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Northern Ontario Wires Inc.
Filed: 26 August, 2016
EB-2016-0096
Exhibit 6

Exhibit 6:

REVENUE DEFICIENCY OR SUFFICIENCY



Northern Ontario Wires Inc.
Filed: 26 August, 2016
EB-2016-0096
Exhibit 6
Tab 1

Exhibit 6: Revenue Deficiency Or Sufficiency

Tab 1 (of 1): Overview



REVENUE DEFICIENCY OR SUFFICIENCY

The Revenue Deficiency at current approved rates is \$526,990 and the Gross Revenue Deficiency is \$619,988 for the 2017 Test Year. Further details are provided in the Revenue Requirement Workform at E6/T1/S1/Att1.

NOW Inc.'s utility income for the 2017 Test Year prior to any increase in distribution rates would be a loss of \$241,501 as shown in **Table 1**:

Table 1: Calculation of Utility Income

	2017 Test Year
Total Net Revenues	\$3,289,165
OM&A Expenditures	\$2,907,906
Depreciation & Amortization	\$439,680
Interest Expense	\$183,080
Total Costs & Expenses	\$3,530,666
Utility Income before Income Taxes / PILS	-\$241,501
PILS/Income Taxes	\$0
Utility Income	-\$241,501
Target Return on Equity	\$285,489
Revenue Deficiency	\$526,990
Gross Revenue Deficiency	\$619,988

NOW Inc. anticipates Distribution Revenues of \$3,020,247 for the 2017 Test Year at currently approved distribution rates. NOW Inc. further expects Other Revenue of \$268,918 for the 2017 Test Year. NOW Inc. therefore anticipates Total Net Revenues of \$3,289,165 for the 2017 Test Year before any change in rates. The indicated rate of return at current rates is -0.75% while the requested rate of return is 6.03% resulting in a deficiency of 6.78%.



NOW Inc. is requesting a Service Revenue Requirement of \$3,832,485 for the 2017 Test Year which translates into a Base Revenue Requirement of \$3,563,567 when reduced by Other Revenue of \$268,918 are taken into account. **Table 2** provide a summary of the 2017 Test Year Revenue Requirement.

Table 2: Calculation of Distribution Revenue Requirement

	2017 Test Year
OM&A Expenditures	\$2,907,906
Depreciation & Amortization	\$439,680
Interest Expense	\$183,080
Total Costs & Expenses	\$3,530,666
Regulated Return on Equity	\$285,489
PILS/Income Taxes	\$16,330
Service Revenue Requirement	\$3,832,485
Revenue Offsets	\$268,918
Base Revenue Requirement	\$3,563,567

Revenue Deficiency Cost Drivers:

The primary drivers of the 2017 revenue deficiency are higher OM&A and higher rate base. The increase in rate base results in higher depreciation expense and also a higher return.

Rate base has increased since 2013 as a result capital projects coming in service, partially offset by depreciation and lower working capital amounts. Working capital is lower than 2013 mainly due to a decrease in the Working Capital Allowance from 11.4% rate of approved in the 2013 Application to the current Board Approved R 7.5%. **Table 3** summarizes these changes:



Table 3: Change in Rate Base

	Rate Base		Change	
	2013 Approved	2017 Requirement	\$	%
Net Book Value	\$ 5,609,321	\$ 6,349,329	\$ 740,008	13.2%
Working Capital	\$ 1,663,785	\$ 1,416,959	-\$ 246,826	-14.8%
Total	\$ 7,273,106	\$ 7,766,288	\$ 493,182	6.8%

With respect to the 2017 revenue deficiency of \$619,988, the following analysis of drivers by revenue requirement component is provided in **Table 4**:

Table 4: Revenue Deficiency Drivers

Service Revenue Requirement	2013 Approved	2017 Revenue at Existing Rates Allocated in Proportion to 2013 Approved	2017 Proposed	Revenue Deficiency	Change (%)
	(A)	(B)	(C)	(D)=(C)-(B)	
OM&A	\$ 2,440,480	\$ 2,457,729	\$ 2,907,906	\$ 450,177	18.3%
Depreciation	\$ 318,130	\$ 320,378	\$ 439,680	\$ 119,302	37.2%
Return on Rate Base	\$ 420,007	\$ 422,976	\$ 468,569	\$ 45,593	10.8%
PILS	\$ 11,334	\$ 11,414	\$ 16,330	\$ 4,916	43.1%
Total	\$ 3,189,951	\$ 3,212,497	\$ 3,832,485	\$ 619,988	19.3%

The Service Revenue Requirement approved by the OIEB is in Column A. Column B is the 2017 Revenue at existing rates allocated to revenue requirement components based on the proportions in column A. Column C lists the 2017 Test Year component costs. The difference between Column C and Column B is Column D which provides an estimate of the revenue requirement components for the gross revenue deficiency of \$619,988.

- There are two main contributing factors to the revenue deficiency:
 - An increase in OM&A of \$450,177 which is close to the overall change in 2013 – 2017 OM&A of \$467,426 which is discussed in more detail at E4/T3/S1, and;



- 1 ○ An increase in Depreciation Expense of \$119,309 which results from an
- 2 increase in Net Book Value of Assets of \$740,008 as detailed in **Table 3**.
- 3 Please refer to E2/T1/S1 for further details.
- 4
- 5



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers



Version 7.02

Utility Name	Northern Ontario Wires Inc.
Service Territory	Cochrane, ON
Assigned EB Number	EB-2016-0096
Name and Title	Geoff Sutton, CFO
Phone Number	705-272-6669
Email Address	geoffs@nowinc.ca

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 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.

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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.



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers

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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 ⁽²⁾		⁽⁶⁾	Per Board Decision
1 Rate Base				
Gross Fixed Assets (average)	\$8,496,799		\$ 8,496,799	\$8,496,799
Accumulated Depreciation (average)	(\$2,147,471) ⁽⁵⁾		(\$2,147,471)	(\$2,147,471)
Allowance for Working Capital:				
Controllable Expenses	\$2,907,906		\$ 2,907,906	\$2,907,906
Cost of Power	\$15,984,891		\$ 15,984,891	\$15,984,891
Working Capital Rate (%)	7.50% ⁽⁹⁾		7.50% ⁽⁹⁾	7.50% ⁽⁹⁾
2 Utility Income				
Operating Revenues:				
Distribution Revenue at Current Rates	\$3,020,247			
Distribution Revenue at Proposed Rates	\$3,563,567			
Other Revenue:				
Specific Service Charges	\$179,571			
Late Payment Charges	\$89,347			
Other Distribution Revenue				
Other Income and Deductions				
Total Revenue Offsets	\$268,918 ⁽⁷⁾			
Operating Expenses:				
OM+A Expenses	\$2,907,906		\$ 2,907,906	\$2,907,906
Depreciation/Amortization	\$439,680		\$ 439,680	\$439,680
Property taxes				
Other expenses				
3 Taxes/PILs				
Taxable Income:				
Adjustments required to arrive at taxable income	(\$193,111) ⁽³⁾			
Utility Income Taxes and Rates:				
Income taxes (not grossed up)	\$13,881			
Income taxes (grossed up)	\$16,330			
Federal tax (%)	4.50%			
Provincial tax (%)	10.50%			
Income Tax Credits				
4 Capitalization/Cost of Capital				
Capital Structure:				
Long-term debt Capitalization Ratio (%)	56.0%			
Short-term debt Capitalization Ratio (%)	4.0% ⁽⁸⁾			
Common Equity Capitalization Ratio (%)	40.0%			
Preferred Shares Capitalization Ratio (%)				
	100.0%			
Cost of Capital				
Long-term debt Cost Rate (%)	4.09%			
Short-term debt Cost Rate (%)	1.65%			
Common Equity Cost Rate (%)	9.19%			
Preferred Shares Cost Rate (%)				

Notes:

General Data inputs are required on Sheets 3. Data from Sheet 3 will automatically complete calculations on sheets 4 through 9 (Rate Base through Revenue Requirement). Sheets 4 through 9 do not require any inputs except for notes that the Applicant may wish to enter to support the results. Pale green cells are available on sheets 4 through 9 to enter both footnotes beside key cells and the related text for the notes at the bottom of each sheet.

(1) All inputs are in dollars (\$) except where inputs are individually identified as percentages (%)

(2) Data in column E is for Application as originally filed. For updated revenue requirement as a result of interrogatory responses, technical or settlement conferences, etc., use column M and Adjustments in column I

(3) Net of addbacks and deductions to arrive at taxable income.

(4) Average of Gross Fixed Assets at beginning and end of the Test Year

(5) Average of Accumulated Depreciation at the beginning and end of the Test Year. Enter as a negative amount.

(6) Select option from drop-down list by clicking on cell M10. This column allows for the application update reflecting the end of discovery or Argument-in-Chief. Also, the outcome of any Settlement Process can be reflected.

(7) Input total revenue offsets for deriving the base revenue requirement from the service revenue requirement

(8) 4.0% unless an Applicant has proposed or been approved for another amount.

(9) The default Working Capital Allowance factor is 7.5% (of Cost of Power plus controllable expenses), per the letter issued by the Board on June 3, 2015. Alternatively, a WCA factor based on lead-lag study, with supporting rationale could be provided.



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers

Rate Base and Working Capital

Rate Base										
Line No.	Particulars		Initial Application						Per Board Decision	
1	Gross Fixed Assets (average) ⁽²⁾		\$8,496,799		\$ -		\$8,496,799		\$ -	\$8,496,799
2	Accumulated Depreciation (average) ⁽²⁾		(\$2,147,471)		\$ -		(\$2,147,471)		\$ -	(\$2,147,471)
3	Net Fixed Assets (average) ⁽²⁾		\$6,349,329		\$ -		\$6,349,329		\$ -	\$6,349,329
4	Allowance for Working Capital ⁽¹⁾		\$1,416,960		\$ -		\$1,416,960		\$ -	\$1,416,960
5	Total Rate Base		\$7,766,288		\$ -		\$7,766,288		\$ -	\$7,766,288

(1) Allowance for Working Capital - Derivation

6	Controllable Expenses	\$2,907,906	\$ -	\$2,907,906	\$ -	\$2,907,906
7	Cost of Power	\$15,984,891	\$ -	\$15,984,891	\$ -	\$15,984,891
8	Working Capital Base	\$18,892,797	\$ -	\$18,892,797	\$ -	\$18,892,797
9	Working Capital Rate % ⁽¹⁾	7.50%	0.00%	7.50%	0.00%	7.50%
10	Working Capital Allowance	\$1,416,960	\$ -	\$1,416,960	\$ -	\$1,416,960

Notes

(1) 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

Line No.	Particulars	Initial Application					Per Board Decision
	Operating Revenues:						
1	Distribution Revenue (at Proposed Rates)	\$3,563,567	(\$3,563,567)	\$ -	\$ -	\$ -	\$ -
2	Other Revenue ⁽¹⁾	\$268,918	(\$268,918)	\$ -	\$ -	\$ -	\$ -
3	Total Operating Revenues	\$3,832,485	(\$3,832,485)	\$ -	\$ -	\$ -	\$ -
	Operating Expenses:						
4	OM+A Expenses	\$2,907,906	\$ -	\$2,907,906	\$ -	\$2,907,906	\$2,907,906
5	Depreciation/Amortization	\$439,680	\$ -	\$439,680	\$ -	\$439,680	\$439,680
6	Property taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Capital taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Other expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Subtotal (lines 4 to 8)	\$3,347,586	\$ -	\$3,347,586	\$ -	\$3,347,586	\$3,347,586
10	Deemed Interest Expense	\$183,080	(\$183,080)	\$ -	\$ -	\$ -	\$ -
11	Total Expenses (lines 9 to 10)	\$3,530,666	(\$183,080)	\$3,347,586	\$ -	\$3,347,586	\$3,347,586
12	Utility income before income taxes	\$301,819	(\$3,649,405)	(\$3,347,586)	\$ -	(\$3,347,586)	(\$3,347,586)
13	Income taxes (grossed-up)	\$16,330	\$ -	\$16,330	\$ -	\$16,330	\$16,330
14	Utility net income	\$285,489	(\$3,649,405)	(\$3,363,916)	\$ -	(\$3,363,916)	(\$3,363,916)

Notes

Other Revenues / Revenue Offsets

(1)	Specific Service Charges	\$179,571	\$ -	\$ -	\$ -	\$ -
	Late Payment Charges	\$89,347	\$ -	\$ -	\$ -	\$ -
	Other Distribution Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
	Other Income and Deductions	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Revenue Offsets	\$268,918	\$ -	\$ -	\$ -	\$ -



Revenue Requirement Workform (RRWF) for 2017 Filers

Taxes/PILs

Line No.	Particulars	Application		Per Board Decision	
<u>Determination of Taxable Income</u>					
1	Utility net income before taxes	\$285,489		\$ -	\$ -
2	Adjustments required to arrive at taxable utility income	(\$193,111)		\$ -	\$ -
3	Taxable income	<u>\$92,378</u>		<u>\$ -</u>	<u>\$ -</u>
<u>Calculation of Utility income Taxes</u>					
4	Income taxes	<u>\$13,881</u>		<u>\$13,881</u>	<u>\$13,881</u>
6	Total taxes	<u>\$13,881</u>		<u>\$13,881</u>	<u>\$13,881</u>
7	Gross-up of Income Taxes	<u>\$2,450</u>		<u>\$2,450</u>	<u>\$2,450</u>
8	Grossed-up Income Taxes	<u>\$16,330</u>		<u>\$16,330</u>	<u>\$16,330</u>
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	<u>\$16,330</u>		<u>\$16,330</u>	<u>\$16,330</u>
10	Other tax Credits	\$ -		\$ -	\$ -
<u>Tax Rates</u>					
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%

Notes



Revenue Requirement Workform (RRWF) for 2017 Filers

Capitalization/Cost of Capital

Line No.	Particulars	Capitalization Ratio		Cost Rate		Return
		(%)	(\$)	(%)		(\$)
Initial Application						
	Debt					
1	Long-term Debt	56.00%	\$4,349,121	4.09%		\$177,954
2	Short-term Debt	4.00%	\$310,652	1.65%		\$5,126
3	Total Debt	60.00%	\$4,659,773	3.93%		\$183,080
	Equity					
4	Common Equity	40.00%	\$3,106,515	9.19%		\$285,489
5	Preferred Shares	0.00%	\$ -	0.00%		\$ -
6	Total Equity	40.00%	\$3,106,515	9.19%		\$285,489
7	Total	100.00%	\$7,766,288	6.03%		\$468,569
Per Board Decision						
	Debt					
1	Long-term Debt	0.00%	\$ -	0.00%		\$ -
2	Short-term Debt	0.00%	\$ -	0.00%		\$ -
3	Total Debt	0.00%	\$ -	0.00%		\$ -
	Equity					
4	Common Equity	0.00%	\$ -	0.00%		\$ -
5	Preferred Shares	0.00%	\$ -	0.00%		\$ -
6	Total Equity	0.00%	\$ -	0.00%		\$ -
7	Total	0.00%	\$7,766,288	0.00%		\$ -
	Debt					
8	Long-term Debt	0.00%	\$ -	4.09%		\$ -
9	Short-term Debt	0.00%	\$ -	1.65%		\$ -
10	Total Debt	0.00%	\$ -	0.00%		\$ -
	Equity					
11	Common Equity	0.00%	\$ -	9.19%		\$ -
12	Preferred Shares	0.00%	\$ -	0.00%		\$ -
13	Total Equity	0.00%	\$ -	0.00%		\$ -
14	Total	0.00%	\$7,766,288	0.00%		\$ -

Notes



Revenue Requirement Workform (RRWF) for 2017 Filers

Revenue Deficiency/Sufficiency

Line No.	Particulars	Initial Application		Per Board Decision	
		At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates
1	Revenue Deficiency from Below		\$619,988		\$385,105
2	Distribution Revenue	\$3,020,247	\$2,943,579	\$3,020,247	\$3,178,462
3	Other Operating Revenue	\$268,918	\$268,918	\$ -	\$ -
	Offsets - net				
4	Total Revenue	\$3,289,165	\$3,832,485	\$3,020,247	\$3,563,567
5	Operating Expenses	\$3,347,586	\$3,347,586	\$3,347,586	\$3,347,586
6	Deemed Interest Expense	\$183,080	\$183,080	\$ -	\$ -
8	Total Cost and Expenses	\$3,530,666	\$3,530,666	\$3,347,586	\$3,347,586
9	Utility Income Before Income Taxes	(\$241,501)	\$301,819	(\$327,339)	\$215,981
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$193,111)	(\$193,111)	(\$193,111)	(\$193,111)
11	Taxable Income	(\$434,612)	\$108,708	(\$520,450)	\$22,870
12	Income Tax Rate	15.00%	15.00%	15.00%	15.00%
13	Income Tax on Taxable Income	\$ -	\$16,306	\$ -	\$3,431
14	Income Tax Credits	\$ -	\$ -	\$ -	\$ -
15	Utility Net Income	(\$241,501)	\$285,489	(\$327,339)	(\$3,363,916)
16	Utility Rate Base	\$7,766,288	\$7,766,288	\$7,766,288	\$7,766,288
17	Deemed Equity Portion of Rate Base	\$3,106,515	\$3,106,515	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	-7.77%	9.19%	0.00%	0.00%
19	Target Return - Equity on Rate Base	9.19%	9.19%	0.00%	0.00%
20	Deficiency/Sufficiency in Return on Equity	-16.96%	0.00%	0.00%	0.00%
21	Indicated Rate of Return	-0.75%	6.03%	-4.21%	0.00%
22	Requested Rate of Return on Rate Base	6.03%	6.03%	0.00%	0.00%
23	Deficiency/Sufficiency in Rate of Return	-6.79%	0.00%	-4.21%	0.00%
24	Target Return on Equity	\$285,489	\$285,489	\$ -	\$ -
25	Revenue Deficiency/(Sufficiency)	\$526,990	(\$0)	\$327,339	\$ -
26	Gross Revenue	\$619,988 ⁽¹⁾		\$385,105 ⁽¹⁾	
	Deficiency/(Sufficiency)				

Notes:

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



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers

Revenue Requirement

Line No.	Particulars	Application		Per Board Decision	
1	OM&A Expenses	\$2,907,906	\$2,907,906	\$2,907,906	
2	Amortization/Depreciation	\$439,680	\$439,680	\$439,680	
3	Property Taxes	\$ -			
5	Income Taxes (Grossed up)	\$16,330	\$16,330	\$16,330	
6	Other Expenses	\$ -			
7	Return				
	Deemed Interest Expense	\$183,080	\$ -	\$ -	
	Return on Deemed Equity	\$285,489	\$ -	\$ -	
8	Service Revenue Requirement (before Revenues)	<u>\$3,832,485</u>	<u>\$3,363,916</u>	<u>\$3,363,916</u>	
9	Revenue Offsets	\$268,918	\$ -	\$ -	
10	Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	<u>\$3,563,567</u>	<u>\$3,363,916</u>	<u>\$3,363,916</u>	
11	Distribution revenue	\$3,563,567	\$ -	\$ -	
12	Other revenue	\$268,918	\$ -	\$ -	
13	Total revenue	<u>\$3,832,485</u>	<u>\$ -</u>	<u>\$ -</u>	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	<u>(\$0)</u> ⁽¹⁾	<u>(\$3,363,916)</u> ⁽¹⁾	<u>(\$3,363,916)</u> ⁽¹⁾	

Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application		Δ% ⁽²⁾	Per Board Decision	Δ% (2)
Service Revenue Requirement	\$3,832,485	\$3,363,916	(\$0)	\$3,363,916	(\$1)
Grossed-Up Revenue					
Deficiency/(Sufficiency)	\$619,988	\$385,105	(\$0)	\$3,938,336	(\$1)
Base Revenue Requirement (to be recovered from Distribution Rates)					
Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement	\$3,563,567	\$3,363,916	(\$0)	\$3,363,916	(\$1)
	\$543,320	\$ -	(\$1)	\$ -	(\$1)

Notes

(1) Line 11 - Line 8

(2) Percentage Change Relative to Initial Application



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers

Load Forecast Summary

This spreadsheet provides a summary of the customer and load forecast on which the test year revenue requirement is derived. The amounts serve as the denominators for deriving the rates to recover the test year revenue requirement for purposes of this RRWF.

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 determined in **Appendix 2-I** should be incorporated into the entries. The inputs should correspond with the summary of the Load Forecast for the Test Year in **Appendix 2-IB** and in Exhibit 3 of the application.

Appendix 2-IB is still required to be filled out, as it also provides a year-over-year variance analysis of demand growth and trends from historical actuals to the Bridge and Test Year forecasts.

Stage in Process:

Initial Application

Customer Class		Initial Application						Per Board Decision		
Input the name of each customer class.		Customer / Connections	kWh	kW/kVA ⁽¹⁾	Customer / Connections	kWh	kW/kVA ⁽¹⁾	Customer / Connections	kWh	kW/kVA ⁽¹⁾
		Test Year average or mid-year	Annual	Annual	Test Year average or mid-year	Annual	Annual	Test Year average or mid-year	Annual	Annual
1	Residential	5,216	40,704,801							
2	GS < 50	784	19,740,824							
3	GS > 50	71	56,387,438	166,531						
4	Unmetered Scattered Load	23	165,218							
5	Street Lighting	1,650	556,610	1,576						
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Total			117,554,891							

Notes:

⁽¹⁾ Input kW or kVA for those customer classes for which billing is based on demand (kW or kVA) versus energy consumption (kWh)



Ontario Energy Board

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⁾	Costs Allocated from Previous Study ⁽¹⁾	%	Allocated Class Revenue Requirement ⁽¹⁾	%
From Sheet 10. Load Forecast				
(7A)				
1 Residential	\$ 2,028,244	63.58%	\$ 2,632,892	68.70%
2 GS < 50	\$ 548,117	17.18%	\$ 634,753	16.56%
3 GS > 50	\$ 365,214	11.45%	\$ 339,352	8.85%
4 Unmetered Scattered Load	\$ 5,603	0.18%	\$ 6,769	0.18%
5 Street Lighting	\$ 242,772	7.61%	\$ 218,720	5.71%
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Total	\$ 3,189,950	100.00%	\$ 3,832,486	100.00%
Service Revenue Requirement (from Sheet 9)			\$ 3,832,485.11	

- (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 (7B)	LF X current approved rates X (1+d) (7C)	LF X Proposed Rates (7D)	Miscellaneous Revenues (7E)
1	Residential	\$ 2,018,525	\$ 2,381,641	\$ 2,381,807	\$ 170,421
2	GS < 50	\$ 577,869	\$ 681,824	\$ 681,824	\$ 52,124
3	GS > 50	\$ 270,068	\$ 318,652	\$ 318,652	\$ 37,174
4	Unmetered Scattered Load	\$ 6,725	\$ 7,935	\$ 7,759	\$ 364
5	Street Lighting	\$ 147,061	\$ 173,516	\$ 173,525	\$ 8,835
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Total		\$ 3,020,248	\$ 3,563,568	\$ 3,563,567	\$ 268,918

- (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)	
		2015			
		%	%	%	%
1	Residential	103.42%	96.93%	96.94%	85 - 115
2	GS < 50	109.43%	115.63%	115.63%	80 - 120
3	GS > 50	86.90%	104.85%	104.85%	80 - 120
4	Unmetered Scattered Load	94.70%	122.60%	120.00%	80 - 120
5	Street Lighting	70.00%	83.37%	83.38%	80 - 120
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- (8) 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⁾

Name of Customer Class		Proposed Revenue-to-Cost Ratio			Policy Range
		Test Year	Price Cap IR Period		
		2017	2018	2019	
1	Residential	96.94%	96.94%	96.94%	85 - 115
2	GS < 50	115.63%	115.63%	115.63%	80 - 120
3	GS > 50	104.85%	104.85%	104.85%	80 - 120
4	Unmetered Scattered Load	120.00%	120.00%	120.00%	80 - 120
5	Street Lighting	83.38%	83.38%	83.38%	80 - 120
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(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'.



Ontario Energy Board

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 Residential Class	
Customers	5,216
kWh	40,704,801

Proposed Residential Class Specific Revenue Requirement ¹	\$ 2,381,807.00
--	-----------------

Residential Base Rates on Current Tariff	
Monthly Fixed Charge (\$)	\$ 24.25
Distribution Volumetric Rate (\$/kWh)	\$ 0.0123

B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	24.25	5,216	\$ 1,517,856.00	75.20%
Variable	0.0123	40,704,801	\$ 500,669.05	24.80%
TOTAL	-	-	\$ 2,018,525.05	-

C Calculating Test Year Base Rates

Number of Remaining Rate Design Policy Transition Years ²	3
--	---

	Test Year Revenue @ Current F/V Split	Test Year Base Rates @ Current F/V Split	Reconciliation - Test Year Base Rates @ Current F/V Split
Fixed	\$ 1,791,030.56	28.61	\$ 1,790,757.12
Variable	\$ 590,776.44	0.0145	\$ 590,219.61
TOTAL	\$ 2,381,807.00	-	\$ 2,380,976.73

	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
Fixed	83.46%	\$ 1,987,956.04	\$ 31.76	\$ 1,987,921.92
Variable	16.54%	\$ 393,850.96	\$ 0.0097	\$ 394,836.57
TOTAL	-	\$ 2,381,807.00	-	\$ 2,382,758.49

Checks ³	
Change in Fixed Rate	\$ 3.15
Difference Between Revenues @ Proposed Rates and Class Specific	\$951.49
	0.04%

Notes:

- 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).
- ² 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)

This sheet replaces Appendix 2-V, and provides a simplified model for calculating the standard monthly and volumetric rates based on the allocated class revenues and fixed/variable split resulting from the cost allocation study and rate design and as proposed by the applicant. However, the RRFW does not replace the rate generator model that an applicant distributor may use in support of its application. The RRFW provides a demonstrative check on the derivation of the revenue requirement and on the proposed base distribution rates to recover the revenue requirement, based on summary information from a more detailed rate generator model and other models that applicants use for cost allocation, load forecasting, taxes/PILs, etc.

[illegible]

¹ Transformer Ownership Allowance is entered as a positive amount, and only for those classes to which it applies.

² The Fixed/Variable split, for each customer class, drives the "rate generator" portion of this sheet of the RRWF. Only the "fixed" fraction is entered, as the sum of the "fixed" and "variable" portions must sum to 100%. For a distributor that may set the Monthly Service Charge, the "fixed" ratio is calculated as: $[\text{MSC} \times (\text{average number of customers or connections}) \times 12 \text{ months}] / (\text{Class Allocated Revenue Requirement})$.



Ontario Energy Board

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., as 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 updated evidence, responses to interrogatories, undertakings, etc.)

Please ensure a Reference (Column B) and/or Item 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.

⁽¹⁾ Short reference to evidence material (interrogatory response, undertaking, exhibit number, Board Decision, Code, Guideline, Report of the Board, etc.)

⁽²⁾ Short description of change, issue, etc.

Summary of Proposed Changes

Reference ⁽¹⁾	Item / Description ⁽²⁾	Cost of Capital		Rate Base and Capital Expenditures			Operating Expenses			Revenue Requirement			
		Regulated Return on Capital	Regulated Rate of Return	Rate Base	Working Capital	Working Capital Allowance (\$)	Amortization / Depreciation	Taxes/PILs	OM&A	Service Revenue Requirement	Other Revenues	Base Revenue Requirement	Grossed up Revenue Deficiency / Sufficiency
	Original Application	\$ 468,569	6.03%	\$ 7,766,288	\$ 18,892,797	\$ 1,416,960	\$ 439,680	\$ 16,330	\$ 2,907,906	\$ 3,832,485	\$ 268,918	\$ 3,563,567	\$ 619,988