800 related to multi-year projects approved in Order No.
 24 P.U. 2(2021); and
- 25 • future year capital expenditures associated with multi-year projects commencing in 2022
 26 in the amount of \$35,254,500 in 2023 and \$3,765,900 in 2024.

27
 28 The proposed multi-year expenditures include capital spending related to 19 projects proposed to
 29 begin in 2022, 16 projects previously approved to start in 2021, and one project previously
 30 approved to start in 2020. The Application estimates contributions in aid of construction
 31 recoverable from customers for 2022 of approximately \$300,000 for distribution upgrades and
 32 service extensions.

33
 34 In accordance with the legislation, regulations and capital budget application guidelines, the
 35 Application included information in relation to the proposed capital expenditures and, for a number
 36 of projects, additional studies and reports were also provided. Hydro also included information
 37 required to comply with previous Board Orders, including reports related to the Holyrood Thermal
 38 Generating Station, its 2021 capital expenditures, its five-year capital plan, as well as evidence
 39 relating to deferred charges and a reconciliation of average rate base to invested capital.

40
 41 Hydro’s five-year capital plan forecasts average annual expenditures of approximately
 42 \$121,000,000, as compared to average annual capital expenditures over the period 2016 to 2020
 43 of approximately \$120,000,000, excluding extraordinary expenditures.⁵ The total forecast

⁵ During the period 2016 to 2020 Hydro’s actual average annual capital expenditure was \$183,000,000, primarily as a result of the construction of transmission lines TL 267 and TL 266.

1 investment of approximately \$604,000,000 in plant and equipment over the period 2022 to 2026
2 is primarily for sustaining capital.⁶ The forecast expenditures over the period include \$19,000,000
3 for capital upgrades required to accommodate growth in Labrador West, \$50,000,000 for Phase 1
4 of the interconnection of the communities of southern Labrador, \$63,000,000 for life extension
5 work at the Bay d’Espoir penstocks, \$12,000,000 for fully contributed work for the Valentine Gold
6 interconnection project, and \$7,000,000 for the renewal of assets specifically assigned to Industrial
7 customers.
8

9 **2.2 Submissions**

10
11 Newfoundland Power did not comment on the expenditures proposed in the Application except to
12 submit that it is premature for the Board to approve Hydro’s proposed Mary’s Harbour voltage
13 conversion project until the Board makes its decision on the application filed by Hydro with respect
14 to the long-term supply for Southern Labrador.
15

16 The Industrial Customer Group had no comment on the Application.
17

18 The Consumer Advocate asserted that Hydro had not met the burden of proof required for the
19 Board to approve the projects proposed in the Application. Despite this, the Consumer Advocate
20 stated that he did not take issue with the Application given Hydro’s plan to review its asset
21 management system. In the Consumer Advocate’s view, this would enable Hydro to quantify
22 project risks and benefits and to prioritize its projects and manage future capital expenditures.
23

24 In its reply submission Hydro agreed with Newfoundland Power’s submission that it is premature
25 for the Board to approve the Mary’s Harbour voltage conversion project and requested that the
26 Board defer its consideration of this project. Hydro stressed that it strives to deliver power to
27 consumers at the lowest possible cost consistent with reliable service and that it focused on cost
28 management in all stages of its capital program. Hydro elaborated that, before beginning its capital
29 budget planning, it held engagement sessions with stakeholder groups and internal business units
30 to discuss planning priorities and expectations. Hydro acknowledged the impact of capital
31 investment on rates and the requirement to balance cost management, reliability, safety, and
32 environmental stewardship. Hydro submitted that the proposed capital expenditures are necessary
33 to ensure that it meets its obligation to provide reasonably safe and adequate service which is just
34 and reasonable and to deliver power to customers at the lowest possible cost consistent with
35 reliable service.⁷

⁶ Investment of \$19,000,000 is recoverable from Industrial customers for transmission assets specifically assigned to them.

⁷ Section 37 of the *Act* and sections 3 and 4 of the *EPCA*.

3 BOARD DECISIONS

In considering the Application the Board must assess whether approval of the capital expenditures proposals is consistent with the statutory obligations imposed on the Board and Hydro.⁸ In particular section 3(b) of the *EPCA* requires a public utility to manage and operate its facilities for the efficient production, transmission and distribution of power in a manner that would result in consumers in the province having equitable access to an adequate supply of power at the lowest possible cost consistent with reliable service. In making its determinations the Board balances the interests of customers and the utility to ensure reasonable levels of capital spending that provide for least-cost reliable and safe service. This approach is set out in the Board's 2007 Capital Budget Application Guidelines and was further clarified by the Board in the recently released provisional Capital Budget Application Guidelines as follows:

The Board considers the interests of both customers and utilities in determining whether proposed capital expenditures should be approved. Appropriate capital spending is in the interest of both customers and utilities as customers benefit from a utility which is well positioned to provide safe, reliable and adequate service and utilities benefit when the rates to be paid by customers are reasonable and just. Cost, performance and risk are among the factors considered by the Board in determining whether capital expenditures are appropriate and necessary to ensure the delivery of power to customers at the lowest possible cost consistent with reliable service.⁹

The Board has reviewed the Application and supporting materials, the responses to the requests for information and the submissions of the parties and sets out below its determinations in relation to Hydro's proposed capital expenditures, its 2022 Capital Budget and its 2020 average rate base.

3.1 Proposed Capital Expenditures over \$50,000

Pursuant to section 41(3) of the *Act* Hydro requires the prior approval of the Board for capital expenditures in excess of \$50,000. The proposed 2022 Capital Budget includes expenditures of \$27,352,900 for 32 projects over \$50,000 planned for 2022 and \$12,994,100 for 19 multi-year projects over \$50,000 to commence in 2022.¹⁰ Hydro provided support for these projects and associated expenditures in excess of \$50,000, including a project description, justification, expenditures, costing methodology and future commitments. Engineering and technical reports were also provided in relation to many of the projects. Hydro provided additional details in its responses to 122 RFIs filed by the Board and the other parties in this proceeding.

The Consumer Advocate, the Industrial Customer Group and Newfoundland Power did not object to the proposed capital expenditures over \$50,000.¹¹

⁸ Sections 37 and 54 of the *Act* and sections 3 and 4 of the *EPCA*.

⁹ Provisional Capital Budget Guidelines, January 2022, pages 1-2.

¹⁰ The 2022 expenditures include \$43,187,200 for projects previously approved by the Board and started in 2020 or 2021. The 2022 expenditures also include \$179,800 for capital projects less than \$50,000 and \$1,000,000 for Hydro's Allowance for Unforeseen Items.

¹¹ Hydro agreed that consideration of the *Additions for Load Growth (2022)-Distribution System-Mary's Harbour Voltage Conversion* project should be deferred as submitted by Newfoundland Power.

1 **Generation**

2
3 Hydro proposes capital expenditures of \$26,236,800 in 2022 and \$9,242,400 in 2023 and
4 \$3,674,700 in 2024 related to generation.¹² The expenditures proposed for 2022 account for 31%
5 of Hydro's 2022 Capital Budget. The proposed generation expenditures are related to Hydro's
6 hydraulic, thermal and gas turbine assets.

7
8 *Hydraulic Plant*

9
10 Expenditures of \$12,214,500 in 2022, \$7,259,000 in 2023 and \$3,674,700 in 2024 are proposed in
11 relation to hydraulic plant.¹³

12
13 There are two hydraulic plant projects proposed to begin in 2022. The *Hydraulic Generation*
14 *Refurbishment and Modernization (2022-2023)* project involves expenditures of \$2,970,600 in
15 2022 and \$3,788,900 in 2023 related to Hydro's hydraulic generating units, hydraulic structures,
16 reservoirs, site buildings and services, and common auxiliary equipment. An engineering report
17 was filed in support of the proposed expenditures. According to Hydro deferral of these
18 expenditures would pose undue equipment failure and safety risks. The *Hydraulic Generation In-*
19 *Service Failures (2022)* project involves expenditures in 2022 of \$1,000,000 to address
20 unanticipated failures and deterioration of hydraulic equipment and infrastructure. Hydro states
21 that this will allow it to address failures as they occur and thereby avoid detrimental impacts to
22 customer power supply and unacceptable risks to worker or public safety.

23
24 The Board notes that the proposed hydraulic plant projects are consistent with Hydro's established
25 philosophies and practices respecting its hydraulic generation assets.¹⁴ These expenditures will
26 allow Hydro to refurbish and update these assets and address unanticipated failures and
27 deterioration of hydraulic equipment and infrastructure on a timely basis to support the continued
28 reliable operation of its hydraulic generation assets. The Board notes that the proposed 2022
29 expenditures for hydraulic generation are lower than the average expenditures over the previous
30 five years.¹⁵ The Board is satisfied, based on the evidence that the proposed capital expenditures
31 for hydraulic plant are justified, appropriate and necessary to ensure the delivery of power to
32 customers at the lowest possible cost consistent with reliable service.

33
34 *Thermal Plant*

35
36 Expenditures of \$10,732,800 in 2022 and \$1,916,800 for 2023 are proposed in relation to thermal
37 plant.¹⁶

¹² This includes expenditures previously approved in Order Nos. P.U. 6(2020) and P.U. 2(2021) in the amount of \$12,037,900 for 2022 and \$3,470,100 for 2023 and \$3,674,700 for 2024. The proposed 2022 generation expenditures also include \$225,800 for various tools and equipment specific to Hydro's generation activity.

¹³ This includes expenditures of \$8,243,900 in 2022, \$3,470,100 in 2023 and \$3,674,700 in 2024 related to projects previously approved in Order Nos. P.U. 6(2020) and P.U. 2(2021).

¹⁴ *Hydraulic Generation Asset Management Overview*, Application, Capital Projects over \$500,000, Tab 1.

¹⁵ Hydro anticipates filing a supplemental capital budget application proposing 2022 expenditures of \$1.9 million to refurbish the penstocks at the Bay d'Espoir Hydroelectric Generating Facility.

¹⁶ This includes expenditures of \$915,900 in 2022 previously approved in Order No. P.U. 2(2021).

1 There are eight thermal plant projects proposed to begin in 2022 with total expenditures of
 2 \$9,816,900 in 2022 and \$1,916,800 in 2023. These projects relate to the Holyrood Thermal
 3 Generating Station and include: *Thermal In-Service Failures (2022)* (\$2,000,000), *Boiler*
 4 *Condition Assessment and Miscellaneous Upgrades* (\$3,014,200), *Air Receivers Condition*
 5 *Assessment and Upgrades* (\$336,500), *Turbine Valve Overhaul Unit 3* (\$3,623,500), *Major Pumps*
 6 *Overhaul* (\$491,300), *Upgrade Wastewater Treatment Plant 600 V Variable Frequency Drives*
 7 *(\$70,100)*, *Unit 3 Generator Components Condition Assessment and Miscellaneous Upgrades*
 8 *(\$153,000 in 2022 and \$338,800 in 2023)* and *Replace Underground Fire Water Distribution*
 9 *System* (\$128,300 in 2022 and \$1,578,000 in 2023). The report filed in relation to the Holyrood
 10 Thermal Generating Station provides an overview of the capital plan and expenditure outlook, as
 11 well as the operational outlook and maintenance strategy.¹⁷ In addition the Application includes
 12 engineering reports in support of four of the proposed projects.¹⁸ Hydro states that until the
 13 Muskrat Falls Project assets come online and are proven reliable, the Holyrood Thermal
 14 Generating Station must operate reliably as a generating facility to support service to its customers.

15
 16 The Board accepts that based on the information provided with respect to the condition and current
 17 operational outlook and schedule for the Holyrood Thermal Generating Station, the proposed
 18 capital expenditures are necessary to support the continued reliability of this plant until it is retired
 19 as a generating facility. The proposed 2022 expenditures are higher than the thermal generation
 20 expenditures forecast for 2022 in the 2021 five-year capital plan. This is primarily due to the
 21 expenditures required to support the continued reliable operation of the Holyrood Thermal
 22 Generating Station as a generating facility until March 31, 2024.¹⁹ The Board is satisfied, based
 23 on the evidence, that the proposed capital expenditures for thermal plant are justified, appropriate
 24 and necessary to ensure the delivery of power to customers at the lowest possible cost consistent
 25 with reliable service.

26
 27 *Gas Turbines*

28
 29 Expenditures of \$3,063,700 in 2022 and \$66,000 in 2023 are proposed in relation to gas turbines.²⁰

30
 31 There are two multi-year projects related to gas turbines proposed to begin in 2022: *Install Infrared*
 32 *Scanning-Happy Valley Gas Turbine* (\$39,600 in 2022 and \$25,600 in 2023) and *Control System*
 33 *Replacement-Holyrood Gas Turbine* (\$146,000 in 2022 and \$41,000 in 2023). Hydro states the
 34 proposed expenditures are necessary to overall system reliability as they will reduce equipment
 35 downtime and mitigate outage time.

36
 37 The Board notes that Hydro's gas turbines provide standby and spinning reserve power and
 38 function as synchronous condensers to support voltage control on its system. The proposed
 39 expenditures will support the reliability of these assets which are critical to system reliability. The
 40 proposed expenditures are lower than the five-year average and are consistent with the
 41 expenditures forecast for 2022 in the 2021 capital plan. The Board is satisfied, based on the

¹⁷ *Holyrood Thermal Generating Station Overview - Future Operation and Capital Expenditure Requirements*, Application, Vol. 1, Tab 3.

¹⁸ Application, Vol 11, Tabs 3 to 6.

¹⁹ On February 4, 2022 Hydro advised that it intends to operate the Holyrood Thermal Generating Station as a generating facility until March 31, 2024.

²⁰ This includes expenditures of \$2,878,100 in 2022 previously approved in Order Nos. P.U. 2(2021) and P.U. 6(2020).

1 evidence, that the proposed capital expenditures for gas turbines are justified, appropriate and
 2 necessary to ensure the delivery of power to customers at the lowest possible cost consistent with
 3 reliable service.

4
 5 **General Properties**

6
 7 Hydro proposes capital expenditures of \$6,651,600 in 2022 and \$593,200 in 2023 and \$2,319,600
 8 in 2024 related to general properties.²¹ The expenditures proposed for 2022 account for 8% of
 9 Hydro's 2022 Capital Budget. The proposed general properties expenditures are related to
 10 transportation, administration, information systems, and telecontrol.

11
 12 *Transportation*

13
 14 Expenditures of \$1,904,100 in 2022, \$593,200 in 2023 and \$2,319,600 in 2024 are proposed in
 15 relation to transportation.²²

16
 17 There is one transportation project proposed to begin in 2022: *Replace Light- and Heavy-Duty*
 18 *Vehicles (2022-2024)* (\$569,000 in 2022, \$593,000 in 2023 and \$2,319,600 in 2024). This project
 19 involves the replacement of eight heavy-duty vehicles and four light-duty vehicles. An engineering
 20 report was provided in support of the proposed replacements. Two light-duty vehicles will be
 21 replaced based on their present condition and two vehicles equipped to support protection and
 22 control work will be purchased as short-term rentals are not available. Hydro will also replace
 23 eight heavy-duty vehicles used for specific purposes and for which it has limited options for
 24 backup should one of them fail. The proposals related to light-duty vehicles deviate from Hydro's
 25 vehicle replacement schedule but Hydro confirmed that this temporary deviation will not
 26 negatively impact reliability as replacement vehicles can be rented short-term if needed. Hydro
 27 advised that it intends to undertake a review of its light-duty fleet to determine whether its current
 28 practices optimize the value of its fleet.

29
 30 The Board is satisfied that the proposed transportation expenditures will allow Hydro to replace
 31 vehicles as they reach the end of their service life. The proposed capital expenditures for 2022 are
 32 consistent with the average transportation expenditures over the previous five years and are lower
 33 than the forecast expenditures in the 2021 five-year capital plan. The Board is satisfied, based on
 34 the evidence, that the proposed transportation capital expenditures are justified, appropriate and
 35 necessary to ensure the delivery of power to customers at the lowest cost consistent with reliable
 36 service.

37
 38 *Administration*

39
 40 Expenditures of \$1,205,200 in 2022 are proposed in relation to administration.²³

41
 42 There are two administration projects proposed to begin in 2022: *Remove Safety Hazards - Various*

²¹ This includes expenditures of \$2,273,600 in 2022 previously approved in Order No. P.U. 2(2021).

²² This includes expenditures of \$1,335,100 in 2022 previously approved in Order No. P.U. 2(2021).

²³ This includes expenditures of \$938,500 in 2022 related to projects previously approved in Order No. P.U. 2(2021).

1 (2022) (\$199,600) and *Purchase Office Equipment Less Than \$50,000 (2022)* (\$67,100). Hydro
2 states that these expenditures are required to replace worn-out office equipment and to meet its
3 obligations under the *Occupational Health and Safety Regulations, 2012*.²⁴
4

5 The Board is satisfied that the proposed administration expenditures will allow Hydro to meet
6 statutory requirements and make necessary replacements. These expenditures are relatively
7 consistent with Hydro's five-year average spending. The Board is satisfied, based on the evidence,
8 that the proposed capital expenditures for administration are justified, appropriate and necessary
9 to ensure the delivery of power to customers at the lowest possible cost consistent with reliable
10 service.

11 *Information Systems*

12 Expenditures of \$2,630,400 in 2022 are proposed in relation to information systems.
13

14 There are eight information systems projects proposed for 2022: *Perform Software Upgrades and*
15 *Minor Enhancements (2022)* (\$621,700), *Replacement of Short-Term Load Forecasting Software*
16 *(2022)* (\$439,500), *Upgrade Core IT/OT Infrastructure (2022)* (\$308,200), *Refresh Cyber Security*
17 *Infrastructure (2022)* (\$221,700), *Purchase Personal Computers (2022)* (\$477,100), *Replace*
18 *Peripheral Infrastructure (2022)* (\$193,200), *Upgrade Energy Management System (2022)*
19 *(2022)* (\$292,600), and *Hydro Command Centre Upgrade (2022)* (\$76,400). Hydro states that the
20 proposed expenditures are necessary to maintain its computing capacity and associated
21 infrastructure, to ensure that it remains current and reliable. According to Hydro it maintains high
22 levels of security and redundancy for its information technology and operating technology
23 infrastructure. Hydro advised that that it considered deferring these projects but determined that
24 doing so would impact the efficiency of its operations and adversely affect reliability and security.
25
26

27
28 The Board is satisfied that the proposed information systems expenditures will support information
29 system security and will allow Hydro to replace outdated assets so that its information technology
30 and operating technology resources remain current and reliable. The proposed expenditures are
31 higher than Hydro's five-year average and the expenditures forecast in Hydro's 2021 five-year
32 capital plan. The evidence demonstrates that these expenditures will support overall system
33 reliability by updating information technology and operating technology resources. The Board is
34 satisfied, based on the evidence, that the proposed capital expenditures for information systems
35 are justified, appropriate and necessary to ensure the delivery of power to customers at the lowest
36 possible cost consistent with reliable service.
37

38 *Telecontrol*

39 Expenditures of \$911,900 in 2022 are proposed in relation to telecontrol.
40

41 There are seven telecontrol projects proposed for 2022: *Replace Radomes (2022)* (\$179,900),
42 *Upgrade Site Facilities (2022)* (\$49,600), *Replace Network Communications Equipment (2022)*
43 *(2022)* (\$193,000), *Upgrade Remote Terminal Units (2022)* (\$171,100), *Replace Mobile Devices*
44 *(2022)* (\$49,700), *Purchase Tools and Equipment less than \$50,000 (2022)* (\$42,000), *Replace Battery Banks*
45

²⁴ Newfoundland and Labrador Reg. 5/12, section 14.

1 *and Chargers (2022)* (\$226,600). Hydro states that the proposed expenditures are to replace
2 obsolete technology and aging hardware.

3
4 The Board notes that Hydro's telecontrol system provides communication channels to control
5 equipment and to support employee communications. The proposed expenditures will allow Hydro
6 to maintain this equipment which is vital to the operation and control of its power systems. The
7 proposed expenditures are lower than Hydro's five-year average principally as a result of Hydro's
8 decision to defer the project to replace VHF mobile radio systems until 2023 while it continues to
9 review its communications requirements.²⁵ Hydro confirmed that deferral of this purchase until
10 2023 will not impact the reliability of the existing systems because it can extend its contract for
11 these radios from month to month. The Board is satisfied that the proposed capital expenditures
12 for telecontrol are justified, appropriate and necessary to ensure the delivery of power to customers
13 at the lowest possible cost consistent with reliable service.

14 15 **Transmission and Rural Operations**

16
17 Hydro proposes capital expenditures of \$50,826,600 in 2022, \$37,098,700 in 2023 and \$1,446,300
18 in 2024 related to transmission and rural operations.²⁶ The expenditures proposed for 2022 account
19 for 60% of Hydro's 2022 Capital Budget. The proposed transmission and rural operations
20 expenditures are related to transmission, distribution, metering, tools and equipment, light-duty
21 equipment, terminal stations, and rural generation.

22 23 *Transmission*

24
25 Expenditures of \$1,603,500 in 2022 are proposed in relation to transmission.²⁷

26
27 There is one transmission project proposed for 2022: *Wood Pole Line Management Program*
28 *(2022)* (\$1,603,500). An engineering report was provided in support of this project. Hydro states
29 that it will replace or refurbish only poles and hardware requiring immediate attention and will
30 defer all other required refurbishment identified in 2021 inspections until 2023. According to
31 Hydro this will provide a one year gap between inspections and refurbishment which will allow
32 for better planning and more accurate cost estimating.

33
34 The Board notes that Hydro has 2,300 kilometres of wood pole transmission lines and the proposed
35 expenditures will support overall system reliability by protecting the integrity of these assets. The
36 proposed 2022 transmission expenditure are materially lower than the five-year average.²⁸ The
37 proposed expenditure is also lower than the forecast for 2022 in Hydro's 2021 five-year capital
38 plan. This is attributed to the decision to move to a two-year cycle for replacing or refurbishing
39 transmission system poles and hardware. The Board is satisfied, based on the evidence, that the
40 proposed capital expenditures for transmission are justified, appropriate and necessary to ensure
41 the delivery of power to customers at the lowest possible cost consistent with reliable service.

²⁵ This project was in the 2021 capital budget application for 2022.

²⁶ This includes expenditures of \$28,875,700 in 2022 and \$8,209,700 in 2023 previously approved in Order No. P.U. 2(2021).

²⁷ This does not include any expenditures previously approved by the Board.

²⁸ The five-year average was elevated by the construction of TL 266 and TL 267.

1 *Distribution*

2

3 Expenditures of \$10,321,500 in 2022 and \$3,601,000 in 2023 are proposed in relation to
4 distribution.²⁹

5

6 There are six distribution projects proposed to begin 2022:

7 i) During the proceeding Hydro requested that consideration of the *Additions for Load*
8 *(2022)-Distribution System-Mary's Harbour Voltage Conversion* project (\$550,600 in
9 2022 and \$524,600 in 2023) be deferred.³⁰

10 ii) The *Provide Service Extensions (2022)* project involves expenditures of \$3,627,200 in
11 2022 to respond to customer-driven service requests. These expenditures are based
12 expenditures in the last five years, supplemented with anticipated future activity levels.
13 Hydro states that it is obliged to provide the requested services and cannot defer acting on
14 these requests.

15 iii) The *Distribution System In-Service Failures, Miscellaneous Upgrades and Street Lights*
16 *(2022)* project involves expenditures of \$3,826,700 in 2022 to complete upgrades in
17 response to in-service failure of equipment and to address localized service deficiencies as
18 well as small-scale infrastructure replacements due to storm damage. The expenditures will
19 also provide for the continuation of Hydro's street light modernization program started in
20 2021 to replace mercury vapour and high-pressure sodium street lights to light-emitting
21 diode technology. Hydro reports that the conversions to date have yielded positive results
22 including lower maintenance requirements, greater energy efficiency, enhanced reliability,
23 and improved lighting quality.

24 iv) The *Upgrade Worst-Performing Distribution Feeders (2022-2023)* project involves
25 expenditures of \$850,000 in 2022 and \$1,922,900 in 2023 to complete work on a
26 distribution feeder in the Bottom Waters system. An engineering report was provided in
27 support of this project. Hydro states that this project will improve the feeder performance,
28 reduce power outages, and materially improve overall performance. Hydro considered the
29 alternatives to this project and concluded that upgrading the existing line is the least-cost
30 alternative. Hydro states that, since 2019, it has focused on refurbishing distribution feeders
31 which have poor reliability performance or which have significant impact on overall
32 distribution system performance or both.

33 v) The *Labrador City L22 Voltage Conversion Project (2022-2023)* project involves
34 expenditures of \$486,800 in 2022 and \$1,004,400 in 2023 to convert L22 to a 25 kV line
35 supplied from the Vanier terminal station. An engineering report was provided in support
36 of this project. Hydro states that this project will support the provision of reliable energy
37 for customers in Labrador City served by L22. The existing pad mounted transformers and
38 high-voltage cables serving the Labrador Mall, which are over 40 years old and at the end
39 of their useful life will be replaced with 25 kV-rated equipment.

40 vi) The *Install Recloser Remote Control (2022-2023)* project involves expenditures of
41 \$174,600 in 2022 and \$149,100 in 2023 to install remote controls at the Coney Arm and
42 Jackson's Arm terminal stations. According to Hydro this project will reduce outage
43 durations experienced by customers in these communities.

²⁹ This includes expenditures of \$805,600 in 2022 previously approved in Order No. P.U. 2(2021).

³⁰ Hydro agreed with Newfoundland Power's submission that consideration of this project should be deferred until a decision has been rendered on Hydro's *Long-Term Supply for Southern Labrador-Phase 1* application.

1 The Board agrees that the expenditures for the *Additions for Load (2022)-Distribution System-*
2 *Mary's Harbour Voltage Conversion* project should not be considered at this time. The Board is
3 satisfied that the remaining proposed expenditures will allow Hydro to address distribution lines
4 and equipment that require upgrades or replacement before failure, thereby reducing the
5 probability of service interruptions to customers. The Board notes that the proposed distribution
6 expenditures for 2022 are less than the five-year average expenditures and are also relatively
7 consistent with the forecast expenditures for 2022 in the 2021 five-year capital plan. The Board is
8 satisfied, based on the evidence, that the proposed capital expenditures for distribution, with the
9 exception of the Mary's Harbour voltage conversion project, are justified, appropriate and
10 necessary to ensure the delivery of power to customers at the lowest possible cost consistent with
11 reliable service. Hydro may reapply for approval of expenditures related to the Mary's Harbour
12 voltage conversion at a later time.

13 14 *Metering*

15
16 Expenditures of \$515,600 in 2022, \$3,865,600 in 2023 and \$994,600 in 2024 are proposed in
17 relation to metering.

18
19 The proposed metering expenditures relate to one project to begin in 2022: *Replace Metering*
20 *System* which involves the upgrade of the metering system that Hydro uses to measure customer
21 consumption of electricity for billing purposes.³¹ Hydro's manually read meters and obsolete TS1
22 meters will be replaced with a new drive-by automated meter reading system that does not require
23 manual entry. An engineering report was provided in support of the proposed metering
24 expenditures.

25
26 The Board is satisfied that installing an automated meter reading system will result in cost savings
27 associated with reduced labour and administrative efficiencies. Further there are safety benefits
28 associated with the installation of an automated meter reading system. It is estimated that over its
29 20-year life the system will generate cumulative cost savings of over \$8,500,000. The Board is
30 satisfied, based on the evidence, that the proposed capital expenditures for metering are justified,
31 appropriate and necessary to ensure the delivery of power to customers at the lowest possible cost
32 consistent with reliable service.

33 34 *Tools and Equipment*

35
36 Expenditures of \$1,186,100 in 2022, \$1,964,500 in 2023 and \$106,600 in 2024 are proposed in
37 relation to tools and equipment used in transmission and rural operations.

38
39 The tools and equipment projects proposed to begin in 2022 include:

- 40 i) The *Purchase 85' Material Handler Aerial Device on Track Unit* project involves
41 expenditures of \$20,400 in 2022, \$1,265,700 in 2023 and \$67,800 in 2024 to replace an
42 off-road material handler with an 85-foot Category A aerial device. An engineering report
43 was provided in support of this project. Hydro states that this material handler will reduce
44 the time required to respond to issues on the transmission system and further expand
45 Hydro's ability to apply live line techniques.

³¹ Hydro also proposes expenditures of \$76,400 on software related to the automated meter reading system.

- 1 ii) The *Purchase 46' Material Handler Aerial Device on Track Unit* project involves
 2 expenditures of \$20,400 in 2022, \$698,800 in 2023 and \$38,800 in 2024 to replace two
 3 off-road material handler track units now in service with a single 46-foot Category B aerial
 4 device. An engineering report was provided in support of this project. Hydro states that
 5 this material handler is more efficient than those it will replace because it has greater off-
 6 road capabilities.
- 7 iii) Three projects *Tools and Equipment Less than \$50,000*, for the Central, Northern and
 8 Labrador areas involve total expenditures of \$450,300 in 2022 for tools and equipment to
 9 support transmission and rural operations.
- 10 iv) The *Replace Light-Duty Mobile Equipment (2022)* project involves expenditures of
 11 \$695,000 in 2022 to replace light-duty mobile equipment such as snowmobiles, all-terrain
 12 vehicles, trailers, and forklifts used to support maintenance and repair of the electrical
 13 system. An engineering report was provided in support of this project. Hydro plans to
 14 replace 29 all-terrain vehicles, 12 snowmobiles, four light-duty trailers, and one forklift in
 15 2022. According to Hydro, as this class of equipment ages it experiences increased
 16 downtime that could negatively impact response times for emergency outages or planned
 17 maintenance.

18
 19 The Board is satisfied that the proposed tools and equipment expenditures will allow Hydro to
 20 maintain and in some cases improve response time, and will contribute to more efficient
 21 operations. While the proposed expenditures in 2022 are higher than the five-year average, the
 22 evidence, which included engineering reports, supports the proposed expenditures. The Board is
 23 satisfied, based on the evidence, that the proposed capital expenditures for tools and equipment
 24 used to support transmission and rural operations are justified, appropriate and necessary to ensure
 25 the delivery of power to customers at the lowest possible cost consistent with reliable service.

26
 27 *Terminal Stations*

28
 29 Expenditures of \$33,917,700 in 2022 and \$21,681,200 in 2023 are proposed in relation to terminal
 30 stations.³²

31
 32 There are three terminal station projects to begin in 2022:

- 33 i) The *Terminal Station Refurbishment and Modernization (2022-2023)* project involves
 34 expenditures of \$3,111,900 in 2022 and \$6,109,700 in 2023 to refurbish and modernize
 35 electrical equipment, physical plant, and protection and control equipment. Damaged,
 36 defective, or obsolete equipment at Hydro's terminal stations will be replaced or
 37 refurbished. Work will also be completed on terminal station buildings and infrastructure,
 38 including upgrades to station lighting and remediation of structural issues.³³ A fire
 39 suppression system will be installed at the Buchans terminal station. As well, Hydro has
 40 identified battery banks at various locations requiring replacement because they have
 41 reached the end of their service life.³⁴ An engineering report was provided in support of
 42 this project.

³² This includes expenditures of \$27,783,900 in 2022 and \$8,209,700 in 2023 for projects previously approved in Order No. P.U. 2(2021).

³³ Hydro plans to upgrade lighting at its Buchans and Hardwoods terminal stations and refurbish concrete foundations at its Barchoix and Linton Lake terminal stations.

³⁴ Hydro plans to replace battery banks at its St. Anthony, English Harbour West, and Hardwoods terminal stations.

- 1 ii) The *Terminal Station In-Service Failures (2022)* project involves expenditures of \$900,000
 2 in 2022 to address unanticipated failures and deterioration of terminal station systems and
 3 equipment. Hydro states that this will provide an effective and timely means to undertake
 4 immediate capital refurbishment and replacement work to maintain safe and reliable
 5 operation of its terminal station assets. The report provided in support of this project
 6 detailed Hydro's 2020 in-service failure activities and set out that Hydro reduced the
 7 budget for this project from \$1.8 million based on its reassessment of actual expenditures
 8 in 2018, 2019 and 2020.
- 9 iii) The *Upgrade Circuit Breakers (2022-2023)* project involves expenditures of \$2,121,900
 10 in 2022 and \$7,361,800 in 2023 to upgrade circuit breakers. Hydro states that it has to
 11 replace its oil circuit breakers by 2025 to comply with federal regulations regarding the use
 12 of polychlorinated biphenyls as well as other circuit breakers which are obsolete or
 13 damaged. An engineering report was provided in support of these expenditures.

14
 15 The Board notes that Hydro has 69 terminal stations that convert electricity from transmission
 16 voltages to lower voltage for distribution to customers. Many of Hydro's terminal station assets
 17 were built in the 1960s with expected useful lives of 40 to 50 years. The proposed expenditures
 18 involve upgrades and replacement of aging electrical equipment, civil works, and other equipment
 19 and are required to address safety issues, manage resource requirements and mitigate system
 20 outages. The Board notes that the proposed 2022 expenditures are greater than the five-year
 21 average expenditures but are less than the expenditures projected in the 2021 five-year capital plan.
 22 The Board is satisfied, based on the evidence, that the proposed capital expenditures for terminal
 23 stations are justified, appropriate and necessary to ensure the delivery of power to customers at the
 24 lowest possible cost consistent with reliable service.

25 26 *Rural Generation*

27
 28 Expenditures of \$3,281,200 in 2022, \$5,986,400 in 2023 and \$345,100 in 2024 are proposed in
 29 relation to rural generation.³⁵

30
 31 There are six rural generation projects to be started in 2022:

- 32 i) The *Overhaul Diesel Units - Various (2022)* project involves expenditures of \$1,360,500
 33 in 2022 to overhaul seven diesel engines and one alternator at isolated diesel generating
 34 stations. These diesel units are the sole sources of power in the communities they serve and
 35 the proposed work is based on the forecast operating hours of these units.³⁶ The engineering
 36 report provided in support of this project detailed the age and last overhaul date of the units.
 37 Hydro states that deferring these overhauls would require it to operate these units beyond
 38 its established and accepted criteria for engine overhauls.³⁷
- 39 ii) The *Upgrade Fuel Storage Tanks (2022) - Mary's Harbour* project involves expenditures
 40 of \$499,100 in 2022 to replace two 314,000 litre vertical fuel storage tanks in Mary's
 41 Harbour with three 60,000 litre horizontal storage tanks. These tanks are due for inspection
 42 in 2022 and Hydro expects that they will need to undergo repairs to extend their service
 43 life. Hydro states that it needs less bulk fuel storage capacity in Mary's Harbour because

³⁵ This includes expenditures of \$286,200 in 2022 previously approved in Order No. P.U. 2(2021).

³⁶ The project will cover work on engines only for units at Nain, Paradise River, Mary's Harbour, Norman's Bay, and Grey River. It will also cover work on an engine only for one unit in Rigolet and the engine and alternator for another.

³⁷ Hydro may determine that it is more cost-effective to replace rather than overhaul a unit.

- 1 highway development in Southern Labrador allows resupply by road throughout the year.
- 2 iii) The *Additions for Load (2022) - Mary's Harbour Service Conductor* project involves
 3 expenditures of \$307,800 in 2022 and \$51,300 in 2023. Hydro states that its long-term
 4 planning criteria require replacement of equipment when ratings are exceeded, as
 5 overloaded equipment is at greater risk of failure, reducing system reliability. The service
 6 conductor in Mary's Harbour was expected to exceed its rated capacity during the summer
 7 of 2021.
- 8 iv) The *Install Fire Protection in Diesel Plants (2022-2023) - Ramea* project involves
 9 expenditures of \$90,700 in 2022 and \$1,838,100 in 2023 to install a fire protection system
 10 in the Ramea diesel generating station. The engineering report provided in support of these
 11 expenditures provided information with respect to operating experience and alternatives.
- 12 v) The *Diesel Genset Replacement Unit 2039 - St. Lewis* project involves expenditures of
 13 \$397,000 in 2022, \$1,583,800 in 2023, and \$134,900 in 2024. Hydro replaces its diesel
 14 gensets when they have operated for 100,000 hours. Hydro expects Unit 2039 at the St.
 15 Lewis diesel generating station will cross this threshold in 2023 and therefore it must be
 16 replaced. The engineering report provided in support of these expenditures provided
 17 information with respect to operating experience and alternatives.
- 18 vi) The *Diesel Genset Replacement Unit 2012 - L'Anse-Au-Loup* project expenditures of
 19 \$339,900 in 2022, \$2,513,200 in 2023, and \$210,200 in 2024. Hydro states replacing Unit
 20 2012 in L'Anse-au-Loup, which has been in service since 1984, is necessary because parts
 21 are no longer available for it. Hydro notes that the community of L'Anse-au-Loup relies
 22 on the diesel generating station to back up electricity supplied by Hydro-Québec which
 23 may be interrupted at any time because of planned and unplanned outages. The engineering
 24 report provided in support of these expenditures provided information with respect to
 25 operating experience and alternatives.

26

27 The Board notes that Hydro's rural generation assets include 23 diesel generating stations
 28 throughout the province, 18 of which are in isolated communities. The Board is satisfied that the
 29 proposed rural generation expenditures are necessary to maintain or replace aging assets and to
 30 meet planning or maintenance criteria. The proposed expenditures for 2022 are less than the five-
 31 year average and the forecast in the 2021 five-year capital plan.³⁸ The Board is satisfied, based on
 32 the evidence, that the proposed capital expenditures for rural generation are justified, appropriate
 33 and necessary to ensure the delivery of power to customers at the lowest possible cost consistent
 34 with reliable service.

35

36 **Allowance for Unforeseen Items**

37

38 Hydro proposes a \$1,000,000 allowance for unforeseen items in 2022. This allowance will permit
 39 Hydro to proceed with capital expenditures that were not budgeted so that it can respond
 40 expeditiously to events affecting the electrical system. This allowance is consistent with the
 41 amount approved in Hydro's previous capital budget applications and accounts for 1% of its 2022
 42 Capital Budget. The Board is satisfied that the proposed allowance is justified, appropriate and
 43 necessary to ensure the delivery of power to customers at the lowest possible cost consistent with
 44 reliable service.

³⁸ Hydro has filed a supplemental capital budget application for approval of additional capital expenditures of \$15,819,700 in 2022 for a project related to the long-term supply for Southern Labrador.

1 3.2 Proposed 2022 Capital Budget

2
3 The Application requests the approval of Hydro's 2022 Capital Budget in the amount of
4 \$84,163,400.³⁹ The Board notes that the intervenors do not object to the approval of Hydro's 2022
5 Capital Budget. The Consumer Advocate observed that Hydro held its 2022 capital budget
6 expenditures at levels less than those approved by the Board in recent capital budget applications
7 and thereby "has made a concerted effort to manage its spending in recognition of the economic
8 climate in the Province and the rate impacts brought on by the Muskrat Falls Project ... and rate
9 mitigation efforts generally."⁴⁰

10
11 The Board has determined that the proposed 2022 expenditures in excess of \$50,000 for
12 improvements and additions which make up Hydro's proposed 2022 Capital Budget are justified.
13 The Board is satisfied that Hydro's proposed 2022 Capital Budget represents a reasonable balance
14 of costs and reliability. Aside from the *Additions for Load (2022)-Distribution System-Mary's*
15 *Harbour Voltage Conversion* project, approval of the proposed 2022 Capital Budget is justified,
16 reasonable and necessary to ensure the delivery of power to customers at the lowest possible cost
17 consistent with reliable service and should be approved in the amount of \$84,163,400.

18
19 While the Board is satisfied that Hydro's 2022 Capital Budget should be approved, the Board
20 acknowledges the rate pressures anticipated upon commissioning of the Muskrat Falls Project. The
21 Board believes that, given the circumstances, both Hydro and Newfoundland Power should renew
22 their efforts to demonstrate that they are making every effort to reduce costs for customers while
23 ensuring the continued provision of reliable service. The Board notes that the recently issued
24 provisional capital budget guidelines set out additional requirements with respect to the
25 information both utilities are to provide as part of their 2023 capital budget applications. The Board
26 expects that the 2023 capital budget applications filed by both utilities will include comprehensive
27 and detailed support for proposed capital expenditures, including evidence which addresses the
28 level of capital expenditure in the context of expected customer rate pressures, clearly delineates
29 the cost reduction measures considered and taken and the savings achieved, and demonstrates that
30 the proposed capital expenditures and capital budget are consistent with the provision of least-cost
31 reliable service in the current circumstances.

³⁹ The Application requested approval of Hydro's 2022 Capital Budget in the amount of \$84,714,000 but the proposed 2022 expenditures are reduced by \$550,600 with the removal of the *Additions for Load (2022)-Distribution System-Mary's Harbour Voltage Conversion* project as discussed earlier.

⁴⁰ Consumer Advocate's Submission, page 2.

1 **3.3 Proposed 2020 Average Rate Base**

2
3 The Application requested that the Board fix and determine Hydro's 2020 average rate base in the
4 amount of \$2,310,559,000.

5
6 Grant Thornton reviewed Hydro's average rate base for 2020 and concluded, based on their
7 procedures, that the 2020 average rate base as presented below accords with established practice
8 and relevant Board Orders.

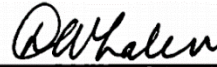
**Newfoundland and Labrador Hydro
Computation of Average Rate Base
for the Year Ended December 31, 2020
(\$000s)**

	2020
Total Capital Assets	\$2,158,515
Deduct Items Excluded from Rate Base	
Work in Progress	(24,988)
Asset Retirement Obligations (net of amortization)	(768)
Net Capital Assets	2,132,758
Net Capital Assets, Previous Year	2,115,068
Unadjusted Average Capital Assets	2,123,913
Deduct	
Average Net Capital Assets Excluded from Rate Base	(8,257)
Average Capital Assets	2,115,656
Cash Working Capital Allowance	1,409
Fuel Inventory	54,075
Supplies Inventory	38,438
Average Deferred Charges	100,981
Average Rate Base at Year-End	\$2,310,559

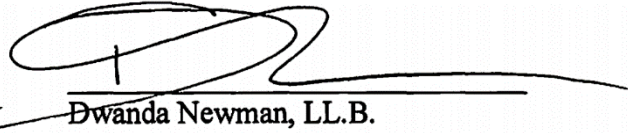
9 The Consumer Advocate, Newfoundland Power, the Industrial Customer Group did not comment
10 on Hydro's proposed 2020 average rate base.

11
12 The Board finds that the components of Hydro's average rate base for 2020 in the amount of
13 \$2,310,559,000 should be approved.

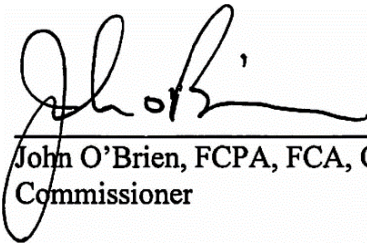
DATED at St. John's, Newfoundland and Labrador this 20th day of April, 2022.



Darlene Whalen, P. Eng., FEC
Chair and Chief Executive Officer



Dwanda Newman, LL.B.
Vice-Chair



John O'Brien, FCPA, FCA, CISA
Commissioner



Christopher Pike, LL.B., FCIP
Commissioner



Cheryl Blundon
Board Secretary