



EXHIBIT 6 – REVENUE REQUIREMENT

2018 Cost of Service

Hydro Hawkesbury Inc.
EB-2017-0048

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6.2 CALCULATION OF REVENUE REQUIREMENT

6.2.1 DETERMINATION OF NET UTILITY INCOME

HHI's current rates are based on Board approved rates effective January 1, 2017 through an IRM proceeding (EB-2016-0072). Existing revenues based on existing Board approved rates, which are used in calculating utility income, are comprised of distribution revenue and exclude pass-thru charges such as LV Charges and Transmission Charges and well as balances in deferral and variance accounts.¹

Details on existing and projected distribution revenue at existing rates are presented in both Exhibit 3 and Exhibit 8 and are also replicated below. Other revenues are shown in Exhibit 3 Section 3.4. Table 1 below shows distribution revenues at both current rates and proposed 2018 volumes.

¹ MFR - Deficiency/sufficiency must also be net of other costs (e.g. LV costs, RSVAs, smart meter and other DVA balances).

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Table 1 - Distribution Revenues at Current Rates – 2018 Volumes

2017 Rates at 2018 Load

Customer Class Name	Test Year Projected Revenue from Existing Variable Charges							
	Variable Distribution Rate	per	Test Year Volume	Gross Variable Revenue	Transform. Allowance Rate	Transform. Allowance kW's	Transform. Allowance \$'s	Net Variable Revenue
<i>Residential</i>	\$0.0051	kWh	48,228,553	\$245,965.62			\$0.00	\$245,965.62
<i>General Service < 50 kW</i>	\$0.0061	kWh	18,143,532	\$110,675.55			\$0.00	\$110,675.55
<i>General Service > 50 to 4999 kW</i>	\$2.0470	kW	211,046	\$432,011.64	-0.60	189205	-\$113,523.00	\$318,488.64
<i>Unmetered Scattered Load</i>	\$0.0039	kWh	429,307	\$1,674.30			\$0.00	\$1,674.30
<i>Sentinel Lighting</i>	\$3.2940	kW	238	\$784.98			\$0.00	\$784.98
<i>Street Lighting</i>	\$5.9651	kW	1,844	\$10,998.81			\$0.00	\$10,998.81
Total Variable Revenue			67,014,520	\$802,110.89	-0.6	189205	-\$113,523.00	\$688,587.89
<u>2017 Rates at 2018 Load</u>								
Customer Class Name	Test Year Projected Revenue from Existing Fixed Charges							
	Fixed Rate	Customers (Connections)	Fixed Charge Revenue	Variable Revenue	TOTAL	% Fixed Revenue	% Variable Revenue	% Total Revenue
<i>Residential</i>	\$11.9000	4,836	\$690,573.46	\$245,965.62	\$936,539.08	73.74%	26.26%	58.12%
<i>General Service < 50 kW</i>	\$15.4700	618	\$114,640.36	\$110,675.55	\$225,315.91	50.88%	49.12%	13.98%
<i>General Service > 50 to 4999 kW</i>	\$100.9900	89	\$107,667.89	\$318,488.64	\$426,156.53	25.26%	74.74%	26.45%
<i>Unmetered Scattered Load</i>	\$6.6300	10	\$761.75	\$1,674.30	\$2,436.04	31.27%	68.73%	0.15%
<i>Sentinel Lighting</i>	\$1.6600	57	\$1,130.06	\$784.98	\$1,915.04	59.01%	40.99%	0.12%
<i>Street Lighting</i>	\$0.5500	1,211	\$7,995.02	\$10,998.81	\$18,993.83	42.09%	57.91%	1.18%
Total Fixed Revenue		6,820	\$922,768.54	\$688,587.89	\$1,611,356.43			

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2018 Rates at 2018 Load

Customer Class Name	Test Year Projected Revenue from Proposed Variable Charges							
	Variable Distribution Rate	per	Test Year Volume	Gross Variable Revenue	Transform. Allowance Rate	Transform. Allowance kW's	Transform. Allowance \$'s	Net Variable Revenue
Residential	\$0.0028	kWh	48,228,553	\$134,735.85			\$0.00	\$134,735.85
General Service < 50 kW	\$0.0073	kWh	18,143,532	\$133,248.77			\$0.00	\$133,248.77
General Service > 50 to 4999 kW	\$2.2602	kW	211,046	\$476,998.51	-0.60	189205	-\$113,523.00	\$363,475.51
Unmetered Scattered Load	\$0.0043	kWh	429,307	\$1,839.70			\$0.00	\$1,839.70
Sentinel Lighting	\$3.6222	kW	238	\$863.20			\$0.00	\$863.20
Street Lighting	\$7.2372	kW	1,844	\$13,344.36			\$0.00	\$13,344.36
Total Variable Revenue			67,014,520	\$761,030.39	-0.6	189205	-\$113,523.00	\$647,507.39
2018 Rates at 2018 Load								
Customer Class Name	Test Year Projected Revenue from Proposed Fixed Charges							
	Fixed Rate	Customers (Connections)	Fixed Charge Revenue	Variable Revenue	TOTAL	% Fixed Revenue	% Variable Revenue	% Total Revenue
Residential	\$15.3900	4,836	\$893,102.99	\$134,735.85	\$1,027,838.84	67.19%	23.93%	52.77%
General Service < 50 kW	\$15.4700	618	\$114,640.36	\$133,248.77	\$247,889.13	46.25%	44.65%	12.70%
General Service > 50 to 4999 kW	\$100.9900	89	\$107,667.89	\$363,475.51	\$471,143.40	22.85%	67.60%	24.01%
Unmetered Scattered Load	\$7.2900	10	\$837.58	\$1,839.70	\$2,677.27	28.45%	62.54%	0.14%
Sentinel Lighting	\$1.8254	57	\$1,242.67	\$863.20	\$2,105.87	53.66%	37.28%	0.11%
Street Lighting	\$0.6673	1,211	\$9,700.00	\$13,344.36	\$23,044.36	34.69%	47.73%	1.07%
Total Fixed Revenue		6,820	\$1,127,191.48	\$647,507.39	\$1,774,698.87			

6.2.2 PROPOSED REVENUE REQUIREMENT

The 2018 Base Revenue Requirement, which represents the amount of money that a utility must receive from its customers to cover its costs, operating expenses, taxes, interest paid on debts owed to investors and a deemed return (profit) is calculated to be \$1,174,699 Table 2 below presents HHI's proposed 2018 Revenue Requirement as calculated in the OEB's Revenue Requirement Work Form which is being filed with this application and is also presented at Appendix 1 of this Exhibit. ^{2 3} Table 3 shows the Statement of Rate Base and Table 4 shows the Return on Rate Base

Table 2 - Test Year Revenue Requirement

<i>Particular</i>	2018
<i>OM&A Expenses</i>	\$1,210,114
<i>Amortization Expense</i>	\$280,878
<i>Total Distribution Expenses</i>	\$1,490,993
<i>Regulated Return on Capital</i>	\$481,883
<i>Grossed up PILs</i>	\$9,717
<i>Service Revenue Requirement</i>	\$1,982,593
<i>Less: Revenue Offsets</i>	-\$207,894
<i>Base Revenue Requirement</i>	\$1,774,699

² MFR - RRWF - in PDF and Excel. Revenue requirement, def/sufficiency, data entered in RRWF must correspond with other exhibits

³ MFR - If the enhanced RRWF cannot reflect a distributor's proposed rates accurately, the distributor must file its rate generator model

6.2.3 STATEMENT OF RATE BASE

Table 3 - Statement of Rate Base

	(%)	(\$)	(%)	(\$)
Debt				
Long-term Debt	56.00%	\$4,824,416	3.59%	\$173,259
Short-term Debt	4.00%	\$344,601	1.76%	\$6,065
Total Debt	60.0%	\$5,169,017	3.47%	\$179,324
Equity				
Common Equity	40.00%	\$3,446,011	8.78%	\$302,560
Preferred Shares		\$ -		\$ -
Total Equity	40.0%	\$3,446,011	8.78%	\$302,560
Total	100.0%	\$8,615,028	5.59%	\$481,883

6.2.4 ACTUAL UTILITY RETURN ON RATE BASE

Table 4 - Return on Rate Base

	Return
Deemed Interest Expense	\$179,324
Return on Deemed Equity	\$302,560
Total	\$481,883

6.2.5 REQUESTED AND INDICATED RATE OF RETURN

The requested rate of return is 8.78% as per the OEB prescribed Cost of Capital Parameters.
Details of the calculation can be found in Tab 2 of this exhibit in Table 9- Calculation of Revenue Deficiency or Surplus.

6.2.6 UTILITY INCOME AT PROPOSED REVENUE REQUIREMENT

Table 5 - Utility Income under proposed Revenue Requirement

<i>Particulars</i>	<i>Initial Application</i>
<u>Operating Revenues:</u>	
<i>Distribution Revenue (at Proposed Rates)</i>	\$1,774,699
<i>Other Revenue</i>	\$207,894
<i>Total Operating Revenues</i>	\$1,982,593
<u>Operating Expenses:</u>	
<i>OM+A Expenses</i>	\$1,210,114
<i>Depreciation/Amortization</i>	\$280,878
<i>Property taxes</i>	\$ -
<i>Capital taxes</i>	\$ -
<i>Other expense</i>	\$ -
Total Operating Expenses	\$1,490,993
<i>Deemed Interest Expense</i>	\$179,324
<i>Total Expenses</i>	\$1,670,316
Utility income before income taxes	\$312,277
<i>Income taxes (grossed-up)</i>	\$9,717
Utility net income	\$302,560

6.2.7 REVENUE REQUIREMENT TREND

Table 6 below presents HHI's Revenue Requirement trend starting from the 2014 Board Approved all the way to the 2018 proposed Revenue Requirement.

Table 6 - Trend in Revenue Requirement

<i>Particular</i>	CGAAP Last Board Approved	NEWGAAP 2014	MIFRS 2015	MIFRS 2016	MIFRS 2017	MIFRS 2018
<i>OM&A Expenses</i>	\$1,126,741	\$970,668	\$944,340	\$996,817	\$1,193,426	\$1,210,114
<i>Depreciation Expense</i>	\$206,119	\$178,036	\$188,834	\$194,087	\$204,766	\$280,878
<i>Property Taxes</i>	\$0	\$0	\$0	\$14,843	\$0	\$0
<i>Total Distribution Expenses</i>	\$1,332,860	\$1,148,704	\$1,133,174	\$1,205,747	\$1,398,192	\$1,490,993
<i>Regulated Return on Capital</i>	\$385,394	\$341,251	\$390,903	\$440,492	\$583,646	\$481,883
<i>Grossed up PILs</i>	\$12,526	\$115,926	\$125,340	\$143,120	\$23,703	\$9,717
Service Revenue Requirement	\$1,730,780	\$1,605,881	\$1,649,417	\$1,789,360	\$2,005,541	\$1,982,593
<i>Less: Revenue Offsets</i>	-\$140,139	-\$132,749	-\$134,567	-\$213,537	-\$206,859	-\$207,894
Base Revenue Requirement	\$1,590,641	\$1,473,132	\$1,514,851	\$1,575,823	\$1,798,682	\$1,774,699

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Table 7 - Variance Analysis of Revenue Requirement

	CGAAP	NEWGAAP	MIFRS	MIFRS	MIFRS	MIFRS	Variance over last CoS
Particular	Last Board Approved	2014	2015	2016	2017	2018	2018
OM&A Expenses	1,126,741	970,668	944,340	996,817	1,193,426	1,210,114	
Year over year change (\$)		-156,073	-26,328	52,477	196,609	16,689	83,373
Year over year change (%)		-13.85%	-2.71%	5.56%	19.72%	1.40%	7.40%
Depreciation Expense	206,119	178,036	188,834	194,087	204,766	280,878	
Year over year change (\$)		-28,083	10,798	5,253	10,679	76,112	74,759
Year over year change (%)		-13.62%	6.07%	2.78%	5.50%	37.17%	36.27%
Property Taxes	0	15,264	15,126	14,843	0	0	
Year over year change (\$)		15,264	-138	-282	-14,843	0	0
Year over year change (%)			-0.91%	-1.87%	-100.00%		
Total Distribution Expenses	1,332,860	1,163,968	1,148,300	1,205,747	1,398,192	1,490,993	
Year over year change (\$)		-168,892	-15,668	57,448	192,445	92,800	158,133
Year over year change (%)		-12.67%	-1.35%	5.00%	15.96%	6.64%	11.86%
Regulated Return On Capital	385,394	368,794	390,903	440,492	583,646	481,883	
Year over year change (\$)		-16,600	22,110	49,589	143,153	-101,762	96,489
Year over year change (%)		-4.31%	6.00%	12.69%	32.50%	-17.44%	25.04%
Grossed up PILs	12,526	115,926	125,340	143,120	23,703	9,717	
Year over year change (\$)		103,400	9,414	17,781	-119,417	-13,986	-2,809
Year over year change (%)		825.48%	8.12%	14.19%	-83.44%	-59.01%	-22.43%
Service Revenue Requirement	1,730,780	1,648,688	1,664,543	1,789,360	2,005,541	1,982,593	
Year over year change (\$)		-82,092	15,855	124,817	216,181	-22,948	251,813
Year over year change (%)		-4.74%	0.96%	7.50%	12.08%	-1.14%	14.55%
Less: Revenue Offsets	-140,139	-132,749	-134,567	-213,537	-206,859	-207,894	-67,755
Year over year change (\$)		7,390	-1,818	-78,971	6,678	-1,035	-67,755
Year over year change (%)		-5.27%	1.37%	58.69%	-3.13%	0.50%	48.35%
Base Revenue Requirement	1,590,641	1,515,939	1,529,976	1,575,823	1,798,682	1,774,699	
Year over year change (\$)		-74,702	14,037	45,847	222,859	-23,983	184,058
Year over year change (%)		-4.70%	0.93%	3.00%	14.14%	-1.33%	11.57%

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3 As can be seen from Table 6 and Table 7 above, the proposed revenue requirement for the test
4 year is 11.57% higher than the 2014 Cost of Service Approved Revenue Requirement. The
5 revenue requirement between 2014 and 2016 has increased moderately representing a
6 deliberate pace of capital and operational investment. The increase in 2017 and 2018 mostly due

1 to the increase in OM&A and the Regulated Return on Capital due to the capital addition of the
2 new 110KV Substation. Regulatory costs are also projected to be higher for 2018 due to
3 provisions for an oral hearing and drafting of the Distribution System Plan by a third-party
4 engineering firm. Year over year variances in OM&A are explained throughout Exhibit 4 and
5 Revenue Offsets and explained in detail at Exhibit 3.

6.3 REVENUE DEFICIENCY OR SURPLUS

6.3.1 CALCULATION OF REVENUE DEFICIENCY OR SURPLUS

HHI's net revenue deficiency under the proposed rates is \$180,736 using the Service Revenue Requirement or \$163,342 using the Base Revenue Requirement (as shown in Table 8 below). This deficiency is calculated as the difference between the 2018 Test Year Revenue Requirement and the Forecast Test Year Revenue Requirement at the Applicant's 2017 approved distribution rates.

Table 8 - Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency (RRWF)

<i>Service Revenue Requirement</i>	\$1,982,593
<i>Grossed-Up Revenue Deficiency/(Sufficiency)</i>	\$180,736
<i>Base Revenue Requirement (to be recovered from Distribution Rates)</i>	\$1,774,699
<i>Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement</i>	\$163,342

The Revenue Deficiency sheet presented at the next page is an excerpt from the Revenue Requirement Work Form. The drivers of the revenue deficiency are detailed in Table 9 at the next page.

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Table 9 - Revenue Deficiency (RRWF)⁴

Particulars	At Current Approved Rates	At Proposed Rates
Revenue Deficiency from Below		\$180,736
Distribution Revenue	\$1,611,356	\$1,593,963
Other Operating Revenue Offsets - net	\$207,894	\$207,894
Total Revenue	\$1,819,250	\$1,982,593
Operating Expenses	\$1,490,993	\$1,490,993
Deemed Interest Expense	\$179,324	\$179,324
Total Cost and Expenses	\$1,670,316	\$1,670,316
Utility Income Before Income Taxes	\$148,934	\$312,277
Tax Adjustments to Accounting PLIs model	Income per 2013 (\$247,497)	(\$247,497)
Taxable Income	(\$98,563)	\$64,779
Income Tax Rate	15.00%	15.00%
Income Tax on Taxable Income	\$ -	\$9,717
Income Tax Credits	\$ -	\$ -
Utility Net Income	\$148,934	\$302,560
Utility Rate Base	\$8,615,028	\$8,615,028
Deemed Equity Portion of Rate Base	\$3,446,011	\$3,446,011
Income/(Equity Portion of Rate Base)	4.32%	8.78%
Target Return - Equity on Rate Base	8.78%	8.78%
Deficiency/Sufficiency in Return on Equity	-4.46%	0.00%
Indicated Rate of Return	3.81%	5.59%
Requested Rate of Return on Rate Base	5.59%	5.59%
Deficiency/Sufficiency in Rate of Return	-1.78%	0.00%
Target Return on Equity	\$302,560	\$302,560
Revenue Deficiency/(Sufficiency)	\$153,626	\$ -
Gross Revenue Deficiency/(Sufficiency)	\$180,736	(1)

⁴ MFR - Calculation of delivery-related Revenue Deficiency/Sufficiency (excluding cost of power and associated costs): net utility income, rate base, actual return on rate base, indicated rate of return, requested rate of return, deficiency/sufficiency, gross deficiency/sufficiency. Deficiency/sufficiency must also be net of other costs (e.g. LV costs, RSVAs, smart meter and other DVA balances).

⁵6.3.2 CAUSES OF REVENUE DEFICIENCY OR SURPLUS

HHI's existing rates are based on the Board-approved rates in 2014 following a cost of service rate application, and adjustments to its base distribution rates in 2014-2017 under the Board's third Generation Incentive Regulation Mechanism.

As shown in Table 9 in the previous section, the Revenue Deficiency is determined to be \$180,736. The deficiency is for the most part due to the increase in the Rate Base, Depreciation Expenses, and OM&A.

Table 10 below shows that the causes for the revenue deficiency stem from an increase in Rate Base of \$2,228,828 higher than the 2014 Board-approved amount, an increase of 34.90%. Based on a 5.59% overall cost of capital, the increase in the rate base drives an increase in the revenue requirement. The factors contributing to the change in the rate base are discussed in detail at Exhibit 2 but for the most part, are due to investments in the distribution system to follow the Distribution System Plan more specifically the energizing of the 110KV substation.

Increased Operations, Maintenance, and Administration (OM&A) expenses are another driver of the revenue deficiency. Projected OM&A for 2018 is \$83,373 higher than the 2014 Board-approved amount, which represents an increase of 7.40%. The cost drivers underlying this increase are explained in Exhibit 4.

The major contributors of the deficiency from 2014 Board Approved to 2018 Test Year are presented in the table below and explanations following the table.

Table 10 – Differences in Revenue Requirement from 2014 Cost of Service

<i>Particular</i>	NEWGAAP	MIFRS		
	2014	2018	Diff	
<i>Long Term Debt</i>	3.94%	3.59%	-0.35%	-8.85%
<i>Short Term Debt</i>	2.11%	1.76%	-0.35%	-16.59%
<i>Return on Equity</i>	9.36%	8.78%	-0.58%	-6.20%
<i>Weighted Debt Rate</i>	3.82%	3.47%	-0.35%	-9.14%

⁵ MFR - Summary of drivers for test year deficiency/sufficiency, how much each driver contributes; references in application evidence mapped to drivers

Regulated Rate of Return	6.03%	5.59%	-0.44%	-7.31%
OM&A	\$1,126,665	\$1,210,114	\$83,449	7.41%
Power Supply Expense	\$16,503,476	\$19,519,602	\$3,016,126	18.28%
Total Eligible Distribution Expenses	\$17,630,141	\$20,729,716	\$3,099,576	17.58%
Working Capital Allowance Rate	13.00%	7.50%	-5.50%	-42.31%
Total Working Capital Allowance ("WCA")	\$2,291,918	\$1,554,729	-\$737,190	-32.16%
Fixed Asset Opening Bal Bridge Year	\$3,320,570	\$7,112,824	\$3,792,254	114.20%
Fixed Asset Opening Bal Test Year	\$4,867,995	\$7,007,776	\$2,139,781	43.96%
Average Fixed Asset	\$4,094,282	\$7,060,300	\$2,966,017	72.44%
Working Capital Allowance	\$2,291,918	\$1,554,729	-\$737,190	-32.16%
Rate Base	\$6,386,201	\$8,615,028	\$2,228,828	34.90%
Regulated Rate of Return	6.03%	5.59%	-0.44%	-7.31%
Regulated Return on Capital	\$385,394	\$481,883	\$96,489	25.04%
OM&A	\$1,126,741	\$1,210,114	\$83,373	7.40%
Depreciation Expense	\$206,119	\$280,878	\$74,759	36.27%
PILs	\$12,526	\$9,717	-\$2,809	-22.43%
Revenue Offset	-\$140,139	-\$207,894	-\$67,755	48.35%
Revenue Requirement	\$1,590,641	\$1,774,699	\$184,058	11.57%

- The marginal increase in OM&A of \$83,449 from \$1,126,665 in 2014 Board Approved to \$1,210,114 in 2018 all of which are explained in detail throughout Exhibit 4.
- An increase in Average Net Fixed Assets of \$2,966,017 from \$4,094,282 in 2014 Board approved to \$7,060,300 in 2018 is explained at Exhibit 2 and in the Distribution System Plan. HHI notes that the majority of the increase is related to the new substation.
- A decrease of \$737,190 in Working Capital of from \$2,291,918 in 2014 Board approved to \$1,554,729 in 2018.
- A reduction in the Weighted Average Cost of Capital from 6.03% of 2014 Board approved to 5.59% in 2018 which is explained at Exhibit 5.
- An increase in Depreciation Expenses of \$74,759 from \$206,119 in the 2014 Board approved to \$280,878 in 2018 which is detailed in Exhibit 4.
- A decrease in deemed PILs expense of -\$2,809 from the 2014 Board approved value to \$9,717 in 2018.

6.3.3 IMPACT OF IMPLEMENTATION OF MIFRS ON REVENUE DEFICIENCY OR SURPLUS

The adoption of newly prescribed accounting policies has had no impact on the allocation of the revenue requirement and determination of the rate base as the utility had already adopted the new useful lives in its last Cost of Service.

HHI's OM&A has not been impacted by the policy which states that burdens which are longer eligible for capitalization have been removed from rate base and included as an operating expense since the utility has never capitalized administrative burdens on capital projects.⁶

⁶ MFR - Impacts of any changes in methodologies to deficiency/sufficiency

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Appendix 1 – Revenue Requirement Work Form



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers



Version 7.00

Utility Name	Hydro Hawkesbury Inc.
Service Territory	
Assigned EB Number	EB-2017-0048
Name and Title	Michel Poulin, General Manager
Phone Number	613-632-6689
Email Address	mpoulin@hydrohawkesbury.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.

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.



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers

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[13. Rate Design and Revenue Reconciliation](#)

[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 ⁽²⁾			Per Board Decision
1 Rate Base				
Gross Fixed Assets (average)	\$7,983,667		\$ 7,983,667	\$7,983,667
Accumulated Depreciation (average)	(\$923,368) ⁽⁵⁾		(\$923,368)	(\$923,368)
Allowance for Working Capital:				
Controllable Expenses	\$1,210,114		\$ 1,210,114	\$1,210,114
Cost of Power	\$19,519,602		\$ 19,519,602	\$19,519,602
Working Capital Rate (%)	7.50% ⁽⁹⁾			
2 Utility Income				
Operating Revenues:				
Distribution Revenue at Current Rates	\$1,611,356			
Distribution Revenue at Proposed Rates	\$1,774,699			
Other Revenue:				
Specific Service Charges	\$64,948			
Late Payment Charges	\$29,740			
Other Distribution Revenue	\$30,777			
Other Income and Deductions	\$82,429			
Total Revenue Offsets	\$207,894 ⁽⁷⁾			
Operating Expenses:				
OM+A Expenses	\$1,210,114		\$ 1,210,114	\$1,210,114
Depreciation/Amortization	\$280,878		\$ 280,878	\$280,878
Property taxes				
Other expenses				
3 Taxes/PILs				
Taxable Income:				
	(\$247,497) ⁽³⁾			
Adjustments required to arrive at taxable income				
Utility Income Taxes and Rates:				
Income taxes (not grossed up)	\$8,259			
Income taxes (grossed up)	\$9,717			
Federal tax (%)	10.50%			
Provincial tax (%)	4.50%			
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 (%)	3.59%			
Short-term debt Cost Rate (%)	1.76%			
Common Equity Cost Rate (%)	8.78%			
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)	\$7,983,667		\$ -		\$7,983,667		\$ -	\$7,983,667
2	Accumulated Depreciation (average)	(2)	(\$923,368)		\$ -		(\$923,368)		\$ -	(\$923,368)
3	Net Fixed Assets (average)	(2)	\$7,060,300		\$ -		\$7,060,300		\$ -	\$7,060,300
4	Allowance for Working Capital	(1)	\$1,554,729		(\$1,554,729)		\$ -		\$ -	\$ -
5	Total Rate Base		\$8,615,028		(\$1,554,729)		\$7,060,300		\$ -	\$7,060,300

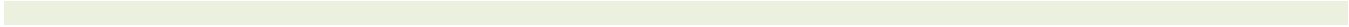
(1) Allowance for Working Capital - Derivation

6	Controllable Expenses	\$1,210,114	\$ -	\$1,210,114	\$ -	\$1,210,114
7	Cost of Power	\$19,519,602	\$ -	\$19,519,602	\$ -	\$19,519,602
8	Working Capital Base	\$20,729,716	\$ -	\$20,729,716	\$ -	\$20,729,716
9	Working Capital Rate % ⁽¹⁾	7.50%	-7.50%	0.00%	0.00%	0.00%
10	Working Capital Allowance	\$1,554,729	(\$1,554,729)	\$ -	\$ -	\$ -

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)	\$1,774,699	(\$1,774,699)	\$ -	\$ -	\$ -	\$ -
2	Other Revenue ⁽¹⁾	\$207,894	(\$207,894)	\$ -	\$ -	\$ -	\$ -
3	Total Operating Revenues	\$1,982,593	(\$1,982,593)	\$ -	\$ -	\$ -	\$ -
Operating Expenses:							
4	OM+A Expenses	\$1,210,114	\$ -	\$1,210,114	\$ -	\$1,210,114	\$1,210,114
5	Depreciation/Amortization	\$280,878	\$ -	\$280,878	\$ -	\$280,878	\$280,878
6	Property taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Capital taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Other expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Subtotal (lines 4 to 8)	\$1,490,993	\$ -	\$1,490,993	\$ -	\$1,490,993	\$1,490,993
10	Deemed Interest Expense	\$179,324	(\$179,324)	\$ -	\$ -	\$ -	\$ -
11	Total Expenses (lines 9 to 10)	\$1,670,316	(\$179,324)	\$1,490,993	\$ -	\$1,490,993	\$1,490,993
12	Utility income before income taxes	\$312,277	(\$1,803,269)	(\$1,490,993)	\$ -	(\$1,490,993)	(\$1,490,993)
13	Income taxes (grossed-up)	\$9,717	\$ -	\$9,717	\$ -	\$9,717	\$9,717
14	Utility net income	\$302,560	(\$1,803,269)	(\$1,500,709)	\$ -	(\$1,500,709)	(\$1,500,709)

Notes

Other Revenues / Revenue Offsets

⁽¹⁾							
	Specific Service Charges	\$64,948		\$ -		\$ -	\$ -
	Late Payment Charges	\$29,740		\$ -		\$ -	\$ -
	Other Distribution Revenue	\$30,777		\$ -		\$ -	\$ -
	Other Income and Deductions	\$82,429		\$ -		\$ -	\$ -
	Total Revenue Offsets	\$207,894	\$ -	\$ -	\$ -	\$ -	\$ -



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	\$302,560		\$ -		\$ -	
2	Adjustments required to arrive at taxable utility income	(\$247,497)		\$ -		\$ -	
3	Taxable income	\$55,063		\$ -		\$ -	
<u>Calculation of Utility income Taxes</u>							
4	Income taxes	\$8,259		\$8,259		\$8,259	
6	Total taxes	\$8,259		\$8,259		\$8,259	
7	Gross-up of Income Taxes	\$1,458		\$1,458		\$1,458	
8	Grossed-up Income Taxes	\$9,717		\$9,717		\$9,717	
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	\$9,717		\$9,717		\$9,717	
10	Other tax Credits	\$ -		\$ -		\$ -	
<u>Tax Rates</u>							
11	Federal tax (%)	10.50%		10.50%		10.50%	
12	Provincial tax (%)	4.50%		4.50%		4.50%	
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%		\$4,824,416	3.59%			\$173,259
2	Short-term Debt	4.00%		\$344,601	1.76%			\$6,065
3	Total Debt	60.00%		\$5,169,017	3.47%			\$179,324
	Equity							
4	Common Equity	40.00%		\$3,446,011	8.78%			\$302,560
5	Preferred Shares	0.00%		\$ -	0.00%			\$ -
6	Total Equity	40.00%		\$3,446,011	8.78%			\$302,560
7	Total	100.00%		\$8,615,028	5.59%			\$481,883
		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%		\$7,060,300	0.00%			\$ -
		Per Board Decision						
		(%)		(\$)		(%)		(\$)
	Debt							
8	Long-term Debt	0.00%		\$ -	3.59%			\$ -
9	Short-term Debt	0.00%		\$ -	1.76%			\$ -
10	Total Debt	0.00%		\$ -	0.00%			\$ -
	Equity							
11	Common Equity	0.00%		\$ -	8.78%			\$ -
12	Preferred Shares	0.00%		\$ -	0.00%			\$ -
13	Total Equity	0.00%		\$ -	0.00%			\$ -
14	Total	0.00%		\$7,060,300	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		\$180,736		(\$141,605)
2	Distribution Revenue	\$1,611,356	\$1,593,963	\$1,611,356	\$1,916,304
3	Other Operating Revenue	\$207,894	\$207,894	\$ -	\$ -
	Offsets - net				
4	Total Revenue	\$1,819,250	\$1,982,593	\$1,611,356	\$1,774,699
5	Operating Expenses	\$1,490,993	\$1,490,993	\$1,490,993	\$1,490,993
6	Deemed Interest Expense	\$179,324	\$179,324	\$ -	\$ -
8	Total Cost and Expenses	\$1,670,316	\$1,670,316	\$1,490,993	\$1,490,993
9	Utility Income Before Income Taxes	\$148,934	\$312,277	\$120,364	\$283,706
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$247,497)	(\$247,497)	(\$247,497)	(\$247,497)
11	Taxable Income	(\$98,563)	\$64,779	(\$127,133)	\$36,209
12	Income Tax Rate	15.00%	15.00%	15.00%	15.00%
13	Income Tax on Taxable Income	\$ -	\$9,717	\$ -	\$5,431
14	Income Tax Credits	\$ -	\$ -	\$ -	\$ -
15	Utility Net Income	\$148,934	\$302,560	\$120,364	(\$1,500,709)
16	Utility Rate Base	\$8,615,028	\$8,615,028	\$7,060,300	\$7,060,300
17	Deemed Equity Portion of Rate Base	\$3,446,011	\$3,446,011	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	4.32%	8.78%	0.00%	0.00%
19	Target Return - Equity on Rate Base	8.78%	8.78%	0.00%	0.00%
20	Deficiency/Sufficiency in Return on Equity	-4.46%	0.00%	0.00%	0.00%
21	Indicated Rate of Return	3.81%	5.59%	1.70%	0.00%
22	Requested Rate of Return on Rate Base	5.59%	5.59%	0.00%	0.00%
23	Deficiency/Sufficiency in Rate of Return	-1.78%	0.00%	1.70%	0.00%
24	Target Return on Equity	\$302,560	\$302,560	\$ -	\$ -
25	Revenue Deficiency/(Sufficiency)	\$153,626	\$ -	(\$120,364)	\$ -
26	Gross Revenue Deficiency/(Sufficiency)	\$180,736 ⁽¹⁾		(\$141,605) ⁽¹⁾	

Notes:

⁽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	\$1,210,114		\$1,210,114		\$1,210,114	
2	Amortization/Depreciation	\$280,878		\$280,878		\$280,878	
3	Property Taxes	\$ -					
5	Income Taxes (Grossed up)	\$9,717		\$9,717		\$9,717	
6	Other Expenses	\$ -					
7	Return						
	Deemed Interest Expense	\$179,324		\$ -		\$ -	
	Return on Deemed Equity	\$302,560		\$ -		\$ -	
8	Service Revenue Requirement (before Revenues)	<u>\$1,982,593</u>		<u>\$1,500,709</u>		<u>\$1,500,709</u>	
9	Revenue Offsets	\$207,894		\$ -		\$ -	
10	Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	<u>\$1,774,699</u>		<u>\$1,500,709</u>		<u>\$1,500,709</u>	
11	Distribution revenue	\$1,774,699		\$ -		\$ -	
12	Other revenue	\$207,894		\$ -		\$ -	
13	Total revenue	<u>\$1,982,593</u>		<u>\$ -</u>		<u>\$ -</u>	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	<u>\$ -</u>	(1)	<u>(\$1,500,709)</u>	(1)	<u>(\$1,500,709)</u>	(1)

Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application		Δ% (2)	Per Board Decision	Δ% (2)
Service Revenue Requirement	\$1,982,593	\$1,500,709	(\$0)	\$1,500,709	(\$1)
Grossed-Up Revenue					
Deficiency/(Sufficiency)	\$180,736	(\$141,605)	(\$2)	\$1,754,109	(\$1)
Base Revenue Requirement (to be recovered from Distribution Rates)	\$1,774,699	\$1,500,709	(\$0)	\$1,500,709	(\$1)
Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement	\$163,342	\$ -	(\$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⁾
		Test Year average or mid-year	Annual	Annual	Test Year average or mid-year	Annual	Annual
1	Residential	4,836	48,228,553	-			
2	General Service < 50 kW	618	18,143,532	-			
3	General Service > 50 to 4999 kW	89	81,021,489	211,046			
4	Unmetered Scattered Load	10	429,307	-			
5	Sentinel Lighting	57	84,029	238			
6	Street Lighting	1,211	641,942	1,844			
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Total			148,548,851				

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	\$ 935,363	58.81%	\$ 1,159,652	58.49%
2 General Service < 50 kW	\$ 227,732	14.32%	\$ 275,602	13.90%
3 General Service > 50 to 4999 kW	\$ 398,722	25.07%	\$ 509,962	25.72%
4 Unmetered Scattered Load	\$ 1,202	0.08%	\$ 3,043	0.15%
5 Sentinel Lighting	\$ 1,333	0.08%	\$ 2,278	0.11%
6 Street Lighting	\$ 26,213	1.65%	\$ 32,056	1.62%
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
Total	\$ 1,590,565	100.00%	\$ 1,982,593	100.00%
Allocated Revenue Requirement does not match Base Revenue Requirement from Sheet 9. Check data.			\$ 1,774,698.87	

- (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	\$ 936,539	\$ 1,031,476	\$ 1,027,839	\$ 141,628
2 General Service < 50 kW	\$ 225,316	\$ 248,156	\$ 247,889	\$ 47,568
3 General Service > 50 to 4999 kW	\$ 426,157	\$ 469,356	\$ 471,143	\$ 15,787
4 Unmetered Scattered Load	\$ 2,436	\$ 2,683	\$ 2,677	\$ 275
5 Sentinel Lighting	\$ 1,915	\$ 2,109	\$ 2,106	\$ 172
6 Street Lighting	\$ 18,994	\$ 20,919	\$ 23,044	\$ 2,464
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
Total	\$ 1,611,356	\$ 1,774,699	\$ 1,774,699	\$ 207,894

- (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)	
		2014 %	%	%	%
1	Residential	100.00%	101.16%	100.85%	85 - 115
2	General Service < 50 kW	98.00%	107.30%	107.20%	85 - 115
3	General Service > 50 to 4999 kW	100.00%	95.13%	95.48%	80 - 120
4	Unmetered Scattered Load	70.00%	97.20%	97.02%	80 - 120
5	Sentinel Lighting	120.00%	100.13%	99.99%	80 - 120
6	Street Lighting	120.00%	72.95%	79.58%	80 - 120
7					80 - 120
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

- (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	100.85%	100.85%	100.85%	85 - 115
2	General Service < 50 kW	107.20%	107.20%	107.20%	85 - 115
3	General Service > 50 to 4999 kW	95.48%	95.48%	95.48%	80 - 120
4	Unmetered Scattered Load	97.02%	97.02%	97.02%	80 - 120
5	Sentinel Lighting	99.99%	99.99%	99.99%	80 - 120
6	Street Lighting	79.58%	79.58%	79.58%	80 - 120
7					80 - 120
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

(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 Requirements (RRWF) for 2017

New Rate Design Policy For Residential

Please complete the following tables.

A Data Inputs (from Sheet 10. Load Forecast)

Test Year Billing Determinants for Residential Class	
Customers	4,836
kWh	48,228,553

Proposed Residential Class Specific Revenue Requirement ¹	\$ 1,027,838.84
--	-----------------

Residential Base Rates on Current Tariff	
Monthly Fixed Charge (\$)	11.9
Distribution Volumetric Rate (\$/kWh)	0.0051

B Current Fixed/Variable Split

	Base Rates	Billing Determinants
Fixed	11.9	4,836
Variable	0.0051	48,228,553
TOTAL	-	-

C Calculating Test Year Base Rates

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

	Test Year Revenue @ Current F/V Split	Test Year Base Rates @ Current F/V Split
Fixed	\$ 757,894.93	13.06
Variable	\$ 269,943.90	0.0056
TOTAL	\$ 1,027,838.84	-

	New F/V Split	Revenue @ new F/V Split
--	---------------	-------------------------

Fixed	86.87%	\$ 892,866.89
Variable	13.13%	\$ 134,971.95
TOTAL	-	\$ 1,027,838.84

Checks ³	
Change in Fixed Rate	\$ 2.33
Difference Between Revenues @	\$3.04
Proposed Rates and Class Specific	0.03%

Notes:

- ¹ The final residential class specific revenue requirement, excluding allocated Miscellaneous Revenue 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 over a four year period and began the transition in 2016 would input the number "3" if a year period would input the number "4". Where the change in the residential rate design will result in a \$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 revenue at calculated base rates should be minimal (i.e. should be reasonably considered as a

t Workform Filers

il Customers

Revenue	% of Total Revenue
\$ 690,573.46	73.74%
\$ 245,965.62	26.26%
\$ 936,539.08	-

Reconciliation - Test Year Base Rates @ Current F/V Split
\$ 757,889.87
\$ 270,079.90
\$ 1,027,969.76

Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
------------------------------	---

15.39	\$	893,102.99
0.0028	\$	135,039.95
-	\$	1,028,142.94

enues, as shown on Sheet 11. Cost Allocation,

es is completed. A distributor transitioning to fully into cell D40. A distributor transitioning over a five-ult in the fixed charge increasing by more than

re proposed class revenue requirement and the rounding error)

Revenue Requirement Workform (RRWF) for 2017 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			Distribution Rates				Revenue Reconciliation					
Customer and Load Forecast					From Sheet 11. Cost Allocation and Sheet 12. Residential Rate Design			Fixed / Variable Splits ² Percentage to be entered as a fraction between 0 and 1		Transformer Ownership Allowance ¹ (\$)	Monthly Service Charge		Volumetric Rate		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	MSC Revenues	Volumetric revenues	Revenues less Transformer Ownership Allowance
From sheet 10. Load Forecast																	
1 Residential	kWh	4,836	48,228,553	-	\$ 1,027,839	\$ 893,103	\$ 134,736	86.89%	13.11%		\$15.39	2	\$0.0028 /kWh	4	\$ 893,102.99	\$ 135,039.9479	\$ 1,028,142.94
2 General Service < 50 kW	kWh	618	18,143,532	-	\$ 247,889	\$ 114,649	\$ 133,240	46.25%	53.75%		\$15.47		\$0.0073 /kWh		\$ 114,640.36	\$ 132,447.7860	\$ 247,088.15
3 General Service > 50 to 4999 kW	kW	89	81,021,489	211,046	\$ 471,143	\$ 107,656	\$ 363,487	22.85%	77.15%	\$ 113,523	\$100.98		\$2.2602 /kW		\$ 107,657.23	\$ 477,006.6992	\$ 471,140.92
4 Unmetered Scattered Load	kWh	10	429,307	-	\$ 2,677	\$ 837	\$ 1,840	31.28%	68.72%		\$7.29		\$0.0043 /kWh		\$ 837.58	\$ 1,846.0184	\$ 2,683.59
5 Sentinel Lighting	kW	57	84,029	238	\$ 2,106	\$ 1,243	\$ 863	59.01%	40.99%		\$1.83		\$3.6222 /kW		\$ 1,245.79	\$ 863.1918	\$ 2,108.98
6 Street Lighting	kW	1,211	641,942	1,844	\$ 23,044	\$ 9,699	\$ 13,345	42.09%	57.91%		\$0.67		\$7.2375 /kW		\$ 9,739.39	\$ 13,344.9375	\$ 23,084.32
7	-	-	-	-											\$ -	\$ -	\$ -
8	-	-	-	-											\$ -	\$ -	\$ -
9	-	-	-	-											\$ -	\$ -	\$ -
10	-	-	-	-											\$ -	\$ -	\$ -
11	-	-	-	-											\$ -	\$ -	\$ -
12	-	-	-	-											\$ -	\$ -	\$ -
13	-	-	-	-											\$ -	\$ -	\$ -
14	-	-	-	-											\$ -	\$ -	\$ -
15	-	-	-	-											\$ -	\$ -	\$ -
16	-	-	-	-											\$ -	\$ -	\$ -
17	-	-	-	-											\$ -	\$ -	\$ -
18	-	-	-	-											\$ -	\$ -	\$ -
19	-	-	-	-											\$ -	\$ -	\$ -
20	-	-	-	-											\$ -	\$ -	\$ -
Total Transformer Ownership Allowance										\$ 113,523							
Rates recover revenue requirement															Total Distribution Revenues		\$ 1,774,248.90
															Base Revenue Requirement		\$ 1,774,698.87
															Difference		-\$ 449.97
															% Difference		-0.025%

Notes:

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

Notes:

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: [MSC x (average number of customers or connections) x 12 months] / (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	\$ 481,883	5.59%	\$ 8,615,028	\$ 20,729,716	\$ 1,554,729	\$ 280,878	\$ 9,717	\$ 1,210,114	\$ 1,982,593	\$ 207,894	\$ 1,774,699	\$ 180,736

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