Greater Sudbury Hydro Inc. Filed: 31 October, 2019 EB-2019-0037 Exhibit 6

# Exhibit 6:

# **REVENUE DEFICIENCY OR SUFFICIENCY**

Greater Sudbury Hydro Inc. Filed:31 October, 2019 EB-2019-0037 Exhibit 6 Tab 1

Exhibit 6: Revenue Deficiency Or Sufficiency

# Tab 1 (of 1): Overview

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## **REVENUE DEFICIENCY OR SUFFICIENCY**

## 2 Overview

GSHi's current distribution rates are based on Board approved rates effective May 1,
2019 through IRM proceeding (EB-2018-0034). In accordance with the Chapter 2 Filing
Requirements, utility income calculated in this Exhibit is based on existing Board
Approved rates and proposed 2020 Test Year rates. The calculations in this exhibit do
not include any cost or revenues related to the cost of power as well as balances in
deferral and variance accounts. The OEB's Revenue Requirement Work Form (RRWF)
is included as Exhibit 6, Tab 1, Schedule 1, Attachment 1.

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11 Determination of Net Utility Income

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12 GSHi has determined that its allowable 2020 Net Utility Income is \$3,865,689. Table 1

13 below provides a detailed net income calculation for the 2020 Test Year.

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Description	Amount
Operating Revenues:	
Distribution Revenue	27,396,127
Other Revenue	1,558,372
Total Revenue	28,954,499
Operating Expenses	
OM&A Expenses	17,388,957
Depreciation/Amortization	4,404,633
Property Taxes	268,803
Deemed Interest Expense	2,616,443
Total Cost and Expenses	24,678,836
Net Income before Income Taxes	4,275,663
Income Taxes (grossed up)	409,974
Net Utility Income	3,865,689

## Table 1 – Net Utility Income

1 Statement of Rate Base

2 A summary of GSHi's Rate Base for the 2020 Test Year, calculated in accordance with 3 the Chapter 2 Filing Requirements, is included as table 2 below. GSHi's proposed rate base is \$107,619,405. For further details on GSHi's proposed rate base, please see 4 5 Exhibit 2.

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## Table 2 – Statement of Rate Base

Description		Amount
Fixed Assets		
Opening Net Fixed Assets	96,492,060	
Closing Net Fixed Assets	100,864,455	
Average Net Fixed Assets		98,678,256
Working Capital Allowance		
Controllable Expenses	17,657,760	
Cost of Power	101,557,555	
Working Capital Base	119,215,315	
Working Capital %	7.50%	
Allowance for Working Capital		8,941,149
Total Rate Base		107,619,405

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11 Actual Utility Return on Rate Base

12 GSHi's comparison of Utility Return on Rate Base calculated with existing 2019 rates 13 and proposed 2020 rates is included as table 3 below. If GSHi's rates remain 14 unchanged from the rates currently being charged in 2019, GSHi's actual return would 15 be 3.11%.

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	2020 Test Year @	2020 Test Year @
Description	Existing Rates	Proposed Rates
Actual Return on Rate Base		
Rate Base	107,619,405	107,619,405
Interest Expense	2,616,443	2,616,443
Net Income	726,852	3,865,689
Total Actual Return on Rate Base	3,343,295	6,482,132
Actual Return on Rate Base	3.11%	6.02%
Required Return on Rate Base		
Rate Base	107,619,405	107,619,405
Return Rates:		
Return on Debt (Weighted)	4.05%	4.05%
Return on Equity	8.98%	8.98%
Deemed Interest Expense	2,616,443	2,616,443
Return on Equity	3,865,689	3,865,689
Total Required Return on Rate Base	6,482,132	6,482,132
Expected Return on Rate Base	6.02%	6.02%

## Table 3 – GSHi's Actual Utility Return on Rate Base

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4 Indicated and Requested Rate of Return

5 GSHi's indicated rate of return is 3.11% if rates remain unchanged. GSHi is requesting a

6 rate of return of 6.02%, as per the cost of capital parameters. GSHi acknowledges these

7 figures will need to be updated once they are released by the Board in the fall of 2019.

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9 GSHi notes that the return rate of 3.11%, calculated in table 3 above for the 2020 Test

10 Year at existing rates, differs from the rate calculated in the revenue requirement

11 workform of 2.44%. The difference in approach represents the treatment of negative

12 taxable income – GSHi is proposing with the above calculation to show Net income

13 increased by the tax adjustments as a tax credit (which assumes GSHi would carry back

14 tax losses in the year). A summary of this calculation is detailed in Table 4 below:

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## Table 4 – Net Income

At current approved rates:	
Utility Net Income (agrees to RRWF)	\$5,136
Add back: Taxable Income from RRWF multiplied by 26.5%	\$721,716
(\$2,723,456 * 26.5%)	
Total Net Income included in Table 3 above	\$726,852

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## 4 Revenue Deficiency

Included as Table 5 below, GSHi has calculated its 2020 Revenue Deficiency. GSHi
notes this table differs from the amounts shown in the RRWF due to the Taxable loss

7 and resulting income tax recovery. When GSHi included an amount in "Tax Credits" for

8 the tax recovery the amount also populated in the Tax Credits in the Proposed Rates

9 column, causing the RRWF to calculate incorrect amounts. GSHi also notes the "Total

10 Revenue" in both the table and the RRWF agree, it's simply the Revenue Deficiency and

11 Distribution Revenue that have different amounts, but still sum to the same total. Target

12 return on equity remains the same in both table 5 and the RRWF.

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<u> Table 5 –</u>	Revenue	Deficiency	Calculation

	At Current	
	Approved	At Proposed
Description	Rates	Rates
Revenue Deficiency from Below		4,270,526
Distribution Revenue	23,125,601	23,125,601
Other Operating Revenue Offsets - net	1,558,372	1,558,372
Total Revenue	24,683,972	28,954,499
Operating Expenses	22,062,393	22,062,393
Deemed Interest Expense	2,616,443	2,616,443
Total Cost and Expenses	24,678,836	24,678,836
Utility Income Before Income Taxes	5,136	4,275,663
Tax Adjustments to Accounting Income	- 2,728,592	- 2,728,592
Taxable Income/(Loss)	- 2,723,456	1,547,071
Income Tax Rate	26.5%	26.5%
Income Tax on Taxable Income	-	409,974
Income Tax Credits	- 721,716	-
Utility Net Income/(Loss)	726,852	3,865,689
Utility Rate Base	107,619,405	107,619,405
Deemed Equity Portion of Rate Base	43,047,762	43,047,762
Income/(Equity Portion of Rate Base)	1.69%	8.98%
Target Return - Equity on Rate Base	8.98%	8.98%
Deficiency/Sufficiency in Reutrn on Equity	-7.29%	0.00%
Indicated Rate of Return	3.11%	6.02%
Requested Rate of Return on Rate Base	6.02%	6.02%
Deficiency/Sufficiency in Rate of Return	-2.92%	0.00%
Target Return on Equity	3,865,689	3,865,689
Revenue Deficiency/(Sufficiency)	3,138,837	- 0
Gross Revenue Deficiency/(Sufficiency)	4,270,526	

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- 4 The following Table 6 reconciles the revenue deficiency presented in the revenue
- 5 requirement workform to the revenue deficiency presented in Table 5 above:

## 1 2

## Table 6 – Reconcile Revenue Deficiency

Revenue Deficiency, per Table 5 Above	\$3,138,837
Deduct: Utility Net Income per Table 4 Above	\$(726,852)
Add back: Utility Net Income per RRWF	\$5,136
Revenue Deficiency, per RRWF	\$3,860,553

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## 4 Cost Drivers

5 Table 7 below summarized the contributors to the revenue deficiency by revenue

6 requirement category. Column A lists the 2013 Board Approved Revenue Requirement,

7 Column B details the 2020 Revenue Requirement at existing rates and Column C

8 represents the 2020 Proposed Revenue Requirements. The variance column

9 represents the revenue requirement components for the deficiency of \$4,270,526.

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## Table 7 – Variance in Revenue Requirement

Description	2013 Board Approved	2020 at Existing Rates Allocated in Proportion to 2013 BA	2020 Test Year Revenue Requirement	Variance
	A	В	С	С - В
Distribution Revenue Requirement:				
OM&A	\$13,910,539	\$ 14,455,293	\$ 17,388,957	\$ 2,933,664
Amortization/Depreciation	\$ 3,960,817	\$ 4,115,927	\$ 4,404,633	\$ 288,706
Property taxes	\$ 279,078	\$ 290,007	\$ 268,803	\$ (21,204)
Income Taxes (Grossed up)	\$ 467,431	\$ 485,736	\$ 409,974	\$ (75,762)
Deemed Interest Expense	\$ 2,136,693	\$ 2,220,368	\$ 2,616,443	\$ 396,073
Return on Deemed Equity	\$ 3,196,320	\$ 3,321,492	\$ 3,865,689	\$ 544,197
	\$23,950,878	\$ 24,888,823	\$ 28,954,499	\$ 4,065,675
Less: Other revenue reduction	\$ (1,696,775)	\$ (1,763,223)	\$ (1,558,372)	\$ 204,851
Total Distribution Revenue from Customers	\$22,254,103	\$ 23,125,601	\$ 27,396,127	\$ 4,270,526
Rate Base	\$88,984,399	\$ 88,984,399	\$107,619,405	\$18,635,006

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15 The revenue deficiency of \$4,270,526 for the 2020 Test Year is principally a result of

16 increases in the following components:

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- OM&A expenses: Expenses have increased \$3.5M over 2013 and are discussed
   in detail in Exhibit 4 of this application. However, significant increases were a
   result of non-discretionary items (such as monthly billing, change to OPEB
   recovery), increase in FTE complement (in both GSHi and GSHP) and
   succession planning.
- Increase in rate base: Rate base has increased to \$107,619,405 from
  88,984,399, an increase of 21%. The most significant driver behind this is an
  increase to GSHi's net fixed assets which have increased by 34% (\$27M) since
  2013. This increase is offset by a change to GSHi's working capital allowance
- 10 from 13% to 7.5%. GSHi's rate base is discussed in detail in Exhibit 2.

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# Attachment 1 (of 1):

**Revenue Requirement Work Form** 

Contario Energy Board Revenue Requirement Workform (RRWF) for 2020 Filers



Version 9.00

Utility Name	Greater Sudbury Hydro Inc.	
Service Territory	Sudbury & West Nipissing	
Assigned EB Number	EB-2019-0037	
Name and Title	Tiija Luttrell, Supervisor - Regulatory	
Phone Number	705-675-0514	
Email Address		
Test Year	2020	
Bridge Year	<u>2019</u>	
Last Rebasing Year	2013	1

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 disgn 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.

# Revenue Requirement Workform (RRWF) for 2020 Filers

<u>1. Info</u>	8. Rev_Def_Suff
2. Table of Contents	9. Rev_Reqt
3. Data Input_Sheet	10. Load Forecast
<u>4. Rate_Base</u>	11. Cost Allocation
5. Utility Income	12. Residential Rate Design
<u>6. Taxes_PILs</u>	13. Rate Design and Revenue Reconciliation
7. Cost_of_Capital	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.

# Contario Energy Board Revenue Requirement Workform (RRWF) for 2020 Filers

### Data Input<sup>(1)</sup>

		Initial Application	(2)			(6)		Per Board Decision	
1	Rate Base								
	Gross Fixed Assets (average) Accumulated Depreciation (average)	\$224,592,770 (\$125,914,514)	(5)		\$ 224,592,770 (\$125,914,514)			\$224,592,770 (\$125,914,514)	
	Controllable Expenses Cost of Power	\$17,657,760 \$101,557,555			\$ 17,657,760 \$ 101,557,555			\$17,657,760 \$101,557,555	
	Working Capital Rate (%)	7.50%	(9)			(9)			(9)
2	Utility Income								
	Distribution Revenue at Current Rates Distribution Revenue at Proposed Rates	\$23,125,601 \$27,396,127							
	Other Revenue:	¢040.004							
	Specific Service Charges	\$219,234 \$156,800							
	Other Distribution Revenue	\$1,534,028							
	Other Income and Deductions	(\$351,690)							
	Total Revenue Offsets	\$1,558,372	(7)						
	Operating Expenses:								
	OM+A Expenses	\$17,388,957			\$ 17,388,957			\$17,388,957	
	Depreciation/Amortization	\$4,404,633			\$ 4,404,633			\$4,404,633	
	Property taxes Other expenses	\$268,803			\$ 268,803			\$268,803	
3	Taxes/PILs								
		(\$2,728,592)	(3)						
	Adjustments required to arrive at taxable income	(+-,,,							
	Utility Income Taxes and Rates:								
	Income taxes (not grossed up)	\$301,331							
	Eederal tax (%)	\$409,974		\$0	15 00%		\$0	15.00%	
	Provincial tax (%)	11.50%		\$0 \$0	11.50%		\$0 \$0	11.50%	
	Income Tax Credits								
4	Capitalization/Cost of Capital								
	Long-term debt Capitalization Ratio (%)	56.0%							
	Short-term debt Capitalization Ratio (%)	4.0%	(8)			(8)			(8)
	Common Equity Capitalization Ratio (%)	40.0%							
	Prefered Shares Capitalization Ratio (%)	100.0%							
		100.0%							
	Cost of Capital								
	Long-term debt Cost Rate (%)	4.14%							
	Short-term debt Cost Rate (%)	2.82%							
	Prefered Shares Cost Rate (%)	8.98%							

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
  - <sup>(3)</sup> Net of addbacks and deductions to arrive at taxable income.
  - (4) Average of Gross Fixed Assets at beginning and end of the Test Year
  - <sup>(5)</sup> 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 M12. 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.
  - <sup>(7)</sup> 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 2020 Filers

### Rate Base and Working Capital

	Rate Base						
Line No.	Particulars	_	Initial Application				Per Board Decision
1	Gross Fixed Assets (average)	(2)	\$224,592,770	\$ -	\$224,592,770	\$ -	\$224,592,770
2	Accumulated Depreciation (average)	(2)	(\$125,914,514)	\$ -	(\$125,914,514)	\$ -	(\$125,914,514)
3	Net Fixed Assets (average)	(2)	\$98,678,256	\$ -	\$98,678,256	\$ -	\$98,678,256
4	Allowance for Working Capital	(1)	\$8,941,149	(\$8,941,149)	<u> </u>	<u> </u>	\$ -
5	Total Rate Base	=	\$107,619,405	(\$8,941,149)	\$98,678,256	<u> </u>	\$98,678,256

## (1) Allowance for Working Capital - Derivation

6	Controllable Expenses		\$17,657,760	\$ -	\$17,657,760	\$ -	\$17,657,760
7	Cost of Power		\$101,557,555	\$ -	\$101,557,555	\$ -	\$101,557,555
8	Working Capital Base		\$119,215,315	\$ -	\$119,215,315	\$ -	\$119,215,315
9	Working Capital Rate %	(1)	7.50%	-7.50%	0.00%	0.00%	0.00%
	5 1						
10	Working Capital Allowance	-	\$8,941,149	(\$8,941,149)	\$ -	\$ -	\$ -

#### Notes (1)

Some Applicants may have a unique rate as a result of a lead-lag study. The default rate for 2020 cost of service applications is 7.5%, per the letter issued by the Board on June 3, 2015.

<sup>(2)</sup> Average of opening and closing balances for the year.

# Revenue Requirement Workform (RRWF) for 2020 Filers

#### **Utility Income**

Line No.	Particulars	Initial Application				Per Board Decision
	Operating Revenues:					
1	Distribution Revenue (at Proposed Rates)	\$27,396,127	(\$27,396,127)	\$ -	\$ -	\$ -
2	Other Revenue	(1) \$1,558,372	(\$1,558,372)	\$ -	\$ -	\$ -
3	Total Operating Revenues	\$28,954,499	(\$28,954,499)	\$	\$	\$
	Operating Expenses:					
4	OM+A Expenses	\$17,388,957	\$ -	\$17,388,957	\$ -	\$17,388,957
5	Depreciation/Amortization	\$4,404,633	\$ -	\$4,404,633	\$ -	\$4,404,633
6	Property taxes	\$268,803	\$ -	\$268,803	\$ -	\$268,803
7	Capital taxes	\$ -	\$ -	\$ -	\$ -	\$ -
8	Other expense	\$-	\$ -		\$ -	
9	Subtotal (lines 4 to 8)	\$22,062,393	\$ -	\$22,062,393	\$ -	\$22,062,393
10	Deemed Interest Expense	\$2,616,443	(\$2,616,443)	\$	\$	\$
11	Total Expenses (lines 9 to 10)	\$24,678,836	(\$2,616,443)	\$22,062,393	\$	\$22,062,393
12	Utility income before income					
12	taxes	\$4,275,663	(\$26,338,056)	(\$22,062,393)	\$ -	(\$22,062,393)
13	Income taxes (grossed-up)	\$409,974	\$ -	\$409,974	\$ -	\$409,974
14	Utility net income	\$3,865,689	(\$26,338,056)	(\$22,472,367)	\$ -	(\$22,472,367)

### Notes Other Revenues / Revenue Offsets

(1)

Specific Service Charges Late Payment Charges Other Distribution Revenue	\$219,234 \$156,800 \$1,534,028 (\$251,600)		\$ - \$ - \$ -		\$ - \$ - \$ -
Total Revenue Offsets	\$1,558,372	<u> </u>	\$	<u> </u>	\$- \$-

# Revenue Requirement Workform (RRWF) for 2020 Filers

### Taxes/PILs

Line No.	Particulars	Application		Per Board Decision
	Determination of Taxable Income			
1	Utility net income before taxes	\$3,865,689	\$ -	\$ -
2	Adjustments required to arrive at taxable utility income	(\$2,728,592)	\$ -	\$ -
3	Taxable income	\$1,137,097	\$ -	<u> </u>
	Calculation of Utility income Taxes			
4	Income taxes	\$301,331	\$301,331	\$301,331
6	Total taxes	\$301,331	\$301,331	\$301,331
7	Gross-up of Income Taxes	\$108,643	\$108,643	\$108,643
8	Grossed-up Income Taxes	\$409,974	\$409,974	\$409,974
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	\$409,974	\$409,974	\$409,974
10	Other tax Credits	\$ -	\$ -	\$ -
	Tax Rates			
11 12 13	Federal tax (%) Provincial tax (%) Total tax rate (%)	15.00% 11.50% 26.50%	15.00% 11.50% 26.50%	15.00% 11.50% 26.50%

Notes

# Revenue Requirement Workform (RRWF) for 2020 Filers

## **Capitalization/Cost of Capital**

Line No.	Particulars	Capitaliz	ation Ratio	Cost Rate	Return
		Initial A	pplication		
		(%)	(\$)	(%)	(\$)
	Debt				
1	Long-term Debt	56.00%	\$60,266,867	4.14%	\$2,495,048
2	Short-term Debt	4.00%	\$4,304,776	2.82%	\$121,395
3	Total Debt	60.00%	\$64,571,643	4.05%	\$2,616,443
	Equity				
4	Common Equity	40.00%	\$43,047,762	8.98%	\$3,865,689
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	Total Equity	40.00%	\$43,047,762	8.98%	\$3,865,689
7	Total	100.00%	\$107,619,405	6.02%	\$6,482,132
		(0)		(0/)	
	Dobt	(%)	(\$)	(%)	(\$)
1	Long-term Debt	0.00%	- ۹	0.00%	\$
2	Short-term Debt	0.00%	φ- \$-	0.00%	φ- \$-
3	Total Debt	0.00%	\$-	0.00%	\$-
			<u>.</u>		i
	Equity	0.000/	<b>^</b>	0.000/	•
4	Common Equity	0.00%	\$- ¢	0.00%	\$ - ¢
5	Total Equity	0.00%	<u> </u>	0.00%	<u>ې -</u>
0		0.00%	<del>φ -</del>	0.00 %	<del>φ</del> -
7	Total	0.00%	\$98,678,256	0.00%	\$ -
		Per Boa	rd Decision		
		(%)	(\$)	(%)	(\$)
	Debt	(70)	(Φ)	(70)	$(\Psi)$
8	Long-term Debt	0.00%	<b>S</b> -	4 14%	\$ -
9	Short-term Debt	0.00%	\$ -	2.82%	\$ -
10	Total Debt	0.00%	\$ -	0.00%	\$ -
	Equity				
11	Common Equity	0.00%	\$ -	8.98%	\$ -
12	Preferred Shares	0.00%	\$ -	0.00%	\$ -
13	Total Equity	0.00%	\$ -	0.00%	\$ -

0.00%

#### Notes

14

Total

\$98,678,256

0.00%

\$ -

# Revenue Requirement Workform (RRWF) for 2020 Filers

### **Revenue Deficiency/Sufficiency**

		Initial Appli	cation			Per Board D	Decision
Line No.	Particulars	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates
1 2	Revenue Deficiency from Below Distribution Revenue	\$23,125,601	\$5,252,453 \$22,143,675	\$23,125,601	<mark>(\$1,446,541)</mark> \$28,842,668	\$ -	\$30,016,861 (\$30,016,861)
3	Other Operating Revenue Offsets - net	\$1,558,372	\$1,558,372	\$ -	\$ -	\$ -	\$ -
4	Total Revenue	\$24,683,972	\$28,954,499	\$23,125,601	\$27,396,127	\$ -	\$ -
5 6	Operating Expenses Deemed Interest Expense	\$22,062,393 \$2,616,443	\$22,062,393 \$2,616,443	\$22,062,393 \$ -	\$22,062,393 \$ -	\$22,062,393 \$ -	\$22,062,393 \$ -
8	Total Cost and Expenses	\$24,678,836	\$24,678,836	\$22,062,393	\$22,062,393	\$22,062,393	\$22,062,393
9	Taxes	\$5,136	\$4,275,663	\$1,063,208	\$5,333,734	(\$22,062,393)	(\$22,062,393)
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$2,728,592)	(\$2,728,592)	(\$2,728,592)	(\$2,728,592)	\$ -	\$ -
11	Taxable Income	(\$2,723,456)	\$1,547,071	(\$1,665,385)	\$2,605,142	(\$22,062,393)	(\$22,062,393)
12 13	Income Tax Rate	26.50% \$ -	26.50% \$409,974	26.50% \$ -	26.50% \$690,363	26.50% \$ -	26.50% \$ -
14	Income Tax on Taxable Income Income Tax Credits	\$ -	s -	s -	s -	\$ -	s -
15	Utility Net Income	\$5,136	\$3,865,689	\$1,063,208	(\$22,472,367)	(\$22,062,393)	(\$22,472,367)
16	Utility Rate Base	\$107,619,405	\$107,619,405	\$98,678,256	\$98,678,256	\$98,678,256	\$98,678,256
17	Deemed Equity Portion of Rate Base	\$43,047,762	\$43,047,762	\$ -	\$ -	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	0.01%	8.98%	0.00%	0.00%	0.00%	0.00%
19	Target Return - Equity on Rate Base	8.98%	8.98%	0.00%	0.00%	0.00%	0.00%
20	Deficiency/Sufficiency in Return on Equity	-8.97%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Indicated Rate of Return	2.44%	6.02%	1.08%	0.00%	-22.36%	0.00%
22	Requested Rate of Return on Rate Base	6.02%	6.02%	0.00%	0.00%	0.00%	0.00%
23	Deficiency/Sufficiency in Rate of Return	-3.59%	0.00%	1.08%	0.00%	-22.36%	0.00%
24 25 26	Target Return on Equity Revenue Deficiency/(Sufficiency) Gross Revenue Deficiency/(Sufficiency)	\$3,865,689 \$3,860,553 \$5,252,453 <sup>(1)</sup>	\$3,865,689 ( <mark>\$0)</mark>	\$ - (\$1,063,208) (\$1,446,541) <sup>(1)</sup>	\$ - \$ -	\$ - \$22,062,393 \$30,016,861 <sup>(1)</sup>	\$ - \$ -

## Notes:

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

# Revenue Requirement Workform (RRWF) for 2020 Filers

### **Revenue Requirement**

Line No.	Particulars	Application				Per Board Decision	
1	OM&A Expenses	\$17.388.957		\$17.388.957		\$17.388.957	
2	Amortization/Depreciation	\$4,404,633		\$4,404,633		\$4,404,633	
3	Property Taxes	\$268,803		\$268,803		\$268,803	
5	Income Taxes (Grossed up)	\$409.974		\$409.974		\$409.974	
6	Other Expenses	\$ -		· · · /·		,,.	
7	Return						
	Deemed Interest Expense	\$2,616,443		\$ -		\$ -	
	Return on Deemed Equity	\$3,865,689	_	\$ -		\$ -	
8	Service Revenue Requirement						
	(before Revenues)	\$28,954,499		\$22,472,367		\$22,472,367	
٩	Revenue Offsets	\$1 558 372		\$_		\$ -	
10	Base Revenue Requirement	\$27,396,127	-	\$22 472 367		\$22 472 367	
10	(excluding Tranformer Owership Allowance credit adjustment)	φ21,000,121	-	φ22,ττ2,001		ψ22,412,001	
11	Distribution revenue	\$27,396,127		\$ -		\$ -	
12	Other revenue	\$1,558,372	_	\$ -		\$ -	
13	Total revenue	\$28,954,499		\$ -		\$ -	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	(\$0)	(1)	(\$22,472,367)	(1)	(\$22,472,367)	(1)

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

	Application		Δ% <sup>(2)</sup>	Per Board Decision	Δ% (2)
Service Revenue Requirement Grossed-Up Revenue	\$28,954,499	\$22,472,367	(\$0)	\$22,472,367	(\$1)
Deficiency/(Sufficiency)	\$5,252,453	(\$1,446,541)	(\$1)	\$30,016,861	(\$1)
Base Revenue Requirement (to be					
recovered from Distribution Rates)	\$27,396,127	\$22,472,367	(\$0)	\$22,472,367	(\$1)
Revenue Deficiency/(Sufficiency)					
Associated with Base Revenue					
Requirement	\$4,270,527	\$ -	(\$1)	\$ -	(\$1)

## Notes

(2)

Line 11 - Line 8

Percentage Change Relative to Initial Application

Contario Energy Board Revenue Requirement Workform (RRWF) for 2020 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 andf trends from historical actuals to the Bridge and Test Year forecasts.



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 2020 Filers

#### **Cost Allocation and Rate Design**

This spreadsheet replaces Appendix 2-P and provides a summary of the results from the Cost Allocation spreadsheet, and is used in the determination of the class revenue requirement and, hence, ultimately, the determination of rates from customers in all classes to recover the revenue requirement.

Stage in Application Process: Initial Application

#### A) Allocated Costs

Name of Customer Class <sup>(3)</sup> From Sheet 10. Load Forecast	Costs Prev	Allocated from ious Studv <sup>(1)</sup>	%	A Reve	Illocated Class enue Requirement (1) (7A)	%
1 Residential 2 GS < 50 kW 3 GS > 50 kW 4 Street Lighting 5 Sentinel Lighting 6 USL 7 8 9 0 1 2 3 4 5 6 7 8 9 0 0 1 2 3 4 5 6 7 8 9 0 0 1 2 3 4 5 5 6 7 8 9 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ \$ \$ \$ \$	15,252,549 3,258,128 4,557,185 799,299 44,183 39,536	63.68% 13.60% 19.03% 3.34% 0.18% 0.17%	\$\$ \$\$ \$\$ \$\$ \$\$	18,734,558 3,983,049 5,709,275 434,489 49,088 44,039	64.70% 13.76% 19.72% 1.50% 0.17% 0.15%
Total	\$	23,950,879	100.00%	\$	28,954,499	100.00%
			Service Revenue Requirement (from Sheet 9)	\$	28,954,499.14	

(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 cur	Forecast (LF) X rent approved rates	ар	LF X current proved rates X (1+d)	LF X	Proposed Rates		Miscellaneous Revenues
		(7B)		(7C)		(7D)		(7E)
1 Residential	\$	13,920,083	¢	\$16,490,583	\$	16,613,711	\$	945,214
2  GS < 50  kW	¢	3,717,845	Ф	4,404,220	¢	4,404,207	¢	223,571
4 Street Lighting	э S	4,097,020	\$	\$5,505,500 855 087	ф \$	729 403	φ \$	43 988
5 Sentinel Lighting	\$	31,389	\$	37,214	\$	39,993	\$	3,696
6 USL	\$	36,867	\$	43,710	\$	43,707	\$	2,988
7								
8								
9								
10								
12								
13								
14								
15								
16								
17								
18								
20								
20	_		_					
Total	\$	23,125,601	\$	27,396,127	\$	27,396,127	\$	1,558,372

(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

Previously Approved Ratios	Status Quo Ratios	Proposed Ratios	Policy Range
Most Recent Year:	(7C + 7E) / (7A)	(7D + 7E) / (7A)	
2013			
%	%	%	%
92.42%	93.07%	93.72%	85 - 115
117.97%	116.19%	116.19%	80 - 120
114.08%	103.41%	103.41%	80 - 120
90.57%	206.93%	178.00%	80 - 120
90.57%	83.34%	89.00%	80 - 120
120.00%	106.04%	106.03%	80 - 120
	Previously Approved Ratios Most Recent Year: 2013 % 92.42% 117.97% 114.08% 90.57% 90.57% 120.00%	Previously Approved Ratios         Status Quo Ratios           Most Recent Year: 2013         (7C + 7E) / (7A)           %         %           92.42%         93.07%           117.97%         116.19%           114.08%         103.41%           90.57%         206.93%           120.00%         106.04%	Previously Approved Ratios         Status Quo Ratios         Proposed Ratios           Most Recent Year: 2013         (7C + 7E) / (7A)         (7D + 7E) / (7A)           %         %         %           92.42%         93.07%         93.72%           117.97%         116.19%         116.19%           114.08%         103.41%         103.41%           90.57%         206.93%         178.00%           90.57%         83.34%         89.00%           120.00%         106.04%         106.03%

(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)

Propos	Policy Range		
Test Year	Price Cap IR P	Period	
2020	2021	2022	
93.72%	93.72%	93.72%	85 - 115
116.19%	116.19%	116.19%	80 - 120
103.41%	103.41%	103.41%	80 - 120
178.00%	149.00%	120.00%	80 - 120
89.00%	94.00%	100.00%	80 - 120
106.03%	106.03%	106.03%	80 - 120
	Propose Test Year 2020 93.72% 116.19% 103.41% 178.00% 89.00% 106.03%	Proposed Revenue-to-Cost Ratio           Test Year         Price Cap IR F           2020         2021           93.72%         93.72%           116.19%         116.19%           103.41%         103.41%           178.00%         149.00%           89.00%         94.00%           106.03%         106.03%	Proposed Revenue-to-Cost Ratio           Test Year         Price Cap IR Period           2020         2021         2022           93.72%         93.72%         93.72%           116.19%         116.19%         116.19%           103.41%         103.41%         103.41%           178.00%         149.00%         120.00%           89.00%         94.00%         100.00%           106.03%         106.03%         106.03%

(11) The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2020 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 2021 and 2022 Price Cap IR models, as necessary. For 2021 and 2022, enter the planned revenue-to-cost ratios that will be "Change" in 2019 (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'.

# Contario Energy Board Revenue Requirement Workform (RRWF) for 2020 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		43,107								
kWh		361,088,385								
	1.									
Proposed Residential Class Specific Revenue	\$	16,613,711.22								
Requirement <sup>1</sup>										
Residential Base Rates on Cur	rent Tar	iff								
Monthly Fixed Charge (\$)	\$	26.91								
Distribution Volumetric Rate (\$/kWh)										

#### B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	26.91	43,107	\$ 13,920,112.44	
Variable		361,088,385		
TOTAL	-	-		-

#### C Calculating Test Year Base Rates

Number of Remaining Rate Design Policy Transition Years <sup>2</sup>	0	]		
	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				
Variable				
TOTAL		-		
	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
Fixed				
Variable				
TOTAL	-	\$ -	-	
Checks <sup>3</sup> Change in Fixed Rate		[		

ondigo in rikou ridio
Difference Between Revenues @ Proposed Rates
and Class Specific Revenue Requirement

Notes:

- <sup>1</sup> The final residential class specific revenue requirement, excluding allocated Miscellaneous Revenues, as shown on Sheet 11. Cost Allocation, should be used (i.e. the revenue requirement after any proposed adjustments to R/C ratios).
- <sup>2</sup> The distributor should enter the number of years remaining before the transition to fully fixed rates is completed. The change in residential rate design is almost complete and distributors should have either 0 or 1 year remaining. If the distributor has fully transitioned to fixed rates put "0" in cell D40. If the distributor has proposed an additional transition year because the change in the residential rate design will result in the fixed charge increasing by more than \$4/year, put "1" in cell D40.
- <sup>3</sup> Change in fixed rate due to rate design policy should be less than \$4. The difference between the proposed class revenue requirement and the revenue at calculated base rates should be minimal (i.e. should be reasonably considered as a rounding error)

# Revenue Requirement Workform (RRWF) for 2020 Filers

#### **Rate Design and Revenue Reconciliation**

This sheet replaces Appendix 2-V, and provides a simplified model for calculating the standard monthly and voluentric rates based on the allocated class revenues and fixed/variable split resulting from the cost allocation study and rate design and as proposed by the applicant. However, the RRWF does not replace the rate generator model that an applicant distributor may use in support of its application. The RRWF provides a demonstrative check on the derivation of the revenue requirement and on the proposed base distribution rates to recover the revenue requirement, based on summary information from a more detailed rate generator model and other models that applicants use for cost allocation, load forecasting, taxes/PILs, etc.

Stage in Process:			Initial Application		Cla	ss Allocated Reven	ues					Distribution Rates			Revenue Reconciliation			
	Customer and Lo	ad Forecast			From Sheet 1 Re	1. Cost Allocation sidential Rate Desi	and Sheet 12. Ign	Sheet 12. Fixed / Variable Splits <sup>2</sup> Percentage to be entered as a fraction between 0 and 1		Fixed / Variable Splits <sup>2</sup> Percentage to be entered as a fraction between 0 and 1								
Customer Class From sheet 10. Load Forecast	Volumetric Charge Determinant	Customers / Connections	kWh	kW or kVA	Total Class Revenue Requirement	Monthly Service Charge	Volumetric	Fixed	Variable	Transformer Ownership Allowance <sup>1</sup> (\$)	Monthly Servi Rate	ce Charge No. of decimals	Volumetrie Rate	Rate No. of decimals	MSC Revenues	Volumetric revenues	Distribution Revenues less Transformer Ownership	
1         Residential           2         GS < 50 kW	KWh KWh KW KW KW KWh	43,107 4,182 4,92 9,941 359 283 - - - - - - - - - - - - - - - - - - -	361,088,385 134,331,187 - - 1,081,447 - - - - - - - - - - - - - - - - - -	856,504 20,511 1,062 - - - - - - - - - - - - - - - - - - -	\$ 16,613,711 \$ 4,404,267 \$ 5,555,046 \$ 729,403 \$ 39,993 \$ 43,707	\$ 16,613,711 \$ 1,125,125 \$ 1,009,725 \$ 665,649 \$ 22,323 \$ 29,487	-\$ 0.0 \$ 3,279,142 \$ 4,555,344 \$ 63,754 \$ 17,64 \$ 14,220	100.00% 25.55% 18.14% 91.26% 55.82% 67.47%	0.00% 74.45% 81.86% 8.74% 44.18% 32.53%	\$ 117,679	\$32.12 \$22.42 \$171.02 \$5.58 \$5.88 \$5.88 \$8.68	2	\$0.0000 /kWf \$0.0244 /kWf \$5.4559 /kW \$3.1083 /kW \$16.6389 /kW \$0.0131 /kWf	4	\$ 16,615,162.08 \$ 1,125,125.28 \$ 665,649.36 \$ 22,315.44 \$ 29,477.28 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$       3,277,680.9-28         \$       4,672,999.6349         \$       63,753.4501         \$       17,669.8174         \$       14,166.9557         \$       - <t< td=""><td>\$ 16,615,162.08 \$ 4,402,806.24 \$ 5,565,022.71 \$ 729,402.81 \$ 39,985.26 \$ 43,644.24 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -</td></t<>	\$ 16,615,162.08 \$ 4,402,806.24 \$ 5,565,022.71 \$ 729,402.81 \$ 39,985.26 \$ 43,644.24 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	
							I	Fotal Transformer Ow	nership Allowance	\$ 117,679					Total Distribution Re	evenues	\$27,396,023.34	
Notes:													Rates recover revenue	requirement	Base Revenue Requi	irement	\$27,396,127.37 -\$ 104.03	
<sup>1</sup> Transformer Ownership Allowance is e	entered as a positive a	mount, and only for	those classes to whi	ch it applies.											% Difference		0.000%	

<sup>2</sup> The Fixed/Variable split, for each customer class, drives the "rate generator" portion of this sheet of the RRWF. Only the "fixed" fraction is entered, as the sum of the "fixed" and "variable" portions must sum to 100%. For a distributor that may set the Monthly Service Charge, the "fixed" ratio is calcutated as: [MSC x (average number of customers or connections) x 12 months] / (Class Allocated Revenue Requirement).

# Contario Energy Board Revenue Requirement Workform (RRWF) for 2020 Filers

#### **Tracking Form**

1

The first row shown, labeled "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, 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

		Cost of	Capital	Rate Base and Capital Expenditures			Оре	erating Expense	3S	Revenue Requirement			
Reference <sup>(1)</sup>	Item / Description <sup>(2)</sup>	Regulated Return on Capital	Regulated Rate of Return	Rate Base	Working Capital	Vorking Capital Working Capital Allowance (\$)		Taxes/PILs	OM&A	Service Revenue Requirement	Other Revenues	Base Revenue Requirement	Grossed up Revenue Deficiency / Sufficiency
	Original Application	\$ 6,482,132	6.02%	\$ 107,619,405	\$ 119,215,315	\$ 8,941,149	\$ 4,404,633	\$ 409,974	\$ 17,388,957	\$ 28,954,499	\$ 1,558,372	\$ 27,396,127	\$ 5,252,453
1	1	1 1	1 1					1 1	1 1	1 /	1	1 /	