

Exhibit 6:

Revenue Requirement

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1 **List of Attachments**

2 6-A. Revenue Requirement Work Form

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6.1 Overview

This section is intended to outline and support EPLC's request for an overall increase in its Revenue Requirement. The following items are included in this Exhibit:

- Determination of Net Utility Income;
- Statement of Rate Base;
- Actual Utility Return on Rate Base;
- Indicated Rate of Return;
- Requested Rate of Return;
- Gross Deficiency in Revenue;

EPLC has determined that the Revenue Deficiency for the 2018 Test Year is \$280,095.

The methodology at which EPLC used to arrive at the calculated Revenue Deficiency is described herein. EPLC completed the Revenue Requirement Work Form Version 7.02 ("RRWF Model") provided by the Board on July 14th, 2017. The RRWF Model is provided in this Application as Attachment 6-A to this Exhibit.

As per the Board's Filing Requirements, the calculation of gross Revenue Sufficiency/Deficiency must isolate the delivery Sufficiency/Deficiency from any energy Sufficiency/Deficiency. As a result, EPLC's calculation does not include any recovery of deferral/variance accounts or any other electricity charge (ie Transmission Charges, Wholesale Market Service Charges, Commodity Charges, etc). These charges are considered elsewhere in this Application.

6.2 Calculation of Revenue Requirement

EPLC has calculated the proposed Revenue Requirement with the following drivers:

- Operations, Maintenance & Administration (“OM&A”) Expenses;
- Property Taxes;
- Depreciation/Amortization Expense;
- PILs;
- Deemed Interest Expense;
- Return on Equity;

A significant portion of EPLC’s Revenue Requirement is recovered through electricity distribution charges with Other Revenue from Board Approved services charges such as Late Payment Charges and other various Distribution services. This Other Revenue is treated as an offset to EPLC’s Service Revenue Requirement and is further described in Exhibit 3 of this Application.

EPLC completed the Revenue Requirement Work Form Version 7.02 (“RRWF Model”) provided by the Board on July 14th, 2017. The RRWF Model is provided in this Application as Attachment 6-A to this Exhibit. EPLC has ensured that values entered into the RRWF Model are consistent with other Exhibits in this Application.

6.3 Determination of Net Utility Income

As per Tab 5 of the RRWF Model, EPLC proposes a 2018 Test Year Net Income of \$2,147,181. Figure 1 below outlines EPLC's calculation.

Figure 1 – EPLC Proposed 2018 Test Year Net Income

Description	Amount
Operating Revenues:	
Distribution Revenue	\$ 12,471,074
Other Revenue	\$ 691,821
Total Revenue	\$ 13,162,895
Operating Expenses:	
OM&A Expenses	\$ 7,710,275
Depreciation/Amortization	\$ 1,848,004
Deemed Interest Expense	\$ 1,230,186
Total Cost & Expenses	\$ 10,788,465
Net Income before Income Taxes	\$ 2,374,430
Income Taxes (Grossed-Up)	\$ 227,249
Utility Net Income	\$ 2,147,181

6.4 Statement of Rate Base

As per Tab 4 of the RRWF Model, EPLC proposes a 2018 Test Year Rate Base of \$59,927,210. Figure 2 below outlines EPLC's calculation.

Figure 2 – EPLC Proposed 2018 Test Year Rate Base

Description	Amount
Opening Net Fixed Assets	\$ 84,365,384
Closing Net Fixed Assets	\$ (30,144,082)
Average Net Fixed Assets	\$ 54,221,302
Working Capital Allowance	\$ 5,705,908
Total Rate Base	\$ 59,927,210

6.5 Actual Utility Return on Rate Base

A comparison of EPLC's 2018 Test Year Actual Return on Rate Base and Expected Return on Rate Base is shown below as Figure 3 for both Current Approved Rates and Proposed Rates.

Figure 3 – EPLC's Return on Rate Base

Description	At Current Approved Rates	At Proposed Rates
Actual Return on Rate Base		
Rate Base	\$ 59,927,210	\$ 59,927,210
Interest Expense	\$ 1,230,186	\$ 1,230,186
Net Income	\$ 1,824,549	\$ 2,104,643
Total Actual Return on Rate Base	\$ 3,054,735	\$ 3,334,829
Weighted Average Cost of Capital	5.10%	5.56%
Required Return on Rate Base		
Rate Base	\$ 59,927,210	\$ 59,927,210
<i>Return Rates:</i>		
Return on Debt	3.59%	3.59%
Return on Equity	8.78%	8.78%
Deemed Interest Expense	\$ 1,230,186	\$ 1,230,186
Return on Equity	\$ 2,104,644	\$ 2,104,644
Total Required Return on Rate Base	\$ 3,334,829	\$ 3,334,829
Expected Return on Rate Base	5.10%	5.56%

6.5.1 Indicated Rate of Return

As per Figure 4 below, EPLC has calculated its Indicated Rate of Return of 5.10% at Currently Approved Rates and 5.56% at Proposed Rates.

6.5.2 Requested Rate of Return

As per Figure 3 above, EPLC has calculated and proposes a Requested Rate of Return of 5.56% (\$3,334,829).

Where distribution rates remained unchanged, EPLC's Return on Rate Base would be 5.10% (\$3,054,735).

6.6 Revenue Deficiency

As per Figure 4 below and consistent with the RRWF Model, EPLC has calculated a Revenue Deficiency of \$280,095 and a Gross Revenue Deficiency of \$381,081.

Figure 4 – EPLC's 2018 Test Year Revenue Deficiency

Description	At Current Approved Rates	At Proposed Rates
Revenue Deficiency from Below		\$ 381,081
Distribution Revenue	\$ 12,190,979	\$ 12,089,993
Other Operating Revenue Offsets	\$ 691,821	\$ 691,821
Required Return on Rate Base	\$ 12,882,800	\$ 13,162,895
Operating Expenses	\$ 9,600,817	\$ 9,600,817
Deemed Interest Expense	\$ 1,230,186	\$ 1,230,186
Total Cost & Expenses	\$ 10,831,003	\$ 10,831,003
Utility Income Before Income Taxes	\$ 2,051,797	\$ 2,331,892
Tax Adjustments to Accounting	\$ (1,205,576)	\$ (1,205,576)
Taxable Income	\$ 846,221	\$ 1,126,316
Income Tax Rate	26.50%	26.50%
Income Tax on Taxable Income	\$ 224,249	\$ 298,474
Income Tax Credits	\$ 3,000	\$ 3,000
Utility Net Income	\$ 1,824,549	\$ 2,104,193
Utility Rate Base	\$ 59,927,210	\$ 59,927,210
Deemed Equity Portion of Rate Base	\$ 23,970,884	\$ 23,970,884
Income/(Equity Portion of Rate Base)	7.61%	8.78%
Target Return - Equity on Rate Base	8.78%	8.78%
Deficiency/Sufficiency in Return on Equity	-1.17%	0.00%
Indicated Rate of Return	5.08%	5.56%
Requested Rate of Return on Rate Base	5.56%	5.56%
Deficiency/Sufficiency in Rate of Return	-0.49%	0.00%
Target Return on Equity	\$ 2,104,644	\$ 2,104,644
Revenue Deficiency/(Sufficiency)	\$ 280,095	\$ -
Gross Revenue Deficiency/(Sufficiency)	\$ 381,081	\$ -

6.7 Cost Drivers on Revenue Deficiency

As per Figure 5 below and consistent with the RRWF Model, EPLC has calculated the contributors towards its Revenue Deficiency of \$280,095. Column A represents EPLC's 2010 Board Approved amounts. Column B lists the estimated proportionate contributions by cost type based on the Required Return on Rate Base shown in Figure 4 above. Column C represents the 2017 proposed components and Column D represents the variance between Columns C and B respectively.

Figure 5 – Revenue Deficiency by Revenue Requirement Component

Description	2010 Board Approved Rates	At Current Approved Rates	At Proposed Rates	Variance (Deficiency)
	A	B	C	D = C - B
Revenue Requirement:				
OM&A	\$ 6,254,188	\$ 6,726,671	\$ 7,710,275	\$ 983,604
Depreciation	\$ 2,247,501	\$ 2,417,292	\$ 1,848,004	\$ (569,288)
Property Tax	\$ 32,001	\$ 34,419	\$ 42,538	\$ 8,119
Income Tax	\$ 545,581	\$ 586,798	\$ 227,249	\$ (359,549)
Return on Rate Base	\$ 2,898,637	\$ 3,117,620	\$ 3,334,829	\$ 217,209
Total	\$ 11,977,909	\$ 12,882,800	\$ 13,162,895	\$ 280,095
Rate Base				
Rate Base	\$ 41,119,713		\$ 59,927,210	\$ 18,807,497

There are two (2) primary drivers for EPLC's Revenue Deficiency of \$280,095 for the 2018 Test Year:

- The first contributor is an OM&A increase of approximately \$983,604. Details relating to EPLC's OM&A increases are summarized in Exhibit 4 of this Application;
- The second contributor is an increase in Return on Rate Base which is driven by a Rate Base increase of \$18.8M between 2010 and the 2018 Test Year. Further detail related to the \$18.8M increase in rate base is summarized in Exhibit 2 of this Application.

Attachment 6-A

Revenue Requirement Work Form



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2018 Filers



Version 7.02

Utility Name	Essex Powerlines Corporation
Service Territory	Amherstburg, Lasalle, Leamington, Tecumseh
Assigned EB Number	EB-2017-0039
Name and Title	Kristopher Taylor, Director of Corporate Strategy
Phone Number	519-946-2000 x219
Email Address	ktaylor@essexpower.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 2018 Filers

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[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 2018 Filers

Data Input ⁽¹⁾

	Initial Application	(2)		(6)		Per Board Decision
1	Rate Base					
Gross Fixed Assets (average)	\$84,365,384			\$ 84,365,384		\$84,365,384
Accumulated Depreciation (average)	(\$30,144,082)	(5)		(\$30,144,082)		(\$30,144,082)
Allowance for Working Capital:						
Controllable Expenses	\$7,752,813			\$ 7,752,813		\$7,752,813
Cost of Power	\$68,325,958			\$ 68,325,958		\$68,325,958
Working Capital Rate (%)	7.50%	(9)			(9)	
2	Utility Income					
Operating Revenues:						
Distribution Revenue at Current Rates	\$12,190,979					
Distribution Revenue at Proposed Rates	\$12,471,074					
Other Revenue:						
Specific Service Charges	\$166,480					
Late Payment Charges	\$260,400					
Other Distribution Revenue	\$225,155					
Other Income and Deductions	\$39,786					
Total Revenue Offsets	\$691,821	(7)				
Operating Expenses:						
OM+A Expenses	\$7,710,275			\$ 7,710,275		\$7,710,275
Depreciation/Amortization	\$1,848,004			\$ 1,848,004		\$1,848,004
Property taxes	\$42,538			\$ 42,538		\$42,538
Other expenses	\$ -			0		\$0
3	Taxes/PILs					
Taxable Income:						
	(\$1,205,576)	(3)				
Adjustments required to arrive at taxable income						
Utility Income Taxes and Rates:						
Income taxes (not grossed up)	\$167,028					
Income taxes (grossed up)	\$227,249					
Federal tax (%)	15.00%					
Provincial tax (%)	11.50%					
Income Tax Credits	\$3,000					
4	Capitalization/Cost of Capital					
Capital Structure:						
Long-term debt Capitalization Ratio (%)	56.0%					
Short-term debt Capitalization Ratio (%)	4.0%	(8)		(8)		(8)
Common Equity Capitalization Ratio (%)	40.0%					
Preferred Shares Capitalization Ratio (%)	0.0%					
	100.0%					
Cost of Capital						
Long-term debt Cost Rate (%)	3.54%					
Short-term debt Cost Rate (%)	1.76%					
Common Equity Cost Rate (%)	8.78%					
Preferred Shares Cost Rate (%)	0.00%					

Notes:

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

(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 2018 Filers

Rate Base and Working Capital

Rate Base										
Line No.	Particulars		Initial Application						Per Board Decision	
1	Gross Fixed Assets (average) ⁽²⁾		\$84,365,384		\$ -		\$84,365,384		\$ -	\$84,365,384
2	Accumulated Depreciation (average) ⁽²⁾		(\$30,144,082)		\$ -		(\$30,144,082)		\$ -	(\$30,144,082)
3	Net Fixed Assets (average) ⁽²⁾		\$54,221,302		\$ -		\$54,221,302		\$ -	\$54,221,302
4	Allowance for Working Capital ⁽¹⁾		\$5,705,908		(\$5,705,908)		\$ -		\$ -	\$ -
5	Total Rate Base		\$59,927,210		(\$5,705,908)		\$54,221,302		\$ -	\$54,221,302

(1) Allowance for Working Capital - Derivation

6	Controllable Expenses	\$7,752,813	\$ -	\$7,752,813	\$ -	\$7,752,813
7	Cost of Power	\$68,325,958	\$ -	\$68,325,958	\$ -	\$68,325,958
8	Working Capital Base	\$76,078,771	\$ -	\$76,078,771	\$ -	\$76,078,771
9	Working Capital Rate % ⁽¹⁾	7.50%	-7.50%	0.00%	0.00%	0.00%
10	Working Capital Allowance	\$5,705,908	(\$5,705,908)	\$ -	\$ -	\$ -

Notes

⁽¹⁾ Some Applicants may have a unique rate as a result of a lead-lag study. The default rate for 2018 cost of service applications is 7.5%, per the letter issued by the Board on June 3, 2015.

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



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2018 Filers

Utility Income

Line No.	Particulars	Initial Application						Per Board Decision
Operating Revenues:								
1	Distribution Revenue (at Proposed Rates)	\$12,471,074		(\$12,471,074)		\$ -		\$ -
2	Other Revenue	(1) \$691,821		(\$691,821)		\$ -		\$ -
3	Total Operating Revenues	\$13,162,895		(\$13,162,895)		\$ -		\$ -
Operating Expenses:								
4	OM+A Expenses	\$7,710,275		\$ -		\$7,710,275		\$ -
5	Depreciation/Amortization	\$1,848,004		\$ -		\$1,848,004		\$ -
6	Property taxes	\$42,538		\$ -		\$42,538		\$ -
7	Capital taxes	\$ -		\$ -		\$ -		\$ -
8	Other expense	\$ -		\$ -		\$ -		\$ -
9	Subtotal (lines 4 to 8)	\$9,600,817		\$ -		\$9,600,817		\$ -
10	Deemed Interest Expense	\$1,230,186		(\$1,230,186)		\$ -		\$ -
11	Total Expenses (lines 9 to 10)	\$10,831,003		(\$1,230,186)		\$9,600,817		\$ -
12	Utility income before income taxes	\$2,331,892		(\$11,932,709)		(\$9,600,817)		\$ -
13	Income taxes (grossed-up)	\$227,249		\$ -		\$227,249		\$ -
14	Utility net income	\$2,104,643		(\$11,932,709)		(\$9,828,066)		\$ -

Notes

Other Revenues / Revenue Offsets

⁽¹⁾	Specific Service Charges	\$166,480	\$ -	\$ -	\$ -
	Late Payment Charges	\$260,400	\$ -	\$ -	\$ -
	Other Distribution Revenue	\$225,155	\$ -	\$ -	\$ -
	Other Income and Deductions	\$39,786	\$ -	\$ -	\$ -
	Total Revenue Offsets	\$691,821	\$ -	\$ -	\$ -



Revenue Requirement Workform (RRWF) for 2018 Filers

Taxes/PILs

Line No.	Particulars	Application				Per Board Decision	
<u>Determination of Taxable Income</u>							
1	Utility net income before taxes	\$2,104,644		\$ -		\$ -	
2	Adjustments required to arrive at taxable utility income	(\$1,205,576)		\$ -		\$ -	
3	Taxable income	<u>\$899,068</u>		<u>\$ -</u>		<u>\$ -</u>	
<u>Calculation of Utility income Taxes</u>							
4	Income taxes	<u>\$167,028</u>		<u>\$167,028</u>		<u>\$167,028</u>	
6	Total taxes	<u>\$167,028</u>		<u>\$167,028</u>		<u>\$167,028</u>	
7	Gross-up of Income Taxes	<u>\$60,221</u>		<u>\$60,221</u>		<u>\$60,221</u>	
8	Grossed-up Income Taxes	<u>\$227,249</u>		<u>\$227,249</u>		<u>\$227,249</u>	
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	<u>\$227,249</u>		<u>\$227,249</u>		<u>\$227,249</u>	
10	Other tax Credits	\$3,000		\$3,000		\$3,000	
<u>Tax Rates</u>							
11	Federal tax (%)	15.00%		15.00%		15.00%	
12	Provincial tax (%)	11.50%		11.50%		11.50%	
13	Total tax rate (%)	<u>26.50%</u>		<u>26.50%</u>		<u>26.50%</u>	

Notes



Revenue Requirement Workform (RRWF) for 2018 Filers

Capitalization/Cost of Capital

Line No.	Particulars	Capitalization Ratio		Cost Rate	Return
		Initial Application			
		(%)	(\$)	(%)	(\$)
	Debt				
1	Long-term Debt	56.00%	\$33,559,238	3.54%	\$1,187,997
2	Short-term Debt	4.00%	\$2,397,088	1.76%	\$42,189
3	Total Debt	60.00%	\$35,956,326	3.42%	\$1,230,186
	Equity				
4	Common Equity	40.00%	\$23,970,884	8.78%	\$2,104,644
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	Total Equity	40.00%	\$23,970,884	8.78%	\$2,104,644
7	Total	100.00%	\$59,927,210	5.56%	\$3,334,829
		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%	\$54,221,302	0.00%	\$ -
		Per Board Decision			
		(%)	(\$)	(%)	(\$)
	Debt				
8	Long-term Debt	0.00%	\$ -	3.54%	\$ -
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%	\$54,221,302	0.00%	\$ -

Notes



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2018 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		\$381,081		(\$3,020,744)
2	Distribution Revenue	\$12,190,979	\$12,089,993	\$12,190,979	\$15,491,818
3	Other Operating Revenue	\$691,821	\$691,821	\$ -	\$ -
	Offsets - net				
4	Total Revenue	\$12,882,800	\$13,162,895	\$12,190,979	\$12,471,074
5	Operating Expenses	\$9,600,817	\$9,600,817	\$9,600,817	\$9,600,817
6	Deemed Interest Expense	\$1,230,186	\$1,230,186	\$ -	\$ -
8	Total Cost and Expenses	\$10,831,003	\$10,831,003	\$9,600,817	\$9,600,817
9	Utility Income Before Income Taxes	\$2,051,797	\$2,331,892	\$2,590,162	\$2,870,257
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$1,205,576)	(\$1,205,576)	(\$1,205,576)	(\$1,205,576)
11	Taxable Income	\$846,221	\$1,126,316	\$1,384,586	\$1,664,681
12	Income Tax Rate	26.50%	26.50%	26.50%	26.50%
13	Income Tax on Taxable Income	\$224,249	\$298,474	\$366,915	\$441,140
14	Income Tax Credits	\$3,000	\$3,000	\$3,000	\$3,000
15	Utility Net Income	\$1,824,549	\$2,104,643	\$2,220,247	(\$9,828,066)
16	Utility Rate Base	\$59,927,210	\$59,927,210	\$54,221,302	\$54,221,302
17	Deemed Equity Portion of Rate Base	\$23,970,884	\$23,970,884	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	7.61%	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	-1.17%	0.00%	0.00%	0.00%
21	Indicated Rate of Return	5.10%	5.56%	4.09%	0.00%
22	Requested Rate of Return on Rate Base	5.56%	5.56%	0.00%	0.00%
23	Deficiency/Sufficiency in Rate of Return	-0.47%	0.00%	4.09%	0.00%
24	Target Return on Equity	\$2,104,644	\$2,104,644	\$ -	\$ -
25	Revenue Deficiency/(Sufficiency)	\$280,095	(\$0)	(\$2,220,247)	\$ -
26	Gross Revenue Deficiency/(Sufficiency)	\$381,081 ⁽¹⁾		(\$3,020,744) ⁽¹⁾	

Notes:

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



Revenue Requirement Workform (RRWF) for 2018 Filers

Revenue Requirement

Line No.	Particulars	Application				Per Board Decision	
1	OM&A Expenses	\$7,710,275		\$7,710,275		\$7,710,275	
2	Amortization/Depreciation	\$1,848,004		\$1,848,004		\$1,848,004	
3	Property Taxes	\$42,538		\$42,538		\$42,538	
5	Income Taxes (Grossed up)	\$227,249		\$227,249		\$227,249	
6	Other Expenses	\$ -		\$ -		\$ -	
7	Return						
	Deemed Interest Expense	\$1,230,186		\$ -		\$ -	
	Return on Deemed Equity	\$2,104,644		\$ -		\$ -	
8	Service Revenue Requirement (before Revenues)	<u>\$13,162,895</u>		<u>\$9,828,066</u>		<u>\$9,828,066</u>	
9	Revenue Offsets	\$691,821		\$ -		\$ -	
10	Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	<u>\$12,471,074</u>		<u>\$9,828,066</u>		<u>\$9,828,066</u>	
11	Distribution revenue	\$12,471,074		\$ -		\$ -	
12	Other revenue	\$691,821		\$ -		\$ -	
13	Total revenue	<u>\$13,162,895</u>		<u>\$ -</u>		<u>\$ -</u>	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	<u>(\$0)</u>	(1)	<u>(\$9,828,066)</u>	(1)	<u>(\$9,828,066)</u>	(1)

Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application		Δ% (2)	Per Board Decision	Δ% (2)
Service Revenue Requirement	\$13,162,895	\$9,828,066	(\$0)	\$9,828,066	(\$1)
Grossed-Up Revenue					
Deficiency/(Sufficiency)	\$381,081	(\$3,020,744)	(\$9)	\$13,062,336	(\$1)
Base Revenue Requirement (to be recovered from Distribution Rates)	\$12,471,074	\$9,828,066	(\$0)	\$9,828,066	(\$1)
Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement	\$280,095	\$ -	(\$1)	\$ -	(\$1)

Notes

- (1) Line 11 - Line 8
(2) Percentage Change Relative to Initial Application



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Revenue Requirement Workform (RRWF) for 2018 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	27,484	245,374,118				
2	General Service < 50 kW	1,977	62,707,450				
3	General Service > 50 kW	219	176,280,306	446,253			
4	Intermediate Use						
5	Street Lights	2,740	2,799,882	8,848			
6	Unmetered Scattered Load	140	1,554,368				
7	Sentinel Lights	173	335,758	2,080			
8	Embedded Distributor	3	29,865,554	80,869			
9							
10							
11							
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15							
16							
17							
18							
19							
20							
Total			518,917,436	538,051		-	-

Notes:

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



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Revenue Requirement Workform (RRWF) for 2018 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	\$ 8,442,067	70.48%	\$ 9,665,793	73.43%
2 General Service < 50 kW	\$ 1,585,605	13.24%	\$ 1,437,710	10.92%
3 General Service > 50 kW	\$ 1,457,177	12.17%	\$ 1,707,614	12.97%
4 Intermediate Use	\$ 58,824	0.49%	\$ -	
5 Street Lights	\$ 351,854	2.94%	\$ 178,906	1.36%
6 Unmetered Scattered Load	\$ 23,468	0.20%	\$ 51,178	0.39%
7 Sentinel Lights	\$ 58,914	0.49%	\$ 23,079	0.18%
8 Embedded Distributor	\$ -		\$ 98,616	0.75%
9				
10				
11				
12				
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19				
20				
Total	\$ 11,977,910	100.00%	\$ 13,162,895	100.00%
Service Revenue Requirement (from Sheet 9)			\$ 13,162,895.35	

- (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	\$ 8,612,319	\$ 8,810,192	\$ 8,889,902	\$ 521,363
2	General Service < 50 kW	\$ 1,585,914	\$ 1,622,351	\$ 1,622,351	\$ 82,393
3	General Service > 50 kW	\$ 1,528,407	\$ 1,563,523	\$ 1,563,524	\$ 74,371
4	Intermediate Use	\$ -	\$ -	\$ -	\$ -
5	Street Lights	\$ 187,611	\$ 191,922	\$ 191,922	\$ 9,623
6	Unmetered Scattered Load	\$ 62,175	\$ 63,604	\$ 58,609	\$ 2,805
7	Sentinel Lights	\$ 27,447	\$ 28,078	\$ 26,669	\$ 1,025
8	Embedded Distributor	\$ 187,106	\$ 191,405	\$ 118,097	\$ 242
9					
10					
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12					
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19					
20					
Total		\$ 12,190,979	\$ 12,471,074	\$ 12,471,074	\$ 691,821

- (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)	
	2010			
	%	%	%	%
1 Residential	100.23%	96.54%	97.37%	85 - 115
2 General Service < 50 kW	49.56%	118.57%	118.57%	80 - 120
3 General Service > 50 kW	159.99%	95.92%	95.92%	80 - 120
4 Intermediate Use	336.93%	#DIV/0!	#DIV/0!	80 - 120
5 Street Lights	32.36%	112.65%	112.65%	80 - 120
6 Unmetered Scattered Load	132.66%	129.76%	120.00%	80 - 120
7 Sentinel Lights	38.09%	126.10%	120.00%	80 - 120
8 Embedded Distributor	N/A	194.34%	120.00%	80 - 120
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- (8) Previously Approved Revenue-to-Cost (R/C) Ratios - For most applicants, the most recent year would be the third year (at the latest) of the Price Cap IR period. For example, if the applicant, rebased in 2012 with further adjustments to move within the range over two years, the Most Recent Year would be 2015. However, the ratios in 2015 would be equal to those after the adjustment in 2014.
- (9) Status Quo Ratios - The OEB-issued cost allocation model provides the Status Quo Ratios on Worksheet O-1. The Status Quo means "Before Rebalancing".
- (10) Ratios shown in red are outside of the allowed range. Applies to both Tables C and D.

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

Name of Customer Class	Proposed Revenue-to-Cost Ratio			Policy Range
	Test Year 2018	2019	Price Cap IR Period 2020	
1 Residential	97.37%	97.37%	97.37%	85 - 115
2 General Service < 50 kW	118.57%	118.57%	118.57%	80 - 120
3 General Service > 50 kW	95.92%	95.92%	95.92%	80 - 120
4 Intermediate Use	#DIV/0!	#DIV/0!	#DIV/0!	80 - 120
5 Street Lights	112.65%	112.65%	112.65%	80 - 120
6 Unmetered Scattered Load	120.00%	120.00%	120.00%	80 - 120
7 Sentinel Lights	120.00%	120.00%	120.00%	80 - 120
8 Embedded Distributor	120.00%	120.00%	120.00%	80 - 120
9				
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(11) The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2018 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 2019 and 2020 Price Cap IR models, as necessary. For 2019 and 2020, 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 2018 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	27,484
kWh	245,374,118

Proposed Residential Class Specific Revenue Requirement ¹	\$ 8,889,902.49
--	-----------------

Residential Base Rates on Current Tariff	
Monthly Fixed Charge (\$)	\$ 20.31
Distribution Volumetric Rate (\$/kWh)	\$ 0.0078

B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	20.31	27,484	\$ 6,698,400.48	77.78%
Variable	0.0078	245,374,118	\$ 1,913,918.12	22.22%
TOTAL	-	-	\$ 8,612,318.60	-

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	Reconciliation - Test Year Base Rates @ Current F/V Split
Fixed	\$ 6,914,296.82	20.96	\$ 6,912,775.68
Variable	\$ 1,975,605.67	0.0081	\$ 1,987,530.36
TOTAL	\$ 8,889,902.49	-	\$ 8,900,306.04

	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
Fixed	88.89%	\$ 7,902,099.66	\$ 23.96	\$ 7,902,199.68
Variable	11.11%	\$ 987,802.84	\$ 0.0040	\$ 981,496.47
TOTAL	-	\$ 8,889,902.49	-	\$ 8,883,696.15

Checks ³	
Change in Fixed Rate	\$ 3.00
Difference Between Revenues @ Proposed Rates and Class Specific Revenue Requirement	(\$6,206.34)
	-0.07%

Notes:

¹ The final residential class specific revenue requirement, excluding allocated Miscellaneous Revenues, as shown on Sheet 11. Cost Allocation, should be used (i.e. the revenue requirement after any proposed adjustments to R/C ratios).

² The distributor should enter the number of years remaining before the transition to fully fixed rates is completed. A distributor transitioning to fully fixed rates over a four year period and began the transition in 2016 would input the number "3" into cell D40. A distributor transitioning over a five-year period would input the number "4". Where the change in the residential rate design will result in the fixed charge increasing by more than \$4/year, a distributor may propose an additional transition year.

³ Change in fixed rate due to rate design policy should be less than \$4. The difference between the proposed class revenue requirement and the revenue at calculated base rates should be minimal (i.e. should be reasonably considered as a rounding error)

Revenue Requirement Workform (RRWF) for 2018 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 ²			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 ¹ (\$)	Monthly Service Charge Rate	No. of decimals	Volumetric Rate	No. of decimals	MSC Revenues	Volumetric revenues	Revenues less Transformer Ownership Allowance		
From sheet 10. Load Forecast																			
1 Residential	kWh	27,484	245,374,118	-	\$ 8,889,902	\$ 7,902,100	\$ 987,803	88.89%	11.11%		\$23.96	2	\$0.0040 /kWh	4	\$ 7,902,199.68	\$ 981,496.4720	\$ 8,883,696.15		
2 General Service < 50 kW	kWh	1,977	62,707,450	-	\$ 1,622,351	\$ 852,573	\$ 769,778	52.55%	47.45%		\$35.94		\$0.0123 /kWh		\$ 852,640.56	\$ 771,301.6350	\$ 1,623,942.20		
3 General Service > 50 kW	kW	219	176,280,306	446,253	\$ 1,563,524	\$ 625,559	\$ 937,964	40.01%	59.99%	\$ 69,367	\$238.04		\$2.2573 /kW		\$ 625,569.12	\$ 1,007,327.7998	\$ 1,563,529.92		
4 Intermediate Use	kW	-	-	-	\$ -	-	-	-	-		\$0.00		/kW		\$ -	\$ -	\$ -		
5 Street Lights	kW	2,740	2,799,882	8,848	\$ 191,922	\$ 110,997	\$ 80,925	57.83%	42.17%		\$3.38		\$9.1461 /kW		\$ 111,134.40	\$ 80,924,6928	\$ 192,059.09		
6 Unmetered Scattered Load	kWh	140	1,554,368	-	\$ 58,609	\$ 15,092	\$ 43,517	25.75%	74.25%		\$8.98		\$0.0280 /kWh		\$ 15,086.40	\$ 43,522.3040	\$ 58,608.70		
7 Sentinel Lights	kW	173	335,758	2,080	\$ 26,669	\$ 6,879	\$ 19,791	25.79%	74.21%		\$3.31		\$9.5148 /kW		\$ 6,871.56	\$ 19,790.7640	\$ 26,662.34		
8 Embedded Distributor	kW	3	29,865,554	80,869	\$ 118,097	\$ 19,800	\$ 98,297	16.77%	83.23%		\$550.00		\$1.2155 /kW		\$ 19,800.00	\$ 98,296.7557	\$ 118,096.76		
9		-	-	-											\$ -	\$ -	\$ -		
10		-	-	-											\$ -	\$ -	\$ -		
11		-	-	-											\$ -	\$ -	\$ -		
12		-	-	-											\$ -	\$ -	\$ -		
13		-	-	-											\$ -	\$ -	\$ -		
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15		-	-	-											\$ -	\$ -	\$ -		
16		-	-	-											\$ -	\$ -	\$ -		
17		-	-	-											\$ -	\$ -	\$ -		
18		-	-	-											\$ -	\$ -	\$ -		
19		-	-	-											\$ -	\$ -	\$ -		
20		-	-	-											\$ -	\$ -	\$ -		
Total Transformer Ownership Allowance										\$ 69,367									
													Rates recover revenue requirement						
													Total Distribution Revenues			\$12,466,595.16			
													Base Revenue Requirement			\$12,471,074.35			
													Difference			-\$ 4,479.19			
													% Difference			-0.036%			

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).



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Revenue Requirement Workform (RRWF) for 2018 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	\$ 3,334,829	5.56%	\$ 59,927,210	\$ 76,078,771	\$ 5,705,908	\$ 1,848,004	\$ 227,249	\$ 7,710,275	\$ 13,162,895	\$ 691,821	\$ 12,471,074	\$ 381,081