



Exhibit 6:

REVENUE DEFICIENCY OR SUFFICIENCY



OVERVIEW

ETPL is requesting the recovery of \$10,785,164 in overall revenue requirement for the 2018 Test Year. This includes \$494,448 in revenue offsets. Based upon a continuation of ETPL's existing rates, ETPL has determined that the Revenue Deficiency for the 2018 Test Year is \$125,590 with an average bill impact for residential customers of 0.51% and 1.54% for GS<50 customers.

Erie Thames Powerlines ("ETPL") has included the following information in this Exhibit, excluding energy costs (i.e. cost of power and associated costs) and revenue:

- 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

The information supports ETPL's request in this Application for an increase in its Revenue Requirement while continuing to support the proposed capital and operating budgets for 2018 and to service debt, pay PILs and provide the allowed Return on Equity necessary to maintain safety, customer satisfaction, asset health and service metrics.

The calculation of this Revenue Deficiency is discussed in detail below. ETPL has completed the Revenue Requirement Work Form version 7.0 ("RRWF Model") as provided by the Board on July 14, 2017. The RRWF Model has been filed in Live Excel format as part of this Application and is included as Attachment 6-A to this Exhibit.

In accordance with the Board's Filing Requirements, the calculation of gross Revenue Deficiency/Sufficiency must isolate the delivery-related Deficiency/Sufficiency from any



- 1 energy-related Deficiency/Sufficiency. The above noted Revenue Deficiency
2 calculation does not include the following:
- 3 • Recovery of deferral and variance accounts, or
 - 4 • Other electricity charges which include Energy Commodity, Transmission Charges
5 and Wholesale Market Service Charges.



CALCULATION OF REVENUE REQUIREMENT

ETPL's Revenue Requirement consists of the following:

- Operations, Maintenance and Administration ("OM&A") Expenses,
- Property Taxes,
- Depreciation/Amortization Expense,
- PILs, and
- Return on Rate Base (Deemed Interest & Return on Equity).

ETPL's Revenue Requirement is primarily received through electricity distribution rates with Other Revenue from Board approved specific service charges such as Late Payment Charges and Other Miscellaneous Charges.

These Other Revenues, as described in Exhibit 3, are treated as offsets against ETPL's Service Revenue Requirement to calculate the Base Revenue Requirement upon which class-specific distribution rates are calculated.

ETPL has ensured that numbers entered in the RRWF reconcile with the appropriate numbers in other Exhibits of this Application.



DETERMINATION OF NET UTILITY INCOME

ETPL has determined that its allowable 2018 Net Income as \$1,415,198. Table 6-1 below provides the detailed Net Income calculation for the 2018 Test Year.

TABLE 6-1: ETPL'S 2018 TEST YEAR NET UTILITY INCOME

Line No.	Description	Amount
1	Operating Revenue:	
2	Distribution Revenue (at proposed rates)	\$ 10,290,716
3	Other Revenue	\$ 494,448
4	Total Operating Revenue	\$ 10,785,164
5	Operating Expenses	
6	OM&A Expenses	\$ 6,468,593
7	Depreciation/Amortization	\$ 1,842,780
8	Deemed Interest Expense	\$ 867,816
9	Total Expenses	\$ 9,179,189
10	Utility Income before Income Taxes	\$ 1,605,975
11	Income Taxes (grossed-up)	\$ 190,777
12	Utility Net Income	\$ 1,415,198



STATEMENT OF RATE BASE

A summary of ETPL's Rate Base for the 2018 Test Year, calculated on ETPL's deemed capital structure in accordance with the OEB Filing Requirements, is summarized in Table 6-2 below. ETPL's 2018 Proposed Rate Base is \$40,296,054. For more details on the calculation of ETPL's 2018 rate base, please see Exhibit 2.

TABLE 6-2: ETPL'S 2018 PROPOSED RATE BASE

Line No.	Description	Amount
1	Gross Fixed Assets (Average)	\$ 57,798,956
2	Accumulated Depreciation (Average)	-\$22,656,141
3	Net Fixed Assets (Average)	\$ 35,142,815
4	Allowance for Working Capital	\$ 5,153,240
5	Total Rate Base	\$ 40,296,055



ACTUAL UTILITY RETURN ON RATE

The computation of ETPL's 2018 Test Year return on rate base is summarized below as Table 6-3.

TABLE 6-3: ETPL'S 2018 RETURN ON RATE BASE

Line No.	Particulars	Capitalization Ratio		Cost Rate	Return
1		Initial Application			
2		(%)	(\$)	(%)	(\$)
3	Debt				
4	Long-Term Debt	56.00%	\$ 22,565,790	3.72%	\$ 839,447
5	Short-Term Debt	4.00%	\$ 1,611,842	1.76%	\$ 28,368
6	Total Debt	60.00%	\$ 24,177,632	3.59%	\$ 867,816
7	Equity				
8	Common Equity	40.00%	\$ 16,118,422	8.78%	\$ 1,415,197
9	Preferred shares	0.00%	\$ -	0.00%	\$ -
10	Total Equity	40.00%	\$ 16,118,422	8.78%	\$ 1,415,197
11	Expected Return on Rate Base	100.00%	\$ 40,296,054	5.67%	\$ 2,283,013

6.1.5.1 INDICATED RATE OF RETURN

ETPL's 2018 Indicated Rate of Return is 5.67% as presented in Line 7 of Table 6-3 and is calculated as the sum of Utility Net Income and Deemed Interest Expense divided by the Utility Rate of Return on Rate Base.

6.1.5.2 REQUESTED RATE OF RETURN

ETPL has determined its requested Rate of Return on Base to be \$2,283,013 or 5.67% as summarized in Table 6-3 above, in the event that there is no change to the deemed interest and equity rates for 2018, as proposed in this Application.



REVENUE DEFICIENCY

ETPL has provided a detailed calculation supporting its 2018 Revenue Deficiency in Table 6-4 below. The 2018 Revenue Deficiency is \$125,590 and is shown on line 25. The Gross Revenue Deficiency of \$170,871 on Line 26 is determined by grossing up the Revenue Deficiency for PILs.

TABLE 6-4: ETPL'S 2018 REVENUE DEFICIENCY CALCULATION

Line No.	Description	At Current Approved Rates	At Proposed Rates
1	Revenue Deficiency from Below		\$ 170,871
2	Distribution Revenue	\$ 10,119,845	\$ 10,119,845
3	Other Operating Revenue Offsets -net	\$ 494,448	\$ 494,448
4	Total Revenue	\$ 10,614,293	\$ 10,785,164
5	Operating Expenses	\$ 8,311,373	\$ 8,311,373
6	Deemed Interest Expense	\$ 867,816	\$ 867,816
7	Total Cost and Expenses	\$ 9,179,189	\$ 9,179,189
8	Utility Income Before Income Taxes	\$ 1,435,104	\$ 1,605,975
9	Tax Adjustments to Accounting	-\$ 886,061	-\$ 886,061
10	Taxable Income	\$ 549,042	\$ 719,913
11	Income Tax Rate	26.50%	26.50%
12	Income Tax on Taxable Income	\$ 145,496	\$ 190,777
13	Income Tax Credit		
14	Utility Net Income	\$ 1,289,608	\$ 1,415,198
15			
16	Utility Rate Base	\$ 40,296,054	\$ 40,296,054
17	Deemed Equity Portion of Rate Base	\$ 16,118,422	\$ 16,118,422
18	Income/(Equity Portion of Rate Base)	8.00%	8.78%
19	Target Return - equity on Rate Base	8.78%	8.78%
20	Deficiency/Sufficiency in Return on Equity	-0.78%	0.00%
21	Indicated Rate of Return	5.35%	5.67%
22	Requested Rate of Return on Rate Base	5.67%	5.67%
23	Deficiency/Sufficiency in Rate of Return	-0.32%	0.00%
24	Target Return on Equity	\$ 1,415,197	\$ 1,415,197
25	Revenue Deficiency/(Sufficiency)	\$ 125,590	\$ -
26	Gross Revenue Deficiency/(Sufficiency)	\$ 170,871	



COST DRIVERS ON REVENUE DEFICIENCY

In Table 6-5 below, ETPL outlines the contributors to the 2018 Revenue Deficiency by the various Revenue Requirement components.

In Column B, ETPL has allocated the 2018 revenue calculated using 2017 Approved rates. Column C represents the Actual 2018 Test Year Revenue Requirement by component. Lastly, in Column D is the calculated variance based on the Column C minus Column B.

TABLE 6-5: REVENUE DEFICIENCY BY REVENUE REQUIREMENT COMPONENT

Description	2012 Board Approved	2018 Revenue at Existing Rate Allocated in Proportion to 2012 BA	2018 Test Year Revenue Requirement	Variance
	A	B	C	D=C-B
Revenue Requirement				
OM&A	\$ 5,660,594	\$ 6,043,926	\$ 6,468,593	\$ 424,667
Depreciation	\$ 2,030,082	\$ 2,167,558	\$ 1,842,780	-\$ 324,778
Income Tax	\$ 341,585	\$ 364,717	\$ 190,777	-\$ 173,940
Interest	\$ 803,302	\$ 857,701	\$ 867,816	\$ 10,115
Return on Rate Base	\$ 1,147,934	\$ 1,225,671	\$ 1,415,197	\$ 189,526
Total	\$ 9,983,497	\$10,659,573	\$10,785,163	\$ 125,590
Rate Base				
Rate Base	\$ 31,467,480	\$ 31,467,480	\$ 40,296,054	\$ 8,828,574

The main drivers of the Revenue Deficiency of \$125,590 are described as follows:

- **Operating Maintenance & Administration ("OM&A") Expense Increase:** ETPL's OM&A deficiency component has increased by \$424,667 which is directionally consistent with the variance between the 2012 BA and the 2018 Test Year, as explained in Exhibit 4. This includes an increase of \$140k related to the implementation of cyber security and privacy IT processes implemented as a result of



1 the Cyber Security Framework launched by the Board as part of EB-2016-0032. It also
2 includes changes to operating costs as part of the transition from CGAAP to MIFRS,
3 which results in \$307,000 costs that were previously capitalized being expensed as
4 OM&A in 2012 as detailed in Exhibit 4.

- 5 • **Depreciation Decrease:** Under normal circumstances, the growth in rate base
6 between 2012 BAP and 2018 Test Year would have driven an increase to ETPL's
7 depreciation expense. However, ETPL's depreciation deficiency component has
8 decreased by approximately \$300k, which is directionally consistent with the variance
9 between the 2012 BAP and the 2018 Test Year. This decrease in depreciation, which
10 occurs despite the increase in Rate Base, is the result of ETPL adopting IFRS-compliant
11 depreciation accounting policies. These new policies (e.g. longer useful asset lives)
12 have resulted in a decrease in what the 2018 Test Year depreciation would have
13 otherwise been under CGAAP. For additional details, please refer to Exhibit 2.

- 14 • **Payments-in-Lieu of Taxes ("PILs") Decrease:** The decrease in the PILs deficiency
15 component by approximately \$200k is consistent with decrease in accounting
16 depreciation resulting from the adoption of longer useful asset lives, as well as a
17 decrease in tax rates since ETPL's previous rebasing. For further details on PILS, please
18 refer to Exhibit 4.

- 19 • **Return on Rate Base:** The increase in Return on Rate Base deficiency component by
20 approximately \$190k is driven by an increase in Rate Base of \$9,000,000. The Net
21 Book Value of ETPL's assets increased by approximately \$8,840,000 between the 2012
22 Board-Approved and the 2018 Test Year, as shown in Exhibit 2. This increase in Return
23 on Rate has been partially offset by two factors:

- 24 • A decrease in Working Capital Allowance resulting from the 2012 Default
25 Value of 15% being reduced to the 2018 ETPL deemed value of 7.5% and,
26 • A decrease in ETPL's Weighted Average Cost of Capital ("WACC") from
27 approximately 6.20% in 2012 to 5.67% in the 2018 Test Year, based on the
28 current Board capital parameters. ETPL acknowledges that these parameters
29 are subject to further update.



Exhibit 6: Revenue Deficiency Or Sufficiency

Tab 2 (of 2): Exhibit 6 Appendices



Erie Thames Powerlines
Filed: 15 September, 2017
EB-2017-0038
Exhibit 6
Tab 2
Schedule 1
Attachment 1
Page 1 of 1

Attachment 1 (of 1):

6-A Revenue Requirement Work Form



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2018 Filers



Version 7.02

Utility Name	Erie Thames Powerlines Corporation
Service Territory	
Assigned EB Number	EB-2017-0038
Name and Title	Graig Pettit, Director - Regulatory Finance and Cus
Phone Number	519-485-1820
Email Address	gpettit@eriethamespower.com

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

[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 2018 Filers

Data Input ⁽¹⁾

	Initial Application	(2)		(6)		Per Board Decision
1	<u>Rate Base</u>					
	Gross Fixed Assets (average)	\$57,798,956		\$ 57,798,956		\$57,798,956
	Accumulated Depreciation (average)	(\$22,656,141)	(5)	(\$22,656,141)		(\$22,656,141)
	<u>Allowance for Working Capital:</u>					
	Controllable Expenses	\$6,468,593		\$ 6,468,593		\$6,468,593
	Cost of Power	\$62,241,271		\$ 62,241,271		\$62,241,271
	Working Capital Rate (%)	7.50%	(9)	7.50%	(9)	7.50% (9)
2	<u>Utility Income</u>					
	Operating Revenues:					
	Distribution Revenue at Current Rates	\$10,119,845				
	Distribution Revenue at Proposed Rates	\$10,290,716				
	<u>Other Revenue:</u>					
	Specific Service Charges	\$98,162				
	Late Payment Charges	\$156,628				
	Other Distribution Revenue	\$191,550				
	Other Income and Deductions	\$48,107				
	Total Revenue Offsets	\$494,448	(7)			
	<u>Operating Expenses:</u>					
	OM+A Expenses	\$6,468,593		\$ 6,468,593		\$6,468,593
	Depreciation/Amortization	\$1,842,780		\$ 1,842,780		\$1,842,780
	Property taxes					
	Other expenses					
3	<u>Taxes/PILs</u>					
	Taxable Income:					
		(\$886,061)	(3)			
	Adjustments required to arrive at taxable income					
	<u>Utility Income Taxes and Rates:</u>					
	Income taxes (not grossed up)	\$140,221				
	Income taxes (grossed up)	\$190,777				
	Federal tax (%)	15.00%				
	Provincial tax (%)	11.50%				
	Income Tax Credits					
4	<u>Capitalization/Cost of Capital</u>					
	<u>Capital Structure:</u>					
	Long-term debt Capitalization Ratio (%)	56.0%			(8)	(8)
	Short-term debt Capitalization Ratio (%)	4.0%	(8)			
	Common Equity Capitalization Ratio (%)	40.0%				
	Preferred Shares Capitalization Ratio (%)					
		100.0%				
	<u>Cost of Capital</u>					
	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 2018 Filers

Rate Base and Working Capital

Rate Base										
Line No.	Particulars		Initial Application						Per Board Decision	
1	Gross Fixed Assets (average) ⁽²⁾		\$57,798,956		\$ -		\$57,798,956		\$ -	\$57,798,956
2	Accumulated Depreciation (average) ⁽²⁾		(\$22,656,141)		\$ -		(\$22,656,141)		\$ -	(\$22,656,141)
3	Net Fixed Assets (average) ⁽²⁾		\$35,142,814		\$ -		\$35,142,814		\$ -	\$35,142,814
4	Allowance for Working Capital ⁽¹⁾		\$5,153,240		\$ -		\$5,153,240		\$ -	\$5,153,240
5	Total Rate Base		\$40,296,054		\$ -		\$40,296,054		\$ -	\$40,296,054

(1) Allowance for Working Capital - Derivation

6	Controllable Expenses	\$6,468,593	\$ -	\$6,468,593	\$ -	\$6,468,593
7	Cost of Power	\$62,241,271	\$ -	\$62,241,271	\$ -	\$62,241,271
8	Working Capital Base	\$68,709,864	\$ -	\$68,709,864	\$ -	\$68,709,864
9	Working Capital Rate % ⁽¹⁾	7.50%	0.00%	7.50%	0.00%	7.50%
10	Working Capital Allowance	\$5,153,240	\$ -	\$5,153,240	\$ -	\$5,153,240

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)	\$10,290,716	(\$10,290,716)	\$ -	\$ -	\$ -	
2	Other Revenue ⁽¹⁾	\$494,448	(\$494,448)	\$ -	\$ -	\$ -	
3	Total Operating Revenues	\$10,785,164	(\$10,785,164)	\$ -	\$ -	\$ -	
	Operating Expenses:						
4	OM+A Expenses	\$6,468,593	\$ -	\$6,468,593	\$ -	\$6,468,593	
5	Depreciation/Amortization	\$1,842,780	\$ -	\$1,842,780	\$ -	\$1,842,780	
6	Property taxes	\$ -	\$ -	\$ -	\$ -	\$ -	
7	Capital taxes	\$ -	\$ -	\$ -	\$ -	\$ -	
8	Other expense	\$ -	\$ -	\$ -	\$ -	\$ -	
9	Subtotal (lines 4 to 8)	\$8,311,373	\$ -	\$8,311,373	\$ -	\$8,311,373	
10	Deemed Interest Expense	\$867,816	(\$867,816)	\$ -	\$ -	\$ -	
11	Total Expenses (lines 9 to 10)	\$9,179,189	(\$867,816)	\$8,311,373	\$ -	\$8,311,373	
12	Utility income before income taxes	\$1,605,975	(\$9,917,348)	(\$8,311,373)	\$ -	(\$8,311,373)	
13	Income taxes (grossed-up)	\$190,777	\$ -	\$190,777	\$ -	\$190,777	
14	Utility net income	\$1,415,198	(\$9,917,348)	(\$8,502,150)	\$ -	(\$8,502,150)	

Notes

Other Revenues / Revenue Offsets

(1)	Specific Service Charges	\$98,162	\$ -	\$ -	\$ -	\$ -
	Late Payment Charges	\$156,628	\$ -	\$ -	\$ -	\$ -
	Other Distribution Revenue	\$191,550	\$ -	\$ -	\$ -	\$ -
	Other Income and Deductions	\$48,107	\$ -	\$ -	\$ -	\$ -
	Total Revenue Offsets	\$494,448	\$ -	\$ -	\$ -	\$ -



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	\$1,415,197		\$ -		\$ -	
2	Adjustments required to arrive at taxable utility income	(\$886,061)		\$ -		\$ -	
3	Taxable income	\$529,136		\$ -		\$ -	
<u>Calculation of Utility income Taxes</u>							
4	Income taxes	\$140,221		\$140,221		\$140,221	
6	Total taxes	\$140,221		\$140,221		\$140,221	
7	Gross-up of Income Taxes	\$50,556		\$50,556		\$50,556	
8	Grossed-up Income Taxes	\$190,777		\$190,777		\$190,777	
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	\$190,777		\$190,777		\$190,777	
10	Other tax Credits	\$ -		\$ -		\$ -	
<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 (%)	26.50%		26.50%		26.50%	

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%	\$22,565,790	3.72%		\$839,447
2	Short-term Debt	4.00%	\$1,611,842	1.76%		\$28,368
3	Total Debt	60.00%	\$24,177,633	3.59%		\$867,816
	Equity					
4	Common Equity	40.00%	\$16,118,422	8.78%		\$1,415,197
5	Preferred Shares	0.00%	\$ -	0.00%		\$ -
6	Total Equity	40.00%	\$16,118,422	8.78%		\$1,415,197
7	Total	100.00%	\$40,296,054	5.67%		\$2,283,013
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%	\$40,296,054	0.00%		\$ -
	Debt					
8	Long-term Debt	0.00%	\$ -	3.72%		\$ -
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%	\$40,296,054	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		\$170,871		(\$2,127,936)
2	Distribution Revenue	\$10,119,845	\$10,119,845	\$10,119,845	\$12,418,652
3	Other Operating Revenue	\$494,448	\$494,448	\$ -	\$ -
	Offsets - net				
4	Total Revenue	<u>\$10,614,293</u>	<u>\$10,785,164</u>	<u>\$10,119,845</u>	<u>\$10,290,716</u>
5	Operating Expenses	\$8,311,373	\$8,311,373	\$8,311,373	\$8,311,373
6	Deemed Interest Expense	\$867,816	\$867,816	\$ -	\$ -
8	Total Cost and Expenses	<u>\$9,179,189</u>	<u>\$9,179,189</u>	<u>\$8,311,373</u>	<u>\$8,311,373</u>
9	Utility Income Before Income Taxes	\$1,435,104	\$1,605,975	\$1,808,472	\$1,979,343
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$886,061)	(\$886,061)	(\$886,061)	(\$886,061)
11	Taxable Income	<u>\$549,042</u>	<u>\$719,913</u>	<u>\$922,410</u>	<u>\$1,093,281</u>
12	Income Tax Rate	26.50%	26.50%	26.50%	26.50%
13	Income Tax on Taxable Income	\$145,496	\$190,777	\$244,439	\$289,720
14	Income Tax Credits	\$ -	\$ -	\$ -	\$ -
15	Utility Net Income	<u>\$1,289,608</u>	<u>\$1,415,198</u>	<u>\$1,564,033</u>	<u>(\$8,502,150)</u>
16	Utility Rate Base	\$40,296,054	\$40,296,054	\$40,296,054	\$40,296,054
17	Deemed Equity Portion of Rate Base	\$16,118,422	\$16,118,422	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	8.00%	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	-0.78%	0.00%	0.00%	0.00%
21	Indicated Rate of Return	5.35%	5.67%	3.88%	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	-0.31%	0.00%	3.88%	0.00%
24	Target Return on Equity	\$1,415,197	\$1,415,197	\$ -	\$ -
25	Revenue Deficiency/(Sufficiency)	\$125,590	\$0	(\$1,564,033)	\$ -
26	Gross Revenue Deficiency/(Sufficiency)	<u>\$170,871 ⁽¹⁾</u>		<u>(\$2,127,936) ⁽¹⁾</u>	<u>\$11,307,991 ⁽¹⁾</u>

Notes:

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



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Revenue Requirement Workform (RRWF) for 2018 Filers

Revenue Requirement

Line No.	Particulars	Application				Per Board Decision	
1	OM&A Expenses	\$6,468,593		\$6,468,593		\$6,468,593	
2	Amortization/Depreciation	\$1,842,780		\$1,842,780		\$1,842,780	
3	Property Taxes	\$ -					
5	Income Taxes (Grossed up)	\$190,777		\$190,777		\$190,777	
6	Other Expenses	\$ -					
7	Return						
	Deemed Interest Expense	\$867,816		\$ -		\$ -	
	Return on Deemed Equity	\$1,415,197		\$ -		\$ -	
8	Service Revenue Requirement (before Revenues)	<u>\$10,785,163</u>		<u>\$8,502,150</u>		<u>\$8,502,150</u>	
9	Revenue Offsets	<u>\$494,448</u>		<u>\$ -</u>		<u>\$ -</u>	
10	Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	<u>\$10,290,716</u>		<u>\$8,502,150</u>		<u>\$8,502,150</u>	
11	Distribution revenue	\$10,290,716		\$ -		\$ -	
12	Other revenue	<u>\$494,448</u>		<u>\$ -</u>		<u>\$ -</u>	
13	Total revenue	<u>\$10,785,164</u>		<u>\$ -</u>		<u>\$ -</u>	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	<u>\$0</u>	(1)	<u>(\$8,502,150)</u>	(1)	<u>(\$8,502,150)</u>	(1)

Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application		Δ% (2)	Per Board Decision	Δ% (2)
Service Revenue Requirement	\$10,785,163	\$8,502,150	(\$0)	\$8,502,150	(\$1)
Grossed-Up Revenue					
Deficiency/(Sufficiency)	\$170,871	(\$2,127,936)	(\$13)	\$11,307,991	(\$1)
Base Revenue Requirement (to be recovered from Distribution Rates)	\$10,290,716	\$8,502,150	(\$0)	\$8,502,150	(\$1)
Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement	\$170,871	\$ -	(\$1)	\$ -	(\$1)

Notes

(1) Line 11 - Line 8

(2) Percentage Change Relative to Initial Application



Ontario Energy Board

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⁾	Customer / Connections	kWh	kW/kVA ⁽¹⁾
		Test Year average or mid-year	Annual	Annual	Test Year average or mid-year	Annual	Annual	Test Year average or mid-year	Annual	Annual
1	Residential	17,119	132,507,178	-						
2	General Service < 50 kW	2,018	48,252,843	-						
3	General Service > 50 to 999 kW	153	86,975,191	262,052						
4	General Service > 1,000 to 4,999 kW	6	74,898,209	160,936						
5	Large Use	1	96,934,403	168,201						
6	Unmetered Scattered Load	130	517,597	-						
7	Sentinel Lighting	238	221,514	574						
8	Street Lighting	6,070	1,985,669	5,449						
9	Embedded Distributor	4	16,296,711	34,856						
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Total			458,589,315	632,069		-	-		-	-

Notes:

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



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 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		\$ 5,636,524	62.03%	\$ 7,517,832	69.71%
2 General Service < 50 kW		\$ 1,142,520	12.57%	\$ 1,306,422	12.11%
3 General Service > 50 to 999 kW		\$ 862,571	9.49%	\$ 646,436	5.99%
4 General Service > 1,000 to 4,999 kW		\$ 526,241	5.79%	\$ 440,338	4.08%
5 Large Use		\$ 307,549	3.38%	\$ 448,198	4.16%
6 Unmetered Scattered Load		\$ 70,762	0.78%	\$ 37,264	0.35%
7 Sentinel Lighting		\$ 30,337	0.33%	\$ 50,323	0.47%
8 Street Lighting		\$ 344,523	3.79%	\$ 234,510	2.17%
9 Embedded Distributor		\$ 166,009	1.83%	\$ 103,839	0.96%
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Total		\$ 9,087,035	100.00%	\$ 10,785,163	100.00%
Service Revenue Requirement (from Sheet 9)				\$ 10,785,163.26	

- (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	\$ 6,015,606	\$ 6,117,179	\$ 6,737,029	\$ 374,708
2	General Service < 50 kW	\$ 1,239,441	\$ 1,260,369	\$ 1,498,920	\$ 50,595
3	General Service > 50 to 999 kW	\$ 1,050,903	\$ 1,068,647	\$ 667,782	\$ 20,875
4	General Service > 1,000 to 4,999 kW	\$ 703,748	\$ 715,630	\$ 492,800	\$ 14,642
5	Large Use	\$ 343,787	\$ 349,592	\$ 455,979	\$ 14,725
6	Unmetered Scattered Load	\$ 64,102	\$ 65,184	\$ 42,039	\$ 814
7	Sentinel Lighting	\$ 24,961	\$ 25,383	\$ 54,862	\$ 1,339
8	Street Lighting	\$ 422,351	\$ 429,483	\$ 235,684	\$ 13,420
9	Embedded Distributor	\$ 254,948	\$ 259,252	\$ 105,621	\$ 3,330
10					
11					
12					
13					
14					
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16					
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18					
19					
20					
Total		\$ 10,119,845	\$ 10,290,719	\$ 10,290,716	\$ 494,448

- (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)	
		2012			
		%	%	%	%
1	Residential	62.03%	86.35%	94.60%	85 - 115
2	General Service < 50 kW	12.57%	100.35%	118.61%	80 - 120
3	General Service > 50 to 999 kW	9.49%	168.54%	106.53%	80 - 120
4	General Service > 1,000 to 4,999 kW	5.79%	165.84%	115.24%	80 - 120
5	Large Use	3.38%	81.28%	105.02%	85 - 115
6	Unmetered Scattered Load	0.78%	177.11%	115.00%	80 - 120
7	Sentinel Lighting	0.33%	53.10%	111.68%	80 - 120
8	Street Lighting	3.79%	188.86%	106.22%	80 - 120
9	Embedded Distributor	1.83%	252.87%	104.92%	80 - 120
10					
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19					
20					

- (8) Previously Approved Revenue-to-Cost (R/C) Ratios - For most applicants, the most recent year would be the third year (at the latest) of the Price Cap IR period. For example, if the applicant, rebased in 2012 with further adjustments to move within the range over two years, the Most Recent Year would be 2015. However, the ratios in 2015 would be equal to those after the adjustment in 2014.
- (9) Status Quo Ratios - The OEB-issued cost allocation model provides the Status Quo Ratios on Worksheet O-1. The Status Quo means "Before Rebalancing".
- (10) Ratios shown in red are outside of the allowed range. Applies to both Tables C and D.

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

Name of Customer Class		Proposed Revenue-to-Cost Ratio			Policy Range
		Test Year	Price Cap IR Period		
		2018	2019	2020	
1	Residential	94.60%	94.60%	94.60%	85 - 115
2	General Service < 50 kW	118.61%	118.61%	118.61%	80 - 120
3	General Service > 50 to 999 kW	106.53%	106.53%	106.53%	80 - 120
4	General Service > 1,000 to 4,999 kW	115.24%	115.24%	115.24%	80 - 120
5	Large Use	105.02%	105.02%	105.02%	85 - 115
6	Unmetered Scattered Load	115.00%	115.00%	115.00%	80 - 120
7	Sentinel Lighting	111.68%	111.68%	111.68%	80 - 120
8	Street Lighting	106.22%	106.22%	106.22%	80 - 120
9	Embedded Distributor	104.92%	104.92%	104.92%	80 - 120
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20					

(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'.



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	17,119
kWh	132,507,178

Proposed Residential Class Specific Revenue Requirement ¹	\$ 6,737,028.54
--	-----------------

Residential Base Rates on Current Tariff	
Monthly Fixed Charge (\$)	\$ 23.22
Distribution Volumetric Rate (\$/kWh)	\$ 0.0094

B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	23.22	17,119	\$ 4,770,105.26	79.29%
Variable	0.0094	132,507,178	\$ 1,245,567.47	20.71%
TOTAL	-	-	\$ 6,015,672.73	-

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	\$ 5,342,101.66	26	\$ 5,341,203.13
Variable	\$ 1,394,926.88	0.0105	\$ 1,391,325.37
TOTAL	\$ 6,737,028.54	-	\$ 6,732,528.50

	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
Fixed	89.65%	\$ 6,039,565.10	\$ 29.40	\$ 6,039,668.16
Variable	10.35%	\$ 697,463.44	\$ 0.0053	\$ 702,288.04
TOTAL	-	\$ 6,737,028.54	-	\$ 6,741,956.20

Checks ³	
Change in Fixed Rate	\$ 3.40
Difference Between Revenues @ Proposed Rates and Class Specific Revenue Requirement	\$4,927.66 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)

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

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 generated" portion of this sheet of the RRFW. 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 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	\$ 2,283,013	5.67%	\$ 40,296,054	\$ 68,709,864	\$ 5,153,240	\$ 1,842,780	\$ 190,777	\$ 6,468,593	\$ 10,785,163	\$ 494,448	\$ 10,290,716	\$ 170,871