



## EXHIBIT 6 – REVENUE REQUIREMENT

2018 Cost of Service

Westario Power Inc.  
EB-2017-0084

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## 6.2 CALCULATION OF REVENUE REQUIREMENT

### 6.2.1 DETERMINATION OF NET UTILITY INCOME

WPI's current rates are based on Board approved rates effective May 1, 2017 through an IRM proceeding (EB-2016-0113). 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.<sup>1</sup>

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.

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

1 **Table 1 - Distribution Revenues at Current Rates – (2018 Volumes)**

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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
Residential	\$0.0082	kWh	182,208,797	\$1,494,112			\$0	\$1,494,112
General Service < 50 kW	\$0.0113	kWh	63,336,490	\$715,702			\$0	\$715,702
General Service > 50 to 4999 kW	\$2.1801	kW	434,344	\$946,914	-0.60	165000	-\$99,000	\$847,914
Unmetered Scattered Load	\$0.0239	kWh	261,852	\$6,258			\$0	\$6,258
Sentinel Lighting	\$29.7440	kW	17	\$492			\$0	\$492
Street Lighting	\$5.0515	kW	6,664	\$33,663			\$0	\$33,663
<b>Total Variable Revenue</b>			<b>246,248,163</b>	<b>\$3,197,142</b>	<b>-0.6</b>	165000	-\$99,000	\$3,098,142
<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
Residential	\$20.0600	20,786	\$5,003,726	\$1,494,112.14	\$6,497,838.10	77.01%	22.99%	65.60%
General Service < 50 kW	\$25.1400	2,578	\$777,731	\$715,702.33	\$1,493,433.37	52.08%	47.92%	15.08%
General Service > 50 to 4999 kW	\$232.0200	207	\$575,554	\$847,913.53	\$1,423,467.06	40.43%	59.57%	14.37%
Unmetered Scattered Load	\$6.3800	54	\$4,122	\$6,258.26	\$10,379.91	39.71%	60.29%	0.10%
Sentinel Lighting	\$5.7500	8	\$541	\$492.20	\$1,033.13	52.36%	47.64%	0.01%
Street Lighting	\$6.0000	6,193	\$445,910	\$33,663.15	\$479,573.15	92.98%	7.02%	4.84%
<b>Total Fixed Revenue</b>		<b>29,826</b>	<b>6,807,583</b>	<b>\$3,098,141.62</b>	<b>\$9,905,724.73</b>			

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**Table 2-Distribution Revenues at Proposed Rates – (2018 Volumes)**

<b><u>2018 Rates at 2018 Load</u></b>								
<b>Test Year Projected Revenue from Proposed Variable Charges</b>								
<b>Customer Class Name</b>	<b>Variable Distribution Rate</b>	<b>per</b>	<b>Test Year Volume</b>	<b>Gross Variable Revenue</b>	<b>Transform. Allowance Rate</b>	<b>Transform. Allowance kW's</b>	<b>Transform. Allowance \$'s</b>	<b>Net Variable Revenue</b>
<i>Residential</i>	\$0.0061	kWh	182,208,797	\$1,103,235.10			\$0.00	\$1,103,235.10
<i>General Service &lt; 50 kW</i>	\$0.0138	kWh	63,336,490	\$875,324.06			\$0.00	\$875,324.06
<i>General Service &gt; 50 to 4999 kW</i>	\$2.8578	kW	434,344	\$1,241,252.00	-0.60	165000	-\$99,000.00	\$1,142,252.00
<i>Unmetered Scattered Load</i>	\$0.0250	kWh	261,852	\$6,555.11			\$0.00	\$6,555.11
<i>Sentinel Lighting</i>	\$37.8382	kW	17	\$626.15			\$0.00	\$626.15
<i>Street Lighting</i>	\$4.0957	kW	6,664	\$27,293.80			\$0.00	\$27,293.80
<b>Total Variable Revenue</b>			<b>246,248,163</b>	<b>\$3,254,286.22</b>	<b>-0.6</b>	165000	-\$99,000.00	\$3,155,286.22
<b><u>2018 Rates at 2018 Load</u></b>								
<b>Test Year Projected Revenue from Proposed Fixed Charges</b>								
<b>Customer Class Name</b>	<b>Fixed Rate</b>	<b>Customers (Connections)</b>	<b>Fixed Charge Revenue</b>	<b>Variable Revenue</b>	<b>TOTAL</b>	<b>% Fixed Revenue</b>	<b>% Variable Revenue</b>	<b>% Total Revenue</b>
<i>Residential</i>	\$24.4100	20,786	\$6,088,781.19	\$1,103,235.10	\$7,192,016.29	69.57%	20.77%	59.26%
<i>General Service &lt; 50 kW</i>	\$25.1400	2,578	\$777,731.04	\$875,324.06	\$1,653,055.10	47.05%	43.30%	13.62%
<i>General Service &gt; 50 to 4999 kW</i>	\$232.0200	207	\$575,553.53	\$1,142,252.00	\$1,717,805.52	33.51%	49.36%	12.98%
<i>Unmetered Scattered Load</i>	\$7.6500	54	\$4,942.10	\$6,555.11	\$11,497.22	35.85%	54.43%	0.09%
<i>Sentinel Lighting</i>	\$6.4255	8	\$604.48	\$626.15	\$1,230.63	43.96%	40.00%	0.01%
<i>Street Lighting</i>	\$4.8648	6,193	\$361,540.12	\$27,293.80	\$388,833.93	114.68%	8.66%	4.37%
<b>Total Fixed Revenue</b>		<b>29,826</b>	<b>\$7,809,152.46</b>	<b>\$3,155,286.22</b>	<b>\$10,964,438.68</b>			

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## 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 \$10,964,439. Table 3 below presents WPI'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 A of this Exhibit.<sup>2 3</sup> Table 4 shows the Statement of Rate Base and Table 5 shows the Return on Rate Base.

**Table 3 - Test Year Revenue Requirement**

<i>Particular</i>	<b>2018</b>
<i>OM&amp;A Expenses</i>	\$5,961,033
<i>Amortization Expense</i>	\$1,993,885
<i>Property Taxes</i>	\$35,000
<i>Total Distribution Expenses</i>	\$7,989,918
<i>Regulated Return on Capital</i>	\$2,919,572
<i>Grossed up PILs</i>	\$392,622
<i>Service Revenue Requirement</i>	\$11,302,113
<i>Less: Revenue Offsets</i>	-\$337,674
<i>Base Revenue Requirement</i>	\$10,964,439

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

<sup>3</sup> 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 4 - Statement of Rate Base**

Particulars	Capitalization Ratio		Cost Rate	Return
	(%)	(\$)	(%)	(\$)
<b>Debt</b>				
Long-term Debt	56.00%	\$28,857,673	3.72%	\$1,073,505
Short-term Debt	4.00%	\$2,061,262	1.76%	\$36,278
<b>Total Debt</b>	<b>60.0%</b>	<b>\$30,918,936</b>	<b>3.59%</b>	<b>\$1,109,784</b>
<b>Equity</b>				
Common Equity	40.00%	\$20,612,624	8.78%	\$1,809,788
Preferred Shares		\$ -		\$ -
<b>Total Equity</b>	<b>40.0%</b>	<b>\$20,612,624</b>	<b>8.78%</b>	<b>\$1,809,788</b>
<b>Total</b>	<b>100.0%</b>	<b>\$51,531,560</b>	<b>5.67%</b>	<b>\$2,919,572</b>

## 6.2.4 ACTUAL UTILITY RETURN ON RATE BASE

**Table 5 - Return on Rate Base**

<b>Return</b>	
<i>Deemed Interest Expense</i>	\$1,109,784
<i>Return on Deemed Equity</i>	\$1,809,788
<i>Total</i>	\$2,919,572

## 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 6 - Utility Income under proposed Revenue Requirement**

<b><u>Operating Revenues:</u></b>	
Distribution Revenue (at Proposed Rates)	\$10,964,439
Other Revenue	\$337,674
	<hr/>
Total Operating Revenues	\$11,302,113
	<hr/>
<b><u>Operating Expenses:</u></b>	
OM+A Expenses	\$5,961,033
Depreciation/Amortization	\$1,993,885
Property taxes	\$35,000
Capital taxes	\$ -
Other expense	\$ -
	<hr/>
Subtotal (lines 4 to 8)	\$7,989,918
	<hr/>
Deemed Interest Expense	\$1,109,784
	<hr/>
Total Expenses (lines 9 to 10)	\$9,099,702
	<hr/>
Utility income before income taxes	\$2,202,411
	<hr/>
Income taxes (grossed-up)	\$392,622
	<hr/>
Utility net income	\$1,809,788
	<hr/>

## 6.2.7 REVENUE REQUIREMENT TREND

Table 7 below presents WPI's Revenue Requirement trend starting from the 2013 Board Approved all the way to the 2018 proposed Revenue Requirement.

**Table 7 - Trend in Revenue Requirement**

	CGAAP	NEWGAAP	NEWGAAP	MIFRS	MIFRS	MIFRS	MIFRS
<i>Particular</i>	<b>Last Board Approved</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<i>OM&amp;A Expenses</i>	\$6,169,200	\$5,709,737	\$5,224,652	\$5,209,186	\$5,731,997	\$5,701,836	\$5,961,033
<i>Depreciation Expense</i>	\$1,343,824	\$2,303,325 <sup>4</sup>	\$1,651,950	\$1,780,108	\$1,798,004	\$1,869,669	\$1,993,885
<i>Property Taxes</i>	\$33,000	\$36,453	\$35,704	\$34,605	\$34,097	\$35,000	\$35,000
<i>Total Distribution Expenses</i>	\$7,546,024	\$8,049,515	\$6,912,306	\$7,023,899	\$7,564,098	\$7,606,505	\$7,989,918
<i>Regulated Return On Capital</i>	\$2,781,395	\$2,688,847	\$3,002,515	\$3,204,786	\$3,536,284	\$3,536,284	\$2,919,572
<i>PP&amp;E MIFRS Adjustment</i>	-\$35,724						
<i>Grossed up PILs</i>	\$5,427	\$269,000	-\$5,000	\$226,000	\$243,000	\$507,640	\$392,622
<b><i>Service Revenue Requirement</i></b>	<b>\$10,297,122</b>	<b>\$11,007,362</b>	<b>\$9,909,820</b>	<b>\$10,454,685</b>	<b>\$11,343,382</b>	<b>\$11,650,429</b>	<b>\$11,302,113</b>
<i>Less: Revenue Offsets</i>	-\$653,041	-\$559,021	-\$688,960	-\$523,338	-\$485,964	-\$354,051	-\$337,674
<b><i>Base Revenue Requirement</i></b>	<b>\$9,644,081</b>	<b>\$10,448,341</b>	<b>\$9,220,860</b>	<b>\$9,931,347</b>	<b>\$10,857,418</b>	<b>\$11,296,378</b>	<b>\$10,964,439</b>

<sup>4</sup> Total depreciation for 2013 includes \$758,532 of adjustments related to Smart Meters that were deferred and realized as a credit to depreciation expense over the next 3 years.

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**Table 8 - Variance Analysis of Revenue Requirement**

Particular	Last Board Approved	2013	2014	2015	2016	2017	2018	2013BA vs. 2018
<i>OM&amp;A Expenses</i>	\$6,169,200	\$5,709,737	\$5,224,652	\$5,209,186	\$5,731,997	\$5,701,836	\$5,961,033	-\$208,167
Year over year change (\$)		-\$459,463	-\$485,085	-\$15,466	\$522,811	-\$30,161	\$259,197	-\$208,167
Year over year change (%)		-7.45%	-8.50%	-0.30%	10.04%	-0.53%	4.55%	-3.37%
<i>Depreciation Expense</i>	\$1,343,824	\$2,303,325	\$1,651,950	\$1,780,108	\$1,798,004	\$1,869,669	\$1,993,885	\$650,061
Year over year change (\$)		\$959,501	-\$651,375	\$128,159	\$17,896	\$71,665	\$124,216	\$650,061
Year over year change (%)		71.40%	-28.28%	7.76%	1.01%	3.99%	6.64%	48.37%
<i>Property Taxes</i>	\$33,000	\$36,453	\$35,704	\$34,605	\$34,097	\$35,000	\$35,000	\$2,000
Year over year change (\$)		\$3,453	-\$749	-\$1,099	-\$508	\$903	\$0	\$2,000
Year over year change (%)		10.46%	-2.05%	-3.08%	-1.47%	2.65%	0.00%	6.06%
<i>Total Distribution Expenses</i>	\$7,546,024	\$8,049,515	\$6,912,306	\$7,023,899	\$7,564,098	\$7,606,505	\$7,989,918	\$443,894
Year over year change (\$)		\$503,491	-\$1,137,209	\$111,593	\$540,199	\$42,407	\$383,413	\$443,894
Year over year change (%)		6.67%	-14.13%	1.61%	7.69%	0.56%	5.04%	5.88%
<i>Regulated Return on Capital</i>	\$2,781,395	\$2,610,974	\$2,840,824	\$3,022,209	\$3,451,513	\$3,451,513	\$2,919,572	\$138,177
Year over year change (\$)		-\$170,421	\$229,850	\$181,385	\$429,304	\$0	-\$531,940	\$138,177
Year over year change (%)		-6.13%	8.80%	6.38%	14.20%	0.00%	-15.41%	4.97%
<i>PP&amp;E MIFRS Adjustment</i>	-\$35,724	\$0	\$0	\$0	\$0	\$0	\$0	\$35,724
Year over year change (\$)		\$35,724	\$0	\$0	\$0	\$0	\$0	\$35,724
Year over year change (%)		-100.00%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-100.00%
<i>Grossed up PILs</i>	\$5,427	\$269,000	-\$5,000	\$226,000	\$243,000	\$507,640	\$392,622	\$387,195
Year over year change (\$)		\$263,573	-\$274,000	\$231,000	\$17,000	\$264,640	-\$115,018	\$387,195
Year over year change (%)		4856.70%	-101.86%	-4620.00%	7.52%	108.91%	-22.66%	7134.61%
<b>Service Revenue Requirement</b>	<b>\$10,332,846</b>	<b>\$10,929,489</b>	<b>\$9,748,130</b>	<b>\$10,272,108</b>	<b>\$11,258,611</b>	<b>\$11,565,658</b>	<b>\$11,302,113</b>	<b>\$969,267</b>
Year over year change (\$)		\$596,643	-\$1,181,359	\$523,978	\$986,503	\$307,047	-\$263,545	\$969,267
Year over year change (%)		5.77%	-10.81%	5.38%	9.60%	2.73%	-2.28%	9.38%
<i>Less: Revenue Offsets</i>	-\$653,041	-\$559,021	-\$688,960	-\$523,338	-\$485,964	-\$354,051	-\$337,674	\$315,367
Year over year change (\$)		\$94,020	-\$129,939	\$165,622	\$37,374	\$131,913	\$16,377	\$315,367
Year over year change (%)		-14.40%	23.24%	-24.04%	-7.14%	-27.14%	-4.63%	-48.29%
<b>Base Revenue Requirement</b>	<b>\$9,679,805</b>	<b>\$10,370,468</b>	<b>\$9,059,170</b>	<b>\$9,748,769</b>	<b>\$10,772,647</b>	<b>\$11,211,607</b>	<b>\$10,964,439</b>	<b>\$1,284,634</b>
Year over year change (\$)		\$690,663	-\$1,311,298	\$689,599	\$1,023,877	\$438,960	-\$247,168	\$1,284,634
Year over year change (%)		7.14%	-12.64%	7.61%	10.50%	4.07%	-2.20%	13.27%

2

3 As can be seen from Table 7 and Table 8 above, the proposed revenue requirement for the test  
4 year is 13.27% higher than the 2013 Cost of Service Approved Revenue Requirement. The  
5 revenue requirement between 2013 and 2016 has increased moderately representing a  
6 deliberate pace of capital and operational investment. The change in revenue requirement in  
7 2017 and 2018 vs 2013 is mostly due to the replacement and refurbishment of existing assets to  
8 keep the distribution system as safe and reliable as feasibly possible. WPI has focused on

1 keeping OM&A costs consistent and as a result OM&A costs in the 2018 test year lower than  
2 the 2013 Board Approved OM&A costs. WPI's revenue offset has decreased due to a decline in  
3 the frequency and size of revenue services offered relative to the 2013 BA amounts.

4 Regulatory costs are projected to be higher for 2018 due to provisions for an oral hearing and  
5 drafting of the Distribution System Plan by a third-party engineering firm. The change in OM&A  
6 expenses in 2018 vs the last board approved is relatively insignificant, with a moderate 3.37%  
7 decrease. Year over year variances in OM&A are explained throughout Exhibit 4 and Revenue  
8 Offsets are explained in detail at Exhibit 3.

## 6.3 REVENUE DEFICIENCY OR SURPLUS

### 6.3.1 CALCULATION OF REVENUE DEFICIENCY OR SURPLUS

WPI's net revenue deficiency under the proposed rates is \$1,058,716 using the Service Revenue Requirement. 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 9 - Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency (RRWF)**

<i>Service Revenue Requirement</i>	\$11,302,113
<i>Grossed-Up Revenue Deficiency/(Sufficiency)</i>	\$1,058,716
<i>Base Revenue Requirement (to be recovered from Distribution Rates)</i>	\$10,964,439
<i>Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement</i>	\$1,058,716

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 10 at the next page.

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**Table 10 - Revenue Deficiency (RRWF)<sup>5</sup>**

Particulars	At Current Approved Rates	At Proposed Rates
Revenue Deficiency from Below		\$1,058,716
Distribution Revenue	\$9,905,725	\$9,905,722
Other Operating Revenue Offsets - net	\$337,674	\$337,674
<b>Total Revenue</b>	<b>\$10,243,399</b>	<b>\$11,302,113</b>
Operating Expenses	\$7,989,918	\$7,989,918
Deemed Interest Expense	\$1,109,784	\$1,109,784
<b>Total Cost and Expenses</b>	<b>\$9,099,702</b>	<b>\$9,099,702</b>
<b>Utility Income Before Income Taxes</b>	<b>\$1,143,697</b>	<b>\$2,202,411</b>
Tax Adjustments to Accounting 2013 PILs model	Income per <b>(\$720,810)</b>	<b>(\$720,810)</b>
<b>Taxable Income</b>	<b>\$422,887</b>	<b>\$1,481,601</b>
Income Tax Rate	26.50%	26.50%
<b>Income Tax on Taxable Income</b>	<b>\$112,065</b>	<b>\$392,624</b>
<b>Income Tax Credits</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Utility Net Income</b>	<b>\$1,031,632</b>	<b>\$1,809,788</b>
<b>Utility Rate Base</b>	<b>\$51,531,560</b>	<b>\$51,531,560</b>
Deemed Equity Portion of Rate Base	\$20,612,624	\$20,612,624
Income/(Equity Portion of Rate Base)	5.00%	8.78%
Target Return - Equity on Rate Base	8.78%	8.78%
Deficiency/Sufficiency in Return on Equity	-3.78%	0.00%
Indicated Rate of Return	4.16%	5.67%
Requested Rate of Return on Rate Base	5.67%	5.67%
Deficiency/Sufficiency in Rate of Return	-1.51%	0.00%
Target Return on Equity	\$1,809,788	\$1,809,788
Revenue Deficiency/(Sufficiency)	\$778,157	\$0
<b>Gross Revenue Deficiency/(Sufficiency)</b>	<b>\$1,058,716</b>	<b>(1)</b>

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<sup>5</sup> 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).

## 6.3.2 CAUSES OF REVENUE DEFICIENCY OR SURPLUS

WPI's existing rates are based on the Board-approved rates in 2013 following a cost of service rate application, plus yearly adjustments to its base distribution rates in 2014-2016 under the Board's third Generation Incentive Regulation Mechanism.

As shown in Table of Revenue Deficit at the previous section, the Revenue Deficiency is determined to be \$1,058,716. The deficiency is largely due to increases in rate base, which causes in return, depreciation, and PILS increases that are causing a deficiency.

The proposed rate base of \$51,531,560 for 2018 is \$9,659,245 higher than the 2013 Board-approved amount of \$41,872,315, which represents an increase of 23%. Based on a 5.67% weighted average cost of capital, the increase in the rate base drives an increase to the revenue requirement. The factors contributing to the change in the rate base are discussed in detail at Exhibit 2 but for the most part, are due to investments in the distribution system to follow the distribution system plan.

**Table 11 – Differences in Revenue Requirement from 2013 Cost of Service**

<i>Particular</i>	<b>NEWGAAP</b>	<b>MIFRS</b>	<b>\$</b>	<b>%</b>
	<b>2013</b>	<b>2018</b>	<b>Diff</b>	<b>Diff</b>
<i>Long Term Debt</i>	5.30%	3.72%		-1.58%
<i>Short Term Debt</i>	2.07%	1.76%		-0.31%
<i>Return on Equity</i>	8.98%	8.78%		-0.20%
<i>Weighted Debt Rate</i>	5.08%	3.59%		-1.50%
<b><i>Regulated Rate of Return</i></b>	<b>6.64%</b>	<b>5.67%</b>		<b>-0.98%</b>
<i>Controllable Expenses</i>	\$6,202,200	\$5,996,033	-\$206,167	-3.32%
<i>Power Supply Expense</i>	\$46,149,156	\$57,377,618	\$11,228,462	24.33%
<i>Total Eligible Distribution Expenses</i>	\$52,351,356	\$63,373,651	\$11,022,295	21.05%
<i>Working Capital Allowance Rate</i>	12.00%	7.50%		-4.50%
<b><i>Total Working Capital Allowance ("WCA")</i></b>	<b>\$6,282,163</b>	<b>\$4,753,024</b>	<b>-\$1,529,139</b>	<b>-24.34%</b>
<i>Fixed Asset Opening Bal Bridge Year</i>	\$33,959,796	\$45,329,857	\$11,370,061	33.48%
<i>Fixed Asset Opening Bal Test Year</i>	\$37,220,508	\$48,227,215	\$11,006,707	29.57%
<i>Average Fixed Asset</i>	\$35,590,152	\$46,778,536	\$11,188,384	31.44%

<sup>6</sup> Summary of drivers for test year deficiency/sufficiency, how much each driver contributes; references in application evidence mapped to drivers

<i>Working Capital Allowance</i>	\$6,282,163	\$4,753,024	-\$1,529,139	-24.34%
<b><i>Rate Base</i></b>	<b>\$41,872,315</b>	<b>\$51,531,560</b>	<b>\$9,659,245</b>	<b>23.07%</b>
<i>Regulated Rate of Return</i>	6.64%	5.67%		-0.98%
<b><i>Regulated Return on Capital</i></b>	<b>\$2,781,494</b>	<b>\$2,919,572</b>	<b>\$138,078</b>	<b>4.96%</b>
<i>Deemed Interest Expense</i>	\$1,277,441	\$1,109,784	-\$167,657	-13.12%
<i>Deemed Return on Equity</i>	\$1,504,054	\$1,809,788	\$305,735	20.33%
<i>OM&amp;A</i>	\$6,169,200	\$5,961,033	-\$208,167	-3.37%
<i>Property Taxes</i>	\$33,000	\$35,000		
<i>PP&amp;E Adjstment</i>	-\$35,724			
<i>Depreciation Expense</i>	\$1,343,824	\$1,993,885	\$650,061	48.37%
<i>PILs</i>	\$5,427	\$392,622	\$387,195	7134.61%
<i>Revenue Offset</i>	-\$653,041	-\$337,674	\$315,367	-48.29%
<b><i>Revenue Requirement</i></b>	<b>\$9,644,180</b>	<b>\$10,964,439</b>	<b>\$1,320,259</b>	<b>13.69%</b>

1

2 The major contributors of the deficiency are and a table comparing the specifics from 2013

3 Board Approved to 2018 Test Year is presented following the contributor below.

4 Decrease in OM&A of \$-208,167 from \$6,169,200 in 2013 Board Approved to \$5,961,033 in  
5 2018.

6 Operations and Maintenance: overall decrease of \$770,467. Major drivers include;

- 7 • Increase in Overhead Distribution Lines and Feeders - Operation Labour \$ 139,281
- 8 • Increase in Overhead Distribution Transformers \$51,000
- 9 • Decrease in Underground Distribution Lines and Feeders – Operation Labour \$68,721
- 10 • Decrease in Meter Expense \$109,000
- 11 • Decrease in Maintenance of Distribution Station Equipment \$63,696
- 12 • Decrease in Maintenance of Poles, Towers and Fixtures \$59,576
- 13 • Decrease in Maintenance of Overhead Services \$124,000
- 14 • Decrease in Maintenance of Vegetation \$477,105
- 15 • Decrease in Maintenance of Underground Conduit \$115,000
- 16 • Increase in Maintenance of Underground Conductors and Devices \$60,000
- 17 • Decrease in Maintenance of Underground Services \$163,962
- 18 • Decrease in Maintenance of Line Transformers \$55,000
- 19 • Increase in Maintenance of Meters \$55,959

20 Administrative and General: overall increase of \$566,300. Major drivers include;

- 21 • Increase in Executive Salaries and Expenses of \$225,000
- 22 • Decrease in Management Salaries and Expenses of \$184,000
- 23 • Increase in General Administrative Salaries and Expenses of \$145,000
- 24 • Increase in Office Supplies and Expenses of \$123,000



- Increase in Miscellaneous General Expenses of \$188,000

An increase in Average Net Fixed Assets of \$11,188,384 from \$35,590,152 in 2013 Board approved to \$46,778,536 in 2018. This increase represents a systematic approach to investing in the distribution system to keep the distribution system as safe and reliable as feasibly possible. Average gross investment during that period equals approx. \$4.8M/year. The increased net fixed asset balance as a result of this investment in the distribution system results in an increased rate base as well as increased yearly depreciation. Each of these factors has contributed to WPI's revenue deficiency.

A decrease in Working Capital of -\$1,529,139 from \$6,282,163 in 2013 Board approved to \$4,735,024 in 2018.

A decrease in the Weighted Average Cost of Capital from 6.64% of 2013 Board approved to 5.67% in 2018 has reduced the impact of the impact WPI's rate base.

An increase in Depreciation Expenses of \$650,061 from the 2013 Board approved amount of \$1,343,824 to \$1,993,885 in 2018. This is mostly due to the replacement and refurbishment of existing assets in order to keep the distribution system as safe and reliable as feasibly possible. This is specifically significant as Westario's system is an aging one which required significant renewal investments to maintain this safety and reliability; replenishing assets naturally increased Westario's depreciation expenses. In 2013 WPI change the useful lives of assets to match the approved rates from the 2013 Cost of Service Application. This was accounted for by amortizing the net value of the asset at December 31, 2012 over the new remaining useful life of the asset. In 2015 with the conversion to IFRS further adjustments were required to be made to the opening value of assets in order to record them at their fair market value at the time of transition. WPI determined that the best way of determining fair market value was to use the net book value at the time of transition to IFRS. Therefore, at the start of 2015 all accumulated amortization was netted against the gross value of assets in order to bring the assets to their fair market value at that date. Due to the adjustment to useful lives as required by the 2013 Cost of Service Application in 2013 and the adjustment to fair market value as required by the transition to IFRS in 2015 a standard continuity

1 schedule isn't able to accurately account for all of these adjustments and re-calculate  
2 amortization expense for any given particular year.

### 3 6.3.3 IMPACT OF IMPLEMENTATION OF MIFRS ON REVENUE DEFICIENCY OR 4 SURPLUS

5 The utility adopted new capitalization policies regarding useful lives of assets in its 2013 Cost of  
6 Service therefore the newly prescribed accounting policies mandated by the IFRS conversion for  
7 2015 have had a marginal impact on the allocation of the revenue requirement and  
8 determination of the rate base. The vigorous re-investment in the distribution system has  
9 resulted in an increase in the value of the net fixed assets of the utility and ultimately an increase  
10 to the utility's rate base.

11 WPI's OM&A has not been further impacted since the last Cost of Service application in 2013 by  
12 the IFRS related policy which limited the capitalization of overhead burdens; that adjustment  
13 was implemented in 2013 with its impact already accounted for in accordance with OEB policy.<sup>7</sup>

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<sup>7</sup> Impacts of any changes in methodologies to deficiency/sufficiency

1 **APPENDICES**

2

Appendix A	PDF of Rev Req Work Form

3

1

## **Appendix A – Revenue Requirement Work Form**



Ontario Energy Board

# Revenue Requirement Workform (RRWF) for 2017 Filers



Version 7.00

Utility Name	<input type="text"/>
Service Territory	<input type="text"/>
Assigned EB Number	<input type="text"/>
Name and Title	<input type="text"/>
Phone Number	<input type="text"/>
Email Address	<input type="text"/>

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

[1. Info](#)

[2. Table of Contents](#)

[3. Data Input Sheet](#)

[4. Rate Base](#)

[5. Utility Income](#)

[6. Taxes PILs](#)

[7. Cost of Capital](#)

[8. Rev Def Suff](#)

[9. Rev Req](#)

[10. Load Forecast](#)

[11. Cost Allocation](#)

[12. Residential Rate Design](#)

[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 <sup>(1)</sup>**

	Initial Application	(2)		(6)		Per Board Decision
<b>1</b>	<b><u>Rate Base</u></b>					
	Gross Fixed Assets (average)	\$75,169,716		\$ 75,169,716		\$75,169,716
	Accumulated Depreciation (average)	(\$28,391,180)	(5)	(\$28,391,180)		(\$28,391,180)
	<b><u>Allowance for Working Capital:</u></b>					
	Controllable Expenses	\$5,996,033		\$ 5,996,033		\$5,996,033
	Cost of Power	\$57,377,618		\$ 57,377,618		\$57,377,618
	Working Capital Rate (%)	7.50%	(9)		(9)	
<b>2</b>	<b><u>Utility Income</u></b>					
	Operating Revenues:					
	Distribution Revenue at Current Rates	\$9,905,725				
	Distribution Revenue at Proposed Rates	\$10,964,439				
	<b><u>Other Revenue:</u></b>					
	Specific Service Charges	\$100,000				
	Late Payment Charges	\$200,000				
	Other Distribution Revenue	\$174,980				
	Other Income and Deductions	(\$137,306)				
	Total Revenue Offsets	\$337,674	(7)			
	<b><u>Operating Expenses:</u></b>					
	OM+A Expenses	\$5,961,033		\$ 5,961,033		\$5,961,033
	Depreciation/Amortization	\$1,993,885		\$ 1,993,885		\$1,993,885
	Property taxes	\$35,000		\$ 35,000		\$35,000
	Other expenses					
<b>3</b>	<b><u>Taxes/PILs</u></b>					
	Taxable Income:					
		(\$720,810)	(3)			
	Adjustments required to arrive at taxable income					
	<b><u>Utility Income Taxes and Rates:</u></b>					
	Income taxes (not grossed up)	\$288,577				
	Income taxes (grossed up)	\$392,622				
	Federal tax (%)	15.00%				
	Provincial tax (%)	11.50%				
	Income Tax Credits					
<b>4</b>	<b><u>Capitalization/Cost of Capital</u></b>					
	<b><u>Capital Structure:</u></b>					
	Long-term debt Capitalization Ratio (%)	56.0%			(8)	
	Short-term debt Capitalization Ratio (%)	4.0%	(8)			(8)
	Common Equity Capitalization Ratio (%)	40.0%				
	Preferred Shares Capitalization Ratio (%)					
		100.0%				
	<b><u>Cost of Capital</u></b>					
	Long-term debt Cost Rate (%)	3.72%				
	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) <sup>(2)</sup>		\$75,169,716		\$ -		\$75,169,716		\$ -	\$75,169,716
2	Accumulated Depreciation (average) <sup>(2)</sup>		(\$28,391,180)		\$ -		(\$28,391,180)		\$ -	(\$28,391,180)
3	Net Fixed Assets (average) <sup>(2)</sup>		\$46,778,536		\$ -		\$46,778,536		\$ -	\$46,778,536
4	Allowance for Working Capital <sup>(1)</sup>		\$4,753,024		(\$4,753,024)		\$ -		\$ -	\$ -
5	<b>Total Rate Base</b>		\$51,531,560		(\$4,753,024)		\$46,778,536		\$ -	\$46,778,536

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

6	Controllable Expenses	\$5,996,033	\$ -	\$5,996,033	\$ -	\$5,996,033
7	Cost of Power	\$57,377,618	\$ -	\$57,377,618	\$ -	\$57,377,618
8	Working Capital Base	\$63,373,651	\$ -	\$63,373,651	\$ -	\$63,373,651
9	Working Capital Rate % <sup>(1)</sup>	7.50%	-7.50%	0.00%	0.00%	0.00%
10	Working Capital Allowance	\$4,753,024	(\$4,753,024)	\$ -	\$ -	\$ -

#### 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.





Ontario Energy Board

# Revenue Requirement Workform (RRWF) for 2017 Filers

## Utility Income

Line No.	Particulars	Initial Application				Per Board Decision			
	<b>Operating Revenues:</b>								
1	Distribution Revenue (at Proposed Rates)	\$10,964,439	(\$10,964,439)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Other Revenue <sup>(1)</sup>	\$337,674	(\$337,674)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Total Operating Revenues	\$11,302,113	(\$11,302,113)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Operating Expenses:</b>								
4	OM+A Expenses	\$5,961,033	\$ -	\$5,961,033	\$ -	\$5,961,033	\$ -	\$5,961,033	\$ -
5	Depreciation/Amortization	\$1,993,885	\$ -	\$1,993,885	\$ -	\$1,993,885	\$ -	\$1,993,885	\$ -
6	Property taxes	\$35,000	\$ -	\$35,000	\$ -	\$35,000	\$ -	\$35,000	\$ -
7	Capital taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Other expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Subtotal (lines 4 to 8)	\$7,989,918	\$ -	\$7,989,918	\$ -	\$7,989,918	\$ -	\$7,989,918	\$ -
10	Deemed Interest Expense	\$1,109,784	(\$1,109,784)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Total Expenses (lines 9 to 10)	\$9,099,702	(\$1,109,784)	\$7,989,918	\$ -	\$7,989,918	\$ -	\$7,989,918	\$ -
12	Utility income before income taxes	\$2,202,411	(\$10,192,329)	(\$7,989,918)	\$ -	(\$7,989,918)	\$ -	(\$7,989,918)	\$ -
13	Income taxes (grossed-up)	\$392,622	\$ -	\$392,622	\$ -	\$392,622	\$ -	\$392,622	\$ -
14	Utility net income	\$1,809,788	(\$10,192,329)	(\$8,382,540)	\$ -	(\$8,382,540)	\$ -	(\$8,382,540)	\$ -

## Notes

### Other Revenues / Revenue Offsets

(1)	Specific Service Charges	\$100,000	\$ -	\$ -	\$ -
	Late Payment Charges	\$200,000	\$ -	\$ -	\$ -
	Other Distribution Revenue	\$174,980	\$ -	\$ -	\$ -
	Other Income and Deductions	(\$137,306)	\$ -	\$ -	\$ -
	<b>Total Revenue Offsets</b>	<b>\$337,674</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



# 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	\$1,809,788		\$ -		\$ -	
2	Adjustments required to arrive at taxable utility income	(\$720,810)		\$ -		\$ -	
3	Taxable income	<u>\$1,088,978</u>		<u>\$ -</u>		<u>\$ -</u>	
<u>Calculation of Utility income Taxes</u>							
4	Income taxes	<u>\$288,577</u>		<u>\$288,577</u>		<u>\$288,577</u>	
6	Total taxes	<u>\$288,577</u>		<u>\$288,577</u>		<u>\$288,577</u>	
7	Gross-up of Income Taxes	<u>\$104,045</u>		<u>\$104,045</u>		<u>\$104,045</u>	
8	Grossed-up Income Taxes	<u>\$392,622</u>		<u>\$392,622</u>		<u>\$392,622</u>	
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	<u>\$392,622</u>		<u>\$392,622</u>		<u>\$392,622</u>	
10	Other tax Credits	\$ -		\$ -		\$ -	
<u>Tax Rates</u>							
11	Federal tax (%)	15.00%		15.00%		15.00%	
12	Provincial tax (%)	<u>11.50%</u>		<u>11.50%</u>		<u>11.50%</u>	
13	Total tax rate (%)	<u>26.50%</u>		<u>26.50%</u>		<u>26.50%</u>	

## Notes



# Revenue Requirement Workform (RRWF) for 2017 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%	\$28,857,673	3.72%		\$1,073,505
2	Short-term Debt	4.00%	\$2,061,262	1.76%		\$36,278
3	<b>Total Debt</b>	60.00%	\$30,918,936	3.59%		\$1,109,784
	<b>Equity</b>					
4	Common Equity	40.00%	\$20,612,624	8.78%		\$1,809,788
5	Preferred Shares	0.00%	\$ -	0.00%		\$ -
6	<b>Total Equity</b>	40.00%	\$20,612,624	8.78%		\$1,809,788
7	<b>Total</b>	100.00%	\$51,531,560	5.67%		\$2,919,572
<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>	0.00%	\$ -	0.00%		\$ -
	<b>Equity</b>					
4	Common Equity	0.00%	\$ -	0.00%		\$ -
5	Preferred Shares	0.00%	\$ -	0.00%		\$ -
6	<b>Total Equity</b>	0.00%	\$ -	0.00%		\$ -
7	<b>Total</b>	0.00%	\$46,778,536	0.00%		\$ -
	<b>Debt</b>					
8	Long-term Debt	0.00%	\$ -	3.72%		\$ -
9	Short-term Debt	0.00%	\$ -	1.76%		\$ -
10	<b>Total Debt</b>	0.00%	\$ -	0.00%		\$ -
	<b>Equity</b>					
11	Common Equity	0.00%	\$ -	8.78%		\$ -
12	Preferred Shares	0.00%	\$ -	0.00%		\$ -
13	<b>Total Equity</b>	0.00%	\$ -	0.00%		\$ -
14	<b>Total</b>	0.00%	\$46,778,536	0.00%		\$ -

### Notes



Ontario Energy Board

# 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		\$1,058,716		(\$2,175,691)
2	Distribution Revenue	\$9,905,725	\$9,905,722	\$9,905,725	\$13,140,129
3	Other Operating Revenue	\$337,674	\$337,674	\$ -	\$ -
	Offsets - net				
4	<b>Total Revenue</b>	\$10,243,399	\$11,302,113	\$9,905,725	\$10,964,439
5	Operating Expenses	\$7,989,918	\$7,989,918	\$7,989,918	\$7,989,918
6	Deemed Interest Expense	\$1,109,784	\$1,109,784	\$ -	\$ -
8	<b>Total Cost and Expenses</b>	\$9,099,702	\$9,099,702	\$7,989,918	\$7,989,918
9	<b>Utility Income Before Income Taxes</b>	\$1,143,697	\$2,202,411	\$1,915,807	\$2,974,521
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$720,810)	(\$720,810)	(\$720,810)	(\$720,810)
11	<b>Taxable Income</b>	\$422,887	\$1,481,601	\$1,194,996	\$2,253,710
12	Income Tax Rate	26.50%	26.50%	26.50%	26.50%
13	<b>Income Tax on Taxable Income</b>	\$112,065	\$392,624	\$316,674	\$597,233
14	<b>Income Tax Credits</b>	\$ -	\$ -	\$ -	\$ -
15	<b>Utility Net Income</b>	\$1,031,632	\$1,809,788	\$1,599,133	(\$8,382,540)
16	<b>Utility Rate Base</b>	\$51,531,560	\$51,531,560	\$46,778,536	\$46,778,536
17	Deemed Equity Portion of Rate Base	\$20,612,624	\$20,612,624	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	5.00%	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	-3.78%	0.00%	0.00%	0.00%
21	Indicated Rate of Return	4.16%	5.67%	3.42%	0.00%
22	Requested Rate of Return on Rate Base	5.67%	5.67%	0.00%	0.00%
23	Deficiency/Sufficiency in Rate of Return	-1.51%	0.00%	3.42%	0.00%
24	Target Return on Equity	\$1,809,788	\$1,809,788	\$ -	\$ -
25	Revenue Deficiency/(Sufficiency)	\$778,157	\$0	(\$1,599,133)	\$ -
26	<b>Gross Revenue Deficiency/(Sufficiency)</b>	\$1,058,716 <sup>(1)</sup>		(\$2,175,691) <sup>(1)</sup>	\$10,870,637 <sup>(1)</sup>

### Notes:

<sup>(1)</sup> 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	\$5,961,033		\$5,961,033		\$5,961,033	
2	Amortization/Depreciation	\$1,993,885		\$1,993,885		\$1,993,885	
3	Property Taxes	\$35,000		\$35,000		\$35,000	
5	Income Taxes (Grossed up)	\$392,622		\$392,622		\$392,622	
6	Other Expenses	\$ -					
7	Return						
	Deemed Interest Expense	\$1,109,784		\$ -		\$ -	
	Return on Deemed Equity	\$1,809,788		\$ -		\$ -	
8	<b>Service Revenue Requirement (before Revenues)</b>	<u>\$11,302,113</u>		<u>\$8,382,540</u>		<u>\$8,382,540</u>	
9	Revenue Offsets	<u>\$337,674</u>		<u>\$ -</u>		<u>\$ -</u>	
10	<b>Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)</b>	<u>\$10,964,439</u>		<u>\$8,382,540</u>		<u>\$8,382,540</u>	
11	Distribution revenue	\$10,964,439		\$ -		\$ -	
12	Other revenue	<u>\$337,674</u>		<u>\$ -</u>		<u>\$ -</u>	
13	<b>Total revenue</b>	<u>\$11,302,113</u>		<u>\$ -</u>		<u>\$ -</u>	
14	<b>Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)</b>	<u>\$ -</u>	(1)	<u>(\$8,382,540)</u>	(1)	<u>(\$8,382,540)</u>	(1)

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

	Application		Δ% (2)	Per Board Decision	Δ% (2)
<b>Service Revenue Requirement</b>	\$11,302,113	\$8,382,540	(\$0)	\$8,382,540	(\$1)
<b>Grossed-Up Revenue</b>					
<b>Deficiency/(Sufficiency)</b>	\$1,058,716	(\$2,175,691)	(\$3)	\$10,870,637	(\$1)
<b>Base Revenue Requirement (to be recovered from Distribution Rates)</b>	\$10,964,439	\$8,382,540	(\$0)	\$8,382,540	(\$1)
<b>Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement</b>	\$1,058,714	\$ -	(\$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 <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
1	Residential	20,786	182,208,797	-						
2	General Service < 50 kW	2,578	63,336,490	-						
3	General Service > 50 to 4999 kW	207	161,339,327	447,732						
4	Unmetered Scattered Load	54	261,852	-						
5	Sentinel Lighting	8	13,545	17						
6	Street Lighting	6,193	2,137,697	6,846						
7										
8										
9										
10										
11										
12										
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14										
15										
16										
17										
18										
19										
20										
Total		29,826	409,297,707	454,595						

### 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 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 <sup>(3)</sup>		Costs Allocated from Previous Study <sup>(1)</sup>	%	Allocated Class Revenue Requirement <sup>(1)</sup>	%
From Sheet 10. Load Forecast				(7A)	
1 Residential		\$ 935,363	58.81%	\$ 7,330,270	64.86%
2 General Service < 50 kW		\$ 227,732	14.32%	\$ 1,636,434	14.48%
3 General Service > 50 to 4999 kW		\$ 398,722	25.07%	\$ 1,996,825	17.67%
4 Unmetered Scattered Load		\$ 1,202	0.08%	\$ 11,406	0.10%
5 Sentinel Lighting		\$ 1,333	0.08%	\$ 1,314	0.01%
6 Street Lighting		\$ 26,213	1.65%	\$ 325,863	2.88%
7					
8					
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19					
20					
Total		\$ 1,590,565	100.00%	\$ 11,302,113	100.00%
Allocated Revenue Requirement does not match Base Revenue Requirement from Sheet 9. Check data.				\$ 10,964,438.68	

- (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	\$ 6,497,838	\$ 7,192,321	\$ 7,192,016	\$ 171,637
2	General Service < 50 kW	\$ 1,493,433	\$ 1,653,050	\$ 1,653,055	\$ 86,959
3	General Service > 50 to 4999 kW	\$ 1,423,467	\$ 1,575,606	\$ 1,715,358	\$ 79,043
4	Unmetered Scattered Load	\$ 10,380	\$ 11,489	\$ 11,497	\$ 262
5	Sentinel Lighting	\$ 1,033	\$ 1,144	\$ 1,218	\$ 30
6	Street Lighting	\$ 479,573	\$ 530,829	\$ 391,294	-\$ 258
7					
8					
9					
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18					
19					
20					
Total		\$ 9,905,725	\$ 10,964,439	\$ 10,964,439	\$ 337,674

- (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)	
		2013			
		%	%	%	%
1	Residential	100.00%	100.46%	100.46%	85 - 115
2	General Service < 50 kW	98.00%	106.33%	106.33%	85 - 115
3	General Service > 50 to 4999 kW	100.00%	82.86%	89.86%	80 - 120
4	Unmetered Scattered Load	70.00%	103.03%	103.10%	80 - 120
5	Sentinel Lighting	120.00%	89.31%	95.00%	80 - 120
6	Street Lighting	120.00%	162.82%	120.00%	80 - 120
7					80 - 120
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10					
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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 <sup>(11)</sup>

Name of Customer Class		Proposed Revenue-to-Cost Ratio			Policy Range
		Test Year	Price Cap IR Period		
		2017	2018	2019	
1	Residential	100.46%	100.46%	100.46%	85 - 115
2	General Service < 50 kW	106.33%	106.33%	106.33%	85 - 115
3	General Service > 50 to 4999 kW	89.86%	89.86%	89.86%	80 - 120
4	Unmetered Scattered Load	103.10%	103.10%	103.10%	80 - 120
5	Sentinel Lighting	95.00%	95.00%	95.00%	80 - 120
6	Street Lighting	120.00%	120.00%	120.00%	80 - 120
7					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	20,786
kWh	182,208,797

Proposed Residential Class Specific Revenue Requirement <sup>1</sup>	\$ 7,192,016.29
--	-----------------

Residential Base Rates on Current Tariff	
Monthly Fixed Charge (\$)	20.06
Distribution Volumetric Rate (\$/kWh)	0.0082

### B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	20.06	20,786	\$ 5,003,725.96	77.01%
Variable	0.0082	182,208,797	\$ 1,494,112.14	22.99%
<b>TOTAL</b>	-	-	\$ 6,497,838.09	-

### C Calculating Test Year Base Rates

Number of Remaining Rate Design Policy Transition Years <sup>2</sup>	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	\$ 5,538,284.90	22.2	\$ 5,537,523.24
Variable	\$ 1,653,731.39	0.0091	\$ 1,658,100.05
<b>TOTAL</b>	\$ 7,192,016.29	-	\$ 7,195,623.29

	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
Fixed	84.67%	\$ 6,089,528.69	24.41	\$ 6,088,781.19
Variable	15.33%	\$ 1,102,487.59	0.0061	\$ 1,111,473.66
<b>TOTAL</b>	-	\$ 7,192,016.29	-	\$ 7,200,254.85

Checks <sup>3</sup>	
Change in Fixed Rate	\$ 2.21
Difference Between Revenues @ Proposed Rates and Class Specific	\$8,239
	0.11%

#### 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 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			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								
Customer Class	Volumetric Charge Determinant	Customers / Connections	kWh	kW or kVA	Total Class Revenue Requirement	Monthly Service Charge	Volumetric	Fixed	Variable	Transformer Ownership Allowance <sup>1</sup> (\$)	Monthly Service Charge	Volumetric Rate	MSC Revenues	Volumetric revenues	Revenues less Transformer Ownership Allowance	
From sheet 10. Load Forecast											Rate	No. of decimals	Rate	No. of decimals		
1 Residential	kWh	20,786	182,208,797	-	\$ 7,192,016	\$ 6,088,781	\$ 1,103,235	84.66%	15.34%		\$24.41	2	\$0.006055 /kWh	6	\$ 6,088,781.19	
2 General Service < 50 kW	kWh	2,578	63,336,490	-	\$ 1,653,055	\$ 777,731	\$ 875,324	47.05%	52.95%		\$25.14		\$0.013820 /kWh		\$ 777,731.04	
3 General Service > 50 to 4999 kW	kW	207	161,339,327	447,732	\$ 1,715,358	\$ 575,554	\$ 1,139,805	33.55%	66.45%	\$ 99,000	\$232.02		\$2.766841 /kW		\$ 575,553.53	
4 Unmetered Scattered Load	kWh	54	261,852	-	\$ 11,497	\$ 4,567	\$ 6,930	39.73%	60.27%		\$7.07		\$0.026465 /kWh		\$ 4,567.41	
5 Sentinel Lighting	kW	8	13,545	17	\$ 1,218	\$ 604	\$ 614	49.62%	50.38%		\$6.43		\$36.105777 /kW		\$ 604.90	
6 Street Lighting	kW	6,193	2,137,697	6,846	\$ 391,294	\$ 363,827	\$ 27,466	92.98%	7.02%		\$4.90		\$4.012046 /kW		\$ 364,159.84	
7		-	-	-											\$ -	
8		-	-	-											\$ -	
9		-	-	-											\$ -	
10		-	-	-											\$ -	
11		-	-	-											\$ -	
12		-	-	-											\$ -	
13		-	-	-											\$ -	
14		-	-	-											\$ -	
15		-	-	-											\$ -	
16		-	-	-											\$ -	
17		-	-	-											\$ -	
18		-	-	-											\$ -	
19		-	-	-											\$ -	
20		-	-	-											\$ -	
Total Transformer Ownership Allowance										\$ 99,000	Rates recover revenue requirement					
Total Distribution Revenues															\$10,964,797.21	
Base Revenue Requirement															\$10,964,438.68	
Difference															\$ 358.53	
% Difference															0.003%	

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).



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.

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

<sup>(2)</sup> Short description of change, issue, etc.

## Summary of Proposed Changes

Reference <sup>(1)</sup>	Item / Description <sup>(2)</sup>	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	\$ 2,919,572	5.67%	\$ 51,531,560	\$ 63,373,651	\$ 4,753,024	\$ 1,993,885	\$ 392,622	\$ 5,961,033	\$ 11,302,113	\$ 337,674	\$ 10,964,439	\$ 1,058,716

1