

2.6 EXHIBIT 6: CALCULATION OF REVENUE DEFICIENCY OR SURPLUS

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2.6 REVENUE DEFICIENCY - OVERVIEW

Welland Hydro-Electric System Corp. ("WHESC") has included the following information in this Exhibit, excluding energy costs (i.e. Cost of Power and associated costs) and revenues:

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

The information in the Exhibit supports WHESC'S request in this Application for an increase in its Revenue Requirement to support the proposed capital and operating budgets for 2017, to service debt, to pay deemed PILS and to return the allowed Return on Equity.

WHESC has determined that the Revenue Deficiency for the 2017 Test Year is \$1,056,407.

The calculations on which this determination is based are set out below. The Revenue Deficiency calculation does not include the following:

- Recovery of Deferral and Variance Accounts
- Other electricity charges which include Energy Commodity, Transmission Charges and Wholesale Market Service Charges

These items are considered elsewhere in this Application and are treated either as recoveries of regulatory assets or regulatory liabilities on the Balance Sheet, or as energy related costs recorded in OEB-prescribed Retail Settlement Variance Accounts.

Revenue Requirement:

WHESC's Revenue Requirement consists of the following:

- Operations & Maintenance, and Administrative Expense
- Depreciation Expense
- PILs
- Return on Rate Base (Deemed Interest & Return on Equity)

WHESC'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 WHESC's Service Revenue Requirement to calculate the Base Revenue Requirement upon which class-specific distribution rates are calculated.

WHESC has included the OEB's Revenue Requirement Work Form ("RRWF") as Attachment 6-A of this Exhibit and has also filed an excel version with this application.

WHESC has ensured that numbers entered in the RRWF reconcile with the appropriate numbers in other Exhibits of this Application. However, WHESC needs to point out that in Tab 8 of the Board's Revenue Requirement Workform the model incorrectly displays the Revenue Deficiency as being \$1,327,391 as opposed to \$1,056,407 as shown in Table 6-4 below. WHESC believes that this is the result of the treatment by the model of the taxable income loss at "current approved rates". The RRWF does not allow income tax on taxable income to be less than zero in the "At Current Approved Rates" column in Tab 8. As shown in Table 6-4 below, this restriction needs to be removed in order to produce the correct revenue deficiency in Tab 8 of the RRWF.

The total revenue in Tab 7 of the RRWF is \$10,636,334 which is correct. Tab 14 of the model also produces what WHESC believes to be an incorrect Revenue Deficiency of \$1,327,391 versus \$1,056,407. Despite the noted items above Tabs 12 & 13 of the model entitled Residential Rate Design/Rate Design calculate the same 2017 Fixed and Variable Distribution Rates applied for in the rate application as WHESC's internal models.

Determination of Net Utility Income

WHESC has determined its allowable 2017 Net Income as \$1,231,915. Table 6-1 provides the detailed Net Income calculation for the 2017 Test Year.

Table 6-1
Determination of Net Utility Income

| Details | Initial Application |
|---|---------------------|
| Operating Revenues: | |
| Distribution Revenue (at Proposed Rates) | 10,106,284 |
| Other Revenue | 530,050 |
| Total Operating Revenues | 10,636,334 |
| | |
| Operating Expenses: | |
| OM&A Expenses | 6,999,907 |
| Depreciation Expenses | 1,429,600 |
| Total Operating Expenses | 8,429,507 |
| | |
| Deemed Interest Expense | 874,137 |
| | |
| Total Expenses | 9,303,644 |
| | |
| Utility income before income taxes | 1,332,690 |
| | |
| Income Taxes (grossed-up) | 100,775 |
| | |
| Utility net income | 1,231,915 |

Statement of Rate Base

A summary of WHESC's Rate Base for the 2017 Test Year, calculated on WHESC's deemed capital structure in accordance with the OEB Filing Requirements, is summarized in Table 6-2. WHESC's Rate Base is \$33,512,388.

Table 6-2
Rate Base

| Rate Base | |
|---|----------------------------|
| Details | Initial Application |
| Net Fixed Assets | |
| Fixed Assets Opening Balance 2017 | 29,014,773 |
| Fixed Assets Closing Balance 2017 | 29,973,839 |
| Net Fixed Assets (average) | 29,494,306 |
| | |
| Allowance for Working Capital | 4,018,083 |
| | |
| Total Rate Base | 33,512,389 |
| Allowance for Working Capital - Derivation | |
| Controllable Expenses | 6,999,907 |
| Cost of Power | 46,574,530 |
| Working Capital Base | 53,574,437 |
| Working Capital Rate % | 7.5% |
| Working Capital Allowance | 4,018,083 |

Actual Utility Return on Rate Base

Table 6-3 summarizes the computation of WHESC's 2017 Test Year at Existing Rates and the 2017 Test Year at Proposed Rates in order to achieve the Required Revenue.

Table 6-3
Return on Rate Base

| Details | 2017 Test Existing Rates | 2017 Test Required Revenue |
|---|--------------------------------|----------------------------------|
| Actual Return on Rate Base | | |
| Rate Base | 33,512,388 | 33,512,388 |
| Interest Expense | 874,137 | 874,137 |
| Net Income | 455,456 | 1,231,915 |
| Total Actual Return on Rate Base | 1,329,593 | 2,106,052 |
| Actual Return on Rate Base | 3.97% | 6.28% |
| Required Return on Rate Base | | |
| Rate Base | 33,512,388 | 33,512,388 |
| Return on Rates: | | |
| Return on Debt (Weighted) | 4.35% | 4.35% |
| Return on Equity | 9.19% | 9.19% |
| Deemed Interest Expense | 874,137 | 874,137 |
| Return on Equity | 1,231,915 | 1,231,915 |
| Required Total Return | 2,106,052 | 2,106,052 |
| Required Return on Rate Base | 6.28% | 6.28% |

Indicated Rate of Return

WHESC's 2017 indicated Rate of Return of 6.28% is presented in Table 6-4 line 21 and is calculated as the sum of Utility Net Income and Deemed Interest Expense divided by the Utility Rate Base.

Requested Rate of Return

WHESC has determined its requested Rate of Return on Rate Base to be 6.28% or \$2,106,052.

Table 6-3 above summarizes the computation of WHESC's 2017 Requested Rate of Return on Rate Base of 6.28%.

As summarized in Table 6-3, in the absence of a change to distribution rates for 2017, as proposed in this Application, and assuming that the 2016 Approved rates remained unchanged, WHESC's Return on Rate Base would be \$1,329,593 or 3.97%.

Table 6-4
Revenue Deficiency Determination

| Line No. | Particulars | Initial Application | |
|----------|---|---------------------------|-------------------|
| | | At Current Approved Rates | At Proposed Rates |
| 1 | Revenue Deficiency from Below | | 1,056,407 |
| 2 | Distribution Revenue | 9,049,877 | 9,049,877 |
| 3 | Other Operating Revenue Offsets - net | 530,050 | 530,050 |
| 4 | Total Revenue | 9,579,927 | 10,636,334 |
| 5 | Operating Expenses | 6,999,907 | 6,999,907 |
| 6 | Depreciation Expenses | 1,429,600 | 1,429,600 |
| 7 | Deemed Interest Expense | 874,137 | 874,137 |
| 8 | Total Cost and Expenses | 9,303,644 | 9,303,644 |
| 9 | Utility Income Before Income Taxes | 276,283 | 1,332,690 |
| 10 | Tax Adjustments to Account Income per 2017 PILS model | -876,937 | -876,937 |
| 11 | Taxable Income | -600,654 | 455,753 |
| 12 | Income Tax Rate | 26.5% | 26.5% |
| 13 | Income Tax on Taxable Income | -159,173 | 120,775 |
| 14 | Income Tax Credits | -20,000 | -20,000 |
| 15 | Utility Net Income | 455,456 | 1,231,915 |
| 16 | Utility Rate Base | 33,512,388 | 33,512,388 |
| 17 | Deemed Equity Portion of Rate Base | 13,404,955 | 13,404,955 |
| 18 | Income/(Equity Portion of Rate Base) | 3.40% | 9.19% |
| 19 | Target Return - Equity on Rate Base | 9.19% | 9.19% |
| 20 | (Deficiency)/Sufficiency in Rate of Return | -5.79% | 0.00% |
| 21 | Indicated Total Rate of Return | 3.97% | 6.28% |
| 22 | Requested Total Rate of Return on Rate Base | 6.28% | 6.28% |
| 23 | (Deficiency)/Sufficiency in Total Rate of Return | -2.31% | 0.00% |
| 24 | Target Return on Equity | 2,106,052 | 2,106,052 |
| 25 | Revenue Deficiency Before Tax | 776,459 | 0 |
| 26 | Revenue Deficiency After Tax | 1,056,407 | |

Deficiency or Sufficiency in Revenue

WHESC has provided a detailed calculation supporting its 2017 Revenue Deficiency in Table 6-4 above.

Gross Deficiency or Sufficiency in Revenue

WHESC has provided a detailed calculation supporting its 2017 Revenue Deficiency in Table 6-4 above. The Gross Revenue Deficiency is calculated at \$1,056,407. Table 6-4 provides the Revenue Deficiency calculation for the 2017 Test Year at Proposed Rates, which balances the Revenue Deficiency, Net Income and Total Return on Rate Base.

Cost Drivers on Revenue Deficiency

Table 6-5 below outlines the contributors to the Revenue Deficiency by Revenue Requirement Component. Column A lists the 2013 approved amounts. Column B lists the 2017 Revenue at Existing Rates shown in Table 6-4 allocated to Revenue Requirement component based on the proportions in Column A. It is WHESC's view that Column B estimates the Revenue Requirement components for revenue at existing rates based on the components assumed in existing rates. Adjustments reflect the rate setting approach (reduced distribution rates as opposed to rate rider) for account 1576 in the 2013 COS Rate Application and significant changes since the 2013 COS (Loss of Large User). Column C lists the 2017 proposed components. Finally, Column D represents the difference between Column C and Column B which provides an estimate of the revenue requirement components for the Revenue Deficiency of \$1,056,407.

Table 6-5

Revenue Deficiency by Revenue Requirement Component

| Service Revenue Requirement | 2013 Approved (A) | 2017 Revenue at Existing Rates Allocated in Proportion to 2013 Approved (B) | 2017 Proposed (C) | Revenue Deficiency (D = C - B) |
|-------------------------------------|-------------------------|--|-------------------------|--------------------------------------|
| OM&A | 6,359,000 | 6,619,826 | 6,987,007 | 367,181 |
| LEAP | 11,000 | 11,451 | 12,900 | 1,449 |
| Depreciation | 1,228,565 | 1,278,957 | 1,429,600 | 150,643 |
| Return on Rate Base | 1,814,479 | 1,888,903 | 2,106,053 | 217,150 |
| PILS | 53,472 | 55,665 | 100,775 | 45,110 |
| Total Before Adjustments | 9,466,516 | 9,854,803 | 10,636,334 | 781,531 |
| Adjustments | | | | |
| Loss of Large User | 0 | -98,400 | 0 | 98,400 |
| PPE 1576 Adjustment Base | -143,383 | -143,383 | 0 | 143,383 |
| PPE 1576 Adjustment Return | -33,093 | -33,093 | 0 | 33,093 |
| Total After Adjustments | 9,290,040 | 9,579,927 | 10,636,334 | 1,056,407 |
| | | | | |
| | 2013 Approved (A) | | 2017 Proposed (C) | Difference (C - A) |
| Rate Base Average Fixed Assets | 25,464,079 | | 29,494,306 | 4,030,227 |
| Rate Base Working Capital Allowance | 5,971,788 | | 4,018,082 | -1,953,706 |
| Rate Base | 31,435,867 | | 33,512,388 | 2,076,521 |
| Return on Rate Base | 5.77% | | 6.28% | 0.51% |

There are three main contributors to the revenue deficiency of \$1,056,407 for the 2017 Test Year:

- The first contributor is the cost increases in OM&A as detailed in Exhibit 4. Please refer to Exhibit 4, Table 4-2 Overall Cost Trends and Table 4-4 Recoverable OM&A Cost Driver Table for 2017 Test Year OM&A Expenditures and the supporting explanation for the increase of \$629,907 since 2013 Board Approved balances. These tables detail and provide supporting explanation for the increase of \$629,907 in OM&A since the 2013 COS. The deficiency component for OM&A of \$368,630 (including LEAP) shown above represents the actual increase in OM&A above that which is in current rates.
- The second contributor relates to Depreciation and Return on Rate Base. Please refer to Exhibit 4 Table 4-23 for 2017 Test Year Depreciation Expense and the supporting explanation for the increase of \$201,035 since 2013 Board Approved Balances. The deficiency component for Depreciation of \$150,643 shown above represents the actual increase in Depreciation above that which is in current rates. Actual increases in Return on Rate Base is \$291,574 (\$2,106,053 - \$1,814,479) and can be seen in Exhibit 5 Table 5-1 Appendix 2-OA. Please refer to Exhibit 2 Table 2-1 Summary of Rate Base which supports the Rate Base values shown above for 2013 Approved and 2017 Proposed. The deficiency component for Return on Rate Base of \$270,150

1 shown above represents the actual increase in Return on Rate Base above that which is in
2 current rates. Table 6-5 details the impact on increased Rate Base between Average Fixed
3 Assets and Working Capital Allowance. Average Fixed Assets have increased by 15.8% since
4 the 2013 COS as capital spending has exceeded depreciation on an annual basis. For the most
5 part this is the result of the implementation of extended useful lives in 2012 which significantly
6 reduced depreciation expense. The change in capitalization of overheads made in 2012 did not
7 have a significant impact on the annual capital expenditures compared to prior years. As a result,
8 capital spending is expected to exceed depreciation in future years. The impact of the increase in
9 average fixed assets has been partially offset by a significant reduction in the Return on Working
10 Capital Allowance. During the 2013 COS Settlement Process WHESC agreed to a 12% Return
11 on Working Capital Allowance which was 1% less than the OEB default rate of 13% at that time.
12 WHESC agreed to perform a Lead/Lag study prior to the 2017 COS. Since that time the OEB
13 has adjusted the default Return on Working Capital Allowance to 7.5% for LDCs not performing a
14 Lead/Lag study. WHESC believes that the Lead/Lag study would be both expensive for rate
15 payers and would require a significant amount of effort and resources. WHESC also believes
16 that the Lead/Lag study would most likely not produce a result different than the Board default
17 rate of 7.5%. As a result, WHESC approached intervenors of record from the 2013 COS Rate
18 Application seeking their agreement in approaching the Board with a Motion to Review and Vary
19 (With Consent) the Decision in WHESC's 2013 Cost of Service Rate Application (EB-2013-0173).
20 As a result of the proposed amendment to eliminate the requirement to conduct a Lead/Lag
21 Study, WHESC would agree to use the Board default rate of 7.5% for Working Capital Allowance
22 for the 2017 COS. The Board approved the Motion to Review and Vary (With Consent) on May
23 19, 2016.

24 3. The third contributor to the revenue deficiency detailed in Table 6-5 above can be broken into
25 three separate areas as follows:

26 a) WHESC adopted changes to useful lives and overhead capitalization effective January 1, 2012.
27 Differences between the old and new methodologies for 2012 were captured in account 1576
28 Accounting Changes under CGAAP. During the 2013 COS the principal amount and the
29 equivalent rate of return were used to adjust 2013 COS Distribution Rates. Table 6-6 below
30 summarizes the adjustments made as shown in 2013 Board Appendix 2-EB.

Table 6-6

2013 Board Appendix 2-EB

CGAAP Transitional PP&E Amounts

2012 Adopters of Extended Lives & Overhead Capitalization

| | 2009 Rebasing Year | 2010 | 2011 | 2012 | 2013 Rebasing Year | 2014 | 2015 | 2016 |
|---|--------------------------|--------|--------|------------|--------------------------|------|------|------|
| Reporting Basis | CGAAP | IRM | IRM | IRM | MIFRS | IRM | IRM | IRM |
| Forecast vs. Actual Used in Rebasing Year | Forecast | Actual | Actual | Forecast | Forecast | | | |
| | | | \$ | \$ | \$ | \$ | \$ | \$ |
| PP&E Values under CGAAP | | | | | | | | |
| Opening net PP&E - Note 1 | | | | 24,387,754 | | | | |
| Additions | | | | 2,168,085 | | | | |
| Depreciation (amounts should be negative) | | | | -2,039,191 | | | | |
| Closing net PP&E (1) | | | | 24,516,648 | | | | |

| | | | | | | | | |
|--|--|--|--|------------|--|--|--|--|
| PP&E Values under MIFRS (Starts from 2012, the transition year) | | | | | | | | |
| Opening net PP&E - Note 1 | | | | 24,387,754 | | | | |
| Additions | | | | 1,887,015 | | | | |
| Depreciation (amounts should be negative) | | | | -1,184,590 | | | | |
| Closing net PP&E (2) | | | | 25,090,179 | | | | |

| | | | | | | | | |
|---|--|--|--|----------|--|--|--|--|
| Difference in Closing net PP&E, CGAAP vs. MIFRS (Shown as adjustment to rate base on rebasing) | | | | -573,531 | | | | |
|---|--|--|--|----------|--|--|--|--|

| | | | | | | | | |
|---|--|--|--|---------|---------|---------|---------|---------|
| Account 1576 CGAAP Transitional PP&E Amounts | | | | | | | | |
| Opening balance | | | | 0 | -573531 | -430148 | -286766 | -143383 |
| Amounts added in the year | | | | -573531 | | | | |
| Sub-total | | | | -573531 | -573531 | -430148 | -286766 | -143383 |
| Amount of amortization, included in depreciation expense - Note 2 | | | | | 143383 | 143383 | 143383 | 143383 |
| Closing balance in deferral account | | | | -573531 | -430148 | -286766 | -143383 | 0 |

| | | | | | | |
|--|--|--|--|---------|------------------------------------|----------------|
| Effect on Revenue Requirement | | | | | WACC | 5.77% |
| Amortization of deferred balance as above - Note 2 | | | | -143383 | Disposition Period - Note 4 | 4 Years |
| Return on Rate Base Associated with deferred PP&E balance at WACC - Note 3 | | | | -33093 | | |
| Amount included in Revenue Requirement on rebasing | | | | -176475 | | |

The base amount of \$573,531 would be disposed of over a four year period or \$143,383 annually. The associated annual Weighted Average Cost of Capital ("WACC") amount of \$33,093 was added to produce a reduction of \$176,475 to the 2013 Revenue Requirement. This resulted in a decrease to Distribution Rates in the 2013 COS Rate Application. There were no rate riders associated with the disposition of the 1576 principle or return. The methodology used would artificially reduce Distribution Rates over a four year period. WHESC recognized a \$573,531 charge to account 4305 Regulatory Debits in 2012. This amount would be reversed over a four year period with annual credits of \$143,383 to account 4310 regulatory credits. Distribution Revenue would be reduced by an additional \$33,093 annually to reflect the WACC. As a result of the methodology used (not thru a rate rider), WHESC's distribution rates increase by \$176,475 effective with the 2017 COS Rate Application. The use of a rate rider to dispose of account 1576 would have produced the same bill impact for the 2017 COS Rate Application as a favorable rate rider equal to the reduction in distribution rates would have expired April 30, 2017.

1 b) The PILS amount in the 2013 COS was based on a tax rate of 19.5%. In 2014, WHESC's
2 effective tax rate increased to 26.5% as it would be no longer eligible for the Ontario Small
3 Business Tax Deduction. This change accounts for the majority of the increase in PILS of
4 \$47,303 from the 2013 COS to the 2017 Test Year. The deficiency component for PILS of
5 \$45,110 shown above represents the actual increase in PILS above that which is in current rates.

6 c) The third item represents the loss of the Large User since the 2013 COS Rate Application. The
7 classification change in this customer from Large Use to GS>50 has resulted in a reduction in
8 2017 Revenue at existing rates should this change not have taken place. The customer is still
9 active but at demand levels 98% below amounts included in the 2013 COS. The \$98,400
10 represents the difference between the 2013 COS distribution revenue and the current distribution
11 revenue for this customer. There are little to no cost savings as a result of the reclassification as
12 this customer is still an active interval account using the same distribution lines. WHESC has
13 included the adjustment for the loss of the Large Use customer as it believes the impact of the
14 loss of this customer is important to understanding the total revenue deficiency in this application.

15 **2.6.1 Revenue Requirement Work Form**

16 Appendix 6-A contains a PDF version of the Revenue Requirement Work Form ("RRWF"). An excel
17 version has been included with the filing of this Rate Application.

1

APPENDIX 6-A:

2

REVENUE REQUIREMENT WORK FORM



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers



Version 7.02

Utility Name Welland Hydro Electric System Corp.

Service Territory Welland, Ontario

Assigned EB Number EB-2016-0110

Name and Title Wayne Armstrong - Director of Finance & COO

Phone Number 905-732-1381 Ext 234

Email Address warmstrong@wellandhydro.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 2017 Filers

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[2. Table of Contents](#)

[3. Data Input Sheet](#)

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Notes:

- (1) Pale green cells represent inputs
- (2) Pale green boxes at the bottom of each page are for additional notes
- (3) Pale yellow cells represent drop-down lists
- (4) **Please note that this model uses MACROS. Before starting, please ensure that macros have been enabled.**
- (5) **Completed versions of the Revenue Requirement Work Form are required to be filed in working Microsoft Excel format.**



Revenue Requirement Workform (RRWF) for 2017 Filers

Data Input ⁽¹⁾

| | Initial Application | (2) | (6) | Per Board Decision |
|--|-------------------------------|-----|----------------------|-----------------------|
| 1 Rate Base | | | | |
| Gross Fixed Assets (average) | \$61,111,953 | | \$ 61,111,953 | \$61,111,953 |
| Accumulated Depreciation (average) | (\$31,617,647) ⁽⁵⁾ | | (\$31,617,647) | (\$31,617,647) |
| Allowance for Working Capital: | | | | |
| Controllable Expenses | \$6,999,907 | | \$ 6,999,907 | \$6,999,907 |
| Cost of Power | \$46,574,530 | | \$ 46,574,530 | \$46,574,530 |
| Working Capital Rate (%) | 7.50% ⁽⁹⁾ | | 7.50% ⁽⁹⁾ | 7.50% ⁽⁹⁾ |
| 2 Utility Income | | | | |
| Operating Revenues: | | | | |
| Distribution Revenue at Current Rates | \$9,049,877 | | | |
| Distribution Revenue at Proposed Rates | \$10,106,284 | | | |
| Other Revenue: | | | | |
| Specific Service Charges | \$189,829 | | | |
| Late Payment Charges | \$73,781 | | | |
| Other Distribution Revenue | \$252,847 | | | |
| Other Income and Deductions | \$13,593 | | | |
| Total Revenue Offsets | \$530,050 ⁽⁷⁾ | | | |
| Operating Expenses: | | | | |
| OM+A Expenses | \$6,999,907 | | \$ 6,999,907 | \$6,999,907 |
| Depreciation/Amortization | \$1,429,600 | | \$ 1,429,600 | \$1,429,600 |
| Property taxes | | | | |
| Other expenses | | | | |
| 3 Taxes/PILs | | | | |
| Taxable Income: | | | | |
| Adjustments required to arrive at taxable income | (\$876,937) ⁽³⁾ | | | |
| Utility Income Taxes and Rates: | | | | |
| Income taxes (not grossed up) | \$74,069 | | | |
| Income taxes (grossed up) | \$100,774 | | | |
| Federal tax (%) | 15.00% | | | |
| Provincial tax (%) | 11.50% | | | |
| Income Tax Credits | \$20,000 | | | |
| 4 Capitalization/Cost of Capital | | | | |
| Capital Structure: | | | | |
| Long-term debt Capitalization Ratio (%) | 56.0% | | | |
| Short-term debt Capitalization Ratio (%) | 4.0% ⁽⁸⁾ | | | |
| Common Equity Capitalization Ratio (%) | 40.0% | | | |
| Preferred Shares Capitalization Ratio (%) | 100.0% | | | |
| Cost of Capital | | | | |
| Long-term debt Cost Rate (%) | 4.54% | | | |
| Short-term debt Cost Rate (%) | 1.65% | | | |
| Common Equity Cost Rate (%) | 9.19% | | | |
| 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.

Revenue Requirement Workform (RRWF) for 2017 Filers

Rate Base and Working Capital

| Line No. | Rate Base | | Initial Application | | | | Per Board Decision | |
|----------|---|---------------------|---------------------|---------------------|-------------|---------------------|--------------------|--|
| | Particulars | | | | | | | |
| 1 | Gross Fixed Assets (average) ⁽²⁾ | \$61,111,953 | \$ - | \$61,111,953 | \$ - | \$61,111,953 | | |
| 2 | Accumulated Depreciation (average) ⁽²⁾ | (\$31,617,647) | \$ - | (\$31,617,647) | \$ - | (\$31,617,647) | | |
| 3 | Net Fixed Assets (average) ⁽²⁾ | \$29,494,306 | \$ - | \$29,494,306 | \$ - | \$29,494,306 | | |
| 4 | Allowance for Working Capital ⁽¹⁾ | \$4,018,083 | \$ - | \$4,018,083 | \$ - | \$4,018,083 | | |
| 5 | Total Rate Base | \$33,512,389 | \$ - | \$33,512,389 | \$ - | \$33,512,389 | | |

(1) Allowance for Working Capital - Derivation

| | | | | | | |
|----|---------------------------------------|--------------|-------|--------------|-------|--------------|
| 6 | Controllable Expenses | \$6,999,907 | \$ - | \$6,999,907 | \$ - | \$6,999,907 |
| 7 | Cost of Power | \$46,574,530 | \$ - | \$46,574,530 | \$ - | \$46,574,530 |
| 8 | Working Capital Base | \$53,574,437 | \$ - | \$53,574,437 | \$ - | \$53,574,437 |
| 9 | Working Capital Rate % ⁽¹⁾ | 7.50% | 0.00% | 7.50% | 0.00% | 7.50% |
| 10 | Working Capital Allowance | \$4,018,083 | \$ - | \$4,018,083 | \$ - | \$4,018,083 |

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 |
|----------|--|---------------------|----------------|---------------|------|--------------------|
| | Operating Revenues: | | | | | |
| 1 | Distribution Revenue (at Proposed Rates) | \$10,106,284 | (\$10,106,284) | \$ - | \$ - | \$ - |
| 2 | Other Revenue ⁽¹⁾ | \$530,050 | (\$530,050) | \$ - | \$ - | \$ - |
| 3 | Total Operating Revenues | \$10,636,334 | (\$10,636,334) | \$ - | \$ - | \$ - |
| | Operating Expenses: | | | | | |
| 4 | OM+A Expenses | \$6,999,907 | \$ - | \$6,999,907 | \$ - | \$6,999,907 |
| 5 | Depreciation/Amortization | \$1,429,600 | \$ - | \$1,429,600 | \$ - | \$1,429,600 |
| 6 | Property taxes | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7 | Capital taxes | \$ - | \$ - | \$ - | \$ - | \$ - |
| 8 | Other expense | \$ - | \$ - | \$ - | \$ - | \$ - |
| 9 | Subtotal (lines 4 to 8) | \$8,429,507 | \$ - | \$8,429,507 | \$ - | \$8,429,507 |
| 10 | Deemed Interest Expense | \$874,137 | (\$874,137) | \$ - | \$ - | \$ - |
| 11 | Total Expenses (lines 9 to 10) | \$9,303,644 | (\$874,137) | \$8,429,507 | \$ - | \$8,429,507 |
| 12 | Utility income before income taxes | \$1,332,690 | (\$9,762,197) | (\$8,429,507) | \$ - | (\$8,429,507) |
| 13 | Income taxes (grossed-up) | \$100,774 | \$ - | \$100,774 | \$ - | \$100,774 |
| 14 | Utility net income | \$1,231,916 | (\$9,762,197) | (\$8,530,281) | \$ - | (\$8,530,281) |

Notes

Other Revenues / Revenue Offsets

| | | | | |
|-----|-----------------------------|-----------|------|------|
| (1) | Specific Service Charges | \$189,829 | \$ - | \$ - |
| | Late Payment Charges | \$73,781 | \$ - | \$ - |
| | Other Distribution Revenue | \$252,847 | \$ - | \$ - |
| | Other Income and Deductions | \$13,593 | \$ - | \$ - |
| | Total Revenue Offsets | \$530,050 | \$ - | \$ - |



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 | \$1,231,915 | \$ - | \$ - |
| 2 | Adjustments required to arrive at taxable utility income | (\$876,937) | \$ - | \$ - |
| 3 | Taxable income | <u>\$354,978</u> | <u>\$ -</u> | <u>\$ -</u> |
| <u>Calculation of Utility income Taxes</u> | | | | |
| 4 | Income taxes | <u>\$74,069</u> | <u>\$74,069</u> | <u>\$74,069</u> |
| 6 | Total taxes | <u>\$74,069</u> | <u>\$74,069</u> | <u>\$74,069</u> |
| 7 | Gross-up of Income Taxes | <u>\$26,705</u> | <u>\$26,705</u> | <u>\$26,705</u> |
| 8 | Grossed-up Income Taxes | <u>\$100,774</u> | <u>\$100,774</u> | <u>\$100,774</u> |
| 9 | PILs / tax Allowance (Grossed-up Income taxes + Capital taxes) | <u>\$100,774</u> | <u>\$100,774</u> | <u>\$100,774</u> |
| 10 | Other tax Credits | \$20,000 | \$20,000 | \$20,000 |
| <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



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2017 Filers

Capitalization/Cost of Capital

| Line No. | Particulars | Capitalization Ratio | | Cost Rate | Return |
|----------|------------------|----------------------|--------------|-----------|-------------|
| | | Initial Application | | | |
| | | (%) | (\$) | (%) | (\$) |
| | Debt | | | | |
| 1 | Long-term Debt | 56.00% | \$18,766,938 | 4.54% | \$852,019 |
| 2 | Short-term Debt | 4.00% | \$1,340,496 | 1.65% | \$22,118 |
| 3 | Total Debt | 60.00% | \$20,107,433 | 4.35% | \$874,137 |
| | Equity | | | | |
| 4 | Common Equity | 40.00% | \$13,404,956 | 9.19% | \$1,231,915 |
| 5 | Preferred Shares | 0.00% | \$ - | 0.00% | \$ - |
| 6 | Total Equity | 40.00% | \$13,404,956 | 9.19% | \$1,231,915 |
| 7 | Total | 100.00% | \$33,512,389 | 6.28% | \$2,106,053 |
| | | 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% | \$33,512,389 | 0.00% | \$ - |
| | | Per Board Decision | | | |
| | | (%) | (\$) | (%) | (\$) |
| | Debt | | | | |
| 8 | Long-term Debt | 0.00% | \$ - | 4.54% | \$ - |
| 9 | Short-term Debt | 0.00% | \$ - | 1.65% | \$ - |
| 10 | Total Debt | 0.00% | \$ - | 0.00% | \$ - |
| | Equity | | | | |
| 11 | Common Equity | 0.00% | \$ - | 9.19% | \$ - |
| 12 | Preferred Shares | 0.00% | \$ - | 0.00% | \$ - |
| 13 | Total Equity | 0.00% | \$ - | 0.00% | \$ - |
| 14 | Total | 0.00% | \$33,512,389 | 0.00% | \$ - |

Notes

Revenue Requirement Workform (RRWF) for 2017 Filers

Revenue Deficiency/Sufficiency

| Line No. | Particulars | Initial Application | | Per Board Decision | |
|----------|--|-----------------------------------|---------------------|-----------------------------------|------------------------------------|
| | | At Current Approved Rates | At Proposed Rates | At Current Approved Rates | At Proposed Rates |
| 1 | Revenue Deficiency from Below | | \$1,327,391 | | (\$816,830) |
| 2 | Distribution Revenue | \$9,049,877 | \$8,778,893 | \$9,049,877 | \$10,923,114 |
| 3 | Other Operating Revenue | \$530,050 | \$530,050 | \$ - | \$ - |
| 4 | Offsets - net | | | | |
| 4 | Total Revenue | \$9,579,927 | \$10,636,334 | \$9,049,877 | \$10,106,284 |
| 5 | Operating Expenses | \$8,429,507 | \$8,429,507 | \$8,429,507 | \$8,429,507 |
| 6 | Deemed Interest Expense | \$874,137 | \$874,137 | \$ - | \$ - |
| 8 | Total Cost and Expenses | \$9,303,644 | \$9,303,644 | \$8,429,507 | \$8,429,507 |
| 9 | Utility Income Before Income Taxes | \$276,283 | \$1,332,690 | \$620,370 | \$1,676,777 |
| 10 | Tax Adjustments to Accounting Income per 2013 PILs model | (\$876,937) | (\$876,937) | (\$876,937) | (\$876,937) |
| 11 | Taxable Income | (\$600,654) | \$455,753 | (\$256,567) | \$799,840 |
| 12 | Income Tax Rate | 26.50% | 26.50% | 26.50% | 26.50% |
| 13 | Income Tax on Taxable Income | \$ - | \$120,775 | \$ - | \$211,958 |
| 14 | Income Tax Credits | \$20,000 | \$20,000 | \$20,000 | \$20,000 |
| 15 | Utility Net Income | \$256,283 | \$1,231,916 | \$600,370 | (\$8,530,281) |
| 16 | Utility Rate Base | \$33,512,389 | \$33,512,389 | \$33,512,389 | \$33,512,389 |
| 17 | Deemed Equity Portion of Rate Base | \$13,404,956 | \$13,404,956 | \$ - | \$ - |
| 18 | Income/(Equity Portion of Rate Base) | 1.91% | 9.19% | 0.00% | 0.00% |
| 19 | Target Return - Equity on Rate Base | 9.19% | 9.19% | 0.00% | 0.00% |
| 20 | Deficiency/Sufficiency in Return on Equity | -7.28% | 0.00% | 0.00% | 0.00% |
| 21 | Indicated Rate of Return | 3.37% | 6.28% | 1.79% | 0.00% |
| 22 | Requested Rate of Return on Rate Base | 6.28% | 6.28% | 0.00% | 0.00% |
| 23 | Deficiency/Sufficiency in Rate of Return | -2.91% | 0.00% | 1.79% | 0.00% |
| 24 | Target Return on Equity | \$1,231,915 | \$1,231,915 | \$ - | \$ - |
| 25 | Revenue Deficiency/(Sufficiency) | \$975,633 | \$0 | (\$600,370) | \$ - |
| 26 | Gross Revenue | \$1,327,391 ⁽¹⁾ | | (\$816,830) ⁽¹⁾ | |
| | Deficiency/(Sufficiency) | | | | \$11,468,717 ⁽¹⁾ |

Notes:
⁽¹⁾ 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 | \$6,999,907 | \$6,999,907 | \$6,999,907 | |
| 2 | Amortization/Depreciation | \$1,429,600 | \$1,429,600 | \$1,429,600 | |
| 3 | Property Taxes | \$ - | | | |
| 5 | Income Taxes (Grossed up) | \$100,774 | \$100,774 | \$100,774 | |
| 6 | Other Expenses | \$ - | | | |
| 7 | Return | | | | |
| | Deemed Interest Expense | \$874,137 | \$ - | \$ - | |
| | Return on Deemed Equity | \$1,231,915 | \$ - | \$ - | |
| 8 | Service Revenue Requirement (before Revenues) | <u>\$10,636,334</u> | <u>\$8,530,281</u> | <u>\$8,530,281</u> | |
| 9 | Revenue Offsets | \$530,050 | \$ - | \$ - | |
| 10 | Base Revenue Requirement (excluding Tranformer Ownership Allowance credit adjustment) | <u>\$10,106,284</u> | <u>\$8,530,281</u> | <u>\$8,530,281</u> | |
| 11 | Distribution revenue | \$10,106,284 | \$ - | \$ - | |
| 12 | Other revenue | \$530,050 | \$ - | \$ - | |
| 13 | Total revenue | <u>\$10,636,334</u> | <u>\$ -</u> | <u>\$ -</u> | |
| 14 | Difference (Total Revenue Less Distribution Revenue Requirement before Revenues) | <u>\$0</u> | ⁽¹⁾ <u>(\$8,530,281)</u> | ⁽¹⁾ <u>(\$8,530,281)</u> | ⁽¹⁾ |

Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

| | Application | | Δ% ⁽²⁾ | Per Board Decision | Δ% ⁽²⁾ |
|--|--------------|-------------|-------------------|--------------------|-------------------|
| Service Revenue Requirement Grossed-Up Revenue | \$10,636,334 | \$8,530,281 | (\$0) | \$8,530,281 | (\$1) |
| Deficiency/(Sufficiency) | \$1,327,391 | (\$816,830) | (\$2) | \$11,468,717 | (\$1) |
| Base Revenue Requirement (to be recovered from Distribution Rates) | \$10,106,284 | \$8,530,281 | (\$0) | \$8,530,281 | (\$1) |
| Revenue Deficiency/(Sufficiency) Associated with Base Revenue Requirement | \$1,056,407 | \$ - | (\$1) | \$ - | (\$1) |

Notes

⁽¹⁾

Line 11 - Line 8

⁽²⁾

Percentage Change Relative to Initial Application

Revenue Requirement Workform (RRWF) for 2017 Filers

Load Forecast Summary

This spreadsheet provides a summary of the customer and load forecast on which the test year revenue requirement is derived. The amounts serve as the denominators for deriving the rates to recover the test year revenue requirement for purposes of this RRWF.

The information to be input is inclusive of any adjustments to kWh and kW to reflect the impacts of CDM programs up to and including CDM programs planned to be executed in the test year, i.e., the load forecast adjustments determined in **Appendix 2-I** should be incorporated into the entries. The inputs should correspond with the summary of the Load Forecast for the Test Year in **Appendix 2-IB** and in Exhibit 3 of the application.

Appendix 2-IB is still required to be filled out, as it also provides a year-over-year variance analysis of demand growth and trends from historical actuals to the Bridge and Test Year forecasts.

Stage in Process:

Initial Application

| Customer Class | | | | Initial Application | | | Per Board Decision | | |
|--|---------------------------------|--|--|----------------------------------|-------------|-----------------------|----------------------------------|--------|-----------------------|
| Input the name of each customer class. | | | | Customer / Connections | kWh | kW/kVA ⁽¹⁾ | Customer / Connections | kWh | kW/kVA ⁽¹⁾ |
| | | | | Test Year average or mid-year | Annual | Annual | Test Year average or mid-year | Annual | Annual |
| 1 | Residential | | | 21,042 | 161,051,510 | | | | |
| 2 | General Service Less Than 50 kW | | | 1,783 | 54,658,680 | | | | |
| 3 | General Service 50 to 4,999 kW | | | 149 | 128,665,764 | 362,937 | | | |
| 4 | Unmetered Scattered Load | | | 257 | 944,313 | | | | |
| 5 | Sentinel Lighting | | | 515 | 753,964 | 2,077 | | | |
| 6 | Street Lighting | | | 6,853 | 1,282,067 | 3,560 | | | |
| 7 | Large Use | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| Total | | | | | 347,356,298 | | | | |

Notes:

⁽¹⁾ 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 ⁽³⁾ | Costs Allocated from Previous Study ⁽¹⁾ | % | Allocated Class Revenue Requirement ⁽¹⁾ | % |
|---|---|----------------|--|----------------|
| From Sheet 10, Load Forecast | | | | |
| | | | (7A) | |
| 1 Residential | \$ 5,998,831 | 64.57% | \$ 7,207,012 | 67.76% |
| 2 General Service Less Than 50 kW | \$ 1,118,010 | 12.03% | \$ 1,328,102 | 12.49% |
| 3 General Service 50 to 4,999 kW | \$ 1,806,382 | 19.44% | \$ 1,949,754 | 18.33% |
| 4 Unmetered Scattered Load | \$ 38,984 | 0.42% | \$ 35,313 | 0.33% |
| 5 Sentinel Lighting | \$ 39,282 | 0.42% | \$ 53,961 | 0.51% |
| 6 Street Lighting | \$ 187,006 | 2.01% | \$ 62,193 | 0.58% |
| 7 Large Use | \$ 101,544 | 1.09% | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| Total | \$ 9,290,039 | 100.00% | \$ 10,636,335 | 100.00% |
| Service Revenue Requirement (from Sheet 9) | | | \$ 10,636,333.71 | |

- (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 | \$ 6,428,017 | \$ 7,178,370 | \$ 7,178,370 | \$ 371,305 |
| 2 | General Service Less Than 50 kW | \$ 1,085,244 | \$ 1,211,926 | \$ 1,211,926 | \$ 60,516 |
| 3 | General Service 50 to 4,999 kW | \$ 1,269,875 | \$ 1,418,110 | \$ 1,572,415 | \$ 79,089 |
| 4 | Unmetered Scattered Load | \$ 44,204 | \$ 49,365 | \$ 39,952 | \$ 2,423 |
| 5 | Sentinel Lighting | \$ 29,141 | \$ 32,543 | \$ 41,723 | \$ 3,983 |
| 6 | Street Lighting | \$ 193,395 | \$ 215,971 | \$ 61,897 | \$ 12,734 |
| 7 | Large Use | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| Total | | \$ 9,049,876 | \$ 10,106,285 | \$ 10,106,285 | \$ 530,050 |

- (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 | 106.50% | 104.75% | 104.75% | 85 - 115 |
| 2 General Service Less Than 50 kW | 96.10% | 95.81% | 95.81% | 80 - 120 |
| 3 General Service 50 to 4,999 kW | 80.00% | 76.79% | 84.70% | 80 - 120 |
| 4 Unmetered Scattered Load | 106.50% | 146.65% | 120.00% | 80 - 120 |
| 5 Sentinel Lighting | 106.50% | 67.69% | 84.70% | 80 - 120 |
| 6 Street Lighting | 89.30% | 367.73% | 120.00% | 80 - 120 |
| 7 Large Use | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |

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

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

| Name of Customer Class | Proposed Revenue-to-Cost Ratio | | | Policy Range |
|-----------------------------------|--------------------------------|---------------------|---------|--------------|
| | Test Year | Price Cap IR Period | | |
| | 2017 | 2018 | 2019 | |
| 1 Residential | 104.75% | 104.75% | 104.75% | 85 - 115 |
| 2 General Service Less Than 50 kW | 95.81% | 95.81% | 95.81% | 80 - 120 |
| 3 General Service 50 to 4,999 kW | 84.70% | 84.70% | 84.70% | 80 - 120 |
| 4 Unmetered Scattered Load | 120.00% | 120.00% | 120.00% | 80 - 120 |
| 5 Sentinel Lighting | 84.70% | 84.70% | 84.70% | 80 - 120 |
| 6 Street Lighting | 120.00% | 120.00% | 120.00% | 80 - 120 |
| 7 Large Use | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |

(11) The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2017 that is outside of the OEB's policy range for any customer class. Table D will show that the distributor is likely to enter into the 2018 and 2019 Price Cap IR models, as necessary. For 2018 and 2019, enter the planned revenue-to-cost ratios that will be "Change" or "No Change" in 2017 (in the current Revenue/Cost Ratio Adjustment Workform, Worksheet C1.1 'Decision - Cost Revenue Adjustment, column d), and enter TBD for class(es) that will be entered as 'Rebalance'.



Ontario Energy Board

Revenue 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 | 21,042 |
| kWh | 161,051,510 |

| | |
|--|-----------------|
| Proposed Residential Class Specific Revenue Requirement ¹ | \$ 7,178,370.00 |
|--|-----------------|

| Residential Base Rates on Current Tariff | |
|--|-----------|
| Monthly Fixed Charge (\$) | \$ 18.76 |
| Distribution Volumetric Rate (\$/kWh) | \$ 0.0105 |

B Current Fixed/Variable Split

| | Base Rates | Billing Determinants | Revenue | % of Total Revenue |
|--------------|------------|----------------------|-----------------|--------------------|
| Fixed | 18.76 | 21,042 | \$ 4,736,975.04 | 73.69% |
| Variable | 0.0105 | 161,051,510 | \$ 1,691,040.86 | 26.31% |
| TOTAL | - | - | \$ 6,428,015.90 | - |

C Calculating Test Year Base Rates

| | |
|--|---|
| Number of Remaining Rate Design Policy Transition Years ² | 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 | \$ 5,289,930.84 | 20.95 | \$ 5,289,958.80 |
| Variable | \$ 1,888,439.16 | 0.0117 | \$ 1,884,302.67 |
| TOTAL | \$ 7,178,370.00 | - | \$ 7,174,261.47 |

| | New F/V Split | Revenue @ new F/V Split | Final Adjusted Base Rates | Revenue Reconciliation @ Adjusted Rates |
|--------------|---------------|-------------------------|---------------------------|---|
| Fixed | 82.46% | \$ 5,919,410.56 | \$ 23.44 | \$ 5,918,693.76 |
| Variable | 17.54% | \$ 1,258,959.44 | \$ 0.0078 | \$ 1,256,201.78 |
| TOTAL | - | \$ 7,178,370.00 | - | \$ 7,174,895.54 |

| Checks ³ | |
|---|--------------|
| Change in Fixed Rate | \$ 2.49 |
| Difference Between Revenues @ Proposed Rates and Class Specific | (\$3,474.46) |
| | -0.05% |

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 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, loss/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 | Distribution Revenues less Transformer Ownership |
| From sheet 13, Load Forecast | | | | | | | | | | | | | | | | | |
| 1 Residential | kWh | 21,042 | 181,051,510 | - | \$ 7,178,370 | \$ 5,289,741 | \$ 1,888,629 | 73.69% | 26.31% | | \$20.95 | 2 | \$0.0117 /kWh | 4 | \$ 5,289,958.80 | \$ 1,884,302.8970 | \$ 7,174,261.47 |
| 2 General Service Less Than 50 kW | kWh | 1,783 | 54,858,680 | - | \$ 1,211,828 | \$ 688,554 | \$ 513,272 | 57.64% | 42.36% | \$ 10,325 | \$32.85 | | \$0.0066 /kWh | | \$ 888,579.40 | \$ 524,723.3280 | \$ 1,212,877.73 |
| 3 General Service 50 to 4,999 kW | kW | 149 | 128,885,764 | 382,837 | \$ 1,572,415 | \$ 623,620 | \$ 948,795 | 39.66% | 60.34% | \$ 127,028 | \$348.78 | | \$2.9842 /kW | | \$ 623,918.64 | \$ 1,075,817.8554 | \$ 1,572,405.50 |
| 4 Unmetered Scattered Load | kWh | 257 | 944,313 | - | \$ 38,952 | \$ 33,208 | \$ 5,744 | 83.12% | 16.88% | | \$10.77 | | \$0.0011 /kWh | | \$ 33,214.68 | \$ 6,304.8223 | \$ 38,519.30 |
| 5 Sentinel Lighting | kW | 515 | 723,964 | 2,077 | \$ 41,723 | \$ 23,807 | \$ 17,916 | 57.06% | 42.94% | | \$3.85 | | \$8.6259 /kW | | \$ 23,793.00 | \$ 17,915.9943 | \$ 41,708.99 |
| 6 Street Lighting | kW | 8,853 | 1,282,067 | 3,580 | \$ 61,867 | \$ 52,378 | \$ 9,520 | 84.62% | 15.38% | | \$0.64 | | \$2.8741 /kW | | \$ 52,631.04 | \$ 9,510.7960 | \$ 62,150.84 |
| 7 Large Use | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 8 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 9 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 10 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 11 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 12 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 13 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 14 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 15 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 16 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 17 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 18 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 19 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| 20 | | - | - | - | - | - | - | - | - | | - | | - | | \$ - | \$ - | \$ - |
| Total Transformer Ownership Allowance | | | | | | | | | | \$ 137,353 | | | | | | | |
| Rate recover revenue requirement | | | | | | | | | | | | | | | | | |
| Total Distribution Revenues | | | | | | | | | | \$10,103,426.83 | | | | | | | |
| Base Revenue Requirement | | | | | | | | | | \$10,106,283.71 | | | | | | | |
| Difference | | | | | | | | | | -\$ 2,856.88 | | | | | | | |
| % Difference | | | | | | | | | | -0.028% | | | | | | | |

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: $[MSC \times (\text{average number of customers or connections}) \times 12 \text{ months}] / (\text{Class Allocated Revenue Requirement})$.

Revenue Requirement Workform (RRWF) for 2017 Filers

Tracking Form

The first row shown, labelled "Original Application", summarizes key statistics based on the data inputs into the RRWF. After the original application filing, the applicant provides key changes in capital and operating expenses, load forecasts, cost of capital, etc., as revised through the processing of the application. This could be due to revisions or responses to interrogatories. The last row shown is the most current estimate of the cost of service data reflecting the original application and any updates provided by the applicant distributor (for updated evidence, responses to interrogatories, undertakings, etc.)

Please ensure a Reference (Column B) and/or Item Description (Column C) is entered. Please note that unused rows will automatically be hidden and the PRINT AREA set when the PRINT BUTTON on Sheet 1 is activated.

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

⁽²⁾ Short description of change, issue, etc.

Summary of Proposed Changes

| Reference ⁽¹⁾ | Item / Description ⁽²⁾ | Cost of Capital | | Rate Base and Capital Expenditures | | | Operating Expenses | | | Revenue Requirement | | | |
|--------------------------|-----------------------------------|-----------------------------|--------------------------|------------------------------------|-----------------|--------------------------------|-----------------------------|------------|--------------|-----------------------------|----------------|--------------------------|---|
| | | Regulated Return on Capital | Regulated Rate of Return | Rate Base | Working Capital | Working Capital Allowance (\$) | Amortization / Depreciation | Taxes/PILs | OM&A | Service Revenue Requirement | Other Revenues | Base Revenue Requirement | Grossed up Revenue Deficiency / Sufficiency |
| | Original Application | \$ 2,106,053 | 6.28% | \$ 33,512,389 | \$ 53,574,437 | \$ 4,018,083 | \$ 1,429,600 | \$ 100,774 | \$ 6,999,907 | \$ 10,636,334 | \$ 530,050 | \$ 10,106,284 | \$ 1,327,391 |
| | Change | | | | | | | | | | | | |