EXHIBIT 6:

CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY

EB-2016-0056

Atikokan Hydro Inc. EB-2016-0056 Exhibit 5 – Cost of Capital Page 1 of 25 Filed: October 3, 2016

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2.6 Calculation of Revenue Deficiency

Determination of Net Utility Income

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The current rates are based on Board approved rates effective May 1, 2016 through an IRM proceeding (EB-2015-0052). Existing revenues based on Board approved rates, which are used in calculating utility income are comprised of distribution revenue and exclude price differentials captured in RSVA's or DVA balances. A summary of existing and projected distribution revenue is compared in the below table. The revenues are based on forecasted 2017 power sales. See

9 Exhibit 3 for load forecast details.

Table 6-1: Comparison Existing and Projected Distribution Revenue

2017 Distribution Revenue			
Distribution Revenue at Current Rates	1,272,766		
Distribution Revenue at Proposed Rates	1,415,718		
Revenue Deficiency	- 142,952		

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- 12 Atikokan's utility net income for the 2017 Test Year is \$125,727 as shown in Table 6-2 below.
- 13 This is taken from the Revenue Requirement Work Form ("RRWF") Tab 5. Utility Income. In
- 14 accordance with the filing requirements, the RRWF has been included in this Exhibit as
- 15 Attachment A and also included as excel version.
- 16 Atikokan has ensured that numbers entered in the RRWF reconcile with the appropriate numbers
- in other Exhibits of this Application. See Page 6, section 'Revenue Deficiency or Sufficiency in
- 18 Revenue' of this Exhibit for comment on a difference that exists.

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Utility Income

Line No.	Particulars		Initial Application
1	Operating Revenues: Distribution Revenue (at Proposed Rates)		\$1,415,718
2	Other Revenue	(1)	\$102,770
3	Total Operating Revenues		\$1,518,488
4 5 6 7 8	Operating Expenses: OM+A Expenses Depreciation/Amortization Property taxes Capital taxes Other expense		\$1,097,396 \$197,470 \$20,007 \$ - \$ -
9	Subtotal (lines 4 to 8)		\$1,314,873
10	Deemed Interest Expense	-	\$65,654
11	Total Expenses (lines 9 to 10)		\$1,380,527
12	Utility income before income taxes	=	\$137,961
13	Income taxes (grossed-up)		\$12,234
14	Utility net income		\$125,727

Table 6 -2: Utility Income

1 Statement of Rate Base

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- 3 Atikokan's Rate Base is calculated on Atikokan's deemed capital structure in accordance with the
- 4 Board's Filing Requirements and for the 2017 Test Year is summarized below in Table 6-3.

5 **Table 6-3: 2017 Rate Base**

Rate Base and Working Capital Allowance				
	2017 Test Yea	ar (M	IFRS)	
Opening Balance Gross Fixed Assets	6,441,645			
Ending Balance Gross Fixed Assets	6,947,717			
Average Balance Gross Fixed Assets		\$	6,694,681	
Opening Balance Accumulated Amortization	3,619,157			
Closing Balance Accumulated Amortization	3,676,042			
Average Balance Accumulated Amortization		\$	3,647,600	
Allowance For Working Capital 7.5%		\$	373,114	
			`	
Total Rate Base		\$	3,420,196	

Working Capital Calculation	
	2017 Test Year (MIFRS)
Operations	376,877
Maintenance	120,741
Billing and Collecting	184,336
Administrative and General Expenses	415,442
Taxes other than Income Taxes (Property Tax)	20,007
Total Eligible Distribution Expenses	1,117,403
Cost of Power	3,857,454
Total Expenses for Working Capital	4,974,857
Working Capital Factor	7.5%
Total Working Capital Allowance	\$373,114

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Actual Utility Return on Rate Base

- 11 Atikokan's Return on Rate Base in scenarios of both existing and proposed rates is calculated
- below as from the Filing Requirements Revenue Requirement Work Form. This assumes a 60%
- 13 debt and 40% equity.

Table 6-4: Return on Rate Base

Revenue Deficiency/Sufficiency

Initial Application

		Initial Application		
Line No.	Particulars	At Current Approved Rates	At Proposed Rates	
1 2	Revenue Deficiency from Below Distribution Revenue	\$1,272,766	\$153,785 \$1,261,933	
3	Other Operating Revenue Offsets - net	\$102,770	\$102,770	
4	Total Revenue	\$1,375,536	\$1,518,488	
5 6	Operating Expenses Deemed Interest Expense	\$1,314,873 \$65,654	\$1,314,873 \$65,654	
8	Total Cost and Expenses	\$1,380,527	\$1,380,527	
9	Utility Income Before Income Taxes	(\$4,991)	\$137,961	
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$56,401)	(\$56,401)	
11	Taxable Income	(\$61,392)	\$81,560	
12	Income Tax Rate	15.00%	15.00%	
13	Income Tax on Taxable Income	\$ -	\$12,234	
14	Income Tax Credits	\$ -	\$ -	
15	Utility Net Income	(\$4,991)	\$125,727	
16	Utility Rate Base	\$3,420,195	\$3,420,195	
17	Deemed Equity Portion of Rate Base	\$1,368,078	\$1,368,078	
18	Income/(Equity Portion of Rate Base)	-0.36%	9.19%	
19	Target Return - Equity on Rate Base	9.19%	9.19%	
20	Deficiency/Sufficiency in Return on Equity	-9.55%	0.00%	
21	Indicated Rate of Return	1.77%	5.60%	
22	Requested Rate of Return on Rate Base	5.60%	5.60%	
23	Deficiency/Sufficiency in Rate of Return	-3.82%	0.00%	
24	Target Return on Equity	\$125,726	\$125,726	

Indicated Rate of Return

- Atikokan's indicated Rate of Return is 1.77% as shown in Table 6-4 above. The indicated rate of return is calculated using the 2017 Test Year load forecast at existing rates.
- 5 Requested Rate of Return

The requested rate of return is 5.60% as per the OEB prescribed Cost of Capital Parameters, dated October 15, 2015 and the Cost of Capital Report dated December 11, 2009.

Table 6-5: Request Rate of Return

Particulars	Capitalization Ratio		Cost Rate	Return
	(%)	(\$)	(%)	(\$)
Debt				
Long-term Debt	56.00%	\$1,915,310	3.31%	\$63,397
Short-term Debt	4.00%	\$136,808	1.65%	\$2,257
Total Debt	60.0%	\$2,052,118	3.20%	\$65,654
Equity				
Common Equity	20.00%	\$684,039	9.19%	\$62,863
Preferred Shares	20.00%	\$684,039	9.19%	\$62,863
Total Equity	40.0%	\$1,368,078	9.19%	\$125,726
Total	100.0%	\$3,420,196	<u>5.60</u> %	\$191,380

Deficiency or Sufficiency in Revenue

Based on Atikokan's 2017 Test Year Revenue Requirement and existing rates; the completed Revenue Requirement Work Form illustrates Atikokan has a revenue deficiency. Atikokan would like to point out that in Tab 8, row 25 of the Board's RRWF Model, it incorrectly displays the Revenue Deficiency as being \$130,717 as opposed to \$142,952 as shown and supported in the Cost Allocation Model v3.4a. Atikokan believes this incorrect revenue deficiency in the RRWF Model is the result of the treatment by the model of the taxable income loss at "current approved rates". The RRWF Model does not allow income tax on taxable income to be less than zero in the "At Current Approved Rates" column of Tab 8. This restriction needs to be removed in order to produce the correct revenue deficiency in Tab 8 of the RRWF.

1 Gross Deficiency or Sufficiency in Revenue

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The gross revenue deficiency is calculated at \$153,785; see Table 6-4, earlier in this exhibit. The

- 4 calculation provides the 2017 Test Year at Proposed Rates, which balances the revenue
- 5 Deficiency, Net Income and Total Return on Rate Base.

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2.6.1 Revenue Requirement Work Form

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- Atikokan has determined that the Revenue Deficiency for the 2017 Test Year is \$142,952 as
- outlined in Table 6-1. This deficiency is calculated as the difference between the 2017 Test Year
- 11 Revenue Requirement of \$1,415,718 and the Forecast Test Year Revenue, based on the 2016
- 12 approved rates of \$1,272,766.

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Table 6-6: Revenue Deficiency

	2017 Test	2017 Test -
Revenue	Existing Rates	Required Revenue
Revenue Deficiency		142,952
Distribution Revenue	1,272,766	1,272,766
Other Operating Revenue (Net)	102,770	102,770
Total	1,375,536	1,518,488

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- 15 Atikokan's Revenue Requirement consists of the following:
 - Operations, Maintenance and Administration (including Billing) ("OM&A") expenses,
- Depreciation/Amortization,
- Property Taxes,
- 19 PILS, and
- Return on Rate Base (deemed interest and return on equity);
- Less: Revenue Offsets
- 22 Atikokan's Revenue Requirement is primarily received through electricity distribution rates with
- other revenue from Board Approved specific service charges such as late payment charges and
- other miscellaneous charges. These other revenues, described in Exhibit 3, are offset against
- 25 Atikokan's service revenue requirement to calculate the base revenue requirement upon which
- 26 class specific distribution rates are calculated.

- 1 Atikokan would like to note that in Tab 8, row 25 of the Board's RRWF Model, it incorrectly displays
- the Revenue Deficiency as being \$130,717 as opposed to \$142,952 as shown the Cost Allocation
- 3 Model v3.4a. Atikokan believes this incorrect revenue deficiency in the RRWF Model is the result
- 4 of the treatment by the model of the taxable income loss at "current approved rates". The RRWF
- 5 Model does not allow income tax on taxable income to be less than zero in the "At Current
- 6 Approved Rates" column of Tab 8. This restriction needs to be removed in order to produce the
- 7 correct revenue deficiency in Tab 8 of the RRWF.
- 8 The drivers for the revenue deficiency by 'inputs' into the revenue requirement calculation are as
- 9 follows in Table 6.7 with explanations to follow:

Table 6.7: Revenue Requirement Analysis

Revenue Requirement Input Factors	Last Rebasing Year 2012	2017 Test Year	Variance
Distribution Revenue - Existing Rates		1,272,766	
OM&A	1,030,000	1,097,396	67,396
Depreciation	150,398	197,470	47,072
Property Tax	-	20,007	20,007
PILS	9,297	12,234	2,937
Other Expenses	- 2,261	1	2,261
Return on Debt (interest)	68,490	65,654	- 2,836
Return on Equity	102,126	125,726	23,600
Total	1,358,050	1,518,487	160,437
Other Revenue (Offsets)	125,235	102,770	- 22,465
Revenue Deficiency		- 142,952	
Rate Base	2,799,500	3,420,195	620,695
Working Capital Allowance Factor	15%	7.5%	

- Operations, Maintenance and Administration (including Billing) ("OM&A") expenses
 - OM&A for 2017 is \$67,396 higher than the 2012 Board approved amount, which represents an increase of 6.50%. Atikokan does not have many OM&A Cost drivers exceeding the \$50,000 threshold but Salaries, wages and benefits. This

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threshold having increased \$62,989 since the last Board Approved rebasing year as per collective agreements. The cost drivers underlying this increase are explained in Exhibit 4.

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 Other cost drivers that have been considerably increased or decreased since the last rebasing year but are below the materiality threshold include the following:

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Increase of \$21,619 in expenses for Metering Service Provider for Smart Metering

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Greater capitalization of OM&A \$53k

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Atikokan used less Consulting services in preparation of the 2017 Cost of Service Rate Application compared to the 2012 Rate Application, contributing to in a decrease in Outside Professional Services and Regulatory Expenses. Atikokan became a member of Utility Standards

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Forum during 2016 and now as an annual membership fee as a result; an expense that did not exist during 2012 Rate Application. Both of these

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among other immaterial changes contribute to a net decrease of \$48,550

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 Vegetation Control & Maintenance including tree trimming and pesticide spraying \$20,000

between Outside Professional Services and Regulatory Expenses.

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Depreciation/Amortization,

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 The growth in Atikokan's rate base has resulted in depreciation expense increase of \$47,072 over the Last Rebasing Year 2012.

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Property Taxes

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o In the last rebasing year (2012), Atikokan had Property Tax expenses but these were included in OM&A. Atikokan is now recording its Property Tax expense for the Test Year in amount of \$20,007 in account 6105 (Taxes other than Income Tax and PILS) as per the Board's Accounting Procedures Handbook. Where the property tax variance would actually only be the inflationary change over the years, due to the accounting it perceivably creates a variance.

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PILS

32 33 PILS has slightly increased; but the increase is immaterial. The increase in PILS
is attributable to the increased return on equity.

Return on Debt

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 Annual debt and interest payments has occurred since the Last Rebasing Year and is anticipated to continue over the forecast period. Atikokan's debt has been diminishing (See Exhibit 5) but Atikokan forecasts to borrow in the 2017 Test Year.

Return on Rate Base

O The proposed rate base for 2017 is \$620,696 or 18.1% higher than the 2012 Board-approved amount. The increase in the rate base drives an increase to the revenue requirement. The factors contributing to the change in the rate base are discussed in detail in Exhibit 2 but for the most part, are due to investments in the distribution due to the aging infrastructure and the change to smart metering. The rising cost of power and increased load forecast (Exhibit 3) since the 2012 Board Approved Load Forecast also contributes to an increased Rate Base. Also, OEB approved a deemed Return on Equity of 9.12% for the 2012 Rebasing Year; whereas the 2016 Board Capital Parameters ROE is 9.19%; a slight increase. Atikokan acknowledges this parameter is subject to change. It should be noted the return on Rate Base increase is slightly offset but the reduced Working Capital Allowance Factor to 7.5% from 15%.

• Revenue Offsets

Total project 2017 Test Year Other Revenue is \$22,465 less than 2012 Board Approved and is consistent with historical actual other revenue. Thereby less other revenue to offset the revenue requirement collected through distribution rates. See Exhibit 3.

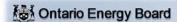
Other Interest

 Interest from Deferral and Variance accounts has remained mostly constant. The proposed interest rate OEB prescribed has decreased 1.47% to 1.10%. This is not included in Revenue Requirement as per APH.

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APPENDIX A: Revenue Requirement Workform (RRWF)



Revenue Requirement Workform (RRWF) for 2017 Filers



Version 7.02

Utility Name	Atikokan Hydro Inc.	
Service Territory	Town of Atikokan	
Assigned EB Number	EB-2016-0056	
Name and Title	Jen Wiens, CEO Secretary/Treasurer	
Phone Number	807-597-6600	
Email Address	jen.wiens@athydro.com	

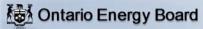
The RRWF has been enhanced commencing with 2017 rate applications to provide estimated base distribution rates. The enhanced RRWF is not intended to replace a utility's formal rate generator model which should continue to be the source of the proposed rates as well as the final ones at the conclusion on of the proceeding. The load forecasting addition made to this model is intended to be demonstrative only and does not replace the information filed in the utility's application. In an effort to minimize the incremental work required from utilities, the cost allocation and rate design additions to this model do in fact replace former appendices that were required to be filed as part of the cost of service (Chapter 2) filing requirements.

This Workbook Model is protected by copyright and is being made available to you solely for the purpose of filing your application. You may use and copy this model for that purpose, and provide a copy of this model to any person that is advising or assisting you in that regard. Except as indicated above, any copying, reproduction, publication, sale, adaptation, translation, modification, reverse engineering or other use or dissemination of this model without the express written consent of the Ontario Energy Board is prohibited. If you provide a copy of this model to a person that is advising or assisting you in preparing the application or reviewing your draft rate order, you must ensure that the person understands and agrees to the restrictions noted above.

While this model has been provided in Excel format and is required to be filed with the applications, the onus remains on the applicant to ensure the accuracy of the data and the results.

Atikokan Hydro Inc. EB-2016-0056 Exhibit 5 – Cost of Capital Page 12 of 25

Filed: October 3, 2016



Revenue Requirement Workform (RRWF) for 2017 Filers

1. Info 8. Rev_Def_Suff

2. Table of Contents 9. Rev_Reqt

3. Data Input Sheet 10. Load Forecast

4. Rate_Base 11. Cost Allocation

5. Utility Income 12. Residential Rate Design

6. Taxes_PlLs 13. Rate Design and Revenue Reconciliation

7. Cost of Capital 14. Tracking Sheet

Notes:

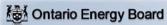
(1) Pale green cells represent inputs

(2) Pale green boxes at the bottom of each page are for additional notes

(3) Pale yellow cells represent drop-down lists

(4) Please note that this model uses MACROS. Before starting, please ensure that macros have been enabled.

(5) Completed versions of the Revenue Requirement Work Form are required to be filed in working Microsoft Excel format.



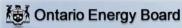
Revenue Requirement Workform (RRWF) for 2017 Filers

Data Input (1)

		Initial Application	¢			(6)	Per Board Decision	
1	Rate Base						*1	_
	Gross Fixed Assets (average)	\$6,694,681		5	6,694,681		\$6,694,68	1
	Accumulated Depreciation (average)	(\$3,647,600)	((\$3,647,600)		(\$3,647,600	0)
	Allowance for Working Capital:							
	Controllable Expenses	\$1,117,403			1,117,403		\$1,117,403	
	Cost of Power	\$3,857,454		\$	3,857,454		\$3,857,454	
	Working Capital Rate (%)	7.50%	6		7.50%	(9)	7.50%	% (9)
2	Utility Income							
	Operating Revenues: Distribution Revenue at Current Rates	\$1,272,766						
	Distribution Revenue at Proposed Rates	\$1,415,718						
	Other Revenue:	\$1,410,710						
	Specific Service Charges	\$5,885						
	Late Payment Charges	\$7,543						
	Other Distribution Revenue	\$4,875						
	Other Income and Deductions	\$84,467						
	Total Revenue Offsets	\$102,770	0					
	A LONG CONTRACTOR CONTRACTOR							
	Operating Expenses:			 200				2
	OM+A Expenses	\$1,097,396			1,097,396		\$1,097,396	
	Depreciation/Amortization Property taxes	\$197,470 \$20,007			197,470 20,007		\$197,470 \$20,007	
	Other expenses	\$20,007		•	20,007		\$20,001	
3	Taxes/PILs							
-	Taxable Income:							
	Adjustments required to arrive at taxable	(\$56,401)	6					
	income							
	Utility Income Taxes and Rates:							
	Income taxes (not grossed up)	\$10,399						
	Income taxes (grossed up)	\$12,234						
	Federal tax (%)	4.50%			4.50%		4.509	%
	Provincial tax (%)	10.50%	ê		10.50%		10.509	%
	Income Tax Credits							
4	Capitalization/Cost of Capital							
	Capital Structure: Long-term debt Capitalization Ratio (%)	56.0%			56.0%		56.09	%
	Short-term debt Capitalization Ratio (%)	4.0%			4.0%	(8)	4.09	
	Common Equity Capitalization Ratio (%)	40.0%			40.0%		40.09	
	Prefered Shares Capitalization Ratio (%)							
		100.0%	1		100.0%		100.09	%
	Cost of Capital							
	Long-term debt Cost Rate (%)	3.31%			3.31%		3.319	%
	Short-term debt Cost Rate (%)	1.65%			1.65%		1.659	%
	Common Equity Cost Rate (%)	9.19%			9.19%		9.199	
	Prefered Shares Cost Rate (%)	3.1370			0070		5.10	

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Revenue Requirement Workform (RRWF) for 2017 Filers

Rate Base and Working Capital

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No.	Particulars	4	Initial Application				Per Board Decision
1	Gross Fixed Assets (average)	(2)	\$6,694,681	\$ -	\$6,694,681	\$ -	\$6,694,681
2	Accumulated Depreciation (average)	(2)	(\$3,647,600)	\$-	(\$3,647,600)	\$ -	(\$3,647,600)
3	Net Fixed Assets (average)	(2)	\$3,047,081	\$ -	\$3,047,081	\$ -	\$3,047,081
4	Allowance for Working Capital	(1)	\$373,114	\$ -	\$373,114	\$ -	\$373,114
5	Total Rate Base		\$3,420,195	S -	\$3,420,195	S -	\$3,420,195

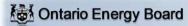
(1) Allowance for Working Capital - Derivation

0	Working Capital Allowance	=	\$373,114	\$-	\$373,114		\$373,114
9	Working Capital Rate %	(1)	7.50%	0.00%	7.50%	0.00%	7.50%
8	Working Capital Base		\$4,974,857	\$ -	\$4,974,857	\$ -	\$4,974,857
7	Cost of Power		\$3,857,454	\$ -	\$3,857,454	\$ -	\$3,857,454
6	Controllable Expenses		\$1,117,403	\$ -	\$1,117,403	\$ -	\$1,117,403

Notes

Some Applicants may have a unique rate as a result of a lead-lag study. The default rate for 2017 cost of service applications is 7.5%, per the letter issued by the Board on June 3, 2015.

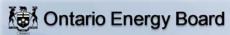
(2) Average of opening and closing balances for the year.



Revenue Requirement Workform (RRWF) for 2017 Filers

Utility Income

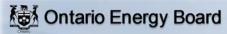
No.	Particulars	Initial Application				Per Board Decision
1	Operating Revenues: Distribution Revenue (at Proposed Rates)	\$1,415,718	(\$1,415,718)	\$-	\$-	\$ -
2	Other Revenue (1	\$102,770	(\$102,770)	<u> </u>	S-	<u> </u>
3	Total Operating Revenues	\$1,518,488	(\$1,518,488)	\$ -	<u> </u>	\$-
	Operating Expenses:					
4	OM+A Expenses	\$1,097,396	\$-	\$1,097,396	\$ -	\$1,097,396
5	Depreciation/Amortization	\$197,470	\$-	\$197,470	S -	\$197,470
6	Property taxes	\$20,007	\$-	\$20,007	\$-	\$20,007
7	Capital taxes	S -	S -	\$ -	S-	\$-
8	Other expense	<u> </u>	<u> </u>		<u> </u>	
9	Subtotal (lines 4 to 8)	\$1,314,873	\$ -	\$1,314,873	s -	\$1,314,873
10	Deemed Interest Expense	\$65,654	<u> </u>	\$65,654	\$-	\$65,654
11	Total Expenses (lines 9 to 10)	\$1,380,527	<u> </u>	\$1,380,527	<u> </u>	\$1,380,527
12	Utility income before					
	income taxes	\$137,961	(\$1,518,488)	(\$1,380,527)	<u> </u>	(\$1,380,527)
13	Income taxes (grossed-up)	\$12,234	\$-	\$12,234	<u> </u>	\$12,234
14	Utility net income	\$125,727	(\$1,518,488)	(\$1,392,761)	<u> </u>	(\$1,392,761)
Notes	Other Revenues / Reven	ue Offsets				
(1)	Specific Service Charges	\$5,885		\$-		\$-
	Late Payment Charges	\$7,543		S-		S-
	Other Distribution Revenue	\$4,875		S-		S-
	Other Income and Deductions	\$84,467		<u> </u>		<u> </u>
	Total Revenue Offsets	\$102,770	<u> </u>	\$ -	\$ -	S -



Revenue Requirement Workfor (RRWF) for 2017 Filers

Taxes/PILs

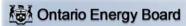
Line No.	Particulars	Application		Per Board Decision
	Determination of Taxable Income			
1	Utility net income before taxes	\$125,726	\$125,726	\$125,726
2	Adjustments required to arrive at taxable utility income	(\$56,401)	\$ -	\$-
3	Taxable income	\$69,325	\$125,726	\$125,726
	Calculation of Utility income Taxes			
4	Income taxes	\$10,399	\$10,399	\$10,399
6	Total taxes	\$10,399	\$10,399	\$10,399
7	Gross-up of Income Taxes	\$1,835	\$1,835	\$1,835
8	Grossed-up Income Taxes	\$12,234	\$12,234	\$12,234
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	\$12,234	\$12,234	\$12,234
10	Other tax Credits	\$-	\$-	\$ -
	Tax Rates			
11	Federal tax (%)	4.50%	4.50%	4.50%
12	Provincial tax (%)	10.50%	10.50%	10.50%
13	Total tax rate (%)	15.00%	15.00%	15.00%



Revenue Requirement Workforr (RRWF) for 2017 Filers

Capitalization/Cost of Capital

ne lo.	Particulars	Capitaliz	ation Ratio	Cost Rate	Return
6.6		Initial A	pplication	100	,
		(%)	(\$)	(%)	(\$)
	Debt				
1	Long-term Debt	56.00%	\$1,915,309	3.31%	\$63,397
2	Short-term Debt	4.00%	\$136,808	1.65%	\$2,257
3	Total Debt	60.00%	\$2,052,117	3.20%	\$65,654
	Equity				
4	Common Equity	40.00%	\$1,368,078	9.19%	\$125,726
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	Total Equity	40.00%	\$1,368,078	9.19%	\$125,726
7	Total	100.00%	\$3,420,195	5.60%	\$191,380
	Debt	(%)	(\$)	(%)	(\$)
1	Long-term Debt	56.00%	\$1,915,309	3.31%	\$63,397
2	Short-term Debt	4.00%	\$136,808	1.65%	\$2,257
3	Total Debt	60.00%	\$2,052,117	3.20%	\$65,654
	Equity				
4	Common Equity	40.00%	\$1,368,078	9.19%	\$125,726
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	Total Equity	40.00%	\$1,368,078	9.19%	\$125,726
7	Total	100.00%	\$3,420,195	5.60%	\$191,380
		Per Boar	d Decision		
		(%)	(\$)	(%)	(\$)
	Debt				
8	Long-term Debt	56.00%	\$1,915,309	3.31%	\$63,397
9	Short-term Debt	4.00%	\$136,808	1.65%	\$2,257
10	Total Debt	60.00%	\$2,052,117	3.20%	\$65,654
	Equity				
11	Common Equity	40.00%	\$1,368,078	9.19%	\$125,726
12	Preferred Shares	0.00%	\$-	0.00%	\$ -
	Total Causins	40.00%	\$1,368,078	9.19%	\$125,726
13	Total Equity	40.00%	\$1,000,070		



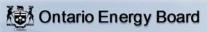
Revenue Requirement Workform (RRWF) for 2017 Filers

Revenue Deficiency/Sufficiency

		Initial Appl	lication			Per Board	Decision
Line No.	Particulars	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates
1	Revenue Deficiency from Below		\$153,785	2000	\$274,691	Det .	\$1,772,063
2	Distribution Revenue	\$1,272,766	\$1,261,933	\$1,272,766	\$1,141,027	\$ -	(\$1,772,063)
3	Other Operating Revenue Offsets - net	\$102,770	\$102,770	\$-	\$ -	\$ -	\$ -
4	Total Revenue	\$1,375,536	\$1,518,488	\$1,272,766	\$1,415,718	\$ -	\$ -
-	0	64 044 070	64 044 070	64 044 070	64 044 070	64 044 070	64 044 070
5	Operating Expenses	\$1,314,873	\$1,314,873	\$1,314,873	\$1,314,873	\$1,314,873	\$1,314,873
6	Deemed Interest Expense	\$65,654	\$65,654	\$65,654	\$65,654	\$65,654	\$65,654
8	Total Cost and Expenses	\$1,380,527	\$1,380,527	\$1,380,527	\$1,380,527	\$1,380,527	\$1,380,527
9	Utility Income Before Income Taxes	(\$4,991)	\$137,961	(\$107,761)	\$35,191	(\$1,380,527)	(\$1,380,527)
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$56,401)	(\$56,401)	(\$56,401)	(\$56,401)	\$-	\$ -
11	Taxable Income	(\$61,392)	\$81,560	(\$164,162)	(\$21,210)	(\$1,380,527)	(\$1,380,527)
12	Income Tax Rate	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
13	Income Tax on Taxable Income	\$ -	\$12,234	S -	S -	\$ -	\$ -
14	Income Tax Credits	\$-	\$-	\$-	\$-	\$ -	\$ -
15	Utility Net Income	(\$4,991)	\$125,727	(\$107,761)	(\$1,392,761)	(\$1,380,527)	(\$1,392,761)
16	Utility Rate Base	\$3,420,195	\$3,420,195	\$3,420,195	\$3,420,195	\$3,420,195	\$3,420,195
17	Deemed Equity Portion of Rate Base	\$1,368,078	\$1,368,078	\$1,368,078	\$1,368,078	\$1,368,078	\$1,368,078
18	Income/(Equity Portion of Rate Base)	-0.36%	9.19%	-7.88%	-101.80%	-100.91%	-101.80%
19	Target Return - Equity on Rate Base	9.19%	9.19%	9.19%	9.19%	9.19%	9.19%
20	Deficiency/Sufficiency in Return on Equity	-9.55%	0.00%	-17.07%	-110.99%	-110.10%	-110.99%
21	Indicated Rate of Return	1.77%	5.60%	-1.23%	-38.80%	-38.44%	-38.80%
22	Requested Rate of Return on	5.60%	5.60%	5.60%	5.60%	5.60%	5.60%
	Rate Base					3.3313	-
23	Deficiency/Sufficiency in Rate of Return	-3.82%	0.00%	-6.83%	-44.40%	-44.04%	-44.40%
24	Target Return on Equity	\$125,726	\$125,726	\$125,726	\$125,726	\$125,726	\$125,726
25	Revenue Deficiency/(Sufficiency)	\$130,717	\$0	\$233,487	(\$1,518,488)	\$1,506,253	(\$1,518,488)
26	Gross Revenue Deficiency/(Sufficiency)	\$153,785 (1)		\$274,691 (1)	A Manager Strategic A. S.	\$1,772,063 (1)	

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(1) Revenue Deficiency/Sufficiency divided by (1 - Tax Rate)



Revenue Requirement Workform (RRWF) for 2017 Filers

Revenue Requirement

Line No.	Particulars	Application			Per Board Decision	
1	OM&A Expenses	\$1,097,396		\$1,097,396	\$1,097,396	
2	Amortization/Depreciation	\$197,470		\$197,470	\$197,470	
3	Property Taxes	\$20,007		\$20,007	\$20.007	
5	Income Taxes (Grossed up)	\$12,234		\$12,234	\$12,234	
6	Other Expenses	\$ -		412,201	¥12,201	
7	Return					
	Deemed Interest Expense	\$65,654		\$65,654	\$65,654	
	Return on Deemed Equity	\$125,726	_	\$125,726	\$125,726	
8	Service Revenue Requirement					
	(before Revenues)	\$1,518,488	_	\$1,518,488	\$1,518,488	
9	Revenue Offsets	\$102,770		\$ -	\$ -	
10	Base Revenue Requirement	\$1,415,718		\$1,518,488	\$1,518,488	
	(excluding Tranformer Owership					
	Allowance credit adjustment)					
11	Distribution revenue	\$1,415,718		\$ -	\$ -	
12	Other revenue	\$102,770		\$ -	<u> </u>	
13	Total revenue	\$1,518,488		\$-	\$-	
14	Difference (Total Revenue Less					
	Distribution Revenue				. 202	
	Requirement before Revenues)	\$0	(1)	(\$1,518,488)	(\$1,518,488)	(1)

Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application	Δ% (2)	Per Board Decision	Δ% (2)	
Service Revenue Requirement Grossed-Up Revenue	\$1,518,488	\$1,518,488	\$0	\$1,518,488	(\$1)
Deficiency/(Sufficiency)	\$153,785	\$274,691	\$1	\$1,772,063	(\$1)
Base Revenue Requirement (to be recovered from Distribution					
Rates)	\$1,415,718	\$1,518,488	\$0	\$1,518,488	(\$1)
Revenue Deficiency/(Sufficiency) Associated with Base Revenue					
Requirement	\$142,952	\$ -	(\$1)	\$ -	(\$1)

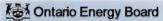


Revenue Requirement Workform (RRWF) for 2017 Filers

Load Forecast Summary

The information to be input is inclusive of any adjustments to kWh and kW to reflect the impacts of CDM programs up to and including CDM programs planned to be executed in the test year, i.e., the load forecast adjustments determ in Appendix 24 should be incorporated into the entries. The inputs should correspond with the summary of the Load Forecast for the Test Year in Appendix 24B and in Exhibit 3 of the application.

Stage in Process:	In	itial Application							
Customer Class	Ini	tial Application		· .		1	Per	Board Decision	
Input the name of each customer class.	Customer / Connections Test Year average or mid-year	kWh Annual	KW/KVA ⁽¹⁾ Annual	Customer / Connections Test Year average or mid-year	kWh Annual	Annual	Customer / Connections Test Year average or mid-year	kWh Annual	Annual
Residential Seneral Service Less Than 50 kW Seneral Service 50 to 4,999 kW Street Lightling	1,389 228 17 625	9,687,147 5,139,223 12,043,461 461,749	34,102 1,430	1,389 228 17 625	9,687,147 5,139,223 12,043,461 461,749	34.102 1.430	1,389 228 17 625	9,687,147 5,139,223 12,043,461 461,749	34.1



Revenue Requirement Workform (RRWF) for 2017 Filers

Cost Allocation and Rate Design

This spreadsheet replaces Appendix 2-P and provides a summary of the results from the Cost Allocation spreadsheet, and is used in the determination of the class revenue requirement and, hence, ultimately, the determination of rates from customers in all classes to recover the revenue requirement.

Stage in Application Process:

Initial Application

A) Allocated Costs

Name of Customer Class ⁽³⁾ From Sheet 10. Load Forecast	 Allocated from lous Study ⁽¹⁾	%	 located Class Revenue equirement ⁽¹⁾ (7A)	*
Residential	\$ 746,244	60.53%	\$ 986,601	64.97%
General Service Less Than 50 kW	\$ 287,448	23.32%	\$ 270,798	17.83%
General Service 50 to 4,999 kW	\$ 115,030	9.33%	\$ 172,553	11.36%
Street Lighting	\$ 84,093	6.82%	\$ 88,534	5.83%
		(),()()()56		41.0096
		(1,10196		41.4KH9G
		61,616196		11.11(196
		01,600196		43.49696
		01,00096		49.49695
		(1.()()96		61.69096
		61,616196		FILENIPS:
		61,616196		11.11(196
		(1,0)(196		41,416195
		(1,100)56		41.4KH9G
		61,610195		41.414196
		(1,6)(196		11.11(196
		01,660,95		43.49096
		61.66696		0.0096
		(1,((())))		41,69096
		0.00%		41.414196
Total	\$ 1,232,815	100.00%	\$ 1,518,486	100.00%
		Service Revenue Requirement (from Sheet 9)	\$ 1,518,487.52	

- (1) Class Allocated Revenue Requirement, from Sheet O-1, Revenue to Cost || RR, row 40, from the Cost Allocation Study in this application. This excludes costs in deferral and
- variance accounts. For Embedded Distributors, Account 4750 Low Voltage (LV) Costs are also excluded.

 (2) Host Distributors Provide information on any embedded distributor(s) as a separate class, if applicable. If embedded distributors are billed in a General Service class, include the allocated costs and revenues of the embedded distributor(s) in the applicable class, and also complete Appendix 2-Q.
- (3) Customer Classes If these differ from those in place in the previous cost allocation study, modify the customer classes to match the proposal in the current application as closely as possible.

B) Calculated Class Revenues

Name of Customer Class	Load Forecast (LF) X current approved rates		 X current oved rates X (1+d)	LF X I	Proposed Rates	Miscellaneous Revenues		
		(7B)	(7C)		(7D)		(7E)	
Residential	\$	716,629	\$ 797,117.26	\$	836,308.85	\$	63,825	
General Service Less Than 50 kW	\$	257,902	\$ 286,868.29	S	286,870.00	\$	18,166	
General Service 50 to 4,999 kW	\$	185,047	\$ 205,830.57	\$	196,020.00	\$	11,052	
Street Lighting	\$	113,188	\$ 125,900.72	\$	96,518.00	\$	9,727	
Total	\$	1,272,766	\$ 1,415,717	\$	1,415,717	\$	102,770	

- (4) In columns 7B to 7D, LF means Load Forecast of Annual Billing Quantities (i.e., customers or connections, as applicable X 12 months, and kWh, kW or kVA as applicable. Revenue quantities should be net of the Transformer Ownership Allowance for applicable customer classes. Exclude revenues from rate adders and rate riders.
- 5) Columns 7C and 7D Column Total should equal the Base Revenue Requirement for each.
- 6) Column 7C The OEB-issued cost allocation model calculates "1+d" on worksheet O-1, cell C22. "d" is defined as Revenue Deficiency/Revenue at Current Rates.
- (7) Column 7E If using the OEB-issued cost allocation model, enter Miscellaneous Revenues as it appears on worksheet O-1, row 19,

C) Rebalancing Revenue-to-Cost Ratios

Name of Customer Class	Previously Approved Ratios	Status Quo Ratios	Proposed Ratios	Policy Range
	Most Recent Year:	(7C + 7E) / (7A)	(7D + 7E) / (7A)	
	2012 %	%	%	%
Residential	97.30%	87.26%	91.24%	85 - 115
General Service Less Than 50 kW	120.00%	112.64%	112.64%	80 - 120
General Service 50 to 4,999 kW	90.60%	125.69%	120.00%	80 - 120
Street Lighting	90.60%	153.19%	120.00%	80 - 120

- Previously Approved Revenue-to-Cost (R/C) Ratios For most applicants, the most recent year would be the third year (at the latest) of the Price Cap IR period. For example, if the applicant, rebased in 2012 with further adjustments to move within the range over two years, the Most Recent Year would be 2015. However, the ratios in 2015 would be equal to those after the adjustment in 2014.
- (9) Status Quo Ratios The OEB-issued cost allocation model provides the Status Quo Ratios on Worksheet O-1. The Status Quo means "Before Rebalancing".
 (10) Ratios shown in red are outside of the allowed range. Applies to both Tables C and D.

(D) Proposed Revenue-to-Cost Ratios (11)

1 2

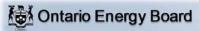
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4

5

Name of Customer Class	Propose	Policy Range		
	Test Year	Price Cap IR F	Period	
	2017	2018	2019	
Residential	91.24%	91.24%	91.24%	85 - 115
General Service Less Than 50 kW	112.64%	112.64%	112.64%	80 - 120
General Service 50 to 4,999 kW	120.00%	120.00%	120.00%	80 - 120
Street Lighting	120.00%	120.00%	120.00%	80 - 120

(11) The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2017 that is outside of the OEB's policy range for any customer class. Table D will show that the distributor is likely to enter into the 2018 and 2019 Price Cap IR models, as necessary. For 2018 and 2019, enter the planned revenue-to-cost ratios that will be "Change" or "No Change" in 2017 (in the current Revenue/Cost Ratio Adjustment Workform, Worksheet C1.1 'Decision - Cost Revenue Adjustment, column d), and enter TBD for class(es) that will be entered as 'Rebalance'.



Revenue Requirement Workform (RRWF) for 2017 Filers

New Rate Design Policy For Residential Customers

Please complete the following tables.

A Data Inputs (from Sheet 10. Load Forecast)

Test Year Billing Determinants	for Reside	ential Class
Customers		1,389
kWh		9,687,147
Proposed Residential Class Specific	\$	836,308.85
Revenue Requirement ¹		

Residential Base Rates on Current Tariff									
Monthly Fixed Charge (\$)	\$	36.95							
Distribution Volumetric Rate (\$/kWh)	\$	0.0104							

B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	36.95	1,389	\$ 615,882.60	85.94%
Variable	0.0104	9,687,147	\$ 100,746.33	14.06%
TOTAL	-	-	\$ 716,628.93	-

C Calculating Test Year Base Rates

Number of Remaining Rate Design	
Policy Transition Years ²	3

	Т	est Year Revenue @ Current F/V Split	Test Year Base Rates @ Current F/V Split	Reconciliation - Test Year Base Rates @ Current F/V Split		
Fixed	\$	718,737.48	43.12	\$ 718,724.16		
Variable	\$	117,571.37	0.0121	\$ 117,214.48		
TOTAL	\$	836,308.85	-	\$ 835,938.64		

	New F/V Split	R	evenue @ new F/V Split		Final Adjusted Base Rates	ij	Revenue Reconciliation @ Adjusted Rates
Fixed	90.63%	\$	757,927.93	\$	45.47	\$	757,893.96
Variable	9.37%	\$	78,380.91	\$	0.0081	\$	78,465.89
TOTAL	-	\$	836,308.85	1 2 2	-	\$	836,359.85

Checks ³									
Change in Fixed Rate	\$	2.35							
Difference Between Revenues @		\$51.00							
Proposed Rates and Class Specific		0.01%							

Note s

- 1 The final residential class specific revenue requirement, excluding allocated Miscellaneous Revenues, as shown on Sheet 11. Cost Allocation, should be used (i.e. the revenue requirement after any proposed adjustments to R/C ratios).
- The distributor should enter the number of years remaining before the transition to fully fixed rates is completed. A distributor transitioning to fully fixed rates over a four year period and began the transition in 2016 would input the number "3" into cell D40. A distributor transitioning over a five-year period would input the number "4". Where the change in the residential rate design will result in the fixed charge increasing by more than \$4/year, a distributor may propose an additional transition year.
- 3 Change in fixed rate due to rate design policy should be less than \$4. The difference between the proposed class revenue requirement and the revenue at calculated base rates should be minimal (i.e. should be reasonably considered as a rounding error)

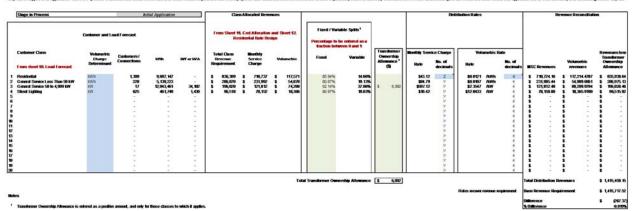
Atikokan Hydro Inc. EB-2016-0056 Exhibit 5 – Cost of Capital Page 24 of 25

Filed: October 3, 2016



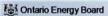
Rate Design and Revenue Reconciliation

liks der leptons Appendix VV, and provides a simplified model for colorability the shaded controllity and videoritic cales based on the appeared decrease the appeared decrease the appeared the territory of the appeared the appeared the territory of the appeared to the appeared the appeared to the appeared the appeared to the appeared to the appeared the appeared to the ap



Atikokan Hydro Inc. EB-2016-0056 Exhibit 5 – Cost of Capital Page 25 of 25

Filed: October 3, 2016



Revenue Requirement Workform (RRWF) for 2017 Filers

Tracking Form

The first row shown, labelled "Original Application", summarizes key statistics based on the data inputs into the RRWF. After the original application filing, the applicant provides key changes in capital and operating expenses, load forecasts, cost of capital, etc., a revised through the processing of the application. This could be due to revisions or responses to interrogatories. The last row shown is the most current estimate of the cost of service data reflecting the original application and any updates provided by the applicant distributor for low playable evidence, responses to interrogatories, understange, etc.)

Please ensure a Reference (Column B) and/or hem Description (Column C) is entered. Please note that unused rows will automatically be hidden and the PRINT AREA set when the PRINT BUTTON on Sheet 1 is activated

18 Short reference to evidence material finterrogatory response, undertaking, exhibit number, Board Decision, Code, Guideline, Report of the Board, etc.)

Summary of Proposed Changes

	- Sale India	Service Control of the Control of th	Cost of	Cost of Capital		Cost of Capital Rate Base and Capital Expenditures		Operating Expenses			Revenue Requirement			
	Reference (9	Item / Description [7]	Regulated Return on Capital	Regulated Rate of Return	Rate Base	Working Capital	Working Capital Allowance (\$)	Amortization / Depreciation	TaxesPILs	OMBA	Service Revenue Requirement	Other Revenues		
		Original Application	\$ 191,380	5.60%	\$ 3,420,195	\$ 4,974,857	\$ 3/3,114	\$ 197,470	\$ 12,234	\$ 1,097,396	\$ 1,518,488	\$ 102,770	\$ 1,415,718	\$ 153,785
1		Change												
2		Change								5.				