EXHIBIT 3

OPERATING REVENUE

EB-2017-0073

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Exhibit 3: Operating Revenue

3.1 Load and Revenue Forecasts

This Exhibit provides the details of SLHI's operating revenue for 2013 Board Approved, 2013 Actual, 2014 Actual, 2015 Actual, 2016 Actual, the 2017 Bridge Year ("Bridge Year") and the 2018 Test Year ("Test Year"). This Exhibit also provides a detailed variance analysis by rate classification of the operating revenue components. Distribution revenue excludes revenue from commodity sales.

SLHI is proposing a total Service Revenue Requirement of $2,200,916 for the 2018 Test Year. This amount includes a Base Revenue Requirement of $2,079,719 plus revenue offsets of $121,197 to be recovered through Other Revenue.

Other Revenue include Late Payment charges, Specific Service charges, Rent from Electric Property, Miscellaneous Service revenues, Standard Supply Service ("SSS") Administrative charges and Interest. A summary of these operating revenues together is presented with a materiality analysis of variances and presented in this exhibit.

The following Table 3-1 summarizes SLHI's total operating revenue. Revenue for each of the actual years is from SLHI's audited Financial Statements. The Bridge Year and Test Year are provided on the basis of both existing and proposed distribution rates.

Table 3-1: Summary of Operating Revenue

Table 3-1: Summary of Operating Revenue									
	2013 Board Approved	2013 Actual	2014 Actual (CGAAP)	2014 Actual (MIFRS)	2015 Actual	2016 Actual	2017 Bridge	2018 Test at Current Rates	2018 Test at Proposed Rates
Distribution Throughput Revenue									
Residential	$1,131,550	$1,163,086	$1,209,006	$1,209,006	$1,138,938	$1,156,021	$1,207,928	$1,215,666	$1,375,454
GS < 50	$292,065	$325,333	$311,466	$311,466	$296,931	$297,450	$308,149	$307,924	$344,927
GS > 50	$305,779	$339,849	$345,504	$345,504	$338,561	$311,730	$336,581	$338,721	$329,446
Street Lighting	$95,645	$96,659	$99,988	$99,988	$96,201	$90,824	$79,907	$80,331	$29,893
Unmetered Scattered Load	$617	$276	$281	$281	$189	$0	$0	$0	$0
Total	**$1,825,656**	**$1,925,203**	**$1,966,245**	**$1,966,245**	**$1,870,820**	**$1,856,024**	**$1,932,565**	**$1,942,642**	**$2,079,720**
Other Distribution Revenue									
SSS Administration Revenue	$8,265	$8,140	$8,049	$8,049	$7,901	$8,135	$8,463	$8,484	$8,484
Rent from Electric property	$42,027	$42,859	$42,949	$42,949	$47,261	$45,333	$49,413	$50,247	$50,247
Late Payment Charges	$39,868	$38,447	$52,424	$52,424	$46,091	$48,897	$47,656	$49,498	$49,498
Specific Service Charges	$16,741	$17,685	$18,275	$18,275	$17,770	$17,965	$18,000	$18,000	$18,000
Other Operating Revenues				$1,293	$2,497	$2,477	$4,955	$7,468	$7,468
Other Income or Deductions	$22,124	$3,595	-$2,019	-$2,019	$44,790	$1,508	$1,444	$1,500	-$12,500
Total	**$129,025**	**$110,726**	**$119,678**	**$120,971**	**$166,310**	**$124,315**	**$129,931**	**$135,197**	**$121,197**
Grand Total	**$1,954,681**	**$2,035,929**	**$2,085,923**	**$2,087,216**	**$2,037,130**	**$1,980,340**	**$2,062,496**	**$2,077,839**	**$2,200,917**

Summary of Load and Customer/Connection Forecast

The purpose of this evidence is to present the process used by SLHI to prepare the weather normalized load and customer/connection forecast used to design the proposed 2018 distribution rates.

In summary, as a starting point, SLHI used the same regression analysis methodology used in the 2013 Cost of Service ("COS") application (EB-2012-0165). The analysis was done over a 10 year period from 2007 to 2016. The updated regression analysis included the variables used in the 2013 COS application but excluded the Ontario Real GDP and Cooling Degree day variables since they were not statistically significant and included a Spring/Fall Flag since it was statistically significant. The regression analysis used in this application has also been used by a number of distributors in more recent cost of service rate applications to determine a prediction model. With regard to the overall process of load forecasting, SLHI believes that conducting a regression analysis on historical electricity purchases to produce an equation that will predict purchases is appropriate. SLHI has the data for the amount of electricity (in kWh) purchased from Hydro One for use by SLHI's customers. With a regression analysis, these purchases can be related to other monthly explanatory variables such as heating degree days which occur in the same month. The results of the regression analysis produce an equation that predicts the purchases based on the explanatory variables. This prediction model is then used as the basis to forecast the total level of weather normalized purchases for the Bridge Year and the Test Year which is converted to billed kWh and kW, where applicable, by rate class. A detailed explanation of the process is provided later in this evidence.

Based on the Board's approval of this methodology in a number of previous costs of service applications as well as the discussion that follows, SLHI submits the load forecasting methodology is reasonable at this time for the purposes of this Application.

The following provides the material to support the weather normalized load forecast used by SLHI in this Application.

Table 3-2, Table 3-3 and Table 3-4 below provide a summary of the weather normalized load and customer/connection forecast used in this Application.

Table 3-2: Summary of Load and Customer/Connection Forecast

Year	Billed Actual (GWh)	Growth (GWh)	Billed Weather Normal (GWh)	Growth (GWh)	Customer/ Connection Count	Growth
Billed Energy (GWh) and Customer Count / Connections						
2013 Board Approved			72.1		3,293	
2007	90.7		90.8		3,313	
2008	76.8	(13.9)	74.6	(16.2)	3,323	10
2009	72.4	(4.3)	72.0	(2.6)	3,316	(7)
2010	71.1	(1.3)	74.4	2.5	3,316	0
2011	73.1	2.0	74.5	0.1	3,316	0
2012	71.9	(1.2)	77.1	2.6	3,325	9
2013	83.2	11.2	78.6	1.6	3,332	8
2014	85.5	2.4	81.5	2.8	3,347	14
2015	79.3	(6.2)	79.5	(2.0)	3,344	(2)
2016	70.8	(8.5)	72.3	(7.1)	3,358	13
2017 Bridge			72.8	0.4	3,365	7
2018 Test			72.1	(0.7)	3,372	7

In the above Table 3-2, the billed GWh data from 2007 to 2016 reflects actual weather and weather normal conditions in each year. The weather normal values are the actual values adjusted by the weather normal conversion factor outlined in Table 3-6. The weather conversion factor is determined consistent with the approach outlined by the OEB in Appendix 2-IA. For 2017 and 2018, the forecasted billed GWh is on a weather normal basis.

Customer/Connection values are on a year average basis and street lights and unmetered scattered loads are measured as connections.

On a rate class basis, the actual and forecasted billed amounts are shown in Table 3-3. Actual volumes have been weather normalized by rate class using the weather normal conversion factor from Table 3-6. The actual and forecasted number of customers/connections and customer/connection usage on a weather normal basis is shown in Table 3-4.

Table 3-3: Billed GWh by Rate Class

Year	Residential	GS<50	GS>50	Street Lights	Unmetered Scattered Load	Total
Billed Energy (GWh) - Actual						
2007	32.8	15.3	42.0	0.5	0.04	90.7
2008	33.6	15.2	27.4	0.5	0.04	76.8
2009	33.7	16.2	22.0	0.5	0.04	72.4
2010	31.2	14.2	25.2	0.5	0.04	71.1
2011	32.7	12.6	27.3	0.5	0.02	73.1
2012	32.3	11.9	27.3	0.5	0.00	71.9
2013	36.4	12.9	33.4	0.5	0.00	83.2
2014	37.2	13.5	34.3	0.5	0.00	85.5
2015	33.8	12.6	32.7	0.3	0.00	79.3
2016	32.7	11.8	26.2	0.2	0.00	70.8
Billed Energy (GWh) - Weather Normal						
2007	32.9	15.3	42.1	0.5	0.04	90.8
2008	32.6	14.8	26.7	0.5	0.04	74.6
2009	33.5	16.1	21.9	0.5	0.04	72.0
2010	32.7	14.9	26.4	0.5	0.04	74.4
2011	33.3	12.9	27.8	0.5	0.02	74.5
2012	34.6	12.7	29.2	0.5	0.01	77.1
2013	34.4	12.2	31.5	0.5	0.00	78.6
2013 Board Approved	35.4	13.1	23.0	0.5	0.01	72.1
2014	35.4	12.9	32.7	0.5	0.00	81.5
2015	33.8	12.6	32.7	0.3	0.00	79.5
2016	33.4	12.1	26.7	0.2	0.00	72.3
2017 Bridge	33.5	12.1	26.9	0.2	0.00	72.8
2018 Test	32.9	11.9	27.1	0.2	0.00	72.1

Table 3-4: Number of Customers/Connections and Annual Normalized Usage by Rate Class

Number of Customers/Connections						
Year	**Residential**	**GS<50**	**GS>50**	**Street Lights**	**Unmetered Scattered Load**	**Total**
2007	2,320	405	42	533	13	3,313
2008	2,333	404	41	532	13	3,323
2009	2,325	404	40	534	13	3,316
2010	2,327	403	45	532	9	3,316
2011	2,339	392	50	532	3	3,316
2012	2,344	395	52	532	2	3,325
2013	2,346	400	53	532	1	3,332
2013 Board Approved	2,323	386	51	531	2	3,293
2014	2,356	404	52	534	1	3,347
2015	2,357	404	51	532	1	3,344
2016	2,374	402	51	531	0	3,358
2017 Bridge	2,380	402	52	531	0	3,365
2018 Test	2,387	402	53	531	0	3,372
Actual Annual Energy Usage per Customer/Connection (kWh per customer/connection						
2007	14,144	37,796	1,000,605	919	3,268	
2008	14,397	37,584	669,364	929	3,268	
2009	14,515	40,032	549,832	883	3,268	
2010	13,399	35,212	560,111	881	3,996	
2011	13,978	32,204	545,316	937	5,199	
2012	13,772	30,104	527,164	880	2,352	
2013	15,502	32,309	628,296	972	2,154	
2014	15,794	33,424	657,871	972	2,235	
2015	14,321	31,156	637,223	656	2,221	
2016	13,759	29,460	517,854	284		
Normalized Annual Energy Usage per Customer/Connection (kWh per customer/connection)						
2007	14,160	37,840	1,001,765	920	3,272	
2008	13,987	36,514	650,319	902	3,175	
2009	14,426	39,786	546,459	878	3,248	
2010	14,031	36,875	586,559	922	4,185	
2011	14,245	32,819	555,720	955	5,298	
2012	14,761	32,266	565,023	943	2,521	
2013	14,659	30,553	594,138	919	2,037	
2013 Board Approved	15,245	33,950	451,886	944	5,772	
2014	15,038	31,825	626,397	926	2,128	
2015	14,348	31,215	638,431	657	2,225	
2016	14,056	30,095	529,017	290		
2017 Bridge	14,083	30,202	522,760	284		
2018 Test	13,793	29,674	514,401	284		

3.1.1 Multivariate Regression Model

SLHI's weather normalized load forecast is developed in a three-step process. First, a total system weather normalized purchased energy forecast is developed based on multivariate regression model that incorporates variables that impact SLHI's usage. Second, the weather normalized purchased energy forecast is adjusted by a historical loss factor to produce a weather normalized billed energy forecast. Finally, the forecast of billed energy by rate class is developed based on a forecast of customer numbers and historical usage patterns per customer. For the rate classes that have weather sensitive load, their forecasted billed energy is adjusted to ensure that the total billed energy forecast by rate class is equivalent to the total weather normalized billed energy forecast that has been determined from the regression model. The forecast of customers by rate class is determined using a geometric mean analysis and judgement of SLHI. The forecast is also adjusted for expected Conservation and Demand Management ("CDM") results. For those rate classes that use kW for the distribution volumetric billing determinant an adjustment factor is applied to the class energy forecast based on the historical relationship between kW and kWh. The following will explain the forecasting process in more detail.

Purchased KWh Load Forecast

An equation to predict total system purchased energy is developed using a multivariate regression model with independent variables outlined below: weather (heating degree days), calendar variables (Spring/Fall), and Pulp Mill Flag. The regression model uses monthly kWh and monthly values of independent variables from January 2007 to December 2016 to determine the monthly regression coefficients. This provides 120 monthly data points which are a reasonable data set for use in a multiple regression analysis.

With regards to weather normalization, SLHI submits that it is appropriate to review the impact of weather over the past ten years January 2007 to December 2016 since it is consistent with the time period used in the regression analysis and a time period outlined in the filing requirements. It is also reflective of more recent weather conditions. The average weather conditions over this period are applied in the prediction formula to determine a weather normalized forecast. In accordance with the filing requirement, SLHI has also provided sensitivity analysis showing the impact on the 2018 forecast of purchases. This analysis assumes weather normal conditions are based on a 20 year trend of weather data.

The multivariate regression model has determined drivers of year-over-year changes in SLHI's load growth are weather (heating degree days), calendar variables (spring/fall flag), and Pulp Mill Operation. These factors are captured within the multivariate regression model.

For SLHI, weather impacts on load are apparent only for the winter heating season. For that reason, only Heating Degree Days (i.e. a measure of coldness in winter) are modeled.

The Pulp Mill Flag is used since the operation of the mill significantly affects the load forecast based on whether or not the mill is in operation or shut down. The flag is set to 1.0 when it is assumed the mill is fully operational (above 900,000 kWh), 0.5 if the mill was partially running (between 400,000 and 900,000 kWh) and 0.0 when it is assumed the Mill is on standby mode or not operating(less than 400,000).

Another factor determining energy use in the monthly model is a flag that indicates spring and fall months.

The following outlines the predication model used by SLHI to predict weather normal purchases for 2017 and 2018.

SLHI's Monthly Predicted kWh Purchases

= Heating Degree Days * 5,500

+ Pulp Mill Flag * 1,532,424

+ Spring Fall Flag * (571,868)

+ Intercept of 3,978,800

The monthly data used in the regression model and the resulting monthly prediction for the actual and forecasted years are provided in Appendix 3-A.

The sources of data for the various data points are:

The Environment Canada website provided the monthly heating degree day and cooling degree information. Weather data from the Sioux Lookout A Weather Station was used. 18° C is the base numbers from which heating degree days and cooling degree days are measured.

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

SLHI's billing system provided the Pulp Mill monthly usage that was used to define the flag.

The prediction formula has the following statistical results (Table 3-5) which generally indicate the formula has a good fit to the actual data set.

Table 3-5: Statistical Results

R Square	81.2%
Adjusted R Square	80.9%
F Test	252.5
MAPE (Monthly)	8.5%
T-stats by Coefficient	
Heating Degree Days	21.8
Spring Fall Flag	(3.0)
Pulp Mill Flag	5.7
Constant	18.6

The annual results of the above prediction formula compared to the actual annual purchases from 2007 to 2016 are shown below in Table 3-6 along with the predicted total system purchases for SLHI for 2017 and 2018 on a weather normal basis. In addition, weather normal values for 2018 are provided on a 20 year trend assumption for weather normalization. Information is also provided to show the Weather Normal Conversion Factor which is used to weather normalize actual volume data. In Table 3-6, the Predicted Weather Normal values are similar to the Predicted amounts but the weather normalized heating degree days and cooling degree days used to determine the weather normal forecast for 2017 and 2018 are used in the prediction formula in place of actual heating degree days and cooling degree days. The ratio of Predicted Weather Normal to Predicted values results in a Weather Normal Conversion Factor. This factor is applied to the Actual amount which results in the Actual Weather Normal value.

Table 3-6: Total System Purchases Excluding Large Use

Year	Actual	Predicted	% Difference	Predicted Weather Normal	Weather Normal Conversion Factor	Actual Weather Normal
Purchased Energy (GWh)						
2007	93.9	93.5	(0.5%)	93.6	1.0012	94.0
2008	81.9	85.3	4.1%	82.8	0.9715	79.5
2009	76.0	77.2	1.5%	76.7	0.9939	75.6
2010	74.7	75.4	1.0%	79.0	1.0472	78.2
2011	76.4	75.3	(1.5%)	76.7	1.0191	77.9
2012	75.6	71.6	(5.3%)	76.7	1.0718	81.0
2013	87.7	88.4	0.8%	83.6	0.9456	82.9
2014	89.5	90.2	0.8%	85.9	0.9522	85.2
2015	83.4	82.7	(0.9%)	82.8	1.0019	83.6
2016	75.4	75.1	(0.5%)	76.7	1.0216	77.1
2017 Bridge		76.7		76.7	1.0000	
2018 Test		76.7		76.7	1.0000	
2018 WN - 20 year trend		89.9		89.9	1.0000	

The weather normalized amount for 2018 is determined by using 2018 dependent variables in the prediction formula on a monthly basis along with the average monthly heating degree days and cooling degree days which have occurred from January 2007 to December 2016 (i.e. 10 years). The 2018 weather normal 20 year trend value reflects the trend in monthly heating degree days and cooling degree days which have occurred from January 1996 to December 2016.

Billed KWh Load Forecast

To determine the total weather normalized energy billed forecast, the total system weather normalized purchases forecast is adjusted by a historical loss factor. The historical loss factor used is 4.9% which represents the average loss factor from 2007 to 2016. With this average loss factor the total weather normalized billed energy before adjustment discussed below will be 73.1 (GWh) for 2017 (i.e. 76.7/1.049) and 73.1 (GWh) for 2018 (i.e. 76.7/1.049).

Billed KWh Load Forecast and Customer/Connection Forecast by Rate Class

Since the total weather normalized billed energy amount is known this amount needs to be distributed by rate class for rate design purposes taking into consideration the customer/connection forecast and expected usage per customer by rate class.

The next step in the forecasting process is to determine a customer/connection forecast. The customer/connection forecast is based on reviewing historical customer/connection data that is available as shown in the following Table 3-7.

Table 3-7: Historical Customer/Connection Data

Year	Residential	GS < 50	GS > 50	Street Lights	Unmetered Scattered Load	Total
Number of Customer Connections						
2007	2,320	405	42	533	13	3,313
2008	2,333	404	41	532	13	3,323
2009	2,325	404	40	534	13	3,316
2010	2,327	403	45	532	9	3,316
2011	2,339	392	50	532	3	3,316
2012	2,344	395	52	532	2	3,325
2013	2,346	400	53	532	1	3,332
2014	2,356	404	52	534	1	3,347
2015	2,357	404	51	532	1	3,345
2016	2,374	402	51	531	0	3,358

From the historical customer/connection data the growth rate in customer/connection can be evaluated which is provided on the following Table 3-8.

Table 3-8: Growth Rate in Customer/Connections

Year	Residential	GS < 50	GS > 50	Street Lights	Unmetered Scattered Load
Number of Customer Connections					
2007					
2008	0.6%	(0.5%)	(2.4%)	(0.2%)	0.0%
2009	(0.4%)	0.0%	(2.4%)	0.4%	0.0%
2010	0.1%	(0.3%)	12.5%	(0.4%)	(30.8%)
2011	0.5%	(3.0%)	11.1%	0.0%	(66.7%)
2012	0.2%	0.7%	3.5%	0.0%	(33.3%)
2013	0.1%	1.4%	2.6%	0.0%	(50.0%)
2014	0.4%	1.0%	(1.7%)	0.4%	0.0%
2015	0.0%	(0.0%)	(1.8%)	(0.4%)	(33.0%)
2016	0.8%	(0.4%)	(1.5%)	(0.2%)	0.0%
Geometric Mean	**100.3%**	**99.9%**	**102.1%**		**100.0%**
Used	**100.3%**	**100.0%**	**102.1%**	**100.0%**	**100.0%**

For the Residential and GS < 50 kW classes the geometric mean analysis and the addition of the long term load transfer agreement customers was used to forecast the number of customer for 2017 and 2018. The results of the geometric mean analysis and the addition of the long term load transfer customers were applied to the 2016 customer value to determine the 2017 customer forecast. The 2017 customer forecast is determined by applying the geometric mean factor to the 2018 forecast.

For the GS > 50 kW and Street Light classes, SLHI proposes it is reasonable to use the 2016 customers and connections as the forecast for 2017 and 2018 since SLHI believes these values are more reflective of the values that will occur in the forecast period compared to those produced by using the results of the geometric mean analysis. Table 3-9 outlines the forecast of customers/connections by rate class.

Table 3-9: Customer/Connection Forecast

Year	Residential	GS < 50	GS > 50	Street Lights	Unmetered Scattered Load	Total
Number of Customer Connections						
2017 Bridge	2,380	402	52	531	0	3,365
2018 Test	2,387	402	53	531	0	3,373

The next step in the process is to review the historical customer/connection usage and to reflect this usage per customer in the forecast. Table 3-10 below provides the average annual usage per customer by rate class from 2007 to 2016.

Table 3-10: Historical Annual Usage per Customer

Year	Residential	GS < 50	GS > 50	Street Lights	Unmetered Scattered Load
Annual kWh Usage Per Customer/Connection					
2007	14,144	37,796	1,000,505	919	3,268
2008	14,397	37,584	669,364	929	3,268
2009	14,515	40,032	549,832	883	3,268
2010	13,399	35,212	560,111	881	3,996
2011	13,978	32,204	545,316	937	5,199
2012	13,772	30,104	527,164	880	2,352
2013	15,502	32,309	628,296	972	2,154
2014	15,794	33,424	657,871	972	2,235
2015	14,321	31,156	637,223	656	2,221
2016	13,759	29,460	517,854	284	0

The usage per customer/connection, for the street light rate class, declines after 2014 as illustrated in the above table. This is due to the Municipality converting all of their street lights to LED in the summer of 2015. Also the unmetered scattered load rate class has zero consumption in 2016. SLHI eliminated all unmetered scattered loads in 2016.

From the historical usage per customer/connection data the growth rate in usage per customer/connection can be reviewed which is provided on the following table. The geometric mean growth rate from 2008 to 2016 has also been shown.

Table 3-11: Growth Rate in Usage per Customer/Connection

Year	Residential	GS < 50	GS > 50	Street Lights	Unmetered Scattered Load
Growth Rate in Customer/Connection					
2007					
2008	1.7%	(0.6%)	(33.1%)	1.1%	0.0%
2009	0.8%	6.5%	(17.9%)	(4.9%)	0.0%
2010	(7.7%)	(12.0%)	1.9%	(0.3%)	22.3%
2011	4.3%	(0.7%)	(2.6%)	6.4%	30.1%
2012	(1.5%)	(6.5%)	(3.3%)	(6.1%)	(54.8%)
2013	12.6%	7.3%	19.2%	10.5%	(8.4%)
2014	1.9%	3.5%	4.7%	(0.0%)	3.8%
2015	(9.3%)	(6.8%)	(3.1%)	(32.5%)	(0.6%)
2016	(3.9%)	(5.4%)	(18.7%)	(56.8%)	0.0%
Geometric Mean	(0.3%)	(2.7%)	(7.1%)	0.0%	

For the Residential, GS < 50 kW, GS > 50 kW and the Street Light classes, the 2017 and 2018 forecast of usage per customer/connection have been held constant at the 2016 level. SLHI was concerned with using the geometric mean factor since it could cause double counting of CDM results. SLHI eliminated the Unmetered Scattered Load class for 2017 and 2018 since there are no customers in this rate class. The resulting usage forecast is as follows in Table 3-12.

Table 3-12: Forecast Annual kWh Usage per Customer/Connection

Year	Residential	GS < 50	GS > 50	Street Lights
Annual kWh Usage Per Customer/Connection				
2017 Bridge	13,759	29,460	517,854	284
2018 Test	13,759	29,460	517,854	284

The preceding information is used to determine the non-normalized weather billed energy forecast by applying the forecast number of customer/connection from Table 3-9 by the forecast of annual usage per customer/connection from Table 3-12. The resulting non-normalized weather billed energy forecast is shown in the following Table 3-13.

Table 3-13: Non-normalized Weather Billed Energy Forecast

Year	Residential	GS < 50	GS > 50	Street Lights	Total
Non-normalized Weather Billed Energy Forecast (GWh)					
2017 Bridge	32.8	11.8	26.7	0.2	71.4
2018 Test	32.8	11.8	27.2	0.2	72.1

The non-normalized weather billed energy forecast has been determined but this needs to be adjusted in order to be aligned with the total weather normalized billed energy forecast. As previously determined, the total weather normalized billed energy forecast is 73.1 (GWh) for 2017 and 73.1 (GWh) for 2018.

The difference between the non-normalized and normalized forecast adjustments is 1.7 GWh in 2017 (i.e. 73.1 – 71.4) and 1.0 GWh in 2018 (i.e. 73.1 – 72.1). The difference is assumed to be the adjustment needed to move the forecast to a weather normal basis and this amount will be assigned to those rate classes that are weather sensitive. Based on the weather normalization work completed by Hydro One for SLHI for the cost allocation study, which has been used to support this Application, it was determined that the weather sensitivity by rate classes is as follows in Table 3-14.

Table 3-14: Weather Sensitivity by Rate Class

Residential	GS < 50	GS > 50	Street Lights
Weather Sensitivity			
67.7%	67.7%	35.3%	0.0%

For the GS > 50 kW class the weather sensitivity amount of 35.3% was provided in the weather normalization work completed by Hydro One. For the Residential and General Service < 50 kW classes, it was assumed in the 2013 COS application that for these two classes the weather sensitivity would be mid-way between 100% and 35.3%, or 67.7%.

The difference between the non-normalized and normalized forecast of 1.7 GWh in 2017 and 1.0 GWh in 2018 has been assigned on a pro rata basis to each rate class based on the above level of weather sensitivity.

3.1.2 Normalized Average Use per Customer ("NAC") Model

SLHI did not use this methodology.

3.1.3 CDM Adjustment and LRAMVA

A manual adjustment has been made to reflect the impact of 2017 to 2018 CDM programs on the load forecast. SLHI has made this adjustment to reflect the "net" impact of the CDM programs on the load forecast.

The following Table 3-15, outlines the expected full year savings from 2017 to 2018 CDM programs based on the 2015 to 2020 CDM Plan for SLHI. It assumed that the savings that occur in the first year of a program will persist at 100% for the years that follow.

Table 3-15: 2017 to 2018 Expected Full Year Total kWh Savings

	2017	2018
2017 Programs	707,000	707,000
2018 Programs		694,000
Total Applicaable to Target	707,000	694,000
Total Including Persistence	707,000	1,401,000

The following outlines how the above information is assigned to rate class based on information in SLHI's 2015 to 2020 CDM Plan.

Table 3-16: 2016 to 2018 Expected Full Year Residential kWh Savings

	2017	2018
2017 Programs	332,000	332,000
2018 Programs		332,000
Total Applicaable to Target	332,000	332,000
Total Including Persistence	332,000	664,000

Table 3-17: 2016 to _2018 Expected Full Year GS < 50 kW kWh Savings

	2017	2018
2017 Programs	82,000	82,000
2018 Programs		82,000
Total Applicaable to Target	82,000	82,000
Total Including Persistence	82,000	164,000

Table 3-18: 2016 to 2018 Expected Full Year GS > 50 kW kWh Savings

	2017	2018
2017 Programs	293,000	293,000
2018 Programs		280,000
Total Applicaable to Target	293,000	280,000
Total Including Persistence	293,000	573,000

Since the regression analysis is based on actual power purchased data up to and including 2016 actual data, it is assumed that any savings from programs initiated up to and including 2016 are reflected in the prediction equation resulting from the regression analysis. However, for 2017 and 2018 it is assumed that for those programs that were initiated in 2017 only one half of the full year results actually occur since they were initiated throughout the year. This has been classified as the half year rule for CDM purposes. As a result, consistent with approach used in previous COS applications and using the rate class specific information mentioned above, the following equation is used to determine the rate class manual CDM adjustment for each year.

Rate class CDM adjustment 2017 = 2017 Programs rate class savings x 50%

Rate class CDM adjustment 2018 = 2017 Programs rate class savings + 2018 Programs rate class savings x 50%

The following table outlines the CDM adjustment by rate class.

Table 3-19: Manual CDM Adjustment by Rate Class (kWh)

Year	Residential	GS<50	GS>50	Total
2017 Bridge	166,000	41,000	146,500	353,500
2018 Test	498,000	123,000	433,000	1,054,000

In accordance with the Guidelines for Electricity Distributor Conservation and Demand Management (EB-2013-0003), issued April 26, 2013 ("CDM Guidelines"), it is SLHI's understanding that as part of this application expected CDM savings in 2018 from 2017 and 2018 programs will need to be established for lost revenue adjustment mechanism ("LRAM") variance accounts purposes. SLHI also understands that the IESO will measure CDM results on a full year net basis. Consistent with past practices, it is expected the full year net level of savings will be used for LRAM variance calculations. As a result, it is SLHI's view the units used for the LRAM variance account should also be on a full year net basis. Based on the evidence provided above in regards to the CDM manual adjustment the following equation is used to determine the rate class kWh assumed in the load forecast for LRAM variance account purposes.

Rate class LRAMVA Threshold 2018 = Rate class 2017 Program savings + Rate class 2018 Program savings. The conversion to kW for the GS > 50 kW class uses the kW/kWh factor from Table 3-23. The OEB Appendix 2-I is included in this Exhibit as Appendix 3B.

Table 3-20: 2018 Expected CDM Savings by Rate Class for LRAM Variance Account

Year	Residential	GS<50	GS>50	Total
2018 Test - kWh	664,000	164,000	573,000	1,401,000
2018 Test - kW Annual			1,528	1,528
2018 Test - kW Monthly			127	127

The following Table 3-21 outlines how the classes have been adjusted to align the non-normalized forecast with the normalized forecast and reflect the adjustments discussed above.

Table 3-21: Alignment of Non-normal to Weather Normal Forecast

Year	Residential	GS<50	GS>50	Street Lights	Unmetered Scattered Load	Total
Non-normalized Weather Billed Energy Forecast (GWh)						
2017 Bridge	32.8	11.8	26.7	0.0	0.2	71.4
2018 Test	32.8	11.8	27.2	0.0	0.2	72.1
Weather Adjustment (GWh)						
2017 Bridge	0.9	0.3	0.4	0.0	0.0	1.7
2018 Test	0.6	0.2	0.3	0.0	0.0	1.0
CDM Adjustment (GWh)						
2017 Bridge	(0.2)	(0.0)	(0.1)			(0.4)
2018 Test	(0.5)	(0.1)	(0.4)			(1.1)
Weather Normalized Billed Energy Forecast (GWh)						
2017 Bridge	33.5	12.1	26.9	0.0	0.2	72.8
2018 Test	32.9	11.9	27.1	0.0	0.2	72.1

Billed KW Load Forecast

There are two rate classes that charge volumetric distribution on per kW basis. These include GS > 50 kW and Street Lights. The forecast of kW for these classes is based on a review of the historical ratio of kW to kWh and applying the average ratio to the forecasted kWh to produce the required kW.

The following Table 3-22 outlines the annual demand units by applicable rate class on actual and weather normal basis. The weather normal values are actual values adjusted by the weather normal conversion factor outlined in Table 3-6.

Table 3-22: Historical Annual kW per Applicable Rate Class

Year	GS>50	Street Lights	Total	GS>50	Street Lights	Total
Billed Annual kW						
	Actual			**Weather Normal**		
2007	105,960	1,447	107,407	106,083	1,449	107,532
2008	75,100	1,445	76,545	72,963	1,404	74,367
2009	56,741	1,445	58,186	56,393	1,436	57,829
2010	71,492	1,448	72,940	74,868	1,516	76,384
2011	66,653	1,446	68,099	67,925	1,474	69,398
2012	66,215	1,447	67,662	70,971	1,551	72,521
2013	92,251	1,450	93,701	87,236	1,371	88,607
2014	99,288	1,454	100,742	94,538	1,384	95,922
2015	94,899	1,104	96,003	95,079	1,106	96,185
2016	66,975	420	67,395	68,419	429	68,848

The following Table 3-23 shows the historical ratio of kW/kWh as well as the average

Table 3-23: Historical kW/KWh Ratio per Applicable Rate Class

Year	GS > 50	Street Lights
Ratio of kW to kWh		
2007	0.2521%	0.2956%
2008	0.2736%	0.2924%
2009	0.2580%	0.3063%
2010	0.2836%	0.3091%
2011	0.2445%	0.2901%
2012	0.2427%	0.3090%
2013	0.2766%	0.2803%
2014	0.2893%	0.2800%
2015	0.2906%	0.3164%
2016	0.2561%	0.2791%
Average 2007 to 2016	**0.2667%**	**0.2791%**

The ratio of 0.2791% for the Street Light class reflects the 2016 time period and not the average since there was a significant change to the street lights in 2015, where they were converted to LED with partial savings in 2015 and full savings in 2016. The average ratio for the General Service > 50 and the 2016 ratio for the

Street Lights was applied to the weather normalized billed energy forecast in Table 3-21 to provide the forecast of kW for this class.

The following Table 3-24 outlines the forecast of kW for the applicable rate classes.

Table 3-24: kW Forecast by Applicable Rate Class

Year	GS > 50	Street Lights	Total
Predicted Billed kW			
Actual			
2007	71,869	420	72,289
2008	72,183	420	72,603

Table 3-25 provides a summary of the total load forecast on a power purchased and billed level.

Table 3-25: Summary of Total Load Forecast

	2012 Actual	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Bridge Normalized	2018 Bridge Normalized
Actual kWh Purchases	75,601,634		87,692,323	89,519,317	83,393,451	75,446,075		
Predicted kWh Purchases before CDM Adjustment	74,011,078		83,909,767	83,421,893	78,970,189	77,515,297	76,703,579	76,703,579
% Difference	-2.1%		-4.3%	-6.8%	-5.3%	2.7%		
Losses							(3,585,479)	(3,585,479)
CDM Adjustment Billed							(353,500)	(1,054,000)
Billed kWh After CDM	71,922,866		83,168,941	85,548,133	79,338,527	70,815,698	72,764,601	72,064,101
By Class								
Residential								
Customers	2,344	2,323	2,346	2,356	2,357	2,374	2,380	2,386
kWh	32,285,778	35,413,349	36,371,059	37,207,390	33,751,334	32,668,225	33,524,773	32,918,746
GS<50								
Customers	395	386	400	404	404	402	402	402
kWh	11,883,435	13,104,863	12,926,388	13,500,466	12,579,056	11,845,271	12,143,659	11,931,508
GS>50								
Customers	52	51	53	52	51	51	52	53
kWh	27,280,733	23,046,182	33,352,062	34,318,921	32,657,665	26,151,605	26,945,572	27,063,250
kW	66,215	58,143	92,251	99,288	94,899	66,975	71,869	72,183
Streetlights								
Connections	532	531	532	534	532	531	531	531
kWh	468,216	501,465	517,279	519,121	348,985	150,597	150,597	150,597
kW	1,447	1,512	1,450	1,454	1,104	420	420	420
USL								
Connections	2	2	1	1	1	0	0	0
kWh	4,705	11,545	2,154	2,235	1,488	0	0	0
Total of Above								
Customer/Connections	3,325	3,293	3,332	3,347	3,344	3,358	3,365	3,372
kWh	71,922,866	72,077,404	83,168,941	85,548,133	79,338,527	70,815,698	72,764,601	72,064,101
kW from applicable classes	67,662	59,655	93,701	100,742	96,003	67,395	72,289	72,603

3.2 Accuracy of Load Forecast and Variance Analysis

3.2.1 Variance Analysis of Distribution Revenue and Billing Determinants

The following discussion provides a year over year variance analysis on SLHI's distribution revenue and billing determinants. The variance analysis will compare 2013 Actual to 2013 Board Approved; 2012 Actual to 2013 Actual; 2013 Actual to 2014 Actual; 2014 Actual to 2015 Actual; 2015 Actual to 2016 Actual; 2016 Actual to 2017 Bridge and 2017 Bridge Year to 2018 Test Year. The distribution revenue variance analysis is based on information provided in Table 3-1. The billing determinant variance analysis is based on data outlined in Table 3-25. The overall variance analysis has been provided based on SLHI's materiality of $50,000; the materiality calculation being noted earlier in Exhibit 1 of this Application.

2013 Actual vs 2013 Board Approved

Table 3-26 Distribution Revenue - 2013 Actual vs 2013 Board Approved

Throughput Revenue	2013 Board Approved	2013 Actual	Difference $	Difference %
Residential	1,131,550	1,163,086	31,536	2.8%
GS < 50 kW	292,065	325,333	33,268	11.4%
GS 50 to 4,999 kW	299,949	339,849	39,900	13.3%
Street Lighting	95,645	96,659	1,014	1.1%
Unmetered Scattered Load	617	276	(341)	(55.2%)
Total	**1,819,826**	**1,925,203**	**105,377**	**5.8%**

Throughput revenue for 2013 was $105,377 or 5.8% higher than the amounts approved in the 2013 Cost of Service which is above the materiality threshold. This is explained due to Smart Meter Incremental Revenue being collected from January to August of 2013 which was approved in SLHI's Smart Meter Recovery Application submitted in 2012 (EB-2012-0245). This affected the Residential rate class (SMIRR $4.61/month/customer) and the GS < 50 kW rate class (SMIRR $5.18/month/customer). The variance in the GS > 50 kW rate class is due to the unpredictable start-up of the mill in 2013 at about 1/3 capacity.

Table 3-27 Billing Determinants - 2013 Actual vs 2013 Board Approved

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						0.9456					
	2013 Actual	2013 Board Approved		2013 Actual	2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual	2013 Board Approved
Residential	2,346	2,323	kWh	36,371,059	35,413,349	34,393,717	35,413,349	15,502	15,245	14,659	15,245
GS<50	400	386	kWh	12,926,388	13,104,863	12,223,634	13,104,863	32,309	33,950	30,553	33,950
GS>50	53	51	kW	92,251	58,143	87,236	58,143	1,738	1,140	1,643	1,140
Street Lights	532	531	kW	1,450	1,512	1,371	1,512	3	3	3	3
Unmetered Scattered Load	1	2	kWh	2,154	11,545	2,037	11,545	2,154	5,772	2,037	5,772
Total	3,332	3,293									
	Variance			Variance		Variance		Variance		Variance	
Residential	(23)		kWh	(957,710)		1,019,632		(257)		586	
GS<50	(14)		kWh	178,475		881,229		1,641		3,398	
GS>50	(2)		kW	(34,108)		(29,093)		(598)		(503)	
Street Lights	(1)		kW	62		141		0		0	
Unmetered Scattered Load	1		kWh	9,391		9,508		3,618		3,736	

When comparing the 2013 actual results to the 2013 board approved amounts the customer/connection forecast and volume figures for 2013 was fairly consistent with 2013 actual values with the exception of the GS > 50 kW rate class. This is explained in the previous paragraph and is due to the re-opening of the mill.

2012 Actual vs 2013 Actual

Table 3-28: Distribution Revenue - 2012 Actual vs 2013 Actual

Throughput Revenue	2012 Actual	2013 Actual	Difference $	Difference %
Residential	1,245,709	1,163,086	(82,623)	(6.6%)
GS < 50 kW	338,498	325,333	(13,165)	(3.9%)
GS 50 to 4,999 kW	324,328	339,849	15,521	4.8%
Street Lighting	99,516	96,659	(2,857)	(2.9%)
Unmetered Scattered Load	597	276	(321)	(53.7%)
Total	**2,008,648**	**1,925,203**	**(83,445)**	**(4.2%)**

The 2013 throughput revenue was $83,445 or 4.2% lower than 2012 actual revenue primarily due to the Smart Meter Recovery Decision (EB-2012-0245), where $219,843 for residential and $38,889 for GS < 50 kW was transferred from USoA Variance account 1555 to revenue. This also explains why the residential and GS < 50 kW throughput revenue collected in 2013 was lower despite 4,085,281 and 1,042,953 more kWhs billed in 2013 as depicted in table 3-29.

Table 3-29: Billing Determinants - 2012 Actual vs 2013 Actual

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0718	0.9456				
	2012 Actual	2013 Actual		2012 Actual	2013 Actual	2012 Actual	2013 Actual	2012 Actual	2013 Actual	2012 Actual	2013 Actual
Residential	2,344	2,346	kWh	32,285,778	36,371,059	34,604,438	34,393,717	13,772	15,502	14,761	14,659
GS<50	395	400	kWh	11,883,435	12,926,388	12,736,865	12,223,634	30,104	32,309	32,266	30,553
GS>50	52	53	kW	66,215	92,251	70,971	87,236	1,280	1,738	1,371	1,643
Street Lights	532	532	kW	1,447	1,450	1,551	1,371	3	3	3	3
Unmetered Scattered Load	13	1	kWh	4,705	2,154	5,042	2,037	362	2,154	388	2,037
Total	3,336	3,332									
	Variance			Variance		Variance		Variance		Variance	
Residential	2		kWh	4,085,281		(210,721)		1,729		(102)	
GS<50	5		kWh	1,042,953		(513,230)		2,206		(1,713)	
GS>50	1		kW	26,036		16,265		458		272	
Street Lights	0		kW	3		(180)		0		(0)	
Unmetered Scattered Load	(12)		kWh	(2,551)		(3,006)		1,792		1,649	

The values for customer connections is fairly static from 2012 to 2013, with an exception to the unmetered scattered load class. The number went from 13 to 1 due to metering all of the cable boosters in town. The kWh variance in the residential and GS < 50 kW rate classes is due mainly to the weather. Once the data is weather normalized there is minimal difference year over year. The GS > 50 kW variance is explained by the start-up of the mill in 2013.

2013 Actual vs 2014 Actual

Table 3-30: Distribution Revenue – 2013 Actual vs 2014 Actual

Throughput Revenue	2013 Actual	2014 Actual	Difference $	Difference %
Residential	1,163,086	1,209,006	45,920	3.9%
GS < 50 kW	325,333	311,466	(13,867)	(4.3%)
GS 50 to 4,999 kW	339,849	345,504	5,655	1.7%
Street Lighting	96,659	99,988	3,329	3.4%
Unmetered Scattered Load	276	281	5	1.7%
Total	**1,925,203**	**1,966,245**	**41,041**	**2.1%**

The 2014 throughput revenue was $41,041 or 2.1% higher than the 2013 actual revenue which does not meet the materiality threshold.

Table 3-31: Billing Determinants - _2013 Actual vs 2014 Actual

Billing Quantiites	Customers /		Units	Volume		Volume Weather		Annual Usage Per		Annual Usage Per	
Weather Normal Conversion Factor						0.9456	0.9522				
	2013 Actual	2014 Actual		2013 Actual	2014 Actual	2013 Actual	2014 Actual	2013 Actual	2014 Actual	2013 Actual	2014 Actual
Residential	2,346	2,356	kWh	36,371,059	37,207,390	34,393,717	35,427,302	15,502	15,794	14,659	15,038
GS<50	400	404	kWh	12,926,388	13,500,466	12,223,634	12,854,572	32,309	33,424	30,553	31,825
GS>50	53	52	kW	92,251	99,288	87,236	94,538	1,738	1,903	1,643	1,812
Street Lights	532	534	kW	1,450	1,454	1,371	1,384	3	3	3	3
Unmetered Scattered Load	1	1	kWh	2,154	2,235	2,037	2,128	2,154	2,235	2,037	2,128
Total	3,332	3,347									
	Variance			Variance		Variance		Variance		Variance	
Residential	10		kWh	836,331		1,033,585		292		379	
GS<50	4		kWh	574,078		630,938		1,115		1,272	
GS>50	(1)		kW	7,037		7,302		165		169	
Street Lights	2		kW	4		13		(0)		0	
Unmetered Scattered Load	0		kWh	81		91		81		91	

Similar to 2013, there is little variance in customer connections from 2013 to 2014 and is not material in number. The variance in volume is also not material.

2014 Actual vs 2015 Actual

Table 3-32: Distribution Revenue – 2014 Actual vs 2015 Actual

Throughput Revenue	2014 Actual	2015 Actual	Difference $	Difference %
Residential	1,209,006	1,138,938	(70,067)	(5.8%)
GS < 50 kW	311,466	296,931	(14,535)	(4.7%)
GS 50 to 4,999 kW	345,504	338,561	(6,943)	(2.0%)
Street Lighting	99,988	96,201	(3,788)	(3.8%)
Unmetered Scattered Load	281	189	(92)	(32.6%)
Total	**1,966,245**	**1,870,820**	**(95,425)**	**(4.9%)**

The 2015 throughput revenue was $95,425 or 4.9% lower than the 2014 actual revenue primarily due to a reduction in kWh as depicted in Table 3-33.

Table 3-33: Billing Determinants – 2014 Actual vs 2015 Actual

Billing Quantiites	Customers /		Units	Volume		Volume Weather		Annual Usage Per		Annual Usage Per	
Weather Normal Conversion Factor						0.9522	1.0019				
	2014 Actual	2015 Actual		2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual
Residential	2,356	2,356	kWh	37,207,390	33,751,334	35,427,302	33,815,351	15,794	14,327	15,038	14,354
GS<50	404	404	kWh	13,500,466	12,579,056	12,854,572	12,602,914	33,424	31,143	31,825	31,202
GS>50	52	51	kW	99,288	94,899	94,538	95,079	1,903	1,852	1,812	1,855
Street Lights	534	532	kW	1,454	1,104	1,384	1,106	3	2	3	2
Unmetered Scattered Load	1	1	kWh	2,235	1,488	2,128	1,491	2,235	2,221	2,128	2,225
Total	3,347	3,344									
	Variance			Variance		Variance		Variance		Variance	
Residential	0		kWh	(3,456,056)		(1,611,951)		(1,467)		(684)	
GS<50	0		kWh	(921,410)		(251,658)		(2,281)		(623)	
GS>50	(1)		kW	(4,389)		541		(52)		43	
Street Lights	(2)		kW	(349)		(278)		(1)		(1)	
Unmetered Scattered Load	(0)		kWh	(747)		(637)		(14)		97	

The large variance can be explained for the most part due to the weather. The variance is much smaller once the volumes are weather normalized.

2015 Actual vs 2016 Actual

Table 3-34: Distribution Revenue - 2015 Actual vs 2016 Actual

Throughput Revenue	2015 Actual	2016 Actual	Difference $	Difference %
Residential	1,138,938	1,156,021	17,082	1.5%
GS < 50 kW	296,931	297,450	519	0.2%
GS 50 to 4,999 kW	338,561	311,730	(26,831)	(7.9%)
Street Lighting	96,201	90,824	(5,376)	(5.6%)
Unmetered Scattered Load	189	0	(189)	(100.0%)
Total	**1,870,820**	**1,856,024**	**(14,795)**	**(0.8%)**

Throughput revenue for 2016 was $14,795 or 0.8% lower than 2015 and is below the materiality threshold.

Table 3-35: Billing Determinants - 2015 Actual vs 2016 Actual

Billing Quantiites	Customers /		Units	Volume		Volume Weather		Annual Usage Per		Annual Usage Per	
Weather Normal Conversion Factor						1.0019	1.0216				
	2015 Actual	2016 Actual		2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual
Residential	2,356	2,374	kWh	33,751,334	32,668,225	33,815,351	33,372,460	14,327	13,759	14,354	14,056
GS<50	404	402	kWh	12,579,056	11,845,271	12,602,914	12,100,622	31,143	29,460	31,202	30,095
GS>50	51	51	kW	94,899	66,975	95,079	68,419	1,852	1,326	1,855	1,355
Street Lights	532	531	kW	1,104	420	1,106	429	2	1	2	1
Unmetered Scattered Load	1	0	kWh	1,488	0	1,491	0	2,221		2,225	
Total	3,344	3,358									
	Variance			Variance		Variance		Variance		Variance	
Residential	19		kWh	(1,083,110)		(442,891)		(568)		(298)	
GS<50	(2)		kWh	(733,784)		(502,292)		(1,683)		(1,107)	
GS>50	(1)		kW	(27,923)		(26,660)		(525)		(500)	
Street Lights	(1)		kW	(684)		(677)		(1)		(1)	
Unmetered Scattered Load	(1)		kWh	(1,488)		(1,491)		(2,221)		(2,225)	

The customer growth remains static in 2016 and the overall volume variance is not of great significance.

2016 Actual vs 2017 Bridge

Table 3-36: Distribution Revenue – 2016 Actual vs 2017 Bridge

Throughput Revenue	2016 Actual	2017 Bridge	Difference $	Difference %
Residential	1,156,021	1,207,928	51,907	4.5%
GS < 50 kW	297,450	308,149	10,699	3.6%
GS 50 to 4,999 kW	311,730	336,581	24,851	8.0%
Street Lighting	90,824	79,907	(10,917)	(12.0%)
Unmetered Scattered Load	0	0	0	-
Total	**1,856,024**	**1,932,565**	**76,541**	**4.1%**

Throughput revenue for 2017 are forecasted to be $75,541 or 4.1% higher than 2016. The variance can be explained due to the assumptions made in the 2017 Bridge year forecasts utilizing historical averages.

Table 3-37: Billing Determinants - 2016 Actual vs 2017 Bridge

Billing Quantiites	Customers /		Units	Volume		Volume Weather		Annual Usage Per		Annual Usage Per	
Weather Normal Conversion Factor						1.0216	1.0000				
	2016 Actual	2017 Bridge		2016 Actual	2017 Bridge	2016 Actual	2017 Bridge	2016 Actual	2017 Bridge	2016 Actual	2017 Bridge
Residential	2,374	2,380	kWh	32,668,225	33,524,773	33,372,460	33,524,773	13,759	14,083	14,056	14,083
GS<50	402	402	kWh	11,845,271	12,143,659	12,100,622	12,143,659	29,460	30,202	30,095	30,202
GS>50	51	52	kW	66,975	71,869	68,419	71,869	1,326	1,394	1,355	1,394
Street Lights	531	531	kW	420	420	429	420	1	1	1	1
Unmetered Scattered Load	0	0	kWh	0	0	0	0				
Total	3,358	3,365									
	Variance			Variance		Variance		Variance		Variance	
Residential	6		kWh	856,548		152,313		324		28	
GS<50	0		kWh	298,388		43,037		742		107	
GS>50	1		kW	4,894		3,450		68		39	
Street Lights	0		kW	0		(9)		0		(0)	
Unmetered Scattered Load	0		kWh	0		0		0		0	

The growths in customer numbers reflect the geometric analysis used to forecast the 2017 customer numbers and remains relatively stable from year to year. The variance in volume is explained by the assumptions made in forecasting as explained above.

2017 Bridge vs 2018 Test

Table 3-38: Distribution Revenue – 2017 Bridge vs 2018 Test

Throughput Revenue	2017 Bridge	2018 Test	Difference $	Difference %
Residential	1,207,928	1,375,454	167,526	13.9%
GS < 50 kW	308,149	344,927	36,778	11.9%
GS 50 to 4,999 kW	336,581	329,446	(7,135)	(2.1%)
Street Lighting	79,907	29,893	(50,014)	(62.6%)
Unmetered Scattered Load	0		0	-
Total	**1,932,565**	**2,079,720**	**147,155**	**7.6%**

The proposed Test Year distribution revenue is a reflection of the 2018 COS application and the proposed base revenue requirement of $2,079,719 (Small difference due to rounding). The variance in distribution revenue over the Bridge Year is a result of the proposed increases to fixed and variable distribution revenue in the Test Year.

Table 3-39: Billing Determinants – 2017 Bridge vs 2018 Test

Billing Quantiites	Customers /		Units	Volume		Volume Weather		Annual Usage Per		Annual Usage Per	
Weather Normal Conversion Factor						1.0000	1.0000				
	2017 Bridge	2018 Bridge		2017 Bridge	2018 Bridge	2017 Bridge	2018 Bridge	2017 Bridge	2018 Bridge	2017 Bridge	2018 Bridge
Residential	2,380	2,387	kWh	33,524,773	32,918,746	33,524,773	32,918,746	14,083	13,793	14,083	13,793
GS<50	402	402	kWh	12,143,659	11,931,508	12,143,659	11,931,508	30,202	29,674	30,202	29,674
GS>50	52	53	kW	71,869	72,183	71,869	72,183	1,394	1,372	1,394	1,372
Street Lights	531	531	kW	420	420	420	420	1	1	1	1
Unmetered Scattered Load	0	0	kWh	0	0	0	0				
Total	3,365	3,372									
	Variance			Variance		Variance		Variance		Variance	
Residential	6		kWh	(606,027)		(606,027)		(290)		(290)	
GS<50	0		kWh	(212,151)		(212,151)		(528)		(528)	
GS>50	1		kW	314		314		(22)		(22)	
Street Lights	0		kW	0		0		0		0	
Unmetered Scattered Load	0		kWh	0		0		0		0	

The variances outlined above reflects the difference in the 2017 and 2018 load forecast which is explained in detail in load forecast evidence provided in this Exhibit. The general decline in volumes reflects the increase in CDM results from 2017 to 2018.

3.3 Other Revenue

3.3.1 Variance Analysis of Other Revenue:

Other Distribution Revenues are revenues that are distribution related but are sourced from means other than distribution rates. For this reason, other revenues are deducted from SLHI's proposed revenue requirement. Further details on the derivation of the Revenue Requirement are presented at Exhibit 6.

SLHI does not have any discrete customer groups that may be materially impacted by changes to other rates and charges.

Other Distribution revenues include such items as:

- Specific Service Charges
- Late Payment Charges
- Other Distribution Revenues
- Other Income and Expenses

A detailed breakdown by USoA account is shown below in Table 3-40 – OEB Appendix 2-H. Year over year variance analysis will follow with a discussion on those variances over $50,000.

Table 3-40: OEB Appendix 2-H Other Operating Revenue

Appendix 2-H
Other Operating Revenue

USoA #	USoA Description	2013 Actual²	2014 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	Bridge Year	Test Year
		2013	2014	2014	2015	2016	2017	2018
	Reporting Basis	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
4235	**Specific Service Charges**	$ 17,685	$ 18,275	$ 18,275	$ 17,770	$ 17,965	$ 18,000	$ 18,000
4225	**Late Payment Charges**	$ 38,447	$ 52,424	$ 52,424	$ 46,091	$ 48,897	$ 47,656	$ 49,498
4086	**SS Revenue**	$ 8,140	$ 8,049	$ 8,049	$ 7,901	$ 8,135	$ 8,463	$ 8,484
4210	Rent from Electric Property	$ 42,859	$ 42,949	$ 42,949	$ 47,261	$ 45,333	$ 49,413	$ 50,247
4215	Other Utility Operating Income	$ -	$ 1,000	$ 1,000				
4245	Govt Assist Directly Credit to Income	$ -	$ -	$ 1,293	$ 2,497	$ 2,477	$ 4,955	$ 7,468
4360	Loss on Disposition of Utility & Other Property	-$ 1,167	-$ 6,074	-$ 6,074				
4362	Loss on Retirement of Utility & Other Property				-$ 2,042	-$ 1,337	-$ 1,690	-$ 16,000
4375	Revenue from Non-Utility Operations	$ 85,375	$ 145,790	$ 145,790	$ 219,152	$ 87,633		
4380	Expense from Non-Utility Operations	-$ 85,375	-$ 145,790	-$ 145,790	-$ 174,458	-$ 87,366		
4385	Non-Utility Rental Income	$ 10,951	$ 10,952	$ 10,952	$ 10,724	$ 11,365	$ 10,989	$ 11,500
4405	Interest and Dividend Income	$ 4,762	$ 3,055	$ 3,055	$ 2,138	$ 2,578	$ 3,133	$ 3,500
Specific Service Charges		$ 17,685	$ 18,275	$ 18,275	$ 17,770	$ 17,965	$ 18,000	$ 18,000
Late Payment Charges		$ 38,447	$ 52,424	$ 52,424	$ 46,091	$ 48,897	$ 47,656	$ 49,498
Other Operating Revenues		$ 50,998	$ 51,998	$ 53,290	$ 57,658	$ 55,945	$ 62,831	$ 66,199
Other Income or Deductions		$ 3,595	-$ 3,019	-$ 3,019	$ 44,790	$ 1,508	$ 1,444	-$ 12,500
Total		$ 110,725	$ 119,677	$ 120,970	$ 166,309	$ 124,315	$ 129,931	$ 121,197

2013 Board Approved Comparison to 2013 Actual – Other Operating Revenue

Table 3-41 below summarizes the variance by account description followed by a discussion on those variances over $50,000.

Table 3-41: Comparison: 2013 Board Approved to 2013 Actual

Other Distribution Revenue	2013 Board Approved	2013 Actual	Difference $	Difference %
SSS Administration Revenue	8,265	8,140	(125)	(1.5%)
Rent from Electric property	42,027	42,859	832	2.0%
Late Payment Charges	39,868	38,447	(1,421)	(3.6%)
Specific Service Charges	16,741	17,685	944	5.6%
Other Income or Deductions	22,124	3,595	(18,529)	(83.8%)
Total	**129,025**	**110,726**	**(18,299)**	**(14.2%)**

Other distribution revenues for 2013 were 14.2% or $18,299 lower than the amounts approved in the 2013 Board Approved COS and below the materiality threshold.

2013 Actual Comparison to 2014 Actual – Other Operating Revenue

Table 3-42 below summarizes the variance by account

Table 3-42: Comparison: 2013 Actual to 2014 Actual

Other Distribution Revenue	2013 Actual	2014 Actual	Difference $	Difference %
SSS Administration Revenue	8,140	8,049	(91)	(1.1%)
Rent from Electric property	42,859	42,949	90	0.2%
Late Payment Charges	38,447	52,424	13,977	36.4%
Specific Service Charges	17,685	18,275	590	3.3%
Other Income or Deductions	3,595	(2,019)	(5,614)	(156.2%)
Total	**110,726**	**119,678**	**8,952**	**8.1%**

Other distribution revenues for 2014 were 8.1% or $8,952 higher than the 2013 amount and below the materiality threshold.

2014 Actual Comparison to 2015 Actual – Other Operating Revenue

Table 3-43 below summarizes the variance by account

Table 3-43: Comparison - 2014 Actual to 2015 Actual

Other Distribution Revenue	2014 Actual	2015 Actual	Difference $	Difference %
SSS Administration Revenue	8,049	7,901	(148)	(1.8%)
Rent from Electric property	42,949	47,261	4,312	10.0%
Late Payment Charges	52,424	46,091	(6,333)	(12.1%)
Specific Service Charges	18,275	17,770	(505)	(2.8%)
Other Income or Deductions	(2,019)	47,287	49,306	(2442.1%)
Total	**119,678**	**166,310**	**46,632**	**39.0%**

Other distribution revenues for 2015 were 39.0% or $46,632 higher than the 2014 amount and are below the materiality threshold. However, the variance can be explained due to extra revenues collected from performing work related to the 2015 Municipal Street Lighting LED Conversion and recorded in accounts 4375 and 4380. These amounts are broken out in OEB Appendix 2-H.

2015 Actual Comparison to 2016 Actual – Other Operating Revenue

Table 3-44 below summarizes the variance by account

Table 3-44: Comparison - 2015 Actual to 2016 Actual

Other Distribution Revenue	2015 Actual	2016 Actual	Difference $	Difference %
SSS Administration Revenue	7,901	8,135	234	3.0%
Rent from Electric property	47,261	45,333	(1,928)	(4.1%)
Late Payment Charges	46,091	48,897	2,806	6.1%
Specific Service Charges	17,770	17,965	195	1.1%
Other Income or Deductions	47,287	3,985	(43,302)	(91.6%)
Total	**166,310**	**124,315**	**(41,995)**	**(25.3%)**

Other distribution revenues for 2016 were 25.3% or $41,995 lower than the 2015 amount and are below the materiality threshold. With the removal of the one-time non-utility revenue collected in 2015 the variance is $4,129 or 3.2% lower in 2016.

2016 Actual Comparison to 2017 Bridge – Other Operating Revenue

Table 3-45 below summarizes the variance by account

Table 3-45: Comparison - 2017 Bridge to 20176 Actual

Other Distribution Revenue	2016 Actual	2017 Bridge	Difference $	Difference %
SSS Administration Revenue	8,135	8,463	328	4.0%
Rent from Electric property	45,333	49,413	4,080	9.0%
Late Payment Charges	48,897	47,656	(1,241)	(2.5%)
Specific Service Charges	17,965	18,000	35	0.2%
Other Income or Deductions	3,985	6,398	2,413	60.6%
Total	**124,315**	**129,930**	**5,615**	**4.5%**

Other distribution revenues for 2017 Bridge are forecasted to be 4.5% or $5,615 higher than the 2016 amount and below the materiality threshold.

2017 Bridge Comparison to 2018 Test – Other Operating Revenue

Table 3-46 below summarizes the variance by account.

Table 3-46: Comparison - 2018 Test to 2017 Bridge

Other Distribution Revenue	2017 Bridge	2018 Test	Difference $	Difference %
SSS Administration Revenue	8,463	8,484	21	0.2%
Rent from Electric property	49,413	50,247	834	1.7%
Late Payment Charges	47,656	49,498	1,842	3.9%
Specific Service Charges	18,000	18,000	0	0.0%
Other Income or Deductions	6,398	(5,032)	(11,430)	(178.6%)
Total	**129,930**	**121,197**	**(8,733)**	**(6.7%)**

Other distribution revenues for 2018 Test are forecasted to be 6.7% or $8,733 lower than the 2017 Bridge amount and below the materiality threshold.

3.3.2 Specific Service Charges

SLHI is proposing the current specific service charges be maintained in this application with the exception of two additional minor wording changes. The first, entitled Returned Cheque (plus bank charges). SLHI proposes to change this wording to Returned Item (plus bank charges). With the changing environment on how bills are paid, payments are returned in all forms, not only by cheque. This change will more closely resemble the reality of what is occurring in the industry.

The second, entitled Specific charge for access to the power poles - $/pole/year (with the exception of wireless attachments). SLHI is not proposing a change to the dollar value, simply the wording as a general housekeeping item to make it more specific, and all inclusive. SLHI's proposal is to rename this specific charge to Specific charge for all attachments to the power poles $/pole/year (with the exception of wireless attachments).

APPENDIX 3A: Monthly Data Used for Regression Analysis

	Purchased	Heating Degree Days	Pulp Mill Flag	Spring Fall Flag	Predicted Purchases
Jan-07	14,119,378	1,027	1.0	0	11,156,620
Feb-07	10,868,916	1,025	1.0	0	11,148,920
Mar-07	8,892,721	730	1.0	1	8,956,303
Apr-07	7,904,780	483	1.0	1	7,593,489
May-07	5,870,493	191	1.0	1	5,989,790
Jun-07	5,847,586	59	1.0	0	5,836,804
Jul-07	6,204,926	28	1.0	0	5,665,214
Aug-07	5,861,607	63	1.0	0	5,856,602
Sep-07	6,506,948	173	1.0	1	5,888,046
Oct-07	6,984,955	361	1.0	1	6,926,931
Nov-07	8,001,392	696	1.0	1	8,769,315
Dec-07	6,821,178	1,034	0.0	0	9,663,793
Jan-08	11,503,910	1,044	0.0	0	9,722,639
Feb-08	9,208,890	1,016	0.0	0	9,566,999
Mar-08	7,671,793	849	0.0	1	8,075,588
Apr-08	5,764,075	506	0.0	1	6,189,207
May-08	5,252,521	342	0.0	1	5,286,714
Jun-08	5,368,685	105	1.0	0	6,086,488
Jul-08	5,788,420	41	1.0	0	5,736,160
Aug-08	5,783,724	25	1.0	0	5,647,616
Sep-08	4,776,645	176	1.0	1	5,906,195
Oct-08	5,371,779	384	0.0	1	5,518,799
Nov-08	8,111,934	675	0.0	1	7,116,999
Dec-08	7,265,099	1,169	0.0	0	10,405,697
Jan-09	12,089,350	1,174	0.0	0	10,434,295
Feb-09	8,873,805	890	0.0	0	8,875,143
Mar-09	6,938,222	786	0.0	1	7,727,460
Apr-09	5,637,576	465	0.0	1	5,966,471
May-09	5,455,495	344	0.0	1	5,298,813
Jun-09	4,330,246	124	0.0	0	4,661,307
Jul-09	4,381,937	72	0.0	0	4,376,425
Aug-09	4,062,717	69	0.0	0	4,357,726
Sep-09	4,495,746	63	0.0	1	3,753,410
Oct-09	6,209,036	465	0.0	1	5,964,271
Nov-09	6,154,276	498	0.0	1	6,147,960
Dec-09	7,388,223	1,025	0.0	0	9,613,746
Jan-10	11,066,124	1,018	0.0	0	9,576,349
Feb-10	8,314,898	862	0.0	0	8,717,303
Mar-10	6,523,675	531	0.0	1	6,326,698
Apr-10	5,173,000	324	0.0	1	5,189,370
May-10	4,272,142	196	0.0	1	4,485,964
Jun-10	4,937,182	83	0.5	0	5,202,033
Jul-10	4,946,503	4	0.5	0	4,764,261
Aug-10	4,852,669	42	0.5	0	4,973,248
Sep-10	4,714,401	234	0.0	1	4,694,951
Oct-10	5,901,217	337	0.0	1	5,260,865
Nov-10	7,411,913	614	0.0	1	6,782,070
Dec-10	6,606,118	998	0.0	0	9,466,905

	Purchased	Heating Degree Days	Pulp Mill Flag	Spring Fall Flag	Predicted Purchases
Jan-11	12,613,918	1,157	0.0	0	10,339,701
Feb-11	8,586,533	890	0.0	0	8,872,393
Mar-11	7,047,311	816	0.0	1	7,894,650
Apr-11	6,163,169	466	0.0	1	5,969,221
May-11	4,610,688	237	0.0	1	4,712,550
Jun-11	4,667,440	86	0.0	0	4,449,571
Jul-11	4,544,231	12	0.0	0	4,044,796
Aug-11	4,713,561	12	0.0	0	4,045,896
Sep-11	4,379,673	167	0.0	1	4,323,174
Oct-11	5,778,261	311	0.0	1	5,118,424
Nov-11	7,473,290	595	0.0	1	6,676,476
Dec-11	5,821,238	880	0.0	0	8,820,696
Jan-12	11,952,459	956	0.0	0	9,234,820
Feb-12	7,823,110	771	0.0	0	8,220,684
Mar-12	6,483,399	522	0.0	1	6,277,751
Apr-12	5,203,128	416	0.0	1	5,693,688
May-12	4,764,670	214	0.0	1	4,584,408
Jun-12	4,353,013	44	0.0	0	4,222,435
Jul-12	4,757,337	2	0.0	0	3,989,250
Aug-12	4,525,059	29	0.0	0	4,136,090
Sep-12	5,170,716	190	0.0	1	4,450,766
Oct-12	6,054,498	444	0.0	1	5,849,328
Nov-12	8,297,344	689	0.0	1	7,196,194
Dec-12	6,216,901	678	0.0	0	7,708,666
Jan-13	13,667,507	1,396	0.0	0	11,656,318
Feb-13	9,570,501	974	0.0	0	9,334,306
Mar-13	7,901,671	874	0.0	1	8,215,945
Apr-13	6,477,370	615	0.5	1	7,555,142
May-13	5,601,844	294	0.5	1	5,790,042
Jun-13	4,945,617	87	0.5	0	5,222,035
Jul-13	5,188,029	47	0.5	0	5,002,049
Aug-13	5,038,058	71	0.5	0	5,134,040
Sep-13	4,809,562	141	0.5	1	4,946,569
Oct-13	7,192,825	365	0.5	1	6,178,491
Nov-13	8,675,053	723	0.5	1	8,149,944
Dec-13	8,624,286	1,178	0.5	0	11,220,855
Jan-14	15,518,995	1,245	0.5	0	11,589,882
Feb-14	10,275,485	1,031	0.5	0	10,412,406
Mar-14	7,866,056	951	0.5	1	9,403,315
Apr-14	6,939,480	600	0.5	1	7,475,136
May-14	5,836,326	278	0.5	1	5,702,598
Jun-14	4,899,693	100	0.5	0	5,296,628
Jul-14	5,148,464	78	0.5	0	5,175,635
Aug-14	4,841,847	67	0.5	0	5,110,739
Sep-14	3,291,505	209	0.5	1	5,321,472
Oct-14	6,403,698	400	0.5	1	6,372,456
Nov-14	8,682,529	824	0.5	1	8,703,759
Dec-14	9,815,239	892	0.5	0	9,650,154

	Purchased	Heating Degree Days	Pulp Mill Flag	Spring Fall Flag	Predicted Purchases
Jan-15	11,204,379	1,110	0.5	0	10,848,529
Feb-15	10,720,307	1,128	0.5	0	10,946,973
Mar-15	9,119,176	766	0.5	1	8,386,429
Apr-15	6,764,578	495	0.5	1	6,894,923
May-15	5,592,619	280	0.5	1	5,711,947
Jun-15	4,972,285	86	0.5	0	5,217,432
Jul-15	5,031,916	31	0.5	0	4,912,752
Aug-15	4,982,971	75	0.5	0	5,158,036
Sep-15	4,618,381	126	0.0	1	4,100,988
Oct-15	5,491,161	404	0.0	1	5,629,342
Nov-15	6,542,402	558	0.0	1	6,472,989
Dec-15	8,353,276	803	0.0	0	8,396,123
Jan-16	9,677,936	1,006	0.0	0	9,508,703
Feb-16	8,802,883	950	0.0	0	9,201,822
Mar-16	7,355,284	681	0.0	1	7,152,746
Apr-16	6,240,546	553	0.0	1	6,447,691
May-16	4,750,687	226	0.0	1	4,650,954
Jun-16	4,414,903	123	0.0	0	4,654,708
Jul-16	4,431,810	44	0.0	0	4,218,035
Aug-16	4,516,194	44	0.0	0	4,221,885
Sep-16	4,301,704	145	0.0	1	4,206,581
Oct-16	5,436,230	368	0.0	1	5,430,255
Nov-16	6,124,824	467	0.0	1	5,976,370
Dec-16	9,393,075	989	0.0	0	9,415,209
Jan-17		1,113	0.0	0	10,100,301
Feb-17		954	0.0	0	9,223,210
Mar-17		751	0.0	1	7,535,204
Apr-17		492	0.0	1	6,114,328
May-17		260	0.0	1	4,838,272
Jun-17		90	0.0	0	4,471,974
Jul-17		36	0.0	0	4,175,488
Aug-17		50	0.0	0	4,251,218
Sep-17		162	0.0	1	4,299,488
Oct-17		384	0.0	1	5,518,431
Nov-17		634	0.0	1	6,892,723
Dec-17		964	0.0	0	9,282,942
Jan-18		1,113	0.0	0	10,100,301
Feb-18		954	0.0	0	9,223,210
Mar-18		751	0.0	1	7,535,204
Apr-18		492	0.0	1	6,114,328
May-18		260	0.0	1	4,838,272
Jun-18		90	0.0	0	4,471,974
Jul-18		36	0.0	0	4,175,488
Aug-18		50	0.0	0	4,251,218
Sep-18		162	0.0	1	4,299,488
Oct-18		384	0.0	1	5,518,431
Nov-18		634	0.0	1	6,892,723
Dec-18		964	0.0	0	9,282,942

APPENDIX 3B: Load Forecast CDM Adjustment Workform - 2018

(Chapter 2 Appendix 2-I)

Appendix 2-I
Load Forecast CDM Adjustment Work Form (2018)

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

2018 is the fourth 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 programis completed, although in some

The new six year (2015-2020) CDM program works in a slightly different manner to the previous 2011-2014 CDM program. Distributors will offer programs each year that, over the six years (from

2015-2020 CDM Program - 2018 fourth 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. This results in each year's program being about 1/6

6 Year (2015-2020) kWh Target:							
			3,700,000				
	2015	2016	2017	2018	2019	2020	Total
			%				
2015 CDM Programs						6.57%	6.57%
2016 CDM Programs						18.11%	18.11%
2017 CDM Programs						19.11%	19.11%
2018 CDM Programs						18.76%	18.76%
2019 CDM Programs						18.76%	18.76%
2020 CDM Programs						18.70%	18.70%
Total in Year						**100.00%**	**100.00%**
			kWh				
2015 CDM Programs	243,000.00	243,000.00	243,000.00	243,000.00	243,000.00	243,000.00	243,000.00
2016 CDM Programs		670,000.00	670,000.00	670,000.00	670,000.00	670,000.00	670,000.00
2017 CDM Programs			707,000.00	707,000.00	707,000.00	707,000.00	707,000.00
2018 CDM Programs				694,000.00	694,000.00	694,000.00	694,000.00
2019 CDM Programs					694,000.00	694,000.00	694,000.00
2020 CDM Programs						692,000.00	692,000.00
Total in Year	243,000.00	913,000.00	1,620,000.00	2,314,000.00	3,008,000.00	**3,700,000.00**	**3,700,000.00**

Note: The default formulae in the above table assume that the 2015-2020 kWh CDM target is achieved through persistence of CDM savings to the end of 2020. The distributor should enter

Determination of 2018 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

From each of the 2006-2010 CDM Final Report, and the 2011 to 2016 CDM Final Reports, issued by the OPA/IESO for the distributor, the distributor should input the "gross" and "net" results of the

Net-to-Gross Conversion				
Is CDM adjustment being done on a "net" or "gross" basis?				**net**
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				
2016 CDM program				
2006 to 2016 OPA CDM programs: Persistence to 2018.	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"

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

Weight Factor for Inclusion in CDM Adjustment to 2018 Load Forecast

	2015	2016	2017	2018	2019	2020	
Weight Factor for each year's CDM program impact on 2018 load forecast	**0**	**0**	**1**	**0.5**	**0**	**0**	Distributor can select "0", "0.5", or "1" from drop-down list

Default Value selection rationale.	*Full year impact of 2015 CDM is assumed to be reflected in the base forecast, as the full year persistence of 2015 CDM programs is in the 2016 historical actual data. No further impact is necessary for the manual adjustment to the load forecast.*	*Default is 0.5, but one option is for full year impact of persistence of 2016 CDM programs on 2018 load forecast, but 50% impact in base forecast (first year impact of 2016 CDM programs on 2016 actuals, which is part of the data underlying the base load forecast).*	*Full year impact of persistence of 2017 programs on 2018 load forecast. 2017 CDM program impacts are not in the base forecast.*	*Only 50% of 2017 CDM programs are assumed to impact the 2018 load forecast based on the "half-year" rule.*	*2019 and 2020 are future years beyond the 2018 test year. No impacts of CDM programs beyond the 2018 test year are factored into the test year load forecast.*

2015-2020 LRAMVA and 2018 CDM adjustment to Load Forecast

One manual adjustment for CDM impacts to the 2018 load forecast is made. There is a different but related threshold amount that is used for the 2018 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 2018, for assessing performance against the six-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 2018 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 2018
Amount used for CDM threshold for LRAMVA (2018)	-	-	707,000.00	694,000.00			**1,401,000.00**
Manual Adjustment for 2018 Load Forecast (billed basis)	-	-	707,000.00	347,000.00			1,054,000.00
Manual Adjustment for 2018 LDC-only CDM programs (billed basis)							
Total Manual Forecast to Load Forecast	-	-	707,000.00	347,000.00			**1,054,000.00**
Proposed Loss Factor (TLF)	8.95%	Format: X.XX%					
Manual Adjustment for 2018 Load Forecast (system purchased basis)	-	-	770,276.50	378,056.50			**1,148,333.00**

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 2018

APPENDIX 3C: Customer, Connections, Load Forecast and Revenue Data and Analysis

(Chapter 2 Appendix 2-IB)

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 2018 Cost of Service		Consumption (kWh) [3]				
				Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*		Actual	71,922,866			
Historical	*2013*		Actual	83,168,941		Board-approved	72,077,404
Historical	*2014*		Actual	85,548,133			
Historical	*2015*		Actual	79,338,527			
Historical	*2016*		Actual	70,815,698			
Bridge Year	*2017*		Forecast		72,764,601		
Test Year	*2018*		Forecast		72,064,101		

Variance Analysis	Year	Year-over-year		Versus Board-approved
	2012			
	2013	15.6%		
	2014	2.9%		
	2015	-7.3%		
	2016	-10.7%		
	2017			
	2018		-1.0%	0.0%
	Geometric Mean	-0.5%		0.0%

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 2018 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	*2012*	Actual	2,344			Actual	32,285,778			Actual	13773.796	0	
Historical	*2013*	Actual	2,346	Board-approved	2,323	Actual	36,371,059		Board-approved 35,413,349	Actual	15503.435	0	Board-approved 15244.66164
Historical	*2014*	Actual	2,356			Actual	37,207,390			Actual	15792.61	0	
Historical	*2015*	Actual	2,357			Actual	33,751,334			Actual	14319.616	0	
Historical	*2016*	Actual	2,374			Actual	32,668,225			Actual	13760.836	0	
Bridge Year	*2017*	Forecast	2,380			Forecast		33,524,773		Forecast	0	14086.0391	
Test Year	*2018*	Forecast	2,386			Forecast		32,918,746		Forecast	0	13796.6245	

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
	2012			*2012*			*2012*		
	2013	0.1%		*2013*	12.7%		*2013*	12.6%	
	2014	0.4%		*2014*	2.3%		*2014*	1.9%	
	2015	0.0%		*2015*	-9.3%		*2015*	-9.3%	
	2016	0.7%		*2016*	-3.2%		*2016*	-3.9%	
	2017	0.3%		*2017*			*2017*		
	2018	0.3%	2.7%	*2018*	-1.8%	-7.0%	*2018*	-2.1%	-9.5%
	Geometric Mean	0.4%	0.7%	Geometric Mean	0.4%	-1.8%	Geometric Mean	0.0%	-2.5%

	Calendar Year (for 2018 Cost of Service	Revenues			
Historical	*2012*	Actual	$ 1,245,709		
Historical	*2013*	Actual	$ 1,163,086	Board-approved	$1,131,550
Historical	*2014*	Actual	$ 1,209,006		
Historical	*2015*	Actual	$ 1,138,938		
Historical	*2016*	Actual	$ 1,156,021		
Bridge Year (Foreca	*2017*	Forecast	$ 1,207,928		
Test Year (Forecast	*2018*	Forecast	$ 1,346,837		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2012		
	2013	-6.6%	
	2014	3.9%	
	2015	-5.8%	
	2016	1.5%	
	2017	4.5%	
	2018	11.5%	19.0%
	Geometric Mean	1.6%	4.5%

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

	Calendar Year (for 2018 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	*2012*	Actual	395			Actual	11,883,435				Actual	30084.646	0		
Historical	*2013*	Actual	400	Board-approved	386	Actual	12,926,388		Board-approved	13,104,863	Actual	32315.97	0	Board-approved	33950.42228
Historical	*2014*	Actual	404			Actual	13,500,466				Actual	33416.995	0		
Historical	*2015*	Actual	404			Actual	12,579,056				Actual	31136.277	0		
Historical	*2016*	Actual	402			Actual	11,845,271				Actual	29465.848	0		
Bridge Year	*2017*	Forecast	402			Forecast		12,143,659			Forecast	0	30208.107		
Test Year	*2018*	Forecast	402			Forecast		11,931,508			Forecast	0	29680.3682		

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
	2012			*2012*			*2012*		
	2013	1.3%		*2013*	8.8%		*2013*	7.4%	
	2014	1.0%		*2014*	4.4%		*2014*	3.4%	
	2015	0.0%		*2015*	-6.8%		*2015*	-6.8%	
	2016	-0.5%		*2016*	-5.8%		*2016*	-5.4%	
	2017	0.0%		*2017*			*2017*		
	2018	0.0%	4.1%	*2018*	-1.7%	-9.0%	*2018*	-1.7%	-12.6%
	Geometric Mean	0.4%	1.0%	Geometric Mean	-0.1%	-2.3%	Geometric Mean	-0.7%	-3.3%

	Calendar Year (for 2018 Cost of Service	Revenues			
Historical	*2012*	Actual	$ 337,496		
Historical	*2013*	Actual	$ 325,333	Board-approved	$292,065
Historical	*2014*	Actual	$ 311,466		
Historical	*2015*	Actual	$ 296,931		
Historical	*2016*	Actual	$ 297,450		
Bridge Year (Foreca	*2017*	Forecast	$ 308,149		
Test Year (Forecast	*2018*	Forecast	$ 343,565		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2012		
	2013	-3.6%	
	2014	-4.3%	
	2015	-4.7%	
	2016	0.2%	
	2017	3.6%	
	2018	11.5%	17.6%
	Geometric Mean	0.4%	4.1%

3 **Customer Class:** GS > 50 Kw to 4,999 kW Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2018 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	*2012*	Actual	52			Actual	27,280,733				Actual	524629.48	0		
Historical	*2013*	Actual	53	Board-approved	51	Actual	33,352,062		Board-approved	23,046,182	Actual	629284.19	0	Board-approved	451885.9216
Historical	*2014*	Actual	52			Actual	34,318,921				Actual	659979.25	0		
Historical	*2015*	Actual	51			Actual	32,657,665				Actual	640346.37	0		
Historical	*2016*	Actual	51			Actual	26,151,605				Actual	512776.57	0		
Bridge Year	*2017*	Forecast	52			Forecast		26,945,572			Forecast	0	518184.077		
Test Year	*2018*	Forecast	53			Forecast		27,063,250			Forecast	0	510627.358		

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
	2012			*2012*			*2012*		
	2013	1.9%		*2013*	22.3%		*2013*	19.9%	
	2014	-1.9%		*2014*	2.9%		*2014*	4.9%	
	2015	-1.9%		*2015*	-4.8%		*2015*	-3.0%	
	2016	0.0%		*2016*	-19.9%		*2016*	-19.9%	
	2017	2.0%		*2017*			*2017*		
	2018	1.9%	3.9%	*2018*	0.4%	17.4%	*2018*	-1.5%	13.0%
	Geometric Mean	0.4%	1.0%	Geometric Mean	-1.4%	4.1%	Geometric Mean	-0.8%	3.1%

	Calendar Year (for 2018 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	*2012*	Actual	$ 324,328			Actual	66,215				Actual	0.2041606	0		
Historical	*2013*	Actual	$ 339,849	Board-approved	$305,779	Actual	92,251		Board-approved	58,143	Actual	0.271447	0	Board-approved	0.190147132
Historical	*2014*	Actual	$ 345,504			Actual	99,288				Actual	0.2873715	0		
Historical	*2015*	Actual	$ 338,561			Actual	94,899				Actual	0.280301	0		
Historical	*2016*	Actual	$ 311,730			Actual	66,975				Actual	0.2148494	0		
Bridge Year (Foreca	*2017*	Forecast	$ 336,581			Forecast		71,869			Forecast	0	0.21352661		
Test Year (Forecast	*2018*	Forecast	$ 335,105			Forecast		72,183			Forecast	0	0.21540413		

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
	2012			*2012*			*2012*		
	2013	4.8%		*2013*	39.3%		*2013*	33.0%	
	2014	1.7%		*2014*	7.6%		*2014*	5.9%	
	2015	-2.0%		*2015*	-4.4%		*2015*	-2.5%	
	2016	-7.9%		*2016*	-29.4%		*2016*	-23.4%	
	2017	8.0%		*2017*			*2017*		
	2018	-0.4%	9.6%	*2018*	0.4%	24.1%	*2018*	0.9%	13.3%
	Geometric Mean	0.7%	2.3%	Geometric Mean	0.4%	5.6%	Geometric Mean	1.7%	3.2%

4 **Customer Class:** Streetlighting Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2018 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	*2012*	Actual	532			Actual	468,216				Actual	880.10526	0		
Historical	*2013*	Actual	532	Board-approved	531	Actual	517,279		Board-approved	501,465	Actual	972.32895	0	Board-approved	944.3785311
Historical	*2014*	Actual	534			Actual	519,121				Actual	972.1367	0		
Historical	*2015*	Actual	532			Actual	348,985				Actual	655.98684	0		
Historical	*2016*	Actual	531			Actual	150,597				Actual	283.61017	0		
Bridge Year	*2017*	Forecast	531			Forecast		150,597			Forecast	0	283.610169		
Test Year	*2018*	Forecast	531			Forecast		150,597			Forecast	0	283.610169		

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
	2012			*2012*			*2012*		
	2013	0.0%		*2013*	10.5%		*2013*	10.5%	
	2014	0.4%		*2014*	0.4%		*2014*	0.0%	
	2015	-0.4%		*2015*	-32.8%		*2015*	-32.5%	
	2016	-0.2%		*2016*	-56.8%		*2016*	-56.8%	
	2017	0.0%		*2017*			*2017*		
	2018	0.0%	0.0%	*2018*	0.0%	-70.0%	*2018*	0.0%	-70.0%
	Geometric Mean	0.0%	0.0%	Geometric Mean	-31.5%	-26.0%	Geometric Mean	-31.4%	-26.0%

	Calendar Year (for 2018 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	*2012*	Actual	$ 99,516			Actual	1,447				Actual	0.0145404	0		
Historical	*2013*	Actual	$ 96,659	Board-approved	$95,645	Actual	1,450		Board-approved	1,512	Actual	0.0150012	0	Board-approved	0.015808458
Historical	*2014*	Actual	$ 99,988			Actual	1,454				Actual	0.0145417	0		
Historical	*2015*	Actual	$ 96,201			Actual	1,104				Actual	0.011476	0		
Historical	*2016*	Actual	$ 90,824			Actual	420				Actual	0.0046243	0		
Bridge Year (Foreca	*2017*	Forecast	$ 79,907			Forecast		420			Forecast	0	0.00525611		
Test Year (Forecast	*2018*	Forecast	$ 29,451			Forecast		420			Forecast	0	0.01426098		

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
	2012			*2012*			*2012*		
	2013	-2.9%		*2013*	0.2%		*2013*	3.2%	
	2014	3.4%		*2014*	0.3%		*2014*	-3.1%	
	2015	-3.8%		*2015*	-24.1%		*2015*	-21.1%	
	2016	-5.6%		*2016*	-62.0%		*2016*	-59.7%	
	2017	-12.0%		*2017*			*2017*		
	2018	-63.1%	-69.2%	*2018*	0.0%	-72.2%	*2018*	171.3%	-9.8%
	Geometric Mean	-21.6%	-25.5%	Geometric Mean	-33.8%	-27.4%	Geometric Mean	-31.7%	-2.5%

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

	Calendar Year (for 2018 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	*2012*	Actual	2			Actual	4,705			Actual	2352.5	0	
Historical	*2013*	Actual	1	Board-approved	2	Actual	2,154		Board-approved 11,545	Actual	2154	0 Board-approved	5772.5
Historical	*2014*	Actual	1			Actual	2,235			Actual	2235	0	
Historical	*2015*	Actual	1			Actual	1,488			Actual	1488	0	
Historical	*2016*	Actual	-			Actual	0			Actual			
Bridge Year	*2017*	Forecast	-			Forecast		0		Forecast			
Test Year	*2018*	Forecast	-			Forecast		0		Forecast			

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
	2012			*2012*			*2012*		
	2013	-50.0%		*2013*	-54.2%		*2013*	-8.4%	
	2014	0.0%		*2014*	3.8%		*2014*	3.8%	
	2015	0.0%		*2015*	-33.4%		*2015*	-33.4%	
	2016	-100.0%		*2016*	-100.0%		*2016*	#VALUE!	
	2017			*2017*			*2017*		
	2018		-100.0%	*2018*		-100.0%	*2018*		#VALUE!
	Geometric Mean	-100.0%	-100.0%	Geometric Mean	-100.0%	-100.0%	Geometric Mean	#VALUE!	#VALUE!

	Calendar Year (for 2018 Cost of Service	Revenues			
Historical	*2012*	Actual	$ 597		
Historical	*2013*	Actual	$ 276	Board-approved	617
Historical	*2014*	Actual	$ 281		
Historical	*2015*	Actual	$ 189		
Historical	*2016*	Actual	$ -		
Bridge Year (Foreca	*2017*	Forecast	$ -		
Test Year (Forecast	*2018*	Forecast	$ -		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2012		
	2013	-53.8%	
	2014	1.8%	
	2015	-32.7%	
	2016	-100.0%	
	2017		
	2018		-100.0%
	Geometric Mean	-100.0%	-100.0%