

# **Board of Commissioners** of Public Utilities

Financial Consultants Report 2020 Annual Financial Review of Newfoundland and Labrador Hydro



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# Restrictions, Qualifications and Independence

# Purpose

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This report was prepared for the Board of Commissioners of Public Utilities in Newfoundland and Labrador (the "Board"). The purpose of our engagement was to present our observations, findings and recommendations with respect to our 2020 annual financial review of Newfoundland and Labrador Hydro (the "Company", "Hydro").

#### **Restrictions and Limitations**

This report is not intended for general circulation or publication nor is it to be reproduced or used for any purpose other than that outlined herein without our prior written permission in each specific instance. Notwithstanding the above, we understand that our report may be disclosed as a part of a public hearing process. We have given the Board our consent to use our report for this purpose.

Our scope of work is as set out in our terms of reference letter, which is referenced throughout this report. The procedures undertaken in the course of our review do not constitute an audit of Hydro's financial information and consequently, we do not express an opinion on the financial information provided by Hydro. In preparing this report, we have relied upon information provided by Hydro.

We acknowledge that the Board is bound by the Access to Information and Protection of Privacy Act, 2015 and agree that the Board may use its sole discretion in any determination of whether and, if so, in what form, this report may be required to be released under this Act.

We reserve the right, but will be under no obligation, to review and/or revise the contents of this report in light of information which becomes known to us.



# **Executive Summary**

This report to the Board presents our observations, findings and recommendations with respect to our 2020 annual financial review of Hydro. Below is a summary of the key observations and findings included in our report.

Our review indicated several changes made to the code of accounts in 2020, and this refers to the creation of eleven additional accounts. While numerous accounts were added to the system for 2020, these changes are not significant, and the Company believes it will enhance its ability to provide sufficient information to meet the reporting requirements of the Board.

As a result of completing our procedures on Hydro's 2020 rate base, we noted an average rate base of \$2,310,560,000 as filed in Return 3 compared to the 2019 average rate base of \$2,306,047,000. The Company's calculation of return on average rate base for 2020 as filed in Return 12 of 5.47% compared to 2019 of 5.31%.

The Company's calculation of return on regulated average equity for 2020 was 8.72% compared with a return of 7.57% in 2019.

The Company's target capital structure is comprised of 75% debt and 25% common equity for regulated operations. The actual 2020 was 74.9% debt (excluding employee benefits and asset retirement obligation) and 21.1% equity compared to 76.2% debt and 19.9% equity in 2019.

The net impact on regulated earnings for 2020 was an increase over 2019 of \$13.6 million. This increase was primarily attributable to a \$64.0 million decrease in fuel expenses, a decrease in power purchased of \$8.8 million, and a decrease in depreciation expenses of \$3.2 million. The impact of this increase in regulatory earnings was partially offset by a decrease in the recovery of revenue deficiency by \$52.6 million and a \$3.2 million decrease in Hydro's capitalized allocation.

We reviewed Hydro's rates of depreciation to assess their compliance with the rates of depreciation used and assessing its compliance with the depreciation study approved in Order No. P.U. 30 (2019). We also calculated depreciation on a test basis and compared the estimated average service lives used in the calculations to the 2015 Depreciation Study as outlined in the 2017 General Rate Application ("GRA") and approved in Board Order No. P.U. 30 (2019). We found no exceptions in our testing.

We reviewed Hydro's methodology relating to the procedures the Company has in place to allocate costs between regulated and non-regulated operations. We also reviewed how costs are allocated between shared services. As a result of completing our procedures, we report that cost allocations for 2020 are in accordance with Hydro's methodology.

The Rate Stabilization Plan ("RSP") ("the Plan") had an accumulated debit balance of approximately \$39.9 million (Due from customers) at December 31, 2020, which comprises balances of \$13.5 million due from the utility customer, \$0.9 million due to industrial customers, and a \$27.3 million debit balance in the hydraulic variation account. Based upon our review, we report that the RSP is operating in accordance with Board Orders and the charges and credits made to the Plan in 2020 are supported by Hydro's documentation and are accurately calculated.

We reviewed Hydro's deferred charges and we noted that recovery of Phase II Hearing Costs, the Business System Deferral, and the Reliability and Resource Adequacy balance has not yet been approved by the Board. These deferral accounts have been appropriately excluded from actual rate base.

We have reviewed the KPI results and the explanations provided by Hydro for the changes and variations experienced in 2020 and find them to be consistent with our observations and findings noted in conducting our annual financial review.

The Company was under budget by 35.0% on its capital expenditures in 2020 compared to an under-budget variance of 22.9% in 2019.



#### Introduction

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This report to the Board presents our observations, findings, and recommendations with respect to our 2020 Annual Financial Review of Hydro.

#### Scope and Limitations

Our review was carried out in accordance with the following Terms of Reference:

- 1. Examine Hydro's accounting system and code of accounts to ensure that it can provide information sufficient to meet the reporting requirements of the Board.
- 2. Review calculations of the return on rate base, return on equity, capital structure and interest coverage ratio. As part of these procedures we will review net capital assets excluded from rate base and ensure it is consistent with the Board orders.
- 3. Conduct an examination of operations and administration expenses, fuels, power purchased, depreciation, and interest. Our examination includes reporting on trends, analytical review of annual variances and other financial analysis based on information provided by Hydro.

The examination of the foregoing will include, but is not limited to, the following:

- a) amortization of deferred charges,
- b) salaries and benefits,
- c) system equipment maintenance,
- d) insurance (including director's liability),
- e) transportation.
- f) building rental and maintenance,
- g) professional services,
- h) miscellaneous,
- i) capitalized expenses,
- i) intercompany charges,
- k) membership fees,
- I) fuels,
- m) power purchased,
- n) depreciation,
- o) interest,
- p) office supplies and expenses,
- q) bad debts.
- 4. Review Hydro's non-regulated activity and assess the appropriateness of adjustments in the calculation of regulated earnings.
- Review Hydro's rates of depreciation and assess their compliance with the depreciation methodology 5. approved in Order No. P.U. 30 (2019). Assess reasonableness of depreciation expense.
- 6. Conduct an examination of the changes to the Rate Stabilization Plan to assess compliance with Board directives.
- 7. Conduct an examination of the changes to deferred charges and assess their appropriateness in relation to sales of power and energy.
- 8. Review Minutes of Board of Director's and Management Committee meetings.
- 49 50 51 52 53 54 55 9. Review Hydro's annual report on Key Performance Indicators and any other information on initiatives and 56 efforts targeting productivity or efficiency improvements. 57
- 58 10. Examine the Company's capital expenditures in comparison to budgets and prior years. Included in this 59 review will be an analysis of amounts included in 'Allowance for Unforeseen Items'. 60
  - 11. Review how costs are allocated between the regulated and non-regulated operations including a review of Hydro's labour costing relating to its billing rates.

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The nature and extent of the procedures we will perform in our financial review will vary for each of the items listed above. In general, our procedures will consist of:

- inquiry and analytical procedures with respect to financial information as provided by Hydro;
- examination of, on a test basis where appropriate, documentation supporting amounts included in Hydro's records; and
- assessing Hydro's compliance with Board directives.

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The procedures undertaken in the course of our financial review will not constitute an audit of Hydro's financial information and consequently, we will not express an opinion on the financial information as provided by Hydro.

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The financial statements of the Company for the year ended December 31, 2020 have been audited by Deloitte LLP, Chartered Accountants, who have expressed their opinion on the fairness of the statements in their report dated March 5, 2021. In the course of completing our procedures we have, in certain circumstances, referred to the audited financial statements and the historical financial information contained therein.

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# **Accounting System and Code of Accounts**

Scope: Examine Hydro's accounting system and code of accounts to ensure that it can provide information sufficient to meet the reporting requirements of the Board.

Section 58 of the *Public Utilities Act* states that the Board may prescribe the form of all books, accounts, papers, and records to be kept by Hydro and that Hydro shall comply with all such directions of the Board.

The objective of our review of Hydro's accounting system and code of accounts was to ensure that it can provide information sufficient to meet the reporting requirements of the Board. We have observed that the Company has in place a well-structured, comprehensive system of accounts and organization / reporting structure. The system allows for adequate flexibility to allow the Company to meet its own, as well as the Board's, reporting requirements.

Our review noted the creation of eleven additional accounts to the code of accounts in 2020. Accounts were added in relation to the following:

- 1. A new deferral account relating to the revenue requirement associated with the Corner Brook Pulp and Paper frequency converter;
- 2. For Level 2 and Level 3 new electric vehicle charging station service;
- 3. New customer revenue account for New Brunswick Energy;
- 4. New deferral sub accounts relating to the revenue requirement associated with export revenue, and both transmission and market fees;
- 5. A new bank sub account for Hydro; and,
- 6. A new sub account to track deferral of costs related to the Reliability and Adequacy Deferral Account approved in Order No. P.U. 8 (2021).

While these accounts were added to the system for 2020, these changes are not significant, and it will enhance the Company's ability to provide sufficient information to meet the reporting requirements of the Board.

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15 16 17 Return on Rate Base and Equity, Interest Coverage and Capital Structure

Review the calculation of the return on rate base, return on equity, interest coverage ratio, and capital structure.

#### **Average Rate Base**

Scope:

The Company's calculation of average rate base is included on Return 3 and the calculation of return on average rate base is included on Return 12 of the annual report to the Board. The return on average rate base for 2020 as filed is 5.47% (2019 – 5.31%).

Our procedures with respect to verifying the reported average rate base and return on average rate base included:

- agreeing all carry-forward and component data to supporting documentation;
- · checking clerical accuracy of the continuity of the rate base and the return on average rate base; and
- reviewing the methodology used in determining average rate base and return on average rate base to ensure it is in accordance with Board Orders.

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Details with respect to Hydro's calculation of average rate base and return on average rate base as filed on Return 3 and Return 12 for 2019 and 2020 are as follows:

(000)'s	2019	2020		'19	9A-'20A
Net capital assets - average	2,099,304	2,123,914		\$	(24,610)
Cash working capital allowance	1,299	1,409			(110)
Fuel inventory	57,611	54,075			3,536
Supplies inventory	37,701	38,438			(737)
Average deferred charges	119,811	100,981			18,830
Average net assets excluded from rate base	 (9,679)	 (8,257)			(1,422)
Average rate base	\$ 2,306,047	\$ 2,310,560			(4,513)
Regulated net income	\$ 22,423	\$ 36,028			(13,605)
Cost of service exclusions (Note 1)	12,256	7,311			4,945
Hydro net interest expense (Note 2)	87,685	 83,143			4,542
Return on Rate Base	\$ 122,364	\$ 126,482			(4,118)
Regulated rate of return on rate base	5.31%	5.47%			
Note 1:	2019	2020			
Breakdown of cost of service exclusions is as follows:		 	,		
Depreciation on assets not in service	\$ 1,741	\$ 963			
Debt guarantee fee	6,348	6,348			
Other expenditures	4,167	-			
	\$ 12,256	\$ 7,311			
Note 2:	2019	2020			
Net Interest prior to disallowed portion of debt guarantee	\$ 94,033	\$ 89,491			
Debt guarantee fee disallowed	(6,348)	(6,348)			
Net interest above	87,685	83,143	,		
Amortization of FX losses	(2,157)	(2,157)			
Debt guarantee fee	6,348	 6,348			
Interest per Revenue requirement	\$ 91,876	\$ 87,334			

The increase in net capital assets - average from \$2,099,304,000 in 2019 to \$2,123,914,000 in 2020 is primarily due to capital asset additions of \$107.0 million in 2020. Capital expenditures have been examined in more detail in the "Capital Expenditures" section of this report.

Average deferred charges decreased from \$119,811,000 in 2019 to \$100,981,000 in 2020. Average deferred charges are examined in more detail in the "Deferred Charges" section of this report.

Average net assets excluded from rate base decreased from \$9,679,000 in 2019 to \$8,257,000 in 2020. Average net assets included or excluded from rate base have been examined in more detail in the "Capital Expenditures" section of this report.

During our review of the 2020 average rate base we noted the cost of service exclusions for 2019 were restated due to Order No. P.U. 38 (2019) where the Board determined that the loss on the sale of the frequency converter to an industrial customer for \$4,167,000 reflected in other expenditures shall not be recovered from Hydro's other customers.

Board of Commissioners of Public Utilities Financial Consultants Report 2020 Annual Financial Review of Newfoundland and Labrador Hydro



Based on the results of the above procedures, the calculation of average rate base as presented above is in accordance with established practice and Board Orders.

Board of Commissioners of Public Utilities Financial Consultants Report 2020 Annual Financial Review of Newfoundland and Labrador Hydro



#### **Return on Rate Base**

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The regulated net income component of the return on rate base excludes all non-regulated earnings and expenses of Hydro. In Order No. P.U. 30 (2019) the Board approved an allowed rate of return on rate base of 5.43% with a range of return of 40 basis points (± 20 basis points) for 2019 rate setting purposes. The 2020 return presented above, 5.47%, is within the approved range.

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Based on the results of completing our procedures, we can advise that no discrepancies were noted, therefore conclude that the calculation of the 2020 return on rate base is in accordance with established practice.

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# Return on Equity

The Company's calculation of regulated average equity and rate of return on regulated average equity for the year ended December 31, 2020 is included on Return 13 of the annual report to the Board.

Similar to the approach used to verify the rate base and return on average rate base, our procedures in this area focused on verification of the data incorporated in the calculations and on the methodology used by the Company. Specifically, the procedures which we performed included the following:

- agreed all carry-forward data to supporting documentation, including audited financial statements and internal accounting records where applicable;
- agreed component data (dividends, regulated earnings, etc.) to supporting documentation;
- checked the clerical accuracy of the continuity of regulated common equity; and
- recalculated the rate of return on common equity for 2020 and ensured it was in accordance with established regulatory practice.

Details with respect to Hydro's calculation of return on regulated average equity as filed in Return 13 is as follows:

(000)'s	2020	2019
Shareholder's equity		
2020	\$ 518,920	
2019	475,579	\$ 475,579
2018		440,913
Average equity	497,250	458,246
Regulated earnings	36,028	22,423
Cost of service exclusions	7,311	12,256
Regulated earnings	43,339	34,679
Return on equity	8.72%	7.57%

The 2019 return on equity has been restated to reflect Order No. P.U. 38 (2019) where the Board determined that the loss on the sale of the frequency converter to an industrial customer for \$4,167,000 shall not be recovered from other

<sup>21</sup> customers.

The "regulated" shareholder's equity of Hydro excludes the portion of equity attributable to non-regulated operations. Details with respect to Hydro's calculation of regulated shareholder's equity filed in Return 13 and Return 14 for 2019 (as restated) and 2020 are as follows:

(e'000)	2020	2019
Equity per non-consolidated financial statements	\$ 1,085,560	\$ 1,025,082
Retained earnings cost of service exclusions	43,113	35,802
Less: Contributed capital		
- Lower Churchill Development	(46,243)	(46,861)
Share capital issued to finance	(22,504)	(22,504)
investment in CF(L)Co.		
Accumulated other comprehensive income	22,073	21,834
Net retained earnings attributable to IOCC	(25,061)	(19,574)
Non-regulated activities/expenses	41,227	40,355
Net retained earnings attributable to CF(L)Co.		
(income recorded minus dividends flowed through		
to government)	(579,245)	(558,555)
Regulated Equity	\$ 518,920	\$ 475,579

As a result of completing our procedures, we did not note any discrepancies in the calculation of regulated average equity and rate of return on regulated average equity.

### Interest Coverage

In 2013, Hydro changed the calculation of its 2013 interest coverage to the Standard & Poor's ("S&P") EBITDA interest coverage methodology. The S&P methodology calculates interest coverage as earnings before interest, taxes, depreciation, and amortization ("EBITDA") divided by interest. The EBITDA calculation is considered a proxy for cash earnings by S&P.

S&P's definition of interest includes the gross amount of interest, including capitalized interest but excluding interest income. It also includes interest on employee future benefits as well as accretion.

Interest coverage for 2020 under the S&P methodology has been calculated at 2.04 times (2019 – 2.03 times).

Cost of debt was calculated on Return 15 at 4.73% in 2020 compared to 4.87% in 2019. This decrease is primarily a result of lower interest rates in 2020.

Hydro utilized its \$300.0 million government promissory note program to fulfill its short-term funding requirements. As at December 31, 2020, there were three promissory notes outstanding for a total of \$262.0 million with a maturity date of January 4, 2021 bearing an interest rate of 0.17% (2019 - \$233.0 million bearing an interest rate of 1.82%). Upon maturity, the promissory note was reissued.

Hydro maintains a \$200.0 million CAD or USD equivalent committed revolving term credit facility maturing on July 27, 2021. As at December 31, 2020, there were no amounts drawn on the facility (2019 - \$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 prevailing Government BA fee. Borrowings in USD may take the form of Base Rate Advances and letters of credit. The facility also provides coverage for overdrafts on Hydro's bank accounts, with interest calculated at the Prime Rate.

In addition, on April 17, 2020, Hydro obtained additional credit through establishment of a committed credit facility with its banker in the amount of \$300.0 million with a maturity date of April 17, 2021. As at December 2020, there were no amounts drawn on this facility. Borrowings in CAD may take the form of BAs and, in certain circumstances, Prime Rate advances. The facility also provides coverage for overdrafts on Hydro's bank accounts, with interest calculated at the prime rate.

# **Capital Structure**

Details with respect to the capital structure as filed on Return 14 for 2019 and 2020 are as follows:

(000)'s	2020	%	2019	%
Debt	1,837,000	74.9%	1,825,000	76.2%
Employee benefits	84,000	3.4%	80,000	3.3%
Asset retirement obligation	14,000	0.6%	14,000	0.6%
Equity	519,000	21.1%	476,000	19.9%
	\$ 2,454,000		\$ 2,395,000	

Prior to 2009, Hydro's debt to equity ratio had been trending towards the 80:20 target ratio with 2008 showing a ratio of 81.4:18.6. In 2009, Nalcor provided a \$100 million equity injection of contributed capital resulting in a significant reduction in leverage to a ratio of 72.0:28.0. Currently, the Company's target corporate capital structure is comprised of 75% debt and 25% common equity for regulated operations. In order to maintain this target ratio, the Company implemented the following dividend policy:

"Corporation annually on or before March 31 of each year, pay a dividend on its common shares if the percentage of debt to debt plus equity in the capital structure of the corporation on a regulated basis at the end of the immediately preceding fiscal year was less than 75% and that the amount of the dividend in that case will be equal to the amount that would be necessary to bring the percentage of debt to debt plus equity up to 75% at December 31st of the immediately preceding year, as if the dividend in question had been on that date."

The 2020 ratio was approximately 74.9% (2019 – 76.2%) debt (excluding employee benefits and asset retirement obligation) and 21.1% (2019 – 19.9%) equity. According to Hydro, the corporate regulated capital structure used in the calculation of the regulated dividend is based on an S&P rating agency methodology which differs from the calculation of the capital structure as reported in Return 14. No regulated dividends were paid in 2020. The S&P calculation of debt within the capital structure includes accrued interest, asset retirement obligations and post-retirement benefit obligations.

# **Revenue Requirement**

Scope: Conduct an examination of depreciation, fuel, power purchased, operations and administration expenses, and interest based on information provided by Hydro.

The following table provides a breakdown of the revenue requirement for the years 2017 to 2020, including variances between 2020 and 2019:

(000)'s	Actuals 2020	Actuals 2019	As Restated 2018	Actuals 2017	Variances 2020-2019
Depreciation	84,403	87,569	77,417	77,356	(3,166)
Fuel	159,932	223,928	176,440	184,772	(63,996)
Power purchased Other costs	76,118	84,944	71,181	61,717	(8,826)
Salaries and fringe benefits System equip. maint.	112,276 20,491	115,745 22,882	113,180 23,947	115,093 25,792	(3,469) (2,391)
Insurance Transportation	3,785 3,059	3,507 3,087	3,221 3,422	3,175 3,251	278 (28)
Office supplies and expenses Bldg. rentals and maint.	2,288 911	2,243 979	2,351 905	2,118 1,164	45 (68)
Professional services Travel	7,330 1,500	7,422 2,403	6,600 2,392	6,142 2,412	(92) (903)
Equipment rentals Miscellaneous	2,739 7,475	3,597 5,329	3,859 5,021	3,817 5,373	(858) 2,146
Other (income) and expense Cost deferrals/Revenue deficiency	2,540	7,068 (52,568)	1,769	9,036 (5,712)	(4,528) 52,568
GRA and supply deferral adjustments Sub-total	164,394	6,779	166,667	3,882 175,543	(6,779)
Allocations Hydro capitalized	(29,679)	(32,883)	(30,251)	(35,753)	3,204
Cost Recoveries Sub-total	1,337 (28,342)	(1,323) (34,206)	(1,121)	(2,530)	2,660 5,864
Total	136,052	94,267	135,295	137,260	41,785
Accretion of ARO	289	338	357	189	(49)
Interest	87,336	91,877	90,323	73,487	(4,541)
Regulated earnings <sup>1</sup>	36,028	22,423	21,541	32,037	13,605
Revenue requirement	\$ 580,158	\$ 605,346	\$ 572,554	\$ 566,818	\$ (25,188)

Note 1: Regulated earnings presented above excludes cost of service exclusions.

As noted in the above table, the net impact on regulated earnings for 2020 was an increase over 2019 of \$13.6 million. This increase was primarily attributable to a \$64.0 million decrease in fuel expenses, a decrease in power purchased of \$8.8 million, and a decrease in depreciation expenses of \$3.2 million. The impact of this increase in regulatory earnings was partially offset by a decrease in the recovery of revenue deficiency by \$52.6 million and a \$3.2 million decrease in Hydro's capitalized allocation.

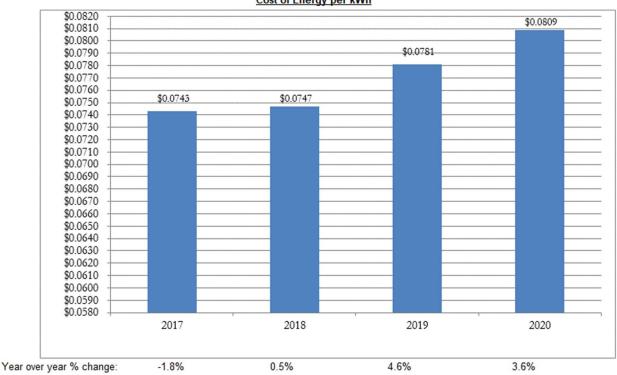
#### Costs per kWh Analysis

In the table and graph below we have provided an analysis of the breakdown of the cost of energy on the basis of the number of kWhs sold for the years 2017 to 2020:

#### (\$000)'s

		kWh sold and			Purchased	Other	Interest &	Regulated	Total Cost	Cost per
Ye	ar	used	Depreciatio	n Fuel	Power	Costs	Accretion	Earnings	of Energy	kWh
20	17	7,626,000	\$ 77,35	5 \$ 184,772	\$ 61,717	\$ 137,260	\$ 73,676	\$ 32,037	\$ 566,818	\$ 0.0743
20	18	7,665,000	\$ 77,41	7 \$ 176,440	\$ 71,181	\$ 135,295	\$ 90,680	\$ 21,541	\$ 572,554	\$ 0.0747
20	19	7,751,000	\$ 87,56	9 \$ 223,928	\$ 84,944	\$ 94,267	\$ 92,215	\$ 22,423	\$ 605,346	\$ 0.0781
20	20	7,173,000	\$ 84,40	3   \$ 159,932	\$ 76,118	\$ 136,052	\$ 87,625	\$ 36,028	\$ 580,158	\$ 0.0809

#### Cost of Energy per kWh



As highlighted in the graph above, the cost per kWh increased in 2020. In 2020, the cost of energy sold on the basis of the number of kWhs sold was \$0.0809 per kWh which represented a 3.6% increase over 2019.

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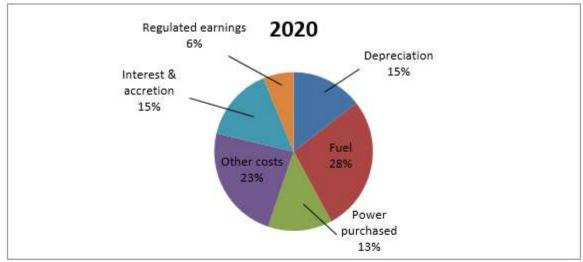
> The following table and charts provide a further breakdown of the expense per kWh by expense category for the years 2019 and 2020:

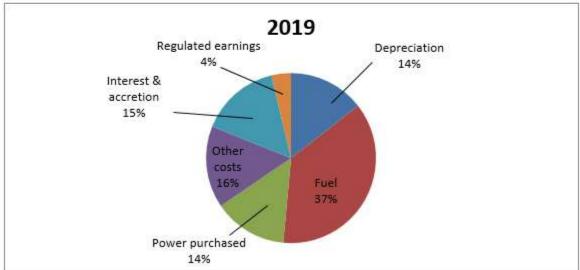


kWh sold and used

Depreciation
Fuel
Power purchased
Other costs
Interest & accretion
Regulated earnings
Total

2020								2019	
7,173,000							7,7	'51,000	
	Cost (000)'s	Cos	t per kWh	% of Total	(	Cost (000)'s	Co	st per kWh	% of Total
\$	84,403	\$	0.0117	14.55%	\$	87,569	\$	0.0112	14.47%
	159,932		0.0223	27.57%		223,928		0.0289	36.99%
	76,118		0.0106	13.12%		84,944		0.0110	14.03%
	136,052		0.0190	23.45%		94,267		0.0122	15.57%
	87,625		0.0122	15.10%		92,215		0.0119	15.23%
	36,028		0.0050	6.21%		22,423		0.0029	3.70%
\$	580,158	\$	0.0809	100.00%	\$	605,346	\$	0.0781	100.00%



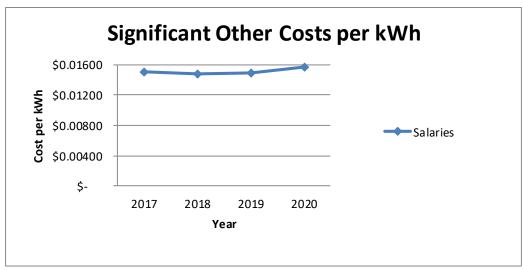


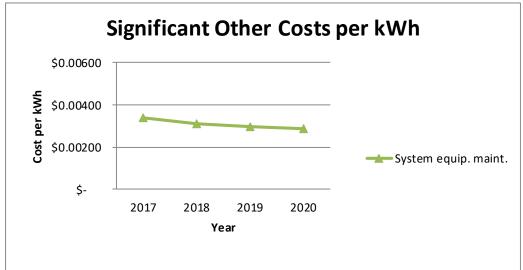
Explanations for the significant fluctuations within each of these cost categories are discussed further in this report.

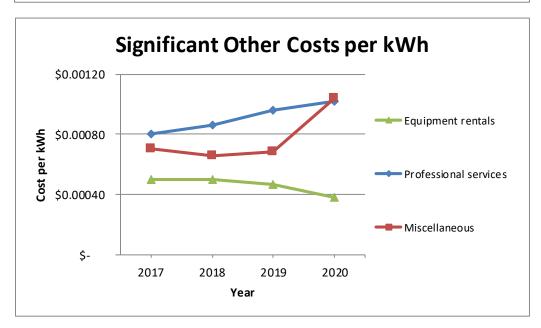
An analysis of the most significant accounts within "other costs" for the years 2017 to 2020 has been provided below in the following graphs:

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In the first graph, cost of salaries and fringe benefits per kWh have increased 4.8% in 2020 over 2019. The second graph shows the cost per kWh for system equipment maintenance has decreased by approximately 3.2%. The third graph shows professional services costs per kWh has increased by 6.7%, miscellaneous expense per kWh increased by 51.6% and equipment rentals per kWh decreased by 17.7%.

As previously mentioned, we have reviewed the various expense categories in more detail on an individual basis and our observations and comments are noted further in this report for your consideration.

#### Fuels

Fuel expense in 2020 totaled \$159.9 million compared to \$223.9 million in 2019. The decrease in fuel expense from 2019 levels was approximately \$64.0 million, or 28.6%. The breakdown of costs within the fuel category is noted below for the years 2017 to 2020:

(000)'s	2020	2019	2018	2017	Var 20-19
No.6 Fuel	142,440	\$196,106	\$149,745	\$190,499	(\$53,666)
Fuel Additives	-	281	368	10	(\$281)
Fuel Costs Indirect	202	144	144	168	\$58
Environmental Handling Fee	24	4	48	31	\$20
Ignition Fuel	263	313	342	300	(\$50)
Gas Turbine Fuel	871	1,463	3,578	2,454	(\$592)
Diesel Fuel Rural	12,603	16,575	17,368	14,310	(\$3,972)
Rate Stabilization Plan (RSP)	56,870	34,252	9,160	(18,900)	\$22,618
Supply Cost Deferrals	(54,949)	(29,600)	(22,007)	(21,285)	(\$25,349)
Firm Energy Power Purchase Deferral	-	1,475	-	-	(\$1,475)
Holyrood CT	1,608	2,915	17,694	17,185	(\$1,307)
	\$159,932	\$223,928	\$176,440	\$184,772	(\$63,996)

#### No. 6 Fuel

In 2020, the total cost of No. 6 Fuel, which is the largest component of fuel expense, decreased by \$53.7 million from 2019. According to Hydro, this decrease is primarily due to a lower average price (2020 - \$84.62; 2019 - \$91.74) and lower consumption (2020 - 1,655,000 barrels; 2019 - 2,136,000 barrels), resulting in a decrease of 481,000 barrels year-over-year. Lower consumption in 2020 is the result of increased thermal production which had been required in 2019 to meet higher customer requirements and support reservoir storage.

#### Fuel Additives

According to Hydro, there were no purchases of fuel additives in 2020.

#### Gas Turbine Fuel

According to Hydro, the decrease of \$592,000 from 2019 to 2020 noted in Gas Turbine Fuel is primarily a result of a change in volume in liters (L) purchased (2020 - 960,290 L; 2019 - 1,508,739 L); this lower consumption resulted in a decrease of 548,449 L, which accounts for \$0.5 million of the aforementioned variance. In addition, according to Hydro, another \$0.1 million of the variance is attributable to a price decrease of \$0.06/L of gas turbine fuel year-overyear.

#### Diesel Fuel Rural

According to Hydro, the decrease of \$3,972,000 from 2019 to 2020 noted in Diesel Fuel Rural is primarily due to a change in the price of diesel (2020 - \$0.87/L; 2019 - \$1.05/L), resulting in a year-over-year decrease of \$0.18/L. According to Hydro, this change in the price of diesel accounted for \$2.6 million of the aforementioned variance of \$4.0 million. An additional \$1.4 million of the variance was the result of a decreased volume purchased year-over-year in the amount of 1,341,248 L.

Including RSP adjustments, the cost of No. 6 fuel for 2020 was \$199.3 million compared to \$230.4 million in 2019.

The variation in the RSP consists of four main components: fuel variation, hydraulic variation, load variation, and Labrador interconnected.

(000)'s	2020	2019	Variance 20-19
Hydraulic Variation	(\$19,462)	(\$14,830)	(\$4,632)
Load Variation	41,256	19,023	22,233
Fuel	35,216	30,074	5,142
Labrador Interconnected	(140)	(15)	(125)
	\$56,870	\$34,252	\$22,618

The hydraulic production in 2020 contributed negatively to the RSP in the amount of \$19.5 million; this negative contribution is \$4.6 million higher than the prior year negative contribution of \$14.8 million:

Hydraulic Variation		2020	2019	Variance	
Average COS Fuel (\$)		\$	105.90	\$ 105.90	\$ -
Actual Hydraulic Production (000)'s COS Hydraulic Production (000)'s			4,493,308 4,600,451	4,525,281 4,600,451	
Annual hydraulic production variance (000's)		_	(107,143)	(75,170)	(31,973)
Hydraulic variation (000)'s Adjustment to opening balance (000)'s	1 2 3	\$	(19,462) -	\$ (13,654) (1,176)	
		\$	(19,462)	\$ (14,830)	\$ (4,632)

#### Notes:

- 1 Holyrood conversion factor in COS is 583 kWh/bbl (2019 583 kWh/bbl).
- 2 This number has been calculated on a monthly basis.
- 3 The opening balance was adjusted by \$1,176,481 in 2019 due to overstatement of production at Bay d'Espoir as reported in December 2018.

A decrease in hydraulic production of 107 GWh in 2020 under the Cost of Service ("COS") has led to total losses to the plan of \$19.5 million.

#### **Load Variation**

The load variation for 2020 contributed positively to the Plan in the amount of \$41.3 million. The load variation is primarily the result of the load requirements of the industrial customers being 291 GWh lower than the COS load requirement.

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The fuel variation is calculated using the actual cost per barrel of No. 6 fuel relative to the COS price applied to the number of barrels of fuel consumed. The calculation of this fuel variation is provided in the table below:

Fuel Variation			2020		2019	Va	riance
Actual barrels adjusted for non-firm sales (000)'s			1,655		2,136		(481)
Average Actual Fuel Average COS Fuel		\$ \$	84.62 105.90	\$ \$	91.74 105.90		
Annual fuel price variance		\$	21.28	\$	14.16	\$	7.12
Fuel Variation (000)'s	1	\$	35,216	\$	30,074	\$	5,142

	(000)'s Production	Aver	age Price	Va	(000)'s ariance
	1,655	\$	7.12	\$	11,785
	(481)	\$	14.16	\$	(6,804)
2			_	\$	4,981
	2	Production 1,655		1,655 \$ 7.12	Production Average Price V

- 1 This number has been calculated on a monthly basis.
- 2 Calculation is done on an annualized basis for comparison purposes and will lead to slight differences from a monthly basis.

The table above shows that the actual average fuel price for No. 6 fuel in 2020 was \$21.28 per barrel less than the average COS fuel price. The actual barrels consumed during 2020 decreased by approximately 481,000 barrels in comparison to the actual barrels consumed in 2019. This decrease in fuel prices, in addition to a decrease in the number of barrels consumed, resulted in a positive fuel variation of approximately \$35.2 million to the Plan in 2020 compared to a \$30.1 million fuel variation in 2019. The change in the fuel price variation, in addition to the change in fuel consumption, led to an increase in the RSP fuel component of \$5.1 million (calculated on a monthly basis) for 2020 compared to 2019. As shown above, the decrease in actual fuel costs, relative to the COS, led to a positive fuel price variance of approximately \$11.8 million compared to 2019. This positive fuel price variance was partially offset by a negative volume variance of approximately \$6.8 million, for a combined variance of \$5.0 million (there is a slight difference when the calculation is done on an annualized basis in comparison to a monthly basis).

#### Supply Cost Deferral

This expense line encompasses the Holyrood Conversion Deferral, Isolated Systems Deferral and the Energy Supply Deferral. The largest variance occurred in the Energy Supply Deferral for \$28.5 million, partially offset by \$3.2 million in the Holyrood Conversion Deferral and Isolated Systems Deferral. According to Hydro, the variance of \$28.5 million in the Energy Supply Deferral is primarily due to lower Maritime Link and Labrador Island Link imports in 2020 compared to 2019 (2020: 194.7 GWh; 2019: 446.6 GWh). The total impact relating to Maritime Link and Labrador-Island Link imports is \$38.2 million which is driven by \$45.0 million Holyrood fuel adjustment variance (2020: \$51.3 million; 2019: \$6.3 million) and is offset by a power purchase variance of \$6.8 million (2020: \$-1.1 million; 2019: \$5.7 million).

#### Power purchased

The breakdown of power purchased by account is as follows:

(000)'s	2020	2019	2018	2017	Var 20-19
Energy Costs - NUGS	\$53,042	\$53,709	\$56,363	\$53,274	(\$667)
Demand & energy - CF(L)Co	1,441	1,390	1,468	1,383	51
L'Anse au Loup	2,346	3,033	3,328	2,624	(687)
Island wheeling	748	768	772	710	(20)
Transmission rental	1,429	1,406	357	-	23
Power purchase cost variance account	-	265	517	-	(265)
CBPP Firm Energy	-	1,322	-	-	(1,322)
Secondary energy	2,119	1,605	472	481	514
Ramea Wind	77	88	113	144	(11)
Ramea Hydrogen	-	10	(5)	(2)	(10)
Interruptible: Curtailable	3,158	3,226	3,658	3,103	(68)
Maritime Link	11,758	18,122	4,138	-	(6,364)
	\$76,118	\$84,944	\$71,181	\$61,717	(\$8,826)

Energy purchases from Non-Utility Generators ("NUGs") represent the most significant component of purchased power. This category decreased by \$667,000 in 2020 when compared to 2019. According to Hydro, this decrease reflects lower deliveries under the Corner Brook Pulp and Paper Limited ("CBPP") Co-Generation Agreement, and lower deliveries from the Fermeuse Wind Generation Facility. However, the noted decrease in energy purchases from NUGs was partially offset by the realization of higher generation from the St. Lawrence Wind Generation Facility. Power Purchase Agreements for generation under the Corner Brook Pulp and Paper Limited Co-Generation Agreement and from the Fermeuse and St. Lawrence Wind Generation Facilities are "take-or-pay" agreements, meaning that Newfoundland and Labrador Hydro does not influence production at those facilities.

L'Anse au Loup power purchases decreased by \$687,000 from 2019 to 2020. According to Hydro, the primary drivers for this noted decrease were lower costs of energy purchases as a result of lower fuel prices, partially offset by higher volumes of power purchased.

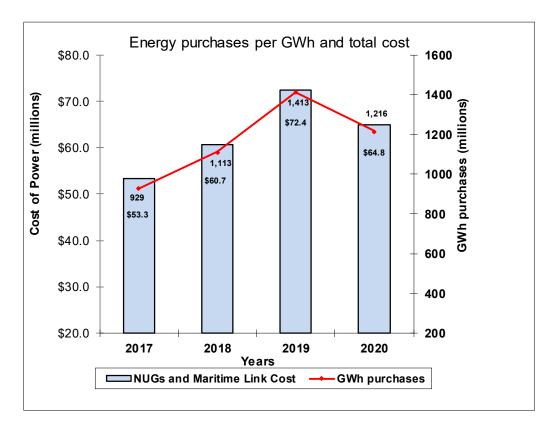
According to Hydro, CBPP Firm Energy purchases decreased by \$1,322,000 from 2019 to 2020 as a direct result of there being no purchases of CBPP Firm Energy in 2020 to support hydraulic energy in storage.

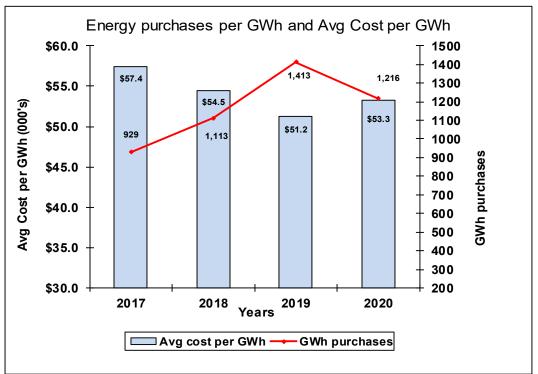
Secondary energy power purchases increased by \$514,000 from 2019 to 2020. According to Hydro, volumes of energy purchased from CBPP as secondary energy saw an increase of 5 GWh in 2020 in comparison to the volume purchased in 2019. As the Power Purchase Agreements for generation under the CBPP Secondary Energy Agreement is a take-or-pay agreement (in which Hydro does not influence production), the volumes of power purchased from this Agreement are dependent upon the operations of CBPP.

According to Hydro, Ramea Hydrogen power purchases decreased to \$Nil in 2020 as a result of Nalcor Energy suspending operations at the Ramea project in March 2019.

Maritime Link purchases decreased by \$6,364,000 from 2019 to 2020. According to Hydro, in 2020, purchases were 53 GWh lower as compared to 2019 resulting from lessened opportunity to economically offset thermal generation in 2020, particularly given the lower thermal generation requirement to satisfy the reduced energy load in 2020 due to a milder winter season experienced across the province.

The following graphs depict the changes in energy purchases, including the Maritime Link, in terms of GWh and total costs followed by the changes in energy purchases in terms of GWh and cost per GWh over the period of 2017 to 2020:





As shown in these charts, in 2020, the average cost per GWh purchased from NUGS and the Maritime Link was \$53,300 per GWh, which is a 4.1% increase from the 2019 average cost per GWh of \$51,200. The increase is due to less purchases from the Maritime Link in 2020 than 2019 which has a lower average cost per GWh than NUGS.

The other components of this expense category are less significant and therefore no further analysis was conducted.

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#### Salaries and fringe benefits

#### Analysis of Gross Payroll Costs

Gross payroll costs for 2020 were \$112,276,000, a decrease of \$3,469,000, or 3.0%, in comparison to 2019. The decrease in 2020 over 2019 was primarily driven by increased vacancies experienced in 2020 due to a combination of the impact of the COVID-19 pandemic on operations, hiring decision delays, and the evaluation of vacant positions to be eliminated through attrition.

These fluctuations are outlined in the table below which summarizes salaries and fringe benefits costs incurred from 2017 to 2020:

(000)'s	2020	2019	2018	2017	Var 20-19
Salaries	\$ 71,987	\$ 74,204	\$ 74,841	\$ 73,562	\$ (2,217)
Other salary costs	5,247	2,039	3,132	2,305	3,208
Intercompanysalaries	(103)	160	(8)	266	(263)
	77,131	76,403	77,965	76,133	728
Allowances	2,034	2,269	2,319	2,480	(236)
Directors fees	59	69	38	11	(10)
Overtime	11,413	12,498	11,824	15,806	(1,085)
Employee future benefits	7,140	9,023	6,837	6,282	(1,884)
Fringe benefits	11,763	12,426	11,547	11,440	(662)
Group insurance	2,573	2,893	2,486	2,769	(320)
Labrador travel benefit	164	164	164	172	
	\$112,276	\$ 115,745	\$113,180	\$115,093	\$ (3,469)

The decrease in salaries of \$2,217,000 over 2019 is primarily due to the decrease in full-time equivalents (FTE) observed in 2020 compared to 2019. According to Hydro, they experienced a significantly higher rate of vacancy in 2020 due to a combination of the impact of the COVID-19 pandemic on operations, hiring decision deferrals, and the evaluation of vacant positions to be eliminated through attrition as part of Hydro's Efficiency and Effectiveness Plan commitments. There was a decrease of 39 FTE employees in 2020 in comparison to 2019.

The increase in other salary costs of \$3,208,000 over 2020 is primarily due to \$2.0 million in termination-related costs, \$0.4 million in retroactive pay related to non-union salary progression increases and \$0.7 million in vacation accrued due to a policy exception for additional carryover as a result of the impacts of the COVID-19 pandemic on business operations.

The decrease in overtime of \$1,085,000 over 2019 is primarily relating to the Engineering Services and Production Operations divisions driven by the impact of the COVID-19 pandemic on operations resulting from restricted travel and a significant decline in the operational work plan from 2019 in the Hydraulic Generation division.

The decrease in employee future benefits of \$1,884,000 over 2019 is primarily driven by a past service cost adjustment in 2019 relating to life insurance premium assumption updates. These adjustments were non-recurring in 2020. This was partially mitigated by a reduction in the discount rate in 2020.

The breakdown of the salaries category by division is as follows:

We have reviewed the executive salaries in more detail, and our observations and comments are noted further in this report.

(000)'s	2020	2019 <sup>1</sup>	2018	2017	Var 20-19
Executive Leadership	\$ 1,617	\$ 1,715	\$ 1,859	\$ 1,701	\$ (98)
Hydro Finance	5,443	5,462	5,558	5,419	(19)
Engineering	14,264	13,599	12,915	11,998	665
Transmission Operations	24,215	26,061	28,068	28,231	(1,846)
Production Operations	16,888	18,630	19,034	18,794	(1,742)
Regulatory Affairs & Customer Service	10,983	10,836	8,352	8,430	147
Recharged salaries	(1,423)	(2,099)	(945)	(1,011)	676
	\$ 71,987	\$74,204	\$74,841	\$73,562	\$ (2,217)

Note 1: Restated to adopt to current year's presentation

The Transmission divisional salaries decreased in 2020 by \$1,846,000. According to Hydro this decrease is a result of increased vacancy experience and organizational changes related to the movement of Long-Term Asset Planning resources from Transmission Operations to Engineering Services.

The Production divisional salaries decreased in 2020 by \$1,742,000. According to Hydro this decrease is a result of increased vacancy experience and the internal transfer of FTEs from Hydro's Generation's Long-Term Asset Planning group as part of Production Operations to Regulatory Affairs & Customer Service.

The below matrix illustrates a scale for salary increases and bonuses based on performance ranging from 0 - 6.5% for non-union employees. The compensation matrix allows for pay adjustments above the revised job rate based on an employee's "rating of performance". Ratings of performance include Unacceptable, Improvement Required, Meets Expectations, Exceeds Expectations, and Exceptional.

	Scale Adjustment - Below Scale Maximum						
Rating of Performance	2020	2019					
Exceptional	6.5% (to the scale maximum)	6.5% (with cash payout of balance)					
Exceeds Expectations	5.5% (to the scale maximum)	5.5% (with cash payout of balance)					
Meets Expectations	Up to 4% (to the scale maximum)	Up to 4% (to the scale maximum)					

As noted by the Company, all salary adjustment figures are calculated as a percentage of current base salary. All salary adjustments are subject to the scale maximum.

As part of the Compensation Program changes in 2018, the re-earnable cash payments were eliminated from the 2019 Matrix. Re-earnable cash payments were lump sum merit payments issued to employees who were at 100% of their scale and thus did not receive a salary increase as part of the Salary Administration process/Merit Compensation Matrix.

Changes in recognition for Exceeds and Exceptional categories which were communicated in 2018 were implemented in the 2019 Matrix and continued in 2020. The 2018 performance year was the first year of the two-year consecutive high-performance eligibility for employees in the Exceeds and Exceptional categories. Employees who had consecutive high performance in 2018 and 2019 performance years would have the opportunity to progress beyond 100% of the scale to a maximum of 110% of the scale in 2020. Performance Contract eligible employees are also eligible based on two consecutive years of Exceeds or Exceptional ratings to progress up to 110% of the scale in 2020. Performance Contract eligible employees includes executives and a limited number of other senior managers. Executive salary progression along defined executive salary scales is at the discretion of the CEO and requires approval by the Board.

#### Net Full-Time Equivalents ("FTE")

The table below is a detailed comparison of the average number of net FTE employees by division for 2017 to 2020. As shown, in comparison to 2019 the total net FTEs for 2020 decreased by 39 full time positions.

	2020	2019	2018	2017	Var 20-19
Executive Leadership	12	9	10	9	3
Hydro Finance	65	64	66	65	1
Engineering	130	126	119	106	4
Transmission Operations	300	321	319	321	(21)
Production Operations	196	211	212	210	(15)
Regulatory Affairs & Customer Service	87	99	102	104	(12)
	791	830	828	815	(39)

Hydro provided the following explanations for significant variances noted in net FTE positions when comparing the number of FTEs in 2020 to those in 2019:

- According to Hydro, the three additional FTEs in the Executive Leadership division are a result of an internal transfer of FTEs from Production Operations in order to create the newly formed Utility Performance group, which reported directly to the President of Hydro in 2020.
- According to Hydro, the decrease of 21 FTEs in Transmission Operations from 2019 is a result of increased vacancy experience. Hydro had experienced a significantly higher rate of vacancy in 2020 due to a combination of: (a) the impact of the ongoing COVID-19 pandemic on operations, (b) deferrals of hiring decisions, and (c) the evaluation of vacant positions to be eliminated through attrition as a function of the Hydro Efficiency and Effectiveness Plan commitments.
- According to Hydro, the decrease of 15 FTEs in Production Operations from 2019 is a result of the
  aforementioned internal transfer of FTEs from Production Operations in order to create the newly formed
  Utility Performance group, as well as increased vacancy experience. Hydro had experienced a significantly
  higher rate of vacancy in 2020 due to a combination of: (a) the impact of the ongoing COVID-19 pandemic
  on operations, (b) deferrals of hiring decisions, and (c) the evaluation of vacant positions to be eliminated
  through attrition as a function of the Hydro Efficiency and Effectiveness Plan commitments.
- According to Hydro, the decrease of 12 FTEs in Regulatory Affairs & Customer Service from 2019 is a result of increased vacancy experience. Hydro had experienced a significantly higher rate of vacancy in 2020 due to a combination of: (a) the impact of the ongoing COVID-19 pandemic on operations, (b) deferrals of hiring decisions, and (c) the evaluation of vacant positions to be eliminated through attrition as a function of the Hydro Efficiency and Effectiveness Plan commitments. Additionally, the Regulatory Affairs & Customer Service division, which includes a number of corporate functions (including, but not limited to, Hydro Human Resources), is home to all of the apprenticeship and graduate engineer FTEs, for which hiring was deferred in 2020 due to impacts related to the global COVID-19 pandemic.

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Average salary costs per net FTE for 2017 to 2020 are included in the following table:

	2020		2019		2018		2017
Salary costs, including temporary salaries (in thousands)	\$	71,987	\$	74,204	\$	74,841	\$ 73,562
Intercompany salaries (In thousands)		(103)		160		(8)	266
Total salary sosts (in thousands)		71,884		74,364		74,833	73,828
Net FTE*		791		830		828	815
Average salary per net FTE % increase (decrease)	\$	90,877 1.5%	\$	89,574 -0.9%	\$	90,345 -0.3%	\$ 90,587 6.5%

<sup>\*</sup>FTEs presented are net of capital recharge FTEs

The above analysis indicates that the Company experienced a 1.5% increase in average salary per net FTE for 2020. Fluctuations in average salary per net FTE are expected each year due to the effect of capital recharge activity from year to year.

#### **Executive salaries**

During 2016, Hydro underwent changes to their organizational structure, whereby a separate executive team was formed, and certain common costs were transferred to Nalcor to be recovered through an administration fee.

Prior to the reorganization, the salaries of the executives of Nalcor were recharged back to Hydro via the Intercompany Salary account, with billing rates designed to cover salary, benefits, and vacation of the executives. According to Hydro there were no recharge executive salaries from Nalcor to Hydro in 2020.

The table below outlines the executive salaries by position, including the annual salary, salary earned, performance contract, gross salary, and benefits for 2020.

	Annual Salary	Salary Earned <sup>1</sup>	Performance Contract <sup>2</sup>	Retroactive Earnings	Vacation Pay	Redundancy Pay	Gross Salary	Benefits	Total
President	285,000	306,923	51,304	-	-	-	358,227	56,449	414,676
VP, Financial Services	220,000	236,923	41,969	-	-	-	278,892	48,055	326,947
VP, Engineering & Technology	215,000	231,538	41,521	-	-	-	273,059	47,393	320,452
VP, NLSO & Operations	215,000	231,538	41,927	-	-	-	273,465	41,091	314,556
General Counsel & Corporate Secretary	200,000	215,385	37,002	-	-	-	252,387	45,340	297,727
VP, Regulatory & Customer Service	200,000	203,846	27,325	7,846	-	-	239,017	42,657	281,674
VP, Regulatory Affairs & Corporate Services <sup>3</sup>	220,000	40,615	132,589		7,108	221,788	402,100	35,856	437,956
Total	1,555,000	1,466,768	373,637	7,846	7,108	221,788	2,077,147	316,841	2,393,988

<sup>&</sup>lt;sup>1</sup>There were 27 pay periods in 2020.

<sup>&</sup>lt;sup>2</sup>Performance contract payments are based on the previous years performance.

<sup>&</sup>lt;sup>3</sup>Performance contract payout for 2019 - 2022 under the terms of the employment contract

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#### Capitalized salaries

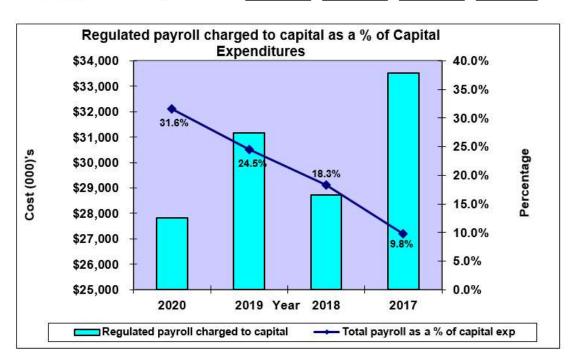
Capitalized salaries include the salaries and benefits of the Company's employees whose time is charged directly to capital projects. The gross payroll costs for 2017 to 2020 were allocated to operations and capital as follows:

(000)'s	2020	2019	2018	2017	Var 20-19
Payroll charged to operating	\$ 84,441	\$ 84,589	\$ 84,465	\$ 81,582	\$ (148)
Payroll charged to capital	27,835	31,156	28,715	33,511	(3,321)
	\$112,276	\$ 115,745	\$ 113,180	\$ 115,093	\$ (3,469)

The Company's 2020 capitalized payroll decreased by \$3,321,000, or 10.7%, over 2019. The amount of capitalized salaries can vary widely from year-to-year depending on the type of capitalized projects and the requirement for workforce versus machine power. The percentage of capital salaries in relation to the amount of capital expenditures can also fluctuate from year-to-year.

The following table and graph illustrate the relationship between payroll charged to capital and capital expenditures for the period 2017 to 2020:

(000)'s	2020	2019	2018	2017
Capital expenditures <sup>1</sup>	\$88,000	\$127,000	\$157,000	\$341,000
Regulated payroll charged to capital	27,835	31,156	28,715	33,511
Total payroll as a % of capital exp	31.6%	24.5%	18.3%	9.8%



1 Balance includes both regulated and non-regulated costs

As noted from the table above, the percentage of capital salaries in relation to the amount of capital expenditures can fluctuate significantly from year-to-year.

As noted in the table below capitalized salaries consists of two sub-categories of costs; capital salaries and capital overtime.

(000)'s	2020	2019	2018	2017	Var 20-19
Capital salaries Capital overtime	\$ 22,553 5,282	\$ 24,421 6,735	\$ 22,857 5,858	\$ 24,677 8,834	\$ (1,868) (1,453)
	\$ 27,835	\$31,156	\$ 28,715	\$ 33,511	\$ (3,321)

The \$3.3 million decrease in capital salaries and overtime from 2019 was mainly related to an increase in capital requirements in 2019, including capital labour related to the turbine refurbishment in Bay d'Espoir on Unit 7, distribution upgrades and the wood pole line management program. This 2019 increase was partially offset by a decrease in the requirements for the upgrade circuit breakers program.

#### System equipment maintenance

In 2020, system equipment maintenance costs decreased by approximately \$2,391,000 over 2019. The following table summarizes system equipment maintenance costs incurred from 2017 to 2020 by sub-category.

(000)'s	2020	2019	2018	2017	Var 20-19
Maintenance	\$ 7,935	\$ 9,114	\$ 9,396	\$ 10,510	\$ (1,179)
Contract Labour	10,663	11,909	12,831	13,152	(1,247)
Contract Materials	2	47	12	59	(45)
	18,600	21,070	22,239	23,721	(2,470)
Tools and operating supplies	315	413	438	493	(98)
Freight expense	503	476	347	501	27
Lubricant, gases & chemicals	1,034	886	883	1,077	148
Direct purchases	38	37	40		1
	\$ 20,491	\$ 22,882	\$ 23,947	\$ 25,792	\$ (2,391)

The total maintenance material, contract labour and contract materials costs in 2020 decreased by \$2,470,000 from 2019.

Maintenance costs are incurred throughout all divisions with the majority of costs incurred in the Transmission Operations and Production Operations divisions. The following table provides a breakdown of Maintenance costs by division for 2019 and 2020:

(000)'s	2020	2019	Var 20-19
Executive Leadership	\$ 1	\$ 5	\$ (4)
Hydro Finance	896	913	(17)
Engineering	489	602	(113)
Transmission Operations	8,521	10,011	(1,490)
Production Operations	8,460	9,431	(971)
Regulatory Affairs & Customer Service	234	108	126
	\$ 18,600	\$21,070	\$ (2,470)

The following tables provide a departmental breakdown of maintenance costs in both the Transmission Operations and Production Operations divisions for 2019 and 2020, respectively:

Transmission Operations			
(000)'s	2020	2019	Var 20-19
	· · · · · · · · · · · · · · · · · · ·		,
TRO Central	\$ 1,088	\$ 1,544	\$ (456)
TRO Northern	435	499	(64)
TRO Labrador	2,003	2,820	(817)
T&D Services	4,984	5,143	(159)
System Operation	11	4	7
	\$ 8,521	\$10,011	\$ (1,490)
	<u></u>		
Production Operations			
(000)'s	2020	2019	Var 20-19
Gas Turbines	\$ 932	\$ 1,105	\$ (173)
Hydro Production	1,147	1,526	(379)
Thermal Production	6,382	6,800	(418)
	\$ 8,460	\$ 9,431	\$ (971)

According to Hydro, the decrease in maintenance expenses of \$456,000 in Transmission and Rural Operations ("TRO") Central is primarily due to a reduction in materials, primarily as a result of higher material costs required for various equipment issues in 2019, an increase in capitalized distribution materials in 2020, and a decrease in material costs in 2020 due to a delay in work plans primarily driven by the COVID-19 pandemic. Furthermore, according to Hydro, a reduction in contract labour experienced in TRO Central is primarily due to the relocation of a spare transformer in 2019, as well as various leak repairs which were not required in 2020.

According to Hydro, the decrease in maintenance expenses of \$817,000 in TRO Labrador is primarily due to a reduction in materials, primarily as a result of higher material costs required for various equipment issues in 2019, an increase in capitalized distribution materials in 2020, and a decrease in material costs in 2020 due to a delay in work plans primarily driven by the COVID-19 pandemic. Furthermore, according to Hydro, a reduction in contract labour experienced in TRO Labrador is primarily due to the minor inspection of Synchronous Condenser 2, Mud Lake cable relocation, and transformer leak repairs completed in 2019, which were not required in 2020.

According to Hydro, the decrease in maintenance expenses of \$159,000 in T&D Services is primarily due to a reduction in buildings and fleet maintenance in 2020, in addition to the completion of the contract for implementation of the live line program in 2020, versus the entire year in 2019.

According to Hydro, the decrease in maintenance expenses of \$173,000 in the Gas Turbines department consists of a \$0.1 million reduction in materials (which is primarily due to less corrective maintenance required in 2020, in addition to the cancellation of the air intake filter project for Hardwoods and Stephenville Gas Turbines), as well as a \$0.1 million reduction in contract labour and contract materials (which is primarily due to the completion of borescope inspections at the Hardwoods and Stephenville Gas Turbines internally in 2020).

According to Hydro, the decrease in maintenance expenses of \$379,000 in the Hydro Production department consists of a \$160,000 decrease in materials, which is primarily due to higher expenses in 2019 for Bay d'Espoir Powerhouse 1 which encompasses all on-site support buildings. These costs include items such as Unit 6 field breaker repair, security building upgrades, a new planning centre, and SAC re-tubing project, in addition to Unit 2 supplies at the Cat Arm Hydroelectric Generating Station and other miscellaneous upkeeps. The additional decrease from 2019 to 2020 in the Hydro Production department is primarily driven by a \$220,000 decrease in contract labour, which included penstock leak repairs (\$138,000) and a flow net study in Bay d'Espoir, as well as power canal and dam repairs in Hinds Lake, which had required external sources in 2019. This noted decrease was partially offset by an increase in vegetation control work in 2020.

In relation to the Production Operations division, the largest decrease was the Thermal Production department by \$418,000 in 2020 over 2019. According to Hydro, this variance is primarily attributable to a reduction in contract labour of \$0.4 million, which is primarily due to higher capitalized costs related to the thermal in-service failures capital project. Additionally, the Thermal Production department incurred the largest cost within the Production Operations division. We requested a breakdown of costs based on work plans between corrective, preventative and non-maintenance for 2020 as seen in the table below, which illustrates a \$3,803,000 decrease observed in work plans relating to corrective maintenance, partially offset by an increase of \$3,579,000 in non-maintenance expenditures:

(000)'s	2020	2019	Var 20-19
Corrective Maintenance Preventive Maintenance Non-maintenance	\$ 708 353 5,322	\$ 4,511 546 1,743	\$ (3,803) (193) 3,579
	\$ 6,382	\$ 6,800	\$ (418)

#### Professional services

Professional services costs for 2020 totaled \$7,330,000 which reflects a decrease of approximately \$92,000, or 1.2%, from 2019. A breakdown of the cost categories within professional services for 2017 to 2020 is outlined below.

(000)'s	2020	2019	2018	2017	Var 20-19
Consultants	\$3,950	\$4,140	\$4,240	\$5,141	(\$190)
PUB Related Costs	1,886	1,921	1,030	110	-35
Software Acquisitions & Maintenance	1,495	1,361	1,330	891	134
	\$7,330	\$7,422	\$6,600	\$6,142	(\$92)

According to Hydro, the increase of \$134,000 in Software Acquisitions & Maintenance costs was primarily a result of increased costs in Customer Service relating to the customer self-serve application, known as the Smart Energy System, in addition to increased costs incurred in Information & Operations Technology, due to increased maintenance costs attributable to additional cyber security applications.

Consultants' fees, which represent the largest portion of total professional fees, were approximately \$4.0 million in 2020. The table below summarizes these fees by department for both 2020 and 2019.

(000)'s	2020	2019	Var 20-19
Executive Leadership	\$309	\$190	\$119
Hydro Finance	47	28	\$18
Engineering	1,176	294	\$882
Transmission Operations	139	159	(\$20)
Production Operations	832	738	\$93
Regulatory Affairs & Customer Service	1,447	2,730	(\$1,283)
	\$3,950	\$4,140	(\$190)

According to Hydro, the increase of \$119,000 in consultants' fees for the Executive Leadership department over 2019 is primarily attributable to additional legal fees incurred in 2020 (mainly in relation to the ongoing TL 267 transmission line project).

According to Hydro, the increase of \$882,000 in consultants' fees for the Engineering department in comparison to 2019 is primarily due to increased consulting fees in 2020 which were related to the ongoing *Reliability and Resource Adequacy Study Review* proceeding, increased consulting in support of the customer service "Utiligy360" software, and professional services employed to create a technology strategy and roadmap as a function of Hydro's initiative to improve efficiency and effectiveness.

According to Hydro, the increase of \$93,000 in consultants' fees for the Production Operations department in comparison to 2019 is primarily due to additional professional costs incurred in 2020, mainly in relation to the Holyrood Condition Assessment. This was partially offset by consulting costs incurred in 2019 relating to the condition monitoring of Units 1 and 2 at the Holyrood Thermal Generating Station; these such costs did not occur again in 2020.

According to Hydro, the decrease of \$1.3 million in consultants' fees for the Regulatory Affairs & Customer Service department from 2019 to 2020 is primarily driven by the following factors:

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- A decrease within the Regulatory Affairs department of \$0.1 million. According to Hydro, 2019 included professional fee costs associated with the 2017 General Rate Application and Cost of Service Methodology Review proceedings; these costs were not incurred again in 2020.
- A decrease within the Energy Conservation Department of \$0.7 million. According to Hydro, the consulting expense for the Energy Conservation department was significantly impacted by the ongoing global COVID-19 pandemic in 2020. The impacts included the cancellation of program evaluations, surveys, Energy Efficiency Week promotion, conferences, and website design and updates. According to Hydro, all of these cancelled efforts would have required the engagement of external consultants.
- A decrease within the Customer Service department of \$0.4 million. According to Hydro, in 2019, consultants had been engaged and hired to work on the JD Edwards E1 Billing Stabilization project, and these additional costs were not incurred again in 2020.

#### Miscellaneous

Miscellaneous expenses in 2020 increased by approximately \$2,146,000 in comparison to 2019. A breakdown of the cost categories within miscellaneous expense for 2017 to 2020 is outlined below:

(000)'s	2020	2019	2018	2017	Var 20-19
Business and payroll taxes	\$4,001	\$3,842	\$3,687	\$3,641	\$ 159
Bad debt expense	2,903	390	106	73	2,513
Staff training	219	567	659	646	(348)
Write offs	19	140	110	333	(121)
Employee expenses	136	167	171	272	(31)
Sundry costs	103	109	103	211	(6)
Diesel fuel Hydro	44	82	53	90	(38)
Energymanagement	51	30	130	95	21
Collection fees	5	2	2	12	3
Miscellaneous recoveries	(5)				(5)
	\$7,475	\$ 5,329	\$ 5,021	\$ 5,373	\$ 2,146

Hydro provided the following explanations on significant variances:

- \$159,000 increase in business and payroll taxes in 2020 over 2019 is primarily due to an increase in municipal taxes, which are based upon 2.5% of the prior year's revenue in rural communities. Municipal taxes in 2020 increased by \$103,000, resulting from the increase in 2019 Rural Revenue over 2018.
- \$2.5 million increase in bad debt expense is primarily due to an increase in the allowance for doubtful accounts related to a general service customer which had been recorded in 2020. Subsequent to this time, a successful payment arrangement has been entered into with this customer and according to Hydro, recoveries remain ongoing.
- Both the \$348,000 decrease in staff training expense and \$31,000 decrease in employee expenses are primarily a result of the COVID-19 pandemic public health guidelines which were in-place throughout 2020, such as social distancing measures and various travel restrictions enacted by both provincial and federal governments.

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#### Other (income) and expenses

In 2020, other (income) and expenses totaled \$2,540,000 compared to \$7,068,000 in 2019. A breakdown of this decrease of \$4,528,000 is provided below:

(000)'s	 2020	 2019		2018		2018		2018		2018		2018		2018		2018		2018		2018		2018		2018		017	Va	r 20-19
Net book value of disposed assets	\$ _	\$ 47	\$	-	\$	4,542	\$	(47)																				
Loss of Disposal (net of disposal proceeds)	-	4,168		678		-		(4,168)																				
Other writeoffs	136	763		401		3,113		(627)																				
Other proceeds	(4)	-		-		-		(4)																				
Disposal proceeds	-	-		-		(199)		-																				
Asset removal costs	-	-		-		254		-																				
Auction fees and expenses	-	9		-		(13)		(9)																				
	132	4,987	1,	,079		7,697		(4,855)																				
(Gain)/Loss on AFS Settlement	-	-		-		(459)		-																				
Foreign Exchange (Gain)/Loss	2,408	2,081		690		1,798		327																				
	\$ 2,540	\$ 7,068	\$1,	769	\$	9,036	\$	(4,528)																				

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The loss of disposal of \$4,168,000 in 2019 relates to the write off the frequency converter as ordered by the Board in Order No. P.U. 38 (2019).

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According to Hydro, the decrease of \$627,000 in other write-offs is primarily attributable to the 2019 write-down of \$0.3 million pertaining to the cancellation of the capital project "Rehabilitate Shoreline Protection – Cat Arm," along with a \$0.2 million write-off of accounts receivable and a \$0.1 million write-off of inventory.

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According to Hydro, the increase of \$327,000 in foreign exchange losses in 2020 when compared to 2019 is due to a net foreign exchange loss of \$0.2 million in 2020 versus a net foreign exchange gain of \$0.1 million in 2019, with the variance being the result of less favorable exchange rate changes realized in 2020. In each of 2020 and 2019, the foreign exchange (gain)/loss account included \$2.2 million relating to the amortization of foreign exchange losses.

#### Other Costs - cost deferrals

In 2020, cost deferrals totaled \$Nil. A breakdown of years 2017 to 2020 is provided below:

(000)'s	2	2020		2019		2018		2017		r 20-19
2014 Cost Deferral	\$	_	\$	_	\$	_	\$	1.043	\$	_
2015 Cost Deferral	Ψ	-	Ψ	_	Ψ	_	Ψ	(3,119)	Ψ	-
2016 Cost Deferral		-		-		-		(3,636)		-
2018 Revenue Deficiency		-		(756)		-		-		756
2019 Revenue Deficiency		-	(	(51,812)		-		-		51,812
	\$	-	\$ (	(52,568)	\$	-	\$	(5,712)	\$	52,568

The 2014 Cost Deferral was approved by Order No. P.U. 58 (2014), as it related to the recovery of the forecast revenue deficiency in 2014 of \$45,900,000. In 2015 and 2016 Hydro decreased this regulatory asset by \$7.3 million and \$8 million, respectively in order to recognize an allowance for cost reductions that were not included in the original deferral amount. In the Compliance Application arising from Order No. P.U. 49 (2016), Hydro proposed recovery of the Fuel Supply deferral of \$9,650,000 through the 2014 revenue deficiency. As a result, in 2016 Hydro recognized an allowance of \$1,500,000 with the remaining balance of \$8,150,000 re-classified to the 2014 Cost Deferral. In 2017, the Board approved the 2014 cost deferral of \$37,707,000, resulting in a loss of \$1,043,000 (\$45,900,000+8,150,000-7,300,000-8,000,000-37,707,000 = \$1,043,000). There was no additional activity subsequent to 2017.

The 2015 Cost Deferral was approved by Order No. P.U. 36 (2015), as it related to the recovery of the forecast revenue deficiency in 2015 of \$30,200,000. This amount included revenue deficiency due to delayed rates of \$19,600,000, RSP interest of \$7,600,000, settlement agreements adjustments of \$2,200,000 and GRA hearing deferral of \$800,000. In 2015, this regulatory asset is offset by \$2.4 million in order to recognize an allowance for cost reductions Hydro accepted would not be included in 2015 revenue requirement. In 2016, Hydro decreased the regulatory asset by \$1,608,000 to recognize an allowance for cost reductions that Hydro has accepted will not be included in the 2015 revenue requirement. In 2017, the Board approved the 2015 cost deferral of \$27,659,000 to reflect Order No. P.U. 22 (2017) which comprises the 2015 revenue surplus of \$9,814,000 and RSP balance change in test year of \$37,473,000, resulting in a gain in 2017 of \$3,119,000 (\$30,200,000-2,400,000-1,608,000+9,814,000-37,473,000-750,000-902,000=\$3,119,000). According to Hydro, additional deferred hearing costs of \$750,000 and deferred CDM costs of \$902,000 were included in the calculation of the 2015 cost deferral gain but were recorded in different general ledger accounts for reporting purposes. There was no additional activity subsequent to 2017.

The 2016 Cost Deferral was approved by Order No. P.U. 56 (2016), as Hydro received approval to defer \$38,800,000 relating to the proposed 2016 revenue requirement, with recovery to be determined at a later date. Pursuant to Order No. P.U. 49 (2016), Hydro decreased this regulatory asset by \$6,360,000 to recognize an allowance for adjustments that were outlined in the Order resulting in a balance of \$32,440,000. In 2017, the Board approved the 2016 deferral of other costs of \$5,036,000, and also re-classified \$31,040,000 to the Energy Supply, Isolated Systems and Holyrood Conversion deferrals, in accordance with Order No. P.U. 22 (2017). The net effect resulted in an increase in income of \$3,636,000 (\$38,800,000-6,360,000-5,036,000-31,040,000 = \$3,636,000). There was no additional activity subsequent to 2017.

In Order No. P.U. 30 (2019), the Board approved the 2018 Revenue Deficiency of \$0.8 million. The revenue deficiency consists of \$2.3 million which was approved to be recovered through a transfer to the RSP and a refund to customers of \$1.5 million. A refund of \$0.6 million was paid to industrial customers in October 2019 with the remaining balance of \$0.9 million refunded to the Labrador Rural Interconnected customers in February 2020.

In Order No. P.U. 30 (2019), the Board approved the 2019 Revenue Deficiency of \$51.8 million. The revenue deficiency consists of \$52.6 million which was approved to be recovered through a transfer to the RSP, \$0.1 million to be recovered over a 20-month period and a refund to customers of \$0.9 million. A refund of \$0.3 million was paid to Industrial customers in October 2019 which resulted in a December 31, 2019 balance in the 2019 Revenue Deficiency of \$0.6 million. The remaining refund of \$0.6 million to the Labrador Rural Interconnected customers was paid in February 2020.

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# **GRA** and Supply Deferral adjustments

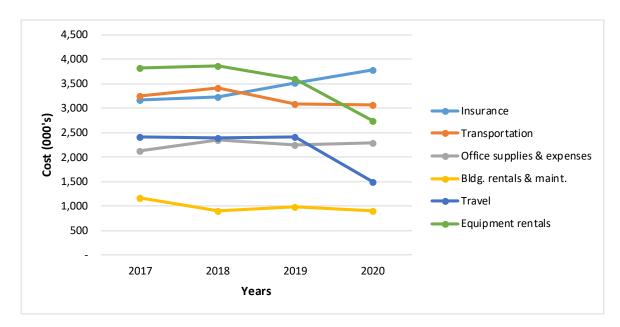
1 2 3 4 Hydro included a true up adjustment of \$6,779,000 in its 2019 results in order to reflect the approvals of the 2017 GRA Compliance Application in Order No. P.U. 30 (2019) and recovery of the supply deferrals in Order No. P.U. 21 (2019). There was no additional activity subsequent to 2020.



# Other Costs - remaining account groupings

Variances in the remaining account groupings of Other Costs are detailed in the table and graph below.

(000)'s	2020	2019	2018	2017	٧	ar 20-19
Insurance	\$ 3,785	\$ 3,507	\$ 3,221	\$ 3,175	\$	278
Transportation	3,059	3,087	3,422	3,251		(28)
Office supplies & expenses	2,288	2,243	2,351	2,118		45
Bldg. rentals & maint.	911	979	905	1,164		(68)
Travel	1,500	2,403	2,392	2,412		(903)
Equipment rentals	 2,739	 3,597	 3,859	 3,817		(859)
	\$ 14,281	\$ 15,816	\$ 16,150	\$ 15,937	\$	(1,535)



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6 7 Explanations of the larger variances in the remaining account groupings are as follows:

 According to Hydro, the increase of \$278,000 in insurance costs is primarily due to the 2020 insurance renewal (July 2020 to June 2021), which resulted in a 20% increase on most lines of insurance coverage, in comparison to the 2019 insurance renewal (July 2019 to June 2020) which resulted a 8-10% increase on most lines of insurance coverage. However, the noted percentage increase was partially offset by lower deductibles paid on claims than those in the prior year.

According to Hydro, the reduction in equipment rental expense in 2020 of \$859,000 is primarily driven by a decrease in the amortization of the deferred lease associated with the thermal diesel units [detailed in Board Order Nos. P.U. 17(2016), P.U. 23(2016), and P.U. 29(2016)], which had been fully amortized in 2019.

However, the reduction noted in 2020 was partially offset by an increase in equipment rental expense in

TRO Northern, as a mobile generating unit which was rented in Hawke's Bay in 2020 had not been required

According to Hydro, the travel expense decrease of \$903,000 is a result of reduced travel across the entirety

of the Company, primarily attributable to travel restrictions imposed by public health authorities as a result of

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in 2019.

# **Cost Recovery Charges**

Cost recovery charges from CF(L) Co. and external sources for 2020 resulted in an overall net charge of \$1,337,000 compared to a net recovery of \$1,323,000 in 2019. The breakdown of cost recovery charges by nature and by division, respectively, is as follows:

(000)'s	2020	2019	2018	2017	Var 20-19
Churchill Falls	\$ (168)	\$ (62)	\$ (40)	\$ (47)	\$ (106)
External	(926)	(887)	(631)	(1,625)	(39)
Intercompany Admin Fee	(1,924)	(1,967)	(2,005)	(2,164)	43
Nalcor Admin Fee	5,015	4,270	3,791	3,415	745
Business System Admin Fee	1,599	2,168	-	339	(569)
Business Systems Deferral	(1,120)	(2,465)	-	-	1,345
CDM Program Cost Deferral	(555)	(1,507)	(1,530)	(1,473)	952
Deferred Phase II	(13)	(163)	(55)	(264)	150
Fixed Charge (Recovery)	(544)	(683)	(624)	(684)	139
Intercompany Vehicle Charge (Recovery)	(27)	(27)	(27)	(27)	(0)
	\$ 1,337	\$ (1,323)	\$ (1,121)	\$ (2,530)	\$ 2,660

(000)'s	2020	2019	2018	2017	Var 20-19
Hydro Finance	\$ (2,544)	\$ (2,738)	\$ (2,365)	\$ (2,486)	\$ 194
Transmission Operations	350	183	(210)	(734)	167
Production Operations	(26)	(5)	(1)	(25)	(21)
Regulatory Affairs & Customer Service	274	(586)	(574)	(1,239)	860
Business Systems Admin Fee	1,599	2,168	-	339	(569)
Business Systems Deferral	(1,120)	(2,465)	-	-	1,345
Information & Operations Technology	2,873	2,120	2,029	1,615	753
Engineering	(70)				(70)
	\$ 1,337	\$ (1,323)	\$ (1,121)	\$ (2,530)	\$ 2,660

The Nalcor Admin Fee expense increased by \$745,000 primarily due to an increase in the Information Systems cost base in 2020. A further review of the Nalcor Administration fee is presented in the 'Cost Allocation' section of our report.

Costs included within the Business Systems Admin fee of \$1,599,000 for 2020 are directly attributable to the Business Systems Program which included the implementation of a new Enterprise Resource Planning system (and associated modules); the implementation of a new planning, budgeting, and forecasting system; and establishing an Information Management Program for the organization. According to Hydro, the decrease of \$569,000 from 2019 was primarily due to a reduction of \$400,000 in operating costs (salaries and benefits) associated with the program implementation as well as a decrease of \$200,000 in JD Edwards project post go-live support costs.

In 2019 Business Systems Deferral account began with the deferral of Business system fees when Board approval was obtained in Order No. P.U. 30 (2019). This included the deferral of costs related to 2018 for \$947,800 and 2019 for \$1,517,600, for a total of \$2,465,400. The Business System Deferral for 2020 was \$1,120,000.

The CDM Program Cost Deferral recovery decrease of \$952,000 is primarily due to lower than planned customer participation in business efficiency programs and residential programs, mainly due to COVID-19 pandemic restrictions and the impacts on consultant work.

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- The variance of \$860,000 in the Regulatory Affairs & Customer Services division is mainly due to a reduction in external recoveries within the Energy Efficiency Department related to the CDM Program.
- 1 2 3 4 The increase in costs of \$753,000 in the Information & Operations Technology division is mainly due to an increase in 5 the Nalcor Admin Fees, partially offset by an increase in Network Services recoveries.

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#### Interest

Net interest decreased by approximately \$4.6 million, or 5.0%, in 2020 compared to 2019. The following is a summary of interest expense for 2017 to 2020:

(millions)	2020	2019	2018	2017	Var 20-19
Gross interest	\$ 95.2	\$96.2	\$93.4	\$83.7	\$ (1.0)
Debt guarantee fee	8.6	8.6	6.9	4.1	Ψ (1.0) -
RSP	(1.9)	1.5	4.2	8.6	(3.4)
Amortization of debt discount	(0.0)	(0.2)	(0.1)	0.6	
and financing costs	101.7	106.1	104.4	97.0	(4.4)
Less:	101	100.1		07.0	( )
Interest earned	12.9	12.2	11.3	13.0	0.7
Interest capitalized during construction	1.5	2.0	2.7	10.6	(0.5)
	\$ 87.3	\$91.9	\$90.4	\$73.4	\$ (4.6)

The overall decrease in net interest is mainly attributable to a decrease in Rate Stabilization Plan ("RSP") interest.

According to Hydro, the decrease in RSP interest of \$3.4 million is primarily due to the change in the monthly average RSP balance in 2020 when compared to 2019. In 2020, the average RSP balance was a receivable balance of \$37.3 million, while in 2019, the average RSP balance was a payable balance of \$15.1 million. The 2020 – 2019 variance is primarily driven by the opening balance of the RSP, which is partially offset by normal activity. In comparison, the change in the RSP balance in 2019 had been primarily related to the normal operation of the RSP, approval of the recovery of the 2018 Energy Supply Deferral from the RSP in Order No. P.U. 21 (2019); approval of the recovery of a portion of the 2015-2019 supply deferrals as well as the recovery of the 2019 Revenue Deficiency from the RSP (Order No. P.U. 30 (2019)).

#### Depreciation

 Scope: Review Hydro's rates of depreciation and assess their compliance with the depreciation methodology approved in Order No. P.U. 30 (2019). Assess reasonableness of depreciation expense.

Our procedures with respect to depreciation were focused on reviewing the rates of depreciation used and assessing its compliance with the depreciation study as approved in Order No. P.U.30 (2019). In addition, our procedures included assessing the overall reasonableness of depreciation expense.

During 2020, Hydro reported depreciation expense of \$84.4 million compared to \$87.6 million in 2019 in accordance with the depreciation methodology approved in Order No. P.U. 30 (2019). The 2020 depreciation includes \$79.3 million (\$82.6 million in 2019) in depreciation of property, plant, and equipment and intangible assets, in addition to \$5.1 million related to removal depreciation (\$5.0 million in 2019). A removal depreciation provision is included as a component of the Company's regulated accumulated amortization of its property, plant and equipment in accordance with its depreciation methodology. As at December 31, 2020 the removal depreciation provision is \$12 million and includes the \$5 million removal depreciation recognized in 2020.

In 2019 Hydro adopted IFRS 16 – Leases, which resulted in changes to lessee accounting. Hydro has stated that this change will have no impact on rate base as balances related to this new standard have been excluded from average rate base and capital structure calculations to maintain consistency with regulatory treatment under the replaced standards. Previously lease costs for operating leases were recorded in operating costs, however under IFRS 16 costs have been recorded to depreciation and interest expenses. Total depreciation on leases in 2020 was \$35,000.

In completing our procedures, we recalculated depreciation on a test basis and compared the estimated average service lives used in the calculations to the 2015 Depreciation Study as outlined in the 2017 GRA and approved in Order No. P.U. 30 (2019). We found no exceptions in our testing.

Based upon our review and analysis, we report that depreciation expense in 2020 is in accordance with Hydro's methodology and in compliance with the approved depreciation methodology outlined in Board Order No. P.U. 30 (2019).

# **Non-Regulated Activity**

Scope:

Review Hydro's non-regulated activity, assess the reasonableness of adjustments in the calculation of regulated earnings and review how costs are allocated between regulated and non-regulated operations.

In Order No. P.U. 7 (2002-2003), the Board ordered Hydro to file separate financial statements for regulated and non-regulated activities, including reconciliation to annual consolidated financial statements. Included below are the details of the Company's Non-Regulated Statement of Earnings and Retained Earnings for the years ended December 31, 2017 to 2020.

(000)'s		2020	2019	2018	2017
Revenue					
Energy Sales	\$	53,486	\$ 48,566	\$ 40,396	\$ 43,241
Other Revenue (Loss)		20,443	20,679	20,695	20,262
		73,929	69,245	61,091	63,503
Operations and Administration					
Net Operating		1,978	4,045	355	1,473
Transmission Rental and Market Fees		20,443	20,541	20,695	20,310
Fuels		11	27	31	46
Power Purchased		46,806	45,763	39,694	42,007
Interest		87	(306)	(635)	135
Other expense and (income)		(10)	-	-	(95)
		69,315	70,070	60,140	63,876
Net Operating Income		4,614	(825)	951	(373)
Other Revenue					
Equity in CF(L) Co.		25,820	27,253	24,978	25,868
Preferred Dividends		7,630	7,625	7,994	6,710
	-	33,450	34,878	32,972	32,578
Net Income	\$	38,064	\$ 34,053	\$ 33,923	\$ 32,205
Retained earnings, beginning of year	\$	537,773	\$ 511,373	\$ 485,445	\$ 459,950
Net Income		38,064	34,053	33,923	32,205
Dividends		(12,760)	(7,653)	(7,995)	(6,710)
Retained earnings, end of year	\$	563,077	\$ 537,773	\$ 511,373	\$ 485,445

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Our review of non-regulated operations included the following procedures:

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assessed the Company's compliance with Order No. P.U. 7 (2002-2003); and,

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compared non-regulated expenses and operations for 2020 to prior years and investigated any unusual fluctuations.

Other Revenue of \$20.4 million in 2020 represents the sale of recall energy by Hydro to Nalcor Energy Marketing. Hydro purchases this energy from Churchill Falls (Labrador) Corporation and sells it at cost such that there is no net impact to Hydro's earnings, with the offsetting expense in Transmission Rental and Market Fees.

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The decrease in net operating costs in 2020 from 2019 primarily related to a lower bad debt expense resulting from the settlement of an outstanding accounts receivable issue with

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The Company has complied with Order No. P.U. 7 (2002-2003) and has filed separate financial statements for both regulatory and non-regulatory operations for 2020. Based on our review, we conclude that Hydro has appropriately identified and defined its various non-regulated operations and has established appropriate procedures for recording and reporting on these activities. Separate business units for the various non-regulated operations within its financial reporting system were used throughout the year.

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Based upon our review and analysis, the amounts reported as non-regulated expenses are in compliance with Board Orders, including Order Nos. P.U. 7 (2002-2003) and P.U. 14 (2004).

#### **Cost Allocations**

Scope:

Review how costs are allocated between the regulated and non-regulated operations including a review of Hydro's labour costing relating to its billing rates.

 In Order No. P.U. 49 (2016), the Board required Hydro to file on or before March 31, 2017 a proposal in relation to annual reporting, starting in 2017, of its intercompany activity, including a description of all services rendered, the cost charged back to and from the affiliates, the amounts involved and the methods used for determining these amounts. The proposal was filed with the Board on March 30, 2017 and Hydro began to file quarterly intercompany transactions reports starting with Q2 of 2017, for the period ended June 30, 2017.

In Order No. P.U. 49 (2016), the Board also expected that Hydro would address in the next general rate application any impact of the intervening change in organization structure on intercompany charges and policies governing cost recoveries of such charges. As reported in the 2017 GRA there has been no change in the underlying policies that govern intercompany transactions since the 2015 test year.

We reviewed Hydro's methodology relating to the procedures the Company has in place to allocate costs between regulated and non-regulated operations. We also reviewed how costs are allocated between shared services.

# Hydro's Organizational Structure

In mid-2016 changes to Hydro's organizational structure were implemented which, according to the Company, was to ensure focus on the regulated business and a clear separation from Nalcor, while continuing to provide safe, reliable, least cost service to customers. The outcome of the change was the creation of a separate and dedicated executive team for Hydro. According to Hydro, the new executive structure reflects an organizational model required to operate the Company on an independent, stand-alone basis to ensure continued focus on Hydro's core mandate. The revised executive structure includes a President of Hydro, who is accountable for all functions associated with delivering utility service, five Vice Presidents, and General Counsel. The President, each of the Vice Presidents, and General Counsel have no shared responsibilities with any other Nalcor line of business. Each of the Vice Presidents and General Counsel are accountable directly to the President of Hydro. According to Hydro, the revised structure was designed to increase focus on system reliability and customer service, to enhance regulatory focus, and to ensure Hydro is prepared for the changes that will result from the interconnection to the North American grid.

The primary changes in 2016 were:

the creation of a separate and dedicated Executive team for Hydro.;

 • reduced reliance on the parent company for services that were previously shared among the Nalcor lines of business; and

 the transfer of certain functions that provided common services to all Nalcor lines of business and recovered costs through an Administration Fee from Hydro to Nalcor.

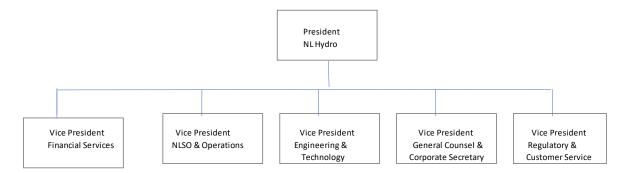
 In 2016, services in the area of Information Systems were being provided by Nalcor and recovered from Hydro. In 2017, Hydro specific software acquisition and maintenance costs were incurred directly within Hydro's Information and Operational Technology Department. Services relating to Human Resources and Safety and Health were transferred to Nalcor in 2017.

 During 2019 there were several changes in executive positions as follows:

 In February 2019, the Vice President, Production Operations moved to the role as President, Hydro. The role of Vice President, Production Operations was not immediately filled.

In June 2019, the Vice President, Transmission, Distribution & Newfoundland and Labrador System
Operator ("NLSO") role changed to Vice President, NLSO & Operations, effectively taking on the majority of
responsibilities previously held by the Vice President, Production Operations. This department now included
operational responsibility for the NLSO, all transmission, distribution, hydraulic and thermal production
functions, as well as the integration of new assets into the system.

# The following is a diagram that illustrates Hydro's 2020 organizational structure effective October 2020:



On October 16, 2020, the position of Director – Corporate Services was vacated. This position was responsible for Human Resources and Labour Relations, and the Safety and Environment functions. The Human Resources and Labour Relations function (under the direction of the Manager, Human Resources and Labour Relations) began reporting directly to the President, Hydro. The Safety and Environment function (under the direction of the Manager, Safety and the Manager, Environment) began reporting to the Vice President, General Counsel and Corporate Secretary who assumed responsibility for those functions. This was an interim measure as the organizational structure was under review.

# **Determination of Billing Rates**

Bill rates for Hydro and its related companies are determined on a cost recovery basis designed to cover salary, benefits, and vacation. There is no profit margin element to the billing rate. However, charges for external billings do incorporate a profit margin.

According to Hydro, the time sheet policy / guidelines are as follows:

All Nalcor employees (except CF(L) Co. employees) are to prepare weekly time sheets and code all paid hours (i.e. 37.5 or 40 per week) to a work order or to leave. Employees are responsible to record the 37.5 or 40 hour work week, plus any additional overtime and/or premiums. Time sheets are to be completed and submitted no later than the following week.

The billing rates were developed to include a base wage amount (hourly wage), a variable component, and a fixed charge. The Company's billing rate is derived from a base wage amount and a variable component. The fixed charge is a separate charge based on each hour billed.

# Variable component

The Company uses a proxy amount of 68% as the basis to determine bill rates which is calculated as follows: total salary costs and benefits (as described below) are divided by total billable hours. Billable hours are available hours less annual leave, training, sick leave, statutory holidays, or other time associated with paid leave. The ratio of the bill rate to the hourly rate is applied to the various pay grades to determine the charge out rates of employees. The rates were determined using billable hours and were determined in aggregate for the Nalcor group of companies excluding CF(L) Co.

In 2019, Hydro calculated a three-year average billing rate of 68%. A schedule of billing rates for the year was provided so that we could test for accuracy. We recalculated the proxy percentage of 68% for each hay grade by dividing the bill rate by the hourly rate and no discrepancies were noted.

The following costs were included in the analysis to determine the variable component:

## Benefits

- Fringe benefit costs, e.g. CPP, EI, Public Service Pension Plan, Group Money Purchase Plan, Prior Service Matched PSPP, WHSCC.
- Insurances, e.g. Life, A D&D, Medical, Dental.
- Company costs, e.g. EE future benefits, payroll taxes, bonus, performance contracts, signing bonus.



#### Leaves

• Annual leave, medical travel and appointments, sick leave, training hours, floaters, family leave, compassion leave, jury duty, statutory holiday, union leave, banked overtime.

We also selected a sample of employees from the detailed intercompany salary accounts including samples for charges from Nalcor Energy to Hydro, from CF(L) Co. to Hydro, and to various business units from Hydro. The selection of samples included both union and non-union employees.

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Our procedures included:

- · Agreeing hours charged to the summary of inter-corporate transactions provided by Hydro.
- Recalculation of the billing charge in the general ledger as based on the billing rate and hours.
- Assess the reasonableness of the billing rate(s) applied in comparison to the proxy 68% variable component.

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The bill rate mark-up of 1.68 has been in effect since January 1, 2016. As of April 23, 2018, the bill rate has been applied to each individual employee hourly rate. Previously for non-union, the bill rate was based on 1.68 times the top of the pay grade.

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During the testing of samples selected, the proxy percentage from the base rate was expected to be precisely 68% for non-union employees as billing rates have been applied to individual hourly rates. The samples tested were at the expected 68% variable component.

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# **Common Service Costs Allocation**

Certain departments based in Hydro provide common services to various lines of business of Nalcor. Hydro recovers costs incurred related to these common services through an administration fee. During 2016 and 2017, Hydro transferred certain functions to Nalcor that provided common services to all lines of business. Hydro now incurs a fee for these services from Nalcor.

The following table provides a breakdown of the administration fees and cost recoveries charged to and from Hydro for 2020, 2019, 2018 and 2017:

Costs Incurred (Recovered) by Nature	2020	2019	2018	2017	2020 - 2019
Churchill Falls	(168)	(62)	(40)	(47)	(106)
Intercompany Admin Fee- Hydro	(1,924)	(1,967)	(2,005)	(2,164)	43
Nalcor Admin Fee	5,015	4,270	3,791	3,415	745
Fixed Charge (Recovery)	(526)	(637)	(504)	(654)	111
Nalcor Fixed Charged	(18)	(45)	(119)	(31)	27
	\$ 2,379	\$ 1,559	\$ 1,123	519	\$ 820

We address each of the administration's fees in turn.

# Hydro Intercompany Administration Fee and CF(L) Co.

The following table provides a summary of the intercompany administration fee and cost recoveries charged in Hydro to Nalcor's various lines of business and CF(L) Co. for 2020, 2019, 2018 and 2017:

Cost Recoveries	2020	2019	2018	 2017	2020 - 2019
Intercompany Administration Fee Regulated recovery	\$ (1,923,850)	\$ (1,966,739)	\$ (2,004,657)	\$ (2,164,383)	\$ 42,889
Cost recovery CF (L) Co.	\$ (168,088)	\$ (62,137)	\$ (40,350)	\$ (46,951)	\$ (105,951)

Intercompany administration fees for 2020 regulated recovery have decreased by \$42,889 and for CF(L) Co. cost recoveries have increased by \$105,951. A further breakdown of these costs by department is provided later in this section in 'Other Lines of Business'.

The following table provides a breakdown of the 2020 common costs allocated to each line of business, along with comparative data for 2017, 2018 and 2019.

Common cost allocation	2020	2019	2018	2017	2020 - 2019
Nalcor divisions (Note 1)	\$ 1,923,850	\$ 1,966,739	\$ 2,004,657	\$ 2,164,386	\$ (42,889)
CF(L) Co.	168,088	62,137	40,350	46,951	105,951
Hydro Regulated	2,526,957	2,507,260	2,368,298	2,377,352	19,697
Total common costs allocated	\$ 4,618,895	\$ 4,536,136	\$4,413,305	\$ 4,588,689	\$ 82,759

Note 1: Nalcor divisions include Oil and Gas, Bull Arm, Exploits, Menihek, Lower Churchill Project and Energy Marketing (non-regulated).

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The following table provides a breakdown of common costs by department for actual 2020, along with comparative data for 2017, 2018 and 2019:

	Total						
Department / Costs (000's)	2020	2019	2018	2017	2020 - 2019		
Information Systems	2	88 3	385 22	3 281	(97)		
Office space and related costs	3,4	98 3,6	3,90	1 3,785	(103)		
Network Services	8	33 5	550 28	9 523	3 283		
	\$ 4,6	19 \$ 4,5	536 \$ 4,41	3 \$ 4,589	\$ 83		

		Hydro Regulated						
	2020	2019	2018	2017	2020 - 2019			
Information Systems	146	196	108	131	(50)			
Office space and related costs	1954	2,015	2,119	1,985	(61)			
Network Services	427	296	141	261	131			
	\$ 2,527	\$ 2,507	\$ 2,368	\$ 2,377	\$ 20			

Other Lines of Business (Note 1)									
2020	2019	2018	2017	2020 - 2019					
142	189	115	149	(47)					
1544	1,586	1,782	1,800	(42)					
406	254	148	262	152					
\$ 2,092	\$ 2,029	\$ 2,045	\$ 2,211	\$ 63					

Information Systems Office space and related costs **Network Services** 

Note 1: Other lines of business include Nalcor divisions and CF(L) Co.

# Nalcor Administration Fee

In 2015, Information Systems services were provided by Hydro to all lines of business. As previously mentioned, changes to Hydro's organizational structure were implemented in 2016 resulting in the transfer of these services from Hydro to Nalcor, In 2016, Nalcor charged Hydro an administration fee for services provided for Information Systems. In 2017, Hydro specific software acquisition and maintenance costs were incurred directly by the Information and Operational Technology department in Hydro. The remaining services associated with Information Systems were provided by Nalcor and charged to Hydro through an administration fee on an average user basis. In 2018, the only change on this service cost is due to the addition of new maintenance contracts and support for Hydro's business operations. Costs included within the Information Systems element of the Nalcor Admin fee include costs for the dayto-day operations of the Information Technology and Information Management groups for the organization. Depreciation and amortization associated with shared software and infrastructure is also included within this component of the fee.

Human Resources services were transferred from Hydro to Nalcor in 2017. The Human Resources department is responsible for the administration and coordination of all employee related services. Operating costs incurred in providing Human Resources services are allocated to Hydro and other lines of business based on a per FTE basis.

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47 48 Safety and Health services were transferred from Hydro to Nalcor in 2017. The Safety and Health department is responsible for occupational health services including coordinating corporate efforts with regard to employee safety. wellness, disability and sick leave management, and medical screening. Operating costs incurred in providing Safety and Health services are allocated to Hydro and other lines of business on a per FTE basis.

Environment services were provided by Nalcor to Hydro in 2017. The Environment department is responsible for coordinating corporate efforts with regard to environmental stewardship. Operating costs incurred in providing Environment services are allocated to Hydro and other lines of business based on a per FTE basis.

The 2020 administration fee charged to Hydro totaled approximately \$5,015,000, compared to \$4,270,000 in 2019.

The following table provides a breakdown of costs by department for actual 2020, along with comparative data for

Department / Costs (000's)		2020	2019
Human Resources	\$	600	\$ 675
Safety and Health		305	370
Environmental		52	41
Information Systems		3,914	3,037
Newfoundland and Labrador System Operator (Note	: 1)	144	 147
	\$	5,015	\$ 4,270

Note 1: NSLO is a department within regulated Newfoundland and Labrador Hydro.

# Fixed Charge (Recovery)

Effective October 1, 2009 the Company included a fixed charge for time charged to entities. The fixed charge is currently \$82.50 per day for all Nalcor employees, or \$11.00 per hour based on a 7.5 hour day. The effective date of this rate was February 10, 2019. The fixed charge component included the following costs in its analysis:

- Hydro Place costs e.g. Heat & Light, insurance, maintenance, reception, depreciation, and interest.
- Common Services e.g. IT services such as software, servers & help desk, HR services such as payroll, recruitment, health, safety.
- Employee related costs e.g. Telephone & Fax, books & subscriptions, training, membership and dues, conferences, training.

According to Hydro, the Fixed Charge (Recovery) is booked to account for the additional cost of having an employee available for service beyond salary and benefits. The fixed charge recovers costs originally charged in the administration fee allocation, as well as other employee related costs described above. The fixed charge for Hydro is recorded in business unit # 2003 NLH Controller Dept. under Account # 7141 'intercompany fixed charge' and is grouped under cost recoveries. The fixed charges netted to a credit of \$525,964 in 2020 compared to a credit of \$637,040 in 2019.

#### Nalcor Fixed Charge

In addition to labour costs, a fixed rate will be applied to each hour of regular labour charged to lines of business. The fixed charge accounts for the additional cost beyond basic salary and benefits costs of having an employee available to provide service. The fixed charge recovers costs originally charged in the Business System Administration Fee as well as other employee related costs, including:

- telephone and fax;
- books and subscriptions;
- membership fees and dues;
- conferences;
- training; and,
- employee expenses (e.g. overtime meal allowance).

The Nalcor fixed fee netted to a credit of \$17,594 in 2020, compared to a credit of \$45,200 in 2019.

In 2020, no changes were made to the nature of the Nalcor Fixed Fee and Fixed Charge.

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# **Department Cost Allocations**

According to Hydro, the department/costs included in the determination of the administrative fees charged to Nalcor and other lines of business, along with the allocation basis, is summarized in the following table:

Department/ Costs	Allocation Basis
Information systems	Average Users
Office space and related costs	Square footage
Network Services	Average Users

We address each of the departments/costs allocations in turn.

# Information Systems

The Information Systems ("IS") department is responsible for providing assistance and support in the areas of Software Applications, Planning and Integration and Business Solutions, providing maintenance and administration of the corporate wide computer infrastructure and network, and providing technical support. Operating costs incurred in providing IS services are allocated to the lines of business on an average user basis. Depreciation expense and a return on rate base at the weighted average cost of capital ("WACC") for costs capitalized such as servers and software are allocated to each line of business on an average user basis. Costs specific to a particular line of business are charged to that line of business and are excluded from the determination of shared costs.

Office Space

Each line of business occupying floor space at Hydro Place is charged a rental charge. The square footage rental rate reflects the average annual capital and operating cost for Hydro Place as determined by the following formula:

Rental Rate = Hydro Place operating costs + return on rate base + annual depreciation / (divided by) Hydro Place total square footage.

According to Hydro, the cost based rental rate includes the following expenses for Hydro Place:

- Annual depreciation for all common assets.
- System Equipment Maintenance and operating projects.
- Expenses relating to salaries, fringe benefits, group insurance and employee future benefits for Office Services, Building Maintenance, and Transportation.
- Heat & Light.
- Office Supplies.
- Postage.
- Safety Supplies.
- Consulting expenses related to Hydro Place.
- Security Card Maintenance Contract.
- Return on Rate base at WACC for all common assets.

space and rental costs recovered.

**Network Services** 

In prior years network services were charged through Telephone Infrastructure costs where all lines of business were charged for their share of the following:

In 2020, the cost per square footage rental rate was \$22.93 (2019 - \$23.62) which resulted in a decrease in office

- Local Area Network (LAN) costs divided by the total number of LAN ports to derive a cost per user;
- 2) Telephone costs were divided by the number of telephone, fax, and modem lines to derive a cost per telephone per user; and,
- Mobile devices costs were divided by the number of mobile devices to derive a cost per user.

The average number of users was the factor used for the allocated costs per line of business.

Effective 2020 Hydro started charging each line of business using Hydro's network services under one unit charge. In 2020 the total network service costs were divided by the number of users based on the average of FTE, Lotus Notes

users, personal computers, and JD Edward users to derive an average cost per user. The average cost per user in 2020 was \$442.48.

In completing our procedures, we obtained the Company's supporting calculation of its intercompany administration fees charged for 2020. Our procedures included a recalculation of administration fee charged based on the allocation basis included in the table above. We did not note any exceptions in our procedures.

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As a result of completing our procedures, we report that cost allocations for 2020 are in accordance with Hydro's methodology.

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# Rate Stabilization Plan ("RSP")

Scope: Conduct an examination of the changes to the Rate Stabilization Plan to assess compliance with Board orders.

Our examination of the RSP for 2020 included reviewing compliance with Board Orders and assessing the charges and credits including financing charges for reasonableness.

The RSP reviewed in this section describes the RSP operations based on 2019 Test Year inputs, which are in accordance with the Order Nos. P.U. 16 (2019) and P.U. 30 (2019).

The RSP using 2019 Test Year inputs had an accumulated debit balance or due from customers balance of approximately \$39.861 million at December 31, 2020. The breakdown of the various components included in the 2020 Plan is as follows:

	2020	2019
Utility Customer	\$ 13,454,219 due from customer	\$ (3,487,368) due to customer
Industrial Customer	(886,830) due to customer	2,720,624 due from customer
Sub-total	12,567,389	(766,744)
Hydraulic Balance	27,293,551	16,929,184
Total Plan Balance	\$ 39,860,940	\$ 16,162,440

## Highlights of the RSP for 2020 include:

- Unfavorable hydraulic conditions contributed to lower hydraulic production relative to the cost of service production resulting in more fuel costs of \$19.5 million. Actual net hydraulic production in 2020 was 4,507.9 GWh in comparison to the cost of service net hydraulic production of 4,600.5 GWh.
- The weighted average No. 6 fuel price in 2020 was approximately \$84.62 per barrel in comparison to the 2020 cost of service price of \$105.90 per barrel which resulted in a fuel variation of approximately \$35.2 million due to customers.
- The load variation for 2020 contributed positively to the Plan in the amount of \$41.2 million. The load variation is primarily the result of the load requirements of the industrial customers being 291 GWh lower than the COS load requirement.
- During 2020, the RSP adjustment for the utility customer resulted in \$10.4 million in recovery (See Table B below). The RSP adjustment rate for the utility was (0.188) cents per kWh effective October 1, 2019, as per Order No. P.U. 30 (2019).
- In accordance with Order No. P.U. 30 (2019), the RSP adjustment rate for Industrial customers was 0.000 cents per kWh as of October 1, 2019. Effective on February 1, 2020, the RSP adjustment rate was 0.167 cents per kWh in accordance with Order No. P.U. 8 (2020). For the twelve months ended December 31, 2020, there was \$685,740 of refunds (See Table B below).

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The tables below provide a breakdown of the activity in the RSP for 2020, as well as a continuity of the various component balances:

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#### 2020 RSP activity - Table A

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(000)'s	Hydraulic Variation		Fuel Variation		Load Variation		Rural Rate Alteration	Total
Hydraulic balance	\$ 19,462	\$	-	\$	-	\$	-	\$ 19,462
Utility customers	-		(32,644)		(38,323)		80	(70,887)
Industrial customers	-		(2,477)		(2,908)		-	(5,385)
Segregated load variation	-		-		-		-	-
Labrador Interconnected	(28)		-		-		-	(28)
Net change 2020	\$ 19,434	\$	(35,121)	\$	(41,231)	\$	80	\$ (56,838)

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# 2020 RSP activity - Table B

(000)'s	Balance ginning of Year	,	Current Variation	Current Interest	ydraulic llocation	Recovery (Refund)	Tr	ansfers (3)	De	Balance ecember 31 2020
Hydraulic balance	\$ 16,929	\$	19,462	\$ 1,357	\$ (10,454)	\$ -	\$	-	\$	27,294
Utility customers (1)	(3,408)	\$	(70,887)	440	9,691	10,394		67,224 <sup>i</sup>		13,454
Industrial customers (1)	2,728	\$	(5,385)	78	735	(686)		1,643 <sup>ii</sup>		(887)
Labrador Interconnected (2)	 -	\$	(28)	-	28	-		-		-
Net change 2020	\$ 16,249	\$	(56,838)	\$ 1,875	\$ -	\$ 9,708	\$	68,867	\$	39,861

- (1) The opening balance was adjusted by \$79,499 for utility customers and \$7,693 for industrial. This was due to the load variation on secondary energy being calculated using a rate of \$0.03694 per kWh for October, November, and December of 2019 instead of \$0.02882 per kWh approved in Order No. P.U. 30 (2019).
- (2) The amount is written off to net income.
- (3) Transfers relate to RSP activity which have been approved in the Board Orders noted below.
  - i) Recovery of the 2019 Supply Deferral Accounts from the current plan approved in Order No. P.U. 13 (2020) of \$17,989,852. Balances approved in Order No. P.U. 16 (2020) relating to a one time transfer of \$50,575,999 from the RSP current plan balance and bill credit to Newfoundland Power on July 31, 2020. A one-time disposition of the savings of (\$1,341,732) associated with firm energy purchases from CBPP, approved in Order No. P.U. 29 (2020).
  - ii) Recovery of the 2019 Supply Deferral Accounts from the current plan approved in Order No. P.U. 13 (2020) of \$1,773,080 and a one-time disposition of the savings of (\$129,843) associated with firm energy purchases from CBPP, approved in Order No. P.U. 29 (2020).

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There were various Orders issued by the Board during 2020 that impacted the operation of the RSP. We have provided highlights of them below:

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# Order No. P.U. 2 (2020)

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On January 16, 2020 Hydro filed an application requesting approval for a delay in updating the Island Industrial Customer RSP adjustments as required by Section C.1 and D.1 of the RSP rules from January 1, 2020 to February 1, 2020. The January 1, 2020 adjustment would result in a material rate increase for Island Industrial customers of



6.3%, and including the October 1, 2019 rate increase, these customers would have incurred rate increases of 16% within a four-month period.

The application proposed that the January 1, 2020 adjustment of the Island Industrial Customer RSP rates be delayed until February 1, 2020, as Hydro will be filing an application with a proposal to allow for mitigation of the rate increase, and also to maintain the existing RSP Fuel Rider and RSP Current Plan adjustment beyond January 1, 2020 until the new RSP adjustments are adjusted as of February 1, 2020.

On January 30, 2020, the Board approved the January 1, 2020 RSP adjustments for Island Industrial Customers to be delayed until a further order of the Board. The current customer rates are to be used until further order from the Board.

# Order No. P.U. 8 (2020)

On January 29, 2020, Hydro filed an application requesting the approval of:

- i) Revision to Section C.1, D.1, and D.2 of the RSP Rules.
- ii) The use of half of the December 31, 2019 RSP current plan balance in the calculation of the RSP Current Plan Adjustment for Island Industrial customers, plus associated financing costs.
- iii) An Island Industrial Customer RSP Current Plan Adjustment of 0.226 cents per kWh and an Island Industrial Customer RSP Fuel Rider of (0.059) cents per kWh.

The Board approved an exception to the Rate Stabilization Plan Rules to allow for the use of half of the December 31, 2019, RSP Current Plan balance in the calculation of the RSP Current Plan Adjustment for Island Industrial customers, plus forecast financing costs based on the balance proposed to be recovered.

The proposed revision to C.1 of the RSP Rules was approved.

The following RSP adjustments for Island Industrial customers were approved effective February 1, 2020:

i) an Island Industrial Customer RSP Current Plan Adjustment of 0.226 cents per kWh;
 ii) an Island Industrial Customer RSP Fuel Rider of (0.059) cents per kWh.

# Order No. P.U. 13 (2020)

On March 25, 2020, Hydro filed an application for the recovery of the 2019 balances in (i) the Isolated Systems Supply Cost Variance Deferral Account, (ii) the Revised Energy Supply Cost Variance Deferral Account, and (iii) the Holyrood Conversion Rate Deferral Account, pursuant to sections 70(1) of the Act.

On May 1, 2020, the Board approved the following:

- i) The balances in the Revised Energy Supply Cost Variance Deferral Account, the Holyrood Conversion Rate Deferral Account and the Isolated Systems Supply Cost Variance Deferral Account for 2019.
- ii) Hydro's proposals for the allocation by customer class of the balances in the Revised Energy Supply Cost Variance Deferral Account, the Holyrood Conversion Rate Deferral Account and the Isolated Systems Supply Cost Variance Deferral Account for 2019.
- iii) Hydro's proposal to recover the amounts allocated to Newfoundland Power and the Island Industrial customers through a transfer of balances to the respective RSP Current Plans effective March 31, 2020, with recovery from Newfoundland Power and the Island Industrial customers starting July 1, 2020 and January 1, 2021, respectively.

# Order No. P.U. 16 (2020)

On May 25, 2020 Hydro filed an application requesting approval for the continuation of the existing RSP Fuel Rider, RSP Current Plan Adjustment and CDM Cost Recovery Adjustment applicable to Newfoundland Power and approval of a one-time July 2020 bill credit to Newfoundland Power for \$50,575,999 and a one-time transfer from the RSP Current Plan balance applicable to Newfoundland Power for the same amount.

On June 17, 2020, the Board ordered the Utility RSP Current Plan Adjustment of (0.188) cents per kWh, the Utility RSP Fuel Rider of 0.000 cents per kWh, and the CDM Cost Recovery Adjustment of 0.026 cents per kWh, approved in Order No. P.U. 30(2019), be continued for the period July 1, 2020 to June 30, 2021.



Additionally, the Board approved of a one-time transfer on July 31, 2020 of \$50,575,999 from the RSP Current Plan balance applicable to Newfoundland Power and a one-time July 2020 bill credit to Newfoundland Power of \$50,575,999.

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#### Order No. P.U. 29 (2020)

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On July 24, 2020, Hydro filed an application requesting the Board's approval of the disposition of the balance in the Deferral Account for the amount of \$1,475,512, for savings associated with firm energy purchases from CBPP. The application stated that this amount was calculated based on the difference between the cost of purchases under the Firm Energy Power Purchase Agreement and the cost of generation at the Holyrood Thermal Generating Station.

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On October 30, 2020, the Board approved of the following:

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The balance of \$1,475,512 in the Firm Energy Power Purchase Deferral Account shall be shared among all Island Interconnected customers in a manner consistent with the fuel cost allocation methodology in the RSP using the 2019 energy ratios and be applied to the 2020 RSP Current Plan balances.

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i) Hydro shall file for the approval of the Board a revised definition of the Energy Supply Cost Variance Deferral Account to provide for the flow through of variances associated with future agreements which may be approved for firm energy purchases from CBPP.

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Based upon our review, we report that the RSP is operating in accordance with Board Orders and the charges and credits made to the Plan in 2020 are supported by Hydro's documentation and accurately calculated.

# **Deferred Charges**

Scope: Conduct an examination of the changes to deferred charges and assess their reasonableness and prudence in relation to sales of power and energy.

The following table shows the transactions in the deferred charges account for 2020, including prior year:

(000)'s	Balance Jan 01/20	Add. (Disp.)	Add. (Recovery)	Amort.	Balance Dec 31/20	Balance Dec 31/19	20A - 19A
Bullion I Facility Foot and Lance	ф. 47.4F0			<b>(0.457)</b>	<b>*</b> 45.000	A7.450	(0.457)
Realized Foreign Exchange Losses	\$ 47,453	-	-	\$ (2,157)	•	\$ 47,453	(2,157)
CDM Program	9,683	555	-	(1,489)	8,750	9,683	(933)
Deferred Foreign Exchange on Fuel	(444	) (212)	-	- (2.17)	(656)	(444)	(212)
Deferred Lease Costs	449	-	-	(317)	132	449	(317)
Phase II Hearing Costs (Note 1)	1,351	13	-	-	1,364	1,351	13
Asset Disposal	330	-	-	(19)	311	330	(19)
Supply Cost Deferrals	35,452	35,146	(10,895)	-	59,703	35,452	24,251
Deferred Power Purchases	(244	) -	-	31	(213)	(244)	31
Business System Deferral (Note 1)	2,465	1,120	-	-	3,585	2,465	1,120
2018 Revenue Deficiency	(891	) 890	-	-	(1)	(891)	890
2019 Revenue Deficiency	(515	) 592	-	-	77	(515)	592
GRA Hearing Costs	550	-	-	(550)	-	550	(550)
Reliability And Resource Adequacy (Note 1)	179	586	-	-	765	179	586
Firm EnergyPurchases	(1,476	) 1,476	-	-	-	(1,476)	1,476
Hydraulic Resource Optimization	(272	) (995)	-	-	(1,268)	(272)	(995)
Frequency Converter		(244)	-	-	(244)		(244)
	\$ 94,070	\$ 38,927	\$ (10,895)	\$ (4,501)	\$ 117,601	\$ 94,070	\$ 23,531
Deferred charges excluded from Rate Base	(Note 1)				\$ (5,714)	\$ (3,995)	\$ (1,719)
Deferred charges included in Rate Base					\$ 111,887	\$ 90,075	\$ 21,812
Average deferred charges					\$ 100,981	\$ 119,811	\$ (18,830)

Note 1: The calculation of Deferred Charges for Rate Base excludes Phase II Hearing Costs, the Business System Deferral, and Reliability and Resource Adequacy balance. Recovery of these expenditures are subject to approval by the Board.



#### Realized Foreign Exchange Losses

Hydro continues to amortize costs associated with foreign exchange losses consistent with past practice.

# **Conservation Demand Management (CDM) Program**

Pursuant to Order No. P.U. 49 (2016), Hydro received approval to defer 2016 costs related to the CDM Program. In Order No. P.U. 22 (2017), the Board approved the CDM deferral account definition which stated that the account balance as at December 31 each year shall be recovered over a period of seven years using a CDM Recovery Adjustment and that recovery of annual amortizations of costs in this account shall be through an annual application. The rates came into effect and recovery of the balance began on July 1, 2017. Actual costs deferred in 2020 were \$0.6 million (2019 - \$1.5 million). Costs recovered in 2020 were \$1.5 million (2019 - \$1.4 million).

### **Deferred Foreign Exchange on Fuel**

Hydro purchases a significant amount of fuel for the Holyrood Thermal Generating Station (HGTS) in US dollars. Hydro notes that the RSP allows Hydro to defer variances in fuel prices, including foreign exchange fluctuations. According to Hydro the foreign exchange deferral is a change in accounting required due to adoption of IFRS. Prior to IFRS, Hydro recorded the full amount of the foreign exchange gain or loss in inventory. Upon adoption of IFRS, Hydro segregated the foreign exchange gain or loss which would require immediate charge to the company's profit and loss instead of inventory. In order to keep accounting for the RSP consistent with prior years, Hydro created a regulatory asset/liability to segregate the foreign exchange gain or loss until the fuel is consumed at which time the fuel inventory used and the relevant deferred foreign exchange on inventory would be realized and flow through the RSP. In Order No. P.U. 30 (2019), the Board approved revised RSP rules to clarify that No. 6 fuel costs in Canadian dollars reflect foreign exchange gains and losses. During 2020, Hydro recognized in regulatory assets, foreign exchange losses on fuel purchases of \$0.2 million (2019 - \$0.9 million).

# **Deferred Lease Costs**

Pursuant to Order No. P.U. 38 (2013), Hydro received approval to defer lease costs associated with the 16 MW diesel plant and other necessary infrastructure estimated to be \$5.8 million. Actual costs deferred in 2014 were \$3.7 million. In 2015, Hydro deferred an additional \$1.4 million. In 2016, pursuant to Order Nos. P.U. 17 (2016) and P.U. 23 (2016) Hydro received approval to defer additional lease costs of \$1.3 million and \$0.3 million respectively. The actual cost incurred in 2016 was \$1.6 million. In Order Nos. P.U. 17 (2016), P.U. 23 (2016) and P.U. 49 (2016), the Board approved the amortization of lease costs associated with mobile diesel units at Holyrood Thermal Generating Station (HTGS) over a period of five years. In 2020, Hydro recorded amortization of \$0.3 million (2019 - \$1.3 million) of the deferred lease costs.

#### Phase II Hearing Costs

In Order No. P.U. 13 (2016), Hydro received approval to defer costs for 2014, 2015 and subsequent years, including consulting fees, salary transfers and overtime, relating to Phase II 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 2020, there was \$13,000 in costs incurred resulting in a total deferred balance of \$1.364 million (2019 – \$1.351 million). According to Hydro Phase II hearing costs are being excluded from rate base as the Company has an internal administrative policy to exclude items where it has not received approval of the mechanism to recover costs from customers.

## **Asset Disposal**

In 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 over a 22.4-year period, which commenced 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.

## **Supply Cost Deferrals**

Pursuant to Order No. P.U. 22 (2017), the Board approved the Supply Cost Deferrals which included the Energy Supply, Holyrood Conversion and Isolated Systems Supply Deferrals. During the 2020 period, Hydro deferred \$55.0 million (2019 - \$29.6 million) relating to the supply deferrals. Order No. P.U. 30 (2019) approved the recovery from customers of \$18.4 million over a 20-month period, in which in 2020 Hydro recovered \$10.9 million (2019- \$2.7 million) from customers. In Board order No. P.U. 13 (2020), the Board approved the recovery of the 2019 supply cost deferral of \$19.8 million from the RSP.



# **Deferred Power Purchases**

In 1997, the Board ordered Hydro to defer \$1.1 million related to reduced purchase power rates resulting from the interconnection of communities in the area of L'Anse au Clair to Red Bay to the Hydro-Quebec system and amortize the balance over a 30-year period. In 2020, the remaining unamortized savings in the amount of \$0.2 million (2019 - \$0.3 million) are deferred as a regulatory liability.

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Business System Deferral

As per Order Nos. P.U. 23 (2019) and P.U. 30 (2019), the Board approved the deferral of business system transformation program costs commencing in 2018. The recovery of the deferral is subject to a future Board order. During the year, Hydro deferred \$1.1 million (2019- \$2.2 million). In 2019, Hydro also recorded an allowance against the deferral of \$1.0 million.

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2018 Revenue Deficiency

In Order No. P.U. 30 (2019), the Board approved the 2018 Revenue Deficiency of \$0.8 million. The Revenue Deficiency consists of \$2.3 million which was approved to be recovered through a transfer to the RSP and a refund to customers of \$1.5 million. A refund of \$0.6 million was paid to industrial customers in October 2019 with the remaining balance of \$0.9 million refunded to the Labrador Rural Interconnected customers in February 2020.

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2019 Revenue Deficiency

In Order No. P.U. 30 (2019), the Board approved the 2019 Revenue Deficiency of \$51.8 million. The Revenue Deficiency consists of \$52.6 million which was approved to be recovered through a transfer to the RSP, \$0.1 million to be recovered over a 20-month period and a refund to customers of \$0.9 million. A refund of \$0.3 million was paid to Industrial customers in October 2019 which resulted in a December 31, 2019 balance in the 2019 Revenue Deficiency of \$0.6 million. The remaining refund of \$0.6 million to the Labrador Rural Interconnected was paid in 2020.

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**Hearing Costs** 

As per Order No. P.U. 30 (2019), the Board approved the deferral of \$1.7 million in hearing costs relating to the 2017 General Rate Application hearing and the Cost of Service hearing to be amortized over a three-year period commencing in 2018. In 2020, Hydro recorded amortization of \$0.6 million (2019- \$1.1 million) resulting in a net balance of \$nil.

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Reliability and Resource Adequacy

Pursuant to Order No. P.U. 29 (2019), the Board approved the deferred costs associated with the Reliability and Resource Adequacy proceeding. Hydro deferred \$0.6 million in 2020 (2019- \$0.2 million). The recovery of the balance is to be determined in a future Board Order.

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#### Firm Energy Purchase

Pursuant to Order No. P.U. 3 (2020), the Board approved the deferral of savings associated with firm energy power purchases. Hydro recorded a regulatory liability of \$1.5 million in 2019. In 2020, pursuant to Order No. P.U. 29 (2020), the balance of \$1.5 million was refunded through the RSP.

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#### **Hydraulic Resource Optimization**

In 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, 2020, the balance of hydraulic optimization activities is a net gain of \$1.0 million (2019 - \$0.3 million) recorded as a deferred liability.

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# **Frequency Converter**

In 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 2020, Hydro deferred \$0.2 million as a regulatory liability (2019 - \$Nil).

In summary, based upon our analysis we noted that recovery of Phase II Hearing Costs, the Business System Deferral, and the Reliability and Resource Adequacy balance has not yet been approved by the Board. These deferral accounts have been appropriately excluded from rate base.

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Key Performance Indicators and Initiatives and Efforts Targeting Productivity and Efficiency Improvements

Review Hydro's Annual Report on Key Performance Indicators and any other information on Scope: initiatives and efforts targeting productivity or efficiency improvements in 2020.

In Order No. P.U. 14 (2004) Hydro was ordered to file annually with the Board a report outlining:

- a strategic overview highlighting core strategies, corporate goals and achievements;
- appropriate historic, current and forecast comparisons of reliability, operating, financial and other key targeted outcomes/measures, including certain specified KPI's; and
- initiatives targeting productivity or efficiency improvements, including the status of ongoing projects and improved performance resulting from completed projects.

The 2020 annual report on strategic goals and objectives and productivity initiatives was filed with Hydro's December 31, 2020 quarterly report.

In addition to the filing requirements identified above, Order No. P.U. 14 (2009) requires the filing of a report on Hydro's Conservation and Demand Management activities. This report is included as Return 21 in the 2020 annual financial return.

# Strategic Goals and Objectives

The quarterly report referenced above provides information on Hydro's achievements relative to its 2020 strategies, goals and initiatives. This section provides details on activities and outcomes relative to a broad range of initiatives undertaken during the 2020 fiscal year.

#### Safety

To track their performance on this objective, Hydro continued to monitor All Injury Frequency, Lost Time Injury Frequency, the ratio of condition and incident reports to lost time and medical treatment injuries ("Lead/lag ratio"), and the severity rate. According to Hydro, during 2020, the safety team continued to focus on the evolving COVID-19 pandemic and develop strategies, policies, and procedures to ensure the safety of Hydro's staff, contractors, and the general public, while also continuing to execute critical field work. While Hydro indicates progress has been impacted by the COVID-19 pandemic and some initiatives have been delayed until 2021, the following programs continued:

- Hydro's Safety & Health Monitoring Plan, which also included field assessments to ensure COVID-19 policies and procedures were properly applied;
- Hydro's Mental Health Strategy, including the release of the Guarding Mind Survey in November which focused on getting employee input to help formulate future action plans aimed at addressing identified areas of concern: and
- other initiatives such as the driving safety program, the review of work protection and improvements in the electrical safety program.

The results of the All Injury Frequency and Lead/lag ratio metrics have been presented in the table below:

Measurement	2020 Actual	2020 Plan	2019 Actual	Target Met
All Injury Frequency (AIF)	0.52	0.60	0.96	Yes
Ratio of condition and incident reports to lost time and medical treatment injuries (lead/lag ratio)	1,452:1	1000:1	809:1	Yes

- 43 In 2020 Hydro met its Lead/Lag ratio safety target as noted above. With regards to the All Injury Frequency metric, 44 Hydro has been successful in reducing the average in 2020 and meeting their target for 2020.
- 45 **Environment and Conservation** 46
- 47 Targets used to evaluate this goal are summarized below:



Measurement	2020 Actual	2020 Target	2019 Actual 1	Target Met
Achievement of EMS targets	100%	100%	100%	Yes
Annual energy savings from Residential and Commercial Conservation and Demand Management Programs	975 MWh	762 MWh	2,265 MWh	Yes
Annual energy savings from Internal Energy Efficiency Programs	N/A	N/A	239 MWh	N/A

<sup>1 -</sup> Figures may be different from those reported in previous periods as a result of the finalization of the annual audit of Hydro's CDM and energy efficiency programs.

The measurement of annual energy savings from Residential and Commercial Conservation and Demand Management Program exceeded the 2020 target. These results are primarily due to partnerships and programs detailed below:

- The takeCHARGE partnership offers rebate programs to assist residential and commercial customers in reducing their electricity usagel;
- The Hydro Residential Program relates to four programs offered jointly by the utilities and one program
  offered solely by Hydro;
- The takeCHARGE is partnering with the Government of Newfoundland and Labrador under the Low Carbon Leadership Funding Agreement to extend takeCHARGE's current insulation and thermostat rebate program to oil heated customers;
- Isolated Systems Community Energy Efficiency Program provides outreach, education, and energy efficient products in the remote diesel-system communities within Newfoundland and Labrador free of charge; and,
- Hydro's Commercial Program includes the Business Efficiency and Isolated Business Efficiency programs, which are available to business customers in Hydro's interconnected system and isolated diesel service areas.

Hydro's strategy for Internal Energy Efficiency savings ended in 2019, however Hydro noted they will continue to identify opportunities that improve energy efficiency at its site. In 2021, Hydro will use that information to create a new three-year internal energy efficiency program.

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# **Key Performance Indicators**

Section 2 to the December 31, 2020 quarterly report filed by Hydro includes the 2020 Annual Report on Key Performance Indicators. The Key Performance Indicators ("KPI") results for 2020 as compared with prior years are summarized in the following table:

										Variance
Category / KPIs <sup>4</sup>	Measure Definition	Units	2015	2016	2017	2018	2019	Avg. 15-19	2020	from Average
Reliability										
Generation										
Weighted Capability Factor	Availability of Units for Supply	%	79.9	77.1	81.8	78.1	83.2	80.0	88.0	8.0
Weighted DAFOR	Unavailability of Units due to Forced Outage	%	3.4	10.0	6.4	7.9	2.0	5.9	1.9	(4.0)
Transmission										•
SAIDI	Outage Duration per Delivery Point	Minutes / Point	476.0	325.0	398.3	488.7	403.6	418.3	449.2	30.9
SAIFI	Number of Outages per Delivery Point	Number / Point	3.1	2.9	2.1	3.9	3.4	3.1	1.7	(1.4)
SARI	Outage Duration per Interruption	Minutes / Outage	154.0	112.0	189.5	125.3	118.7	139.9	265.8	125.9
Distribution	•							•		•
SAIDI	Average Outage Duration for Customers	Hours / Customer	17.5	15.7	19.6	19.5	15.0	17.5	17.9	0.4
SAIFI	Number of Outages for Customers	Number / Customer	7.0	6.6	5.3	6.7	5.1	6.1	4.6	(1.5)
End User SAIDI	Average Outage Duration for Customers	Hours / Customer	3.1	2.4	2.8	3.0	2.7	2.8	2.7	(0.1)
End User SAIFI	Number of Outages for Customers	Number / Customer	2.0	1.3	1.3	1.4	0.9	1.4	0.8	(0.6)
Under Frequency Load Shedding										
UFLS	Customer Load Interruptions Due to Generator Trip	Number of Events	8	6	9	5	1	6	-	(6)
Operating										
Hydraulic Conversion Factor 1	Net Generation / 1 Million m <sup>3</sup> Water	GWh / MCM	0.433	0.432	0.432	0.429	0.425	0.430	0.434	0.004
Thermal Conversion Factor <sup>2</sup>	Net kWh / Barrel No. 6 HFO	kWh / BBL	602	608	601	592	588	598	586	(12)
Financial (Regulated)										
Controllable Unit Cost <sup>3</sup>	Controllable OM&A\$ / Energy Deliveries	\$ / MWh	\$ 16.71	\$ 20.07	\$ 13.90	\$ 14.55	\$ 14.04	\$ 15.85	\$ 14.37	\$ (1)
Generation Controllable Costs	Generation OM&A\$ / Installed MW	\$ / MW	\$32,599	\$27,095	\$28,457	\$30,064	\$30,173	\$ 29,678	\$30,292	\$ 614
Generation Controllable Costs	Generation OM&A\$ / New Generation	\$ / GWh	\$ 9,010	\$ 7,738	\$ 7,991	\$ 8,674	\$ 9,117	\$ 8,506	\$ 9,640	\$ 1,134
Transmission Controllable Costs	Transmission OM&A\$ / 230 kV Eqv Circuit	\$ / Km	\$ 7,615	\$ 6,148	\$ 4,979	\$ 4,266	\$ 4,172	\$ 5,436	\$ 4,194	\$ (1,242)
Distribution Controllable Costs	Distribution OM&A\$ / Circuit Km	\$ / Km	\$ 3,053	\$ 3,338	\$ 3,493	\$ 3,146	\$ 3,073	\$ 3,221	\$ 3,079	\$ (142)
Other										
Percent Satisfied Customers	Satisfaction Rating	Max = 100%	N/A	90%	N/A	89%	N/A	90%	90%	_

<sup>1.</sup> For the Bay d'Espoir hydroelectric plant.

<sup>2.</sup> For Holyrood thermal.

<sup>3.</sup> Energy deliveries have been normalized for weather, customer hydrology, and industrial strikes.

<sup>4.</sup> Grant Thornton did not independently verify the calculation of KPIs.

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As consistent with prior year, Hydro reports on 18 KPIs covering the following four areas: reliability, operating, financial and customer related.

Category	КРІ	Units	2020 Target	2020 Results	Target Achieved
	Weighted Capability Factor (WCF)	%	84.0 1	88.0	Yes
	Weighted DAFOR	%	5.9	1.9	Yes
	T-SAIDI	Minutes / Point	411.2	449.2	No
	T-SAIFI	Number / Point	3.1	1.7	Yes
Reliability	T-SARI <sup>2</sup>	Minutes / Outage	N/A	265.8	N/A
Reliability	D-SAIDI	Hours / Customer	17.7	17.9	No
	D-SAIFI	Number / Customer	6.1	4.6	Yes
	End User SAIDI	Hours / Customer	2.8	2.7	Yes
	End User SAIFI	Number / Customer	1.4	0.8	Yes
	Underfrequency Load Shedding	# of events	6	0	Yes
Operating	Hydraulic CF	GWh / MCM	0.433	0.434	Yes
Operating	Thermal CF	kWh / BBL	583	586	Yes
	Controllable Unit Cost	\$/MWh	N/A	\$14.37	N/A
	Generation Controllable Costs	\$/MW	N/A	\$30,292	N/A
Financial	Generation Output Controllable Cost	\$/GWh	N/A	\$9,640	N/A
	Transmission Controllable Cost	\$/Km	N/A	\$4,194	N/A
	Distribution Controllable Cost	\$/Km	N/A	\$3,079	N/A
Other	Customer Satisfaction (Residential)	Max = 100%	90%	90%	Yes

<sup>1.</sup> Target is based on planned annual maintenance outages, an allowance for other short duration maintenance outages and targeted forced outage durations.

During 2020, Hydro met 7 out of the 9 reliability KPIs as noted above. Within the reliability category, Hydro did not achieve its target for Transmission – System Average Interruption Duration Index ("T-SAIDI"). Hydro uses the sum of the projected 2020 unplanned outages and projected planned outages to calculate its 2020 annual T-SAIDI target. According to Hydro, there were seventeen power outages reported to the Board in 2020. Information on each of these outages was reported by Hydro in Appendix B of the KPI report. The Service Continuity System Average Interruption Duration Index ("D-SAIDI") of 17.9 hours / customer was also not met, being higher than the target of 17.7 hours / customer.

The hydraulic conversion factor for Bay d'Espoir was met with 0.4335 GWh/MCM, compared 0.4330 GWh/MCM set as the Company's target. The net thermal conversion factor of 586 kWh per barrel was also met, being higher than the target of 583 kWh per barrel.

The 2020 Customer Satisfaction Survey showed that 90% of customers are either very satisfied or somewhat satisfied with Hydro, which resulted in Hydro meeting its target of 90%.

We have reviewed the KPI results and the explanations provided by Hydro for the changes and variations experienced in 2020 and find them to be consistent with our observations and findings noted in conducting our annual financial review. There were no internal inconsistencies identified in Hydro's report.

<sup>2.</sup> According to Hydro, they do not establish a restoration index target.

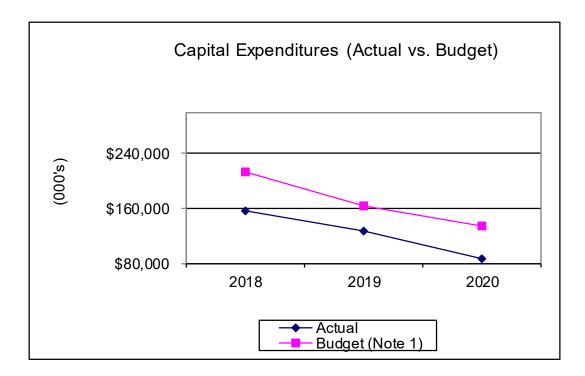


# **Capital Expenditures**

Scope: Review the Company's 2020 capital expenditures in comparison to budgets and follow up on any significant variances.

The following table details the actual versus budgeted capital expenditures for the past three years from 2018 to 2020:

(000's)	2018	2019	2020		
Actual	\$ 156,986	\$ 126,575	\$	87,555	
Budget (Note 1)	\$ 213,050	\$ 164,194	\$	134,752	
Under/Over Budget	 (26.31%)	(22.91%)		(35.03%)	



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Note 1: The 2020 budget consists of the following:

- capital budget approved under Order No. P.U. 6 (2020) \$107,576,000;
- new projects approved under Order No. P.U. 39 (2019) \$244,000;
- new projects approved under Order No. P.U. 39 (2019) (\$193,000);
- new projects approved under Order No. P.U. 7 (2020) \$2,059,000;
- new projects approved under Order No. P.U. 7 (2020) (\$1,800,000);
- new projects approved under Order No. P.U. 14 (2020) \$7,638,000;
- new projects approved under Order No. P.U. 25 (2020) \$333,000;
- new projects approved under Order No. P.U. 25 (2020) (\$333,000);
- new projects approved under Order No. P.U. 26 (2020) \$44,000;
- new projects approved under Order No. P.U. 26 (2020) (\$44,000);
   new projects approved under Order No. P.U. 23 (2020) \$216,000;
- new projects approved under Order No. P.U. 32 (2020) \$216,000;
- new projects under \$50,000 approved by Hydro (2020) \$100,000 and;
- projects carried forward to 2020 \$18,910,000.

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The above graph demonstrates that in 2018 and 2019 the Company was under budget on its capital expenditures by 26.31% and 22.91%, respectively. In 2020, the Company was again under budget on its capital expenditures by 35.03% or \$47,197,000. As explained further in our report, expenditures were substantively below budget in the Generation and

Transmission and Rural Operations. As explained in Hydro's capital expenditure report the 2020 capital program was established and approved by the Board prior to the emergence of the COVID-19 pandemic. Section 5.0 of Hydro's report provides an analysis of the main contributors to this variance, including the most material scopes of work delayed to the COVID-19 pandemic.

The following table presents a breakdown of the total assets excluded from rate base for 2019 and 2020:

(000's)	2020	2019
HRD Unit 1	513	1,078
Holyrood Fuel Oil Heat Trace	254	442
Charlottetown Diesel Plant	281	296
Sunnyside Transformer T8	4,137	4,206
Sunnyside Breaker, B1L17, Overhaul	314	316
Lab City Voltage Conversion	174	181
WAV Transformer T5 - Perform Upgrades	1,192	1,230
Holyrood Air Heaters Units 1, 2, & 3	756	1,301
Other Prudency Review Expenditures (Note 1)	362	348
TRF Upgrade, T1, CBC TS (Note 2)	274	281
Total	8,257	9,679

Note 1: Relating to expenditures within the Prudence Review Order No. P.U. 13 (2016).

Note 2: Work associated with this project involved upgrading power transformers. According to Hydro during replacement of the transformer bushings on Come-By-Chance transformer TI, a draw lead was dropped inside the transformer tank, which required additional cost and effort to remedy. As these additional costs were incurred as a result of an error, Hydro did not seek recovery of these additional costs from the customer.

# **Capital Budget Guidelines Policy**

The Company is required to follow Capital Budget Guidelines Policy number 1900.6. Within these guidelines the Company must apply for approval of supplemental capital budget expenditures and file an annual capital expenditure report by March 1 of the following year explaining variances of both \$100,000 and 10% from budget. Included in the Company's 'Capital Expenditures and Carryover Report' revised filing dated April 21, 2021 (original was filed on March 1, 2021), the Company has provided explanations for variances on 44 projects. We confirm that the Company is in compliance with this guideline.

Guideline 1900.6 also requires that the Company provide a summary of the actual versus budget variance for the past 10 years and "should the overall variance in any two years exceed 10% of the budgeted total the report should address whether there should be changes to the forecasting or capital budgeting process which should be considered". In the Company's 'Capital Expenditures and Carryover Report' the required schedule was provided which compared budget versus actual expenditures for 2011 to 2020. Of this 10-year period, the Company was under budget for 9 years (ranging from a 6.4% variance in 2011 to a 59.8% variance in 2015). In 2017, the Company's capital spending was consistent with budget. The average percent variance during this 10-year period is 26.4%.

The Company has noted that over the 7-year period, 2010 to 2016, the annual variance between budget and actual capital expenditures was primarily due to under-spending as a result of not completing all projects approved each year. The Company attributes this to unavoidable delays due to factors such as system constraints which are precipitated by changes in hydrology, and equipment failures. In 2017, there was a significant increase in spending which, according to Hydro, is primarily as a result of the accelerated in-service date for the 230kV Transmission Line from Bay d'Espoir to Western Avalon (TL 267) project. In 2018, six capital projects were the primary contributors to the variance between the actual expenditures and the capital budgets, these projects included two projects related to Terminal Station Refurbishment and Modernization at various sites, a project on Fuel and Water Treatment System Capacity for Holyrood Gas Turbine, a project on the 230 kV Transmission Line Bay d'Espoir to Western Avalon, a project on the Hydraulic Generation Refurbishment and Modernization, and a project to Upgrade Circuit Breakers at various sites.

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In 2019, according to Hydro, three capital projects were the primary contributors to the variance between the actual expenditures and the capital budgets. Had these projects been on budget, the overall actual expenditures would have been within 10% of budget. These project variances include: \$14,800,000 on Terminal Station Refurbishment and Modernization (2018 - 2019); \$5,200,000 on Increase Fuel and Water Treatment Facility for Holyrood Gas Turbine; and \$5,000,000 on Terminal Station Refurbishment and Modernization (2019 – 2020).

In 2020, Hydro reported that six capital projects were the main contributors to the (35.0%) variance between the actual expenditures and capital budgets. These project variances include: \$9,300,000 on Terminal Station Refurbishment and Modernization at various sites (2019-2020); \$9,000,000 on Upgrading Circuit Breakers at various sites; \$5,400,000 on Hydraulic Generation Refurbishment and Modernization (2019-2020); \$3,900,000 on Hydraulic Generation Refurbishment and Modernization (2018-2019); \$3,300,000 on Terminal Station Refurbishment and Modernization at various sites (2018-2019); and \$2,800,000 on Diesel Genset Replacements (2019-2020).

A breakdown of the total capital expenditures and budget for 2020 with variances by asset category is as follows:

(000's)	202	0 Actual	202	0 Budget	\	/ariance	%
Generation	\$	16,935	\$	26,860	\$	(9,925)	(36.95%)
Transmission and Rural Operations		57,333		92,352		(35,019)	(37.92%)
General Properties		4,817		6,314		(1,497)	(23.71%)
Allowance for Unforeseen Events		218		1,216		(998)	(82.07%)
Supplemental Projects		8,166		7,910		256	3.24%
New Projects Approved under \$50,000		86		100		(14)	(14.00%)
Total	\$	87,555	\$	134,752	\$	(47,197)	(35.03%)

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As indicated in the table above, total capital expenditures are under the budget. This budgeted amount includes the approved capital budget projects by the Board for \$115,842,000 and carryovers from 2019 to 2020 of \$18,910,000. The Company has reported that there are 37 projects which were included in the 2020 budget which have expenditures totaling \$20,987,200 carried forward to 2021.

Hydro's 'Capital Expenditures and Carryover Report' discloses actual and budgeted past expenditures, as well as actual and budget forecasted expenditures beyond 2020 for each project. A breakdown of these expenditures with variances by category is as follows:

		Budget						Actual									Variance		
(000's)	-	Up to								Up to									
		2019		2020	F	orecast		Total		2019		2020	F	orecast		Total		\$	%
Generation																			
Hydro Plants	\$	31,187	\$	14,767	\$	10,250	\$	56,204	\$	23,473	\$	10,596	\$	10,552	\$	44,621	\$	(11,582)	(21%)
Thermal Plants		-		3,672		5,664		9,336				4,399		4,780		9,179		(157)	(2%)
Gas Turbines		13,984		2,264		7,853		24,101		7,579		1,939		9,963		19,481		(4,620)	(19%)
Total Generation		45,171		20,703		23,767		89,641		31,052		16,935		25,295		73,281		(16,360)	(18%)
Transmission and Rural																			
Terminal Stations		78,534		38,679		5,685		122,897		55,319		23,092		15,875		94,287		(28,611)	(23%)
Transmission Lines		12,586		10,185		-		22,771		12,529		7,542		2,790		22,861		90	0%
Distribution		457		14,309		3,340		18,106		444		13,254		4,071		17,769		(337)	(2%)
Generation		11,689		15,132		1,886		28,707		12,102		10,864		5,448		28,414		(293)	(1%)
Properties		223		862		293		1,378		165		993		286		1,444		67	5%
Metering		-		244		-		244		-		181				181		(64)	(26%)
Tools and Equipment		1,200		939		-		2,139		262		1,407		454		2,122		(17)	(1%)
Total Transmission and Rural		104,689		80,350		11,204		196,243		80,821		57,333		28,925		167,078		(29,165)	(15%)
General Properties																			
Information Systems		272		1,314		-		1,585		109		1,327		26		1,462		(124)	(8%)
Telecontrol		96		1,641		-		1,737		98		1,572		-		1,670		(67)	(4%)
Transportation		3,669		2,220		1,584		7,473		3,040		1,629		3,030		7,699		226	3%
Administrative		-		349		648		996		-		290		673		962		(34)	(3%)
Total General Properties		4,037		5,524		2,231		11,792		3,247		4,817		3,729		11,793		1	0%
Allowance for Unforeseen Events				1,216				1,216				218		-		218		(998)	(82%)
Supplemental Projects		394		7,949		-		8,343		432		8,166		241		8,839		496	6%
New Projects Approved under \$50,000		-		100		-		100		-		87		-		87		(14)	(14%)
Total	\$	154,290	\$	115,842	\$	37,202	\$	307,334	\$	115,551	\$	87,555	\$	58,189	\$	261,296	\$	(46,038)	(15%)

The largest variances relate to the following asset classes: Terminal Stations (\$28,611,000 under budget), Hydro Plants (\$11,582,000 under budget), and Gas Turbines (\$4,620,000 under budget).

The variance related to Terminal Stations is primarily a result of the Terminal Station Refurbishment and Modernization at various sites, and the Upgrading of Circuit Breakers at various sites. The Terminal Station Refurbishment and Modernization project was \$21,602,200 under the budget. According to Hydro, the variance in total project expenditures is largely attributed to two factors. The first was associated with the capital programs for power transformers, protective relays, and the refurbishment of Wabush Terminal Station. The costs for materials and labour were less than originally estimated for several scope items, and some scopes of work were cancelled or rescheduled to future years. The second factor was that protective relays replacements were completed for less than the original material and labour estimates. This project scope included the replacement of 20 protective relays, of which 19 were completed. The work for Holyrood Bus B12 was rescheduled to 2021 to accommodate more critical work at the Holyrood Terminal Station.

As discussed earlier in this report, the Company has provided detailed explanations on budget to actual variances in its 'Capital Expenditures and Carryover Report'. For a complete review of the budget variance we refer the reader to the Company's 'Capital Expenditures and Carryover Report'.

# Allowance for Unforeseen Events

Guideline 1900.6 sets out the requirements that Hydro must follow regarding these expenditures. These include the following:

- "Before proceeding with work using the Allowance for Unforeseen Items account, or as soon as practical thereafter, the utility must notify the Board in writing that it intends to proceed with an expenditure greater than \$50,000 without the approval of the Board using the Allowance for Unforeseen Items account. This notice must set out the detailed circumstances, including the justification for the expenditure and the reason for the use of the Allowance for Unforeseen Items account, providing to the extent available at the time, a scope and costing for the expenditure."
- "Within 30 days after the completion of the work the utility shall file a detailed report setting out:



- i. the circumstances of the expenditure;ii. any reliability or safety issues;
  - iii. why the work was not anticipated in the annual capital budget;
  - iv. the alternatives considered;
  - v. the financial effects of each alternative and the reasons for the chosen alternative;
  - vi. a timeline setting out all relevant dates;
  - vii. the nature and scope of the work;
  - viii. the detailed costs incurred; and
  - ix. any other implications for other aspects of the utility business/systems.

This asset category has an allowance amount of \$1,216,400. The Board approved the amount of \$1,000,000 for the "Allowance for Unforeseen Events" in Order No. P.U. 6 (2020), in addition to a supplementary amount of \$216,420 in Order No. P.U. 32 (2020). Actual costs incurred by Hydro were \$218,400. From our review, we noted the following uses of the 'Allowance for Unforeseen Events':

- Charlottetown Diesel Generation Station Fire On October 7, 2019, the Charlottetown DGS was destroyed in a fire. Hydro responded and power was restored the same day using two mobile gensets which were already onsite. The power supply was later supplemented with a third mobile genset (Unit 2102) secured from the Muskrat Falls Project. This unforeseen project was undertaken to provide winterized mobile genset power to the communities of Charlottetown and Pinsent's Arm and ensure the site was functional for operators and staff to reliably provide power to the customers until a long-term, replacement power supply is approved and commissioned. The original estimate for this project in the notification letter Allowance for Unforeseen dated November 13, 2019 was \$500,000 and on January 15, 2020, Hydro notified the Board of a budget estimate change to \$825,000. The project was substantially completed on February 7, 2020. During 2020 actual expenditures on this project was \$143,800.
- Charlottetown Generator Replacement Unit 2102 is a mobile generating unit that was installed in
  Charlottetown in October 2019 after the fire discussed above. It was taken out of service on July 20, 2020
  after the unit caused an outage to the communities of Charlottetown and Pinsent's Arm. Following
  inspection, it was determined that it had suffered a catastrophic failure of its generator. Hydro initiated a
  project to replace the generator using the "Allowance for Unforeseen Items" account. The generator
  replacement was completed, and the unit released for service on August 8, 2020, with a cost of replacement
  of approximately \$74,600.
- Port Hope Simpson Engine Replacement On September 14, 2020, Hydro notified the Board of capital requirements at Port Hope Simpson in response to failure of the engine portion of genset Unit 2099.
   According to Hydro, a replacement engine has an expected delivery in late January 2021. No costs were incurred in 2020 related to this project.

Based upon our analysis, Hydro filed reports on the use of the Allowance for Unforeseen Events within 30 days of the completion of the work on the occasions as described above.

#### **Capital Expenditure Reports**

The Company filed quarterly Capital Expenditure reports for the 2020 calendar year within 60 days of their respective reporting period.