

Board of Commissioners of Public Utilities

Financial Consultants Report 2018 Annual Financial Review of Newfoundland and Labrador Hydro



Table of Contents

	Page
Restrictions, Qualifications and Independence	1
Executive Summary	2
ntroduction	3
Accounting System and Code of Accounts	5
Return on Rate Base and Equity, Interest Coverage and Capital Structure	6
Revenue Requirement	15
Depreciation	43
Non-Regulated Activity	44
Cost Allocations	46
Rate Stabilization Plan ("RSP")	54
Deferred Charges	58
Key Performance Indicators and Initiatives and Efforts Targeting Productivity and Efficiency Improvements	61
Capital Expenditures	65

Board of Commissioners of Public Utilities Financial Consultants Report 2018 Annual Financial Review of Newfoundland and Labrador Hydro



Page | 1

Restrictions, Qualifications and Independence

23 Purpose

This report was prepared for the Board of Commissioners of Public Utilities in Newfoundland and Labrador. The purpose of our engagement was to present our observations, findings and recommendations with respect to our 2018 annual financial review of Newfoundland and Labrador 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 of Commissioners of Public Utilities ("the Board") presents our observations, findings and recommendations with respect to our 2018 annual financial review of Newfoundland and Labrador Hydro ("the Company") ("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 2018, and this refers to the creation of thirty-five additional accounts. While numerous accounts were added to the system for 2018, 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 2018 rate base, we noted the originally filed average rate base of \$2,182,151,000 as filed in Return 3 was restated to \$2,265,683,000 as a result of matters approved in Board Order Nos. P.U. 16 (2019) and P.U. 30 (2019). The Company's calculation of return on average rate base for 2018 as originally filed in Return 12 of 5.61% was restated to 5.12%.

The Company's calculation of return on regulated average equity after restatement for 2018 was 6.63% compared with a return of 9.24% in 2017.

The Company's target capital structure is comprised of 75% debt and 25% common equity for regulated operations. The restated actual 2018 was 77.3% debt (excluding employee benefits and asset retirement obligation) and 18.9% equity compared to 77.2% debt and 19.0% equity in 2017.

The net impact on regulated earnings for 2018 was a decrease over 2017 of \$7.2 million. This decrease was primarily attributable to an increase in interest expense of \$16.8 million, an increase in depreciation expense of \$8.9 million and an increase in power purchased costs of \$9.5 million. The impact of this increase in expenses was partially offset by a \$18.4 million decrease in the fuel costs and a decrease in cost deferrals of \$12.8 million. In the revenue requirement section of our report we also compare the actual 2018 revenue requirement components to the 2018 restated revenue requirement as a result of Order No. P.U. 16 (2019) and Order No. P.U. 30 (2019) in connection with the 2017 GRA. The 2018 restated revenue requirement is also compared to the 2018 test year revenue requirement.

We reviewed Hydro's rates of depreciation to assess their compliance with the 2012 Gannett Fleming Depreciation Study related to plant in service as of December 31, 2009 and reported that depreciation expense in 2018 is in compliance with the Depreciation Study except in relation to errors in depreciation for two different assets. The errors were not considered significant. We also reviewed the restatement of Hydro's depreciation expense based on the new depreciation study from the 2017 General rate Application ("GRA") as approved in Order No. P.U. 16 (2019) and found it to be in compliance.

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 2018 are in accordance with Hydro's methodology.

The Rate Stablization Plan ("RSP") ("the Plan") had an accumulated credit balance of approximately \$73.7 million at December 31, 2018 after restatement due to the 2017 GRA, which comprises balances of \$32.8 million due to the utility customer, \$1.2 million due from industrial customers, \$9.9 million due to the utility customer related to the RSP surplus, and \$32.2 million 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 2018 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 and the Business System Deferral has not yet been approved by the Board. These deferral accounts have been appropriately excluded from rate base in actual, as well as in the restated average deferred charges balance of \$139,142,000.

We have reviewed the KPI results and the explanations provided by Hydro for the changes and variations experienced in 2018 and find them to be consistent with our observations and findings noted in conducting our annual financial review.

The Company was under budget by 26.3% on its capital expenditures in 2018 compared to an over budget variance of 0.1% in 2017.



Introduction

1

2

4

5 6

7 8

9 10

11

12 13

14

15 16

17

18

19 20

21 22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39 40

41

42

43

44 45

46

47

48

49 50

51

52 53

54

55 56

57 58

59

60 61

62

This report to the Board presents our observations, findings, and recommendations with respect to our 2018 Annual Financial Review of Newfoundland and Labrador 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.
- Review the calculations of the return on rate base, return on equity, capital structure and interest coverage ratio.
- 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,
- e) transportation,
- f) building rental and maintenance,
- g) professional services,
- h) miscellaneous,
- i) capitalized expenses,
- j) intercompany charges,
- k) membership fees,
- l) fuels,
- m) power purchased,
- n) depreciation,
- o) interest,
- p) office supplies and expenses, and
- q) bad debts.
- 4. Review Hydro's non-regulated activity and assess the appropriateness of adjustments in the calculation of regulated earnings. This will include a review of how costs are allocated between the regulated and nonregulated operations including a review of labour costing relating to its billing rates for Hydro and its related companies.
- 5. Review Hydro's rates of depreciation and assess their compliance with the depreciation methodology approved in Order No. P.U. 40 (2012) and also review the restatement of Hydro's depreciation based on new depreciation study from the 2017 GRA as approved in Order No. P.U. 16 (2019). Assess the 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.
- Review Minutes of Board of Directors and Management Committee meetings.
- Review Hydro's annual report on Key Performance Indicators and any other information on initiatives and efforts targeting productivity or efficiency improvements in 2018.
 - 10. Examine the Company's 2018 capital expenditures in comparison to budgets and prior years. Included in this review will be an analysis of amounts included in 'Allowance for Unforeseen Items'.

6 7 8

9 10 11

12 13

14 15

enquiry and analytical procedures with respect to financial information provided by Hydro;

The nature and extent of the procedures which we performed in our review varied for each of the items in the Terms

- examining, on a test basis where appropriate, documentation supporting amounts included in Hydro's records; and
- assessing Hydro's compliance with Board directives.

of Reference. In general, our procedures were comprised of:

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

The financial statements of the Company for the year ended December 31, 2018 have been audited by Deloitte LLP, Chartered Accountants, who have expressed their opinion on the fairness of the statements in their report dated March 15, 2019. 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.

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 indicated several changes made to the code of accounts in 2018, and this refers to the creation of thirty five additional accounts. Within all new accounts added to the system, according to Hydro, there were numerous accounts added to reflect the adoption of IFRS 16 Leases effective January 1, 2019, to capture right-of-use assets with its accumulated depreciation and lease liabilities. One new account was added to capture the 2018 Cost Deferral as approved per Order No. P.U. 48 (2018). Three new accounts were added to capture power purchase recovery adjustments, power purchase from external markets using the Maritime Link and transmission fees associated.

While numerous accounts were added to the system for 2018, 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.

7 8

9

10

11 12

13 14

15

16 17

Return on Rate Base and Equity, Interest Coverage and Capital Structure

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

Average Rate Base

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 2018 as filed is 5.61% (2017 – 5.73%).

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.

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 2017 and 2018 are as follows:

(000)'s		2018		2017
Plant investment	\$	2,494,233	\$	2,342,713
Less: Accumulated depreciation		(386,973)		(308,470)
CIAC's		(42,434)		(32,477)
Asset retirement obligations		185		789
		2,065,011		2,002,555
Balance previous year		2,002,555		1,699,168
Average		2,033,783		1,850,862
Cash working capital allowance		5,415		6,405
Fuel inventory		56,041		43,617
Supplies inventory		37,021		34,719
Average deferred charges		62,099		65,287
Average net assets excluded from rate base		(12,208)		(21,141)
Average rate base	\$	2,182,151	\$	1,979,749
Regulated net income	\$	27,843	\$	35,919
Cost of service exclusions (Note 1)		6,092		4,315
Hydro net interest expense (Note 2)		88,468		73,270
Return on Rate Base	\$	122,403	\$	113,504
Regulated rate of return on rate base		5.61%		5.73%
Note 1:		2018		2017
Breakdown of cost of service exclusions is as follows:		2010		2017
Depreciation on assets not in service	\$	1,381	\$	1,941
Debt guarantee fee	#	4,011	Ψ.	2,374
Other expenditures		700		
r	\$	6,092	\$	4,315
Note 2:		2018		2017
Net Interest prior to disallowed portion of debt	\$	92,479	\$	75,644
Debt guarantee fee disallowed	"	(4,011)	"	(2,374)
Net interest above	-	88,468		73,270
Amortization of FX losses		(2,157)		(2,157)
Debt guarantee fee	_	4,011	_	2,374
Interest per Revenue requirement	\$	90,322	\$	73,487

The increase in plant investment from \$2,342,713,000 in 2017 to \$2,494,233,000 in 2018 is primarily due to capital asset additions of \$170.3 million in 2018. Capital expenditures have been examined in more detail in the "Capital Expenditures" section of this report.

Average deferred charges decreased from \$65,287,000 in 2017 to \$62,099,000 in 2018's original return filed. Average deferred charges are examined in more detail in the "Deferred Charges" section of this report, including a review of restated average deferred charges as a result of Order No. P.U. 16 (2019) and Order No. P.U. 30 (2019) in connection with the 2017 General Rate Application ("2017 GRA").

12

13

14

4 5 6

2

3

4 5

6 7 Average net assets excluded from rate base decreased from \$21,141,000 in 2017 to \$12,208,000 in 2018. Average net assets included or excluded from rate base have been examined in more detail in the "Capital Expenditures" section of this report.

Restated 2018 Rate Base and 2018 Test Year Rate Base

The following table compares the originally filed 2018 average rate base and return on average rate base to the average rate base and return on average rate base for the restated 2018 and 2018 test year:

(000)'s	3 Actual - as ginally filed	201	8 Restated	2018	3 Test Year	'18	R - '18A		'18I	R - '18T'	
Plant investment Less: Accumulated depreciation CIAC's	\$ 2,494,233 (386,973) (42,434)	\$	2,494,233 (367,808) (43,071)	\$	2,494,233 (367,794) (43,070)	\$	- 19,165 (637)	1	\$	- (14) (1)	
Asset retirement obligations	185		185		185		-	_		-	
Balance previous year	 2,065,011 2,002,555		2,083,539 2,002,555		2,083,554 2,002,553		(18,528)	_		(15) 2	
Average	2,033,783		2,043,047		2,043,053		9,264			(6)	
Cash working capital allowance Fuel inventory	5,415 56,041		2,640 56,041		2,244 52,489		(2,775)	2		396 3,552	
Supplies inventory	37,021		37,021		33,034		-			3,987	
Average deferred charges Average net assets excluded from rate bas	62,099 (12,208)		139,142 (12,208)		131,163 (12,073)		77,043	3		7,979 (135)	3
Average rate base	\$ 2,182,151	\$	2,265,683	\$	2,249,910	\$	83,532	-	\$	15,774	
Regulated net income Compliance adjustments	\$ 27,843	\$	27,843 (6,302)	\$	29,940	\$	6,302	4	\$	(2,097) (6,302)	
,	\$ 27,843	\$	21,541	\$	29,940	\$	6,302	_	\$	(8,399)	
Cost of service exclusions	6,092		6,768		7,777		676			(1,009)	5
Hydro net interest expense	88,468		87,792		86,027		(676)	_		1,765	6
Return on Rate Base	\$ 122,403	\$	116,101	\$	123,744	\$	6,302	ı	\$	(7,643)	
Regulated rate of return on rate base	 5.61%		5.12%		5.50%						

- Note 1: The restated balance of the accumulated depreciation decreased by \$19,165,000 compared to originally filed balance. According to Hydro, the variance relates to the 2018 cost deferral of \$18.528 million. In Board Order No. P.U. 48(2018), the Board approved the 2018 cost deferral of \$18.5 million related to the differential in the 2018 depreciation and the proposed change in depreciation methodology. In Board Order No. P.U. 30(2019), the Board approved Hydro's proposal to restate its property, plant and equipment based upon the new depreciation methodology, effective January 1, 2018, with the corresponding adjustment to effect the conclusion of the 2018 Depreciation Cost Deferral Account.
- Note 2: The restated balance of the cash working capital allowance decreased by \$2,775,000 compared to the originally filed balance. The variance is primarily related to updating Hydro's net lag percentage from 3.56% to 2.60% based upon the 2017 General Rate Application.
- Note 3: The restated balance of the average deferred charges increased by \$77,043,000 compared to the originally filed balance. According to Hydro, the variance is primarily due to the supply cost deferrals being approved for recovery and included in average deferred charges for rate base upon restatement. The restated average deferred charges increased by \$7,979,000 compared to the test year balance. According to Hydro, the variance is primarily related to an increase in supply deferrals. Average deferred charges is examined in more detail in the "Deferred Charges" section of this report.
- Note 4: The compliance adjustment pertains to various adjustments impacting profit and loss as a result of matters approved in Board Orders No. P.U. 16 (2019) and P.U. 30 (2019).
- Note 5: The restated cost of service exclusions decreased by \$1,009,000 compared to the test year balance. According to Hydro, the variance is primarily due to performance contracts. The exclusion of the performance contracts of approximately \$0.7 million was omitted in error from Hydro's cost of service exclusions. Hydro's 2018 and 2019 Annual Returns would continue to be below the lower end of the range total approved return on rate base percentage if an adjustment was

10

completed. Hydro intends on including the performance contracts in the costs of service exclusion calculation upon the completion of the next annual return for 2020.

Note 6: The restated Hydro net interest expense increased by \$1,765,000 compared to the test year balance. According to Hydro, this is due to an increase in RSP interest due to the normal operation of the RSP and a delay in the reimbursement of the RSP Utility Surplus.

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 2018 Annual Financial Review of Newfoundland and Labrador Hydro



Return on Rate Base

1

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 5.50% with a range of return of 40 basis points (± 20 basis points). The 2018 return presented above as restated, 5.12%, is below the lower end of the approved range by 18 basis points.

8 9

10

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

9 10

11

12

13

14

15

16 17

18

19

1

2

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, 2018 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 2018 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 originally in Return 13 and as provided by Hydro in a revised Return 13 are as follows:

(000)'s	2018 - As originally filed	2018 - As restated	Difference	2017 - origin file	ally	17 - As	Dif	ference	
Shareholder's equity 2018 2017 2016	\$ 433,462 399,510	\$ 440,913 412,587	\$ 7,451 2 13,077 2	\$ 399	510 277	412,587 376,323	\$	13,077 17,046	2
Avg equity before GRA and Supply Deferral Adj GRA and Supply Deferral Adjustments Avg equity after GRA and Supply Deferral Adj	416,486 11,499 1 427,985	426,750	10,264 (11,499) (1,235)	14	394 940 1 334	 394,455	_	15,062 (14,940) 122	
Regulated earnings Cost of service exclusions	27,843 6,092	21,541 6,768	(6,302) 2 676		919 315	32,115 4,315		(3,804)	
Regulated earnings before GRA and Supply Deferral Adj GRA and Supply Deferral Adjustments	33,935 (3,000) 1	28,309	(5,626) 3,000		234 882 <u></u> 1	36,430	_	(3,804) 3,882	•
Regulated earnings after GRA and Supply Deferral Adj	\$ 30,935	\$ 28,309	\$ (2,626)	\$ 36	352	\$ 36,430	\$	78	
Return on equity before GRA and Supply Deferral Adj Return on equity after GRA and Supply Deferral Adj	8.15% 7.23%	6.63% 6.63%			60% 22%	9.24% 9.24%			

Note 1: In Order No. P.U. 39 (2017), the Board indicated that the GRA may be the most convenient forum to address issues related to recovery of the Energy Supply Deferrals. Earnings related to 2018 included Supply Deferral and Phase II adjustments related allowances and recovery adjustments from prior periods. Earnings for 2017 included amounts related to the 2014, 2015 and 2016 Cost and Supply Deferrals.

Note 2: Variances noted above pertaining to matters approved in Board Order No. P.U. 16 (2019) and No. P.U. 30 (2019).

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 as originally filed on Return 13 and Return 14 for 2017 and 2018 are as follows:

(000's)	2018	2017
Equity per non-consolidated financial statements (Note 1)	\$ 978,784	\$ 948,724
Retained earnings cost of service exclusions	22,870	16,778
Less: Contributed capital - Lower Churchill Development	(46,801)	(46,090)
Share capital issued to finance investment in CF(L)Co.	(22,504)	(22,504)
Accumulated other comprehensive income Net retained earnings attributable to IOCC Non-regulated activities/expenses	12,487 (19,244) 39,200	, , ,
Net retained earnings attributable to CF(L)Co. (income recorded minus dividends flowed through to government)	(531,330)	(506,352)
Regulated Equity	\$ 433,462	\$ 399,510

Note 1

2017 equity as presented is not restated for the impact of the adoption of IFRS 9. The impact has been reflected in 2018.

7

6

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 2018 under the S&P methodology has been calculated at 2.0 times (2017 – 2.1 times).

Cost of debt was calculated on Return 15 at 5.00% in 2018 compared to 5.20% in 2017. This decrease is primarily a result of additional borrowings in 2017 and 2018 with lower interest rates.

On June 29, 2018, Hydro signed an extension to its \$200.0 million CAD or USD equivalent committed revolving term credit facility resulting in a new maturity date of July 27, 2020. As at December 31, 2018, there were no amounts drawn on the facility (2017 - \$nil.)

On March 14, 2018, Hydro repaid an intercompany loan in the amount of \$225.0 million to Nalcor. The loan was set to mature on March 30, 2018 and carried an interest rate of 1.845%. In addition, Hydro utilized its \$300.0 million government promissory note program to fulfill its short-term funding requirements. As at December 31, 2018, there were \$189.0 million in promissory notes outstanding with a maturity date of January 3, 2019 bearing an interest rate of 1.77%.

Also on March 14, 2018, Hydro issued additional long-term debt, Series 1A, with face value of \$300.0 million. The Province issued debt specifically on Hydro's behalf and loaned the proceeds to Hydro. The debt, repayable to the Province, matures on October 17, 2048 with a coupon rate of 3.70% paid semi-annually.

Capital Structure

Details with respect to the capital structure as originally filed on Return 14 for 2017 and 2018, and as restated are as follows:

(000)'s		2018	%		2018	%		2017	%		2017	%
	Or	iginally filed		A	As restated		Or	iginally filed		A	s restated	
Debt (Note 1)	\$	1,800,000	77.6%		1,800,000	77.3%	\$	1,682,000	77.7%	\$	1,682,000	77.2%
Employee benefits		74,000	3.2%		74,000	3.2%		69,000	3.2%		69,000	3.2%
Asset retirement obligation		14,000	0.6%		14,000	0.6%		15,000	0.7%		15,000	0.7%
Equity		433,000	18.7%		441,000	18.9%		400,000	18.5%		413,000	19.0%
	\$	2,321,000		\$	2,329,000		\$	2,166,000		\$	2,179,000	

Note 1:

According to Hydro, Debt for 2017 has been redassified with the presentation adopted during the current reporting period.

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 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 restated 2018 ratio was approximately 77.3% (2017 - 77.2%) debt (excluding employee benefits and asset retirement obligation) and 18.9% (2017 - 19.0%) 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 2018. The S&P calculation of debt within the capital structure includes accrued interest, asset retirement obligations and post-retirement benefit obligations.

12

13 14

15

16

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 2015 to 2018, including variances between 2018 and 2017:

(000)'s	Actuals 2018	Actuals 2017	Actuals 2016	Actuals 2015	Variances 2018-2017
- · ·	0.5.200				0.024
Depreciation	86,290	77,356	67,436	63,222	8,934
Fuel	166,406	184,772	210,950	220,359	(18,366)
Power purchased	71,181	61,717	60,117	60,667	9,464
Other costs					
Salaries and fringe benefits	113,180	115,093	107,674	114,153	(1,913)
System equip. maint.	23,947	25,792	25,048	31,928	(1,845)
Insurance	3,221	3,175	2,530	2,508	46
Transportation	3,422	3,251	2,943	3,317	171
Office supplies and expenses	2,351	2,118	2,249	2,762	233
Bldg. rentals and maint.	905	1,164	1,109	1,497	(259)
Professional services	7,700	6,142	6,662	14,407	1,558
Travel	2,392	2,412	1,984	3,250	(20)
Equipment rentals	3,859	3,817	4,197	4,218	42
Miscellaneous	5,021	5,373	5,059	5,901	(352)
Other (income) and expense	14,218	9,036	8,286	9,762	5,182
Cost deferrals	(18,528)	(5,712)	(22,832)	(20,500)	(12,816)
GRA and supply deferral adjustments ¹	3,000	3,882	(9,017)	(25,282)	(882)
Sub-total	164,688	175,543	135,892	147,921	(10,855)
Allocations					
Hydro capitalized	(30,251)	(35,753)	(32,213)	(25,114)	5,502
Cost Recoveries	233	(2,530)	(3,369)	(7,906)	2,763
Sub-total	(30,018)	(38,283)	(35,582)	(33,020)	8,265
Total	134,670	137,260	100,310	114,901	(2,590)
					-
Accretion of ARO	357	189	645	699	168
Interest	90,323	73,487	95,721	94,654	16,836
Regulated earnings ¹	24,843	32,037	28,231	(656)	(7,194)
Revenue requirement	\$ 574,070	\$ 566,818	\$ 563,410	\$ 553,846	\$ 7,252

Note 1: Regulated earnings presented above excludes cost of service exclusions. GRA and supply deferral adjustments is presented separately.

As noted in the above table, the net impact on regulated earnings for 2018 was a decrease over 2017 of \$7.2 million. This decrease was primarily attributable to an increase in interest expense of \$16.8 million, an increase in depreciation expense of \$8.9 million and an increase in power purchased costs of \$9.5 million. The impact of this

increase in expenses was partially offset by a \$18.4 million decrease in the fuel costs and an increase in cost deferrals of \$12.8 million.

The following table compares the actual 2018 revenue requirement components to the 2018 restated revenue requirement as a result of Order No. P.U. 16 (2019) and Order No. P.U. 30 (2019) in connection with the 2017 GRA. The 2018 restated revenue requirement is also compared to the 2018 test year revenue requirement:

(000)'s	Actuals 2018	Restated 2018	Test Year 2018	Variances 18R - 18A	Variances 18R - 18T
Depreciation	86,290	77,417	77,417	(8,873)	
Fuel	166,406	176,440	173,387	10,034	3,053
Power purchased	71,181	71,181	69,134		2,047
Other costs					
Salaries and fringe benefits	113,180	113,180	110,005	-	3,175
System equip. maint.	23,947	23,947	26,228	-	(2,281)
Insurance	3,221	3,221	3,345	-	(124)
Transportation	3,422	3,422	3,251	-	171
Office supplies and expenses	2,351	2,351	2,516	-	(165)
Bldg. rentals and maint.	905	905	1,100	-	(195)
Professional services	7,700	6,600	9,112	(1,100)	(2,512)
Travel	2,392	2,392	2,757	-	(365)
Equipment rentals	3,859	3,859	3,749	-	110
Miscellaneous	5,021	5,021	5,905	-	(884)
Compliance - Operating Cost Disallowances	-	-	(4,000)	-	4,000
Other (income) and expense ¹	14,218	1,769	651	(12,449)	1,118
Cost deferrals	(18,528)	-	-	18,528	(18,528)
GRA and supply deferral adjustments	3,000			(3,000)	3,000
Sub-total	164,688	166,667	164,619	1,979	2,048
Allocations					
Hydro capitalized	(30,251)	(30,251)	(28,152)	-	(2,099)
Cost Recoveries	233	(1,121)	(1,309)	(1,354)	188
Sub-total	(30,018)	(31,372)	(29,461)	1,354	(1,911)
Total	134,670	135,295	135,158	(625)	137
Accretion of ARO	357	357	362	_	(5)
Cost of Service Exclusions ²	6,092	6,768	7,777	676	(1,009)
Other Adjustments ³	(8,515)	(8,400)	(6,988)	115	(1,412)
Interest, includes debt guarantee	86,312	87,792	86,027	1,480	1,765
Regulated earnings	24,843	21,542	29,940	(3,301)	(8,398)
Revenue requirement ⁴	\$ 567,636	\$ 568,392	\$ 572,214	\$ 756	\$ (3,822)
Reconcilation to revenue requirement previous page:					
Other revenue	6,434				
Revenue Req. cost of service exclusion	2,081				
Costs of service exclusions	(6,092)				
Debt guarantee exclusion	4,011				
	\$ 574,070				



Note 1:

note 1.			
The following is the breakout of other income & expense:			
	Actuals 2018	Restated 2018	Test Year 2018
Loss on Disposal (net of disposal proceeds)	10,087	678	651
Removal Costs	883	-	-
FX Gains or Losses	2,847	690	-
Other Write-Offs	401	401	-
	14,218	1,769	651
Note 2:			
The following is the breakout of cost of service exclusions:			
	Actuals 2018	Restated 2018	Test Year 2018
Depreciation of Assets excluded from Rate Base	1,403	1,403	2,444
Debt Guarantee Fee Exclusion	4,011	4,687	4,600
Other Adjustment	678	678	733
	6,092	6,768	7,777
Note 3:			
The following is the breakout of other adjustments:			
	Actuals 2018	Restated 2018	Test Year 2018
CIAC Revenue	(2,360)	(1,723)	(1,723)
Other Revenue	(4,074)	(4,596)	(2,088)
Revenue Req. Cost of service exclusions	(2,081)	(2,081)	(3,177)
	(8,515)	(8,400)	(6,988)
Note 4:			
Reconciliation to Revenue Requirement:			
	Actuals 2018	Restated 2018	Test Year 2018
Energy Sales	566,315	566,315	570,222
Revenue Deficiency	-	756	756
Generation Demand Cost Recovery	1,321	1,321	1,236
	567,636	568,392	572,214

The restated and test year depreciation decreased by \$8,873,000 compared to the actual balance. According to Hydro, this is due to compliance revisions for depreciation and removal costs in connection with Order No. P.U. 16 (2019) and Order No. P.U. 30 (2019). The 2018 Cost Deferral of \$18,528,000 relates to the differential in the 2018 depreciation, loss on retirement and removal costs associated with the proposed change in depreciation methodology which was reversed to Nil in the restated balance. The difference of \$9,655,000 between the variance in the depreciation of \$8,873,000 and the reversal of the 2018 Cost Deferral of \$18,528,000 is due to the presentation of depreciation where loss on disposals and removal costs are presented on separate lines on the income statement. In the actuals the loss on disposals and removal costs are included in the other (income) and expenses line.

The restated fuel increased by \$10,034,000 compared to the actual balance. According to Hydro, this is due to the variance between Supply Deferrals recorded in actuals of \$25,305,000 and the total of Energy Supply Deferral, Holyrood Conversion and Isolated Systems of \$22,007,000 reduced by the RSP 2018 True Up of \$6,736,000. The restated fuel increased by \$3,053,000 compared to the test year. According to Hydro, the variance is primarily due to system losses. Actual losses in 2018 were 241.8 GWh compared to 215.0 GWh forecasted in the 2018 test year resulting in approximately \$2.8M in additional fuel costs.

The restated professional services costs decreased by \$1,100,000 compared to the actual balance. According to Hydro, this relates to the total balance of GRA Hearing Deferral of \$800,000 and the COS Hearing Deferral of \$300,000. The restated professional services costs decreased by \$2,512,000 compared to the test year. According to Hydro, this is primarily due to a reduction in rates and regulatory costs associated with the cost of service hearing and 2017 GRA incurred in 2019 but the full deferral was restated to be consistent with the GRA order. In addition, there was a reduction in environmental site assessments and a delay in the start of TL267 monitoring by the Province.

The restated cost recoveries decreased by \$1,354,000 compared to the actual balance. According to Hydro, this is related to the Business System Deferral.

The actual and restated Power Purchased increased by \$2,047,000 compared to the test year. According to Hydro, this is primarily due to extending the CBPP curtailable load contract by two months (Order No. P.U. 40 (2018)), Deer Lake Power secondary energy which was not included in the test year, New World Dairy purchases commenced in 2018 but were not included in the test year and a bad debt allowance on receiving ecoenergy incentive credits.

Board of Commissioners of Public Utilities Financial Consultants Report 2018 Annual Financial Review of Newfoundland and Labrador Hydro



The actual and restated system equipment maintenance costs decreased by \$2,281,000 compared to the test year. According to Hydro, the variance is primarily due to a reduction in scope of maintenance activities from what was budgeted in the test year for Holyrood Gas Turbines, as well as a reduction in scope of the TWINCO transformer repairs project, upgrade access trails project, PCB removals and vegetation management services, along with the cancellation of the spare transformer relocation project.

5 6 7

8

2

3 4

The restated regulated Interest increased by \$1,765,000 compared to the test year. According to Hydro, this is due to an increase in RSP interest due to the normal operation of the RSP and a delay in the reimbursement of the RSP Utility Surplus.

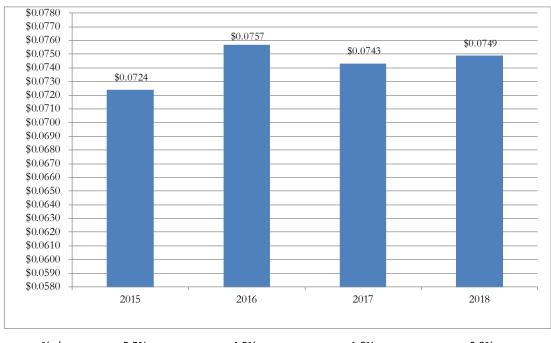
The following analysis of the Revenue Requirement sections is based on the original filed revenue requirement of \$574,070,000 as compared to prior years.

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 2015 to 2018:

	kWh sold and				Pu	rchased	Other	In	terest &	Re	gulated	1	Γotal Cost	C	Cost per
Year	used	Depreciati	n	Fuel]	Power	Costs	Ac	ccretion	E	arnings	١,	of Energy		kWh
2015	7,649,000	\$ 63,2	22	\$ 220,359	\$	60,667	\$ 114,901	\$	95,353	\$	(656)	4	\$ 553,846	\$	0.0724
2016	7,444,000	\$ 67,4	36	\$ 210,950	\$	60,117	\$ 100,310	\$	96,366	\$	28,231	5	\$ 563,410	\$	0.0757
2017	7,626,000	\$ 77,3	56	\$ 184,772	\$	61,717	\$ 137,260	\$	73,676	\$	32,037	5	\$ 566,818	\$	0.0743
2018	7,665,000	\$ 86,2	90	\$ 166,406	\$	71,181	\$ 134,670	\$	90,680	\$	24,843	9	\$ 574,070	\$	0.0749

Cost of Energy per kWh



Year over year % change:

5.5%

4.5%

-1.8%

0.8%

9 10 11

12

13 14

15

As highlighted in the graph above, the cost per kWh increased in 2018. In 2018 the cost of energy sold on the basis of the number of kWhs sold was \$0.0749 per kWh which represented a 0.8% increase over 2017.

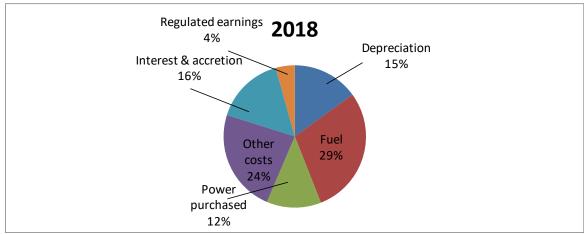
The following table and charts provide a further breakdown of the expense per kWh by expense category for the years 2017 and 2018:

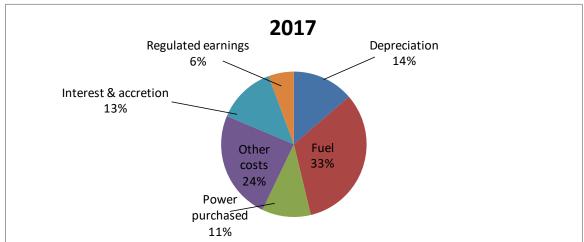


kWh sold and used

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

	2018		2017						
	7,665,000		7,626,000						
Cost	Cost per kWh	% of Total		Cost	Cost per kWh	% of Total			
\$ 86,290	0.0113	15.03%	\$	77,356	0.0101	13.65%			
166,406	0.0217	28.99%		184,772	0.0242	32.60%			
71,181	0.0093	12.40%		61,717	0.0081	10.89%			
134,670	0.0176	23.46%		137,260	0.0180	24.22%			
90,680	0.0118	15.80%		73,676	0.0097	13.00%			
24,843	0.0032	4.33%		32,037	0.0042	5.65%			
\$ 574,070	0.0749	100.00%	\$	566,818	0.0743	100.00%			





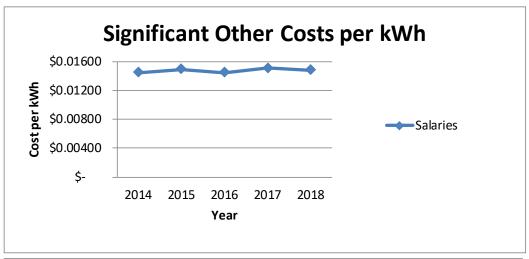
Explanations for the significant fluctuations within each of these cost categories are discussed further in this report.

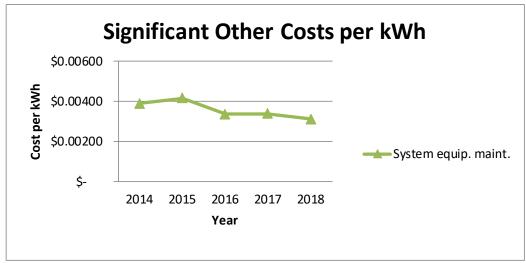
An analysis of the most significant accounts within "other costs" for the years 2014 to 2018 has been provided below in the following graphs:

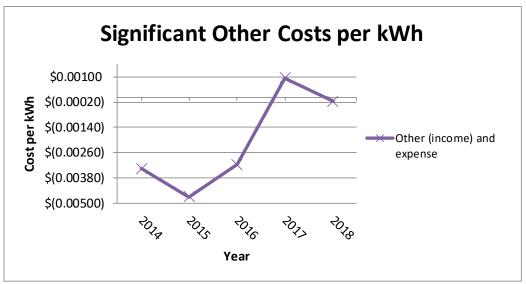
1

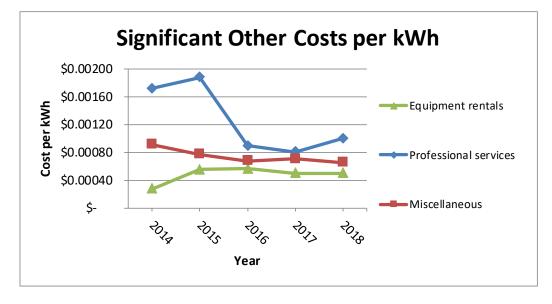
2 3











In the first graph, cost of salaries and fringe benefits per kWh have decreased 2.2% in 2018. The second graph shows the cost per kWh for system equipment maintenance has decreased by approximately 7.6%. The third graph shows other (income) and expenses per kWh has decreased by 118.1%. The fourth graph shows professional services costs per kWh has increased by 24.7%, miscellaneous expense per KWh decreased by 7.0% and equipment rentals per KWh increased by 0.6%.

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

1

3

5

7

9 10

11 12

13 14

15

Fuel expense in 2018 totaled \$166.4 million compared to \$184.8 million in 2017. The decrease in fuel expense from 2017 levels was approximately \$18.4 million, or 9.9%. The breakdown of costs within the fuel category is noted below for the years 2015 to 2018:

(000)'s	2018	2017	2016	2015	Var 18-17
No.6 Fuel	\$149,745	\$190,499	\$123,601	\$162,872	(\$40,754)
Fuel Additives	368	10	(13)	(1)	358
Fuel Costs Indirect	144	168	188	141	(24)
Environmental Handling Fee	47	31	32	53	16
Ignition Fuel	342	300	215	281	42
Gas Turbine Fuel	3,578	2,454	5,876	4,034	1,124
Diesel Fuel Rural	17,368	14,310	14,267	16,406	3,058
Rate Stabilization Plan (RSP)	2,424	(18,900)	41,961	25,166	21,324
Fuel Supply Deferral	-	-	1,500	-	-
Holyrood Conversion	(5,694)	(3,331)	-	-	(2,363)
Energy Supply Deferral	(19,069)	(18,836)	-	-	(233)
Isolated Systems Deferral	(541)	882	-	-	(1,423)
Holyrood CT	17,694	17,185	23,323	11,407	509
- -	\$166,406	\$184,772	\$210,950	\$220,359	(\$18,366)

No. 6 Fuel

16 17 18

In 2018, the total cost of No. 6 Fuel, which is the largest component of fuel expense, decreased by \$40.7 million from 2017. According to Hydro, this decrease is primarily due to a change in volume of No. 6 fuel in 2018 compared to 2017 which decreased by 964,000 barrels of oil resulting in a decrease in No. 6 fuel expense of \$66.4 million. This



variance is partially offset by a change in price of No. 6 fuel from \$82.79 per barrel in 2018 versus \$68.60 in 2017, an increase of \$14.19 per barrel which offsets \$25.7 million of the variance.

Diesel Fuel Rural

The Diesel Fuel Rural expense increased in 2018 by \$3.1 million from 2017. According to Hydro, this is due to a change in price of diesel, \$1.08 per litre in 2018 versus \$0.94 in 2017, an increase of \$0.14 per litre which accounts for \$2.4 million of the variance. In addition, \$0.7 million of the variance is due to increased volume of 752,874 litres year over year.

Holyrood Conversion, Energy Supply and Isolated Systems Deferrals

Pursuant to Order No. P.U. 22 (2017) the Board approved the Holyrood Conversion, Energy Supply and Isolated Systems deferral accounts. The recovery of the deferrals was subject to a future Board Order. In 2018, Hydro recorded a credit balance of \$25.3 million in these deferrals compared to \$21.3 million in 2017 after allowances. According to Hydro, the allowances taken on balances up to 2017 was 20%, with the rate updated in 2018 to 5%. These deferral accounts are investigated further in the "Deferred Charges" section of this report.

Rate Stabilization Plan ("RSP") (the "Plan")

Including RSP adjustments, the cost of No. 6 fuel for 2018 was \$152.2 million compared to \$171.6 million in 2017.

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

(000)'s	2018	2017	Variance 18-17
Hydraulic Variation Load Variation	\$35,417 (367)	(\$11,331) 2,874	\$46,748 (3,241)
Fuel	(32,687)	(10,589)	(22,098)
Labrador Interconnected	61	145	(84)
	\$2,424	(\$18,901)	\$21,325

The hydraulic production in 2018 contributed positively to the RSP in the amount of \$35.4 million, this positive contribution is \$46.7 million greater than the prior year negative contribution of \$11.3 million:

Hydraulic Variation		2018	2017		Varianœ
Average COS Fuel (\$)		\$ 64.41	\$ 64.41	\$	-
Actual Hydraulic Production (000)'s COS Hydraulic Production (000)'s		4,944,211 4,603,568	4,507,335 4,603,568		
Annual hydraulic production variance (000's)	_	340,643	(96,233))	436,876
Hydraulic variation (000)'s 1 2	_	\$ 35,417	\$ (11,331)) \$	46,748
		(000)'s Production	Average Price		(000)'s Varianœ
Fuel Price Increase	-	340,643	\$ -	\$	- variance
Hydraulic Production Variance Increase		436,876	\$ 64.41	\$	45,533
Annualized calculated variance (000)'s	3			\$	45,533

Notes:

8 9 10

11 12

13

14

- 1 Holyrood conversion factor in COS is 618 kWh/bbl.
- 2 This number has been calculated on a monthly basis
- 3 Calculation is done on an annualized basis for comparision purposes and will lead to slight differences from a monthly basis.

An increase in hydraulic production of 341 GWh in 2018 above the COS has led to a total gain to the plan of \$35.4 million.

Load Variation

The load variation for 2018 contributed negatively to the Plan in the amount of \$0.4 million. The load variation is primarily the result of the load requirements for the utility customer being 85.0 GWh lower than the COS load requirement.

The fuel variation is calculated using the actual cost per barrel of No. 6 fuel relative to the cost of service (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		2018		2017	V	ariance
Actual barrels adjusted for non-firm sales						
(000)'s		1,813		2,777		(964)
Average Actual Fuel		82.79		68.60		
Average COS Fuel		64.41		64.41		
Annual fuel price variance	\$	(18.38)	\$	(4.19)	\$	(14.19)
Fuel Variation (000)'s 1	\$	(32,687)	\$	(10,589)	\$	(22,098)
	D.	(000)'s	A	erage Price	χ.	(000)'s
Fuel Price Variance	FI	1,813	Ave	(14.19)		(25,726)
Volume Variance		(964)		(4.19)		4,039
Annualized calculated variance ²		(704)		(4.17)		(21,687)

¹ This number has been calculated on a monthly basis.

14 15

4 5

The table above shows that the actual average fuel price for No. 6 fuel in 2018 was \$18.38 per barrel more than the average COS fuel price. The actual barrels consumed during 2018 decreased by approximately 964,000 barrels in comparison to the actual barrels consumed in 2017. This increase in fuel prices and decrease in number of barrels consumed resulted in a negative fuel variation of approximately \$32.7 million to the Plan in 2018 compared to a \$10.6 million negative variation in 2017. The change in the fuel price variation offset by the change in fuel consumption led to a decrease in the RSP fuel component of \$21.7 million (calculated on a monthly basis) for 2018 compared to 2017. As shown above, the increase in actual fuel costs, relative to the COS, led to a negative fuel price variance of approximately \$25.7 million compared to 2017. This negative fuel price variance was partially offset by a positive volume variance of approximately \$4.0 million, for a combined variance of \$21.7 million (there is a slight difference when the calculation is done on an annualized basis in comparison to a monthly basis).

² Calculation is done on an annualized basis for comparison purposes and will lead to slight differences from a monthly basis.

Power purchased

The breakdown of power purchased by account is as follows:

(000)'s	2018	2017	2016	2015	Var 18-17
Energy Costs - NUGS	\$56,363	\$53,274	\$52,514	\$53,205	\$3,089
Demand & energy - CF(L)Co	1,468	1,383	1,528	1,676	85
L'Anse au Loup	3,328	2,624	2,367	2,679	704
Island wheeling	772	710	702	693	62
Transmission rental	357	-	-	-	357
Power purchase cost variance acount	517	-	-	-	517
Secondary energy	472	481	231	174	(9)
Capacity Expansion	-	-	-	19	-
Ramea Wind	113	144	129	156	(31)
Ramea Hydrogen	(5)	(2)	8	9	(3)
Interruptible: Curtailable	3,658	3,103	2,638	2,056	555
Maritime Link	4,138	-	-	-	4,138
	\$71,181	\$61,717	\$60,117	\$60,667	\$9,464

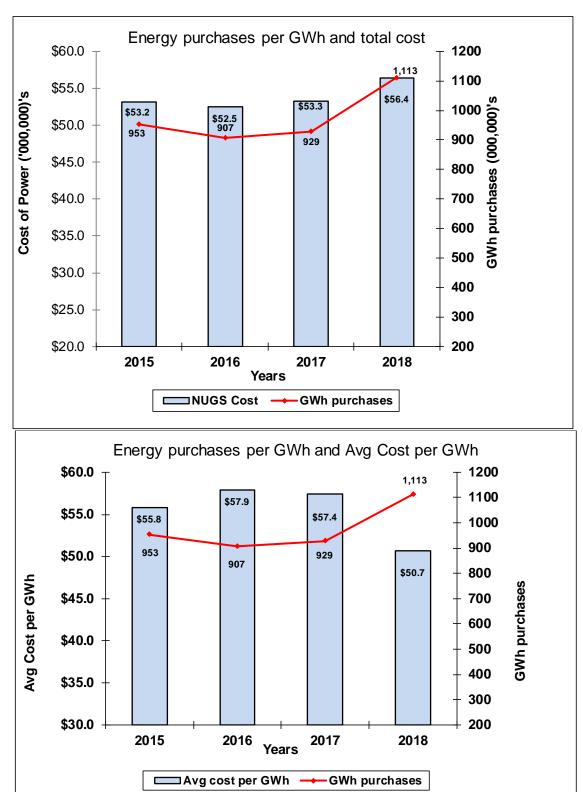
Energy purchases from Non-Utility Generators ("NUGs) "represent the most significant component of purchased power. This category increased by \$3,089,000, in 2018 compared to 2017. According to Hydro, this increase reflects higher deliveries from Nalcor Exploits Grand Falls and Bishops Falls facilities, higher wind generation from both the Fermeuse and St. Lawrence wind generation facilities, and a new power purchase contract with New World Dairies which came into service in 2018. This is partially offset by lower deliveries under the Corner Brook Pulp and Paper Co-Generation Agreement.

L'Anse au Loup power purchases increased by \$704,000 over 2017. The pricing is based on wholesale furnace oil prices in Quebec (Montreal Rack). According to Hydro, the increase is primarily related to higher wholesale furnace oil prices in 2018 over 2017.

The Interruptible: Curtailable account increased by \$555,000 over 2017, which according to Hydro, is primarily due to increased availability of capacity assistance from Corner Brook Pulp and Paper, pursuant to the Amended and Restated Capacity Assistance Agreement. This increase is partially offset by less usage under the Vale Capacity assistance agreements and the non-renewal of the Praxair curtailable contract for the 2018-2019 winter operating season.

There was also a power purchase cost of \$4,138,000 in 2018 related to Maritime Link. According to Hydro, in 2018 Hydro purchased energy over the Maritime Link to offset higher cost thermal generation on the Island Interconnected System.

The following graphs depict the changes in energy purchases 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 2015 to 2018:



As shown in these charts, in 2018 the average cost per GWh purchased from NUGS was \$50,700 per GWh which is an 11.7% decrease from the 2017 average cost per GWh of \$57,400.

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

Salaries and fringe benefits

Analysis of Gross Payroll Costs

Gross payroll costs for 2018 were \$113,180,000, a decrease of \$1,913,000, or 1.7%, in comparison to 2017. The decrease in 2018 over 2017 was primarily due to a decrease in overtime, with fluctuations in various other components of gross payroll.

These fluctuations are outlined in the table below which summarizes salaries and fringe benefits costs incurred from 2015 to 2018:

(000)'s	2018	2017	2016	2015	Var 18-17
Salaries	\$ 74,841	\$ 73,562	\$ 68,926	\$ 69,419	\$ 1,279
Other salary costs	3,132	2,305	1,004	1,722	827
Intercompany salaries	(8)	266	(105)	2,249	(274)
	77,965	76,133	69,825	73,390	1,832
Allowances	2,319	2,480	2,294	2,266	(161)
Directors fees	38	11	16	30	27
Overtime	11,824	15,806	14,919	17,823	(3,982)
Employee future benefits	6,837	6,282	6,946	6,619	555
Fringe benefits	11,547	11,440	11,122	11,513	107
Group insurance	2,486	2,769	2,377	2,347	(283)
Labrador travel benefit	164	172	175	165	(8)
	\$ 113,180	\$ 115,093	\$ 107,674	\$ 114,153	\$ (1,913)

 The increase of \$827,000, or 35.9%, in other salary costs over 2017 is driven by a number of contributing factors according to Hydro including a \$610,000 corporate year end adjustment, a \$122,200 salary continuance accrual and a \$347,946 increase for retention bonus. According to Hydro, the corporate year end adjustment includes accruals for severance, the salary continuance accrual incurred for employment termination in October 2018 and the increase in retention bonus relates to payments to Thermal Generation employees. This increase is offset by reductions in performance contract accrual and lump sum pay.

Intercompany salaries decreased by 274,000, or 103%, in 2018 compared to 2017. According to Hydro, this is primarily as a result of the continuation of the reorganization of Hydro.

Director's fees increased by \$27,000, or 245.5%, in 2018 compared to 2017. According to Hydro, in 2018, Hydro's board was increased to its normal complement. This led to an increase in Director's fees, travel and meeting costs.

Overtime decreased by \$3,982,000, or 25.2%, in 2018 compared to 2017. In 2018 \$2,976,000 less was charged to capital projects compared to 2017.

 Employee future benefits increased by \$555,000, or 8.8%, over 2017. According to Hydro, this is primarily as a result of the decrease in discount rate of 0.35%, updated health care inflation assumption, and plan demographics, which was partially offset due to claims experience and a reduction in the participation rate assumption.

6

7 8

10 11

12

13

14

15 16

17 18

19

20

21

22 23

24

25

26



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

(000)'s	2018	2017	2016	2015	Va	r 18-17
Executive Leadership	\$ 1,859	\$ 1,701	\$ 992	\$ 757	\$	158
Hydro Finance	5,558	5,419	4,389	4,407		139
Engineering	12,915	11,998	8,800	12,280		917
Transmission Operations	28,068	28,231	28,821	29,480		(163)
Production Operations	19,034	18,794	18,167	16,750		240
Regulatory Affairs & Customer Service	8,352	8,430	8,883	8,535		(78)
Recharged salaries	(945)	(1,011)	(1,126)	(2,790)		66
	\$ 74,841	\$ 73,562	\$ 68,926	\$ 69,419	\$	1,279

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

The Engineering divisional salaries increased in 2018 by \$917,000. The majority of the salary difference is attributed to an increase in FTEs, with approximately \$70,000 related to salary adjustments.

The below matrix illustrates a scale for salary increases and bonuses based on performance ranging from 0-6.5% (exclusive of a general scale adjustment). 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	2018	2017					
Exceptional	6.5% (with cash payout of	6.5% (with cash payout of					
	balance)	balance)					
Exceeds Expectations	5.5% (with cash payout of	5.5% (with cash payout of					
	balance)	balance)					
Meets Expectations	Up to 4% (to the scale	Up to 4% (to the scale					
	maximum)	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 job rate. Those in the Exceeds Expectations and Exceptional categories whose performance adjustment would exceed the revised job rate receive the balance in the form of a one-time cash bonus of 2.5% or 5%, respectively, of their base salary.

The Company had implemented a revised salary compensation matrix for non-union employees in 2016 and according to Hydro, the Non-Union Compensation Program underwent changes in 2018 resulting in minor changes to the matrix. Under the new program, the scale maximum is 110% of salary. Also, the recognition of employees rated "exceeds expectations" or "exceptional" will change in 2019 as the lump sum re-earnable payment will be discontinued in the 2019 Salary Administration Matrix and will be replaced with progression beyond 100% of the scale based on consecutive high performance in 2018 and 2019 performance years.

Net Full-Time Equivalents ("FTE")

The table below is a detailed comparison of the average number of net FTE employees by division for 2015 to 2018. As shown, in comparison to 2017 the total net FTEs for 2018 increased by 13 full time positions.

	2018	2017	2016	2015	Var 18-17
Executive Leadership	10	9	6	7	1
Hydro Finance	66	65	48	48	1
Engineering	119	106	93	139	13
Transmission Operations	319	321	337	352	(2)
Production Operations	212	210	213	202	2
Regulatory Affairs & Customer Service	102	104	112	113	(2)
	828	815	809	861	13

Average salary costs per net FTE for 2015 to 2018 are included in the following table:

(000's)	2018	2017	2016	2015
Salary costs (including temporary salaries)	\$ 74,841	\$ 73,562	\$ 68,926	\$ 69,419
Intercompany Salaries	(8)	266	(105)	2,249
Total Salary Costs	74,833	73,828	68,821	71,668
Net FTE*	828	815	809	861
Average salary per net FTE % increase (decrease)	\$ 90,345	\$ 90 , 587	\$ 85,069 2.2%	\$ 83,238 2.5%

^{*}FTEs presented are net of capital recharge FTEs

The above analysis indicates that the Company experienced a 0.3% decrease in average salary per net FTE for 2018, compared to increases from 2015-2017. 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. In the current year there were no recharge executive salaries from Nalcor to Hydro.

The table below outlines the executive salaries by position, including the annual salary, salary earned, performance contract, gross salary and benefits for 2018.



	Annual Salary	Salary Earned	Performance Contract	Gross Salary	Benefits	Total
President	320,000	314,231	41,850	356,081	57,786	413,867
VP, Regulatory Affairs & Corporate Services	215,000	212,692	32,495	245,187	44,554	289,741
VP, Financial Services	215,000	212,692	31,813	244,505	45,353	289,858
VP, Engineering Services	210,000	207,115	27,096	234,211	44,639	278,850
VP, Production Operations	200,000	195,673	24,160	219,833	43,174	263,007
VP, Transmission & Distribution & NLOS	200,000	195,673	18,765	214,438	30,186	244,624
Corporate Secretary & General Counsel	185,000	181,250	23,813	205,063	41,326	246,389
Total	\$1,545,000	\$1,519,326	\$ 199,992	\$ 1,719,318	\$ 307,018	\$ 2,026,336

10

11

12 13

14

Capitalized salaries

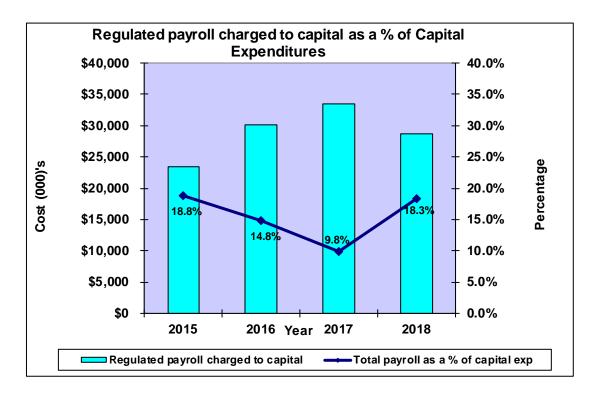
Capitalized salaries include the salaries and benefits of the Company's employees whose time is charged directly to capital projects. The gross payroll costs for 2015 to 2018 were allocated to operations and capital as follows:

(000)'s	2018	2017	2016	2015	Var 18-17
Payroll charged to operating	\$84,465	\$81,582	\$77,547	\$90,705	\$2,883
Payroll charged to capital	28,715	33,511	30,127	23,448	(4,796)
	\$113,180	\$115,093	\$107,674	\$114,153	(\$1,913)

The Company's 2018 capitalized payroll decreased by \$4,796,000, or 14%, over 2017. The amount of capitalized salaries can vary widely from year to year depending on the type of capitalized projects and the requirement for manpower 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 2015 to 2018:

(000)'s	2018	2017	2016	2015
Capital expenditures ¹	\$157,000	\$341,000	\$204,000	\$125,000
Regulated payroll charged to capital	28,715	33,511	30,127	23,448
Total payroll as a % of capital exp	18.3%	9.8%	14.8%	18.8%



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	2018	2017	2016	2015	Var 18-17
Capital salaries Capital overtime	\$22,857 5,858	\$24,677 8,834	\$21,371 8,756	\$16,214 7,234	(\$1,820) (2,976)
	\$28,715	\$33,511	\$30,127	\$23,448	(\$4,796)

Capital salaries, which make up the largest portion of this category, experienced a decrease of \$1,820,000, or 7.4%, in 2018 and capital overtime experienced a decrease of \$2,976,000, or 33.7%, over 2017.

The \$4.8 million decrease was mainly related to a decrease in capital requirements, including TL 267 and integration work with Emera, along with a reduction in the Wood Pole Line Management overtime requirements. There was also focus on attendance management, and a more stabilized workforce in 2018, and thus fewer requirements for overtime to complete the work plan.

System equipment maintenance

In 2018, system equipment maintenance costs decreased by approximately \$1,845,000 over 2017. The following table summarizes system equipment maintenance costs incurred from 2015 to 2018 by sub-category.

(000)'s	2018	2017	2016	2015	Var 18-17
Maintenance	\$ 9,396	\$ 10,510	\$ 9,713	\$ 12,712	\$ (1,114)
Contract Labour	12,831	13,152	13,117	16,421	(321)
Contract Materials	12	59	356	339	(47)
	22,239	23,721	23,186	29,472	(1,482)
					-
Tools and operating supplies	438	493	336	602	(55)
Freight expense	347	501	416	708	(154)
Lubricant, gases & chemicals	883	1,077	1,110	1,146	(194)
Direct purchases	40			<u> </u>	40
	\$ 23,947	\$ 25,792	\$ 25,048	\$ 31,928	\$ (1,845)

The total maintenance material, contract labour and contract materials costs in 2018 decreased by \$1,482,000 from 2017.

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 2015 to 2018:

(000)'s	2018		2017	2016	2015	_	Var 18-17
Executive Leadership	\$ 3	\$	3	\$ 2	\$ -		\$ -
Hydro Finance	1,209		1,221	986	1,107		(12)
Engineering	728		787	581	1,026		(59)
Transmission Operations	9,318		9,895	10,510	12,830		(577)
Production Operations	10,854		11,659	10,975	14,215		(805)
Regulatory Affairs & Customer Service	 127	-	156	 132	 294	-	(29)
	\$ 22,239	\$	23,721	\$ 23,186	\$ 29,472	_	\$ (1,482)

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

<u>Transmission Operations</u> (000)'s	2018	2017	2016	2015	Var 18-17
System Operation	\$ 9	\$ 29	\$ 3	\$ 15	\$ (20)
Generation & Rural Planning Operation	11	2	-	1	9
Western & Eastern Operation	1,426	1,695	1,666	2,490	(269)
Northern & Labrador Operation	7,872	8,169	8,841	10,324	(297)
	\$ 9,318	\$ 9,895	\$10,510	\$12,830	\$ (577)
Production Operations (000)'s	2018	2017	2016	2015	Var 18-17
Gas Turbines	\$ 1,337	\$ 2,755	\$ 2,540	\$ 1,530	\$ (1,418)
Hydro Production	1,422	1,256	1,534	1,424	166
Thermal Production	8,095	7,648	6,901	11,261	447
	\$ 10,854	\$ 11,659	\$10,975	\$14,215	\$ (805)

According to Hydro, Western & Eastern Operations department decreased by \$269,000 primarily due to the fact that during 2017 Hydro incurred increased expenses related to transformer lead repair work as well as the decommissioning work at the Long Harbour Terminal Station. This was partially offset by increased transformer protective device maintenance materials in 2018.

According to Hydro, Northern & Labrador Operations department decreased by \$297,000 primarily due to the fact that during 2017 Hydro incurred increased expenses related to the additional capacity work at Happy Valley, installation of equipment and tie in. This was partially offset by the William's Harbour asset relocation expense in 2018.

With regards to the Production Operations division, the largest decrease was in the Gas Turbines, which decreased by \$1,418,000 over 2017. According to Hydro, the decrease is primarily due to a change in service contracts related to the Holyrood gas turbine. Approximately \$1.1 million of the decrease is due to service contract changes in relation to providing technical support for the Holyrood Gas Turbine during 2017. The new contract was in place for all of 2018 which resulted in the reduction in costs during the period. The remaining variance is due to repairs required to two units at Hardwoods in 2017 due to in-service failures.

Thermal Production department increased by \$447,000 in 2018 over 2017. According to Hydro, this is because Thermal Production included the following projects for 2018: Unit 1: Boiler Stop Valve Repairs; Unit 3: Water Wall Tube failure repairs; Units 1 and 2: Economizer Chemical Clean.

3

12

13

14

15

16 17 18

19

20

21

22

23 24

25

26

27

28

29

30 31

32

33

34 35 36

37

38 39

40

41 42 In 2018, 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, however Hydro indicated that the tracking of work plans could not be relied upon during 2018. According to Hydro, prior to the JD Edwards upgrade, the work plans were tracked using business unit subsidiaries. Under the JD Edwards E1 upgrade, the subsidiary functionality has been eliminated but the work plans can be tracked in the new system using work orders. However, work orders were not used to track the work plans consistently throughout the period. As a result, the work plans cannot be relied upon as accurate information. Hydro is evaluating the work plan approach in 2020 and considering both system or process improvements.

Professional services

Professional services costs for 2018 totaled \$7,700,000 which reflects an increase of approximately \$1,558,000, or 25.4%, from 2017. A breakdown of the cost categories within professional services for 2015 to 2018 is outlined below.

(000)'s	2018	2017	2016	2015	Var 18-17
Consultants	\$4,240	\$5,141	\$4,232	\$7,192	(\$901)
PUB Related Costs	2,130	110	2,371	5,587	2,020
Software Acquisitions & Maintenance	1,330	891	59	1,628	439
	\$7,700	\$6,142	\$6,662	\$14,407	\$1,558

According to Hydro, of the \$2,020,000 increase in PUB Related Costs, there are several contributing factors. In 2017, there were \$1,700,000 accrual reversals relating to GRA and Phase I expenses, \$300,000 accrual reversal as a result of overestimation of Board costs paid on behalf of Hydro and \$300,000 reduction in GRA amortization costs. There is an increase in external GRA costs of \$200,000 relating to the 2017 GRA. In 2018, Hydro recorded GRA costs of \$700,000 in comparison to \$500,000 in 2017.

According to Hydro, the increase of \$439,000 in Software Acquisitions and Maintenance costs was primarily as a result of the addition of new maintenance contracts and support for Hydro's business operations, including \$134,000 for Newfoundland Labrador System Operator ("NLSO") and \$128,000 for Hydro SCADA system. In 2017, the increase was primarily due to a reorganization where Hydro specific software acquisition and maintenance costs were being incurred by the Information and Operational Technology Department within Hydro, instead of within Nalcor in 2016.

Consultants' fees, which represent the largest portion of total professional fees, were approximately \$4.2 million in 2018. The table below summarizes these fees by department.

(000)'s	2018	2017	2016	2015	Var 18-17
Executive Leadership	\$75	\$493	\$86	\$352	(\$418)
Hydro Finance	72	44	22	110	28
Engineering	149	63	42	399	86
Transmission Operations	192	507	399	778	(315)
Production Operations	951	1,321	1,008	1,056	(370)
Regulatory Affairs & Customer Service	2,801	2,713	2,675	4,497	88
	\$4,240	\$5,141	\$4,232	\$7,192	(\$901)

According to Hydro, the decrease of \$418,000 in the Executive Leadership department over 2017 is primarily attributed to reduction in legal costs.

Transmission Operations and Production Operations also decreased in 2018, by \$315,000 and \$370,000, respectively. According to Hydro, the Transmission Operations decrease in 2018 is primarily related to the fact that 2017 incurred increased consultant expense in the decommissioning of the Terminal Station in Long Harbour, as well as consultant support in the McCallum Environmental spill response.

The decrease in the Production Operations division is mainly due to variances within the Hydro Generation and Gas Turbine areas. Hydro's generation consulting fees were \$125,000 lower in 2018 compared to 2017, which is due to a leak in 2017 which resulted in the requirement for emergency consulting work. Hydro also completed Level 1 condition assessment in 2017 which was expensed, while in 2018 Hydro completed Level 2 condition assessments which were appropriately capitalized. Gas Turbine consulting fees were also \$220,000 lower in 2018 compared to 2017, and this is due to generator inspections and balancing of the Holyrood Gas Turbine completed in 2017, which were not required in 2018.

Miscellaneous

Miscellaneous expense in 2018 decreased by approximately \$352,000, from 2017. A breakdown of the cost categories within miscellaneous expense for 2015 to 2018 is outlined below:

(000)'s		2018		2017		2016		2015	Var 18-17	
Business and payroll taxes	\$	3,687	\$	3,641	\$	3,835	\$	3,736	\$	46
Bad debt expense		106		73		124		248		33
Staff training		659		646		390		783		13
Write offs		110		333		87		269		(223)
Employee expenses		171		272		354		568		(101)
Sundry costs		103		211		94		290		(108)
Diesel fuel Hydro		53		90		2		46		(37)
Energy management		130		95		170		(44)		35
Collection fees	-	2		12		3		5		(10)
	\$	5,021	\$	5,373	\$	5,059	\$	5,901	\$	(352)

14 15 16

Hydro provided the following explanations on variances:

17 18 19

20

- the \$223,000 decrease in write offs is due to variations in write-offs for obsolete inventory.
- the \$101,000 decrease in employee expenses is due to lower relocation costs incurred.
- the \$108,000 decrease in sundry costs is due to a fine received in 2017 relating to a workplace accident in Holyrood.

Other (income) and expenses

In 2018, other (income) and expenses totaled \$14,215,000 compared to \$9,036,000 in 2017. A breakdown of this increase of \$5,182,000 is provided below:

(000)'s	2018	2017	2016	2015	Var 18-17
Net book value of disposed assets	\$10,942	\$7,655	\$6,993	\$4,073	\$3,287
Asset removal costs	883	254	271	763	\$629
Disposal proceeds	(457)	(199)	(196)	(766)	(258)
Auction fees and expenses		(13)	15	48	13
	11,368	7,697	7,083	4,118	3,671
Other Expenses	-	-	(1,000)	3,950	
(Gain)/Loss on AFS Settlement	-	(459)	23	(23)	459
Foreign Exchange (Gain)/Loss	2,850	1,798	2,605	1,717	1,052
Adjustment Sunnyside		-	(425)		
	\$14,218	\$9,036	\$8,286	\$9,762	\$5,182

In 2018, the net book value of disposed assets balance experienced a net increase of \$3,287,000. The net book value of disposed assets balance includes two main accounts; other write-offs and net book value of disposed assets. According to Hydro, this net increase was primarily due to a \$6,002,000 increase in the net book value of disposed assets account, mainly attributed to a \$5,000,000 disposal in 2018 relating to the sale of the frequency converter to Corner Brook Pulp and Paper and \$1,500,000 relating to the Holyrood Gas Turbine Combustor. This increase was offset by a \$2,700,000 decrease in other write-offs, driven by a \$3,400,000 write off incurred in 2017 on a settlement reached with Alderon Iron Ore Corporation.

Asset removal costs increased over 2017 by \$629,000. According to Hydro, this is primarily as a result of approximately \$552,300 incurred relating to the disposal of diesel generation and distribution facilities at Williams Harbour.

According to Hydro, the foreign exchange (gain)/loss increased by \$1,052,000 primarily due to net loss of \$700,000 in 2018 in comparison to a net gain of \$300,000 in 2017 primarily due to unfavorable exchange rates in 2018 on the date the transaction is paid in comparison to the date the transaction was initially recorded.

Other Costs - cost deferrals

In 2018, cost deferrals totaled \$18,528,000 compared to \$5,712,000 in 2017. A breakdown of this increase of \$12,816,000 compared to 2017 is provided below:

(000)'s	2018	2017	2016	2015	Var 18-17
2014 Cost Deferral	-	1,043	8,000	7,300	(1,043)
2015 Cost Deferral	-	(3,119)	1,608	(27,800)	3,119
2016 Cost Deferral	-	(3,636)	(32,440)	-	3,636
2018 Cost Deferral	(18,528)				(18,528)
	(\$18,528)	(\$5,712)	(\$22,832)	(\$20,500)	(\$12,816)

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 in 2018.

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 in 2018.

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 in 2018.

The 2018 Cost Deferral of \$18,528,000 was approved by Order No. P.U. 48 (2018), as it related to the differential in the 2018 depreciation, loss on retirement and removal costs associated with the proposed change in depreciation methodology.

Other Costs - GRA and supply deferral adjustments

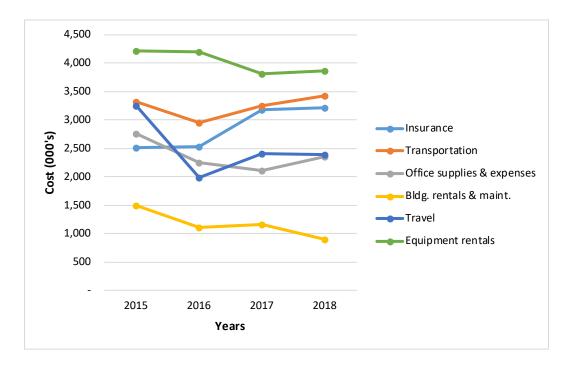
As discussed above, an overall gain of \$5.7 million was recorded for financial reporting purposes in 2017 relating to the 2014, 2015 and 2016 Cost Deferrals. The GRA adjustment relates to the reversal of this gain in order to record the costs in the appropriate period. The GRA adjustment was partially offset by a 20% allowance of \$1.8 million on the Energy Supply, Isolated Systems and Holyrood Conversion deferrals. The allowance recorded in 2017 includes \$4.6 million relating to the 2017 deferral balances, partially offset by a \$2.8 million true up adjustment for 2016.

According to Hydro, the "GRA and Supply Deferral Adjustments" at \$3 million was the forecast compliance adjustment for 2018.

Other Costs - remaining account groupings

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

(000)'s	2018	2017	2016	2015	Var 18-17
Insurance	3,221	3,175	2,530	2,508	46
Transportation	3,422	3,251	2,943	3,317	171
Office supplies & expe	2,351	2,118	2,249	2,762	233
Bldg. rentals & maint.	905	1,164	1,109	1,497	(259)
Travel	2,392	2,412	1,984	3,250	(20)
Equipment rentals	3,859	3,817	4,197	4,218	42



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

- According to Hydro, the increase of \$171,000 in transportation costs is primarily due to the fact that
 aircraft costs increased in 2018 as certain areas accessible by land in 2017 were only accessible by air
 in 2018. Burnt Dam and Granite Canal areas were accessible in 2017 by a road being maintained by
 Emera for construction work.
- According to Hydro, the increase of \$233,000 in office supplies is primarily due to higher 'Centre for Energy Advancement through Technological Innovation' (CEATI) membership fees in Engineering Services of \$0.1 million and higher heat and light costs of \$0.1 million due to the receipt of the RSP refund in 2017.
- According to Hydro, the decrease of \$259,000 in building rentals is primarily due to the lower safety supplies costs.

15

16 17

Cost Recovery Charges

Cost recovery charges from CF(L) Co. and external sources for 2018 have decreased from 2017 by approximately \$2,763,000, or 109.2%. The breakdown of cost recovery charges by nature and by division, respectively, is as follows:

(000)'s	2018	2017	2016	2015	Var 18-17
Churchill Falls	\$ (40)	\$ (47)	\$ (587)	\$ (1,701)	\$ 7
External	(631)	(1,625)	(923)	(766)	994
Intercompany Admin Fee	(2,005)	(2,164)	(2,648)	(4,812)	159
Nalcor Admin Fee	3,791	3,415	3,350	-	376
Business System Admin Fee	1,354	339	253	-	1,015
CDM Program Cost Deferral	(1,530)	(1,473)	(1,153)	-	(57)
Deferred Phase II	(55)	(264)	(869)	-	209
Fixed Charge (Recovery)	(624)	(684)	(749)	(581)	60
Intercompany Vehicle Charge (Recovery)	(27)	(27)	(43)	(46)	
	\$ 233	\$ (2,530)	\$ (3,369)	\$ (7,906)	\$ 2,763
(000)'s	2018	2017	2016	2015	Var 18-17
Hydro Finance	\$ (2,365)	\$ (2,147)	\$ (2,206)	\$ (1,420)	\$ (218)
Engineering	-	1,615	2,513	(3,947)	(1,615)
Transmission Operations	(210)	(734)	(239)	(232)	524
Production Operations	(1)	(25)	(16)	(4)	24
Regulatory Affairs & Customer Service	(574)	(1,239)	(3,421)	(2,303)	665
Business Systems Fee	1,354	-	-	-	1,354
Information & Operations Technology	2,029		-		2,029
	\$ 233	\$ (2,530)	\$ (3,369)	\$ (7,906)	\$ 2,763

According to Hydro, the increase of \$1,015,000 in the Business System Admin Fee is primarily due to higher depreciation and recovery of eligible operating costs, as a result of the new "JD Edwards EnterpriseOne Release 1.1" along with several components related to budgeting and forecasting, the implementation of Utility, the support required following the new system entering into service and the increase in users in 2018.

The decrease of \$1,615,000 over 2017 in the Engineering and increase of \$2,029,000 in Information & Operations Technology (IOT) are due to the presentation changes to cost recoveries, where IOT is now is reclassified from the Engineering to a separate line item. The net actual increase in IOT is \$414,000 and this is due to increased software costs included in the Nalcor Admin fee as well as lower recovery costs within the Hydro admin fee pertaining to Telephone & Local Area Network costs.

The increase of \$524,000 over 2017 in the Transmission Operations relates to a third-party recovery of costs incurred for the removal of a terminal station. The increase of \$665,000 over 2017 in the Regulatory Affairs and Customer Service division is due primarily to the recovery of administrative costs associated with the issuance of the RSP refunds to customers which accounted for \$0.4 million of the variance. According to Hydro, these two variances explain the \$994,000 increase in 2018 external recoveries as well.

The variance in Business Systems Fee shown in the second table above, with \$1,354,000, is also due to the presentation changes, where Hydro reclassified this as a separate line from Hydro Finance.

A comparison between actual 2018 cost recovery expenses to restated and test year balances, is illustrated in the table below:

(000)'s	2018 Actual				2018 Test Year		'18A - '18R		'18F	R - '18T
Churchill Falls	\$	(40)	\$	(40)	\$	(36)	\$	-	\$	(4)
External		(631)		(631)		(481)		-		(150)
Intercompany Admin Fee		(2,005)		(2,005)		(2,220)		-		215
Nalcor Admin Fee		3,791		3,791		4,642		-		(851)
Productivity Allowance		-		-		(1,039)		-		1,039
Business System Admin Fee		1,354		-		-		1,354		-
CDM Program Cost Deferral		(1,530)		(1,530)		(2,100)		-		570
Deferred Phase II		(55)		(55)		-		-		(55)
Fixed Charge (Recovery)		(624)		(624)		(74)		-		(550)
Intercompany Vehicle Charge (Recovery)		(27)		(27)				-		(27)
	\$	233	\$	(1,121)	\$	(1,309)	\$	1,354	\$	188

The actual Nalcor admin fee decreased by \$851,000 compared to the test year. According to Hydro, the favourable variance resulted from a reduction in total costs from that budgeted, combined with a reduction of Hydro's overall allocation of costs due to a change in corporate structure.

There was \$1,039,000 included for productivity allowance for test year. According to Hydro, productivity allowance was a reduction in overall operating costs as part of the compliance filing. In actuals, any productivity savings are incorporated within the specific account rather than presented separately.

The actual CDM program cost deferral decreased by \$570,000 compared to the test year. According to Hydro, reduction in CDM deferral primarily due to a reduction in CDM related professional services and energy management incurred.

The actual fixed recovery increased by \$550,000 compared to the test year. According to Hydro, this is primarily due to an increase in labour charged out of regulated Hydro to non-regulated entities.

A review of other cost recoveries as well as cost allocations between non-regulated and regulated operations is discussed further in the report under the section entitled 'Cost Allocations'.

Interest

Net interest increased by approximately \$17 million, or 23.2% in 2018 compared to 2017. The following is a summary of interest expense for 2015 to 2018:

(millions)	2018	2017	2016	2015	Var 18-17
Gross interest	\$93.4	\$83.7	\$83.9	\$85.3	9.7
Debt guarantee fee	6.9	4.1	4.5	4.5	2.8
RSP	4.2	8.6	25.5	21.8	(4.4)
Amortization of debt discount					
and financing costs	(0.1)	0.6	0.6	0.6	(0.7)
	104.4	97.0	114.5	112.2	7.4
Less:					
Interest earned	11.3	13.0	14.8	14.1	(1.7)
Interest capitalized during construction	2.7	10.6	4.0	3.4	(7.9)
	\$90.4	\$73.4	\$95.7	\$94.7	\$ 17.0

The overall increase in net interest is mainly attributable to an increase in gross interest and decrease in interest capitalized during construction. This net increase is partially offset by a decrease in RSP interest.

According to Hydro, the decrease in RSP interest of \$4.4 million is due to the March 2017 balance owing to Newfoundland Power starting to be refunded July 1, 2017 resulting in lower utility balances in the plan for 2018 (\$2.6 million). As well, approximately \$131 million of the RSP Surplus was refunded in 2017 resulting in lower interest expense in 2018 (\$1.7 million).

According to Hydro, the increase of \$9.7 million in gross interest in 2018 is attributable to two drivers:

- 1. Higher debt issuances interest on issuances increased by \$19 million due to a full year of the December 2017 Series 1 A issuance of \$300 million at 3.7%, as well as 9.5 months of the March 2018 Series 1 A issuance at same amount. This was offset by \$7.7 million in interest savings estimated by Hydro.
- 2. Lower promissory note interest the intercompany promissory note outstanding throughout 2017 was repaid in 2018 which resulted in less interest.

Interest capitalized during construction decreased by \$7.9 million in 2018. According to Hydro, this decrease is primarily driven by the TL-267 transmission line from Bay d'Espoir to Western Avalon project. This project attracted \$7.6 million of interest during construction in 2017 versus \$0.2 million in 2018.

Depreciation

 Scope: Review Hydro's rates of depreciation and assess their compliance with the 2012 Gannett Fleming Depreciation Study relating to plant in service as of December 31, 2009 and review the restatement of Hydro's depreciation based on new depreciation study from the 2017 GRA as approved in Order No. P.U. 16 (2019). Assess reasonableness of depreciation expense.

Actual Depreciation 2018

 Our procedures with respect to depreciation were focused on reviewing the rates of depreciation used and assessing its compliance with the Gannett Fleming Depreciation Study dated November 2012 and compliance with Board Order P.U. 40 (2012). In addition, our procedures included assessing the overall reasonableness of depreciation expense.

During 2018, Hydro reported depreciation expense of \$86.9 million compared to \$77.3 million in 2017 in accordance with the depreciation methodology approved in Order No. P.U. 40 (2012). The 2018 depreciation includes \$86.3 million in depreciation of property, plant, and equipment less \$0.6 million relating to insurance proceeds amortization. The increase in depreciation is attributable to the Company's capital expenditure program. The Company had additions to property, plant and equipment of over \$150 million in 2018.

In completing our procedures, we recalculated depreciation on a test basis and compared the estimated average service lives used in the calculations to the Gannett Fleming Depreciation Study approved in Order No. P.U. 40 (2012).

During our review we noted that there were differences on two different assets in our depreciation recalculations. For asset #447856, this asset never depreciated in 2018 because the cost was incorrectly recorded in a non-depreciable asset account when the depreciation program was run. This asset should have been recorded in the asset account for Gas Turbines and should have started depreciating in October 2018. In January 2019, the cost was appropriately transferred to the Gas Turbine account and 3 months of depreciation for a total of \$70,838 were recorded relating to 2018. For asset #448577, the incorrect in-service date was manually entered into the system (1991) resulting in the asset being fully depreciation in one year (2018). The in-service date should have been October 3, 2018 and the asset should have started depreciating in October 2018. In January 2019, depreciation of \$299,421 was reversed and 3 months of depreciation were recorded relating to 2018.

Restated Depreciation 2018

In Order No. P.U. 16 (2019) the Board approved a new depreciation study, effective January 1, 2018, from the 2017 GRA. Our procedures on the restated depreciation expense of \$77.4 million included reconciling the detailed depreciation schedules to the restated balances of property, plant and equipment, agreeing the useful life of a sample of assets from Hydro's asset records to the depreciation study and recalculating depreciation for the assets in our sample. We found no exception in the samples tested.

Based upon our review and analysis, we report that depreciation expense in 2018 is in accordance with Hydro's methodology and in compliance with the 2012 Gannett Fleming Depreciation Study except in relation to the two differences we noted above. We also report that Hydro's restated 2018 depreciation expense is in accordance with Hydro's methodology and in compliance with the new depreciation Study approved in the 2017 GRA.

Note 1

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, 2015 to 2018.

				Note 1		
(000)'s	2018	2017	2016		2015	
Revenue						
Energy Sales	\$ 40,396	\$ 43,241	\$ 43,775	\$	81,067	
Other Revenue (Loss)	 20,695	20,262	19,258		14,570	
	 61,091	63,503	63,033		95,637	
Operations and Administration						
Net Operating	355	1,473	4,300		4,108	
Transmission Rental and Market Fees	20,695	20,310	19,209		21,516	
FX loss	-	-	-		-	
Fuels	31	46	29		23	
Power Purchased	39,694	42,007	42,636		42,088	
Interest	(635)	135	197		164	
Other expense and (income)	-	(95)	-		-	
	 60,140	63,876	66,371		67,899	
Net Operating Income	 951	(373)	(3,338)		27,738	
Other Revenue						
Equity in CF(L) Co.	24,978	25,868	28,088		30,990	
Preferred Dividends	7,994	6,710	12,659		13,717	
	32,972	32,578	40,747		44,707	
Net Income	\$ 33,923	\$ 32,205	\$ 37,409	\$	72,445	
Retained earnings, beginning of year	\$ 485,445	\$ 459,950	\$ 435,489	\$	407,732	
Net Income	33,923	32,205	37,409		72,445	
Dividends						
Nalcor	-	-	(289)		(30,971)	
CF(L)Co.	(7,995)	(6,710)	(12,659)		(13,717)	
Retained earnings, end of year	\$ 511,373	\$ 485,445	\$ 459,950	\$	435,489	

Note 1: The December 31, 2015 figures have been restated as a result of a misstatement relating to the calculation of the other post-employment benefit health and dental liabilities for retirees and equity return on investment. The December 31, 2015 annual figures have been restated resulting in an increase in net operating income of \$0.8 million and a decrease in equity in CF(L) Co of \$0.3 million.

2

3

4

5

6 7

8

9

10

11 12

13



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

- assessed the Company's compliance with Order No. P.U. 7 (2002-2003); and,
- compared non-regulated expenses and operations for 2018 to prior years and investigated any unusual fluctuations.

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 2018. 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.

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

4 5 6 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.

9 10 11

7

8

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.

12 13

14

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.

19

20

21

22

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. In 2017, Hydro calculated a three year average billing rate of 64% and determined that this was not materially different from the variable component implemented in 2016, therefore a billing rate of 68% was used in 2017. Similarly, in 2018, based on the analysis provided by Hydro, the bill rate for 2018 should be 66% but a change in 2% to the bill rate from 2017 to 2018 is not deemed material. The bill rate in the system has remained at 68% and will be updated in Q1 2019 with 2018 actuals for the purpose of Budget 2020, if necessary.

23 24 25

Hydro's Organizational Structure

26 27 28

29

30

31

32

33

34

35

36

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:

costs through an Administration Fee from Hydro to Nalcor.

41 42 43

44

- the creation of a separate and dedicated Executive team for Hydro. The organization chart below shows the revised Executive structure of 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

45 46

47 48 49

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. There are no changes to be noted in 2018.

7 8

9

10

11 12

13 14

15

16

17

18 19

20

21

22 23

24

25

26

27

28

29

30 31

32

33

34

35

36

37

38 39

40

41

42

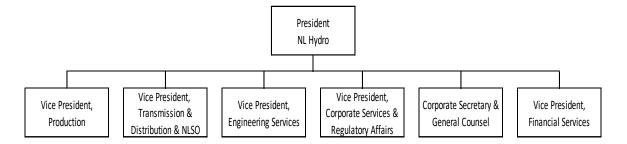
43

44

46

47

The following diagram illustrates Hydro's 2018 organizational structure:



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.

Hydro provided documentation on the analysis prepared by Nalcor for the years 2015 to 2017 with a bill rate calculated at 66%. The current bill rate in the system is 68%. According to Hydro, this calculation is an estimate and therefore the 2018 actual bill rate calculation could materially differ from this average of the past three years. Therefore, Hydro has concluded that a change of 2% to the bill rate from 2017 to 2018 is not deemed material and the bill rate in the system has remained at 68% for 2018. 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, El, 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.

45 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.

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.

According to Hydro, the non-union pay grades were updated April 1, 2018 and the Executive pay grades were approved by the Nalcor Board of Directors in November 2018. The union pay rates have remained unchanged since April 1, 2017. The bill rate mark-up of 1.68 has been in effective 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.

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. Most of the samples tested were at the expected 68% variable component. However, for some of the samples, we noted certain billing rates where there were variations from the 68% variable component. According to Hydro, the primary reasons for these variations are due to the timing issues and the interpretation from the prior pay grade codes to the most recent pay grade codes, where employees' bill rates were based on a prior rate of pay or on top of the pay scale. We also noted one sample where due to a clerical error, the bill rate did not get updated when the rate of pay was updated in July 2017.

 Lastly, we noted that there was one sample where the bill rate given is different compared to the updated bill rates schedule effective April 1, 2018. According to Hydro, the incorrect bill rate was entered because the bill rate prior to JDE upgrade in 2018 was entered manually. More specifically, payroll staff manually entered bill rates for each employee upon hiring and whenever a change in the employee's rate of pay occurred prior to this system upgrade, and as with any manual process, there is a greater likelihood of errors as the information was manually keyed for each employee. Since the JDE E1 go-live date (April 23, 2018), the manual entry by payroll staff no longer occurs. The bill rate is maintained by the Finance Department and it is automatically applied to each employee based on their rate of pay. We also selected a few samples related to the CF(L) Co. and according to Hydro, CF (L) Co. bill rates prior to April 23, 2018 were based on the 100% of pay grade. After April 23, 2018, the rates were based on 2.5 times the employees' actual hourly rate of pay, and Hydro explained this is because the CF (L) Co bill rate includes costs not applicable in other lines of business. These include: Labrador travel benefit, medical travel, site service costs, and town depreciation. We recalculated these proxy percentages within our testing and no discrepancies were noted.

14 15

16

17

18

19 20

21 22 23

24 25

26

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 2018, 2017, 2016 and 2015:

	Total							
Costs Incurred (Recovered) by Nature	2018		2017		2016	2015	2018 - 2017	
Churchill Falls	\$	(40) \$	(47)	\$	(587) \$	(1,702)	\$ 7	
Intercompany Admin Fee- Hydro		(2,005)	(2,164)		(2,648)	(4,812)	159	
Business Admin Fee		1,354	339		253	-	1,015	
Nalcor Admin Fee		3,791	3,415		3,350	-	376	
Fixed Charge (Recovery)		(504)	(654)		(711)	581	150	
Nalcor Fixed Charged		(119)	(31)		(39)	-	(88)	
	\$	2,477 \$	859	\$	(382) \$	(5,933)	\$ 1,618	

We address each of the administrations 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 2018, 2017, 2016 and 2015:

Cost Recoveries	2018	 2017	2016	 2015	2018 - 2017
Intercompany Administration Fee Regulated recovery	\$ (2,004,657)	\$ (2,164,383)	\$ (2,647,851)	\$ (4,812,200)	\$ 159,726
Cost recovery CF (L) Co.	\$ (40,350)	\$ (46,951)	\$ (587,159)	\$ (1,701,549)	\$ 6,601

Intercompany administration fees for 2018 regulated recovery have decreased by \$159,726 and for CF(L) Co. cost recoveries have decreased by \$6,601. 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 2018 common costs allocated to each line of business, along with comparative data for 2015, 2016 and 2017.

Common cost allocation	2018	2017	2016	2015	2018 - 2017
Nalcor divisions (Note 1) CF(L) Co. Hydro Regulated	\$ 2,004,657 40,350 2,368,298	\$ 2,164,386 46,951 2,377,352	\$ 2,647,851 587,159 3,718,829	\$ 4,812,200 1,701,549 8,087,971	\$ (159,729) (6,601.00) (9,054)
Total common costs allocated	\$ 4,413,305	\$ 4,588,689	\$ 6,953,839	\$ 14,601,720	\$ (175,384)

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



The following table provides a breakdown of common costs by department for actual 2018, along with comparative data for 2015, 2016 and 2017:

			T	otal			
Department / Costs (000's)	2018	2017		2016	2015	2018	3 - 2017
Human Resources	\$ -	\$ -	\$	1,777	\$ 2,168	\$	-
Safety and Health	-	-		724	957		-
Information Systems	223	281		372	6,861		(58)
Office space and related costs	3,901	3,785		3,628	4,173		116
Telephone, LAN, and Internet costs and mobile devices	289	523		453	443		(234)
	\$ 4.413	\$ 4.589	\$	6.954	\$ 14.602	\$	(176)

	Hydro Regulated									
		2018		2017		2016		2015	2018	- 2017
Human Resources	\$	-	\$	-	\$	983	\$	1,294	\$	-
Safety and Health		-		-		400		572		-
Information Systems		108		131		174		3,520		(23)
Office space and related costs		2,119		1,985		1,925		2,441		134
Telephone, LAN, and Internet costs and mobile devices		141		261		237		261		(120)
	\$	2,368	\$	2,377	\$	3,719	\$	8,088	\$	(9)

	Other Lines of Business (Note 1)									
		2018		2017		2016		2015	2018	3 - 2017
Human Resources	\$	-	\$	-	\$	794	\$	874	\$	-
Safety and Health		-		-		324		385		-
Information Systems		115		149		198		3,341		(34)
Office space and related costs		1,782		1,800		1,703		1,732		(18)
Telephone, LAN, and Internet costs and mobile devices		148		262		216		182		(114)
	\$	2,045	\$	2,211	\$	3,235	\$	6,514	\$	(166)

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

Business System Administration Fee

According to Hydro, the Business System Administration Fee consists of program management costs as well as depreciation and software maintenance associated with the Business Transformation Program. The Business Transformation Program is being managed by Nalcor as a part of a shared program for all Nalcor companies including Hydro. A portion of the costs relating to the Business Transformation Program are charged based on average users and the remainder are shared on a fixed fee basis among the lines of business. The Business System Administration Fee was \$1,354,000 in 2018 compared to \$339,000 in 2017. According to Hydro, the increase was primarily due to higher depreciation and recovery of eligible operating costs. There was \$600,000 incurred related to JD Edwards EnterpriseOne Release 1.1 entering into service during 2018.

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.

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 full time equivalent ("FTE") basis.

8 9 10

11

12

13

2017:

Fixed Charge (Recovery)

\$653,748 in 2017.

Nalcor Fixed Charge

18

19

32

37 38 39

> 40 41 42

43 44 45

46 47

48

49

50 51

According to Hydro, in 2018, no changes were made to the nature of the Business System Admin Fee, the Nalcor

telephone and fax:

conferences:

Fixed Fee and Fixed Charge.

books and subscriptions;

membership fees and dues;

training; and, employee expenses (e.g. overtime meal allowance).

Administration Fee as well as other employee related costs, including:

The Nalcor fixed fee netted to a credit of \$119,000 in 2018, compared to a credit of \$31,000 in 2017.

Safety and Health services were transferred from Hydro to Nalcor in 2017. The Safety and Health department is

Environment services were provided by Nalcor to Hydro in 2017. The Environment department is responsible for

The 2018 administration fee charged to Hydro totaled approximately \$3,791,000, compared to \$3,415,000 in 2017.

The following table provides a breakdown of costs by department for actual 2018, along with comparative data for

Effective October 1, 2009 the Company included a fixed charge for time charged to entities. The fixed charge was

2012 the fixed charge was determined to be \$98.25 per day or \$13.10 per hour based on a 7.5 hour day. The fixed

determined to be \$80 per day for all Nalcor employees, or \$10.67 per hour based on a 7.5 hour day for 2009-2011. In

Hydro Place costs e.g. Heat & Light, insurance, maintenance, reception, depreciation, and interest.

According to Hydro, the Fixed Charge (Recovery) is booked to account for the additional cost of having an employee

administration fee allocation, as well as other employee related costs described above. The fixed charge for Hydro is

In addition to labour costs, a fixed rate will be applied to each hour of regular labour charged to lines of business. The

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 \$504,340 in 2018 compared to a credit of

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

available for service beyond salary and benefits. The fixed charge recovers costs originally charged in the

Common Services e.g. IT services such as software, servers & help desk, HR services such as payroll,

Employee related costs e.g. Telephone & Fax, books & subscriptions, training, membership and dues,

Total

595

400

56

2,740

3,791

\$

\$

2017

559

351

49

2,457

3,415

2018

\$

\$

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.

and Health services are allocated to Hydro and other lines of business on a per FTE basis.

Department / Costs (000's)

Human Resources

Safety and Health

charge component included the following costs in its analysis:

recruitment, health, safety.

conferences, training.

Information Systems

Environmental

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

Page | 51

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
Telephone, LAN costs, and mobile devices	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.

In 2018, the cost per square footage rental rate was \$25.58 (2017 - \$24.86) which resulted in an increase in office space and rental costs recovered.

Telephone Infrastructure (PBX) Costs

All lines of business are charged a share of Telephone Infrastructure (PBX) costs including long distance charges. The Local Area Network (LAN) costs provided by Network Services are divided by the total number of LAN ports to derive a cost per user. The telephone costs provided by Network Services are divided by the number of telephone, fax, and modern lines to derive a cost per telephone per user. The mobile devices costs provided by Network Services are divided by the number of mobile devices to derive a cost per user. The average number of users is the factor used for the allocated costs per line of business. The cost per user allocated to lines of business for telephone costs in 2018 was \$149 per user (2017 - \$373), for LAN costs was \$71 per user (2017 - \$161) and for Mobile Devices was \$46 (2017 - \$45). According to Hydro, in 2018 labour costs for additions, moves and changes related to telephone and LAN are billed straight to the line of business versus charged through the admin fee.

Board of Commissioners of Public Utilities Financial Consultants Report 2018 Annual Financial Review of Newfoundland and Labrador Hydro



In completing our procedures, we obtained the Company's supporting calculation of its intercompany administration fees charged for 2018. 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.

3 4 5

1 2

As a result of completing our procedures, we report that cost allocations for 2018 are in accordance with Hydro's methodology.

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 2018 included reviewing compliance with Board Orders and assessing the charges and credits including financing charges for reasonableness.

Hydro updated the operation of the 2018 RSP based on the Order No. P.U. 16 (2019) which included the 2015 Test Year inputs, updated to reflect the use of the approved 2018 test year load forecast included in the 2017 GRA.

The RSP using 2015 Test Year inputs, as originally filed in the 2018 Annual Return before restatement in compliance with Order No. P.U. 16 (2019), had an accumulated credit balance of approximately \$67.028 million at December 31, 2018. The breakdown of the various components included in the 2018 Plan is as follows:

	2018	2017	
Utility Customer	\$ (26,672,848) due to customer	\$ (52,440,260)	due to customer
Industrial Customer	1,815,617 due from customer	(1,608,676)	due to customer
Utility - RSP Surplus	(9,940,383) due to customer	(12,638,065)	due to customer
Sub-total	(34,797,614)	(66,687,001)	
Hydraulic Balance	(32,230,511)	(7,557,375)	
Total Plan Balance	\$ (67,028,125)	\$ (74,244,376)	

Highlights of the RSP for 2018 include:

- Favourable hydraulic conditions contributed to higher hydraulic production relative to the cost of service production resulting in less fuel costs of \$35.4 million. Actual net hydraulic production in 2018 was 4,944.2 GWh in comparison to the cost of service net hydraulic production of 4,603.6 GWh.
- The average No. 6 fuel price in 2018 was approximately \$82.79 per barrel in comparison to the 2015 cost of service price of \$64.41 per barrel which resulted in a fuel variation of approximately \$32.6 million due from customers.
- The fuel price rider was established to adjust RSP rates for anticipated forecast fuel price changes. During 2018, the RSP adjustment for the utility customer, which includes the fuel price rider, resulted in \$8.9 million in recoveries (See Table B below). The RSP adjustment rate for the utility was (0.371) cents per kWh effective July 1, 2017 to June 30, 2018, as per Order No. P.U. 22 (2017), and (0.127) cents per kWh effective July 1, 2018, as per Order No. P.U. 15 (2018).
- In accordance with Order No. P.U. 7 (2018), the RSP adjustment rate for Industrial customers was (0.309) cents per kWh effective April 1, 2018. This rate also included a fuel rider and the mitigation rate adjustment, as per Order No. P.U. 7 (2018). For the twelve months ended December 31, 2018, there was \$1.5 million of recoveries.

1

Restatement of 2018 due to 2017 GRA

The restated 2018 RSP has a balance of \$73,741,534 owing to ratepayers at the end of December 31, 2018 as included in GRA Compliance Application using 2015 Test Year inputs adjusted for 2018 load. The table below outlines the impact of the 2018 load adjustments:

2018 RSP 2015 Test Year (adjusted for 2018 load) versus 2018 RSP 2015 Test Year (000's)

Component		2018 djusted for 018 Load	 2018	Difference		
Hydraulic balance	\$	(32,231)	\$ (32,231)	\$	-	
Utility balance		(32,782)	(26,673)		(6,109)	
Industrial balance		1,212	1,816		(604)	
Utility RSP surplus		(9,940)	(9,940)		-	
Total balance owing	\$	(73,741)	\$ (67,028)	\$	(6,713)	

8 9 10

The restated 2018 RSP is based on the 2015 cost of service inputs approved for the 2015 Test Year, adjusted for 2018 Test Year load as follows:

1213

14

15

16

11

2015 Test Year Inputs

- Net hydraulic production of 4,603.6 GWh
- Holyrood Operating Efficiency factor of 618 kWh/barrel
 - \$64.41 per barrel of No. 6 fuel
 - Weighted Average Cost of Capital ("WACC") of 6.61%

17 18

19

2018 Test Year Input

Customers Utility load of 5,824.5 GWh and Industrial load of 726.0 GWh

202122

23

24

25

26

27

28

29

33

34

Based on our review of the restated 2018 RSP report as part of our review of the 2017 GRA, we confirm the following:

- The 2018 RSP opening balances agree to the 2017 RSP actual closing balances; the 2017 actual RSP is based
 on the 2015 cost of service inputs approved for the 2015 test year including net hydraulic production of 4,603.6
 GWh, customers Utility load of 5,924.1 GWh and Industrial load of 621.4 GWh, Holyrood Operating Efficiency
 factor of 618 kWh/barrel, WACC of 6.61% and \$64.41 per barrel of No. 6 fuel.
- The cost of service inputs are those approved for the 2015 test year for hydrology, fuel price, WACC and Holyrood Operating Efficiency factor as directed in the GRA Order.
- The Customers Utility load and Industrial load have been updated in the operation of the 2018 RSP, which agrees to the 2018 Test Year load included in the Compliance Application as directed in the GRA Order.
- The monthly activity recorded includes 2018 actual results for the entire year.
 - The Rural Deficit allocation is calculated based on the 2015 Test Year Cost of Service for Rate Setting approved in Order No. P.U. 49(2016).

5

6 7 8

13

14 15 16

17

18 19

20 21

22 23

24

25

26

27

The allocation of the RSP load variation component between Newfoundland Power and the Industrial customers is based on energy ratios approved in Order No. P.U. 49 (2016).

The tables below provide a breakdown of the activity in the RSP for 2018 after load adjustments in accordance with Order No. P.U. 16 (2019), as well as a continuity of the various component balances:

(000)'s	Hydraulic Variation	Fuel Variation	Load Variation	Rural Rate Alteration	Total
Hydraulic balance	\$ (35,417)	\$ -	\$ -	\$ -	\$ (35,417)
Utility customers	-	29,657	(5,575)	-	24,082
Industrial customers	-	2,931	(550)	-	2,381
Segregated load variation	-	-	-	-	-
Labrador Interconnected	37	-	-	-	37
Net change 2018	\$ (35,380)	\$ 32,588	\$ (6,125)	\$ -	\$ (8,917)

2018 RSP activity

(000)'s	 Balance ginning of Year	Va Adj	Current ariation - justed for 018 Load	Current Interest	lydraulic Ilocation	(Refund (Recovery)	D	Balance Pecember 31 2018
Hydraulic balance	\$ (7,557)	\$	(35,417)	\$ (1,712)	\$ 12,455	\$	-	\$	(32,231)
Utility customers	(52,440)		24,082	(2,003)	(11,301)		8,880		(32,782)
Industrial customers	(1,609)		2,381	17	(1,117)		1,540		1,212
Utility Surplus	(12,638)		-	(705)	-		3,403		(9,940)
Labrador Interconnected (1)	-		37	-	(37)		-		
Net change 2018	\$ (74,244)	\$	(8,917)	\$ (4,403)	\$ -	\$	13,823	\$	(73,741)

(1) The amount is written off to net income.

There were various Orders issued by the Board during 2018 that impacted the operation of the RSP. We have provided highlights of them below:

Order No. P.U. 7 (2018)

On February 9, 2018, Hydro filed an application for approval of proposed interim Island Industrial customer rates and Labrador Industrial Transmission rates to be effective April 1, 2018.

The proposed rates relating to the operation of the RSP for the Island Industrial customers included:

- a) RSP Current Plan Adjustment of (0.285) cents per kWh
- b) RSP Fuel Price Projection Rider of (0.024) cents per kWh
- The combined rate is (0.309) cents per kWh effective April 1, 2018.

Order No. P.U. 15 (2018)

6 7 8

9 10

12

On April 13, 2018, Hydro filed the 2018 Utility Customer Interim Rates Application for approval of proposed rates for Newfoundland Power effective July 1, 2018. On April 20, 2018, Hydro filed a revised application to correct the calculation of the 2018 revenue deficiency and recovery percentage.

On March 14, 2018, the Board approved the rates proposed by Hydro for the Island Industrial customers effective on

11

The proposed rates relating to the operation of the RSP for the Utility customers included:

- a) RSP Current Plan Adjustment of (0.296) cents per kWh b) RSP Fuel Rider of 0.423 cents per kWh

all electrical consumption on and after April 1, 2018, on an interim basis.

13 14

The combined rate is 0.127 cents per kWh effective July 1, 2018.

15 16 17

18

19

On May 28, 2018, the Board approved the proposed Utility rates to be effective on all electrical consumption on and after July 1, 2018, on an interim basis. The Board also approved the proposal to use 1,273,184 barrels of No. 6 fuel in the calculation of the RSP Fuel Rider for Newfoundland Power, and the proposed revisions to the RSP rules, to be effective July 1, 2018.

20 21 22

Order No. P.U. 48 (2018)

23 24 25

26

On October 26, 2018, Hydro filed an application proposing the changes to Island Industrial customer rates on an interim basis to be effective January 1, 2019. On November 16, 2018 Hydro revised the application to remove the proposal for the deferral of the operating and maintenance costs for the Labrador-Island Link and the Labrador Transmission Assets.

31

32

In relation to the Island Industrial customer rates, the revised application stated that the RSP rules require an update to the Industrial Customer RSP Current Plan Adjustment on January 1, 2019 to recover the balance in the Industrial Customer RSP at December 31, 2018. The revised application stated that Hydro is projecting an Industrial Customer RSP Current Plan balance owing from Island Industrial customers at year-end 2018 which would require an RSP Current Plan adjustment of 0.312 cents per kWh.

37

Hydro proposed implementing these rate changes at the same time as the implementation of the updated RSP Current Plan Adjustment rate and the elimination of the RSP fuel rider to reduce the rate increase for Island Industrial customers on January 1, 2019.

38 39 40

On December 13, 2018, the Board approved the proposal to revise Island Industrial customer rates, on an interim basis, to be effective upon the implementation of the revisions to the RSP adjustments for January 1, 2019.

41

Order No. P.U. 49 (2018)

On August 23, 2018, Hydro filed an application for approval of a Pilot Agreement for the Optimization of Hydraulic Resources, a Hydraulic Resources Optimization Deferral Account, and revised RSP rules.

54

The application proposed the establishment of a Hydraulic Resources Optimization Deferral Account and modifications to the existing Rate Stabilization Plan ("RSP") rules to appropriately reflect the realization and disposition of net profits from Ponding and to ensure that the amount of hydraulic generation dispatched to sell Spill Energy to NEM (Nalcor Energy Marketing) is properly excluded from the calculation of Holyrood fuel costs to be recovered via the RSP. Hydro would file a separate application to the Board for approval of the allocation of the net gains between Hydro and NEM.

55 56 57

On December 18, 2018, the Board approved the revised RSP rules.

62

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 2018 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 2018, including 2018 restated and test year balances:

('000s)	Balance Jan 1/18	Add. (Recovery)	Allowance	Amort.	Balance Dec 31/18	8 Test Year	Restated 2018	18R - 18A	18R	R - 18T
Realized Foreign Exchange Losses	\$ 51,767	\$ -	\$ -	\$ (2,157)	\$ 49,610	\$ 49,610	\$ 49,610	-		-
CDM Program	9,323	1,530	-	(1,246)	9,607	10,763	9,607	-		(1,156)
Deferred Foreign Exchange on Fuel	(558)	1,055	-	-	497	(158)	497	-		655
2018 Cost Deferral	-	18,528	-	-	18,528	-	-	(18,528)	1	-
Deferred Lease Costs	3,130	-	-	(1,340)	1,790	1,789	1,790	-		1
Phase II Hearing Costs	1,133	352	(297)	-	1,188	1,869	1,188	-		(681)
Asset Disposal	368	-	-	(19)	349	349	349	-		-
Energy Supply Deferral	47,027	13,190	5,880	-	66,097	58,798	75,284	9,187	2 .	16,486 ³
Holyrood Conversion	7,932	4,209	1,484	-	13,625	9,896	14,328	703	2	4,432
Isolated Systems	(2,634)	1,034	(493)	-	(2,093)	(3,293)	(2,205)	(112)	2	1,088
Labrador RSP Refund	(376)	-	-	187	(189)	(198)	(189)	-		9
Deferred Power Purchases	(317)	-	-	36	(281)	(381)	(281)	-		100
Deferred Specifically Assigned Ind Rev	-	(522)	-	-	(522)	-	-	522		-
GRA Hearing Costs	-	-	-	-	-	800	-	-		(800)
Cost of Service Hearing Costs	-	-	-	-	-	300	-	-		(300)
2018 Revenue Deficiency	-	-	-	-	-	756	756	756		-
Business System Deferral		-	-	-	-	 2,542	1,354	1,354		(1,188) 4
	\$ 116,795	\$ 39,376	\$ 6,574	\$ (4,539)	\$ 158,206	\$ 133,442	\$ 152,088	\$ 6,118	\$	18,646
Deferred charges excluded from Rate Ba	ise				\$ (97,345)	\$ (2,542)	\$ (2,542)	\$ 94,803	\$	
Deferred charges included in Rate Base					\$ 60,861	\$ 130,900	\$ 149,546	\$ 88,685	\$	18,646
Average deferred charges					\$ 62,099	\$ 131,163	\$ 139,142	\$ 77,043	\$	7,979

- Note 1: The 2018 Cost Deferral decreased to \$nil for the restated and test year balances. According to Hydro, in Order No. P.U. 48 (2018), the Board approved the 2018 cost deferral of \$18.5 million related to the differential in the 2018 depreciation and the proposed change in depreciation methodology. In Order No. P.U. 30 (2019), the Board approved Hydro's proposal to restate its property, plant and equipment based upon the new depreciation methodology, effective January 1, 2018, with the corresponding adjustment to effect the conclusion of the 2018 Depreciation Cost Deferral Account.
- Note 2: The restated Energy Supply and the Holyrood Conversion Deferrals increased by \$9,187,000 and \$703,000, respectively, while the Isolated Systems decreased by \$112,000 compared to the actual balance. According to Hydro, the variance is attributable to the reversal of the remaining allowance on the 2015 2017 activity and the reversal of the allowance recorded on 2018 activity. Allowances on activity from 2015 2017 were previously recorded at 20%. In 2018 these were revised to 5% for the Holyrood Conversion and Isolated Systems Deferral and 10% for the Energy Supply Deferral.
- Note 3: The restated Energy Supply Deferral increased by \$16,486,000 compared to the test year. According to Hydro, the variance is because the test year assumed there was no variances which resulted in no deferral activity. The 2018 test year deferral is only comprised of the balances from 2015 2017; whereas, the 2018 restated balance includes the deferral activity from 2015-2018.
- Note 4: The restated Business System Deferral decreased by \$1,188,000 compared to the test year. According to Hydro, business systems costs for 2018 were lower than estimated for the 2018 test year. The Business Systems deferral has been excluded from rate base as recovery of the deferral has not yet been approved 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 2018 were \$1,530,000 (2017 - \$1,463,000).

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 change 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 2018, Hydro recognized in regulatory assets, foreign exchange losses on fuel purchases of \$1.1 million (2017 - \$0.4 million gain).

2018 Cost Deferrals

In Order No. P.U. 48 (2018), the Board approved the 2018 cost deferral of \$18.5 million (2017 - \$nil) related to the differential in the 2018 depreciation, loss on retirement and removal costs associated with the proposed change in depreciation methodology.

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 \$5,763,200. Actual costs deferred in 2014 were \$3,680,000. In 2015, Hydro deferred an additional \$1,440,000. In 2016, pursuant to Order Nos. P.U. 17 (2016) and P.U. 23 (2016) Hydro received approval to defer additional lease costs of \$1,300,000 and \$300,000 respectively. The actual cost incurred in 2016 was \$1,584,000. In Order Nos. P.U. 17 (2016), P.U. 23 (2016) and P.U. 49 (2016), the Board also approved the amortization of the deferred balance over a period of five years. In 2018, Hydro recorded amortization of \$1.3 million (2017 - \$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. Total costs of \$869,000 were deferred by Hydro in fiscal 2016. In 2018, Hydro recorded a net increase to the regulatory asset of \$0.1 million (2017 - \$0.3 million). According to Hydro Phase II hearing costs are being excluded from actual 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. However, this policy does not apply in a test year and instead Hydro included the Phase II hearing costs in the 2018 test year rate base because the Company has received approval to defer the costs.

Asset Disposal

In Order No. P.U. 49 (2016), the Board ordered that Hydro defer the \$425,000 loss on disposal 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 year period, which commenced in 2015. The 2018 deferral is net of amortization. Hydro is required to exclude the new Sunnyside transformer from rate base until the Sunnyside Transformer Original Asset Deferral has been fully amortized.

Energy Supply Deferrals (Energy Supply, Holyrood Conversion and Isolated Systems)

In Order No. P.U. 22 (2017), the Board approved the Energy Supply, Holyrood Conversion and Isolated Systems deferral account definitions which stated that an application is required annually by March 31.

In Order No. P.U.16 (2019), the balances in the Energy Supply Cost Variance Deferral Account, the Holyrood Conversion Rate Deferral Account and the Isolated Systems Supply Cost Variance Deferral Account for 2015, 2016 and 2017 were approved.

2

In Order No. P.U. 21 (2019), the balances in the Energy Supply Cost Variance Deferral Account, the Holyrood Conversion Rate Deferral Account and the Isolated Systems Supply Cost Variance Deferral Account for 2018 were approved, along with the recovery as allocated to Newfoundland Power and the Island Industrial customers through a transfer of balances to the respective RSP Current Plans effective October 1, 2019.

7 8 The total approved balances for years 2015 to 2018 for Energy Supply Cost Variance Deferral Account, the Holyrood Conversion Rate Deferral Account and the Isolated Systems Supply Cost Variance Deferral Account was \$75,284,000, \$14,328,000 and (\$2,205,000), respectively as reflected in the restated balance included above.

9 10

11 12

Labrador RSP Refund

Pursuant to Order No. P.U. 22 (2017), during 2017 Hydro refunded Labrador Industrial Transmission customers' excess revenues relating to the period of 2014 to 2017. The Board also ordered that Hydro apply a rate reduction for a 30 month period to address excess revenues relating to Hydro's rural customers on the Labrador Interconnected System. Hydro began amortization of excess revenues in July 2017. In 2018, Hydro recorded amortization of excess revenues which resulted in a decrease to profit of \$0.2 million (2017 - \$0.5 million).

deferred \$0.5 million.

17

Deferred Power Purchases

18 In 1997, the Board ordered Hydro to defer \$1.1 million related to reduced purchase power rates resulting from the 19 interconnection of communities in the area of L'Anse au Clair to Red Bay to the Hydro-Quebec system and amortize 20 the balance over a 30-year period. In 2018, the remaining unamortized savings in the amount of \$0.3 million (2017 -21 \$0.4 million) are deferred as a regulatory liability.

22

23

24

29

30 31 32 **Deferred Specifically Assigned Industrial Revenue** In Board Order No. P.U. 7 (2018), Hydro was ordered to establish a deferral account, commencing April 1, 2018, to track the difference between the approved specifically assigned charges used to derive interim rates and the amount

that would be charged if the proposed methodology in the general rate application is approved. During 2018, Hydro

In summary, based upon our analysis we noted that recovery of Phase II Hearing Costs and the Business System Deferral has not yet been approved by the Board. These deferral accounts have been appropriately excluded from rate base in actual, as well as in the restated average deferred charges balance of \$139,142,000.

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

Scope: Review Hydro's Annual Report on Key Performance Indicators and any other information on initiatives and efforts targeting productivity or efficiency improvements in 2018.

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

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

The 2018 annual report on strategic goals and objectives and productivity initiatives was filed with Hydro's December 31, 2018 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 2018 annual financial return.

Strategic Goals and Objectives

The quarterly report referenced above provides information on Hydro's achievements relative to its 2018 strategies, goals and initiatives. This section provides details on activities and outcomes relative to a broad range of initiatives undertaken during the 2018 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 2018, the Company continued executing its annual safety plan. Some of its initiatives, as noted by Hydro, are highlighted below.

- Hydro's Safety & Health Monitoring Plan focused on program assessments designed to confirm program compliance and identify opportunities for improvement. As part of its monitoring plan, Hydro completed 57 field compliance audits during 2018, which exceeded the 2018 target of 48 field compliance audits.
- Improving mental health is a key focus for Hydro and was a major theme at the annual Safety Summit.
 During the fourth quarter of 2018, Hydro rolled out its new mental health policy. Additionally, Hydro continued to offer training focused specifically on mental health in the workplace, which had been completed by 72% of Hydro's supervisors and managers as of the end of the fourth quarter.
- As part of Hydro's commitment to continuing awareness and safety education, in 2018, Hydro's social media
 platforms were used to share safety information and promote greater awareness amongst the public on a
 regular basis. For example, Hydro shared content around harsh weather events, which promoted safety and
 preparedness for the impending weather.
- In an ongoing effort to protect public safety around dams and hydraulic structures, new content for social media was developed and circulated, including educational information on safety near dams and dangers of low-head dams
- During the fourth quarter, Hydro's live line program was expanded with the Springdale line crew receiving the same training as the Happy Valley-Goose Bay line crew.

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

	Year-to-date	Annual 2018	Annual 2017	
Measurement	2018 Actual	Plan	Actual	Target Met
All Injury Frequency (AIF)	0.68	≤ 0.6	0.71	No
Ratio of condition and incident reports to lost time and medical treatment injuries (lead/lag ratio)	886:1	750:1	743:1	No

In 2018 Hydro successfully met its Lead/Lag ratio safety target noted above. With regards to the All Injury Frequency metric, Hydro has been successful in reducing the average in 2017 and 2018; however, they did not meet their target for 2017 or 2018.

Environment and Conservation

Targets used to evaluate this goal are summarized below:

Measurement	Year-to-Date 2018 Actual	Annual 2018 Target	Annual 2017 Actual	Target Met
Achievement of EMS targets	97%	>95%	100%	Yes
Annual energy savings from Residential and Commercial Conservation and Demand Management Programs	2,285 MWh	1,945 MWh	2,512 MWh	Yes
Annual energy savings from Internal Energy Efficiency Programs	410 MWh	322 MWh	405 MWh	Yes

10 11 12

13

14

15

The measurement of annual energy savings from Residential and Commercial Conservation and Demand Management Program exceeded the 2018 target. Hydro also achieved results of 410 MWh of energy savings for the Internal Energy Efficiency activities, compared to the target of 322 MWh. These results are primarily due to partnerships and programs detailed below.

16 17 18

- The takeCHARGE partnership offers rebate programs to assist residential and commercial customers in reducing their electricity usage.
- The Hydro Residential Program relates to five programs offered jointly by the utilities and an additional program offered solely by Hydro.
- 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.
- 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 Internal Program aims to achieve energy savings form initiatives to reduce electricity consumption at its facilities located in both diesel and interconnected service areas.

26



Key Performance Indicators

Section 4 to the December 31, 2018 quarterly report filed by Hydro includes the 2018 Annual Report on Key Performance Indicators. The Key Performance Indicators ("KPI") results for 2018 as compared with prior years are summarized in the following table:

Category / KPIs ⁵	Measure Definition	Units	2013	2014	2015	2016	2017	Avg. 13- 17	2018	Variance from Average
Reliability										
Generation										
Weighted Capability Factor	Availability of Units for Supply	%	75.5	79.7	79.9	77.1	81.8	78.8	78.1	(0.7)
Weighted DAFOR	Unavailability of Units due to Forced Outage	%	12.2	8.2	3.4	10.0	6.4	8.0	7.9	(0.1)
Transmission	r orded Odlage									<u>I</u>
SAIDI	Outage Duration per Delivery Point	Minutes / Point	468.5	458.0	476.0	325.0	398.3	425.2	488.7	63.5
SAIFI	Number of Outages per Delivery Point	Number / Point	3.5	3.8	3.1	2.9	2.1	3.1	3.9	0.8
SARI	Outage Duration per Interruption	Minutes / Outage	133.9	121.0	154.0	112.0	189.5	142.1	125.3	(16.8)
Distribution										
SAIDI	Average Outage Duration for Customers	Hours / Customer	18.6	19.6	17.5	15.7	19.6	18.2	19.5	1.3
SAIFI	Number of Outages for Customers	Number / Customer	5.7	6.8	7.0	6.6	5.3	6.3	6.7	0.4
End User SAIDI	Average Outage Duration for Customers	Hours / Customer	N/A	N/A	3.1	2.4	2.8	2.8	3.0	0.2
End User SAIFI	Number of Outages for Customers	Number / Customer	N/A	N/A	2.0	1.3	1.3	1.5	1.4	(0.1)
Under Frequency Load Shedo	ling									
UFLS	Customer Load Interruptions Due to Generator Trip	Number of Events	7	14	8	6	9	9	5	(4)
Operating										<u> </u>
Hydraulic Conversion Factor ¹	Net Generation / 1 Million m ³ Water	GWh / MCM	0.432	0.433	0.433	0.432	0.432	0.432	0.429	(0.003)
Thermal Conversion Factor ²	Net kWh / Barrel No. 6 HFO	kWh/BBL	595	584	602	608	601	598	592	(6.0)
Financial (Regulated)										
Controllable Unit Cost ³	Controllable OM&A\$ / Energy Deliveries	\$ / M Wh	\$15.53	\$18.09	\$16.71	\$20.07	\$13.90	\$16.86	\$14.55	(\$2)
Congression Controllable Control	Generation OM&A\$ / Installed MW	\$ / MW	\$26,774	\$30,013	\$32,599	\$27,095	\$28,457	\$28,988	\$30,064	\$1,076
Generation Controllable Costs	Generation OM&A\$ / New Generation	\$/GWh	\$7,568	\$8,150	\$9,010	\$7,738	\$7,991	\$8,091	\$8,674	\$583
Transmission Controllable Costs	Transmission OM&A\$ / 230 kV Eqv Circuit	\$ / Km	\$5,281	\$7,043	\$7,615	\$6,148	\$4,979	\$6,213	\$4,266	(\$1,948)
Distribution Controllable Costs	Distribution OM&A\$ / Circuit Km	\$ / Km	\$3,345	\$3,304	\$3,053	\$3,338	\$3,493	\$3,307	\$3,146	(\$162)
Other										
Percent Satisfied Customers ⁴	Satisfaction Rating	Max = 100%	N/A	84%	N/A	90%	N/A	87%	89%	2%

- 1. For the Bay d'Espoir hydroelectric plant.
- 2. For Holyrood thermal.
- 3. Energy deliveries have been normalized for weather, customer hydrology, and industrial strikes.

 4. There was no customer satisfaction survey completed in 2017.

 5. Grant Thornton did not independently verify the calculation of KPIs.

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

Category	КРІ	Units	2018 Target	2018 Results	Target Achieved	
	Weighted Capability Factor (WCF)	%	79.4 ¹	78.1	No	
	Weighted DAFOR	%	6.1	7.9	No	
	T-SAIDI	Minutes / Point	553	488.7	Yes	
	T-SAIFI	Number / Point	3.1	3.9	No	
Reliability	T-SARI	Minutes / Outage	178	125.3	Yes	
Reliability	D-SAIDI	Hours / Customer	13.0	19.5	No	
	D-SAIFI	Number / Customer	5.7	6.7	No	
	End User SAIDI	Hours / Customer	3.0	3.0	Yes	
	End User SAIFI	Number / Customer	1.6	1.4	Yes	
	Underfrequency Load Shedding	# of events	6	5	Yes	
Operating	Hydraulic CF	GWh/MCM	0.429	0.429	Yes	
Operating	Thermal CF	kWh / BBL	618 ²	592	No	
	Controllable Unit Cost	\$/MWh	N/A	\$14.55	N/A	
	Generation Controllable Costs	\$/MW	N/A	\$30,064	N/A	
Financial	Generation Output Controllable Cost	\$/GWh	N/A	\$8,674	N/A	
	Transmission Controllable Cost	\$/Km	N/A	\$4,266	N/A	
	Distribution Controllable Cost	\$/Km	N/A	\$3,146	N/A	
Other	Customer Satisfaction (Residential)	Max = 100%	90%	89%	No	

Notes

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

2. Hydro's target of 618 is based on the approved conversion factor in Board Order No. P.U. 49(2016).

During 2018, Hydro met 5 out of the 10 reliability KPIs.

Within the operating category, Hydro achieved a net hydraulic conversion factor of 0.429 GWh/MCM, which is below the 2018 target of 0.433 GWh/MCM. According to Hydro, the lower conversion factor for hydraulic generation is primarily due to lower inflows to the Bay d'Espoir system as a whole. There was a 113 GWh spill in the Bay d'Espoir system in 2018, most of the spill was in the upper part of watershed, Burnt and Granite, in late-April 2018 and early-May 2018. Significant rainfall in late-April 2018 combined with snow melt, led to surcharge in both reservoirs. Again, as a result of intense rain, a second period of lesser spill occurred in October 2018 and November 2018. As in 2017, water levels in Bay d'Espoir were significantly lower than average resulting from low system storage going into 2018 and generally low inflows throughout the year. Similarly, high intensity rainfall events led to spill from the smaller reservoir areas; therefore, inflow was unable to be stored. Lower water levels in Long Pond lead to low head ultimately resulting in less efficient operation at the Bay d'Espoir plant.

The net thermal conversion factor of 592 kWh per barrel was below the target of 618 kWh per barrel.

As indicated by Hydro, the Customer Satisfaction Survey is completed on a biennial basis, and thus, the survey was completed in 2018. The 2018 residential Customer Satisfaction Survey shows that 89% of customers are either very satisfied or somewhat satisfied with Hydro, which is comparable to the 2016 survey results.

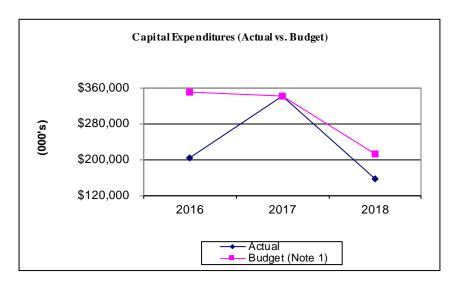
We have reviewed the KPI results and the explanations provided by Hydro for the changes and variations experienced in 2018 and find them to be consistent with our observations and findings noted in conducting our annual financial review. There were no internal inconsistencies identified in Hydro's report.

Capital Expenditures

Scope: Review the Company's 2018 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 2016 to 2018:

(000's)	2016	2017	2018		
Actual	\$ 203,941	\$ 340,742	\$	156,986	
Budget (Note 1)	\$ 350,602	\$ 340,501	\$	213,050	
Under/Over Budget	 (41.83%)	0.07%	(26.31%)		



Note 1: The 2018 budget consists of the following: capital budget approved under Order No. P.U. 43 (2017) and P.U. 5 (2018) - \$181,194,000; new projects approved under Order No. P.U. 11 (2017) - \$327,000; new projects approved under Order No. P.U. 6 (2018) - \$719,000 and (\$50,000); new projects approved under Order No. P.U. 19 (2018) - \$1,000,000; new projects approved under Order No. P.U. 23 (2018) - \$1,121,000; new projects approved under Order No. P.U. 25 (2018) - \$2,560,000; new projects approved under Order No. P.U. 34 (2018) - \$195,000; new projects approved under Order No. P.U. 38 (2018) - \$712,000; new projects under \$50,000 approved by Hydro - \$382,000; projects carried forward to 2018 - \$24,890,000.

The above graph demonstrates that in 2016 the Company was under budget on its capital expenditures by 41.83%, and in 2017 the Company was consistent with budget with slightly over by 0.07%. In 2018, the Company was under budget again on its capital expenditures by 26.31%. Actual expenditures decreased from \$340,742,000 in 2017 to \$156,986,000 in 2018. This decrease in expenditures is primarily due to the fact that 2017 incurred significant expenditure on the 230kV Transmission Line from Bay d'Espoir to Western Avalon project, which was largely completed in 2017 as opposed to 2018. This is further explained within the 'Capital Budget Guidelines Policy' section below.

Upon order from the Board, the Company must exclude certain capital assets from the rate base calculation. The following table presents a breakdown of the total assets excluded from rate base for 2017 and 2018:

	2018	2017
HRD Unit 1	1,916	2,709
Holyrood Fuel Oil Heat Trace	701	968
Charlottetown Diesel Plant	314	340
Sunnyside Transformer T8	4,310	4,480
Sunnyside Breaker, B1L17, Overhaul	322	333
Lab City Voltage Conversion	187	191
WAV Transformer T5 - Perform Upgrades	1,254	1,297
Re-heat Boiler - Holyrood unit # 2	-	1,083
Re-heat Boiler - Holyrood unit # 1	-	653
Transmission Line Reroutes - Sally's Cove	-	1,335
Penstock # 1 Refurbishment - Bay d'Espoir	-	6,691
Access Roads Refurbishment - Bay d'Espoir	2,591	2,675
Allowance for Unforeseen	(580)	(2,000)
Holyrood Air Heaters Units 1, 2, & 3	833	-
Other ¹	360	386
Total	12,208	21,141

Note 1: Other relates to 11 expenditures within the Prudence Review Order No. P.U. 13 (2016).

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' dated March 1, 2019, the Company has provided explanations for variances on 90 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 2009 to 2018. 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 23.05%.

The Company has noted that over the 8 year period, 2009 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, according to Hydro, there are six capital projects being 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: \$9,200,000 on Terminal Station Refurbishment and Modernization at various sites (2017 - 2018); \$6,200,000 on Increase Fuel and Water Treatment System Capacity for Holyrood Gas Turbine; \$6,200,000 on Terminal Station Refurbishment and Modernization at various sites (2018 - 2019); \$5,700,000 on

3 4 230 kV Transmission Line Bay d'Espoir to Western Avalon; 4,500,000 on Hydraulic Generation Refurbishment and Modernization (2017 – 2018), and 3,500,000 on Upgrade Circuit Breakers at various sites.

A breakdown of the total capital expenditures and budget for 2018 with variances by asset category is as follows:

(000's)		2018 Actual		8 Budget	Ţ	Variance	0/0	
Generation	\$	50,434	\$	65,840	\$	(15,406)	(23.40%)	
Transmission and Rural Operations		87,860		128,877		(41,017)	(31.83%)	
General Properties		6,869		8,286		(1,417)	(17.10%)	
Allowance for Unforeseen Events		4,743		2,000		2,743	137.15%	
Supplemental Projects		6,765		7,665		(900)	(11.74%)	
New Projects Approved under \$50,000		315		382		(67)	(17.54%)	
Total	\$	156,986	\$	213,050	\$	(56,064)	(26.31%)	

As indicated in the table, total capital expenditures are under the budget. This budgeted amount includes the approved capital budget projects by the Board for \$188,160,000 and carryovers from 2017 to 2018 of \$24,889,900. The Company has reported that there are 50 projects which were included in the 2018 budget which have expenditures totaling \$32,940,600 carried forward to 2019.

Hydro's 'Capital Expenditures and Carryover Report' discloses actual and budgeted past expenditures, as well as actual and budget forecasted expenditures beyond 2018 for each project. A breakdown of these expenditures with variances by category is as follows:

category is as relieve.		Bu	ıdget		Actual					Variance		
(000's)	Up to				Up to							
	2017	2018	Forecast	Total	2017	2018	Forecast	Total	\$		%	
Generation												
Hydro Plants	\$ 14,290	\$ 28,308	\$ 10,082	\$ 52,680	\$ 6,700	\$ 23,766	\$ 18,555	\$ 49,020	\$ (3,	(660)	(7%)	
Thermal Plants	7,196	6,915	300	14,412	7,269	9,349	470	17,088	2,	677	19%	
Gas Turbines	1,523	17,781	8,050	27,353	616	13,708	10,698	25,022	(2,	331)	(9%)	
Total Generation	23,009	53,004	18,432	94,445	14,585	46,822	29,723	91,131	(3,	314)	(4%)	
Transmission and Rural												
Terminal Stations	38,448	47,763	39,909	126,120	28,852	33,116	53,280	115,248	(10,	872)	(9%)	
Transmission Lines	292,628	34,232	-	326,860	290,366	27,496	1,716	319,578	(7,	282)	(2%)	
Distribution	6,747	10,672	3,046	20,465	5,868	9,280	3,286	18,433	(2,	032)	(10%)	
Generation	2,962	13,101	12,320	28,383	2,460	10,085	15,705	28,250	((133)	(0%)	
Properties	422	3,598	241	4,262	238	2,499	727	3,464	(797)	(19%)	
Metering	1,243	2,165	-	3,408	1,547	2,098	-	3,645		237	7%	
Tools and Equipment	_	1,311	986	2,297	-	1,257	951	2,207		(89)	(4%)	
Total Transmission and Rural	342,449	112,843	56,503	511,795	329,330	85,831	75,665	490,826	(20,	969)	(4%)	
General Properties												
Information Systems	878	2,180	-	3,058	867	1,425	-	2,292	(766)	(25%)	
Telecontrol	471	2,675	3,303	6,449	341	2,395	3,391	6,127	(322)	(5%)	
Transportation	2,001	2,066	754	4,821	1,276	2,533	1,256	5,065		244	5%	
Administrative	264	645	406	1,314	245	516	433	1,194	(121)	(9%)	
Total General Properties	3,614	7,566	4,463	15,642	2,728	6,869	5,080	14,677	(965)	(6%)	
Overhauls and Inspections	_	6,781	_	6,781	_	5,640	_	5,640	(1.	141)	(17%)	
Allowance for Unforeseen Events	_	2,000	_	2,000	-	4,743	_	4,743	` '	743	137%	
Supplemental Projects	9,895	5,585	220	15,700	8,808	6,765	527	16,100		400	3%	
New Projects Approved under \$50,000	1	382	-	383	-	315	-	315		(67)	(18%)	
Total	\$378,968	\$ 188,160	\$ 79,617	\$ 646,746	\$ 355,452	\$156,985	\$110,996	\$ 623,432	\$ (23.	314)	(4%)	

The largest variances relate to the following asset classes: Terminal Stations (\$10,872,000 under budget), Transmission Lines (\$7,282,000 under budget), Hydro Plants (\$3,660,000 under budget), and Allowance for Unforeseen Events (\$2,743,000 over budget).

The variance related to Terminal Stations is primarily as a result of the Terminal Station Refurbishment and Modernization at various sites. This project was \$8,737,900 under the budget in 2018. According to Hydro, the variance in total project expenditures is primarily associated with the refurbishment or replacement of power transformers and disconnect switches. The variance compared to the budget is attributed to a portion of the work being executed for less than the budgeted cost and some scope reduction as new asset condition information became available. Bushing replacements and transformer dehydrators were removed from the project and will be executed as part of the 2019 project, which has sufficient budget for this work.

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 \$2,000,000. The Board approved supplementary amount of \$1,000,000 in Order No. P.U. 19 (2018) and the amount of \$1,000,000 for the 'Allowance for Unforeseen Items'. Actual costs incurred by Hydro were \$4,743,200. From our review, we noted the following uses of the 'Allowance for Unforeseen Events':

• Bay d'Espoir Penstock 3 – On May 9, 2018, an external consultant commenced the reduced scope inspection of the longitudinal weld seams on Penstock 3. This inspection identified cracks in the existing welding of the penstock. According to Hydro, this reduced scope maintenance inspection on Penstock 3 was scheduled for May 2018 as part of the development of the Supplemental Application, which was based on a Level 2 condition assessment required by Hydro. It was determined on May 15, 2018 that due to the significant number cracks in the welds, the scope of refurbishment requires the use of the Allowance for Unforeseen Items Account. According to Hydro, if the supplemental project is approved, Hydro will utilize the findings from the condition assessments to inform future actions, as required, for reliable operation of the penstocks. Capital costs of \$4,743,200 were incurred in 2018. According to Hydro, as part of the "2018 Capital Budget Application", Hydro was approved to include an Allowance for Unforeseen balance of \$1.0 million, which is a variance from budget of \$3.7 million.

• Rigolet Diesel Engine Failure – On December 12, 2018, one of the generating units at the Rigolet diesel generating station - Rigolet Genset 2051 was removed from service due to noise in the engine. Hydro inspected the unit between December 17, 2018 and December 19, 2018 and confirmed that it had suffered a catastrophic mechanical failure while in service. It was determined that this unit could not be returned to service and must be replaced. All remaining units were required to be in service to meet the forecasted peak load. According to Hydro, with the failure of Genset 2051, failure of a second unit would leave the customers of Rigolet at risk. Therefore, Hydro stated they must take immediate action to replace this Genset with a similar sized unit to ensure availability of power for the community and would do so using the approved

Allowance for Unforeseen Items account. According to Hydro, replacement of this unit was estimated at \$643,000. Hydro had sourced a new replacement Genset and expected to have the unit moved to Rigolet and installed by the end of January 2019. Further, Hydro confirmed that this project's capital expenditures were incurred and completed in 2019. As a result, the capital costs relating to this project will be included in the 2019 "Capital Expenditures and Carryover Report" that Hydro will file with the Board in March 2020.

Board Order P.U. 23 (2018)

In Order No. P.U. 23 (2018), the Board approved the proposed capital expenditure in the amount of \$1,120,600 to complete Level 2 condition assessments on penstocks 1 and 2 and report on penstocks 1, 2 and 3 at the Bay d'Espoir Hydroelectric Generating Station. The Board ordered Hydro to file a copy of the condition assessment reports with the Board by December 15, 2018. Hydro filed the report to the Board on December 17, 2018.

Board Order P.U. 25 (2018)

In Order No. P.U. 25 (2018), the Board approved the proposed capital expenditure in the amount of \$2,560,500 to restore the design performance of the air heaters to increase the generating capacity of Units 1, 2 and 3 at the Holyrood Thermal Generating Station. The Board ordered Hydro to file further information in relation to the 2014 decision to decommission the fuel additive system prior to seeking recovery of this capital expenditure from customers. According to Hydro, no additional information has been filed with the Board. As a result, the average capital expenditures to restore design performance of the air heaters of \$0.833 million were excluded from Hydro's 2018 Average Rate Base and is included in total assets excluded from rate base as reported earlier in this section of our report.

days of the completion of the work on the occasions as described above.

Capital Expenditure Reports

Confirmation was received from the Board that the Company filed quarterly Capital Expenditure reports for the 2018 calendar year.

Based upon our analysis, Hydro filed reports on the use of the Allowance for Unforeseen Events within 30