Exhibit 3:

Operating Revenue

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LIST OF ATTACHMENTS

3-A   Customer, Connection, Load Forecast & Revenue Data, Board Appendix 2-IB

3-B   Monthly Regression Data

3-C   CDM Load Forecast Adjustment Work Form, Board Appendix 2-I

3-D   Thunder Bay Hydro's 2015 – 2020 CDM Plans

3-E   Other Operating Revenue, Board Appendix 2-H

3.1 OVERVIEW

This Exhibit provides the details of Thunder Bay Hydro's operating revenues for 2013 Board Approved, 2013 Actual, 2014 Actual, 2015 Actual, 2016 Bridge Year and the 2017 Test Year. This Exhibit also provides a detailed variance analysis by rate classification for the operating revenue components. Distribution revenue excludes revenue from commodity sales.

Thunder Bay Hydro is proposing a total Service Revenue Requirement of $25,243,529 for the 2017 Test Year. This amount includes a Base Revenue Requirement of $23,996,075 plus Revenue Offsets of $1,247,451 as discussed in Section 3.3 below.

Other Revenue includes, but is not limited to, late payment charges, miscellaneous service revenues and retail service revenues. A summary of these operating revenues with an analysis of material variances is presented in Section 3.4.

3.2 LOAD AND REVENUE FORECASTS

3.2.1 INTRODUCTION

This exhibit presents supporting evidence detailing Thunder Bay Hydro's forecast of customers, energy

and load, service revenue and other revenue and variance analyses related to these items.

Thunder Bay Hydro has prepared a Load Forecast Model (the "Model") consistent with its understanding

of the Chapter 2 Filing Requirements for Electricity Distribution Rate Applications – 2016 Edition for 2017

Rate Applications issued on July 14, 2016. A copy of the Model has been filed in Live Excel format.

3.2.2 WEATHER NORMALIZED LOAD AND CUSTOMER/CONNECTION FORECAST

The purpose of this evidence is to present the process used by Thunder Bay Hydro to prepare the

weather normalized load and customer/connection forecast used to design the proposed 2017 electricity

distribution rates.

In summary, as a starting point Thunder Bay Hydro used the same regression analysis methodology

approved by the Ontario Energy Board (the "Board") in its 2013 Cost of Service ("COS") application (EB-

2012-0167) and updated the analysis for actual data to the end of the 2015. Thunder Bay Hydro has

conducted the regression analysis on an individual rate class basis. Thunder Bay Hydro estimated the

amount consumed in a month by rate class using a simple proration based on days in each month's read.

Based on the R square and Adjusted R square values shown in the following table, Thunder Bay Hydro

concluded using the equation resulting from the Residential, General Service < 50 kW and General

Service > 50 to 999 kW rate class regression analysis would provide a prediction formula that was as

good or better as the prediction equation from the power purchased method.

TABLE 3-1: R SQUARE AND ADJUSTMENT R SQUARE VALUES FOR INDIVIDUAL CLASS REGRESSION ANALYSIS

Line No.	Class	R Square	Adjusted R Square
1	Residential	95%	95%
2	General Service < 50 kW	95%	94%
3	General Service > 50 to 999 kW	97%	97%

The R square and Adjusted R square values for the power purchased method were 92% and 92%,

respectively.

1   With regards to the GS > 1000 kW class, the results of the regression analysis for this class are shown in

2   the following table.

3   **TABLE 3-2: GENERAL SERVICE > 1000 KW REGRESSION ANALYSIS RESULTS**

Line No.	Table 3-2: General Service > 1000 kW Regression Analysis Results		
1	R Square	43%	
2	Adjusted R Square	39%	
3	**Variable**	**Coefficients**	**t Stat**
4	Heating Degree Days	(123)	(0.21)
5	Cooling Degree Days	(8,503)	(0.61)
6	Number of Days in Month	650,501	3.20
7	Spring Fall Flag	170,011	0.50
8	CDM Activity	3	4.49
9	Ontario Real GDP Month	(217,015)	(4.57)
10	Number of Customers	(734,900)	(5.65)
11	Number of Peak Hours	3,980	0.43
12	Intercept	37,376,874	4.37

4

5   The above table outlines a low R square and Adjusted R square values but also shows a t Stat value for

6   Heating Degree Days and Cooling Degree Days less than the absolute value of two. This indicates these

7   variables are not statistically significant and would not be contributing variables to a prediction formula for

8   this class. It also suggests to Thunder Bay that the General Service > 1000 kW class is not weather

9   sensitive since Heating Degree Days and Cooling Degree Days, which are the typical weather related

10 variables, would not be contributing variables to a prediction formula.

11 Thunder Bay Hydro proposes to use a separate multi factor regression analysis for the Residential,

12 General Service < 50 kW and General Service > 50 to 999 kW rate classes since these classes are

13 weather sensitive. For all other classes which are not weather sensitive, the load forecast for these

14 classes will be the forecasted average usage per customer/connection applied to the forecasted number

15 of customer/connections for the class.

16 Based on the Board's approval of this methodology in Thunder Bay Hydro's previous cost of service

17 application as well as the discussion that follows, Thunder Bay Hydro submits the load forecasting

18 methodology is reasonable at this time for the purposes of this Application.

19 The following provides the material to support the weather normalized load forecast used by Thunder Bay

20 Hydro in this Application.

1   Table 3-3 below provides a summary of the weather normalized load and customer/connection forecast

2   used in this Application.

3   **TABLE 3-3: BILLED ENERGY AND NUMBER OF CUSTOMERS / CONNECTIONS BY RATE CLASS**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Total
1	Billed Energy (GWh) - Actual									
2	2006	345.0	141.6	299.2	216.2	25.1	9.9	0.1	1.9	1,039.0
3	2007	347.4	140.8	299.0	206.6	24.3	10.9	0.1	2.0	1,031.1
4	2008	349.6	140.9	297.5	181.5	23.0	10.8	0.1	2.0	1,005.5
5	2009	344.7	137.5	290.8	170.6	19.4	11.6	0.1	2.0	976.7
6	2010	335.6	132.8	285.0	153.3	24.0	11.2	0.1	1.9	944.0
7	2011	337.2	135.7	288.5	158.2	25.0	11.2	0.1	2.0	957.9
8	2012	331.1	133.7	283.5	161.3	27.2	11.1	0.1	2.0	950.0
9	2013	341.0	136.3	285.1	158.1	29.9	10.6	0.1	2.0	963.1
10	2014	340.0	139.3	280.0	162.8	30.4	10.3	0.1	2.1	965.1
11	2015	324.7	137.2	266.5	161.8	36.7	9.5	0.1	2.2	938.8
12	Billed Energy (GWh) - Weather Normal									
13	2006	348.8	142.7	301.2	216.2	25.1	9.9	0.1	1.9	1,045.9
14	2007	346.7	140.5	298.5	206.6	24.3	10.9	0.1	2.0	1,029.7
15	2008	345.5	139.8	295.3	181.5	23.0	10.8	0.1	2.0	998.0
16	2009	343.1	137.3	290.5	170.6	19.4	11.6	0.1	2.0	974.6
17	2010	340.9	134.3	288.0	153.3	24.0	11.2	0.1	1.9	953.9
18	2011	336.1	135.1	287.3	158.2	25.0	11.2	0.1	2.0	955.1
19	2012	337.2	135.4	286.9	161.3	27.2	11.1	0.1	2.0	961.3
20	2013	335.2	134.5	281.4	158.1	29.9	10.6	0.1	2.0	951.8
21	2013 Board Approved	339.7	131.4	288.4	183.5	0.0	11.2	0.1	2.0	956.4
22	2014	334.5	137.8	277.3	162.8	30.4	10.3	0.1	2.1	955.3
23	2015	328.2	138.3	268.8	161.8	36.7	9.5	0.1	2.2	945.6
24	2016 Bridge	337.2	137.9	266.6	140.3	36.7	8.8	0.1	2.2	929.8
25	2017 Test	336.2	140.1	264.2	133.4	36.7	8.2	0.1	2.2	921.1
26	Number of Customers/Connections									
27	2006	44,312	4,314	493	17	1	12,962	164	428	62,690
28	2007	44,389	4,273	501	18	1	12,976	153	435	62,745
29	2008	44,538	4,257	507	18	1	13,135	150	457	63,063
30	2009	44,614	4,265	506	20	1	13,039	158	459	63,061
31	2010	44,736	4,306	507	19	1	13,170	167	469	63,374
32	2011	44,901	4,340	506	18	1	13,091	148	470	63,474
33	2012	44,737	4,497	514	18	1	13,172	167	470	63,576
34	2013	44,942	4,528	512	20	1	13,095	171	466	63,735
35	2013 Board Approved	44,881	4,492	515	19	0	13,217	169	475	63,767
36	2014	45,106	4,578	495	20	1	13,148	172	462	63,983
37	2015	45,273	4,607	472	21	1	13,197	171	451	64,192
38	2016 Bridge	45,381	4,640	469	21	1	13,224	171	451	64,358
39	2017 Test	45,489	4,674	467	21	1	13,250	171	451	64,524

5   The information in the table above provides weather actual from 2006 to 2015 and weather normalized

6   data from 2006 to 2017 for Residential, General Service < 50 kW and General Service > 50 to 999 kW

7   classes. The weather normal values are the actual values adjusted by the weather normal conversion

8   factor outlined in Tables 3-10, 3-11 and 3-12. The weather conversion factor is determined consistent

9   with the approach outlined by Board Appendix 2-IB, which can be found in attachment 3-A to this Exhibit.

10   For all other rate classes the volumes have not been weather normalized since it has been previously

1 determined these classes are not weather sensitive. Total Customers and Connections are provided on

2 an average basis and streetlight, sentinel lights and unmetered loads are measured as connections.

3 ### 3.2.3 LOAD FORECAST AND METHODOLOGY

4 **Billed KWh Load Forecast- Residential, General Service < 50 kW and General Service >50 to 99 kW**

5 **Classes**

6 An equation to predict weather normalized billed energy for the Residential, General Service < 50 kW and

7 General Service > 50 to 999 kW classes is developed using a multifactor regression model with

8 independent variables that influences the monthly consumption in each class. The regression model

9 uses monthly kWh and monthly values of independent variables from January 2006 to December 2015 to

10 determine a prediction formula with coefficients for each independent variable. This provides 120

11 monthly data points which represent a reasonable data set for use in a regression analysis.

12 With regards to weather normalization, Thunder Bay Hydro submits that it is appropriate to review the

13 impact of weather over the past ten years January 2006 to December 2015 since it is consistent with the

14 time period used in the regression analysis and a time period outlined in the filing requirements. It is also

15 reflective of more recent weather conditions. The average weather conditions over this period are applied

16 in the prediction formula to determine a weather normalized forecast. In accordance with the filing

17 requirement, Thunder Bay Hydro has also provided sensitivity analysis showing the impact on the 2017

18 forecast. This analysis assumes weather normal conditions are based on a 20 year trend of weather data.

19 Weather impacts on load are apparent in both the winter heating season, and in the summer cooling

20 season. For that reason, both Heating Degree Days (i.e. a measure of coldness in winter) and Cooling

21 Degree Days (i.e. a measure of summer heat) are modeled.

22 ### 3.2.4 MULTIVARIATE REGRESSION MODEL

23 The following outlines the prediction model used by Thunder Bay Hydro to predict weather normal billed

24 values for Residential, General Service < 50 kW and General Service > 50 to 999 kW classes for 2016

25 and 2017:

26 Thunder Bay Hydro's Monthly Predicted Residential Billed kWh

27   = Heating Degree Days * 13,404

28   + Cooling Degree Days * 43,765

29   + Number of Days in the Month * 981,876

1   + Spring Fall Flag * (931,276)

2   + CDM Activity * (1.81)

3   + Constant of (6,449,696)

4   Thunder Bay Hydro's Monthly Predicted General Service < 50 kW Billed kWh

5   = Heating Degree Days * 4,374

6   + Cooling Degree Days * 20,876

7   + Number of Days in the Month * 281,964

8   + Spring Fall Flag * (515,557)

9   + CDM Activity * (1.53)

10   + Ontario Real GDP Monthly * 46,257

11   + Constant of (5,200,435)

12   Thunder Bay Hydro's Monthly Predicted General Service > 50 to 999 kW Billed kWh

13   = Heating Degree Days * 8,670

14   + Cooling Degree Days * 43,681

15   + Number of Days in the Month * 479,662

16   + Spring Fall Flag * (696,005)

17   + CDM Activity * (3.05)

18   + Number of Peak Hours * 8,161

19   + Constant of 3,506,624

20   The monthly data used in the regression model and the resulting monthly prediction for the actual and

21   forecasted years are provided in Attachment 3-B to this Exhibit.

22   The sources of data for the various data points are:

23   a) Environment Canada website for monthly heating degree day and cooling degree information.

24   Weather data from Thunder Bay Airport was used.

1 b) The calendar provided the months defined to be spring or fall (i.e. March to May and September to

2   November), the number of days in the month and provided the basis to determine the number of peak

3   hours in the month.

4 c) Ontario Real GDP monthly values were based on information provided in the following sources

5   • 2006: 2008 Ontario Economic Outlook and Fiscal Review, Ontario Ministry of Finance

6   • 2007 to 2008: 2010 Ontario Economic Outlook and Fiscal Review - 2010 Fall Update

7   • 2009: 2012 Ontario Economic Outlook and Fiscal Review - 2012 Fall Update

8   • 2010: 2013 Ontario Economic Outlook and Fiscal Review - 2013 Fall Update

9   • 2011: 2014 Ontario Economic Outlook and Fiscal Review - 2014 Fall Update

10   • 2012: 2015 Ontario Budget

11   • 2013 to 2017: 2016 Ontario Budget

12

13 3.2.5 CONSERVATION DEMAND MANAGEMENT ADJUSTMENTS

14 The Conservation & Demand Management ("CDM") activity variable has been determined for each class

15 and is an estimated level of monthly activity in CDM. For each year the monthly values for the class

16 specific CDM activity variable grow at a constant value over the year. In the first year in which a program

17 is initiated it is assumed that only one half of the full year results are achieved which is consistent with the

18 half year rule for first year programs assumed in the manual CDM adjustment discussed later on this

19 evidence. For all years following, the full year persistence data for each individual program is used in the

20 development of the CDM activity variable. The CDM variable is based on actual CDM results from 2006 to

21 2015. For the years 2006 to 2014, the actual results are based on the 2006-2010 Final CDM Results for

22 Thunder Bay Hydro and the 2011-2014 Final Results Report for Thunder Bay Hydro provided by the

23 Independent Electricity System Operator ("IESO"). For 2015, the CDM savings are based on the actual

24 results outlined in Thunder Bay Hydro's CDM 2015-2020 Plan by Rate Class dated April 2016. The

25 detailed calculations that support the development of the CDM activity variable are provided in the CDM

26 Activity tab of the live Excel 2017 Thunder Bay Hydro 2017 Load Forecast filed as part of this Application.

27 The table below summarizes the annual values used for the CDM activity variable by rate class. The

28 totals in the table below are equal to the sum of the monthly CDM activity values shown in Attachment 3-

29 B to this Exhibit. Additionally, the Load Forecast CDM Adjustment Work Form, Board Appendix 2-I can be

30 found in Attachment 3-C to this Exhibit.

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1   **TABLE 3-4: CDM RESULTS WITH PERSISTENCE**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW
1	2006	1,623,155	0	0
2	2007	4,646,181	0	0
3	2008	6,816,130	50,032	129,797
4	2009	8,262,416	713,364	1,205,416
5	2010	6,707,812	1,834,512	2,242,150
6	2011	7,261,362	2,578,640	2,174,586
7	2012	7,818,797	3,414,927	2,956,748
8	2013	8,253,039	4,753,896	4,629,625
9	2014	8,521,067	6,286,050	7,058,797
10	2015	8,395,775	7,461,236	8,999,332
11	2016 Bridge	8,364,042	7,728,686	9,645,633
12	2017 Test	7,581,503	7,084,504	9,645,633
13	Total	84,251,279	41,905,848	48,687,717

2

3   The rate class prediction formulas have the following statistical results:

4   **TABLE 3-5: STATISTICAL RESULTS**

Line No.	Statistic	Residential	General Service < 50 kW	General Service > 50 to 999 kW
1	R Square	95%	95%	97%
2	Adjusted R Square	95%	94%	97%
3	F Test	455.6	332.2	583.1
4	MAPE (Monthly)	2.6%	2.2%	1.6%
5	T-stats by Coefficient			
6	Heating Degree Days	39.1	36.4	46.9
7	Cooling Degree Days	5.3	7.2	9.8
8	Number of Days in Month	8.9	7.3	7.3
9	Spring Fall Flag	(4.5)	(7.1)	(6.3)
10	CDM Activity	(3.8)	(3.8)	(16.3)
11	Ontario Real GDP Monthly %		2.9	
12	Number of Peak Hours			2.7
13	Intercept	(1.9)	(2.2)	2.0

5

6

1 ### 3.2.6 RATE CLASS RESULTS

2 The annual results of the above prediction formula compared to the actual annual purchases from 2006 to

3 2015 are shown below in Table 3-6 for Residential; Table 3-7 for General Service < 50 kW and Table 3-8

4 for General Service > 50 to 999 kW. The predicted billed values for 2016 and 2017 on a weather normal

5 basis. In addition, weather normal values for 2017 are provided on a 20 year trend assumption for

6 weather normalization. Information is also provided to show the Weather Normal Conversion Factor which

7 is used to weather normalize actual volume data. The Predicted Weather Normal values are similar to the

8 Predicted amounts but the weather normalized heating degree days and cooling degree days used to

9 determine the weather normal forecast for 2016 and 2017 are used in the prediction formula in place of

10 actual heating degree days and cooling degree days. The ratio of Predicted Weather Normal to Predicted

11 values results in a Weather Normal Conversion Factor. This factor is applied to the Actual amount which

12 results in the Actual Weather Normal value.

13 #### TABLE 3-6: RESIDENTIAL BILLED

Line No	Year	Actual	Predicted	%Difference	Predicted Weather Normal	Weather Normal Conversion Factor	Actual Weather Normal
1	**Billed Energy (GWh)**						
2	2006	345.0	345.0	0.0%	348.8	1.0111	348.8
3	2007	347.4	344.0	(1.0%)	343.4	0.9982	346.7
4	2008	349.6	344.5	(1.5%)	340.5	0.9882	345.5
5	2009	344.7	338.5	(1.8%)	336.9	0.9952	343.1
6	2010	335.6	334.3	(0.4%)	339.7	1.0159	340.9
7	2011	337.2	339.8	0.8%	338.7	0.9967	336.1
8	2012	331.1	332.5	0.4%	338.6	1.0184	337.2
9	2013	341.0	342.7	0.5%	336.9	0.9829	335.2
10	2014	340.0	342.0	0.6%	336.4	0.9837	334.5
11	2015	324.7	333.0	2.6%	336.6	1.0108	328.2
12	2016 Bridge		337.7		337.7	1.0000	
13	2017 Test		338.1		338.1	1.0000	
14	2017 Test - 20 year trend		339.1				

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1   **TABLE 3-7: GENERAL SERVICE < 50 KW BILLED**

Line No.	Year	Actual	Predicted	% Difference	Predicted Weather Normal	Weather Normal Conversion Factor	Actual Weather Normal
1	**Billed Energy (GWh)**						
2	2006	141.6	137.2	(3.1%)	138.3	1.0076	142.7
3	2007	140.8	140.2	(0.4%)	139.9	0.9982	140.5
4	2008	140.9	141.6	0.5%	140.5	0.9919	139.8
5	2009	137.5	137.7	0.2%	137.5	0.9985	137.3
6	2010	132.8	134.5	1.3%	136.0	1.0115	134.3
7	2011	135.7	137.7	1.4%	137.1	0.9959	135.1
8	2012	133.7	136.0	1.7%	137.7	1.0131	135.4
9	2013	136.3	138.5	1.6%	136.6	0.9865	134.5
10	2014	139.3	137.4	(1.4%)	135.9	0.9895	137.8
11	2015	137.2	135.1	(1.5%)	136.3	1.0084	138.3
12	2016 Bridge		138.1		138.1	1.0000	
13	2017 Test		140.8		140.8	1.0000	
14	2017 Test - 20 year trend		141.2				

2

3   **TABLE 3-8: GENERAL SERVICE > 50 TO 999 BILLED**

Line No.	Year	Actual	Predicted	% Difference	Predicted Weather Normal	Weather Normal Conversion Factor	Actual Weather Normal
1	**Billed Energy (GWh)**						
2	2006	299.2	294.5	(1.6%)	296.4	1.0067	301.2
3	2007	299.0	297.1	(0.6%)	296.6	0.9982	298.5
4	2008	297.5	298.6	0.4%	296.4	0.9926	295.3
5	2009	290.8	292.9	0.7%	292.6	0.9990	290.5
6	2010	285.0	286.6	0.5%	289.6	1.0105	288.0
7	2011	288.5	291.1	0.9%	289.9	0.9959	287.3
8	2012	283.5	284.4	0.3%	287.9	1.0121	286.9
9	2013	285.1	286.0	0.3%	282.3	0.9871	281.4
10	2014	280.0	277.4	(1.0%)	274.6	0.9901	277.3
11	2015	266.5	266.7	0.1%	268.9	1.0084	268.8
12	2016 Bridge		267.5		267.5	1.0000	
13	2017 Test		266.8		266.8	1.0000	
14	2017 Test - 20 year trend		267.5				

4

5   The weather normalized amount for the 2017 test year is determined by using 2017 dependent variables

6   in the prediction formula on a monthly basis together with the average monthly heating degree days and

7   cooling degree days that occurred from January 2006 to December 2015. This amount has been used in

8   this Application for the purposes of determining a billed kWh load forecast which is used to design rates.

1 **3.2.7 CUSTOMER / CONNECTION FORECAST BY RATE CLASS**

2 The next step in the forecasting process is to determine a customer/connection forecast. The

3 customer/connection forecast is based on reviewing historical customer/connection data that is available

4 as shown in the following table.

5 **TABLE 3-9: HISTORICAL CUSTOMER / CONNECTION DATA**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Total
1	Number of Customers/Connections									
2	2006	44,312	4,314	493	17	1	12,962	164	428	62,690
3	2007	44,389	4,273	501	18	1	12,976	153	435	62,745
4	2008	44,538	4,257	507	18	1	13,135	150	457	63,063
5	2009	44,614	4,265	506	20	1	13,039	158	459	63,061
6	2010	44,736	4,306	507	19	1	13,170	167	469	63,374
7	2011	44,901	4,340	506	18	1	13,091	148	470	63,474
8	2012	44,737	4,497	514	18	1	13,172	167	470	63,576
9	2013	44,942	4,528	512	20	1	13,095	171	466	63,735
10	2014	45,106	4,578	495	20	1	13,148	172	462	63,983
11	2015	45,273	4,607	472	21	1	13,197	171	451	64,192

6

7 From the historical customer/connection data the growth rates in customers/ connections can be

8 evaluated. The growth rates are provided in the following table. The geometric mean growth rate in

9 number of customers is also provided. The geometric mean approach provides the average

10 compounding growth rate from 2006 to 2015.

11 **TABLE 3-10: GROWTH RATE IN CUSTOMER / CONNECTIONS**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load
1	Growth Rate in Customers/Connections								
2	2006								
3	2007	0.2%	(0.9%)	1.6%	3.9%	0.0%	0.1%	(6.7%)	1.6%
4	2008	0.3%	(0.4%)	1.3%	1.9%	0.0%	1.2%	(2.1%)	5.1%
5	2009	0.2%	0.2%	(0.2%)	11.6%	0.0%	(0.7%)	5.4%	0.3%
6	2010	0.3%	1.0%	0.1%	(5.8%)	0.0%	1.0%	5.6%	2.3%
7	2011	0.4%	0.8%	(0.2%)	(5.3%)	0.0%	(0.6%)	(11.5%)	0.2%
8	2012	(0.4%)	3.6%	1.5%	2.8%	0.0%	0.6%	13.3%	(0.1%)
9	2013	0.5%	0.7%	(0.4%)	9.0%	0.0%	(0.6%)	2.2%	(0.9%)
10	2014	0.4%	1.1%	(3.2%)	(1.6%)	0.0%	0.4%	0.7%	(0.6%)
11	2015	0.4%	0.6%	(4.8%)	5.8%	0.0%	0.4%	(0.7%)	(2.5%)
12	Geometric Mean	0.2%	0.7%	(0.5%)	2.3%	0.0%	0.2%	0.5%	0.6%

12

13 Except for the General Service > 1000 kW, Sentinel Lighting and Unmetered Scattered Load classes the

14 resulting geometric mean was first applied to the 2015 customer/connection numbers to determine the

15 forecast of customer/connections in 2016. Then the geometric mean was applied again to the 2016 value

16 to determine the 2017 forecast. For the General Service > 1000 kW, Sentinel Lighting and Unmetered

17 Scattered Load classes, the number of customers/connections is held consistent at the 2015 level since

1 Thunder Bay Hydro does expect growth in number of customers/connections for these classes. The

2 following table outlines the forecast of customers and connections by rate class.

3 **TABLE 3-11: CUSTOMER / CONNECTION FORECAST**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Total
1	Forecast Number of Customers/Connections									
2	2016 Bridge	45,381	4,640	469	21	1	13,224	171	451	64,358
3	2017 Test	45,489	4,674	467	21	1	13,250	171	451	64,524

5 ### 3.2.8 BILLED KWH LOAD FORECAST - NON WEATHER SENSITIVE CLASSES

6 For the purposes of this load forecast the non-weather sensitive classes include General Service > 1000

7 kW, Large User, Street Lighting, Sentinel Lighting and Unmetered Scattered Load. The first step in

8 determining the load forecast for these classes is to review the historical customer/connection usage and

9 use the historical data to forecast usage per customer. The following table provides the average annual

10 usage per customer for the non-weather sensitive rate classes from 2006 to 2015.

11 **TABLE 3-12: HISTORICAL ANNUAL USAGE PER CUSTOMER**

Line No.	Year	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load
1	Annual kWh Usage Per Customer/Connection					
2	2006	12,718,240	25,140,576	761	821	4,337
3	2007	11,696,750	24,278,928	841	821	4,670
4	2008	10,082,191	23,012,400	825	821	4,273
5	2009	8,495,881	19,364,352	889	821	4,307
6	2010	8,102,824	24,005,424	854	821	4,148
7	2011	8,827,216	25,023,840	859	821	4,194
8	2012	8,760,854	27,185,952	840	848	4,215
9	2013	7,870,343	29,930,112	806	848	4,280
10	2014	8,236,382	30,389,664	784	850	4,540
11	2015	7,738,944	36,734,784	722	660	4,886

13 For the 2016 and 2017 forecast usage per customer/connection have been held constant at the 2015

14 level. Thunder Bay Hydro was concerned with using the results of typical geometric mean analysis which

15 has been used in the past since it could cause double counting of CDM results. The resulting usage

16 forecast is as follows:

17

18

1   **TABLE 3-13: FORECAST ANNUAL KWH USAGE PER CUSTOMER / CONNECTION**

Line No.	Year	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load
1	Forecast Annual kWh Usage per Customers/Connection					
2	2016 Bridge	7,738,944	36,734,784	722	660	4,886
3	2017 Test	7,738,944	36,734,784	722	660	4,886

2

3   With the preceding information the billed energy forecast can be determined for non-weather sensitive
4   classes by applying the forecast numbers of customers/connections from Table 3-11 by the forecast of
5   annual usage per customer/connection from Table 3-13. The resulting billed energy forecast is shown in
6   the following table.

7   **TABLE 3-14: BILLED ENERGY FORECAST**

Line No.	Year	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Total
1	Billed Energy Forecast (GWh)						
2	2016 Bridge	161.8	36.7	9.6	0.1	2.2	210.4
3	2017 Test	161.8	36.7	9.6	0.1	2.2	210.4

8

9   With the completion of the above table the billed energy forecast for all rate classes has been determined
10   and is provided in the following table which is a combination of information from Tables 3-6, 3-7, 3-8 and
11   3-14.

12   **TABLE 3-15: BILLED ENERGY FORECAST (ALL CLASSES)**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Total
1	Billed Energy Forecast (GWh)									
2	2016 Bridge	337.7	138.1	267.5	161.8	36.7	9.6	0.1	2.2	953.6
3	2017 Test	338.1	140.8	266.8	161.8	36.7	9.6	0.1	2.2	956.1

13

14   In the next step a manual adjustment is made to reflect the impact of 2016 and 2017 CDM programs as
15   well as some noted 2015 programs. Thunder Bay Hydro has made this adjustment to reflect the "net"
16   impact of the CDM programs on the load forecast.

17   The following table outlines by rate class the expected full year CDM results from the Thunder Bay Hydro
18   CDM 2015-2020 Plan. A copy of the CDM 2015-2020 plan can be found in Attachment 3-D to this Exhibit

19

20

1   **TABLE 3-16: CDM FULL YEAR RESULTS – EXCLUDING PERSISTENCE**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Street Lighting	Total
1	**Billed Energy Forecast (GWh)**						
2	2015				14,616,759	966,000	15,582,759
3	2016 Bridge	949,700	440,906	1,701,194	13,685,000	615,000	17,391,800
4	2017 Test	1,968,600	518,585	1,791,815	200,000	615,000	5,094,000

3   The following outlines the CDM Manual Adjustment by rate class

4   **TABLE 3-17: CDM MANUAL ADJUSTMENTS**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Street Lighting	Total
1	**Billed Energy Forecast (GWh)**						
2	2016 Bridge	474,850	220,453	850,597	21,459,259	790,500	23,795,659
3	2017 Test	1,934,000	700,199	2,597,102	28,401,759	1,405,500	35,038,559

6   For the Residential, General Service < 50 kW and General Service > 50 to 999 kW classes the forecast
7   billed amount for 2016 and 2017 is based on a rate class regression analysis and the analysis used a
8   CDM activity variable in all cases. The CDM activity variable assumes the full year results up to the end of
9   2015 which suggests the 2015 full year results have been included in the forecast resulting from the
10   regression analysis and should not be included in the manual CDM adjustment for these classes. This
11   means using the half year rule for first year programs, the 2016 CDM manual adjustment for these
12   classes will be one half of the 2016 full year savings from 2016 programs. For 2017, the CDM manual
13   adjustment will be a full year for 2016 programs plus and one half of the full year savings from 2017
14   programs.

15   For the General Service > 1000 kW class, the 2015 savings did not occur until the very end of 2015 and
16   these savings were not included in the 2015 actual results which were used to forecast the billed amount
17   for this class. As a result, the CDM manual adjustment for 2016 will be the full year 2015 savings plus one
18   half of the 2016 results. For 2017, the CDM manual adjustment will be the full year 2015 and 2016
19   savings plus one half of the 2017 results.

20   For the Street Lighting class, the 2015 savings did occur over 2015 which suggest one half of the 2015
21   results were included in billed forecast for this class. This means the CDM manual adjustment for 2016
22   will be the one half of the 2015 savings plus one half of the 2016 results. For 2017, the CDM manual
23   adjustment will be the one half of 2015 savings plus a full year of 2016 savings plus one half of the 2017
24   results.

1 In accordance with the Guidelines for Electricity Distributor Conservation and Demand Management (EB-

2 2013-0003), issued April 26, 2013 ("CDM Guidelines"), it is Thunder Bay Hydro's understanding that as

3 part of this application expected CDM savings in 2017 from 2016 and 2017 programs will need to be

4 established for lost revenue adjustment mechanism ("LRAM") variance accounts purposes. Thunder Bay

5 Hydro also understands that the IESO will measure CDM results on a full year net basis. Consistent with

6 past practices, it is expected the full year net level of savings will be used for LRAM variance calculations.

7 As a result, it is Thunder Bay Hydro's view the units used for the LRAM variance account should also be

8 on a full year net basis. Based on the evidence provided above in regards to the CDM manual adjustment

9 the following equation is used to determine the rate class kWh assumed in the load forecast for LRAM

10 variance account purposes.

11 Rate class LRAMVA Threshold 2017 = Rate class 2016 Program savings + Rate class 2017 Program

12 savings. The conversion to kW for the General Service > 50 to 999 kW, General Service > 1000 kW and

13 Street Lighting classes uses the kW/kWh factor from Table 3-21.

14 **TABLE 3-18: 2013 EXPECTED SAVINGS FOR LRAM VARIANCE ACCOUNT**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Street Lighting	Total
1	**Billed Energy Forecast (GWh)**						
2	2017 Test - kWh	2,918,300	959,491	3,493,009	13,885,000	1,230,000	22,485,800
3	2017 Test - kW			8,730	39,408	3,500	51,637
4	2017 Test - kW			727	3,284	292	4,303

16 The following table outlines how the classes have been adjusted to adjust for CDM savings from 2016

17 and 2017 programs as well as applicable 2015 programs.

18 **TABLE 3-19: ADJUSTMENTS FOR CDM**

Line No.	Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Total
1	**Billed Energy Forecast (GWh)**									
2	2016 Bridge	337.7	138.1	267.5	161.8	36.7	9.6	0.1	2.2	953.6
3	2017 Test	338.1	140.8	266.8	161.8	36.7	9.6	0.1	2.2	956.1
4	**CDM Adjustment (GWh)**									
5	2016 Bridge	(0.5)	(0.2)	(0.9)	(21.5)	0.0	(0.8)	0.0	0.0	(23.8)
6	2017 Test	(1.9)	(0.7)	(2.6)	(28.4)	0.0	(1.4)	0.0	0.0	(35.0)
7	**CDM Adjusted Billed Energy Forecast (GWh)**									
8	2016 Bridge	337.2	137.9	266.6	140.3	36.7	8.8	0.1	2.2	929.8
9	2017 Test	336.2	140.1	264.2	133.4	36.7	8.2	0.1	2.2	921.1

20 ## 3.2.9 BILLED KW LOAD FORECAST

21 There are five classes shown in Table 3-19 that charge volumetric distribution on per kW basis. As a

22 result, the energy forecast for these classes needs to be converted to a kW basis for rate setting

1   purposes. The forecast of kW for these classes is based on a review of the historical ratio of kW to kWhs

2   and applying the average ratio to the forecasted kWh to produce the required kW.

3   Table 3-20 below outlines the annual demand units by applicable rate class on actual and weather normal

4   basis. Since the General Service > 50 to 999 kW class is the only class below that is weather sensitive it

5   is the only class that has weather normal values. These values are actual values adjusted by the weather

6   normal conversion factor outlined in Table 3-8.

7   **TABLE 3-20: HISTORICAL ANNUAL KW PER APPLICABLE RATE CLASS**

Line No.	Year	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Total	General Service > 50 to 999 kW
1	Billed Annual kW							
2				Actual				Wthr Normal
3	2006	715,592	620,479	54,956	30,657	1,421,684	2,843,368	720,412
4	2007	728,767	570,492	55,550	30,889	1,385,697	2,771,394	727,477
5	2008	747,849	515,510	56,573	31,499	1,351,431	2,702,863	742,303
6	2009	719,276	478,302	51,987	31,053	1,280,618	2,561,236	718,555
7	2010	723,295	460,380	56,577	31,562	1,271,813	2,543,625	730,881
8	2011	732,497	446,719	57,852	31,850	1,268,918	2,537,836	729,469
9	2012	734,173	455,363	61,728	30,859	1,282,124	2,564,247	743,053
10	2013	722,899	450,516	59,516	29,850	1,262,782	2,525,564	713,587
11	2014	690,827	448,319	63,790	29,217	1,232,152	2,464,304	684,006
12	2015	668,163	461,434	74,268	27,043	1,230,908	2,461,815	673,752

8

9   The following table illustrates the historical ratio of kW/kWh as well as the average ratio for 2006 to 2016.

10   **TABLE 3-21: HISTORICAL KW / KWH RATION PER APPLICABLE RATE CLASS**

Line No.	Year	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting
1	Ratio of kW to kWh					
2	2006	0.2392%	0.2870%	0.2186%	0.3108%	0.2778%
3	2007	0.2437%	0.2761%	0.2288%	0.2832%	0.2778%
4	2008	0.2513%	0.2841%	0.2458%	0.2907%	0.2778%
5	2009	0.2473%	0.2803%	0.2685%	0.2679%	0.2778%
6	2010	0.2537%	0.3004%	0.2357%	0.2808%	0.2778%
7	2011	0.2539%	0.2825%	0.2312%	0.2832%	0.2778%
8	2012	0.2590%	0.2822%	0.2271%	0.2789%	0.2688%
9	2013	0.2536%	0.2850%	0.1989%	0.2828%	0.2688%
10	2014	0.2467%	0.2754%	0.2099%	0.2834%	0.2682%
11	2015	0.2507%	0.2852%	0.2022%	0.2837%	0.2728%
12	Average 2006 to 2015	0.2499%	0.2838%	0.2267%	0.2845%	0.2745%
13	Used	0.2499%	0.2838%	0.2022%	0.2845%	0.2728%

11

1   For the General Service > 50 to 999 kW, General Service > 1000 kW and Street Lighting classes the

2   average ratio was applied to the billed energy forecast in Table 3-19 to provide the forecast of kW by rate

3   class as shown below. For the Large User and Sentinel Lighting classes the 2015 ratio was used since

4   the 2015 kWh has been held constant as the kWh forecast for these two classes in 2016 and 2017. The

5   following table outlines the forecast of kW for the applicable rate classes.

6   **TABLE 3-22: kW FORECAST BY APPLICABLE RATE CLASS**

Line No.	Year	General Service > 50 to 999 kW	General Service > 1000 kW	Large User	Street Lighting	Sentinel Lighting	Total
1	**Predicted Billed kW**						
2	2016 Bridge	666,275	398,233	74,268	24,931	308	1,164,015
3	2017 Test	660,386	378,529	74,268	23,236	308	1,136,726

8   Table 3-23 provides a summary of the billing determinants by rate class that is used to develop the

9   proposed rates.

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1 **TABLE 3-23: SUMMARY OF FORECAST**

Line No		2011 Actual	2012 Actual	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Bridge	2017 Test
1	**Purchases**								
2	Total Billed Before CDM Adjustments	957,941,351	950,013,126		963,120,843	965,070,093	938,758,818	953,603,240	956,147,769
3	CDM Adjustment							23,795,659	35,038,559
4	Total Billed After Adjustments	957,941,351	950,013,126		963,120,843	965,070,093	938,758,818	929,807,581	921,109,210
5									
6	**Billing Determinants**								
7	Residential								
8	Customers	44,901	44,737	44,881	44,942	45,106	45,273	45,381	45,489
9	kWh	337,212,307	331,142,425	339,721,062	341,035,889	340,024,796	324,673,269	337,179,805	336,152,125
10									
11	General Service < 50 kW								
12	Customers	4,340	4,497	4,492	4,528	4,578	4,607	4,640	4,674
13	kWh	135,688,687	133,678,840	131,404,394	136,331,186	139,285,836	137,179,401	137,899,250	140,123,695
14									
15	General Service > 50 to 999 kW								
16	Customers	506	514	515	512	495	472	469	467
17	kWh	288,525,140	283,475,241	288,398,369	285,068,374	280,037,460	266,548,348	266,601,418	264,244,674
18	kW	732,497	734,173	783,589	722,899	690,827	668,163	666,275	660,386
19									
20	General Service > 1000 kW								
21	Customers	18	18	19	20	20	21	21	21
22	kWh	158,154,293	161,345,729	183,532,884	158,062,714	162,775,283	161,772,954	140,313,695	133,371,195
23	kW	446,719	455,363	568,917	450,516	448,319	461,434	398,233	378,529
24									
25	Large User								
26	Customers	1	1		1	1	1	1	1
27	kWh	25,023,840	27,185,952		29,930,112	30,389,664	36,734,784	36,734,784	36,734,784
28	kW	57,852	61,728		59,516	63,790	74,268	74,268	74,268
29									
30	Street Lighting								
31	Connections	13,091	13,172	13,217	13,095	13,148	13,197	13,224	13,250
32	kWh	11,244,632	11,062,692	11,183,615	10,555,414	10,310,975	9,533,361	8,761,929	8,166,036
33	kW	31,850	30,859	31,502	29,850	29,217	27,043	24,931	23,236
34									
35	Sentinel Lighting								
36	Connections	148	167	169	171	172	171	171	171
37	kWh	121,136	141,784	122,483	144,894	146,313	112,765	112,765	112,765
38	kW	336	381	340	390	392	308	308	308
39									
40	Unmetered Scattered Load								
41	Connections	470	470	475	466	462	451	451	451
42	kWh	1,971,315	1,980,463	2,024,907	1,992,260	2,099,765	2,203,935	2,203,935	2,203,935
43									
44	Total								
45	Customer/Connections	63,474	63,576	63,767	63,735	63,983	64,192	64,358	64,524
46	kWh	957,941,351	950,013,126	956,387,714	963,120,843	965,070,093	938,758,818	929,807,581	921,109,210
47	kW from applicable classes	1,269,254	1,282,505	1,384,348	1,263,172	1,232,544	1,231,215	1,164,015	1,136,726

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1 ## 3.3 ACCURACY OF LOAD FORECAST AND VARIANCE ANALYSIS

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3 ### 3.3.1 OVERVIEW

4 Thunder Bay Hydro has provided customer/connections count in average format. The following provides

5 year-over-year variances in customer/connection count.

6 The following discussion provides a variance analysis on Thunder Bay Hydro's distribution revenue and

7 billing determinants.

8 ### 3.3.2 DISTRIBUTION REVENUE VARIANCE ANALYSIS

9 The variance analysis will compare 2011 Actual to 2012 Actual; 2012 Actual to 2013 Actual; 2013 Board

10 Approved to 2013 Actual; 2013 Actual to 2014 Actual; 2014 Actual to 2015 Actual; 2015 Actual to 2016

11 Bridge and 2016 Bridge Year to 2017 Test Year. The billing determinant variance analysis is based on

12 data outlined in Table 3-23. The overall variance analysis has been provided based on Thunder Bay

13 Hydro's materiality threshold of $119,000; the materiality calculation being noted earlier in Exhibit 1 of this

14 Application.

15 ## 2011 Actual vs 2012 Actual

16 **TABLE 3-24: 2011 ACTUAL TO 2012 ACTUAL DISTRIBUTION REVENUE**

17

Line No.	Customer Class	2011 Actual	2012 Actual	Difference $	Difference %
1	Residential	$10,049,583	$12,936,350	$2,886,767	28.73%
2	General Service < 50 kW	$2,796,072	$3,326,127	$530,055	18.96%
3	General Service > 50 to 999 kW	$2,462,351	$2,391,885	($70,466)	-2.86%
4	General Service > 1000 kW	$1,322,661	$1,420,705	$98,044	7.41%
5	Large User	$0	$0	$0	0.00%
6	Street Lighting	$719,257	$694,798	($24,459)	-3.40%
7	Sentinel Lighting	$14,923	$13,457	($1,466)	-9.82%
8	Unmetered Scattered Load	$126,649	$96,852	($29,797)	-23.53%
9	**Total**	**$17,491,496**	**$20,880,174**	**$3,388,678**	**19.37%**

18

19 The reason for the variance between 2011 Actual vs 2012 Actual is due to $1.37M for Smart Meter

20 Incremental Revenue Requirement ("SMIRR") approved in EB-2012-0015 (pro-rated for rates collected

21 over 10 months effective July 1, 2012); recognition of $2.86M life-to-date (2006 to April 2012) smart

22 meter rate adder and a one-time distribution revenue increase of $900K in recognition of previously

23 expensed interest on smart meter associated debt offset by a one-time distribution revenue increase of

24 $764K (PILs disposition) in 2011. The Residential and General Service under 50kW are the classes

25 impacted by the Smart Meter transactions. The variances in the other customer classes are immaterial.

1 **TABLE 3-25: COMPARISON OF 2011 ACTUAL TO 2012 ACTUAL**

Line No.	Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
1	Weather Normal Conversion Factor				Res	0.9967	1.0184					
2					GS < 50	0.9959	1.0131					
3					GS >50	0.9959	1.0121					
4		2011 Actual	2012 Actual		2011 Actual	2012 Actual	2011 Actual	2012 Actual	2011 Actual	2012 Actual	2011 Actual	2012 Actual
5	Residential	44,901	44,737	kWh	337,212,307	331,142,425	336,105,863	337,238,408	7,510	7,402	7,486	7,538
6	General Service < 50 kW	4,340	4,497	kWh	135,688,687	133,678,840	135,125,951	135,423,714	31,267	29,727	31,137	30,115
7	General Service > 50 to 999 kW	506	514	kW	732,497	734,173	729,469	743,053	1,448	1,430	1,442	1,447
8	General Service > 1000 kW	18	18	kW	446,719	455,363			24,933	24,726		
9	Large User	1	1	kW	57,852	61,728			57,852	61,728		
10	Street Lighting	13,091	13,172	kW	31,850	30,859			2	2		
11	Sentinel Lighting	148	167	kW	336	381			2	2		
12	Unmetered Scattered Load	470	470	kWh	1,971,315	1,980,463			4,194	4,215		
13	Total	63,474	63,576									
14		Variance			Variance		Variance		Variance		Variance	
15	Residential	(164)		kWh	(6,069,882)		1,132,545		(108)		53	
16	General Service < 50 kW	157		kWh	(2,009,847)		297,763		(1,540)		(1,023)	
17	General Service > 50 to 999 kW	8		kW	1,676		13,584		(19)		5	
18	General Service > 1000 kW	1		kW	8,644				(208)			
19	Large User	0		kW	3,877				3,877			
20	Street Lighting	81		kW	(991)				(0)			
21	Sentinel Lighting	20		kW	45				0			
22	Unmetered Scattered Load	(0)		kWh	9,147				22			

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4 Fluctuations in customer counts are a result of many factors including the averaging of counts over a 12

5 month period, account reclassifications, businesses closing, the timing of customers opening and closing

6 accounts, moves, etc. The count variance year over year is immaterial. The variances in the kWh/kW

7 units are immaterial.

8 **2012 Actual vs 2013 Actual**

9 **TABLE 3-26: 2012 ACTUAL TO 2013 ACTUAL DISTRIBUTION REVENUE**

Line No.	Customer Class	2012 Actual	2013 Actual	Difference $	Difference %
1	Residential	$12,936,350	$9,976,817	($2,959,533)	-22.88%
2	General Service < 50 kW	$3,326,127	$3,452,031.58	$125,905	3.79%
3	General Service > 50 to 999 kW	$2,391,885	$2,756,485	$364,600	15.24%
4	General Service > 1000 kW	$1,420,705	$1,485,927	$65,222	4.59%
5	Large User	$0	$0	$0	0.00%
6	Street Lighting	$694,798	$488,549	($206,249)	-29.68%
7	Sentinel Lighting	$13,457	$14,806	$1,349	10.03%
8	Unmetered Scattered Load	$96,852	$54,017	($42,835)	-44.23%
9	**Total**	**$20,880,174**	**$18,228,633**	**($2,651,541)**	**-12.70%**

10

11 As explained for the 2011 Actual to 2012 Actual above, the variance is related to the one-time smart

12 meter distribution revenues in 2012 offset by the SMIRR for the Residential and General Service < 50 kW

13 classes. Additionally, fiscal 2013 rates reflect a prorated share (8.23%) of the 12.35% increase approved

14 in Thunder Bay Hydro Board Approved 2013 rates. The variance for the Street Lighting class is a result

15 of the Cost Allocation change for this class due to a definition of number of connections as approved in

16 Thunder Bay Hydro's last rebasing application (EB-2012-0167).

1 **TABLE 3-27: COMPARISON OF 2012 ACTUAL TO 2013 ACTUAL**

Line No.	Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather	
1	Weather Normal Conversion Factor				Res	1.0184	0.9829					
2					GS < 50	1.0131	0.9865					
3					GS >50	1.0121	0.9871					
4		2012 Actual	2013 Actual		2012 Actual	2013 Actual	2012 Actual	2013 Actual	2012 Actual	2013 Actual	2012 Actual	2013 Actual
5	Residential	44,737	44,942	kWh	331,142,425	341,035,889	337,238,408	346,981,445	7,402	7,588	7,538	7,721
6	General Service < 50 kW	4,497	4,528	kWh	133,678,840	136,331,186	135,423,714	138,194,680	29,727	30,110	30,115	30,522
7	General Service > 50 to 999 kW	514	512	kW	734,173	722,899	743,053	732,333	1,430	1,413	1,447	1,432
8	General Service > 1000 kW	18	20	kW	455,363	450,516			24,726	22,432		
9	Large User	1	1	kW	61,728	59,516			61,728	59,516		
10	Street Lighting	13,172	13,095	kW	30,859	29,850			2	2		
11	Sentinel Lighting	167	171	kW	381	390			2	2		
12	Unmetered Scattered Load	470	466	kWh	1,980,463	1,992,260			4,215	4,280		
13	Total	63,576	63,735									
14		Variance			Variance		Variance		Variance		Variance	
15	Residential	206		kWh	9,893,464		9,743,037		186		182	
16	General Service < 50 kW	31		kWh	2,652,345		2,770,966		383		407	
17	General Service > 50 to 999 kW	(2)		kW	(11,274)		(10,720)		(17)		(16)	
18	General Service > 1000 kW	2		kW	(4,847)				(2,293)			
19	Large User	0		kW	(2,212)				(2,212)			
20	Street Lighting	(77)		kW	(1,008)				(0)			
21	Sentinel Lighting	4		kW	8				0			
22	Unmetered Scattered Load	(4)		kWh	11,797				65			

3 Fluctuations in customer counts are a result of many factors including the averaging of counts over a 12
4 month period, account reclassifications, businesses closing, the timing of customers opening and closing
5 accounts, moves, etc. The count variance year over year is immaterial. The increase above the 1.47%
6 purchased consumption variance from 2012 to 2013 for the residential class is immaterial. The variances
7 in the kWh/kW units for the remainder of the classes are immaterial.

8 ## 2013 Board Approved vs 2013 Actual

9 **TABLE 3-28: 2013 BOARD APPROVED TO 2013 ACTUAL DISTRIBUTION REVENUE**

Line No.	Customer Class	2013 Board Approved	2013 Actual	Difference $	Difference %
1	Residential	$10,942,756	$9,976,817	($965,939)	-8.83%
2	General Service < 50 kW	$3,159,862	$3,452,032	$292,170	9.25%
3	General Service > 50 to 999 kW	$3,083,973	$2,756,485	($327,488)	-10.62%
4	General Service > 1000 kW	$1,563,699	$1,485,927	($77,772)	-4.97%
5	Large User	$0	$0	$0	0.00%
6	Street Lighting	$386,561	$488,549	$101,988	26.38%
7	Sentinel Lighting	$15,288	$14,806	($482)	-3.15%
8	Unmetered Scattered Load	$58,473	$54,017	($4,456)	-7.62%
9	Total	$19,210,612	$18,228,633	($981,979)	-5.11%

11 Actual 2013 rates reflect only a prorated share (8.23%) of the 12.35% increase approved in Thunder Bay
12 Hydro Board Approved 2013 COS as rates are effective May 1st.   Additionally, Thunder Bay Hydro's
13 distribution rates were decreased by the Smart Meter Disposition Rider ("SMDR") payable to the
14 Residential customer class offset partially by the SMIRR that continued to be collected from January to
15 April. Both the SMDR and SMIRR continued to be collectable from the General Service <50 kW class
16 from January to April. After taking into account the impact of the Smart Meter Initiative transactions, the

1 variances from the 2013 Board Approved and the 2013 actual results for the Residential and General

2 Service < 50 kW class are immaterial. The General Service > 50 to 999 kW class did not achieve the

3 forecasted volumes and as such, the distribution revenues for this class are approximately $130,000

4 lower than expected.

5 The change in year over year distribution revenue in each of the other classes is immaterial.

6 **TABLE 3-29: COMPARISON OF 2013 BOARD APPROVED TO 2013 ACTUAL**

Line No.	Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
1	Weather Normal Conversion Factor				Res	1.0000	0.9829					
2					GS < 50	1.0000	0.9865					
3					GS >50	1.0000	0.9871					
4		2013 Board Approved	2013 Actual		2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual
5	Residential	44,881	44,942	kWh	339,721,062	341,035,889	339,721,062	346,981,445	7,569	7,588	7,569	7,721
6	General Service < 50 kW	4,492	4,528	kWh	131,404,394	136,331,186	131,404,394	138,194,680	29,255	30,110	29,255	30,522
7	General Service > 50 to 999 kW	515	512	kW	783,589	722,899	783,589	732,333	1,522	1,413	1,522	1,432
8	General Service > 1000 kW	19	20	kW	568,917	450,516			29,943	22,432		
9	Large User	0	1	kW	0	59,516				59,516		
10	Street Lighting	13,217	13,095	kW	31,502	29,850			2	2		
11	Sentinel Lighting	169	171	kW	340	390			2	2		
12	Unmetered Scattered Load	475	466	kWh	1,992,260	1,992,260			4,191	4,280		
13	Total	63,767	63,735									
14		Variance			Variance		Variance		Variance		Variance	
15	Residential	61		kWh	1,314,827		7,260,383		19		151	
16	General Service < 50 kW	36		kWh	4,926,792		6,790,286		855		1,267	
17	General Service > 50 to 999 kW	(3)		kW	(60,690)		(51,256)		(109)		(90)	
18	General Service > 1000 kW	1		kW	(118,401)				(7,511)			
19	Large User	1		kW	59,516				59,516			
20	Street Lighting	(121)		kW	(1,652)				(0)			
21	Sentinel Lighting	2		kW	49				0			
22	Unmetered Scattered Load	(10)		kWh	0				88			

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9 Fluctuations in customer counts are a result of many factors including the averaging of counts over a 12

10 month period, account reclassifications, businesses closing, the timing of customers opening and closing

11 accounts, moves, etc. The count variance year over year is immaterial. The variances in the kWh/kW

12 units are immaterial with the exception of the General Service > 50 to 999 kW class and the General

13 Service >1000 to 4999 class. Both of these classes did not meet the demand forecasted in the 2013

14 COS; however, were very similar to the 2012 units (the variance between the units for these classes from

15 2012 to 2013 is immaterial).

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1 **2013 Actual vs 2014 Actual**

2 **TABLE 3-30: 2013 ACTUAL TO 2014 ACTUAL DISTRIBUTION REVENUE**

Line No.	Customer Class	2013 Actual	2014 Actual	Difference $	Difference %
1	Residential	$9,976,817	$10,735,426	$758,608	7.60%
2	General Service < 50 kW	$3,452,032	$3,397,791	($54,241)	-1.57%
3	General Service > 50 to 999 kW	$2,756,485	$2,903,420	$2,903,420	0.00%
4	General Service > 1000 kW	$1,485,927	$1,548,554	$62,627	4.21%
5	Large User	$0	$0	$0	0.00%
6	Street Lighting	$488,549	$375,338	($113,211)	-23.17%
7	Sentinel Lighting	$14,806	$14,795	($11)	-0.08%
8	Unmetered Scattered Load	$54,017	$57,521	$3,504	6.49%
9	**Total**	**$18,228,633**	**$19,032,844**	**$3,560,696**	**19.53%**

3

4 The full impact of the 12.35% increase (or decrease for the Streetlight class) approved in Thunder Bay
5 Hydro Board Approved 2013 COS (EB-2012-0167) will be reflected in the 2014 revenues. As explained
6 above, the distribution revenue for the Residential class and the General Service < 50 kW class continue
7 to be impacted by the SMDR reduction (ceased April 30, 2014) and offset by the SMIRR increase
8 (ceased April 30, 2013). Given such, distribution revenue changes are immaterial by individual class as
9 shown in Table 3.30(a) below:

10 **TABLE 3-30(A): DISTRIBUTION REVENUE 2013 ACTUAL TO 2014 ACTUAL (ADJUSTED)**

Line No.	Customer Class	2013 Actual	2013 COS Increase (4/12)	2014 IRM Increase (8/12)	2014 SMDR	2013 SMDR	2013 SMIRR	2014 Forecasted	2014 Actual	Difference $	Difference %
1	Residential	$9,976,817	$475,093	$96,433	($339,951)	$860,048	($398,743)	$10,669,697	$10,735,426	$65,728	0.97%
2	General Service < 50 kW	$3,452,032	$163,343	$32,818	$90,906	($231,751)	($146,908)	$3,360,440	$3,397,791	$37,351	0.95%
3	General Service > 50 to 999 kW	$2,756,485	$198,307	$26,646				$2,981,438	$2,903,420	($78,018)	0.97%
4	General Service > 1000 kW	$1,485,927	($4,447)	$14,364				$1,495,844	$1,548,554	$52,710	0.97%
5	Large User	$0	$0	$0				$0	$0	$0	0.00%
6	Street Lighting	$488,549	($122,489)	$4,723				$370,783	$375,338	$4,555	0.97%
7	Sentinel Lighting	$14,806	$196	$143				$15,145	$14,795	($350)	0.97%
8	Unmetered Scattered Load	$54,017	($6,224)	$551				$48,344	$57,521	$9,177	1.02%
9	**Total**	**$18,228,633**	**$703,779**	**$175,678**	**($249,045)**	**$628,297**	**($545,651)**	**$18,941,691**	**$19,032,844**	**$91,153**	**0.96%**

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12 **TABLE 3-31: COMPARISON OF 2013 ACTUAL TO 2014 ACTUAL**

Line No.	Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather	
1					Res	0.9829	0.9837					
2	Weather Normal Conversion Factor				GS < 50	0.9865	0.9895					
3					GS >50	0.9871	0.9901					
4		2013 Actual	2014 Actual		2013 Actual	2014 Actual	2013 Actual	2014 Actual	2013 Actual	2014 Actual	2013 Actual	2014 Actual
5	Residential	44,942	45,106	kWh	341,035,889	340,024,796	335,192,210	345,651,175	7,588	7,538	7,458	7,663
6	General Service < 50 kW	4,528	4,578	kWh	136,331,186	139,285,836	134,492,820	140,768,120	30,110	30,426	29,704	30,750
7	General Service > 50 to 999 kW	512	495	kW	722,899	690,827	713,587	697,715	1,413	1,395	1,395	1,409
8	General Service > 1000 kW	20	20	kW	450,516	448,319			22,432	22,685		
9	Large User	1	1	kW	59,516	63,790			59,516	63,790		
10	Street Lighting	13,095	13,148	kW	29,850	29,217			2	2		
11	Sentinel Lighting	171	172	kW	390	392			2	2		
12	Unmetered Scattered Load	466	462	kWh	1,992,260	2,099,765			4,280	4,540		
13	Total	63,735	63,983									
14		Variance			Variance		Variance		Variance		Variance	
15	Residential	164		kWh	(1,011,093)		10,458,966		(50)		205	
16	General Service < 50 kW	50		kWh	2,954,650		6,275,301		316		1,045	
17	General Service > 50 to 999 kW	(16)		kW	(32,073)		(15,872)		(18)		14	
18	General Service > 1000 kW	(0)		kW	(2,197)				252			
19	Large User	0		kW	4,273				4,273			
20	Street Lighting	53		kW	(634)				(0)			
21	Sentinel Lighting	1		kW	3				0			
22	Unmetered Scattered Load	(3)		kWh	107,505				260			

13

1 Fluctuations in customer counts are a result of many factors including the averaging of counts over a 12

2 month period, account reclassifications, businesses closing, the timing of customers opening and closing

3 accounts, moves, etc. The count variance year over year is immaterial. The variances in the kW/kWh

4 units are immaterial.

5 2014 Actual vs 2015 Actual

6 **TABLE 3-32: 2014 ACTUAL TO 2015 ACTUAL DISTRIBUTION REVENUE**

Line No.	Customer Class	2014 Actual	2015 Actual	Difference $	Difference %
1	Residential	$10,735,426	$11,137,150	$401,724	3.74%
2	General Service < 50 kW	$3,397,791	$3,351,785	($46,006)	-1.35%
3	General Service > 50 to 999 kW	$2,903,420	$2,815,104	($88,316)	-3.04%
4	General Service > 1000 kW	$1,548,554	$1,625,551	$76,997	4.97%
5	Large User	$0	$0	$0	0.00%
6	Street Lighting	$375,338	$365,813	($9,525)	-2.54%
7	Sentinel Lighting	$14,795	$14,365	($430)	-2.91%
8	Unmetered Scattered Load	$57,521	$59,144	$1,623	2.82%
9	**Total**	**$19,032,844**	**$19,368,912**	**$336,068**	**1.77%**

8 As shown in Table 3-30(A) above, the 2014 distribution revenues for the Residential class were reduced

9 by the SMDR for the period January to April 2014. This increase of $340K plus the IRM rate increase

10 explain the variance noted above. The variances in all other classes are immaterial.

11 **TABLE 3-33: COMPARISON OF 2014 ACTUAL TO 2015 ACTUAL**

Line No.	Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather	
1	Weather Normal Conversion Factor				Res	0.9837	1.0108					
2					GS < 50	0.9895	1.0084					
3					GS >50	0.9901	1.0084					
4		2014 Actual	2015 Actual		2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual
5	Residential	45,106	45,273	kWh	340,024,796	324,673,269	334,490,001	321,200,075	7,538	7,172	7,416	7,095
6	General Service < 50 kW	4,578	4,607	kWh	139,285,836	137,179,401	137,819,160	136,038,926	30,426	29,779	30,105	29,532
7	General Service > 50 to 999 kW	495	472	kW	690,827	668,163	684,006	662,620	1,395	1,417	1,381	1,405
8	General Service > 1000 kW	20	21	kW	448,319	461,434			22,685	22,074		
9	Large User	1	1	kW	63,790	74,268			63,790	74,268		
10	Street Lighting	13,148	13,197	kW	29,217	27,043			2	2		
11	Sentinel Lighting	172	171	kW	392	308			2	2		
12	Unmetered Scattered Load	462	451	kWh	2,099,765	2,203,935			4,540	4,886		
13	Total	63,983	64,192									
14		Variance			Variance		Variance		Variance		Variance	
15	Residential	166		kWh	(15,351,527)		(13,289,926)		(367)		(321)	
16	General Service < 50 kW	29		kWh	(2,106,434)		(1,780,234)		(646)		(573)	
17	General Service > 50 to 999 kW	(24)		kW	(22,664)		(21,386)		22		24	
18	General Service > 1000 kW	1		kW	13,115				(611)			
19	Large User	0		kW	10,478				10,478			
20	Street Lighting	49		kW	(2,174)				(0)			
21	Sentinel Lighting	(1)		kW	(85)				(0)			
22	Unmetered Scattered Load	(11)		kWh	104,169				346			

14 Fluctuations in customer counts are a result of many factors including the averaging of counts over a 12

15 month period, account reclassifications, businesses closing, the timing of customers opening and closing

16 accounts, moves, etc. The count variance year over year is immaterial. The consumption for the

17 residential class has decreased by 15M kWh or 4.5% from 2014. This is consistent with Thunder Bay

1 Hydro's purchased consumption reduction of 2.6%. Conservation contributes to this decline in

2 consumption as well. The variance in the units for all other classes is immaterial.

3 2015 Actual vs 2016 Bridge

4 **TABLE 3-34: 2015 ACTUAL TO 2016 BRIDGE YEAR DISTRIBUTION REVENUE**

Line No.	Customer Class	2015 Actual	2016 Bridge	Difference $	Difference %
1	Residential	$11,137,150	$11,485,547	$348,397	3.13%
2	General Service < 50 kW	$3,351,785	$3,423,332	$71,547	2.13%
3	General Service > 50 to 999 kW	$2,815,104	$2,865,206	$50,102	1.78%
4	General Service > 1000 kW	$1,625,551	$1,642,678	$17,127	1.05%
5	Large User	$0	$0	$0	0.00%
6	Street Lighting	$365,813	$356,548	($9,265)	-2.53%
7	Sentinel Lighting	$14,365	$15,454	$1,089	7.58%
8	Unmetered Scattered Load	$59,144	$60,883	$1,739	2.94%
9	Total	$19,368,912	$19,849,648	$480,736	2.48%

6 The increase in the Residential class distribution revenue is a result of the load forecast methodology

7 which in simple terms uses a 10 year average and given that the 2015 consumption was significantly

8 lower than the 10 year average, the result is higher revenue for 2016 compared to 2015. Additionally, the

9 IRM rate increases are contributing to the upward variance. The variances in all other customer classes

10 are immaterial.

11 **TABLE 3-35: COMPARISON OF 2015 ACTUAL TO 2016 BRIDGE YEAR**

Line No.	Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather	
1						Res	1.0108	1.0000				
2	Weather Normal Conversion Factor					GS < 50	1.0084	1.0000				
3						GS >50	1.0084	1.0000				
4		2015 Actual	2016 Bridge		2015 Actual	2016 Bridge	2015 Actual	2016 Bridge	2015 Actual	2016 Bridge	2015 Actual	2016 Bridge
5	Residential	45,273	45,381	kWh	324,673,269	337,179,805	328,184,020	337,179,805	7,172	7,430	7,249	7,430
6	General Service < 50 kW	4,607	4,640	kWh	137,179,401	137,899,250	138,329,438	137,899,250	29,779	29,718	30,029	29,718
7	General Service > 50 to 999 kW	472	469	kW	668,163	666,275	673,752	666,275	1,417	1,420	1,429	1,420
8	General Service > 1000 kW	21	21	kW	461,434	398,233			22,074	19,051		
9	Large User	1	1	kW	74,268	74,268			74,268	74,268		
10	Street Lighting	13,197	13,224	kW	27,043	24,931			2	2		
11	Sentinel Lighting	171	171	kW	308	308			2	2		
12	Unmetered Scattered Load	451	451	kWh	2,203,935	2,203,935			4,886	4,886		
13	Total	64,192	64,358									
14		Variance			Variance		Variance		Variance		Variance	
15	Residential	108		kWh	12,506,535		8,995,785		259		181	
16	General Service < 50 kW	34		kWh	719,849		(430,188)		(61)		(311)	
17	General Service > 50 to 999 kW	(2)		kW	(1,887)		(7,476)		3		(9)	
18	General Service > 1000 kW	0		kW	(63,201)				(3,023)			
19	Large User	0		kW	0				0			
20	Street Lighting	26		kW	(2,112)				(0)			
21	Sentinel Lighting	0		kW	0				0			
22	Unmetered Scattered Load	0		kWh	0				0			

13 Fluctuations in customer counts are a result of many factors including the averaging of counts over a 12

14 month period, account reclassifications, businesses closing, the timing of customers opening and closing

15 accounts, moves, etc. The count variance year over year is immaterial. The consumption for the

16 residential class has increased by 12.5M kWh or 3.8% from 2015. 2015 was significantly below the

17 historical average which is used in the forecasting model and as such, the rise in 2016 is the expected

1   result.   The significant decline in the General Service > 1000 to 4999 is a result of conservation resulting

2   from combined heat and power generation; one customer's project was completed in December 2015

3   and the second customer's project in March 2016. The kW/kWh unit variances for the remaining classes

4   are immaterial.

5   2016 Bridge vs 2017 Test

6   **TABLE 3-36: 2016 BRIDGE YEAR TO 2017 TEST YEAR DISTRIBUTION REVENUE**

Line No.	Customer Class	2016 Bridge	2017 Test	Difference $	Difference %
1	Residential	$11,485,547	$14,008,168	$2,522,621	21.96%
2	General Service < 50 kW	$3,423,332	$4,214,693.68	$791,362	23.12%
3	General Service > 50 to 999 kW	$2,865,206	$3,400,688	$535,482	18.69%
4	General Service > 1000 kW	$1,642,678	$1,662,384	$19,706	1.20%
5	Large User	$0	$265,843	$265,843	0.00%
6	Street Lighting	$356,548	$351,323	($5,225)	-1.47%
7	Sentinel Lighting	$15,454	$19,348	$3,894	25.20%
8	Unmetered Scattered Load	$60,883	$73,626	$12,743	20.93%
9	**Total**	**$19,849,648**	**$23,996,075**	**$4,146,427**	**20.89%**

8   The increase in all customer classes are a result of the increases sought with this COS application. A

9   customer that was previously in the General Service > 1000 to 4999 kWh class has been moved to a

10 Large Use class.

11 **TABLE 3-37: COMPARISON OF 2016 BRIDGE YEAR TO 2017 TEST year**

Line No.	Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather	
1					Res	1.0000	1.0000					
2	Weather Normal Conversion Factor				GS < 50	1.0000	1.0000					
3					GS >50	1.0000	1.0000					
4		2016 Bridge	2017 Test		2016 Bridge	2017 Test	2016 Bridge	2017 Test	2016 Bridge	2017 Test	2016 Bridge	2017 Test
5	Residential	45,381	45,489	kWh	337,179,805	336,152,125	337,179,805	336,152,125	7,430	7,390	7,430	7,390
6	General Service < 50 kW	4,640	4,674	kWh	137,899,250	140,123,695	137,899,250	140,123,695	29,718	29,978	29,718	29,978
7	General Service > 50 to 999 kW	469	467	kW	666,275	660,386	666,275	660,386	1,420	1,414	1,420	1,414
8	General Service > 1000 kW	21	21	kW	398,233	378,529			19,051	18,108		
9	Large User	1	1	kW	74,268	74,268			74,268	74,268		
10	Street Lighting	13,224	13,250	kW	24,931	23,236			2	2		
11	Sentinel Lighting	171	171	kW	308	308			2	2		
12	Unmetered Scattered Load	451	451	kWh	2,203,935	2,203,935			4,886	4,886		
13	Total	64,358	64,524									
14		Variance			Variance		Variance		Variance		Variance	
15	Residential	108		kWh	(1,027,680)		(1,027,680)		(40)		(40)	
16	General Service < 50 kW	34		kWh	2,224,445		2,224,445		260		260	
17	General Service > 50 to 999 kW	(2)		kW	(5,890)		(5,890)		(6)		(6)	
18	General Service > 1000 kW	0		kW	(19,704)				(943)			
19	Large User	0		kW	0				0			
20	Street Lighting	26		kW	(1,696)				(0)			
21	Sentinel Lighting	0		kW	0				0			
22	Unmetered Scattered Load	0		kWh	0				0			

13 Fluctuations in customer counts are a result of many factors including the averaging of counts over a 12

14 month period, account reclassifications, businesses closing, the timing of customers opening and closing

15 accounts, moves, etc. The count variance year over year is immaterial. The variances in the kW/kWh

16 units are immaterial.

3.3.3 2016 & 2017 DISTRIBUTION REVENUE AT EXISTING RATES

Table 3-38 below summarized distribution revenue at existing rates.

TABLE 3-38: DISTRIBUTION REVENUE AT EXISTING RATES

Line No.	Class	Annual kWh	Annual kW For Dx	Annualized Customers	Annualized Connections	Fixed Distribution Revenue	Variable Distribution Revenue	Transformer Allowance	Dist. Rev. Excluding Transformer
1	Residential	336,152,125	0	545,866	0	8,319,001	3,260,676	0	11,579,677
2	General Service < 50 kW	140,123,695	0	56,090	0	1,522,292	1,961,732	0	3,484,024
3	General Service > 50 to 999 kW	264,244,674	660,386	5,605	0	1,144,828	1,716,540	($60,227)	2,801,141
4	General Service > 1000 kW	133,371,195	378,529	251	0	733,014	873,910	($221,666)	1,385,257
5	Large User	36,734,784	74,268	12	0	35,066	171,462	($44,561)	161,968
6	Street Lighting	8,166,036	23,236	0	159,001	184,441	162,690	$0	347,131
7	Unmetered Scattered Load	2,203,935	0	0	5,413	38,162	22,701	$0	60,862
8	Sentinel Lighting	112,765	308	0	2,051	14,276	1,718	$0	15,994
9	TOTAL	921,109,210	1,136,726	607,825	166,465	11,991,080	8,171,428	($326,454)	19,836,054

3.3.4 2017 DISTRIBUTION REVENUE AT PROPOSED RATES

Table 3-39 below summarized distribution revenue at proposed rates.

TABLE 3-39: DISTRIBUTION REVENUE AT PROPOSED RATES

Line No.	Customer Class	Annual kWh	Annual kW For Dx	Annualized Customers	Annualized Connections	Fixed Distribution Revenue	Variable Distribution Revenue	Transformer Allowance Credit	Total Distribution Revenue	Expected
1	Residential	336,152,125	0	545,866	0	$ 11,375,852	$ 2,621,987	$0	$ 13,997,838	$ 14,008,168
2	General Service < 50 kW	140,123,695	0	56,090	0	$ 1,841,446	$ 2,368,090	$0	$ 4,209,536	$ 4,214,694
3	General Service > 50 to 999 kW	264,244,674	660,386	5,605	0	$ 1,389,836	$ 2,071,035	($60,227)	$ 3,400,644	$ 3,400,688
4	General Service > 1000 kW	133,371,195	378,529	251	0	$ 879,656	$ 1,004,388	($221,666)	$ 1,662,378	$ 1,662,384
5	Large User	36,734,784	74,268	12	0	$ 57,555	$ 208,284	$0	$ 265,840	$ 265,843
6	Street Lighting	8,166,036	23,236	0	159,001	$ 186,668	$ 164,656	$0	$ 351,324	$ 351,323
7	Unmetered Scattered Load	2,203,935	0	0	5,413	$ 46,165	$ 27,461	$0	$ 73,626	$ 73,626
8	Sentinel Lighting	112,765	308	0	2,051	$ 17,270	$ 2,078	$0	$ 19,349	$ 19,348
9	Total	921,109,210	1,136,726	607,825	166,465	$ 15,794,449	$ 8,467,980	($281,894)	$ 23,980,535	$ 23,996,075

1 ## 3.4 OTHER REVENUE

2 ### 3.4.1 OVERVIEW

3 Thunder Bay Hydro continues to earn Other Revenue, which is any revenue that is related to distribution

4 activities in nature but that is sourced from means other than distribution rates. There are four major

5 categories to Other Revenues: Specific Charges, Late Payment Charges, Other Operating Revenues and

6 Other Income or Deductions. In this rate Application (TBH) has forecasted the 2017 Test year amount of

7 $1,247,451.

8 Table 3-40 below provides a high level summary and comparison of these Revenue Offset four

9 categories for the 2013 Board Approved Proxy, the Historic years 2013 through 2015, the 2016 Bridge

10 Year and the 2017 Test Year. Revenue or costs (including interest) associated with deferral and variance

11 accounts have not been included in Other Revenue.

12 Thunder Bay Hydro does not have any discrete customer groups that may be materially impacted by

13 changes to other rates and charges.

14 **TABLE 3-40: SUMMARY OF OTHER REVENUE**

Line No.	Description	2013 Board Approved Proxy	2013 Actual Results	2014 Actual Results	2015 Actual Results	2016 Bridge Year	2017 Test Year
1	Specific Service Charges	$267,807	$411,161	$380,788	$468,930	$377,550	$398,500
2	Late Payment Charges	$297,000	$287,463	$329,078	$326,892	$361,612	$380,777
3	Other Operating Revenues	$192,390	$178,910	$173,074	$172,145	$173,290	$171,500
4	Other Income or Deductions	$1,020,802	$670,052	$507,378	$412,007	$487,298	$296,674
5	Total	$1,777,999	$1,547,586	$1,390,317	$1,379,975	$1,399,750	$1,247,451

15

16 More details of Other Revenue amounts earned and expected to be earned in the Bridge and Test Years

17 can be found in Attachment 3-E and is consistent with Board Appendix 2-H.

18

19

1 **3.4.2 OTHER REVENUE VARIANCE ANALYSIS**

2 The following variance analysis has been provided based on Thunder Bay Hydro's materiality threshold of

3 $119,000.

4 Table 3-41 below shows the variances by major Other Revenue category.

5 **TABLE 3-41: OTHER REVENUE VARIANCE ANALYSIS**

Line No.	Description	2013 Board Approved Proxy	2013 Actual Results	Variance 2013 BA v. 2013 Act	2014 Actual Results	Variance 2013 Act v. 2014 Act	2015 Actual Results	Variance 2014 Act v. 2015 Act	2016 Bridge Year	Variance 2015 Act v. 2016 BY	2017 Test Year	Variance 2016 BY v. 2017 TY
1	Specific Service Charges	$267,807	$411,161	($143,354)	$380,788	$30,374	$468,930	($88,143)	$377,550	$91,380	$398,500	($20,950)
2	Late Payment Charges	$297,000	$287,463	$9,537	$329,078	($41,615)	$326,892	$2,186	$361,612	($34,720)	$380,777	($19,165)
3	Other Operating Revenues	$192,390	$178,910	$13,480	$173,074	$5,836	$172,145	$929	$173,290	($1,145)	$171,500	$ 1,790)
4	Other Income or Deductions	$1,020,802	$670,052	$350,750	$507,378	$162,675	$412,007	$95,371	$487,298	($75,291)	$296,674	$190,624
5	Total	$1,777,999	$1,547,586	$230,413	$1,390,317	$157,269	$1,379,975	$10,343	$1,399,750	($19,775)	$1,247,451	$152,299

9 **2013 Board Approved Proxy vs. 2013 Actual**

10 Thunder Bay Hydro experienced an overall increase in revenue on Specific Service Charges of $143,354

11 due the modification of GAAP to be more in line with IFRS. Effective 2013, all recoverable work orders

12 are billed and the revenue and expenses are presented in OEB account 4235. For 2013 actuals,

13 $105,000 was billed in excess of budget. In addition Reconnection Charges were $37,000 in excess of

14 budget.

16 Thunder Bay Hydro experienced an overall decrease in Other Income or Deductions of $350,750 due to

17 the following:

18 • Revenue from scrapped material was $125,877 less than budgeted and loss on dispositions of

19 assets was higher by $166,565. The Last Rebasing year was the first year for estimating loss on

20 disposal of assets and as such Thunder Bay Hydro did not have the historical figures to guide in

21 the estimation;

22 • Revenue from Other Electric Revenues was $169,010 less than budgeted due to a presentation

23 change from the 2013 Approved Proxy to the 2013 Actuals. The 2013 Actual results include

24 costs associated with the revenue earned on the back-office billings to TBHUSI whereas, the

25 2013 Board Approved is revenues only (see also Exhibit 4, Section 4.2.2 for the Cost Driver

26 Table discussion of Salaries, Wages and Benefits);

27 • Thunder Bay Hydro's Interest and Dividend income is $95, 493 higher as 2013 reflected a catch

28 up of interest charges to renewable generation business activity within Thunder Bay Hydro and

29 cash flow was better than forecasted.

1 **2014 Actual vs. 2013 Actual**

2 Thunder Bay Hydro experienced an overall decrease in Other Income or Deductions of $162,675 due an

3 increase in overall losses on the disposition of assets.

4 **2017 Test Year vs. 2016 Bridge Year**

5 Thunder Bay Hydro is anticipating an overall decrease in Other Income or Deductions of $190,624

6 primarily driven by net gains of $195,000 on the sale of property on three decommissioned sub stations in

7 2016.

8 ### 3.4.3 SPECIFIC SERVICE CHARGE

9 Thunder Bay Hydro does not propose any changes to the currently approved Specific Service Charges.

10

11 ### 3.4.4 AFFILIATE TRANSACTIONS

12 Revenues from Non-Utility Operations includes billings to Thunder Bay Hydro Utility Services Inc. for

13 Meter Service Provider Services and Locate Services provided to northern commercial, industrial and

14 municipal customers.

15

16 The revenue is recorded in account 4375. The costs associated with these services include wages,

17 benefits, and trucking and are recorded in account 4380.

18

19 Thunder Bay Hydro also bills Thunder Bay Hydro Utility Services Inc. for various back office services

20 provided to other Northwestern Ontario LDCs. Thunder Bay Hydro considers these activity billings as

21 ancillary distribution revenues and as such has included both the revenues and related costs of earning

22 such revenues in OEB account 4220.

23

24

25

26

ATTACHMENT 3 – A

Customer, Connections, Load Forecast and Revenue

Data Analysis

Board Appendix 2-IB

File Number:	EB-2016-0105
Exhibit:	3
Tab:	
Attachment:	3-A
Page:	
Date:	09-Sep-16

Appendix 2-IB
Customer, Connections, Load Forecast and Revenues Data and Analysis

This sheet is to be filled in accordance with the instructions documented in section 2.3.2 of Chapter 2 of the Filing Requirements for Distribution Rate Applications, in terms of one set of tables per customer class.

Color coding for Cells:		Data input		Drop-down List
		No data entry required		Blank or calculated value

Distribution System (Total)

	Calendar Year (for 2017 Cost of Service			Consumption (kWh) [3]			
				Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2011		Actual	957,941,351			
Historical	2012		Actual	950,013,126			
Historical	2013		Actual	963,120,843		Board-approved	956,387,714
Historical	2014		Actual	965,070,093			
Historical	2015		Actual	938,758,818			
Bridge Year	2016		Forecast		929,807,581		
Test Year	2017		Forecast		921,109,210		

Variance Analysis			
	Year	Year-over-year	Versus Board-approved
	2011		
	2012	-0.8%	
	2013	1.4%	
	2014	0.2%	
	2015	-2.7%	
	2016		
	2017	-0.9%	-3.7%
	Geometric Mean		-1.2%

Customer Class Analysis (one for each Customer Class, excluding MicroFIT and Standby)

1 Customer Class: Residential   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kWh

	Calendar Year (for 2017 Cost of Service)	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer		
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	44,901			Actual	337,212,307				Actual	7510.1848	0	
Historical	2012	Actual	44,737			Actual	331,142,425				Actual	7402.0224	0	
Historical	2013	Actual	44,942	Board-approved	44,881	Actual	341,035,889		Board-approved	339,721,062	Actual	7588.2855	0 Board-approved	7569.372079
Historical	2014	Actual	45,106			Actual	340,024,796				Actual	7538.3044	0	
Historical	2015	Actual	45,273			Actual	324,673,269				Actual	7171.5193	0	
Bridge Year	2016	Forecast	45,381			Forecast		337,179,805			Forecast	0	7430.04407	
Test Year	2017	Forecast	45,489			Forecast		336,152,125			Forecast	0	7389.76956	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved
	2011				2011				2011		
	2012	-0.4%			2012	-1.8%			2012	-1.4%	
	2013	0.5%			2013	3.0%			2013	2.5%	
	2014	0.4%			2014	-0.3%			2014	-0.7%	
	2015	0.4%			2015	-4.5%			2015	-4.9%	
	2016	0.2%			2016				2016		
	2017	0.2%	1.4%		2017	-0.3%	-1.1%		2017	-0.5%	-2.4%
	Geometric Mean	0.3%	0.4%		Geometric Mean		-0.4%		Geometric Mean		-0.8%

	Calendar Year (for 2017 Cost of Service)	Revenues		
Historical	2011	Actual	$ 10,049,583	
Historical	2012	Actual	$ 12,936,350	
Historical	2013	Actual	$ 9,976,817 Board-approved	$ 10,942,756
Historical	2014	Actual	$ 10,735,426	
Historical	2015	Actual	$ 11,137,150	
Bridge Year (Forec	2016	Forecast	$ 11,485,547	
Test Year (Forecas	2017	Forecast	$ 14,008,168	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2011		
	2012	28.7%	
	2013	-22.9%	
	2014	7.6%	
	2015	3.7%	
	2016	3.1%	
	2017	22.0%	28.0%
	Geometric Mean	6.9%	8.6%

2 Customer Class: GS < 50 kW   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kWh

	Calendar Year (for 2017 Cost of Service)	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer		
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	4,340			Actual	135,688,687				Actual	31267.076	0	
Historical	2012	Actual	4,497			Actual	133,678,840				Actual	29726.777	0	
Historical	2013	Actual	4,528 Board-approved	4,492		Actual	136,331,186		Board-approved	131,404,394	Actual	30110.14	0 Board-approved	29255.18743
Historical	2014	Actual	4,578			Actual	139,285,836				Actual	30425.737	0	
Historical	2015	Actual	4,607			Actual	137,179,401				Actual	29779.489	0	
Bridge Year	2016	Forecast	4,640			Forecast		137,899,250			Forecast	0	29718.21	
Test Year	2017	Forecast	4,674			Forecast		140,123,695			Forecast	0	29978.1436	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved
	2011				2011				2011		
	2012	3.6%			2012	-1.5%			2012	-4.9%	
	2013	0.7%			2013	2.0%			2013	1.3%	
	2014	1.1%			2014	2.2%			2014	1.0%	
	2015	0.6%			2015	-1.5%			2015	-2.1%	
	2016	0.7%			2016				2016		
	2017	0.7%	4.1%		2017	1.6%	6.6%		2017	0.9%	2.5%
	Geometric Mean	1.5%	1.3%		Geometric Mean	1.6%	2.2%		Geometric Mean	0.9%	0.8%

	Calendar Year (for 2017 Cost of Service)	Revenues		
Historical	2011	Actual	$ 2,796,072	
Historical	2012	Actual	$ 3,326,127	
Historical	2013	Actual	$ 3,452,032 Board-approved	$ 3,159,862
Historical	2014	Actual	$ 3,397,791	
Historical	2015	Actual	$ 3,351,785	
Bridge Year (Forec	2016	Forecast	$ 3,423,332	
Test Year (Forecas	2017	Forecast	$ 4,214,694	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2011		
	2012	19.0%	
	2013	3.8%	
	2014	-1.6%	
	2015	-1.4%	
	2016	2.1%	
	2017	23.1%	33.4%
	Geometric Mean	8.6%	10.1%

3 Customer Class: GS > 50 - 999 kW   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kW

Calendar Year (for 2017 Cost of Service)		Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer		
						Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	506		Actual	288,525,140				Actual	570489.65	0	
Historical	2012	Actual	514		Actual	283,475,241				Actual	552045.26	0	
Historical	2013	Actual	512	Board-approved	515	Actual	285,068,374		Board-approved	288,398,369	Actual	557227.64	0 Board-approved	560169.8179
Historical	2014	Actual	495		Actual	280,037,460				Actual	565387.81	0	
Historical	2015	Actual	472		Actual	266,548,348				Actual	565168.65	0	
Bridge Year	2016	Forecast	469		Forecast		266,601,418			Forecast	0	568007.84	
Test Year	2017	Forecast	467		Forecast		264,244,674			Forecast	0	565702.281	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2011			2011			2011		
	2012	1.5%		2012	-1.8%		2012	-3.2%	
	2013	-0.4%		2013	0.6%		2013	0.9%	
	2014	-3.2%		2014	-1.8%		2014	1.5%	
	2015	-4.8%		2015	-4.8%		2015	0.0%	
	2016	-0.5%		2016			2016		
	2017	-0.5%	-9.3%	2017	-0.9%	-8.4%	2017	-0.4%	1.0%
	Geometric Mean	-1.6%	-3.2%	Geometric Mean		-2.9%	Geometric Mean		0.3%

Calendar Year (for 2017 Cost of Service)		Revenues				Demand (kW)					Demand (kW) per Customer		
						Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	2,462,351		Actual	732,497				Actual	0.2974789	0	
Historical	2012	Actual	2,391,885		Actual	734,173				Actual	0.3069434	0	
Historical	2013	Actual	2,756,485	Board-approved	$ 3,083,973	Actual	722,899		Board-approved	783,589	Actual	0.2622541	0 Board-approved	0.254084223
Historical	2014	Actual	2,903,420		Actual	690,827				Actual	0.2379355	0	
Historical	2015	Actual	2,815,104		Actual	668,163				Actual	0.2373492	0	
Bridge Year (Forec	2016	Forecast	2,865,206		Forecast		666,275			Forecast	0	0.23254015	
Test Year (Forecast	2017	Forecast	3,400,688		Forecast		660,386			Forecast	0	0.19419179	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2011			2011			2011		
	2012	-2.9%		2012	0.2%		2012	3.2%	
	2013	15.2%		2013	-1.5%		2013	-14.6%	
	2014	5.3%		2014	-4.4%		2014	-9.3%	
	2015	-3.0%		2015	-3.3%		2015	-0.2%	
	2016	1.8%		2016			2016		
	2017	18.7%	10.3%	2017	-0.9%	-15.7%	2017	-16.5%	-23.6%
	Geometric Mean	6.7%	3.3%	Geometric Mean		-5.5%	Geometric Mean		-8.6%

4 Customer Class: General Service > 1000 kW   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kW

Calendar Year (for 2017 Cost of Service)		Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer		
						Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	18		Actual	158,154,293				Actual	8827216.4	0	
Historical	2012	Actual	18		Actual	161,345,729				Actual	8760854.1	0	
Historical	2013	Actual	20	Board-approved	19	Actual	158,062,714		Board-approved	183,532,884	Actual	7870342.6	0 Board-approved	9659625.497
Historical	2014	Actual	20		Actual	162,775,283				Actual	8236381.8	0	
Historical	2015	Actual	21		Actual	161,772,954				Actual	7738943.9	0	
Bridge Year	2016	Forecast	21		Forecast		140,313,695			Forecast	0	6712369.34	
Test Year	2017	Forecast	21		Forecast		133,371,195			Forecast	0	6380251.91	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2011			2011			2011		
	2012	2.8%		2012	2.0%		2012	-0.8%	
	2013	9.0%		2013	-2.0%		2013	-10.2%	
	2014	-1.6%		2014	3.0%		2014	4.7%	
	2015	5.8%		2015	-0.6%		2015	-6.0%	
	2016	0.0%		2016			2016		
	2017	0.0%	10.0%	2017	-4.9%	-27.3%	2017	-4.9%	-33.9%
	Geometric Mean	6.7%	3.2%	Geometric Mean		-10.1%	Geometric Mean		-12.9%

Calendar Year (for 2017 Cost of Service)		Revenues				Demand (kW)					Demand (kW) per Customer		
						Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	$ 1,322,661		Actual	446,719				Actual	0.3377426	0	
Historical	2012	Actual	$ 1,420,705		Actual	455,363				Actual	0.3205193	0	
Historical	2013	Actual	$ 1,485,927	Board-approved	$ 1,563,699.00	Actual	450,516		Board-approved	568,917	Actual	0.3031885	0 Board-approved	0.363827548
Historical	2014	Actual	$ 1,548,554		Actual	448,319				Actual	0.289508	0	
Historical	2015	Actual	$ 1,625,551		Actual	461,434				Actual	0.2838629	0	
Bridge Year (Forec	2016	Forecast	$ 1,642,678		Forecast		398,233			Forecast	0	0.24242898	
Test Year (Forecast	2017	Forecast	$ 1,662,384		Forecast		378,529			Forecast	0	0.22770238	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2011			2011			2011		
	2012	7.4%		2012	1.9%		2012	-5.1%	
	2013	4.6%		2013	-1.1%		2013	-5.4%	
	2014	4.2%		2014	-0.5%		2014	-4.5%	
	2015	5.0%		2015	2.9%		2015	-1.9%	
	2016	1.1%		2016			2016		
	2017	1.2%	6.3%	2017	-4.9%	-33.5%	2017	-6.1%	-37.4%
	Geometric Mean	4.7%	2.1%	Geometric Mean		-12.7%	Geometric Mean		-14.5%

5 Customer Class: Large User   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kW

	Calendar Year (for 2017 Cost of Service)	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer		
							Actual (Weather actual)	Weather-normalized	Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	1			Actual	25,023,840			Actual	25023840	0	
Historical	2012	Actual	1			Actual	27,185,952			Actual	27185952	0	
Historical	2013	Actual	1	Board-approved	0	Actual	29,930,112	Board-approved	-	Actual	29930112	0 Board-approved	
Historical	2014	Actual	1			Actual	30,389,664			Actual	30389664	0	
Historical	2015	Actual	1			Actual	36,734,784			Actual	36734784	0	
Bridge Year	2016	Forecast	1			Forecast		36,734,784		Forecast	0	36734784.2	
Test Year	2017	Forecast	1			Forecast		36,734,784		Forecast	0	36734784.2	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved
	2011				2011				2011		
	2012	0.0%			2012	8.6%			2012	8.6%	
	2013	0.0%			2013	10.1%			2013	10.1%	
	2014	0.0%			2014	1.5%			2014	1.5%	
	2015	0.0%			2015	20.9%			2015	20.9%	
	2016	0.0%			2016				2016		
	2017	0.0%			2017	0.0%			2017	0.0%	
	Geometric Mean	4.7%			Geometric Mean				Geometric Mean		

	Calendar Year (for 2017 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer		
							Actual (Weather actual)	Weather-normalized	Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	$ -			Actual	25,023,840			Actual			
Historical	2012	Actual	$ -			Actual	27,185,952			Actual			
Historical	2013	Actual	$ -	Board-approved	$ -	Actual	29,930,112	Board-approved	-	Actual		Board-approved	
Historical	2014	Actual	$ -			Actual	30,389,664			Actual			
Historical	2015	Actual	$ -			Actual	36,734,784			Actual			
Bridge Year (Forec	2016	Forecast	$ -			Forecast		36,734,784		Forecast			
Test Year (Forecas	2017	Forecast	$ 265,843			Forecast		36,734,784		Forecast	0	138.182325	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved
	2011				2011				2011		
	2012				2012	8.6%			2012		
	2013				2013	10.1%			2013		
	2014				2014	1.5%			2014		
	2015				2015	20.9%			2015		
	2016				2016				2016		
	2017				2017	0.0%			2017		
	Geometric Mean				Geometric Mean				Geometric Mean		

6 Customer Class: Street Lights   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kW

	Calendar Year (for 2017 Cost of Service)	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer		
							Actual (Weather actual)	Weather-normalized	Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	13,091			Actual	11,244,632			Actual	858.96995	0	
Historical	2012	Actual	13,172			Actual	11,062,692			Actual	839.85892	0	
Historical	2013	Actual	13,095	Board-approved	13,217	Actual	10,555,414	Board-approved	11,183,615	Actual	806.04391	0 Board-approved	846.1660439
Historical	2014	Actual	13,148			Actual	10,310,975			Actual	784.20488	0	
Historical	2015	Actual	13,197			Actual	9,533,361			Actual	722.37676	0	
Bridge Year	2016	Forecast	13,224			Forecast		8,761,929		Forecast	0	662.597327	
Test Year	2017	Forecast	13,250			Forecast		8,166,036		Forecast	0	616.301775	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved
	2011				2011				2011		
	2012	0.6%			2012	-1.6%			2012	-2.2%	
	2013	-0.6%			2013	-4.6%			2013	-4.0%	
	2014	0.4%			2014	-2.3%			2014	-2.7%	
	2015	0.4%			2015	-7.5%			2015	-7.9%	
	2016	0.2%			2016				2016		
	2017	0.2%	0.3%		2017	-6.8%	-27.0%		2017	-7.0%	-27.2%
	Geometric Mean	0.2%	0.1%		Geometric Mean		-10.0%		Geometric Mean		-10.0%

	Calendar Year (for 2017 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer		
							Actual (Weather actual)	Weather-normalized	Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2011	Actual	$ 719,257			Actual	31,850			Actual	0.0442812	0	
Historical	2012	Actual	$ 694,798			Actual	30,859			Actual	0.0444137	0	
Historical	2013	Actual	$ 488,549	Board-approved	$ 386,561.00	Actual	29,850	Board-approved	31502.01727	Actual	0.0610999	0 Board-approved	0.081493004
Historical	2014	Actual	$ 375,338			Actual	29,217			Actual	0.0778411	0	
Historical	2015	Actual	$ 365,813			Actual	27,043			Actual	0.0739262	0	
Bridge Year (Forec	2016	Forecast	$ 356,548			Forecast		24,931		Forecast	0	0.06992426	
Test Year (Forecas	2017	Forecast	$ 351,323			Forecast		23,236		Forecast	0	0.06613793	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved		Year	Year-over-year	Test Year Versus Board-approved
	2011				2011				2011		
	2012	-3.4%			2012	-3.1%			2012	0.3%	
	2013	-29.7%			2013	-3.3%			2013	37.6%	
	2014	-23.2%			2014	-2.1%			2014	27.4%	
	2015	-2.5%			2015	-7.4%			2015	-5.0%	
	2016	-2.5%			2016				2016		
	2017	-1.5%	-9.1%		2017	-6.8%	-26.2%		2017	-5.4%	-18.8%
	Geometric Mean	-13.4%	-3.1%		Geometric Mean		-9.6%		Geometric Mean		-6.7%

7 Customer Class: Sentinel   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kW

	Calendar Year (for 2017 Cost of Service)	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2011	Actual	148			Actual	121,136				Actual	820.8	0		
Historical	2012	Actual	167			Actual	141,784				Actual	848.16	0		
Historical	2013	Actual	171	Board-approved	169	Actual	144,894	Board-approved	122,483		Actual	848.16	0	Board-approved	726.160053
Historical	2014	Actual	172			Actual	146,313				Actual	850.25203	0		
Historical	2015	Actual	171			Actual	112,765				Actual	659.71452	0		
Bridge Year	2016	Forecast	171			Forecast		112,765			Forecast	0	659.714521		
Test Year	2017	Forecast	171			Forecast		112,765			Forecast	0	659.714521		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2011			2011			2011		
	2012	13.3%		2012	17.0%		2012	3.3%	
	2013	2.2%		2013	2.2%		2013	0.0%	
	2014	0.7%		2014	1.0%		2014	0.2%	
	2015	-0.7%		2015	-22.9%		2015	-22.4%	
	2016	0.0%		2016			2016		
	2017	0.0%	1.3%	2017	0.0%	-7.9%	2017	0.0%	-9.2%
	Geometric Mean	3.0%	0.4%	Geometric Mean		-2.7%	Geometric Mean		-3.1%

	Calendar Year (for 2017 Cost of Service)	Revenues				Demand (kW)					Demand (kW) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2011	Actual	$	14,923		Actual	336.49				Actual	0.0225484	0		
Historical	2012	Actual	$	13,457		Actual	381.14				Actual	0.0283228	0		
Historical	2013	Actual	$	14,806	Board-approved	$ 15,288.00	Actual	389.50	Board-approved	340.2296984	Actual	0.0263064	0	Board-approved	0.02225469
Historical	2014	Actual	$	14,795		Actual	392.35				Actual	0.0265192	0		
Historical	2015	Actual	$	14,365		Actual	307.68				Actual	0.0214185	0		
Bridge Year (Forec	2016	Forecast	$	15,454		Forecast		308			Forecast	0	0.0199091		
Test Year (Forecas	2017	Forecast	$	19,348		Forecast		308			Forecast	0	0.01590183		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2011			2011			2011		
	2012	-9.8%		2012	13.3%		2012	25.6%	
	2013	10.0%		2013	2.2%		2013	-7.1%	
	2014	-0.1%		2014	0.7%		2014	0.8%	
	2015	-2.9%		2015	-21.6%		2015	-19.2%	
	2016	7.6%		2016			2016		
	2017	25.2%	26.6%	2017	0.0%	-9.6%	2017	-20.1%	-28.5%
	Geometric Mean	3.0%	8.2%	Geometric Mean		-3.3%	Geometric Mean		-10.6%

8 Customer Class: Unmetered Scattered Load   Is the customer class billed on consumption (kWh) or demand (kW or kVA)?   kWh

	Calendar Year (for 2017 Cost of Service)	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2011	Actual	470			Actual	1,971,315				Actual	4193.5445	0		
Historical	2012	Actual	470			Actual	1,980,463				Actual	4215.2455	0		
Historical	2013	Actual	466	Board-approved	475	Actual	1,992,260	Board-approved	31,502		Actual	4279.8285	0	Board-approved	66.27465051
Historical	2014	Actual	462			Actual	2,099,765				Actual	4540.0623	0		
Historical	2015	Actual	451			Actual	2,203,935				Actual	4885.8524	0		
Bridge Year	2016	Forecast	451			Forecast		2,203,935			Forecast	0	4885.85237		
Test Year	2017	Forecast	451			Forecast		2,203,935			Forecast	0	4885.85237		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2011			2011			2011		
	2012	-0.1%		2012	0.5%		2012	0.5%	
	2013	-0.9%		2013	0.6%		2013	1.5%	
	2014	-0.6%		2014	5.4%		2014	6.1%	
	2015	-2.5%		2015	5.0%		2015	7.6%	
	2016	0.0%		2016			2016		
	2017	0.0%	-5.1%	2017	0.0%	6896.2%	2017	0.0%	7272.1%
	Geometric Mean	-0.8%	-1.7%	Geometric Mean		312.1%	Geometric Mean		319.3%

	Calendar Year (for 2017 Cost of Service)	Revenues			
Historical	2011	Actual	$	126,649	
Historical	2012	Actual	$	96,852	
Historical	2013	Actual	$	54,017	Board-approved $ 58,473.00
Historical	2014	Actual	$	57,521	
Historical	2015	Actual	$	59,144	
Bridge Year (Forec	2016	Forecast	$	60,883	
Test Year (Forecast	2017	Forecast	$	73,626	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2011		
	2012	-23.5%	
	2013	-44.2%	
	2014	6.5%	
	2015	2.8%	
	2016	2.9%	
	2017	20.9%	25.9%
	Geometric Mean	-10.3%	8.0%

ATTACHMENT 3 – B

Thunder Bay Hydro's

Monthly Regression Data

Residential, GS < 50 kW, GS 50-999kW

Residential

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Predicted Consumed
Jan-06	35,639,481	797	0	31	0	20,810	34,633,628
Feb-06	31,006,601	873	0	28	0	41,619	32,674,459
Mar-06	31,468,780	659	0	31	1	62,429	31,777,471
Apr-06	26,780,261	366	0	30	1	83,239	26,830,725
May-06	25,597,983	242	2	31	1	104,048	26,211,291
Jun-06	24,345,684	82	9	30	0	124,858	24,280,493
Jul-06	26,114,963	23	70	31	0	145,668	27,104,273
Aug-06	26,097,675	58	32	31	0	166,477	25,848,532
Sep-06	25,191,337	211	1	30	1	187,287	24,611,044
Oct-06	28,029,267	441	0	31	1	208,097	28,591,032
Nov-06	30,314,180	540	0	30	1	228,907	28,905,240
Dec-06	34,399,460	747	0	31	0	249,716	33,555,375
Jan-07	36,651,750	913	0	31	0	270,865	35,742,194
Feb-07	32,943,661	925	0	28	0	292,013	32,909,831
Mar-07	32,857,536	665	0	31	1	313,162	31,405,044
Apr-07	27,092,407	474	0	30	1	334,310	27,826,204
May-07	25,115,209	251	1	31	1	355,459	25,804,435
Jun-07	23,534,587	97	7	30	0	376,607	23,907,001
Jul-07	25,046,932	40	52	31	0	397,756	26,075,935
Aug-07	25,330,024	63	22	31	0	418,905	25,042,176
Sep-07	24,758,256	165	10	30	1	440,053	23,908,260
Oct-07	27,656,765	311	0	31	1	461,202	26,387,395
Nov-07	30,856,188	620	0	30	1	482,350	29,518,450
Dec-07	35,513,367	926	0	31	0	503,499	35,488,238
Jan-08	36,959,741	935	0	31	0	513,424	35,589,606
Feb-08	33,315,885	922	0	29	0	523,349	33,430,999
Mar-08	32,204,211	792	0	31	1	533,274	32,708,430
Apr-08	27,546,470	457	0	30	1	543,198	27,218,386
May-08	25,811,018	328	0	31	1	553,123	26,450,578
Jun-08	23,670,991	110	5	30	0	563,048	23,664,044
Jul-08	24,760,371	35	22	31	0	572,973	24,385,927
Aug-08	25,074,714	50	22	31	0	582,898	24,582,816
Sep-08	24,527,138	193	7	30	1	592,823	23,901,898
Oct-08	27,463,879	373	0	31	1	602,748	26,969,479
Nov-08	31,251,337	591	0	30	1	612,673	28,890,345
Dec-08	37,054,439	1,034	0	31	0	622,598	36,720,733
Jan-09	38,386,143	1,093	0	31	0	632,742	37,501,272
Feb-09	32,364,264	839	0	28	0	642,886	31,126,080
Mar-09	32,111,110	762	0	31	1	653,030	32,095,387
Apr-09	27,582,319	453	0	30	1	663,174	26,952,103
May-09	25,664,854	320	0	31	1	673,319	26,127,603
Jun-09	23,320,633	142	14	30	0	683,463	24,272,405
Jul-09	24,041,096	75	2	31	0	693,607	23,821,838
Aug-09	24,433,773	84	14	31	0	703,751	24,467,468
Sep-09	24,530,858	103	4	30	1	713,895	22,317,016
Oct-09	27,407,142	451	0	31	1	724,039	27,799,925
Nov-09	29,972,144	474	0	30	1	734,183	27,095,950
Dec-09	34,913,484	915	0	31	0	744,327	34,907,176

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Predicted Consumed
Jan-10	36,085,553	900	0	31	0	715,813	34,761,642
Feb-10	30,010,765	778	0	28	0	687,299	30,234,942
Mar-10	28,911,521	514	0	31	1	658,784	28,762,215
Apr-10	25,118,805	358	0	30	1	630,270	25,735,499
May-10	24,585,712	212	1	31	1	601,756	24,843,554
Jun-10	23,836,918	106	3	30	0	573,241	23,527,357
Jul-10	25,905,019	15	52	31	0	544,727	25,474,767
Aug-10	26,075,807	38	56	31	0	516,213	26,006,221
Sep-10	24,545,247	231	0	30	1	487,699	24,292,068
Oct-10	26,297,636	356	0	31	1	459,184	26,992,865
Nov-10	29,657,866	549	0	30	1	430,670	28,661,467
Dec-10	34,557,680	879	0	31	0	402,156	35,045,321
Jan-11	36,516,937	1,078	0	31	0	433,380	37,653,584
Feb-11	31,386,776	827	0	28	0	464,604	31,287,231
Mar-11	31,223,082	750	0	31	1	495,829	32,213,103
Apr-11	26,878,420	482	0	30	1	527,053	27,588,001
May-11	24,676,485	267	0	31	1	558,277	25,627,665
Jun-11	23,151,010	110	0	30	0	589,501	23,417,628
Jul-11	25,352,001	30	64	31	0	620,726	26,054,636
Aug-11	25,813,856	22	36	31	0	651,950	24,670,948
Sep-11	24,597,483	172	9	30	1	683,174	23,562,273
Oct-11	26,370,883	337	5	31	1	714,398	26,522,965
Nov-11	28,854,941	563	0	30	1	745,623	28,277,601
Dec-11	32,390,432	770	0	31	0	776,847	32,903,564
Jan-12	33,402,660	866	0	31	0	757,573	34,223,791
Feb-12	29,415,796	694	0	29	0	738,299	29,990,752
Mar-12	28,020,794	525	0	31	1	719,025	28,800,855
Apr-12	24,997,873	435	0	30	1	699,751	26,640,754
May-12	24,359,302	227	0	31	1	680,477	24,872,150
Jun-12	24,710,374	65	18	30	0	661,203	23,487,559
Jul-12	26,676,003	7	67	31	0	641,929	25,830,597
Aug-12	26,201,585	39	28	31	0	622,655	24,592,215
Sep-12	24,540,374	214	4	30	1	603,382	24,022,288
Oct-12	26,589,019	396	0	31	1	584,108	27,307,409
Nov-12	28,916,497	601	0	30	1	564,834	29,108,104
Dec-12	33,312,146	794	0	31	0	545,560	33,641,642
Jan-13	35,527,330	928	0	31	0	567,436	35,407,611
Feb-13	30,889,613	867	0	28	0	589,312	31,594,124
Mar-13	30,782,617	767	0	31	1	611,188	32,237,978
Apr-13	26,800,317	525	0	30	1	633,063	27,966,192
May-13	24,986,644	325	0	31	1	654,939	26,234,518
Jun-13	23,287,804	131	6	30	0	676,815	23,779,436
Jul-13	24,573,363	61	28	31	0	698,691	24,765,578
Aug-13	24,947,123	46	42	31	0	720,567	25,130,313
Sep-13	24,308,811	179	0	30	1	742,443	23,130,959
Oct-13	26,948,257	329	0	31	1	764,319	26,079,859
Nov-13	31,135,195	621	0	30	1	786,195	28,973,696
Dec-13	36,848,813	1,113	0	31	0	808,071	37,445,983

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Predicted Consumed
Jan-14	38,922,017	1,120	0	31	0	792,997	37,563,013
Feb-14	32,993,370	978	0	28	0	777,923	32,752,007
Mar-14	32,244,957	884	0	31	1	762,848	33,521,573
Apr-14	27,204,303	523	0	30	1	747,774	27,733,546
May-14	24,728,780	267	1	31	1	732,700	25,359,440
Jun-14	22,654,739	135	6	30	0	717,626	23,785,246
Jul-14	23,503,978	47	10	31	0	702,552	23,767,999
Aug-14	23,764,110	65	10	31	0	687,478	24,062,751
Sep-14	23,696,271	197	0	30	1	672,404	23,494,703
Oct-14	26,444,466	383	0	31	1	657,329	26,998,234
Nov-14	29,676,769	648	0	30	1	642,255	29,598,247
Dec-14	34,191,037	781	0	31	0	627,181	33,318,636
Jan-15	36,508,096	980	0	31	0	638,330	35,964,498
Feb-15	31,660,211	1,053	0	28	0	649,479	33,987,928
Mar-15	30,744,806	710	0	31	1	660,627	31,386,013
Apr-15	25,623,800	432	0	30	1	671,776	26,653,750
May-15	23,579,602	276	0	31	1	682,925	25,523,171
Jun-15	22,175,635	119	0	30	0	694,074	23,342,692
Jul-15	23,881,661	32	38	31	0	705,222	24,802,727
Aug-15	24,372,894	51	35	31	0	716,371	24,923,472
Sep-15	23,562,674	106	16	30	1	727,520	22,876,293
Oct-15	24,999,074	346	0	31	1	738,668	26,359,411
Nov-15	26,870,909	469	0	30	1	749,817	27,008,736
Dec-15	30,693,907	565	0	31	0	760,966	30,185,827
Jan-16		961	0	31	0	751,126	35,512,541
Feb-16		876	0	29	0	741,285	32,422,019
Mar-16		703	0	31	1	731,445	31,157,716
Apr-16		451	0	30	1	721,604	26,810,651
May-16		271	0	31	1	711,764	25,430,801
Jun-16		110	7	30	0	701,924	23,500,973
Jul-16		36	40	31	0	692,083	24,992,240
Aug-16		52	30	31	0	682,243	24,745,730
Sep-16		177	5	30	1	672,403	23,453,945
Oct-16		372	1	31	1	662,562	26,872,348
Nov-16		568	0	30	1	652,722	28,504,500
Dec-16		852	0	31	0	642,881	34,251,192
Jan-17		961	0	31	0	641,175	35,711,122
Feb-17		876	0	28	0	639,469	31,624,033
Mar-17		703	0	31	1	637,763	31,326,914
Apr-17		451	0	30	1	636,057	26,965,158
May-17		271	0	31	1	634,351	25,570,617
Jun-17		110	7	30	0	632,645	23,626,097
Jul-17		36	40	31	0	630,939	25,102,673
Aug-17		52	30	31	0	629,233	24,841,472
Sep-17		177	5	30	1	627,527	23,534,995
Oct-17		372	1	31	1	625,821	26,938,707
Nov-17		568	0	30	1	624,115	28,556,168
Dec-17		852	0	31	0	622,409	34,288,168

General Service < 50 kW

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Ontario Real GDP Monthly %	Predicted Consumed
Jan-06	14,009,855	797	0	31	0	0	134.25	13,236,613
Feb-06	12,948,095	873	0	28	0	0	134.53	12,737,684
Mar-06	13,054,109	659	0	31	1	0	134.81	12,143,058
Apr-06	10,956,513	366	0	30	1	0	135.08	10,592,366
May-06	10,855,268	242	2.4	31	1	0	135.36	10,392,745
Jun-06	10,708,124	82	9.3	30	0	0	135.64	10,083,446
Jul-06	11,588,558	23	70.1	31	0	0	135.92	11,392,605
Aug-06	11,264,380	58	31.7	31	0	0	136.20	10,754,811
Sep-06	10,343,204	211	1.2	30	1	0	136.48	10,001,886
Oct-06	11,071,073	441	0	31	1	0	136.76	11,279,565
Nov-06	11,834,500	540	0	30	1	0	137.04	11,445,842
Dec-06	12,997,339	747	0	31	0	0	137.33	13,161,832
Jan-07	14,031,527	913	0	31	0	0	137.55	13,898,402
Feb-07	13,413,295	925	0	28	0	0	137.78	13,112,445
Mar-07	13,148,947	665	0	31	1	0	138.01	12,317,386
Apr-07	11,132,064	474	0	30	1	0	138.23	11,210,975
May-07	10,476,503	251	0.6	31	1	0	138.46	10,539,755
Jun-07	10,397,829	97	6.5	30	0	0	138.69	10,232,630
Jul-07	11,107,289	40	51.8	31	0	0	138.92	11,223,753
Aug-07	10,981,654	63	22.1	31	0	0	139.15	10,713,632
Sep-07	10,221,738	165	9.6	30	1	0	139.38	10,111,059
Oct-07	10,659,311	311	0	31	1	0	139.61	10,841,422
Nov-07	11,710,993	620	0	30	1	0	139.84	11,924,742
Dec-07	13,514,465	926	0	31	0	0	140.07	14,069,194
Jan-08	14,087,644	935	0	31	0	641	139.97	14,102,263
Feb-08	13,323,309	922	0	29	0	1,283	139.86	13,474,744
Mar-08	12,857,264	792	0	31	1	1,924	139.76	12,950,397
Apr-08	11,209,730	457	0	30	1	2,566	139.65	11,197,305
May-08	10,641,516	328	0	31	1	3,207	139.55	10,908,308
Jun-08	10,314,121	110	4.6	30	0	3,849	139.44	10,279,441
Jul-08	11,042,847	35	22.1	31	0	4,490	139.34	10,591,979
Aug-08	10,916,451	50	22.2	31	0	5,132	139.23	10,656,905
Sep-08	10,097,320	193	7	30	1	5,773	139.13	10,161,276
Oct-08	10,600,173	373	0	31	1	6,414	139.02	11,077,720
Nov-08	11,883,391	591	0	30	1	7,056	138.92	11,743,022
Dec-08	13,928,152	1034	0	31	0	7,697	138.81	14,471,518
Jan-09	14,782,282	1093	0	31	0	15,659	138.44	14,702,673
Feb-09	12,729,982	839	0	28	0	23,620	138.06	12,714,119
Mar-09	12,895,508	762	0	31	1	31,582	137.69	12,679,969
Apr-09	10,958,050	453	0	30	1	39,543	137.31	11,016,618
May-09	10,456,056	320	0	31	1	47,505	136.94	10,685,749
Jun-09	9,998,206	142	13.7	30	0	55,466	136.57	10,397,480
Jul-09	10,339,691	75	2	31	0	63,428	136.20	10,111,571
Aug-09	10,369,729	84	14.2	31	0	71,389	135.83	10,379,481
Sep-09	10,093,113	103	3.5	30	1	79,351	135.47	9,410,780
Oct-09	10,535,421	451	0	31	1	87,312	135.10	11,115,328
Nov-09	11,117,076	474	0	30	1	95,274	134.73	10,900,960
Dec-09	13,231,702	915	0	31	0	103,235	134.37	13,600,128

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Ontario Real GDP Monthly %	Predicted Consumed
Jan-10	13,822,669	900	0	31	0	110,872	134.73	13,541,011
Feb-10	11,978,631	778	0	28	0	118,509	135.10	12,167,596
Mar-10	11,476,633	514	0	31	1	126,146	135.46	11,348,475
Apr-10	10,116,363	358	0	30	1	133,783	135.83	10,387,740
May-10	10,174,879	212	0.6	31	1	141,420	136.20	10,050,744
Jun-10	9,916,903	106	3	30	0	149,057	136.57	9,875,771
Jul-10	10,687,565	15	52	31	0	156,695	136.94	10,784,595
Aug-10	10,774,422	38	55.8	31	0	164,332	137.31	10,971,778
Sep-10	9,491,235	231	0	30	1	171,969	137.68	9,859,965
Oct-10	10,047,653	356	0	31	1	179,606	138.05	10,691,646
Nov-10	11,121,847	549	0	30	1	187,243	138.43	11,263,437
Dec-10	13,156,984	879	0	31	0	194,880	138.80	13,508,745
Jan-11	14,302,277	1078	0	31	0	197,958	139.10	14,387,339
Feb-11	12,447,595	827	0	28	0	201,036	139.40	12,452,660
Mar-11	12,509,941	750	0	31	1	204,114	139.70	12,455,307
Apr-11	10,791,805	482	0	30	1	207,192	140.00	11,012,007
May-11	10,114,378	267	0	31	1	210,270	140.30	10,361,423
Jun-11	9,658,664	110	0	30	0	213,348	140.60	9,917,937
Jul-11	10,695,218	30	63.7	31	0	216,426	140.90	11,187,713
Aug-11	10,770,621	22	35.7	31	0	219,504	141.20	10,579,194
Sep-11	9,905,090	172	9.4	30	1	222,582	141.50	9,898,448
Oct-11	10,394,269	337	5.4	31	1	225,660	141.80	10,827,491
Nov-11	11,396,703	563	0	30	1	228,738	142.11	11,430,659
Dec-11	12,702,124	770	0	31	0	231,816	142.41	13,141,219
Jan-12	13,282,493	866	0	31	0	239,933	142.61	13,557,551
Feb-12	11,892,078	694	0	29	0	248,050	142.81	12,238,619
Mar-12	11,479,100	525	0	31	1	256,167	143.01	11,547,308
Apr-12	10,218,125	435	0	30	1	264,284	143.21	10,866,408
May-12	10,124,590	227	0	31	1	272,402	143.42	10,236,382
Jun-12	10,192,836	65	18.4	30	0	280,519	143.62	10,141,573
Jul-12	11,177,894	7	66.5	31	0	288,636	143.82	11,170,502
Aug-12	10,815,122	39	27.7	31	0	296,753	144.02	10,496,120
Sep-12	9,852,555	214	4	30	1	304,870	144.22	9,966,250
Oct-12	10,546,420	396	0	31	1	312,987	144.43	10,959,070
Nov-12	11,363,637	601	0	30	1	321,104	144.63	11,570,770
Dec-12	12,733,993	794	0	31	0	329,222	144.83	13,209,042
Jan-13	13,858,539	928	0	31	0	339,520	144.99	13,789,709
Feb-13	12,389,059	867	0	28	0	349,817	145.15	12,665,008
Mar-13	12,426,306	767	0	31	1	360,115	145.30	12,552,517
Apr-13	11,024,966	525	0	30	1	370,413	145.46	11,201,383
May-13	10,309,404	325	0	31	1	380,711	145.61	10,602,265
Jun-13	9,706,764	131	5.5	30	0	391,009	145.77	10,091,910
Jul-13	10,209,088	61	28	31	0	401,307	145.93	10,528,076
Aug-13	10,283,952	46	41.8	31	0	411,605	146.09	10,742,544
Sep-13	9,712,165	179	0	30	1	421,903	146.24	9,645,692
Oct-13	10,365,606	329	0	31	1	432,201	146.40	10,574,003
Nov-13	11,761,752	621	0	30	1	442,499	146.56	11,561,247
Dec-13	14,283,584	1113	0	31	0	452,797	146.72	14,503,653

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Ontario Real GDP Monthly %	Predicted Consumed
Jan-14	15,069,644	1120	0	31	0	463,726	147.04	14,531,358
Feb-14	13,186,661	978	0	28	0	474,655	147.37	13,066,294
Mar-14	13,248,228	884	0	31	1	485,585	147.70	12,980,005
Apr-14	11,070,615	523	0	30	1	496,514	148.02	11,119,288
May-14	10,484,312	267	1.1	31	1	507,443	148.35	10,303,013
Jun-14	9,725,922	135	6	30	0	518,373	148.68	10,061,415
Jul-14	10,271,387	47	9.5	31	0	529,302	149.01	10,030,138
Aug-14	10,274,818	65	10.1	31	0	540,232	149.35	10,120,030
Sep-14	9,762,011	197	0	30	1	551,161	149.68	9,684,631
Oct-14	10,634,292	383	0	31	1	562,090	150.01	10,779,294
Nov-14	12,234,414	648	0	30	1	573,020	150.34	11,656,045
Dec-14	13,323,532	781	0	31	0	583,949	150.68	13,033,201
Jan-15	14,647,867	980	0	31	0	589,768	150.99	13,908,657
Feb-15	13,318,490	1053	0	28	0	595,586	151.30	13,391,068
Mar-15	12,867,283	710	0	31	1	601,405	151.61	12,227,102
Apr-15	10,749,956	432	0	30	1	607,223	151.92	10,733,425
May-15	10,401,378	276	0	31	1	613,042	152.24	10,338,205
Jun-15	9,938,325	119	0	30	0	618,860	152.55	9,888,958
Jul-15	10,626,013	32	38	31	0	624,679	152.86	10,589,772
Aug-15	10,677,244	51	35.4	31	0	630,497	153.18	10,624,282
Sep-15	10,039,638	106	15.8	30	1	636,316	153.49	9,666,055
Oct-15	10,488,170	346	0	31	1	642,135	153.81	10,672,358
Nov-15	11,098,768	469	0	30	1	647,953	154.13	10,935,039
Dec-15	12,326,270	565	0	31	0	653,772	154.44	12,157,389
Jan-16		961	0	31	0	652,277	154.72	13,905,080
Feb-16		876	0	29	0	650,783	155.01	12,982,931
Mar-16		703	0	31	1	649,288	155.29	12,291,301
Apr-16		451	0	30	1	647,794	155.57	10,920,711
May-16		271	0	31	1	646,299	155.85	10,444,627
Jun-16		110	7	30	0	644,804	156.13	10,115,632
Jul-16		36	40	31	0	643,310	156.42	10,795,452
Aug-16		52	30	31	0	641,815	156.70	10,654,063
Sep-16		177	5	30	1	640,321	156.99	9,906,591
Oct-16		372	1	31	1	638,826	157.27	10,963,577
Nov-16		568	0	30	1	637,332	157.56	11,540,762
Dec-16		852	0	31	0	635,837	157.84	13,598,975
Jan-17		961	0	31	0	628,843	158.15	14,099,504
Feb-17		876	0	28	0	621,849	158.47	12,905,269
Mar-17		703	0	31	1	614,855	158.78	12,505,486
Apr-17		451	0	30	1	607,861	159.10	11,144,784
May-17		271	0	31	1	600,867	159.41	10,678,594
Jun-17		110	7	30	0	593,872	159.73	10,359,497
Jul-17		36	40	31	0	586,878	160.04	11,049,220
Aug-17		52	30	31	0	579,884	160.36	10,917,739
Sep-17		177	5	30	1	572,890	160.68	10,180,182
Oct-17		372	1	31	1	565,896	160.99	11,247,086
Nov-17		568	0	30	1	558,902	161.31	11,834,195
Dec-17		852	0	31	0	551,908	161.63	13,902,337

General Service > 50 to 999 kW

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Number of Peak Hours	Predicted Consumed
Jan-06	28,857,836	797	0	31	0	0	336	28,030,929
Feb-06	27,077,340	873	0	28	0	0	320	27,120,390
Mar-06	27,505,940	659	0	31	1	0	368	26,399,495
Apr-06	23,111,767	366	0	30	1	0	304	22,853,505
May-06	22,990,550	242	2	31	1	0	352	22,750,855
Jun-06	22,533,457	82	9	30	0	0	352	21,882,706
Jul-06	24,301,816	23	70	31	0	0	320	24,250,256
Aug-06	23,835,760	58	32	31	0	0	352	23,133,106
Sep-06	22,400,469	211	1	30	1	0	320	21,686,946
Oct-06	24,231,401	441	0	31	1	0	336	24,247,391
Nov-06	25,214,981	540	0	30	1	0	352	24,759,314
Dec-06	27,155,476	747	0	31	0	0	304	27,339,788
Jan-07	29,662,728	913	0	31	0	0	352	29,167,672
Feb-07	28,296,503	925	0	28	0	0	320	27,565,182
Mar-07	27,525,693	665	0	31	1	0	352	26,317,938
Apr-07	23,410,934	474	0	30	1	0	320	23,920,048
May-07	22,478,351	251	1	31	1	0	352	22,753,731
Jun-07	22,018,768	97	7	30	0	0	336	21,762,918
Jul-07	23,322,571	40	52	31	0	0	336	23,731,863
Aug-07	23,240,376	63	22	31	0	0	352	22,758,850
Sep-07	22,268,047	165	10	30	1	0	304	21,527,494
Oct-07	23,250,601	311	0	31	1	0	352	23,245,145
Nov-07	25,216,488	620	0	30	1	0	352	25,452,079
Dec-07	28,290,656	926	0	31	0	0	304	28,886,589
Jan-08	29,938,302	935	0	31	0	1,664	352	29,347,988
Feb-08	28,649,711	922	0	29	0	3,328	320	28,007,978
Mar-08	27,818,185	792	0	31	1	4,992	304	27,011,952
Apr-08	23,652,658	457	0	30	1	6,656	352	24,014,351
May-08	22,308,792	328	0	31	1	8,320	336	23,238,137
Jun-08	21,249,645	110	5	30	0	9,984	336	21,761,917
Jul-08	22,972,304	35	22	31	0	11,648	352	22,479,484
Aug-08	22,825,575	50	22	31	0	13,312	320	22,353,741
Sep-08	21,467,208	193	7	30	1	14,977	336	21,878,611
Oct-08	22,467,926	373	0	31	1	16,641	352	23,736,936
Nov-08	24,892,282	591	0	30	1	18,305	304	24,749,743
Dec-08	29,306,390	1034	0	31	0	19,969	336	30,020,738
Jan-09	30,390,902	1093	0	31	0	32,351	336	30,499,674
Feb-09	26,265,717	839	0	28	0	44,733	304	26,555,096
Mar-09	27,254,364	762	0	31	1	57,115	352	26,987,834
Apr-09	23,432,984	453	0	30	1	69,496	320	23,529,176
May-09	22,194,839	320	0	31	1	81,878	320	22,814,385
Jun-09	21,369,187	142	14	30	0	94,260	352	22,309,166
Jul-09	21,789,412	75	2	31	0	106,642	352	21,656,417
Aug-09	21,831,315	84	14	31	0	119,024	320	21,974,460
Sep-09	21,746,633	103	4	30	1	131,406	336	20,585,428
Oct-09	22,881,654	451	0	31	1	143,788	336	23,896,889
Nov-09	23,647,814	474	0	30	1	156,170	320	23,440,446

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Number of Peak Hours	Predicted Consumed
Jan-10	28,838,476	900	0	31	0	171,366	320	28,269,361
Feb-10	25,306,730	778	0	28	0	174,181	304	25,635,145
Mar-10	24,777,900	514	0	31	1	176,995	368	24,602,849
Apr-10	21,809,290	358	0	30	1	179,810	320	22,366,808
May-10	21,546,573	212	1	31	1	182,624	320	21,601,671
Jun-10	21,152,489	106	3	30	0	185,439	352	21,255,477
Jul-10	23,012,032	15	52	31	0	188,253	336	22,940,413
Aug-10	22,901,515	38	56	31	0	191,068	336	23,300,694
Sep-10	21,432,269	231	0	30	1	193,882	336	21,354,128
Oct-10	22,472,904	356	0	31	1	196,696	320	22,773,215
Nov-10	24,030,452	549	0	30	1	199,511	336	24,096,726
Dec-10	27,767,188	879	0	31	0	202,325	368	28,383,584
Jan-11	29,631,691	1078	0	31	0	199,078	336	29,856,027
Feb-11	26,046,839	827	0	28	0	195,830	304	25,989,534
Mar-11	26,570,003	750	0	31	1	192,582	368	26,597,121
Apr-11	23,083,598	482	0	30	1	189,335	320	23,415,447
May-11	21,824,620	267	0	31	1	186,087	336	22,168,867
Jun-11	20,701,172	110	0	30	0	182,839	352	21,165,320
Jul-11	22,583,046	30	64	31	0	179,592	320	23,480,022
Aug-11	22,784,484	22	36	31	0	176,344	352	22,462,120
Sep-11	21,345,136	172	9	30	1	173,096	336	21,318,402
Oct-11	22,769,113	337	5	31	1	169,849	320	22,932,431
Nov-11	24,230,624	563	0	30	1	166,601	352	24,447,475
Dec-11	26,954,814	770	0	31	0	163,353	336	27,293,792
Jan-12	27,978,052	866	0	31	0	176,129	336	28,086,261
Feb-12	25,273,761	694	0	29	0	188,905	320	25,466,894
Mar-12	24,803,557	525	0	31	1	201,681	352	24,492,248
Apr-12	22,044,979	435	0	30	1	214,456	320	22,927,737
May-12	21,279,303	227	0	31	1	227,232	352	21,827,820
Jun-12	21,429,782	65	18	30	0	240,008	336	21,271,962
Jul-12	23,340,060	7	67	31	0	252,784	336	23,309,928
Aug-12	22,638,507	39	28	31	0	265,559	352	21,981,494
Sep-12	21,056,352	214	4	30	1	278,335	304	20,857,145
Oct-12	22,591,004	396	0	31	1	291,111	352	23,095,404
Nov-12	24,156,928	601	0	30	1	303,887	352	24,354,153
Dec-12	26,882,955	794	0	31	0	316,662	304	26,771,589
Jan-13	28,716,062	928	0	31	0	327,299	352	28,298,734
Feb-13	25,735,080	867	0	28	0	337,936	304	25,899,696
Mar-13	26,208,213	767	0	31	1	348,573	320	25,879,793
Apr-13	22,900,049	525	0	30	1	359,210	352	23,526,221
May-13	21,368,508	325	0	31	1	369,847	352	22,243,647
Jun-13	20,598,950	131	6	30	0	380,484	320	20,721,067
Jul-13	21,754,518	61	28	31	0	391,121	352	21,803,563
Aug-13	22,034,829	46	42	31	0	401,757	336	22,114,112
Sep-13	20,818,131	179	0	30	1	412,394	320	20,102,657
Oct-13	22,036,269	329	0	31	1	423,031	352	22,108,944
Nov-13	24,280,735	621	0	30	1	433,668	336	23,998,841
Dec-13	28,617,030	1113	0	31	0	444,305	320	29,279,884

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	CDM Activity	Number of Peak Hours	Predicted Consumed
Jan-14	29,731,361	1120	0	31	0	466,448	352	29,531,496
Feb-14	26,524,870	978	0	28	0	488,591	304	26,408,884
Mar-14	26,573,892	884	0	31	1	510,733	336	26,522,563
Apr-14	22,785,513	523	0	30	1	532,876	320	22,718,141
May-14	21,163,182	267	1	31	1	555,019	336	21,089,172
Jun-14	19,864,971	135	6	30	0	577,162	336	20,310,028
Jul-14	20,551,473	47	10	31	0	599,304	352	20,242,523
Aug-14	20,809,859	65	10	31	0	621,447	320	20,096,011
Sep-14	19,978,897	197	0	30	1	643,590	336	19,680,529
Oct-14	21,777,287	383	0	31	1	665,733	352	21,836,698
Nov-14	24,141,227	648	0	30	1	687,876	304	23,197,063
Dec-14	26,134,928	781	0	31	0	710,018	336	25,717,681
Jan-15	27,731,660	980	0	31	0	716,161	336	27,423,464
Feb-15	25,715,488	1053	0	28	0	722,303	304	26,344,438
Mar-15	25,051,564	710	0	31	1	728,446	352	24,487,305
Apr-15	21,377,518	432	0	30	1	734,588	336	21,445,330
May-15	20,280,335	276	0	31	1	740,731	320	20,422,202
Jun-15	19,371,536	119	0	30	0	746,873	352	19,516,215
Jul-15	20,675,018	32	38	31	0	753,016	352	20,883,552
Aug-15	20,614,735	51	35	31	0	759,158	320	20,654,803
Sep-15	19,939,073	106	16	30	1	765,301	336	19,216,002
Oct-15	20,726,132	346	0	31	1	771,443	336	21,065,032
Nov-15	21,470,151	469	0	30	1	777,585	320	21,504,226
Dec-15	23,595,139	565	0	31	0	783,728	352	23,752,910
Jan-16		961	0	31	0	786,816	320	26,916,498
Feb-16		876	0	29	0	789,905	320	25,207,375
Mar-16		703	0	31	1	792,993	352	24,225,208
Apr-16		451	0	30	1	796,082	336	21,417,211
May-16		271	0	31	1	799,170	336	20,355,447
Jun-16		110	7	30	0	802,259	352	19,561,590
Jul-16		36	40	31	0	805,347	320	20,606,225
Aug-16		52	30	31	0	808,435	352	20,522,517
Sep-16		177	5	30	1	811,524	336	19,218,845
Oct-16		372	1	31	1	814,612	320	21,053,784
Nov-16		568	0	30	1	817,701	336	22,366,395
Dec-16		852	0	31	0	820,789	336	26,000,921
Jan-17		961	0	31	0	818,176	336	26,951,290
Feb-17		876	0	28	0	815,563	304	24,518,766
Mar-17		703	0	31	1	812,949	368	24,294,830
Apr-17		451	0	30	1	810,336	304	21,112,518
May-17		271	0	31	1	807,723	352	20,459,900
Jun-17		110	7	30	0	805,109	352	19,552,882
Jul-17		36	40	31	0	802,496	320	20,614,933
Aug-17		52	30	31	0	799,883	352	20,548,641
Sep-17		177	5	30	1	797,270	320	19,131,807
Oct-17		372	1	31	1	794,656	336	21,245,315
Nov-17		568	0	30	1	792,043	352	22,575,342
Dec-17		852	0	31	0	789,430	304	25,835,553

ATTACHMENT 3 – C

CDM Load Forecast Adjustment Work Form

Board Appendix 2-I

Appendix 2-I
Load Forecast CDM Adjustment Work Form (2017)

Appendix 2-I was initially developed to help determine what would be the amount of CDM savings needed in each year to cumulatively achieve the four year 2011-2014 CDM target. This then determined the amount of kWh (and with translation, kW of demand) savings that were converted into dollar balances for the LRAMVA, and also to determine the related adjustment to the load forecast to account for OPA-reported savings. Beginning for the 2015 year, it has been adjusted because the persistence of 2011-2014 CDM programs will be an adjustment to the load forecast in addition to the estimated savings for the first year (2015) for the new 2015-2020 CDM plan.

2017 is the third year of the six-year (2015-2020) Conservation First program. Final results for the 2011-14 program were issued in the fall of 2015, and the program in completed, although in some instances disposition of the amounts has been deferred. For the purposes of the 2015-2020 LRAMVA, and the impact of CDM on the load forecast, CDM programs in 2014 and earlier are implicit in the historical data on which the base load forecast is developed. Only impacts of 2015 to 2017 CDM programs need to be reflected in the manual load forecast adjustment and for the LRAMVA threshold amount in 2017 and carrying forward, although the half-year impact of 2015 CDM programs on the 2015 historical data is also assumed to be reflected in the base load forecast.

The new six year (2015-2020) CDM program works similarly to the previous 2011-2014 CDM program, meaning that distributors will offer programs each year that, over the six years (from January 1, 2015 to December 31, 2020) will strive to cumulatively achieve savings meeting the new six year CDM target. In other words, distributors will be able to offer and execute programs on a basis so that cumulatively over the period, the measured impacts, including persistence, of the CDM programs will accumulate towards achieving each distributor's 2015-2020 CDM target.

2015-2020 CDM Program - 2017, third year of the current CDM plan

For the first year of the new 2015-2020 CDM plan, it is assumed that each year's program will achieve an equal amount of new CDM savings. The new targets for 2015-2020 do not take into account persistence beyond the first year, but the IESO will encourage distributors to promote and implement CDM plans that will have longer term persistence of savings. This results in each year's program being about 1/6 (18.67%) of the cumulative 2015-2020 CDM target for kWh savings. A distributor may propose an alternative approach but would be expected to document in its application why it believes that its proposal is more reasonable. In its proposal, the distributor should ensure that the sum of the results for each year's CDM program from 2015 to 2020 add up to its 2015-2020 CDM target as established by the IESO.

	2015	2016	2017	2018	2019	2020	Total
6 Year (2015-2020) kWh Target:							
60,658,589							
			%				
2015 CDM Programs	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	40.20%
2016 CDM Programs		2.25%	2.25%	2.25%	2.25%	2.25%	11.25%
2017 CDM Programs			2.60%	2.60%	2.60%	2.60%	10.38%
2018 CDM Programs				2.65%	2.65%	2.65%	7.96%
2019 CDM Programs					2.97%	2.97%	5.94%
2020 CDM Programs						24.27%	24.27%
Total in Year	**6.70%**	**8.95%**	**11.55%**	**14.20%**	**17.17%**	**41.44%**	**100.00%**
			kWh				
2015 CDM Programs	18,512,000	18,512,000	18,512,000	18,512,000	18,512,000	18,512,000	111,072,000
2016 CDM Programs		6,215,000	6,215,000	6,215,000	6,215,000	6,215,000	31,075,000
2017 CDM Programs			7,171,000	7,171,000	7,171,000	7,171,000	28,684,000
2018 CDM Programs				7,329,000	7,329,000	7,329,000	21,987,000
2019 CDM Programs					8,205,000	8,205,000	16,410,000
2020 CDM Programs						67,055,000	67,055,000
Total in Year	**18,512,000**	**24,727,000**	**31,898,000**	**39,227,000**	**47,432,000**	**114,487,000**	**276,283,000**

Note: The default formulae in the above table assume that 1/21 of the 2015-2020 kWh CDM target is required each year so that, including persistence, 100% of the kWh target is achieved by the end of 2020. The distributor can input the 2015 CDM savings, including persistence from 2016 to 2020, once the reports become available. The distributor can also input estimates or forecasts of the 2016 and 2017 CDM programs if it believes that these are more realistic; such information would typically be derived from the CDM plans that the distributor has filed with the IESO. Similarly, CDM savings and persistence into future years can be estimated for 2018, 2019 and 2020 CDM programs. However, the distributor will have to support its proposals for estimated or forecasted savings, particularly beyond the 2017 test year. The sum of cumulative savings, including persistence, should equal the target entered into cell A25.

Determination of 2017 Load Forecast Adjustment

The Board determined that the "net" number should be used in its Decision and Order with respect to Centre Wellington Hydro Ltd.'s 2013 Cost of Service rates (EB-2012-0113). This approach has also been used in Settlement Agreements accepted by the Board in other 2013 and 2014 applications. The distributor should select whether the adjustment is done on a "net" or "gross" basis, but must support a proposal for the adjustment being done on a "gross" basis. Sheet 2-I defaults to the adjustment being done on a "net" basis consistent with Board policy and practice.

From each of the 2006-2010 CDM Final Report, and the 2011, 2012, 2013, 2014 and 2015 CDM Final Reports, issued by the OPA/IESO for the distributor, the distributor should input the "gross" and "net" results of the cumulative CDM savings for 2014 into cells D84 to E88. The model will calculate the cumulative savings for all programs from 2006 to 2012 and determine the "net" to "gross" factor "g".

Net-to-Gross Conversion				
Is CDM adjustment being done on a "net" or "gross" basis?				gross
Persistence of Historical CDM programs to 2015	"Gross" kWh	"Net" kWh	Difference kWh	"Net-to-Gross" Conversion Factor ('g')
2006-2010 CDM programs				
2011 CDM program				
2012 CDM program				
2013 CDM program				
2014 CDM program				
2015 CDM program				
2006 to 2015 OPA CDM programs: Persistence to 2017	0	0	0	0.00%

The default values below represent the factor used for how each year's CDM program is factored into the manual CDM adjustment. Distributors can choose alternative weights of "0", "0.5" or "1" from the drop-down menu for each cell, but must support its alternatives.

These factors do not mean that CDM programs are excluded, but the assumption that impacts of previous year CDM programs are already implicitly reflected in the actual data for historical years that are used to derive the load forecast prior to any manual CDM adjustment for the 2017 test year.

Weight Factor for Inclusion in CDM Adjustment to 2017 Load Forecast

	2015	2016	2017	2018	2019	2020	
Weight Factor for each year's CDM program impact on 2014 load forecast	0.5	1	0.5	0	0	0	Distributor can select "0", "0.5", or "1" from drop-down list
Default Value selection rationale.	*Default is 0, but one option is for full year impact of persistence of 2015 CDM programs on 2017 load forecast, but 50% impact in base forecast (first year impact of 2014 CDM programs on 2014 actuals, which is part of the data for the load forecast.*	*Full year impact of persistence of 2015 programs on 2015 load forecast. 2015 CDM program impacts are not in the base forecast.*	*Only 50% of 2016 CDM programs are assumed to impact the 2016 load forecast based on the "half-year" rule.*	*2018, 2019 and 2020 are future years beyond the 2017 test year. No impacts of CDM programs beyond the 2017 test year are factored into the test year load forecast.*			

2015-2020 LRAMVA and 2017 CDM adjustment to Load Forecast

One manual adjustment for CDM impacts to the 2017 load forecast is made. There is a different but related threshold amount that is used for the 2017 LRAMVA amount for Account 1568.

The Amount used for the CDM threshold of the LRAMVA is the kWh that will be used to determine the base amount for the LRAMVA balance for 2017, for assessing performance against the five-year target.

If used to determine the manual CDM adjustment for the system purchased kWh, the proposed loss factor should correspond with the proposed total loss factor calculated in Appendix 2-R

The Manual Adjustment for the 2017 Load Forecast is the amount manually subtracted from the system-wide load forecast (either based on a purchased or billed basis) derived from the base forecast from historical data.

If the distributor has developed their load forecast on a system purchased basis, then the manual adjustment should be on a system purchased basis, including the adjustment for losses. If the load forecast has been developed on a billed basis, either on a system basis or on a class-specific basis, the manual adjustment should be on a billed basis, excluding losses.

The distributor should determine the allocation of the savings to all customer classes in a reasonable manner (e.g. taking into account what programs and what IESO-measured impacts were directed at specific customer classes), for both the LRAMVA and for the load forecast adjustment.

	2015	2016	2017	2018	2019	2020	Total for 2017
Amount used for CDM threshold for LRAMVA (2017)	18,512,000.00	6,215,000.00	7,171,000.00				31,898,000.00
Manual Adjustment for 2017 Load Forecast (billed basis)	9,256,000.00	6,215,000.00	3,585,500.00	-	-	-	19,056,500.00
Proposed Loss Factor (TLF)	3.47%	Format: X.XX%					
Manual Adjustment for 2017 Load Forecast (system purchased basis)	9,577,183.20	6,430,660.50	3,709,916.85	-	-	-	19,717,760.55

Manual adjustment uses "gross" versus "net" (i.e. numbers multiplied by (1 + g). The Weight factor is also used to calculate the impact of each year's program on the CDM adjustment to the

ATTACHMENT 3 – D

Thunder Bay Hydro's

2015 – 2020 CDM Plans

NOTES	
1. CDM Plan	Complete Table 2 for all Programs for which will contribute towards the CDM Plan Target.
2. Program Name	Province-wide LDC Program names are found in the applicable Program Rules. Regional & local Program names should be consistent with those included in approved business cases (if applicable) and consistent throughout this CDM Plan.
3. Anticipated Annual Budget	Include annual budgets for each Program to be allocated against the CDM Plan Budget by funding mechanism. Note: LDC Eligible Expenses incurred in 2014 for programs delivered in 2015 (and not funded as part of the 2011-2014 Master CDM Program Agreement) should be included in 2015 Annual anticipated budget amounts.
4. Target Gap	Portion of the CDM Plan Target that the LDC reasonably expects, based on qualified independent third party analysis as accepted by the IESO, could only be achieved with funding in addition to the CDM Plan Budget.

LDC 5: Thunder Bay Hydro Electricity Distribution Inc.

TABLE 2. PROGRAM AND MILESTONE SCHEDULE

Program Implementation Schedule (Annual Anticipated Budget & Incremental Annual Milestones by Program)

Funding Mechanism	Approved Province Wide Programs	Proposed Pilots or Programs	Program Start Date	Customer Segments	2015 Budget ($)	2015 (MWh)	2016 Budget ($)	2016 (MWh)	2017 Budget ($)	2017 (MWh)	2018 Budget ($)	2018 (MWh)	2019 Budget ($)	2019 (MWh)	2020 Budget ($)	2020 (MWh)	Total CDM Plan Budget ($)	Total Persisting Energy Savings in 2020 (MWh)
	Process and Systems		31-Jul-2016	Industrial	$0	0.0	$679,190	13,484.7	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$679,190	13,484.7
	Small Business Lighting		1-Aug-2015	Small business	$0	0.0	$165,750	317.7	$182,735	407.7	$187,695	428.9	$190,175	439.5	$192,655	450.1	$919,010	2,043.9
	Audit Funding Program		1-Aug-2015	Small business, Commercial, Agricultural, Institutional	$1,268	0.0	$13,691	151.7	$13,691	151.7	$13,691	151.7	$13,691	151.7	$13,691	151.7	$69,723	607.0
	High Performance New Construction		31-Jul-2016	Commercial, Agricultural, Institutional, Industrial	$0	0.0	$37,436	114.0	$37,436	114.0	$37,436	114.0	$37,436	114.0			$187,180	570.0
	Retrofit		1-Aug-2015	Small business, Commercial, Institutional, Industrial	$115,500	1,035.3	$833,227	2,173.7	$822,227	2,173.7	$822,227	2,173.7	$822,227	2,173.7	$822,227	2,173.7	$4,237,635	11,903.8
	Energy Manager Program		1-Aug-2015	Industrial	$0	0.0	$97,200	200.0	$97,200	200.0	$97,200	200.0	$97,200	200.0	$97,200	200.0	$486,000	1,000.0
	Heating and Cooling Program		1-Aug-2015	Residential	$240,901	125.9	$259,078	299.3	$261,089	302.5	$263,100	305.7	$265,111	309.0	$267,122	312.2	$1,556,401	1,654.6
	Coupon Program		1-Aug-2015	Residential	$38,635	228.7	$144,952	537.0	$144,952	537.0	$144,952	537.0	$144,952	537.0	$144,952	537.0	$763,395	2,913.7
	Home Assistance Program		1-Aug-2015	Low-income	$20,295	0.0	$182,940	113.4	$147,940	85.1	$147,940	85.1	$147,940	85.1	$147,940	85.1	$794,995	453.8
		Block Heater Timer Program	1-Sep-2016	Residential	$0	0.0	$55,537	0.0	$95,537	1,044.0	$95,537	913.5	$90,537	913.5	$35,000	913.5	$372,148	3,915.0
		Social Benchmarking Program	1-Jan-2018	Residential	$0	0.0	$0	$0	$226,100	931.9	$186,536	1,205.4	$180,535	2,066.4			$593,171	4,203.7
		FFPC Unassigned	1-Jan-2017		$0	0.0	$0	0.0	$26,051	78.3	$26,051	78.3	$26,051	78.3	$26,051	78.3	$104,204	313.0
Full Cost Recovery Programs																		
FCR TOTAL					$416,599	1,389.9	$2,469,001	17,391.5	$1,828,858	5,094.0	$2,061,929	6,050.3	$2,021,856	6,207.2	$1,964,809	7,082.0	$10,763,052	43,063.2

		$	Savings	$	Savings	$	Savings	$	Savings	$	Savings	$	Savings	$	Savings
Pay for Performance Programs																
P4P TOTAL		$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0
2011-2014 CDM Framework (and 2015 extension of 2011-2014 Master CDM Agreement) *(Not funded through 2015-2020 CDM Framework)*	Direct Install Lighting		353.0												353.0
	Retrofit Initiative		1,436.2												1,436.2
	Heating and Cooling Initiative		170.5												170.5
	Bi-Annual Retailer Event		215.0												215.0
	Conservation Instant Coupon Booklet		93.2												93.2
	Low Income Home Assistance Program		314.1												314.1
	Other		20.7												0.0
	Process and Systems Upgrades Program		14,571.9												14,571.9
	Audit Funding		303.4												0.0
	High Performance New Construction		114.0												114.0
	Energy Manager (PSUI)		200.0												200.0
2011-2014 CDM Framework (and 2015 extension) TOTAL		$0	17,792.0											0.0	17,468.0
TARGET GAP TOTAL															0.0	
CDM PLAN TOTAL		$416,599	19,181.9	$2,469,001	17,391.5	$1,828,858	5,094.0	$2,061,929	6,050.3	$2,021,856	6,207.2	$1,964,809	7,082.0	$10,763,052	60,531.2
MINIMUM ANNUAL SAVINGS CHECK		True		True		True		True		True		True			

Option	Program Types
Yes	Regional
No	Local
	Provincial

2011-2014 Province Wide Programs
Aboriginal Program
Audit Funding
Bi-Annual Retailer Event
Conservation Instant Coupon Booklet
Direct Install Lighting
Energy Manager (PSUI)
Existing Building Commissioning
Heating and Cooling Initiative
High Performance New Construction
Low Income Home Assistance Program
Monitoring and Targeting (PSUI)
Other
peaksaverPLUS
Process and Systems Upgrades Program
Program Enabled Savings
Residential New Construction
Retrofit Initiative

2015-2020 CDM Programs
Audit Funding Program
Energy Manager Program
Existing Building Commissioning
High Performance New Construction
Home Assistance Program
Process and Systems Upgrades Program
Monitoring and Targeting Program
Coupon Program
New Construction Program
Heating and Cooling Program
Retrofit
Small Business Lighting

ATTACHMENT 3 – E

Other Operating Revenue

Board Appendix 2-H

File Number:	EB-2016-0105
Exhibit:	3
Tab:	
Attachment:	3-E
Page:	
Date:	09-Sep-16

Appendix 2-H
Other Operating Revenue

USoA #	USoA Description	2013 Actual	2014 Actual	2015 Actual²	Bridge Year²	Test Year
		2013	2014	2015	2016	2017
	Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
4235	Specific Service Charges	($411,161)	($380,788)	($468,930)	($377,550)	($398,500)
4225	Late Payment Charges	($287,463)	($329,078)	($326,892)	($361,612)	($380,777)
4080	SS Administration	($144,113)	($143,536)	($146,592)	($151,000)	($148,000)
4082	Retail Services Revenues	($33,540)	($28,944)	($24,849)	($21,840)	($23,100)
4084	Service Transaction Requests (STR) R	($1,257)	($595)	($705)	($450)	($400)
4205	Interdepartmental Rents	$0	$0	$0	$0	$0
4210	Rent from Electric Property	($490,736)	($503,294)	($501,360)	($499,404)	($499,404)
4220	Other Electric Revenues	($6,662)	($7,240)	($9,513)	($7,396)	($16,569)
4245	Government Assistance Directly Credited to Income	$0	$0	$0	$0	$0
4325	Revenues from Merchandise Jobbing, Etc.	$0	$0	$0	$0	$0
4330	Costs and Expenses of Merchandising Jobbing, Etc.	$0	$0	$0	$0	$0
4355	Gain on Disposition of Utility and Other Property	($2,742)	($1,137)	($15,352)	($205,314)	($4,000)
4360	Loss on Disposition of Utility and Other Property	$50,505	$168,777	$263,183	$332,057	$335,217
4375	Revenues from Non-Utility Operations	($89,914)	($122,458)	($119,935)	($208,963)	($240,082)
4380	Expenses of Non-Utility Operations	$81,045	$109,448	$105,584	$195,292	$219,876
4390	Miscellaneous Non-Operating Income	($16,563)	($13,298)	$11,983	($14,570)	($14,712)
4405	Interest and Dividend Income	($194,985)	($138,176)	($146,597)	($79,000)	($77,000)
Specific Service Charges		($411,161)	($380,788)	($468,930)	($377,550)	($398,500)
Late Payment Charges		($287,463)	($329,078)	($326,892)	($361,612)	($380,777)
Other Operating Revenues		($178,910)	($173,074)	($172,145)	($173,290)	($171,500)
Other Income or Deductions		($670,052)	($507,378)	($412,007)	($487,298)	($296,674)
Total		($1,547,586)	($1,390,317)	($1,379,975)	($1,399,750)	($1,247,451)

Description | **Account(s)**
Specific Service Charges: | 4235
Late Payment Charges: | 4225
Other Distribution Revenues: | 4080, 4082, 4084, 4090, 4205, 4210, 4215, 4220, 4240, 4245
Other Income and Expenses: | 4305, 4310, 4315, 4320, 4325, 4330, 4335, 4340, 4345, 4350, 4355, 4360, 4365,

Other Income and Expenses: 4305, 4310, 4315, 4320, 4325, 4330, 4335, 4340, 4345, 4350, 4355, 4360, 4365, 4370, 4375, 4380, 4385, 4390, 4395, 4398, 4405, 4415

Note: Add all applicable accounts listed above to the table and include all relevant information.

Account Breakdown Details

For each "Other Operating Revenue" and "Other Income or Deductions" Account, a detailed breakdown of the account components is required. See the exam

Account 4080-2: Retail Service Revenues

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
SS Administration Charge - 311	($129,394)	($129,300)	($132,246)	($136,030)	($133,327)
SS Administration Charge - 313	($6)	($6)	($6)	$0	$0
SS Administration Charge - 314	($489)	($487)	($468)	($512)	($502)
SS Administration Charge - 315	($12,912)	($12,525)	($12,761)	($13,176)	($12,915)
SS Administration Charge - 316	($1,273)	($1,174)	($1,067)	($1,235)	($1,211)
SS Administration Charge - 318	($39)	($44)	($44)	($47)	($45)
Total	($144,113)	($143,536)	($146,592)	($151,000)	($148,000)

Account 4082: Retail Service Revenues

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Service Agreement	($100)	($100)	$0	$0	$0
Service Agreement	($4,140)	($4,140)	($4,080)	($4,080)	($4,100)
Service Agreement Variable	($18,313)	($15,440)	($12,981)	($11,100)	($11,500)
Bill Ready Charge	($10,988)	($9,264)	($7,788)	($6,660)	($7,500)
Total	($33,540)	($28,944)	($24,849)	($21,840)	($23,100)

Account 4084 - Service Transaction Requests (STR) Revenues

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Request Fee	($520)	($223)	($190)	($180)	($150)
Process Fee	($737)	($372)	($320)	($220)	($200)
Information Requests	$0	$0	($195)	($50)	($50)
Total	($1,257)	($595)	($705)	($450)	($400)

Account 4205 - Interdepartmental Rents

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
	$0	$0	$0	$0	$0
Total	$0	$0	$0	$0	$0

Appendix 2-H
Other Operating Revenue

Account 4210 - Rent from Electric Property

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Transformer/Meter					
Pole Line and Other Miscellaneous Rentals	($490,735)	($503,294)	($501,360)	($499,404)	($499,404)
Total	($490,735)	($503,294)	($501,360)	($499,404)	($499,404)

Account 4220 Other Electric Revenus

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Net Affiliate Revenue from Ancilliary Services	($6,662)	($7,240)	($9,513)	($7,396)	($16,569)
Affiliate Allocated	$0				
All Other					
Affiliate Allocated	$0				
Affiliate Allocated					
Affiliate Allocated					
Employee Benefits					
Salary/Wages/Af					
Affiliate Allocated					
Affiliate Allocated					
Adjustments					
Total	($6,662)	($7,240)	($9,513)	($7,396)	($16,569)

Account 4305 Regulatory Debits

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
	$0	$0	$0	$0	$0
Total	$0	$0	$0	$0	$0

Account 4355 - Gain on Disposition of Utility and Other Property

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Equipment	($597)	($1,137)	($250)	$0	$0
Gain Disposal Asset	($1,000)	$0	$0	$0	$0
Surpl Sale-Capital A	($1,145)	$0	($15,102)	($205,314)	($4,000)
Gain on Disposal of Assets	($2,742)	($1,137)	($15,352)	($205,314)	($4,000)
Total	($2,742)	($1,137)	($15,352)	($205,314)	($4,000)

Account 4360 - Loss on Disposition of Utility and Other Property

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Reclass Misc Write Off	$13,345	$0	$0	$0	$0
Sale of Scrapped M	($140,123)	($202,895)	($51,915)	($62,000)	($62,000)
Scrap/Transformer	($52,288)	$39,911	$27,432	$27,432	$27,432
Meter	$0	$155,312	$114,639	$134,975	$134,975
Scrap/ From Inventory	$7,638	$0	$47	$0	$0
Loss on Retirement	$0	$2,250	$2,930	$0	$0
Transformers/Meter	($67,435)	($58,668)	($18,958)	($6,320)	($3,160)
Infrastructure	$289,368	$232,867	$189,008	$237,970	$237,970
Loss on Disposition of Utility Property	$0	$0	$0	$0	$0
Total	$50,505	$168,777	$263,183	$332,057	$335,217

Account 4375 - Revenues from Non Rate-Regulated Utility Operations

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Meter Service Provider	($89,914)	($122,458)	($54,934)	($59,687)	($70,661)
Locates	$0	$0	($65,002)	($149,276)	($169,421)
Total	($89,914)	($122,458)	($119,935)	($208,963)	($240,082)

Account 4380 - Expenses of Non Rate-Regulated Utility Operations

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Overhead Costs	$1,716	$9,126	$1,865	$0	$0
Affiliate Allocated	$16,423	$19,117	$8,562	$7,406	$9,484
Affiliate Allocated	$55,051	$62,277	$31,093	$33,127	$36,720
Affiliate Allocated	$6,461	$18,632	$4,668	$14,899	$18,160
Affiliate Allocated	$1,395	$296	$152	$350	$350
Affiliate Allocated	$0	$0	$9,975	$22,142	$23,533
Affiliate Allocated	$0	$0	$48,690	$67,793	$83,911
Affiliate Allocated	$0	$0	$579	$17,071	$12,363
Affiliate Allocated	$0	$0	$0	$32,504	$35,355
Meter Service Provider	$81,045	$109,448	$46,340	$55,782	$64,714
Locates	$0	$0	$59,244	$139,510	$155,162
Total	$81,045	$109,448	$105,584	$195,292	$219,876

Account 4390 - Miscellaneous Non-Operating Income

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Reclass Misc Write Off	($13,345)	$0	$0	$0	$0
Miscellaneous	($2,409)	($13,298)	$11,983	($14,570)	($14,712)
Sundry Earnings	($809)	($0)	$0	$0	$0
Miscellaneous	($16,563)	($13,298)	$11,983	($14,570)	($14,712)
Total	($16,563)	($13,298)	$11,983	($14,570)	($14,712)

Appendix 2-H
Other Operating Revenue

Account 4405 - Interest and Dividend Income

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Interest Income	($81,462)	($67,906)	($83,650)	($50,000)	($77,000)
Interest Income/Di	$0	$0	($14)	$0	$0
Interest Rev Variance					
Renewable Int Rev	($113,523)	($70,269)	$0	$0	$0
Non Wires	$0	$0	($62,933)	($29,000)	$0
Interest Income	($81,462)	($67,906)	($83,664)	($50,000)	($77,000)
Interest Income on Non Wires Activities	($113,523)	($70,269)	($62,933)	($29,000)	$0
Total	($194,985)	($138,176)	($146,597)	($79,000)	($77,000)

Notes:
1. List and specify any other interest revenue.
2. applicant is to present information in both MIFRS and CGAAP. For the

Account 4225 -Late Payment Charges

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
Late Payment Charges	($287,463)	($329,078)	($326,892)	($361,612)	($380,777)
Total	($287,463)	($329,078)	($326,892)	($361,612)	($380,777)

Account 4235 - Specific Service Charges

	2013 Actual	2014 Actual	2015 Actual[2]	Bridge Year[2]	Test Year
	2013	2014	2015	2016	2017
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS
System Generated	($4,592)	($4,198)	$0	$0	$0
Fixed Distribution	($11,335)	($13,346)	($13,893)	($14,100)	($14,500)
U/G Joint Use	($39,532)	($39,838)	($40,727)	($41,000)	($41,000)
Reconnection Charges	($87,100)	($119,060)	($193,307)	($145,000)	($164,000)
Change of Occupation	($163,890)	($171,260)	($175,830)	($177,000)	($179,000)
Sundry Earnings	($25)	$0	($25)	$0	$0
Recoverable	($591,111)	($157,184)	($1,111,011)	($96,550)	($90,076)
Employer Health Ta	$542	$686	$478	$229	$109
Canada Pension Plan	$839	$839	$636	$323	$151
Employment Insurance	$407	$409	$320	$160	$75
WSIB	$271	$315	$242	$116	$55
Corporate Benefits	$1,554	$2,645	$1,743	$932	$405
Omers	$1,550	$2,561	$1,313	$1,044	$510
Miscellaneous/Other	$34,419	$877	$222,373	$0	$0
Miscellaneous Expense	$375	$0	$0	$0	$0
Outside Service	$299,748	$20,670	$753,993	$0	$0
Sub Contract	$1,650	$6,363	$5,746	$6,000	$6,000
Postage/Courier	$0	$107	$55	$0	$0
Legal	$0	$0	$9,408	$5,000	$5,000
Recoveries/ All Other	$0	$12,326	$0	$0	$0
Recoveries/ Labour	$65,337	($2,981)	($2,042)	$0	$0
Regular	$13,156	$19,998	$10,201	$9,936	$4,739
Salary/Wages/Other	$79	$388	$573	$0	$0
Overtime	$14,493	$14,769	$13,720	$12,709	$13,470
Supplies/Other	$0	$0	$122	$0	$0
Supplies/Hardware	$0	$273	$0	$0	$0
Supplies/Misc Too	$0	$41	$0	$0	$0
Supplies/Soil	$0	$37	$0	$0	$0
Supplies/ Tool &	$68	$0	$0	$0	$0
Telephone/Circuits	$0	$0	$50	$0	$0
All Other	$15,338	($2,987)	$3,418	$15,000	$15,000
Material Issues	($19,742)	($1,109)	$2,271	$0	$0
Truck Charge	$10,735	$13,577	$8,311	$13,726	$14,699
Material Overhead	$10,410	($2,022)	$2,911	$13,034	$12,230
Downtime	$14,846	$19,880	$13,446	$8,503	$9,148
Engineering	$0	$0	$3,599	($0)	$0
Supervisory	$17,930	$16,421	$11,100	$9,389	$8,485
Overhead Costs/ T	$0	$0	$11	$0	$0
Overhead Costs/ T	$2,421	$17	$1,864	$0	$0
Reconnection Charges	($87,100)	($119,060)	($193,307)	($145,000)	($164,000)
Change of Occupancy Charges	($163,890)	($171,260)	($175,830)	($177,000)	($179,000)
Other Miscellaeous	($160,171)	($90,468)	($99,793)	($55,549)	($55,500)
Total	($411,161)	($380,788)	($468,930)	($377,549)	($398,500)