



Ontario Energy Board

# Revenue Requirement Workform (RRWF) for 2019 Filers



Version 8.00

Utility Name	Niagara-on-the-Lake Hydro Inc.
Service Territory	Niagara-on-the-Lake
Assigned EB Number	EB-2018-0056
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Test Year	<a href="#">2019</a>
Bridge Year	<a href="#">2018</a>
Last Rebasing Year	<a href="#">2014</a>

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 2019 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 2019 Filers

Data Input <sup>(1)</sup>

	Initial Application <sup>(2)</sup>			Per Board Decision
<b>1</b>	<b>Rate Base</b>			
	Gross Fixed Assets (average)	\$56,132,843	\$ 56,132,843	\$56,132,843
	Accumulated Depreciation (average)	(\$27,607,193) <sup>(5)</sup>	(\$27,607,193)	(\$27,607,193)
	<b>Allowance for Working Capital:</b>			
	Controllable Expenses	\$3,009,141	\$ 3,009,141	\$3,009,141
	Cost of Power	\$25,955,675	\$ 25,955,675	\$25,955,675
	Working Capital Rate (%)	7.50% <sup>(9)</sup>		
<b>2</b>	<b>Utility Income</b>			
	Operating Revenues:			
	Distribution Revenue at Current Rates	\$5,494,023		
	Distribution Revenue at Proposed Rates	\$5,544,424		
	<b>Other Revenue:</b>			
	Specific Service Charges	\$87,551		
	Late Payment Charges	\$54,284		
	Other Distribution Revenue	\$310,170		
	Other Income and Deductions	\$50,934		
	Total Revenue Offsets	\$502,939 <sup>(7)</sup>		
	<b>Operating Expenses:</b>			
	OM+A Expenses	\$2,974,186	\$ 2,974,186	\$2,974,186
	Depreciation/Amortization	\$1,157,365	\$ 1,157,365	\$1,157,365
	Property taxes	\$34,955	\$ 34,955	\$34,955
	Other expenses			
<b>3</b>	<b>Taxes/PILs</b>			
	Taxable Income:			
		(\$800,512) <sup>(3)</sup>		
	Adjustments required to arrive at taxable income			
	<b>Utility Income Taxes and Rates:</b>			
	Income taxes (not grossed up)	\$80,723		
	Income taxes (grossed up)	\$109,828		
	Federal tax (%)	15.00%		
	Provincial tax (%)	11.50%		
	Income Tax Credits	\$ -		
<b>4</b>	<b>Capitalization/Cost of Capital</b>			
	<b>Capital Structure:</b>			
	Long-term debt Capitalization Ratio (%)	56.0%		
	Short-term debt Capitalization Ratio (%)	4.0% <sup>(8)</sup>		
	Common Equity Capitalization Ratio (%)	40.0%		
	Preferred Shares Capitalization Ratio (%)			
		100.0%		
	<b>Cost of Capital</b>			
	Long-term debt Cost Rate (%)	3.71%		
	Short-term debt Cost Rate (%)	2.29%		
	Common Equity Cost Rate (%)	9.00%		
	Preferred Shares Cost Rate (%)	0.00%		

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.

- <sup>(1)</sup> All inputs are in dollars (\$) except where inputs are individually identified as percentages (%)
- <sup>(2)</sup> 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
- <sup>(3)</sup> Net of addbacks and deductions to arrive at taxable income.
- <sup>(4)</sup> Average of Gross Fixed Assets at beginning and end of the Test Year
- <sup>(5)</sup> Average of Accumulated Depreciation at the beginning and end of the Test Year. Enter as a negative amount.
- <sup>(6)</sup> 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.
- <sup>(7)</sup> Input total revenue offsets for deriving the base revenue requirement from the service revenue requirement
- <sup>(8)</sup> 4.0% unless an Applicant has proposed or been approved for another amount.
- <sup>(9)</sup> 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.



# Revenue Requirement Workform (RRWF) for 2019 Filers

## Rate Base and Working Capital

Line No.	Particulars	Initial Application				Per Board Decision
1	Gross Fixed Assets (average) <sup>(2)</sup>	\$56,132,843	\$ -	\$56,132,843	\$ -	\$56,132,843
2	Accumulated Depreciation (average) <sup>(2)</sup>	(\$27,607,193)	\$ -	(\$27,607,193)	\$ -	(\$27,607,193)
3	Net Fixed Assets (average) <sup>(2)</sup>	\$28,525,650	\$ -	\$28,525,650	\$ -	\$28,525,650
4	Allowance for Working Capital <sup>(1)</sup>	\$2,172,361	(\$2,172,361)	\$ -	\$ -	\$ -
5	<b>Total Rate Base</b>	<b>\$30,698,011</b>	<b>(\$2,172,361)</b>	<b>\$28,525,650</b>	<b>\$ -</b>	<b>\$28,525,650</b>

### (1) Allowance for Working Capital - Derivation

6	Controllable Expenses	\$3,009,141	\$ -	\$3,009,141	\$ -	\$3,009,141
7	Cost of Power	\$25,955,675	\$ -	\$25,955,675	\$ -	\$25,955,675
8	Working Capital Base	\$28,964,816	\$ -	\$28,964,816	\$ -	\$28,964,816
9	Working Capital Rate % <sup>(1)</sup>	7.50%	-7.50%	0.00%	0.00%	0.00%
10	Working Capital Allowance	\$2,172,361	(\$2,172,361)	\$ -	\$ -	\$ -

#### Notes

(1) Some Applicants may have a unique rate as a result of a lead-lag study. The default rate for 2018 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 2019 Filers

## Utility Income

Line No.	Particulars	Initial Application		Per Board Decision	
<b>Operating Revenues:</b>					
1	Distribution Revenue (at Proposed Rates)	\$5,544,424	(\$5,544,424)	\$ -	\$ -
2	Other Revenue <sup>(1)</sup>	\$502,939	(\$502,939)	\$ -	\$ -
3	<b>Total Operating Revenues</b>	<b>\$6,047,363</b>	<b>(\$6,047,363)</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Operating Expenses:</b>					
4	OM+A Expenses	\$2,974,186	\$ -	\$2,974,186	\$ -
5	Depreciation/Amortization	\$1,157,365	\$ -	\$1,157,365	\$ -
6	Property taxes	\$34,955	\$ -	\$34,955	\$ -
7	Capital taxes	\$ -	\$ -	\$ -	\$ -
8	Other expense	\$ -	\$ -	\$ -	\$ -
9	<b>Subtotal (lines 4 to 8)</b>	<b>\$4,166,506</b>	<b>\$ -</b>	<b>\$4,166,506</b>	<b>\$ -</b>
10	Deemed Interest Expense	\$665,901	(\$665,901)	\$ -	\$ -
11	<b>Total Expenses (lines 9 to 10)</b>	<b>\$4,832,407</b>	<b>(\$665,901)</b>	<b>\$4,166,506</b>	<b>\$ -</b>
12	<b>Utility income before income taxes</b>	<b>\$1,214,956</b>	<b>(\$5,381,462)</b>	<b>(\$4,166,506)</b>	<b>\$ -</b>
13	Income taxes (grossed-up)	\$109,828	\$ -	\$109,828	\$ -
14	<b>Utility net income</b>	<b>\$1,105,128</b>	<b>(\$5,381,462)</b>	<b>(\$4,276,333)</b>	<b>\$ -</b>

Notes

**Other Revenues / Revenue Offsets**

(1)	Specific Service Charges	\$87,551	\$ -	\$ -	\$ -
	Late Payment Charges	\$54,284	\$ -	\$ -	\$ -
	Other Distribution Revenue	\$310,170	\$ -	\$ -	\$ -
	Other Income and Deductions	\$50,934	\$ -	\$ -	\$ -
	<b>Total Revenue Offsets</b>	<b>\$502,939</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



# Revenue Requirement Workform (RRWF) for 2019 Filers

**Taxes/PILs**

Line No.	Particulars	Application	Per Board Decision
<b><u>Determination of Taxable Income</u></b>			
1	Utility net income before taxes	\$1,105,128	\$ -
2	Adjustments required to arrive at taxable utility income	(\$800,512)	\$ -
3	Taxable income	<u>\$304,617</u>	<u>\$ -</u>
<b><u>Calculation of Utility income Taxes</u></b>			
4	Income taxes	\$80,723	\$80,723
6	Total taxes	<u>\$80,723</u>	<u>\$80,723</u>
7	Gross-up of Income Taxes	\$29,104	\$29,104
8	Grossed-up Income Taxes	<u>\$109,828</u>	<u>\$109,828</u>
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	<u>\$109,828</u>	<u>\$109,828</u>
10	Other tax Credits	\$ -	\$ -
<b><u>Tax Rates</u></b>			
11	Federal tax (%)	15.00%	15.00%
12	Provincial tax (%)	<u>11.50%</u>	<u>11.50%</u>
13	Total tax rate (%)	<u>26.50%</u>	<u>26.50%</u>

**Notes**



# Revenue Requirement Workform (RRWF) for 2019 Filers

## Capitalization/Cost of Capital

Line No.	Particulars	Capitalization Ratio		Cost Rate	Return
		(%)	(\$)	(%)	(\$)
<b>Initial Application</b>					
	<b>Debt</b>				
1	Long-term Debt	56.00%	\$17,190,886	3.71%	\$637,782
2	Short-term Debt	4.00%	\$1,227,920	2.29%	\$28,119
3	<b>Total Debt</b>	<b>60.00%</b>	<b>\$18,418,806</b>	<b>3.62%</b>	<b>\$665,901</b>
	<b>Equity</b>				
4	Common Equity	40.00%	\$12,279,204	9.00%	\$1,105,128
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	<b>Total Equity</b>	<b>40.00%</b>	<b>\$12,279,204</b>	<b>9.00%</b>	<b>\$1,105,128</b>
7	<b>Total</b>	<b>100.00%</b>	<b>\$30,698,011</b>	<b>5.77%</b>	<b>\$1,771,030</b>
<b>Per Board Decision</b>					
	<b>Debt</b>				
1	Long-term Debt	0.00%	\$ -	0.00%	\$ -
2	Short-term Debt	0.00%	\$ -	0.00%	\$ -
3	<b>Total Debt</b>	<b>0.00%</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ -</b>
	<b>Equity</b>				
4	Common Equity	0.00%	\$ -	0.00%	\$ -
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	<b>Total Equity</b>	<b>0.00%</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ -</b>
7	<b>Total</b>	<b>0.00%</b>	<b>\$28,525,650</b>	<b>0.00%</b>	<b>\$ -</b>
	<b>Debt</b>				
8	Long-term Debt	0.00%	\$ -	3.71%	\$ -
9	Short-term Debt	0.00%	\$ -	2.29%	\$ -
10	<b>Total Debt</b>	<b>0.00%</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ -</b>
	<b>Equity</b>				
11	Common Equity	0.00%	\$ -	9.00%	\$ -
12	Preferred Shares	0.00%	\$ -	0.00%	\$ -
13	<b>Total Equity</b>	<b>0.00%</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ -</b>
14	<b>Total</b>	<b>0.00%</b>	<b>\$28,525,650</b>	<b>0.00%</b>	<b>\$ -</b>

### Notes



# Revenue Requirement Workform (RRWF) for 2019 Filers

## Revenue Deficiency/Sufficiency

Line No.	Particulars	Initial Application		Per Board Decision		Per Board Decision	
		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		\$50,401		(\$1,616,137)		\$5,668,715
2	Distribution Revenue	\$5,494,023	\$5,494,023	\$5,494,023	\$7,160,561	\$ -	(\$5,668,715)
3	Other Operating Revenue	\$502,939	\$502,939	\$ -	\$ -	\$ -	\$ -
	Offsets - net						
4	<b>Total Revenue</b>	<b>\$5,996,962</b>	<b>\$6,047,363</b>	<b>\$5,494,023</b>	<b>\$5,544,424</b>	<b>\$ -</b>	<b>\$ -</b>
5	Operating Expenses	\$4,166,506	\$4,166,506	\$4,166,506	\$4,166,506	\$4,166,506	\$4,166,506
6	Deemed Interest Expense	\$665,901	\$665,901	\$ -	\$ -	\$ -	\$ -
8	<b>Total Cost and Expenses</b>	<b>\$4,832,407</b>	<b>\$4,832,407</b>	<b>\$4,166,506</b>	<b>\$4,166,506</b>	<b>\$4,166,506</b>	<b>\$4,166,506</b>
9	<b>Utility Income Before Income Taxes</b>	<b>\$1,164,555</b>	<b>\$1,214,956</b>	<b>\$1,327,517</b>	<b>\$1,377,918</b>	<b>(\$4,166,506)</b>	<b>(\$4,166,506)</b>
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$800,512)	(\$800,512)	(\$800,512)	(\$800,512)	\$ -	\$ -
11	<b>Taxable Income</b>	<b>\$364,043</b>	<b>\$414,445</b>	<b>\$527,005</b>	<b>\$577,407</b>	<b>(\$4,166,506)</b>	<b>(\$4,166,506)</b>
12	Income Tax Rate	26.50%	26.50%	26.50%	26.50%	26.50%	26.50%
13	<b>Income Tax on Taxable Income</b>	<b>\$96,471</b>	<b>\$109,828</b>	<b>\$139,656</b>	<b>\$153,013</b>	<b>\$ -</b>	<b>\$ -</b>
14	<b>Income Tax Credits</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
15	<b>Utility Net Income</b>	<b>\$1,068,083</b>	<b>\$1,105,128</b>	<b>\$1,187,861</b>	<b>(\$4,276,333)</b>	<b>(\$4,166,506)</b>	<b>(\$4,276,333)</b>
16	<b>Utility Rate Base</b>	<b>\$30,698,011</b>	<b>\$30,698,011</b>	<b>\$28,525,650</b>	<b>\$28,525,650</b>	<b>\$28,525,650</b>	<b>\$28,525,650</b>
17	Deemed Equity Portion of Rate Base	\$12,279,204	\$12,279,204	\$ -	\$ -	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	8.70%	9.00%	0.00%	0.00%	0.00%	0.00%
19	Target Return - Equity on Rate Base	9.00%	9.00%	0.00%	0.00%	0.00%	0.00%
20	Deficiency/Sufficiency in Return on Equity	-0.30%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Indicated Rate of Return	5.65%	5.77%	4.16%	0.00%	-14.61%	0.00%
22	Requested Rate of Return on Rate Base	5.77%	5.77%	0.00%	0.00%	0.00%	0.00%
23	Deficiency/Sufficiency in Rate of Return	-0.12%	0.00%	4.16%	0.00%	-14.61%	0.00%
24	Target Return on Equity	\$1,105,128	\$1,105,128	\$ -	\$ -	\$ -	\$ -
25	Revenue Deficiency/(Sufficiency)	\$37,045	\$ -	(\$1,187,861)	\$ -	\$4,166,506	\$ -
26	<b>Gross Revenue Deficiency/(Sufficiency)</b>	<b>\$50,401 <sup>(1)</sup></b>	<b>\$ -</b>	<b>(\$1,616,137) <sup>(1)</sup></b>	<b>\$ -</b>	<b>\$5,668,715 <sup>(1)</sup></b>	<b>\$ -</b>

**Notes:**

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





# Revenue Requirement Workform (RRWF) for 2019 Filers

## Revenue Requirement

Line No.	Particulars	Application		Per Board Decision	
1	OM&A Expenses	\$2,974,186		\$2,974,186	
2	Amortization/Depreciation	\$1,157,365		\$1,157,365	
3	Property Taxes	\$34,955		\$34,955	
5	Income Taxes (Grossed up)	\$109,828		\$109,828	
6	Other Expenses	\$ -		\$ -	
7	Return				
	Deemed Interest Expense	\$665,901		\$ -	
	Return on Deemed Equity	\$1,105,128		\$ -	
8	<b>Service Revenue Requirement (before Revenues)</b>	<u>\$6,047,363</u>		<u>\$4,276,333</u>	
9	Revenue Offsets	\$502,939		\$ -	
10	<b>Base Revenue Requirement (excluding Transformer Owership Allowance credit adjustment)</b>	<u>\$5,544,424</u>		<u>\$4,276,333</u>	
11	Distribution revenue	\$5,544,424		\$ -	
12	Other revenue	\$502,939		\$ -	
13	<b>Total revenue</b>	<u>\$6,047,363</u>		<u>\$ -</u>	
14	<b>Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)</b>	<u>\$ -</u>	<sup>(1)</sup>	<u>(\$4,276,333)</u>	<sup>(1)</sup>

### Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application		Δ% <sup>(2)</sup>	Per Board Decision	Δ% (2)
<b>Service Revenue Requirement</b>	\$6,047,363	\$4,276,333	(\$0)	\$4,276,333	(\$1)
<b>Grossed-Up Revenue</b>					
<b>Deficiency/(Sufficiency)</b>	\$50,401	(\$1,616,137)	(\$33)	\$5,668,715	(\$1)
<b>Base Revenue Requirement (to be recovered from Distribution Rates)</b>	\$5,544,424	\$4,276,333	(\$0)	\$4,276,333	(\$1)
<b>Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement</b>	\$50,401	\$ -	(\$1)	\$ -	(\$1)

#### Notes

<sup>(1)</sup> Line 11 - Line 8

<sup>(2)</sup> Percentage Change Relative to Initial Application



Ontario Energy Board

# Revenue Requirement Workform (RRWF) for 2019 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.

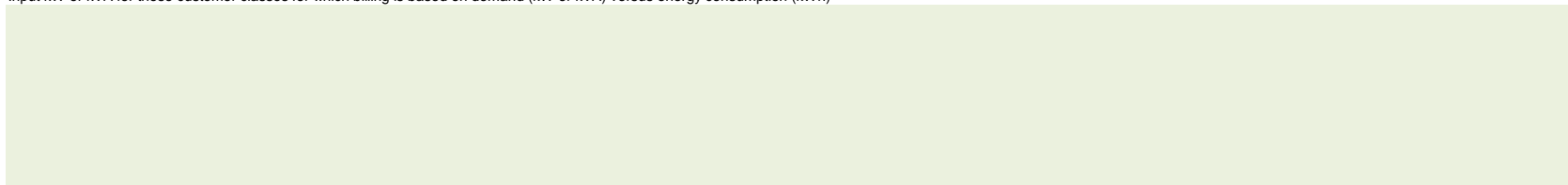
Stage in Process:

Initial Application

Customer Class		Initial Application			Customer / Connections			kWh			kW/kVA <sup>(1)</sup>		
Input the name of each customer class.		Customer / Connections	kWh	kW/kVA <sup>(1)</sup>	Customer / Connections	kWh	kW/kVA <sup>(1)</sup>	Customer / Connections	kWh	kW/kVA <sup>(1)</sup>	Customer / Connections	kWh	kW/kVA <sup>(1)</sup>
		Test Year average or mid-year	Annual	Annual	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	8,152	73,998,981	-									
2	GS<50	1,338	41,877,513	-									
3	GS>50	131	82,705,771	212,896									
4	Unmetered	26	251,508	-									
5	Streetlights	2,187	886,616	2,475									
6	Large User	1	23,308,825	60,000									
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
<b>Total</b>			<b>223,029,214</b>	<b>275,370</b>		-	-		-	-		-	-

Notes:

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





# Revenue Requirement Workform (RRWF) for 2019 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 <sup>(3)</sup>	Costs Allocated from Previous Study <sup>(1)</sup>	%	Allocated Class Revenue Requirement <sup>(1)</sup>	%
<i>From Sheet 10. Load Forecast</i>				
<b>(7A)</b>				
1 Residential	\$ 2,844,235	59.94%	\$ 3,610,412	59.70%
2 GS<50	\$ 869,164	18.32%	\$ 1,150,717	19.03%
3 GS>50	\$ 691,959	14.58%	\$ 905,520	14.97%
4 Unmetered	\$ 5,907	0.12%	\$ 8,044	0.13%
5 Streetlights	\$ 333,612	7.03%	\$ 186,682	3.09%
6 Large User	\$ -		\$ 185,989	3.08%
7				
8				
9				
10				
11				
12				
13				
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20				
<b>Total</b>	<b>\$ 4,744,877</b>	<b>100.00%</b>	<b>\$ 6,047,363</b>	<b>100.00%</b>
<b>Service Revenue Requirement (from Sheet 9)</b>			<b>\$ 6,047,363.02</b>	

- (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 <sup>(7B)</sup>	LF X current approved rates X "1+d" <sup>(7C)</sup>	LF X Proposed Rates <sup>(7D)</sup>	Miscellaneous Revenues <sup>(7E)</sup>
1 Residential	\$ 2,923,669	\$ 2,950,491	\$ 2,958,418	\$ 318,103
2 GS<50	\$ 1,177,017	\$ 1,187,815	\$ 1,187,793	\$ 90,078
3 GS>50	\$ 979,001	\$ 987,982	\$ 988,010	\$ 67,283
4 Unmetered	\$ 8,350	\$ 8,426	\$ 8,426	\$ 785
5 Streetlights	\$ 281,952	\$ 284,538	\$ 224,121	\$ 17,664
6 Large User	\$ 124,034	\$ 125,172	\$ 177,656	\$ 9,026
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20				
<b>Total</b>	<b>\$ 5,494,023</b>	<b>\$ 5,544,424</b>	<b>\$ 5,544,424</b>	<b>\$ 502,939</b>

- (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.



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# Revenue Requirement Workform (RRWF) for 2019 Filers

## Cost Allocation and Rate Design

(7) Column 7E - If using the OEB-issued cost allocation model, enter Miscellaneous Revenues as it appears on worksheet O-1, row 19,

# Revenue Requirement Workform (RRWF) for 2019 Filers

## Cost Allocation and Rate Design

**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)	
	2014			
	%	%	%	%
1 Residential	90.14%	90.53%	90.75%	85 - 115
2 GS<50	120.00%	111.05%	111.05%	80 - 120
3 GS>50	120.00%	116.54%	116.54%	80 - 120
4 Unmetered	90.14%	114.51%	114.51%	80 - 120
5 Streetlights	120.00%	161.88%	129.52%	80 - 120
6 Large User	0.00%	72.15%	100.37%	85 - 115
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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 <sup>(11)</sup>**

Name of Customer Class	Proposed Revenue-to-Cost Ratio			Policy Range
	Test Year	Price Cap IR Period		
	2019	2020	2021	
1 Residential	90.75%	91.27%	91.27%	85 - 115
2 GS<50	111.05%	111.05%	111.05%	80 - 120
3 GS>50	116.54%	116.54%	116.54%	80 - 120
4 Unmetered	114.51%	114.51%	114.51%	80 - 120
5 Streetlights	129.52%	120.00%	120.00%	80 - 120
6 Large User	100.37%	100.37%	100.37%	85 - 115
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- (11) The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2019 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 2020 and 2021 Price Cap IR models, as necessary. For 2020 and 2021, enter the planned revenue-to-cost ratios that will be "Change" or "No Change" in 2018 (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'.



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# Revenue Requirement Workform (RRWF) for 2019 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	8,152
kWh	73,998,981

Proposed Residential Class Specific Revenue Requirement <sup>1</sup>	\$ 2,958,417.69
--	-----------------

Residential Base Rates on Current Tariff	
Monthly Fixed Charge (\$)	\$ 26.86
Distribution Volumetric Rate (\$/kWh)	\$ 0.0033

### B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	26.86	8,152	\$ 2,627,673.51	91.50%
Variable	0.0033	73,998,981	\$ 244,196.64	8.50%
<b>TOTAL</b>	-	-	\$ 2,871,870.15	-

### C Calculating Test Year Base Rates

Number of Remaining Rate Design Policy Transition Years <sup>2</sup>	1
--	---

	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	\$ 2,706,861.87	27.67	\$ 2,706,914.60
Variable	\$ 251,555.82	0.0034	\$ 251,596.53
<b>TOTAL</b>	\$ 2,958,417.69	-	\$ 2,958,511.13

	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
Fixed	100.00%	\$ 2,958,417.69	\$ 30.24	\$ 2,958,333.84
Variable	0.00%	\$ -	\$ -	\$ -
<b>TOTAL</b>	-	\$ 2,958,417.69	-	\$ 2,958,333.84

Checks <sup>3</sup>	
Change in Fixed Rate	\$ 2.57
Difference Between Revenues @ Proposed Rates and Class Specific Revenue Requirement	(\$83.85)
	0.00%

### Notes:

- <sup>1</sup> 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).
- <sup>2</sup> 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.
- <sup>3</sup> 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)

# Revenue Requirement Workform (RRWF) for 2019 Filers

## Rate Design and Revenue Reconciliation

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 RRWF does not replace the rate generator model that an applicant distributor may use in support of its application. The RRWF 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.

Stage in Process:		Initial Application			Class Allocated Revenues			Fixed / Variable Splits <sup>2</sup>			Distribution Rates				Revenue Reconciliation		
Customer and Load Forecast					From Sheet 11, Cost Allocation and Sheet 12, Residential Rate Design			Percentage to be entered as a fraction between 0 and 1		Transformer Ownership Allowance <sup>1</sup> (\$)	Monthly Service Charge		Volumetric Rate		MSC Revenues	Volumetric revenues	Revenues less Transformer Ownership Allowance
Customer Class	Volumetric Charge Determinant	Customers / Connections	kWh	kW or kVA	Total Class Revenue Requirement	Monthly Service Charge	Volumetric	Fixed	Variable		Rate	No. of decimals	Rate	No. of decimals			
From sheet 10, Load Forecast																	
1 Residential	kWh	8,152	73,998,981	-	\$ 2,958,418	\$ 2,958,418	\$ -	100.00%	0.00%			\$0.0000 /kWh	4	\$ 2,958,333.84	\$ -	\$ 2,958,333.84	
2 GS<50	kWh	1,338	41,877,513	-	\$ 1,187,793	\$ 632,609	\$ 555,184	53.26%	46.74%			\$0.0133 /kWh		\$ 632,609.32	\$ 556,970.9276	\$ 1,189,580.25	
3 GS>50	kW	131	82,705,771	212,896	\$ 988,010	\$ 442,754	\$ 545,256	44.81%	55.19%	\$ 11,086		\$2.6132 /kW		\$ 442,753.80	\$ 556,338.7729	\$ 988,006.45	
4 Unmetered	kWh	26	251,508	-	\$ 8,426	\$ 6,287	\$ 2,140	74.61%	25.39%			\$0.0085 /kWh		\$ 6,286.80	\$ 2,137,8180	\$ 8,424.62	
5 Streetlights	kW	2,187	886,616	2,475	\$ 224,121	\$ 180,168	\$ 43,954	80.39%	19.61%			\$17.7609 /kW		\$ 180,277.01	\$ 43,953.6441	\$ 224,230.65	
6 Large User	kW	1	23,308,825	60,000	\$ 177,656	\$ 54,466	\$ 123,190	30.66%	69.34%	\$ 33,600		\$2.6132 /kW		\$ 54,465.72	\$ 156,792.0000	\$ 177,657.72	
7														\$ -	\$ -	\$ -	
8														\$ -	\$ -	\$ -	
9														\$ -	\$ -	\$ -	
10														\$ -	\$ -	\$ -	
11														\$ -	\$ -	\$ -	
12														\$ -	\$ -	\$ -	
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15														\$ -	\$ -	\$ -	
16														\$ -	\$ -	\$ -	
17														\$ -	\$ -	\$ -	
18														\$ -	\$ -	\$ -	
19														\$ -	\$ -	\$ -	
20														\$ -	\$ -	\$ -	
<b>Total Transformer Ownership Allowance</b>										\$ 44,686							
										Rates recover revenue requirement				<b>Total Distribution Revenues</b>	\$ 5,546,233.53		
														<b>Base Revenue Requirement</b>	\$ 5,544,424.03		
														<b>Difference</b>	\$ 1,809.50		
														<b>% Difference</b>	0.033%		

**Notes:**

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

<sup>2</sup> 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: [MSC x (average number of customers or connections) x 12 months] / (Class Allocated Revenue Requirement).















