## EXHIBIT 6 – REVENUE REQUIREMENT 2020 Cost of Service

Algoma Power Inc. EB-2019-0019

Algoma Power Inc. EB-2019-0019 Exhibit 6 – Revenue Requirement Page 1 of 16 May 17, 2019

## **6.1 TABLE OF CONTENTS**

1	6.1 Table of Contents 1
2	6.2 Calculation of Revenue Requirement
3	6.2.1 Determination of Net Utility Income
4	6.2.2 Proposed Revenue Requirement5
5	6.2.3 Statement of Rate Base6
6	6.2.4 Actual Utility Return on Rate Base6
7	6.2.5 Requested and Indicated Rate of Return7
8	6.2.6 Utility Income at Proposed Revenue Requirement8
9	6.2.7 Revenue Requirement Trend9
10	6.3 Revenue Deficiency or Surplus10
11	6.3.1 Calculation of Revenue Deficiency or Surplus
12	6.3.2 Causes of Revenue Deficiency or Surplus
13	6.3.3 Impact of Change in Accounting Standards or
14	Policies
15	Appendices 16

Algoma Power Inc. EB-2019-0019 Exhibit 6 – Revenue Requirement Page 2 of 16 May 17, 2019

## **Table of Figures**

1	Table 1 – Test Year Distribution Revenues at Current Rates	4
2	Table 2 – Test Year Distribution Revenues at Proposed Rates	4
3	Table 3 - Test Year Revenue Requirement	5
4	Table 4 – Calculation of 2020 Rate Base	6
5	Table 5 – Calculation of Return on Rate Base	6
6	Table 6 – Return on Rate Base – Current vs. Proposed Rates	7
7	Table 7 - Utility Income under proposed Revenue Requirement	8
8	Table 8 - Trend in Revenue Requirement	9
9	Table 9 - Revenue Deficiency (RRWF)	11
10	Table 10 – Differences in Revenue Requirement from 2015 Cost of Service	14

### **6.2 CALCULATION OF REVENUE REQUIREMENT**

#### 6.2.1 DETERMINATION OF NET UTILITY INCOME

- 3 API's current distribution rates are based on Board Approved rates effective January 1, 2019
- 4 through an IRM proceeding (EB-2018-0017). In accordance with the filing requirements, utility
- 5 income calculated in this Exhibit is based on existing Board Approved rates and proposed 2020
- 6 Test Year rates, and excludes any cost and revenues related to the cost of power as well as
- 7 balances in deferral and variance accounts. The OEB's Revenue Requirement Work Form
- 8 ("RRWF") is included as Appendix A to this Exhibit and has also been filed in Excel format in
- 9 conjunction with this Application.

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- 10 As detailed in Section 6.2.6, API's 2020 Test Year revenue requirement results in a target net
- income (return on deemed equity) of \$4,305,854.
- Details on projected 2020 distribution revenue, applying both 2019 approved rates and 2020
- proposed rates to the proposed 2020 load forecast are presented in Exhibit 3 and Exhibit 8 and
- are also replicated below. Table 1 shows that the projected 2020 distribution revenue at current
- rates is \$23,692,323. Inputting this amount in cell E25 on Sheet 3 of the RRWF results in a
- 16 calculated 2020 revenue deficiency of \$2,192,853, as detailed in Section 6.3.1. Table 2 shows the
- 17 calculation of 2020 rates required to reduce the revenue deficiency to \$0 and to allow API to
- earn its target net income. The calculated rates in Table 2<sup>1</sup>, and the reconciliation of the
- 19 forecasted 2020 revenue to the 2020 Base Revenue Requirement calculated in Section 6.2.2 are
- 20 consistent with Sheet 13 of the RRWF.

<sup>&</sup>lt;sup>1</sup> The rates shown in Table 2 and in the RRWF are presented on the basis of "equivalent rates", as defined in Exhibit 8. Please refer to Section 8.2.5 for an explanation of "equivalent rates" and Section 8.2.6 for determination of actual proposed rates and RRRP funding for 2020.

#### Table 1 – Test Year Distribution Revenues at Current Rates

#### 2019 Rates at 2020 Load

		Test Year Projected Revenue from Existing Variable Charges									
Customer Class Name	Variable Distribution Rate	per	Test Year Volume	Gross Variable Revenue	Transform. Allowance Rate	Transform. Allowance kW's	Transform. Allowance \$'s	Net Variable Revenue			
Residential R1	\$0.0553	kWh	103,931,742	\$5,743,200			\$0	\$5,743,200			
Residential R2	\$17.7530	kW	196,648	\$3,491,098	(\$0.60)	145,265	-\$87,159	\$3,403,939			
Seasonal	\$0.1494	kWh	5,439,365	\$812,795			\$0	\$812,795			
Street Lighting	\$0.3310	kWh	595,435	\$197,077			\$0	\$197,077			
Total Variable Revenue				\$10,244,170	-0.6	145,265	-\$87,159	\$10,157,011			

#### 2019 Rates at 2020 Load

	Total Test Year Projected Revenue from Existing Rates									
Customer Class Name	Fixed	Customers	Fixed Charge	Variable	TOTAL	% Fixed	% Variable	% Total		
Customer Class Name	Rate	(Connections)	Revenue	Revenue	TOTAL	Revenue	Revenue	Revenue		
Residential R1	\$102.45	9,113	\$11,203,468	\$5,743,200	\$16,946,668	66.1%	33.9%	71.5%		
Residential R2	\$803.26	37	\$359,367	\$3,403,939	\$3,763,306	9.5%	90.5%	15.9%		
Seasonal	\$54.75	2,960	\$1,944,978	\$812,795	\$2,757,773	70.5%	29.5%	11.6%		
Street Lighting	\$2.05	1,117	\$27,500	\$197,077	\$224,576	12.2%	87.8%	0.9%		
Total		13,227	\$13,535,312	\$10,157,011	\$23,692,323					

## 3 4

### **Table 2 – Test Year Distribution Revenues at Proposed Rates**

#### 2020 Rates at 2020 Load

2020 Rates at 2020 Load											
		Test Year Projected Revenue from Proposed Variable Charges									
	Variable		Test Year	Gross Gross		Transform.	Transform.	Net			
Customer Class Name	Distribution	per	Volume			Variable	Allowance	Allowance	Allowance	Variable	
	Rate			Revenue	Rate	kW's	\$'s	Revenue			
Residential R1	\$0.0639	kWh	103,931,742	\$6,641,238			\$0	\$6,641,238			
Residential R2	\$18.9827	kWh	196,648	\$3,732,912	(\$0.60)	145,265	-\$87,159	\$3,645,753			
Seasonal	\$0.1964	kW	5,439,365	\$1,068,291			\$0	\$1,068,291			
Street Lighting	\$0.3279	kWh	595,435	\$195,243			\$0	\$195,243			
Total Variable Revenue				\$11,637,684	-0.6	145,265	-\$87,159	\$11,550,525			

#### 2020 Rates at 2020 Load

		Total Test Year Projected Revenue from Proposed Rates Less Transformer Allance										
a . a	Fixed	Customers	Fixed Charge	Variable		% Fixed	% Variable	% Total				
Customer Class Name	Rate	(Connections)	Revenue	Revenue	TOTAL	Revenue	Revenue	Revenue				
Residential R1	\$108.56	9,113	\$11,871,486	\$6,641,238	\$18,512,724	64.1%	35.9%	71.5%				
Residential R2	\$1,112.25	37	\$497,606	\$3,645,753	\$4,143,358	12.0%	88.0%	16.0%				
Seasonal	\$54.75	2,960	\$1,944,842	\$1,068,291	\$3,013,133	64.5%	35.5%	11.6%				
Street Lighting	\$1.37	1,117	\$18,365	\$195,243	\$213,608	8.6%	91.4%	0.8%				
Total		13,227	\$14,332,298	\$11,550,525	\$25,882,824							

Base Revenue Requirement: Difference due to Rounding:

\$25,885,176 -\$2,352

-0.009%

#### 1 6.2.2 PROPOSED REVENUE REQUIREMENT

- 2 API's 2020 Service Revenue Requirement of \$25,937,065 represents the total revenue required
- 3 by API in order to continue distributing electricity safely and reliably. The Service Revenue
- 4 Requirement consists of OM&A expenses, costs related to capital investments (depreciation and
- 5 return on capital), as well as payment of both property taxes and income taxes.
- 6 The 2020 Base Revenue Requirement of \$25,885,176 is the basis for determining 2020
- 7 distribution rates and the 2020 RRRP funding amount, based on the cost allocation study
- 8 presented in Exhibit 7 and the rate design process presented in Exhibit 8. This amount is
- 9 calculated as the Service Revenue Requirement, less a Revenue Offset of \$51,889, being the net
- 10 revenue received from sources other than rates.
- 11 Table 3 below summarizes API's proposed 2020 Revenue Requirement, consistent with Sheet 9
- 12 of the RRWF.

**Table 3 - Test Year Revenue Requirement** 

	MIFRS
Particular	2020
OM&A Expenses	\$13,677,187
Depreciation Expense	\$4,043,341
Property Taxes	\$118,600
Total Distribution Expenses	\$17,839,128
Regulated Return On Capital	\$7,763,963
Grossed up Income Tax	\$333,974
Service Revenue	
Requirement	\$25,937,065
	_
Less: Revenue Offsets	-\$51,889
Base Revenue Requirement	\$25,885,176

#### 1 6.2.3 STATEMENT OF RATE BASE

- 2 Determination of API's 2020 rate base is required as a first step in determining the return on
- 3 capital amount of \$7,763,963 in Table 3 above. Table 4 summarizes the calculation of API's rate
- 4 base for the 2020 Test Year, consistent with the more detailed rate base calculations and
- 5 analysis contained in Exhibit 2:

**Table 4 – Calculation of 2020 Rate Base** 

Total Rate Base	\$119,873,438
Allowance for Working Capital	\$2,615,450
Net Fixed Assets (average)	\$117,257,988
Accumulated Depreciation (average)	(\$79,194,491)
Gross Fixed Assets (average)	\$196,452,479

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#### 6.2.4 ACTUAL UTILITY RETURN ON RATE BASE

- 9 Table 5 below summarizes the calculation of API's 2020 return on rate base, consistent with the
- 10 cost of capital parameters and capital structure presented in Exhibit 5:

### Table 5 – Calculation of Return on Rate Base

	Capitali	zation Ratio	Cost Rate	Return
	(%)	(\$)	(%)	(\$)
Debt				
Long-term Debt	56.00%	\$67,129,125	4.95%	\$3,322,892
Short-term Debt	4.00%	\$4,794,938	2.82%	\$135,217
<b>Total Debt</b>	60.00%	\$71,924,063	4.81%	\$3,458,109
Equity				
Common Equity	40.00%	\$47,949,375	8.98%	\$4,305,854
Preferred Shares	0.00%	\$ -	0.00%	\$ -
<b>Total Equity</b>	40.00%	\$47,949,375	8.98%	\$4,305,854
Total	100.00%	\$119,873,438	6.48%	\$7,763,963

- 1 Table 6 compares API's 2020 return on rate base, at both current approved rates, and proposed
- 2 rates. The amounts in Table 6 are consistent with the amounts in Sheet 8 of the RRWF and the
- difference of \$2,192,853 is equal to the revenue deficiency identified in Section 6.3 below.

### Table 6 – Return on Rate Base – Current vs. Proposed Rates

	At Current Rates	At Proposed Rates	Difference
Deemed Interest Expense	\$3,458,109	\$3,458,109	\$ -
Return on Deemed Equity	\$2,113,001	\$4,305,854	\$2,192,853
Total Return on Rate Base	\$5,571,110	\$7,763,963	\$2,192,853
Rate Base (from Table 4)	\$119,873,438	\$119,873,438	\$ -
Rate of Return on Rate Base	4.65%	6.48%	1.83%

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### 6.2.5 REQUESTED AND INDICATED RATE OF RETURN

- 7 The requested rate of return on rate base is 6.48%. Exhibit 5 provides detail on the
- 8 determination of this rate, consistent with API's cost of debt and the OEB prescribed cost of
- 9 capital parameters. As shown in Table 6 above, API's indicated rate of return (i.e. its rate of
- return on rate base at existing approved rates) is only 4.65%.

### 1 6.2.6 UTILITY INCOME AT PROPOSED REVENUE REQUIREMENT

- 2 The following table provides the calculation of API's 2020 net income at the proposed 2020
- 3 revenue requirement, consistent with Sheet 5 of the RRWF.

### Table 7 - Utility Income under proposed Revenue Requirement

<u>Operating Revenues:</u> Distribution Revenue (at Proposed Rates)	\$25,885,176
• • • • • • • • • • • • • • • • • • • •	\$51,889
Other Revenue	Ψ <b>J1,00</b> J
Total Operating Revenues	\$25,937,065
Operating Expenses:	
OM+A Expenses	\$13,677,187
Depreciation/Amortization	\$4,043,341
Property taxes	\$118,600
Capital taxes	\$ -
Other expense	\$-
Total Operating Expense	\$17,839,128
Deemed Interest Expense	\$3,458,109
Total Expenses	\$21,297,237
Utility income before income taxes	\$4,639,828
Income taxes (grossed-up)	\$333,974
Utility net income	\$4,305,854

### 1 6.2.7 REVENUE REQUIREMENT TREND

- 2 Table 8 below presents API's Revenue Requirement trend from the 2015 Board Approved to
- 3 2020 Test Year:

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#### **Table 8 - Trend in Revenue Requirement**

	CGAAP	NEWGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Particular	2015 Board Approved	2015	2016	2017	2018	2019	2020
OM&A Expenses	\$12,304,881	\$11,815,559	\$11,803,904	\$12,131,721	\$12,134,596	\$12,924,455	\$13,677,187
Depreciation Expense	\$3,899,209	\$3,136,802	\$3,326,205	\$3,438,399	\$3,600,160	\$3,796,858	\$4,043,341
Property Taxes	\$107,800	\$115,453	\$112,102	\$113,924	\$115,938	\$119,000	\$118,600
Total Distribution Expenses	\$16,311,890	\$15,067,814	\$15,242,211	\$15,684,044	\$15,850,694	\$16,840,313	\$17,839,128
Regulated Return On Capital	\$6,561,398	\$6,417,885	\$6,830,093	\$7,088,901	\$7,299,850	\$7,679,811	\$7,763,963
Grossed up Income Tax	\$409,653	\$581,009	\$440,903	\$475,362	\$560,067	\$196,748	\$333,974
Service Revenue Requirement	\$23,282,941	\$22,066,708	\$22,513,207	\$23,248,307	\$23,710,612	\$24,716,872	\$25,937,065
Less: Revenue Offsets	-\$466,758	\$68,748	\$144,840	\$434,381	\$164,157	\$189,388	-\$51,889
Base Revenue Requirement	\$22,816,183	\$22,135,456	\$22,658,047	\$23,682,688	\$23,874,769	\$24,906,260	\$25,885,176

- 6 Section 6.3.2 summarizes the drivers of the increase in API's revenue requirement between 2015
- 7 Board Approved and 2020 Test Year with respect to each of the above line items, with
- 8 references to sections of the Application where supporting evidence can be found.
- 9 Detailed year-over year variance analysis and/or cost driver analysis for certain line items can be
- also found in the following sections of the Application:
- OM&A Expenses Sections 4.2 and 4.3 of Exhibit 4
- Regulated Return on Capital Section 5.3 of Exhibit 5
- Revenue Offsets Section 3.4.2 of Exhibit 3
- Rate Base Section 2.1.3 of Exhibit 2

Algoma Power Inc. EB-2019-0019 Exhibit 6 – Revenue Requirement Page 10 of 16 May 17, 2019

### **6.3 REVENUE DEFICIENCY OR SURPLUS**

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#### 2 6.3.1 CALCULATION OF REVENUE DEFICIENCY OR SURPLUS

- 3 API's net revenue deficiency at current approved rates is \$2,192,853. This deficiency is
- 4 calculated as the difference between the 2020 Test Year Revenue Requirement and the forecast
- 5 Test Year revenue at API's 2019 approved distribution rates. As summarized in Section 6.2.1, API
- 6 has proposed 2020 rates that will reduce this revenue deficiency to \$0.
- 7 The detailed calculation of the 2020 revenue deficiency is provided in Table 9 on the following
- 8 page, which is consistent with Sheet 8 of the RRWF. The drivers of the change in revenue
- 9 requirement between 2015 Board approved and 2020 Test Year that result in a 2020 revenue
- deficiency are described in Section 6.3.2.

## Table 9 - Revenue Deficiency (RRWF)

	At Current Approved Rates	At Proposed Rates
Revenue Deficiency from Below	\$ -	\$2,983,473
Distribution Revenue	\$23,692,323	\$22,901,703
Other Operating Revenue Offsets - net	\$51,889	\$51,889
Total Revenue	\$23,744,213	\$25,937,065
Operating Expenses	\$17,839,128	\$17,839,128
Deemed Interest Expense	\$3,458,109	\$3,458,109
Total Cost and Expenses	\$21,297,237	\$21,297,237
Utility Income Before Income Taxes	\$2,446,975	\$4,639,828
Tax Adjustments to Accounting	(\$3,379,548)	(\$3,379,548
Income per 2013 PILs model		
Taxable Income	(\$932,573)	\$1,260,280
Income Tax Rate	26.50%	26.50%
Income Tax on Taxable Income	\$333,974	\$333,974
Income Tax Credits	\$ -	\$
Utility Net Income	\$2,113,001	\$4,305,854
Utility Rate Base	\$119,873,438	\$119,873,438
Deemed Equity Portion of Rate Base	\$47,949,375	\$47,949,375
Income/(Equity Portion of Rate Base)	4.41%	8.98%
Target Return - Equity on Rate Base	8.98%	8.98%
Deficiency/Sufficiency in Return on Equity	-4.57%	0.00%
Indicated Rate of Return	4.65%	6.48%
Requested Rate of Return on Rate Base	6.48%	6.48%
Deficiency/Sufficiency in Rate of Return	-1.83%	0.00%
Target Return on Equity	\$4,305,854	\$4,305,854
Revenue Deficiency/(Sufficiency)	\$2,192,853	\$
Gross Revenue Deficiency/(Sufficiency)	\$2,983,473	

#### 6.3.2 CAUSES OF REVENUE DEFICIENCY OR SURPLUS

- 2 Table 10, at the end of this section, shows that API is seeking approval for an increase to its base
- 3 revenue requirement of \$3,068,993 (13%) over the 2015 Board Approved amount, and provides
- 4 references to where detailed evidence in this and other Exhibits can be found in support of each
- 5 factor contributing to the change in revenue requirement.
- 6 The primary drivers of the change in revenue requirement are an increase in rate base, an
- 7 increase in OM&A and property tax expenses, and a decrease in other revenue offsets. An
- 8 increase in depreciation expense and a decrease in income taxes contribute to a lesser degree.
- 9 Each of these contributing factors is summarized below.

#### 10 Increase in Rate Base

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- 11 The 2020 return on rate base is forecasted to increase by \$1,202,565 (18%) compared to 2015
- Board Approved. This is primarily the result of an increase in rate base, partially offset by lower
- Working Capital Allowance and a lower rate of regulated return on rate base, as illustrated in
- Table 10. Between 2015 and 2020, API's average net fixed assets have increased by \$22,734,317,
- as a result of implementing the majority of projects and programs identified in its previous DSP.
- 16 Explanations of variances between the 2015-2019 DSP and actual/forecast 2015-2019 capital
- expenditures are provided in the 2020-2024 DSP submitted with this Application.

#### Increase in OM&A Expenses

- 19 2020 OM&A and property tax expenses are forecasted to increase by \$1,383,106 (11%)
- 20 compared to 2015 Board Approved. OEB Appendix 2-JB, included in Section 4.2.1 of Exhibit 4
- 21 identifies 19 distinct cost drivers between 2015 approved and 2020 forecasted OM&A expenses.
- Section 4.2.2 provides explanations for each of these cost drivers.

#### **Decrease in Other Revenue**

- 24 2020 other revenue offsets are forecasted to decrease by \$414,868 (89%) compared to 2015
- 25 Board Approved. As detailed in Section 2.1.3 of Exhibit 2, in accordance with Board Staff's
- 26 preference in EB-2014-0055 a shared IT charge reflected in OEB Account 4380 has been

Algoma Power Inc. EB-2019-0019 Exhibit 6 – Revenue Requirement Page 13 of 16 May 17, 2019

- 1 reflected in historical actuals, as well as the Bridge Year and Test Year forecasts. This charge
- 2 replaces the former practice of allocating capital costs to API, which is reflected in the 2015
- Board Approved amounts. The 2020 forecasted amount in Account 4380 is \$560,455. Absent
- 4 this change, other revenue offsets have increased slightly, primarily due to increased joint-use
- 5 revenue.

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### **Increase in Depreciation Expense**

- 7 2020 depreciation expense is forecasted to increase by \$144,132 (4%) compared to 2015 Board
- 8 Approved. This increase is a result of an increase in fixed assets, as described in the above
- 9 explanation related to the increase in rate base. It is also relevant to highlight that the 2015
- 10 Board Approved depreciation expense included \$350,286 related to the allocation of shared
- 11 assets IT assets as detailed in 2.1.3 of Exhibit 2, and the 2015 Board approved depreciation
- 12 expense did not include a vehicle depreciation credit of approximately \$258,000 as described in
- 13 Section 4.2.2 of Exhibit 4.

#### 14 Decrease in Income Tax

- 2020 income taxes are forecasted to decrease by \$75,679 (18%) compared to 2015 Board
- Approved. The decrease in income taxes is primarily the result of increased available deductions
- 17 related to capital cost allowance and beginning of year reserves from financial statements.
- 18 Section 4.9.2 of Exhibit 4provides additional detail on enhanced capital cost allowance
- 19 deductions.

## Table 10 – Differences in Revenue Requirement from 2015 Cost of Service

	MIFRS	MIFRS	Differenc	e	D-f
Driver	2015	2020	Absolute	%	Reference
Long Term Debt	5.15%	4.95%	-0.20%	-4%	5.2.2
Short Term Debt	2.16%	2.82%	0.66%	31%	5.2.2
Return on Equity	9.30%	8.98%	-0.32%	-3%	5.2.2
Weighted Debt Rate	4.95%	4.81%	-0.14%	-3%	5.2.2
Regulated Rate of Return on Rate Base	6.69%	6.48%	-0.21%	-3%	5.2
Controllable Expenses	\$12,412,681	\$13,795,787	\$1,383,106	11%	4.2
Power Supply Expense	\$23,068,924	\$21,076,879	-\$1,992,045	-9%	2.3.3
Working Capital Base	\$35,481,605	\$34,872,667	-\$608,938	-2%	2.3.1
Working Capital Allowance Rate	10.00%	7.50%	-2.50%	-25%	2.3.1
Working Capital Allowance ("WCA")	\$3,548,161	\$2,615,450	-\$932,710	- 26%	2.3.1
N.F. IA . O . T.V	to1 000 401	¢115 262 040	¢22.262.520	250/	244
Net Fixed Assets Opening Test Year	\$91,900,401	\$115,263,940	\$23,363,539	25%	2.1.1
Net Fixed Assets Closing Test Year	\$97,146,940	\$119,252,035	\$22,105,095	23%	2.1.1
Average Net Fixed Assets	\$94,523,671	\$117,257,988	\$22,734,317	24%	2.1.1
Working Capital Allowance	\$3,548,161	\$2,615,450	-\$932,710	-26%	2.3.1
Rate Base	\$98,071,831	\$119,873,438	\$21,801,607	22%	2.1.1
Deemed Interest Expense	\$2,913,126	\$3,458,109	\$544,983	19%	5.2.2
Deemed Return on Equity	\$3,648,272	\$4,305,854	\$657,582	18%	5.2.2
Regulated Return on Rate Base	\$6,561,398	\$ <b>7,763,963</b>	\$1,202,565	18%	5.2
Regulated Return on Rate base	\$0,301,330	\$7,703,303	<b>\$1,202,303</b>	1070	3.2
Regulated Return on Rate Base	\$6,561,398	\$7,763,963	\$1,202,565	18%	5.2
OM&A + Property Taxes	\$12,412,681	\$13,795,787	\$1,383,106	11%	4.2; 4.9.1
Depreciation Expense	\$3,899,209	\$4,043,341	\$144,132	4%	4.8
Income Taxes	\$409,653	\$333,974	-\$75,679	-18%	4.9.1
Revenue Offset	-\$466,758	-\$51,889	\$414,868	-89%	3.4
Base Revenue Requirement	\$22,816,183	\$25,885,176	\$3,068,993	13%	6.2.6

Algoma Power Inc. EB-2019-0019 Exhibit 6 – Revenue Requirement Page 15 of 16 May 17, 2019

#### 1 6.3.3 IMPACT OF CHANGE IN ACCOUNTING STANDARDS OR POLICIES

- 2 API has reported under the Accounting Standards for Private Enterprises accounting standard
- 3 since January 1, 2011. Previous to January 1, 2011, API reported in accordance with the
- 4 Canadian Generally Accepted Accounting Principles accounting standard. API adopted MIFRS
- 5 and confirms that it made the required changes to its capitalization policies and depreciation
- 6 rates in 2013. These changes were reflected and approved within API's last Cost of Service
- 7 proceeding, EB-2014-0055, and values presented within this application have also been reported
- 8 using this methodology. As such, there are no changes to accounting standards that impact the
- 9 change in revenue requirement.
- 10 Impacts of accounting changes with respect to shared IT services and vehicle depreciation are
- 11 addressed in Section 6.3.2 above.

Algoma Power Inc. EB-2019-0019 Exhibit 6 – Revenue Requirement Page 16 of 16 May 17, 2019

## **APPENDICES**

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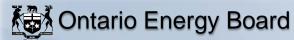
Appendix 6A	Revenue Requirement Work Form

## Appendix 6A

Algoma Power Inc.

2020 Cost of Service

EB-2019-0019





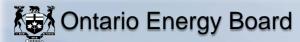
Version 8.00

Utility Name	Algoma Power Inc.	
Service Territory	Portions of Algoma District	
Assigned EB Number	EB-2019-0019	
Name and Title	Greg Beharriell - Manager, Regulatory Affairs	
Phone Number	905-871-0330 ext 3278	
Email Address	regulatoryaffairs@fortisontario.com	
Test Year	2020	
Bridge Year	2019	
Last Rebasing Year	r <u>2015</u>	

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.



1. Info 8. Rev Def Suff

2. Table of Contents 9. Rev\_Regt

3. Data\_Input\_Sheet 10. Load Forecast

4. Rate\_Base 11. Cost Allocation

5. Utility Income 12. Residential Rate Design

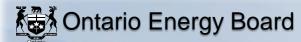
6. Taxes PILs 13. Rate Design and Revenue Reconciliation

7. Cost\_of\_Capital 14. Tracking Sheet

#### Notes:

(1	) Pale	green	cells i	represen <sup>.</sup>	t inputs
----	--------	-------	---------	-----------------------	----------

- 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.



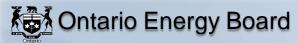
## Data Input (1)

	<u>-</u>	Initial Application	(2)			(6)	Per Board Decision	
1	Rate Base Gross Fixed Assets (average) Accumulated Depreciation (average)	\$196,452,479 (\$79,194,491)	(5)		196,452,479 (\$79,194,491)		\$196,452,479 (\$79,194,491)	
	Allowance for Working Capital: Controllable Expenses Cost of Power Working Capital Rate (%)	\$13,795,787 \$21,076,879 7.50%	(9)	\$ \$	13,795,787 21,076,879	(9)	\$13,795,787 \$21,076,879	(9)
2	Utility Income							
	Operating Revenues: Distribution Revenue at Current Rates Distribution Revenue at Proposed Rates	\$23,692,323 \$25,885,176						
	Other Revenue: Specific Service Charges Late Payment Charges Other Distribution Revenue Other Income and Deductions	\$69,366 \$33,000 \$484,978 (\$535,455)						
	Total Revenue Offsets	\$51,889	(7)					
	Operating Expenses: OM+A Expenses Depreciation/Amortization Property taxes Other expenses	\$13,677,187 \$4,043,341 \$118,600		\$ \$ \$	13,677,187 4,043,341 118,600		\$13,677,187 \$4,043,341 \$118,600	
3	Taxes/PILs Taxable Income:	(20.070.740)	(2)					
	Adjustments required to arrive at taxable income Utility Income Taxes and Rates:	(\$3,379,548)	(3)					
	Income taxes (not grossed up) Income taxes (grossed up) Federal tax (%) Provincial tax (%)	\$245,471 \$333,974 15.00% 11.50%						
4	Income Tax Credits  Capitalization/Cost of Capital	\$ -						
	Capital Structure:  Long-term debt Capitalization Ratio (%)  Short-term debt Capitalization Ratio (%)  Common Equity Capitalization Ratio (%)  Prefered Shares Capitalization Ratio (%)	56.0% 4.0% 40.0%	(8)			(8)		(8)
	Cost of Capital Long-term debt Cost Rate (%) Short-term debt Cost Rate (%) Common Equity Cost Rate (%) Prefered Shares Cost Rate (%)	4.95% 2.82% 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 (%)
- 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
- Net of addbacks and deductions to arrive at taxable income.
- (4) Average of Gross Fixed Assets at beginning and end of the Test Year
- Average of Accumulated Depreciation at the beginning and end of the Test Year. Enter as a negative amount.
- 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
- 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.



## **Rate Base and Working Capital**

#### **Rate Base**

	Nate Base						
Line No.	Particulars		Initial Application				Per Board Decision
1	Gross Fixed Assets (average)	(2)	\$196,452,479	\$ -	\$196,452,479	\$ -	\$196,452,479
2	Accumulated Depreciation (average)	(2)	(\$79,194,491)	\$ -	(\$79,194,491)	\$ -	(\$79,194,491)
3	Net Fixed Assets (average)	(2)	\$117,257,988	\$ -	\$117,257,988	\$ -	\$117,257,988
4	Allowance for Working Capital	(1)	\$2,615,450	(\$2,615,450)	\$ -	<u> </u>	\$ -
5	Total Rate Base		\$119,873,438	(\$2,615,450)	\$117,257,988	<u> </u>	\$117,257,988

## (1) Allowance for Working Capital - Derivation

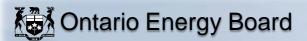
Controllable Expenses		\$13,795,787	\$ -	\$13,795,787	\$ -	\$13,795,787
Cost of Power		\$21,076,879	\$ -	\$21,076,879	\$ -	\$21,076,879
Working Capital Base		\$34,872,667	\$ -	\$34,872,667	\$ -	\$34,872,667
Working Capital Rate %	(1)	7.50%	-7.50%	0.00%	0.00%	0.00
Working Capital Allowance		\$2,615,450	(\$2,615,450)	\$ -	<del></del>	

#### **Notes**

10

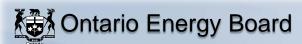
Some Applicants may have a unique rate as a result of a lead-lag study. The default rate for 2018 cost of service applications is 7.5%, per the letter issued by the Board on June 3, 2015.

Average of opening and closing balances for the year.



## **Utility Income**

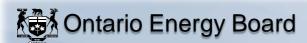
Line No.	Particulars	Initial Application				Per Board Decision						
1	Operating Revenues: Distribution Revenue (at	\$25,885,176	(\$25,885,176)	\$ -	\$ -	\$ -						
•	Proposed Rates)	Ψ20,000,170	(ψ20,000,170)	Ψ	Ψ	Ψ						
2	Other Revenue (1)	\$51,889	(\$51,889)	\$-	<u> </u>	\$ -						
3	Total Operating Revenues	\$25,937,065	(\$25,937,065)	\$-	\$ -	<u> </u>						
	Operating Expenses:											
4	OM+A Expenses	\$13,677,187	\$ -	\$13,677,187	\$ -	\$13,677,187						
5	Depreciation/Amortization	\$4,043,341	\$ -	\$4,043,341	\$ -	\$4,043,341						
6 7	Property taxes Capital taxes	\$118,600 \$ -	\$ - \$ -	\$118,600 \$ -	\$ - \$ -	\$118,600 \$ -						
8	Other expense	<u> </u>	\$ - \$ -	φ -	<u> </u>	Ψ-						
9	Subtotal (lines 4 to 8)	\$17,839,128	\$ -	\$17,839,128	\$ -	\$17,839,128						
10	Deemed Interest Expense	\$3,458,109	(\$3,458,109)	<u> </u>	<u> </u>	<u> </u>						
11	Total Expenses (lines 9 to 10)	\$21,297,237	(\$3,458,109)	\$17,839,128	\$ -	\$17,839,128						
12	Utility income before income taxes	\$4,639,828	(\$22,478,956)	(\$17,839,128)	<u> </u>	(\$17,839,128)						
13	Income taxes (grossed-up)	\$333,974	\$-	\$333,974	<u> </u>	\$333,974						
14	Utility net income	\$4,305,854	(\$22,478,956)	(\$18,173,102)	<u> </u>	(\$18,173,102)						
<u>Notes</u>	Notes Other Revenues / Revenue Offsets											
(1)	Specific Service Charges	\$69,366		\$ -		\$ -						
	Late Payment Charges	\$33,000		\$ -		\$ -						
	Other Distribution Revenue	\$484,978		\$ -		\$ -						
	Other Income and Deductions	(\$535,455)		<u> </u>		\$-						
	Total Revenue Offsets	\$51,889	<u> </u>	<u> </u>	<u> </u>	<u> </u>						



### Taxes/PILs

Line No.	Particulars	Application		Per Board Decision
	<b>Determination of Taxable Income</b>			
1	Utility net income before taxes	\$4,305,854	\$ -	\$ -
2	Adjustments required to arrive at taxable utility income	(\$3,379,548)	\$ -	\$ -
3	Taxable income	\$926,305	<u> </u>	<u> </u>
	Calculation of Utility income Taxes			
4	Income taxes	\$245,471	\$245,471	\$245,471
6	Total taxes	\$245,471	\$245,471	\$245,471
7	Gross-up of Income Taxes	\$88,503	\$88,503	\$88,503
8	Grossed-up Income Taxes	\$333,974	\$333,974	\$333,974
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	\$333,974	\$333,974	\$333,974
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



## **Capitalization/Cost of Capital**

Line No.	Particulars	Capitali	zation Ratio	Cost Rate	Return
		Initial /	Application		
	Debt	(%)	(\$)	(%)	(\$)
1 2	Long-term Debt Short-term Debt	56.00% 4.00%	\$67,129,125 \$4,794,938	4.95% 2.82%	\$3,322,892 \$135,217
3	Total Debt	60.00%	\$71,924,063	4.81%	\$3,458,109
	Equity	40.000/	<b>*</b> 4 <b>. .</b> 40. 0. <b>.</b>	0.000/	<b>* * * * * * * * * *</b>
4 5	Common Equity Preferred Shares	40.00% 0.00%	\$47,949,375 \$ -	8.98% 0.00%	\$4,305,854 \$ -
6	<b>Total Equity</b>	40.00%	\$47,949,375	8.98%	\$4,305,854
7	Total	100.00%	\$119,873,438	6.48%	\$7,763,963
		(%)	(\$)	(%)	(\$)
4	Debt Long-term Debt	0.00%	\$ -	0.00%	
1 2	Short-term Debt	0.00%	\$ -	0.00%	\$ - \$ - \$ -
3	Total Debt	0.00%	\$ -	0.00%	\$ -
4	Equity  Common Equity	0.00%	\$ -	0.00%	\$ -
5	Preferred Shares	0.00%	\$ -	0.00%	\$ -
6	Total Equity	0.00%	\$ -	0.00%	\$ -
7	Total	0.00%	\$117,257,988	0.00%	<u> </u>
		Per Boa	ard Decision		
		(%)	(\$)	(%)	(\$)
•	Debt Long-term Debt				
8 9	Short-term Debt	0.00% 0.00%	\$ - \$ -	4.95% 2.82%	\$ - \$ -
10	Total Debt	0.00%	\$ -	0.00%	\$ -
44	Equity	0.000/	Φ.	0.000/	Φ.
11 12	Common Equity Preferred Shares	0.00% 0.00%	\$ - \$ -	8.98% 0.00%	\$ - \$ -
13	Total Equity	0.00%	\$ -	0.00%	\$ -
14	Total	0.00%	\$117,257,988	0.00%	<u> </u>
<u>Notes</u>					



**Initial Application** 

-4.57%

4.65%

6.48%

-1.83%

\$4,305,854

\$2,192,853

\$2,983,473 (1)

## **Revenue Deficiency/Sufficiency**

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 3	Revenue Deficiency from Below Distribution Revenue Other Operating Revenue Offsets - net	\$23,692,323 \$51,889	\$2,983,473 \$22,901,703 \$51,889	\$23,692,323 \$ -	(\$7,071,672) \$32,956,848 \$ -	\$ - \$ -	\$24,270,923 (\$24,270,923) \$ -
4	Total Revenue	\$23,744,213	\$25,937,065	\$23,692,323	\$25,885,176	\$ -	\$ -
5 6 8	Operating Expenses Deemed Interest Expense Total Cost and Expenses	\$17,839,128 \$3,458,109 \$21,297,237	\$17,839,128 \$3,458,109 \$21,297,237	\$17,839,128 \$ - \$17,839,128	\$17,839,128 \$ - \$17,839,128	\$17,839,128 \$ - \$17,839,128	\$17,839,128 \$ - \$17,839,128
9	Utility Income Before Income Taxes	\$2,446,975	\$4,639,828	\$5,853,195	\$8,046,048	(\$17,839,128)	(\$17,839,128)
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$3,379,548)	(\$3,379,548)	(\$3,379,548)	(\$3,379,548)	\$ -	\$ -
11	Taxable Income	(\$932,573)	\$1,260,280	\$2,473,647	\$4,666,499	(\$17,839,128)	(\$17,839,128)
12 13	Income Tax Rate  Income Tax on Taxable Income	26.50% \$333,974	26.50% \$333,974	26.50% \$655,516	26.50% \$1,236,622	26.50% \$ -	26.50% \$ -
14	Income Tax On Taxable income Income Tax Credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Utility Net Income	\$2,113,001	\$4,305,854	\$5,197,679	(\$18,173,102)	(\$17,839,128)	(\$18,173,102)
16	Utility Rate Base	\$119,873,438	\$119,873,438	\$117,257,988	\$117,257,988	\$117,257,988	\$117,257,988
17	Deemed Equity Portion of Rate Base	\$47,949,375	\$47,949,375	\$ -	\$ -	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	4.41%	8.98%	0.00%	0.00%	0.00%	0.00%
19	Target Return - Equity on Rate	8.98%	8.98%	0.00%	0.00%	0.00%	0.00%

0.00%

6.48%

6.48%

0.00%

\$4,305,854

0.00%

4.43%

0.00%

4.43%

(\$5,197,679)

(\$7,071,672) (1)

0.00%

0.00%

0.00%

0.00%

\$ -

\$ -

0.00%

-15.21%

-15.21%

\$17,839,128

\$24,270,923 (1)

0.00%

0.00%

0.00%

0.00%

0.00%

\$ -

\$ -

**Per Board Decision** 

## Notes:

25

26

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

Deficiency/Sufficiency in Return

Indicated Rate of Return

Target Return on Equity

**Deficiency/(Sufficiency)** 

**Gross Revenue** 

Requested Rate of Return on

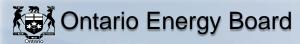
Deficiency/Sufficiency in Rate of

Revenue Deficiency/(Sufficiency)

on Equity

Rate Base

Return



## **Revenue Requirement**

Line No.	Particulars	Application				Per Board Decision
1	OM&A Expenses	\$13,677,187		\$13,677,187		\$13,677,187
2	Amortization/Depreciation	\$4,043,341		\$4,043,341		\$4,043,341
3	Property Taxes	\$118,600		\$118,600		\$118,600
5	Income Taxes (Grossed up)	\$333,974		\$333,974		\$333,974
-	• • • • • • • • • • • • • • • • • • • •	\$333,974 \$ -		<b>\$333,974</b>		\$333,974
6 7	Other Expenses Return	Φ-				
,	Deemed Interest Expense Return on Deemed Equity	\$3,458,109 \$4,305,854		\$ - \$ -		\$ - \$ -
8	Service Revenue Requirement					
	(before Revenues)	\$25,937,065	:	\$18,173,102		\$18,173,102
9	Revenue Offsets	\$51,889		\$-		\$-
10	Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	\$25,885,176		\$18,173,102		\$18,173,102
11	Distribution revenue	\$25,885,176		\$ -		\$ -
12	Other revenue	\$51,889		\$ -		\$ -
13	Total revenue	\$25,937,065		\$ -		<u> </u>
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	<u> </u>	(1)	(\$18,173,102)	(1)	(\$18,173,102) <sup>(1)</sup>

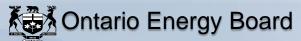
## Summary Table of Revenue Requirement and Revenue Deficiency/Sufficiency

	Application		Δ% <sup>(2)</sup>	Per Board Decision	Δ% (2)
Service Revenue Requirement Grossed-Up Revenue	\$25,937,065	\$18,173,102	(\$0)	\$18,173,102	(\$1)
Deficiency/(Sufficiency)	\$2,983,473	(\$7,071,672)	(\$3)	\$24,270,923	(\$1)
Base Revenue Requirement (to be					
recovered from Distribution Rates) Revenue Deficiency/(Sufficiency)	\$25,885,176	\$18,173,102	(\$0)	\$18,173,102	(\$1)
Associated with Base Revenue					
Requirement	\$2,192,853	\$ -	(\$1)	\$ -	(\$1)

### <u>Notes</u>

(1) Line 11 - Line 8

(2) Percentage Change Relative to Initial Application



## **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-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.

Initial Application

	Stage	in	Pr	OC	ess
--	-------	----	----	----	-----

olugo III i roccoo.					
Customer Class					
Input the name of each customer class.					
Residential					
R2 Seasonal Street Light					

	Initial Application							
Customer / Connections	kWh	kW/kVA <sup>(1)</sup>						
Test Year average or mid-year	Annual	Annual						
9,113 37 2,960 1,117	103,931,742 85,867,987 5,439,365 595,435	196,648						

Customer / Connections Test Year average or mid-year	<b>kWh</b> Annual	<b>kW/kVA</b> <sup>(1)</sup> Annual

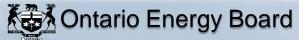
Pe	Per Board Decision							
Customer / Connections	kWh	kW/kVA <sup>(1)</sup>						
Test Year average or mid-year	Annual	Annual						

Total 195,834,528 196,648 - - - -

### Notes:

15

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



## **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		ocated from s Study <sup>(1)</sup>	%		llocated Class nue Requirement (1) (7A)	%
Residential R2 Seasonal Street Light  6 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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ \$ \$ \$	15,134,936 3,731,937 3,719,751 696,314	65.00% 16.03% 15.98% 2.99%	\$ \$ \$ \$	17,734,283 4,673,684 3,349,675 179,424	68.37% 18.02% 12.91% 0.69%
Total	\$	23,282,938	Service Revenue Requirement (from Sheet 9)	\$ \$	25,937,065 25,937,065.24	100.00%

- (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		Forecast (LF) X ent approved rates		F X current proved rates X (1+d)	LF 〉	( Proposed Rates	N	liscellaneous Revenues
		(7B)		(7C)		(7D)		(7E)
1 Residential 2 R2	\$ \$	16,946,668 3,763,306	\$ \$	18,515,174 4,111,620	\$ \$	18,515,174 4,143,355	\$ \$	29,966 16,609
3 Seasonal	\$	2,757,773	\$	3,013,020	\$	3,013,020	\$	3,633
4 Street Light 5 6 7 8 9 10 11 12 13 14	<b>\$</b>	224,576	\$	245,362	\$	213,627	\$	1,681
7   8   9   20   <b>Total</b>	\$	23,692,323	\$	25,885,176	\$	25,885,176	\$	51,889

<sup>(4)</sup> 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.

<sup>(5)</sup> Columns 7C and 7D - Column Total should equal the Base Revenue Requirement for each.

<sup>(6)</sup> 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.

<sup>(7)</sup> 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: 2015	(7C + 7E) / (7A)	(7D + 7E) / (7A)	
	%	%	%	%
Residential R2	105.07% 105.06%	104.57% 88.33%	104.57% 89.01%	85 - 115 80 - 120
3 Seasonal	85.00%	90.06%	90.06%	85 - 115
Street Light	42.79%	137.69%	120.00%	80 - 120
6 7 8 9 9 1 1 2 8 8 4 5 6 7 8				

<sup>(8)</sup> 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.

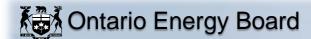
<sup>(9)</sup> Status Quo Ratios - The OEB-issued cost allocation model provides the Status Quo Ratios on Worksheet O-1. The Status Quo means "Before Rebalancing".

<sup>(10)</sup> 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	Propos	Proposed Revenue-to-Cost Ratio					
	Test Year	Price Cap IR F		Policy Range			
	2020	2021	2022				
Residential	104.57%	104.57%	104.57%	85 - 115			
R2	89.01%	89.01%	89.01%	80 - 120			
Seasonal	90.06%	90.06%	90.06%	85 - 115			
Street Light	120.00%	120.00%	120.00%	80 - 120			

<sup>(11)</sup> The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2019 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 2020 and 2021 Price Cap IR models, as necessary. For 2020 and 2021, enter the planned revenue-to-cost ratios that will be "Change" or "No Change" in 2018 (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'.



## **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		9,113				
kWh		103,931,742				
Proposed Residential Class Specific Revenue	\$	5,584,835.67				
Requirement <sup>1</sup>						

Residential Base Rates on Current Tariff										
Monthly Fixed Charge (\$)	\$	43.17								
Distribution Volumetric Rate (\$/kWh)	\$	0.0176								

### **B** Current Fixed/Variable Split

	Base Rates	Billing Determinants		% of Total Revenue	
Fixed	43.17	9,113	\$	4,720,818.28	72.07%
Variable	0.0176	103,931,742	\$	1,829,198.66	27.93%
TOTAL	-	-	\$	6,550,016.94	-

## C Calculating Test Year Base Rates

Number of Remaining Rate Design Policy	4
Transition Years <sup>2</sup>	4

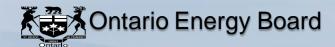
		rent F/V Split	Test Year Base Rates @ Current F/V Split	Reconciliation - Test Year Base Rates @ Current F/V Split		
Fixed	Ç	\$ 4,025,179.56	36.81	\$	4,025,325.94	
Variable	Ç	\$ 1,559,656.11	0.015	\$	1,558,976.13	
TOTAL		\$ 5.584.835.67	-	\$	5,584,302.07	

	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates		
Fixed	79.06%	\$ 4,415,093.59	\$ 40.37	\$ 4,414,626.68		
Variable	20.94%	\$ 1,169,742.08	\$ 0.0113	\$ 1,174,428.68		
TOTAL	-	\$ 5,584,835.67	-	\$ 5,589,055.37		

Checks <sup>3</sup>										
Change in Fixed Rate	\$	3.56								
Difference Between Revenues @ Proposed Rates		\$4,219.70								
and Class Specific Revenue Requirement		0.08%								

## 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).
- The distributor should enter the number of years remaining before the transition to fully fixed rates is completed. A distributor transitioning to fully fixed rates over a four year period and began the transition in 2016 would input the number "3" into cell D40. A distributor transitioning over a five-year period would input the number "4". Where the change in the residential rate design will result in the fixed charge increasing by more than \$4/year, a distributor may propose an additional transition year.
- <sup>3</sup> Change in fixed rate due to rate design policy should be less than \$4. The difference between the proposed class revenue requirement and the revenue at calculated base rates should be minimal (i.e. should be reasonably considered as a rounding error)



## Rate Design and Revenue Reconciliation

This sheet replaces Appendix 2-V, and provides a simplified model for calculating the standard monthly and voluemtric 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, 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 Rever	nues					Dis	tribution Rates		F	Revenue Reconciliation	on	
	Customer and Load Forecast			Customer and Load Forecast  From Sheet 11. Cost Allocation and Sheet 12. Residential Rate Design  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 Ser	vice Charge No. of decimals	Volumetric F	Rate No. of decimals	MSC Revenues	Volumetric revenues	Revenues less Transformer Ownership Allowance
1 Residential 2 R2 3 Seasonal 4 Street Light 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	kWh kWh kWh	9,113 37 2,960 1,117 - - - - - - - - - - - - - -	103,931,742 85,867,987 5,439,365 595,435 - - - - - - - - - - - - - - - - - - -	- 196,648	\$ 18,515,174 \$ 4,143,355 \$ 3,013,020 \$ 213,627	\$ 11,871,486 \$ 497,606 \$ 1,944,842 \$ 18,365	\$ 6,643,688 \$ 3,645,749 \$ 1,068,178 \$ 195,262	64.12% 12.01% 64.55% 8.60%	35.88% 87.99% 35.45% 91.40%	\$ 87,159	\$108.56 \$1,112.25 \$54.75 \$1.37	; ;	\$0.0639 /kWh \$18.9827 /kW \$0.1964 /kWh \$0.3279 /kWh	4	\$11,871,485.58 \$497,605.79 \$1,944,842.10 \$18,364.85 \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$-	\$ 6,641,238.3041 \$ 3,732,911.7350 \$ 1,068,291.2719 \$ 195,243.1739 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$18,512,723.88 \$4,143,358.36 \$3,013,133.38 \$213,608.02 \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$-
							7	Total Transformer Ow	nership Allowance	\$ 87,159					Total Distribution Re	evenues	\$25,882,823.64
Notes:													Rates recover revenue re	equirement	Base Revenue Requ Difference	irement	\$25,885,176.00 -\$ 2,352.36

% Difference

-0.009%

<sup>1</sup> Transformer Ownership Allowance is entered as a positive amount, and only for those classes to which it applies.

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).



## **Tracking Form**

The first row shown, labelled "Original Application", summarizes key statistics based on the data inputs into the RRWF. After the original 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

			Cost of	Capital	Rate Base and Capital Expenditures			Ope	erating Expense	es	Revenue Requirement			
R	Reference <sup>(1)</sup>	Item / Description <sup>(2)</sup>	Regulated Return on Capital	Regulated Rate of Return	Rate Base	Working Capital	Working Capital Allowance (\$)		Taxes/PILs	OM&A	Service Revenue Requirement	Other Revenues		•
		Original Application	\$ 7,763,963	6.48%	\$ 119,873,438	\$ 34,872,667	\$ 2,615,450	\$ 4,043,341	\$ 333,974	\$ 13,677,187	\$ 25,937,065	\$ 51,889	\$ 25,885,176	\$ 2,983,473