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OEB Filing Requirements Mapping
Exhibit 3

OEB Chapter 2 Filing Requirements: Heading/Sub-Heading		InnPower Corporation Application: Heading/Sub-Heading	
2.3	**Exhibit 3: Operating Revenue**	**2.3**	**Exhibit 3: Operating Revenue**
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2.3.1.1	Multivariate Regression Model	2.3.1.1	Multivariate Regression Model
2.3.1.2	Normalized Average Use per Customer	2.3.1.2	Normalized Average Use per Customer
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2.3 Operation Revenue

2.3.1 Summary of Load and Customer/Connection Forecast

The purpose of this evidence is to present the process used by InnPower Corporation to prepare the weather normalized load and customer/connection forecast used to design the proposed 2017 Test Year distribution rates.

In summary, InnPower Corporation used the same regression analysis methodology approved by the Ontario Energy Board (the "OEB") in its 2013 Cost of Service ("COS") application (EB-2012-0139) and updated the analysis for actual data to the end of the 2015. The updated regression analysis used the some variables as those in the 2013 COS application since these variables continued to provide very good statistical results.

With regards to the overall process of load forecasting, InnPower Corporation believes that conducting a regression analysis on historical electricity purchases to produce an equation that will predict purchases is appropriate. InnPower Corporation has the data for the amount of electricity (in kWh) purchased from the IESO for use by InnPower Corporation's customers. With a regression analysis, these purchases can be related to other monthly explanatory variables such as heating degree days and cooling degree days which occur in the same month. The results of the regression analysis produces 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 Years, which is converted to billed kWh by rate class. A detailed explanation of the process is provided later in this evidence.

During the review process of previous COS applications, for other applicants, parties have expressed concerns with the load forecasting weather normalization process being used in this application. It has been suggested the weather normalization should be conducted on an individual rate class basis and the regression analysis would be based on monthly consumed kWh by rate class. As undertaken in the 2013 COS application (EB-2013-0139), InnPower Corporation conducted a regression analysis on an individual rate class basis. Consistent with the results in the 2013 COS application, the R square and Adjusted R square values for the rate class regression analysis were not acceptable compared to the results of the power purchased method. The R square and Adjusted R square values by rate class and power purchased method are shown in the following table. Based on these results, InnPower

Corporation concluded using the equation resulting from the power purchased method would be the appropriate approach to prepare the load forecast.

Table 3-1: R Square and Adjusted R Square Values

Class	R Square	Adjusted R Square
Residential	78%	77%
General Service < 50 kW	72%	71%
General Service 50 to 4,999 kW	3%	0%
Power Purchased	94%	94%

Based on the OEB's approval of this methodology in InnPower Corporation's last COS application along with the OEB's approval of this same method in recent COS applications for other applicants, InnPower Corporation 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 InnPower Corporation 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 (GWh)	Growth (GWh)	Percent Change	Customer/ Connection Count	Growth	Percent Change (%)
Billed Energy (GWh) and Customer Count / Connections						
2013 Board Approved	233.4			18,369		
2006 Actual	219.4			16,394		
2007 Actual	219.8	0.4	0.2%	16,645	251	1.5%
2008 Actual	226.8	7.1	3.2%	17,044	399	2.4%
2009 Actual	229.1	2.3	1.0%	17,361	317	1.9%
2010 Actual	231.9	2.7	1.2%	17,552	191	1.1%
2011 Actual	233.6	1.7	0.7%	17,776	224	1.3%
2012 Actual	229.8	(3.8)	(1.6%)	17,903	127	0.7%
2013 Actual	232.5	2.7	1.2%	18,286	383	2.1%
2014 Actual	237.9	5.3	2.3%	18,736	450	2.5%
2015 Actual	242.2	4.3	1.8%	19,073	337	1.8%
2016 Bridge - Normalized	238.9	(3.2)	(1.3%)	19,718	644	3.4%
2017 Test - Normalized	239.6	0.6	0.3%	20,319	601	3.0%

In the above Table 3-2, 2006 to 2015 are reflecting actual weather conditions in the year. The years 2016 to 2017 are weather normalized. It is InnPower Corporation's understanding that there is not an OEB approved method to weather normalize actual data. Consequently, InnPower Corporation does not have a process to adjust weather actual data to a weather normal basis. However, based on the process outlined in this Exhibit, a process to forecast energy on a weather normalized basis has been developed and used in this application.

On a rate class basis, the actual and forecasted billed amounts are shown in Table 3-3. Table 3-4 provides the actual and forecasted number of customers/connections. Customer/Connection values are on a 12 month average basis. The values for Sentinel Lighting, Street Lighting and Unmetered Scattered Load are measured as connections. The annual usage per customer/connection is shown in Table 3-5.

Table 3-3 Billed Energy by Rate Class

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load	Total
Billed Energy (GWh)							
2013 Board Approved	148.1	31.8	51.3	0.1	1.5	0.5	233.4
2006 Actual	150.2	27.4	39.8	0.1	1.4	0.3	219.4
2007 Actual	149.6	28.7	39.3	0.1	1.5	0.5	219.8
2008 Actual	150.8	28.6	45.3	0.1	1.5	0.5	226.8
2009 Actual	151.2	28.3	47.5	0.1	1.6	0.5	229.1
2010 Actual	149.2	29.4	51.1	0.1	1.6	0.5	231.9
2011 Actual	150.9	30.7	49.9	0.1	1.5	0.5	233.6
2012 Actual	145.6	30.9	51.1	0.1	1.6	0.5	229.8
2013 Actual	148.6	31.0	50.9	0.1	1.5	0.5	232.5
2014 Actual	152.9	32.1	50.6	0.1	1.6	0.5	237.9
2015 Actual	151.5	34.3	54.6	0.1	1.1	0.5	242.2
2016 Bridge - Normalized	149.7	33.1	54.9	0.1	0.7	0.5	238.9
2017 Test - Normalized	149.9	32.4	56.0	0.1	0.7	0.5	239.6

Table 3-4 Customer/Connection by Rate Class

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load	Total
Number of Customers/Connections							
2013 Board Approved	14,189	910	66	237	2,889	78	18,369
2006 Actual	12,867	797	80	189	2,371	90	16,394
2007 Actual	12,991	819	71	186	2,489	89	16,645
2008 Actual	13,277	836	73	186	2,588	84	17,044
2009 Actual	13,533	855	72	193	2,625	83	17,361
2010 Actual	13,651	865	68	201	2,685	82	17,552
2011 Actual	13,779	896	67	225	2,728	81	17,776
2012 Actual	13,943	914	68	172	2,728	79	17,903
2013 Actual	14,181	949	67	168	2,843	78	18,286
2014 Actual	14,509	991	67	169	2,923	76	18,736
2015 Actual	14,862	1,001	72	166	2,898	76	19,073
2016 Bridge - Normalized	15,419	1,026	72	163	2,963	75	19,718
2017 Test - Normalized	15,930	1,052	72	161	3,030	74	20,319

Table 3-5 Annual Usage per Customer/Connection by Rate Class

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load
Energy Usage per Customer/Connection (kWh per customer/connection)						
2013 Board Approved	10,441	34,924	777,717	443	525	6,085
2006 Actual	11,676	34,434	497,886	698	610	3,293
2007 Actual	11,517	35,006	553,811	679	601	5,881
2008 Actual	11,359	34,197	620,129	668	593	6,091
2009 Actual	11,171	33,090	659,351	632	601	5,987
2010 Actual	10,926	33,955	751,894	581	588	6,061
2011 Actual	10,950	34,288	745,100	490	534	6,080
2012 Actual	10,443	33,787	752,954	659	575	6,115
2013 Actual	10,477	32,635	760,026	606	518	6,100
2014 Actual	10,540	32,428	753,235	637	556	6,158
2015 Actual	10,196	34,307	764,144	625	382	6,119
2016 Bridge - Normalized	9,707	32,283	767,690	618	222	6,622
2017 Test - Normalized	9,412	30,768	783,060	611	221	7,167

2.3.1.1 Forecast Methodology – Multivariate Regression Model

InnPower Corporation'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 historical load, weather, and other variables that impact electricity 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/connections numbers and historical usage patterns per customer/connection. 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 analysis. For most classes, the forecast of customers by rate class is determined using a geometric mean analysis. However, for the Residential class this is based on growth forecasts developed utilizing the information from developers, growth plans from the City of Barrie, Town of Innisfil and Simcoe County. Figure 3-1: Customer Growth Estimates provides a summary of residential growth estimates from the Municipal (Barrie and Town of Innisfil) entities to reflect potential growth from 2016 – 2022.

Figure 3.1: Customer Growth Estimates

Customer Growth (Residential Only)									
	2014	2015	2016	2017	2018	2019	2020	2021	2022
Historical Residential	14699								
New Customers Residential - Barrie			0	0	714	750	606	600	550
New Customers Residential -TOI		435	674	348	430	401	349	397	391
Total New Customers		435	674	348	1144	1151	955	997	941
Total Residential Customers (EOY)		15134	15808	16156	17300	18451	19405	20403	21343
% Residential Growth		3.0%	4.5%	2.2%	7.1%	6.7%	5.2%	5.1%	4.6%

The billed energy forecast is also adjusted for expected Conservation and Demand Management ("CDM") results from 2016 to 2021. 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 the following independent variables: weather (heating and cooling degree days), calendar variables (days in month, seasonal) and number of customers in the Residential, General Service < 50 kW and General Service 50 to 4,999 kW rate classes. The regression model uses monthly kWh and monthly values of independent variables from January 2006 to December 2015 to determine the monthly regression coefficients.

With regards to weather normalization, InnPower Corporation submits that it is appropriate to review the impact of weather over the past ten years January 2006 to December 2015 since it is consistent with a time period outlined in the filing requirements and it is 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 for each year 2016 to 2017. In accordance with the filing requirement, InnPower Corporation has also provided sensitivity analysis showing the impact on the 2017 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 InnPower Corporation's load growth are weather, "calendar" factors and number of customers. These factors are captured within the multivariate regression model.

Weather impacts on load are apparent in both the winter heating season, and in the summer cooling season. For that reason, both Heating Degree Days (i.e. a measure of coldness in winter) and Cooling Degree Days (i.e. a measure of summer heat) are modeled.

The second main factor determining energy use in the monthly model can be classified as "calendar factors". For example, the number of days in a particular month will impact energy use. The modeling of purchased energy uses number of days in the month and a “flag” variable to capture the typically lower usage in the spring and fall months.

The third main factor is the total number of customers in the Residential, General Service < 50 kW and General Service 50 to 4,999 kW rate classes.

The following outlines the predication model used by InnPower Corporation to predict weather normal purchases for 2016 to the 2017 Test Year.

InnPower Corporation Monthly Predicted kWh Purchases:

= Heating Degree Days * 12,574
+ Cooling Degree Days * 30,393
+ Number of Days in the Month * 631,416
+ Spring Fall Flag * (1,168,175)
+ Number of Customers * 562
+ Constant of (11,152,354).

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:

a) Environment Canada website for monthly heating degree days and cooling degree days. Weather data form the Toronto Pearson International Airport weather station was used. 18° C is the base numbers from which heating degree days and cooling degree days are measured.
b) The calendar provided information related to number of days in the month and the spring/fall flag.
c) InnPower Corporation's billing system provided the historical number of customers.

The prediction formula has the following statistical results which generally indicate the formula has a good fit to the actual data set.

Table 3-6 Statistical Results

Statistic	Value
R Square	94.3%
Adjusted R Square	94.0%
F Test	375.6
MAPE (Monthly)	2.5%
T-stats by Coefficient	
Heating Degree Days	30.4
Cooling Degree Days	11.9
Number of Days in Month	7.8
Spring Fall Flag	(6.7)
Number of Customers - 3 Main Classes	5.8
Constant	(4.0)

The annual results of the above prediction formula compared to the actual annual purchases from 2006 to 2015 are shown in Figure 3-2 below along with the forecast of annual purchases for 2016 to 2021.

Figure 3-2 Actual vs Predicted Purchases (Millions of kWhs)

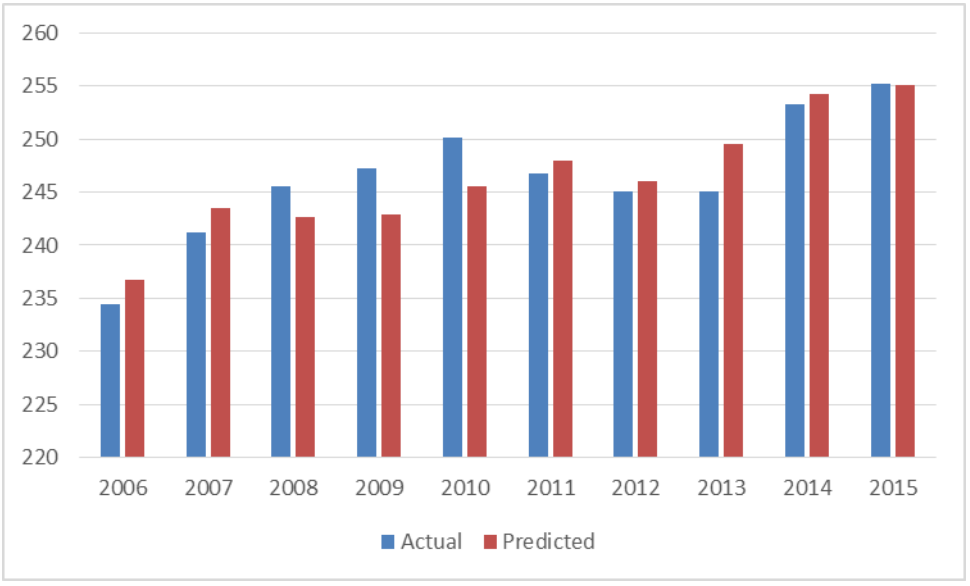

Table 3-7 below outlines the data that supports the above chart. In addition, the predicted total system purchases for InnPower Corporation on a weather normal basis. In addition, values for 2013 Bridge and 2017 Test Year are provided on a 20 year trend assumption for weather normalization as per the filing requirements.

Table 3-7 Total System Purchase

Year	Actual	Predicted	% Difference
Purchased Energy (GWh)			
2006	234.4	236.7	1.0%
2007	241.2	243.5	1.0%
2008	245.6	242.7	(1.2%)
2009	247.2	242.9	(1.8%)
2010	250.2	245.5	(1.9%)
2011	246.8	248.0	0.5%
2012	245.1	246.0	0.4%
2013	245.1	249.5	1.8%
2014	253.3	254.2	0.4%
2015	255.2	255.1	(0.0%)
2016 Bridge - Normalized		258.8	
2017 Test - Normalized		261.8	
2017 Test - Normalized - 20 Year Trend		262.4	

The weather normalized amount for 2016 to 2017 is determined by using 2016 to 2017 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 2006 to December 2015 (i.e. 10 years). The 2017 to 2021 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 2015.

Billed KWh Load Forecast

To determine the total weather normalized energy billed forecast, the total system weather normalized purchases forecast is adjusted by an average historical loss factor of 7.21%. The following table shows the conversion from total power purchases to total billed.

Table 3-8 Conversion of Total System Purchases to Total Billed

Year	Power Purchased	Loss Factor	Billed
2016 Bridge - Normalized	258.8	1.0721	241.4
2017 Test - Normalized	261.8	1.0721	244.2

2.3.1.2 Normalized Average Use per Customer

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 3-9.

Table 3-9 Historical Customer/Connection Data

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load	Total
Number of Customers/Connections							
2006	12,867	797	80	189	2,371	90	16,394
2007	12,991	819	71	186	2,489	89	16,645
2008	13,277	836	73	186	2,588	84	17,044
2009	13,533	855	72	193	2,625	83	17,361
2010	13,651	865	68	201	2,685	82	17,552
2011	13,779	896	67	225	2,728	81	17,776
2012	13,943	914	68	172	2,728	79	17,903
2013	14,181	949	67	168	2,843	78	18,286
2014	14,509	991	67	169	2,923	76	18,736
2015	14,862	1,001	72	166	2,898	76	19,073

From the historical customer/connection data the growth rate in customer/connection can be evaluated which is provided on the following Table 3-10.

Table 3-10 Growth Rate in Customer/Connections

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load
Growth Rate in Customers/Connections						
2006						
2007	1.0%	2.8%	(11.3%)	(1.6%)	5.0%	(1.1%)
2008	2.2%	2.1%	2.8%	0.0%	4.0%	(5.6%)
2009	1.9%	2.3%	(1.4%)	3.8%	1.4%	(1.2%)
2010	0.9%	1.2%	(5.6%)	4.1%	2.3%	(1.2%)
2011	0.9%	3.6%	(1.5%)	11.9%	1.6%	(1.2%)
2012	1.2%	2.0%	1.4%	(23.5%)	0.0%	(2.9%)
2013	1.7%	3.9%	(1.3%)	(2.4%)	4.2%	(1.4%)
2014	2.3%	4.4%	0.2%	0.8%	2.8%	(2.6%)
2015	2.4%	0.9%	6.5%	(2.2%)	(0.9%)	0.6%
Geo Mean - 2006 to 2015	1.6%	2.6%	(1.2%)	(1.4%)	2.3%	(1.9%)

For all classes, except the Residential and General Service 50 to 4,999 kW rate classes, the factor resulting from the geometric mean analysis from 2006 to 2015 is applied to the 2015 customer/connection numbers to determine the forecast of customer/connections in 2016. For 2017, the geometric mean factor is applied to the value in previous year to determine the current year forecast. For the Residential class the forecasted number of customer is based on growth forecasts developed utilizing the information from developers, growth plans from the City of Barrie, Town of Innisfil and Simcoe County (refer to Figure 3.1 on page 9). Table 3-11 outlines the forecast of customers by rate class for the 2016 Bridge Year and 2017 Test Year.

Table 3-11 Customer/Connection Forecast

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load
Forecast number of Customers/Connections						
2016	15,419	1,026	72	163	2,963	75
2017	15,930	1,052	72	161	3,030	74

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 3-12 below provides the average annual usage per customer by rate class from 2006 to 2015 before the allocation of Hydro One load transfers.

Table 3-12 Historical Annual Usage per Customer before Allocation of Hydro One Load Transfers

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load
Annual kWh Usage Per Customer/Connection						
2006	11,588	34,117	497,886	698	610	3,242
2007	11,446	34,754	553,811	679	601	5,839
2008	11,295	33,971	620,129	668	593	6,050
2009	11,112	32,881	659,351	632	601	5,948
2010	10,867	33,744	751,894	581	588	6,020
2011	10,893	34,095	745,100	490	534	6,041
2012	10,395	33,623	752,954	659	575	6,080
2013	10,434	32,492	760,026	606	518	6,068
2014	10,502	32,305	753,235	637	556	6,129
2015	10,163	34,199	764,144	625	382	6,093

As can been seen from the above table, usage per customer/connection generally declines in the Residential, General Service < 50 kW, Sentinel Lighting and Street Lighting classes. It is InnPower Corporation's view that this decline is partially due to the CDM programs initiated in 2005 and onwards. The increase usage per customer in the General Service 50 to 4,999 kW class is due to expansions of 8 of our key GS > 50 customers in terms of products. The usage per connection for the Unmetered Scattered Load has generally remained stable which is expected since this is typically a flat load class which reflects estimated usage.

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 2006 and 2015 has also been shown.

Table 3-13 Growth Rate in Usage per Customer/Connection

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load
Growth Rate in Usage Per Customer/Connection						
2006						
2007	(1.2%)	1.9%	11.2%	(2.6%)	(1.4%)	80.1%
2008	(1.3%)	(2.3%)	12.0%	(1.7%)	(1.4%)	3.6%
2009	(1.6%)	(3.2%)	6.3%	(5.3%)	1.4%	(1.7%)
2010	(2.2%)	2.6%	14.0%	(8.2%)	(2.0%)	1.2%
2011	0.2%	1.0%	(0.9%)	(15.6%)	(9.2%)	0.3%
2012	(4.6%)	(1.4%)	1.1%	34.4%	7.7%	0.7%
2013	0.4%	(3.4%)	0.9%	(8.0%)	(10.0%)	(0.2%)
2014	0.7%	(0.6%)	(0.9%)	5.1%	7.4%	1.0%
2015	(3.2%)	5.9%	1.4%	(2.0%)	(31.3%)	(0.6%)
Geo Mean - 2006 to 2015	(1.2%)	(0.7%)	5.3%	(1.1%)	(1.1%)	8.3%

The 2016 forecast of usage per customer/connection was determined by applying the historical geometric mean value from 2006 to 2015 to the actual 2015 usage per customer/connection. For the 2017 Test Year, the geometric mean factor is applied to the value in previous year to determine the current year forecast of usage per customer/connection.

Table 3-14 Forecast Annual kWh Usage per Customer/Connection

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load
Forecast Annual kWh Usage per Customers/Connection						
2016	10,039	33,966	804,730	618	377	6,598
2017	9,916	33,735	847,471	611	373	7,145

The preceding information is used to determine the non-normalized weather billed energy forecast by applying the forecast number of customer/connection from Table 3-11 by the forecast of annual usage per customer/connection from Table 3-14. The resulting non-normalized weather billed energy forecast is shown in the following Table 3-15.

Table 3-15 Non-normalized Weather Billed Energy Forecast

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load	TOTAL
NON-normalized Weather Billed Energy Forecast (GWh)							
2016 (Not Normalized)	154.8	34.8	57.5	0.1	1.1	0.5	248.9
2017 (Not Normalized)	158.0	35.5	60.6	0.1	1.1	0.5	255.8

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 shown in Table 3-8

The difference between the non-normalized and normalized forecast is assumed to be the adjustment 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 InnPower Corporation 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 3-16.

Table 3-16 Weather Sensitivity by Rate Class

Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load
Weather Sensitivity					
83%	83%	65%	0%	0%	0%

For the General Service 50 to 4,999 kW class the weather sensitivity amount of 65% was provided in the weather normalization work completed by Hydro One. For the Residential and General Service < 50 kW classes, the weather sensitivity assumptions is consistent with that assumed in InnPower Corporation 2013 COS application.

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

Hydro One Load Transfers

InnPower Corporation has historically had load transfers with Hydro One. Hydro One provides power to customers that are in the InnPower Corporation service area but are connected to the Hydro One distribution system. These customers/connections are in the Residential, General Service < 50 kW and Unmetered Scattered Load rate classes. InnPower Corporation expects Hydro One load transfers to continue over the forecast period 2016 to 2021 but on a declining level. The follow table outlines the historical and forecasted kWh for Hydro One load transfers. Using the geometric mean analysis the average growth rate over the period 2006 to 2015 is (8.7%). In order to determine the 2016 to 2021 forecast, this declining growth rate is applied to the previous year to forecast the current year. For example, 2016 is the 2015 value reduced by 8.7%.

Table 3-17 Hydro One Load Transfers

Year	Hydro One Load Transfers (GWh)
2006 - Actual	1.4
2007 - Actual	1.1
2008 - Actual	1.0
2009 - Actual	1.0
2010 - Actual	1.0
2011 - Actual	1.0
2012 - Actual	0.8
2013 - Actual	0.7
2014 - Actual	0.7
2015 - Actual	0.6
2016 - Bridge Forecast	0.5
2017 - Test Year Forecast	0.5

It is assumed the Hydro One load transfers are allocated 81.5% to Residential, 18.2% to General Service < 50 kW and 0.3% to Unmetered Scattered Load rate classes. This allocation is based rate class specific data provided by Hydro One for the LTLT customers.

In order to determine the difference between the non-normalized and normalized billed forecast discussed above, the forecast in Table 3-17 is added to the results in Table 3-15 and subtracted from Table 3-8. The results are used to determine the amount to be assigned to each rate class based on the

level of weather sensitivity. The following table outlines the difference between the non-normalized and normalized billed forecast.

Table 3-18 Difference Between Normalized and Non-normalized Bill Forecast

Year	Table 3-8 (A)	Table 3-15 (B)	Table 3-17 (C)	Difference = (A) - (B) - (C)
Billed Energy (GWh)				
2016 Bridge - Normalized	241.4	248.9	0.5	(8.1)
2017 Test - Normalized	244.2	255.8	0.5	(12.2)

2.3.1.3 CDM Adjustment and LRAMVA

A manual adjustment has been made to reflect the impact of 2015 to 2021 CDM programs on the load forecast. InnPower Corporation has made this adjustment to reflect the "net" impact of the CDM programs on the load forecast.

The following Table 3-19, outlines the expected full year savings from 2015 to 2021 CDM programs based on the 2015 to 2020 CDM Plan for InnPower Corporation. It assumed that the savings that occur in the first year of a program with persist at 100% for the years that follow. The value for 2021 has been set at the same level as 2015 as it is assumed this will be the results of the first year of a CDM Plan that is expected to follow the 2015 to 2020 CDM Plan.

Table 3-19 2015 to 2021 Expected Full Year Total kWh Savings

2015-2021 Expected kWh Savings							
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
2015 Programs	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889
2016 Programs		3,143,714	3,143,714	3,143,714	3,143,714	3,143,714	3,143,714
2017 Programs			1,139,903	1,139,903	1,139,903	1,139,903	1,139,903
2018 Programs				2,174,129	2,174,129	2,174,129	2,174,129
2019 Programs					2,321,084	2,321,084	2,321,084
2020 Programs						2,527,406	2,527,406
2021 Programs							1,701,889
Total for 2015 to 2020 Target	1,701,889	3,143,714	1,139,903	2,174,129	2,321,084	2,527,406	n/a
Total Including Persistence	1,701,889	4,845,603	5,985,506	8,159,635	10,480,719	13,008,124	14,710,013

In order to assign the above savings to rate classes the following explains the allocation to each rate class. In 2015 there is CDM program to reduce the annual Street Lighting usage by 922,062 kWh and it is assumed these savings will persist at 100% until 2021. These are the only CDM savings assigned to the Street Lighting class over the forecast period. In 2016 it is assumed there is Co-generation project that will provide 2,042,000 kWh of CDM savings in the General Service 50 to 4,999 kW rates class which will persist at 100% until 2021.

For the Residential class, based on the expected results in the 2015 to 2020 CDM Plan for InnPower Corporation, the following outlines the percentage allocated to the Residential after the Street Lighting and Co-generation savings have been deducted from the total shown in Table 3-19.

Table 3-20 Residential Allocation

	2015	2016	2017	2018	2019	2020	2021
Residential Allocation	29.7%	23.0%	19.6%	22.5%	20.7%	24.7%	29.7%

The following outlines the 2015 to 2021 savings for the Residential class:

Table 3-21 2015 to 2021 Expected Full Year Residential kWh Savings

2015-2021 Expected Residential kWh Savings							
	2015	2016	2017	2018	2019	2020	2021
2015 Programs	231,434	231,434	231,434	231,434	231,434	231,434	231,434
2016 Programs		253,000	253,000	253,000	253,000	253,000	253,000
2017 Programs			223,186	223,186	223,186	223,186	223,186
2018 Programs				488,612	488,612	488,612	488,612
2019 Programs					480,898	480,898	480,898
2020 Programs						623,249	623,249
2021 Programs							505,080
Total for 2015 to 2020 Target	231,434	253,000	223,186	488,612	480,898	623,249	n/a
Total Including Persistence	231,434	484,434	707,620	1,196,232	1,677,130	2,300,379	2,805,459

The remaining CDM savings are assigned to the General Service classes with 90% allocated to the General Service < 50 kW rate class and 10% allocated to the General Service 50 to 4,999 kW rate class. The following outlines the 2015 to 2021 savings for the General Service < 50 kW and the General

Service 50 to 4,999 kW rate classes. The savings from the Co-generation are included in the General Service 50 to 4,999 kW rate class.

Table 3-22 2015 to 2021 Expected Full Year General Service < 50 kWh Savings

2015-2021 Expected General Service < 50 kW kWh Savings							
	2015	2016	2017	2018	2019	2020	2021
2015 Programs	493,553	493,553	493,553	493,553	493,553	493,553	493,553
2016 Programs		763,843	763,843	763,843	763,843	763,843	763,843
2017 Programs			825,045	825,045	825,045	825,045	825,045
2018 Programs				1,516,965	1,516,965	1,516,965	1,516,965
2019 Programs					1,656,167	1,656,167	1,656,167
2020 Programs						1,713,741	1,713,741
2021 Programs							1,077,128
Total for 2015 to 2020 Target	493,553	763,843	825,045	1,516,965	1,656,167	1,713,741	n/a
Total Including Persistence	493,553	1,257,397	2,082,442	3,599,407	5,255,574	6,969,315	8,046,443

Table 3-23 2015 to 2021 Expected Full Year General Service 50 to 4,999 kW kWh Savings

2015-2021 Expected General Service 50 to 4,999 kW kWh Savings							
	2015	2016	2017	2018	2019	2020	2021
2015 Programs	54,839	54,839	54,839	54,839	54,839	54,839	54,839
2016 Programs		2,126,871	2,126,871	2,126,871	2,126,871	2,126,871	2,126,871
2017 Programs			91,672	91,672	91,672	91,672	91,672
2018 Programs				168,552	168,552	168,552	168,552
2019 Programs					184,019	184,019	184,019
2020 Programs						190,416	190,416
2021 Programs							119,681
Total for 2015 to 2020 Target	54,839	2,126,871	91,672	168,552	184,019	190,416	n/a
Total Including Persistence	54,839	2,181,711	2,273,382	2,441,934	2,625,953	2,816,368	2,936,049

Since the regression analysis is based on actual power purchased data up to and including 2015 actual data, it is assumed that any savings from programs initiated up to and including 2015 are reflected in the prediction equation resulting from the regression analysis. However, for 2015 it is assumed that for those programs that were initiated in 2015 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 (Year) = 2015 Programs rate class savings x 50% + For all years after 2015 to (Year – 1) full year Programs rate class savings (if applicable) + Year Programs rate class savings x 50%.

For example: Residential CDM adjustment (2018) = 231,434 kWh (2015 Programs rate class savings) x 50% + 253,000 kWh (2016 Program rate class savings) + 223,186 kWh (2017 Program rate class savings) + 488,612 kWh (2016 Program rate class savings) x 50% = 836,209.

In accordance with the Guidelines for Electricity Distributor Conservation and Demand Management (EB-2013-0003), issued April 26, 2013 ("CDM Guidelines"), it is InnPower Corporation's understanding that as part of this application expected CDM savings in 2017 to 2021 from 2016 to 2021 programs will need to be established for lost revenue adjustment mechanism ("LRAM") variance accounts purposes. InnPower Corporation 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 InnPower Corporation'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 (Year) = Rate class 2016 Program savings + Rate class Program savings for all years from 2016 up to and including (Year).

For example: Residential LRAMVA Threshold (2018) = 253,000 kWh (2016 Programs savings) + 223,186 kWh (2017 Programs savings) + 488,612 kWh (2018 Programs savings) = 964,797 kWh.

The following table provides expected CDM savings by rate class for LRAM variance account purposes The expected kW saving has also been provided for those classes billed distribution charges on a kW basis using the average kW/KWh ratios from Table 3-27.

Following the afore-mentioned tables, InnPower Corporation has completed and presented in APPENDIX B – 2-I Load Forecast CDM Adjustment Work Form.

Table 3-24 2016 Expected CDM Savings by Rate Class for LRAM Variance Account

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load	Total
2017 LRAMVA kWh	476,186	1,588,888	2,218,543	0	0	0	4,283,617
2018 LRAMVA kWh	964,797	3,105,854	2,387,095	0	0	0	6,457,746
2019 LRAMVA kWh	1,445,696	4,762,021	2,571,113	0	0	0	8,778,830
2020 LRAMVA kWh	2,068,945	6,475,762	2,761,529	0	0	0	11,306,235
2021 LRAMVA kWh	2,574,025	7,552,889	2,881,210	0	0	0	13,008,124
2017 LRAMVA kW - Annual	0	0	6,231	0	0	0	6,231
2018 LRAMVA kW - Annual	0	0	6,705	0	0	0	6,705
2019 LRAMVA kW - Annual	0	0	7,222	0	0	0	7,222
2020 LRAMVA kW - Annual	0	0	7,757	0	0	0	7,757
2021 LRAMVA kW - Annual	0	0	8,093	0	0	0	8,093
2017 LRAMVA kW - Monthly	0	0	519	0	0	0	519
2018 LRAMVA kW - Monthly	0	0	559	0	0	0	559
2019 LRAMVA kW - Monthly	0	0	602	0	0	0	602
2020 LRAMVA kW - Monthly	0	0	646	0	0	0	646
2021 LRAMVA kW - Monthly	0	0	674	0	0	0	674

The following Table 3-25 outlines how the classes have been adjusted to align the non-normalized forecast with the normalized forecast. This table also reflects the adjustments for Hydro One load transfers and manual CDM.

Table 3-25 Alignment of Non-normal to Weather Normal Forecast and Other Adjustments

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Unmetered Scattered Load	Total
Non-normalized Weather Billed Energy Forecast (GWh)							
2016 (Not Normalized)	154.8	34.8	57.5	0.1	1.1	0.5	248.9
2017 (Not Normalized)	158.0	35.5	60.6	0.1	1.1	0.5	255.8
Adjustment for Hydro One Load Transfer (GWh)							
2016	0.4	0.1	0.0	0.0	0.0	0.002	0.5
2017	0.4	0.1	0.0	0.0	0.0	0.002	0.5
Adjustment for Weather (GWh)							
2016	(5.3)	(1.2)	(1.6)	0.0	0.0	0.0	(8.1)
2017	(8.0)	(1.8)	(2.4)	0.0	0.0	0.0	(12.2)
Adjustment for CDM (GWh)							
2016	(0.2)	(0.6)	(1.1)	0.0	(0.5)	0.0	(2.4)
2017	(0.5)	(1.4)	(2.2)	0.0	(0.5)	0.0	(4.6)
Weather Normalized Billed Energy Forecast (GWh)							
2016 Bridge - Normalized	149.7	33.1	54.9	0.1	0.7	0.5	238.9
2017 Test - Normalized	149.9	32.4	56.0	0.1	0.7	0.5	239.6

Billed KW Load Forecast

Historically, there were three rate classes that charge volumetric distribution on per kW basis. These include General Service 50 to 4,999 kW, Sentinel Lighting and Street Lighting. As a result, the energy forecast for these classes needs to be converted to a kW basis for rate setting purposes. The forecast of kW for these classes is based on a review of the historical ratio of kW to kWh and applying the results of a trend analysis to the forecasted kWh to produce the required kW.

The following Table 3-26 outlines the annual demand units by applicable rate class.

Table 3-26 Historical Annual kW per Applicable Rate Class

Year	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Total
Billed Annual kW				
2006	118,310	367	4,014	122,691
2007	116,956	351	4,153	121,460
2008	134,693	345	4,261	139,299
2009	136,122	339	4,370	140,832
2010	144,502	324	4,389	149,215
2011	139,425	306	4,416	144,148
2012	144,982	315	4,424	149,721
2013	130,935	283	4,149	135,367
2014	135,394	300	4,581	140,275
2015	141,987	288	3,140	145,414

The following Table 3-27 shows the historical ratio of kW/kWh and the average ratio used to forecast kW for 2016.

Table 3-27 Historical kW/KWh Ratio per Applicable Rate Class

Year	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting
Ratio of kW to kWh			
2006	0.2970%	0.2783%	0.2777%
2007	0.2974%	0.2778%	0.2776%
2008	0.2975%	0.2778%	0.2778%
2009	0.2867%	0.2778%	0.2771%
2010	0.2826%	0.2778%	0.2778%
2011	0.2793%	0.2779%	0.3030%
2012	0.2835%	0.2779%	0.2818%
2013	0.2571%	0.2779%	0.2818%
2014	0.2676%	0.2778%	0.2818%
2015	0.2599%	0.2778%	0.2838%
Average 2006 to 2015	0.2809%	0.2779%	0.2820%

For the three classes, the average factor was applied to the weather normalized billed energy forecast in Table 3-25 to provide the forecast of kW by rate class.

The following Table 3-28 outlines the forecast of kW for the applicable rate classes.

Table 3-28 kW Forecast by Applicable Rate Class

Year	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lighting	Total
Predicted Billed kW				
2016 Bridge - Normalized	154,174	280	1,854	156,308
2017 Test - Normalized	157,261	273	1,889	159,423

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Table 3-29 Summary of Total Load Forecast

	2013 Actual	2014 Actual	2015 Actual	2016 Weather Normal	2017 Weather Normal
Actual kWh Purchases	245,129,838	253,254,985	255,186,387		
Predicted kWh Purchases before CDM adjustment	249,473,504	254,225,266	255,095,714	258,773,135	261,762,895
% Difference between actual and predicted purchases	1.8%	0.4%	(0.0%)		
Loss Factor				1.0721	1.0721
Total Billed Before Adjustments				241,363,660	244,152,278
CDM Adjustment				2,422,802	4,564,610
Total Billed After Adjustments				238,940,858	239,587,667

Table 3-30 provides a summary of the load forecast on a billing determinant basis by rate class. This table is also consistent with Appendix 2-IA which provides a variance analysis between each year and the last Board approved values.

Table 3-30 Summary of Billing Determinants and Variances of Actual and Forecast Data Consistent with Appendix 2-IA

	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Weather Normal	2017 Weather Normal
Residential						
Customers	14,189	14,181	14,509	14,862	15,419	15,930
kWh	148,148,873	148,570,811	152,923,212	151,526,915	149,674,174	149,932,101
Variance Analysis Compare to Board Approved						
Customers		(0.06%)	2.26%	4.74%	8.67%	12.27%
kWh		0.28%	3.22%	2.28%	1.03%	1.20%
General Service < 50 kW						
Customers	910	949	991	1,001	1,026	1,052
kWh	31,781,016	30,978,542	32,143,896	34,326,840	33,122,069	32,368,433
Variance Analysis Compare to Board Approved						
Customers		4.31%	8.93%	9.95%	12.75%	15.60%
kWh		(2.53%)	1.14%	8.01%	4.22%	1.85%
General Service 50 to 4,999 kW						
Customers	66	67	67	72	72	72
kWh	51,329,341	50,921,722	50,592,267	54,636,276	54,889,863	55,988,819
kW	147,666	130,935	135,394	141,987	154,174	157,261
Variance Analysis Compare to Board Approved						
Customers		1.52%	1.77%	8.33%	8.33%	8.33%
kWh		(0.79%)	(1.44%)	6.44%	6.94%	9.08%
kW		(11.33%)	(8.31%)	(3.85%)	4.41%	6.50%

	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Weather Normal	2017 Weather Normal
Sentinel Lighting						
Connections	237	168	169	166	163	161
kWh	104,942	101,844	107,980	103,536	100,673	98,320
kW	292	283	300	288	280	273
Variance Analysis Compare to Board Approved						
Connections		(29.11%)	(28.52%)	(30.06%)	(31.22%)	(32.07%)
kWh		(2.95%)	2.89%	(1.34%)	(4.07%)	(6.31%)
kW		(3.08%)	2.72%	(1.51%)	(4.20%)	(6.44%)
Street Lighting						
Connections	2,889	2,843	2,923	2,898	2,963	3,030
kWh	1,516,831	1,472,134	1,625,553	1,106,444	657,419	669,627
kW	4,432	4,149	4,581	3,140	1,854	1,889
Variance Analysis Compare to Board Approved						
Connections		(1.58%)	1.19%	0.30%	2.56%	4.88%
kWh		(2.95%)	7.17%	(27.06%)	(56.66%)	(55.85%)
kW		(6.39%)	3.37%	(29.16%)	(58.17%)	(57.39%)
Unmetered Scattered Load						
Connections	78	78	76	76	75	74
kWh	474,652	473,256	465,478	465,055	496,660	530,367
Variance Analysis Compare to Board Approved						
Connections		(0.53%)	(3.10%)	(2.56%)	(3.85%)	(5.13%)
kWh		(0.29%)	(1.93%)	(2.02%)	4.64%	11.74%
Total						
Customer/Connections	18,369	18,286	18,736	19,073	19,718	20,319
kWh	233,355,655	232,518,310	237,858,387	242,165,066	238,940,858	239,587,667
kW from applicable classes	152,390	135,367	140,275	145,414	156,308	159,423
Variance Analysis Compare to Board Approved						
Customer/Connections		(0.45%)	2.00%	3.83%	7.34%	10.61%
kWh		(0.36%)	1.93%	3.78%	2.39%	2.67%
kW from applicable classes		(11.17%)	(7.95%)	(4.58%)	2.57%	4.61%

2.3.2 Accuracy of Load Forecast and Variance Analysis

Variance Analysis of Distribution Revenue and Billing Determinants

The following discussion provides a year over year variance analysis on InnPower Corporation's distribution revenue and billing determinants. The variance analysis will compare 2013 Actual to 2013 Board Approved; 2014 Actual to 2013 Actual; 2015 Actual to 2014 Actual; 2016 Bridge to 2015 Actual and 2017 Test Year to 2016 Bridge Year. The distribution revenue variance analysis for 2013 is based on information provided in Table 3.31.The billing determinant variance analysis is based on data outlined in Table 3-32. The overall variance analysis has been provided based on InnPower Corporation's materiality of $66,000; the materiality calculation being noted earlier in Exhibit 1 of this Application.

2013 Actual vs 2013 Board Approved

Table 3-31 Distribution Revenue - 2013 Actual vs 2013 Board Approved

Distribution Revenue	2013 Board Approved	2013 Actuals	2013 Actuals vs 2013 BA
Residential	6,624,915	6,019,813	- 605,102
General Service <50 kW	579,590	613,448	33,858
General Service >50 kW	461,495	554,717	93,222
Sentinel Lights	48,921	44,732	- 4,189
Street Lighting	396,836	357,172	- 39,664
Umetered Scattered Load	15,862	17,504	1,642
Total	**8,127,619**	**7,607,386**	**- 520,233**

There are two significant drivers of the variance between 2013 Board Approved distribution revenue and 2013 Actual; volumetric and customer/connection count variances and the assumption of a full year of revenue at the Board Approved rates set in the 2013 COS. InnPower Corporation did not change to a fiscal year reporting until January 1, 2014. Therefore, the first four months of revenues were calculated at 2012 rates.

For the Residential class, variable and fixed revenues were down revenue by ($605,102) down compared to Board Approved as a result of four months of revenue at 2012 variable and fixed rates.

For the GS> 50 kW rate class revenues were up by $93,222 which is attributable to the 1st 4 months of 2012 rates for fixed service charges which were $320.64. Effective May 1, 2013 the fixed rate dropped to $144.98. Variable revenue for the GS > 50 to 2,999 kW class was down primarily as a result of kW at 2012 variable rates for four months of 2013.

The Street Lighting variance was a result of decreased demand as any replacements of street lights due to maintenance were replaced with LED bulbs.

The variances in the other classes are immaterial.

Table 3-32 Billing Determinants - 2013 Actual vs 2013 Board Approved

Class	Customer Connections			kWh		kW		
	2013 Board Approved	2013 Actual	Difference	2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual	Volumetric Difference
Residential	14,189	14,181	-8	148,148,873	148,570,811	0	0	421,938
GS< 50 kW	910	949	39	31,781,016	30,978,542	0	0	-802,474
GS > 50 kW	66	67	1	51,329,341	50,921,722	147,666	130,935	-16,731
Sentinel Lighting	237	168	-69	104,942	101,844	292	283	-9
Street Lighting	2,889	2,843	-46	1,516,831	1,472,134	4,432	4,149	-283
Unmetered Scattered Load	78	78	0	474,652	473,256	0	0	-1,396
Total	18,369	18,286	-83	233,355,655	232,518,309	152,390	135,367	-398,955

The GS > 50 rate class experienced a significant drop in demand in 2013 due to the re-structuring of one of InnPower Corporation's larger customers.

2014 Actual vs 2013 Actual

Table 3-33 Distribution Revenue - 2014 Actual vs 2013 Actual

Distribution Revenue	2013 Actuals	2014 Actuals	2014 Actuals to 2013 Actuals
Residential	6,019,813	6,122,233	102,420
General Service <50 kW	613,448	647,909	34,461
General Service >50 kW	554,717	521,306	- 33,411
Sentinel Lights	44,732	31,112	- 13,620
Street Lighting	357,172	351,542	- 5,630
Umetered Scattered Load	17,504	25,775	8,271
Total	**7,607,386**	**7,699,876**	**92,490**

For the Residential class 2014 distribution revenue was higher than 2013 due to increased variable revenue as a result of the full year effect of new variable/fixed rates and increased customer count. Increases to variable revenue were as a result of an extremely colder winter in 2013 - 2014

Table 3-34 Billing Determinants - 2014 Actual vs 2013 Actual

	Customer Connections			kWh		kW	
Class	2013 Actual	2014 Actual	Difference	2013 Actual	2014 Actual	2013 Actual	2014 Actual
Residential	14,181	14,509	328	148,570,811	152,923,212	0	0
GS< 50 kW	949	991	42	30,978,542	32,143,896	0	0
GS > 50 kW	67	67	0	50,921,722	50,921,722	130,935	135,394
Sentinel Lighting	168	169	1	101,844	107,980	283	300
Street Lighting	2,843	2,923	80	1,472,134	1,625,553	4,149	4,581
Unmetered Scattered Load	78	76	-2	473,256	465,478	0	0
Total	**18,286**	**18,735**	**449**	**232,518,309**	**238,187,841**	**135,367**	**140,275**

The increased Customer count in the Residential rate class accounts for the increase in kWh over the 2013 year end.

The GS.>50 kW rate class although showing an increase in demand by 3.4% over 2013 is still not back to full forecasted levels. This is a result of a slow-down experienced by the industrial customers in this class.

All other year over year changes are immaterial.

2015 Actual vs 2014 Actual

Table 3-35 Distribution Revenue - 2015 Actual vs 2014 Actual

Distribution Revenue	2014 Actuals	2015 Actuals	2015 Actuals to 2014 Actuals
Residential	6,122,233	7,013,019	890,786
General Service <50 kW	647,909	753,743	105,834
General Service >50 kW	521,306	616,408	95,102
Sentinel Lights	31,112	29,171	- 1,941
Street Lighting	351,542	346,860	- 4,682
Umetered Scattered Load	25,775	16,741	- 9,034
Total	**7,699,876**	**8,775,942**	**1,076,066**

Revenues in the 2015 year increased due to increased customer connections and ICM Capital rate riders (fixed and variable) effective January 1, 2015 for a two year period affecting increase in revenue for the Residential, GS<50 and the GS > 50 rate classes.

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

Table 3-36 Billing Determinants - 2015 Actual vs 2014 Actual

Class	Customer Connections			kWh		kW		
	2014 Actual	2015 Actual	Difference	2014 Actual	2015 Actual	2014 Actual	2015 Actual	Volumetric Difference
Residential	14,509	14,862	353	152,923,212	151,526,915	0	0	-1,396,297
GS< 50 kW	991	1,001	10	32,143,896	34,326,840	0	0	2,182,944
GS > 50 kW	67	72	5	50,921,722	54,636,276	135,394	141,987	6,593
Sentinel Lighting	169	166	-3	107,980	103,536	300	288	-12
Street Lighting	2,923	2,898	-25	1,625,553	1,106,444	4,581	3,140	-1,441
Unmetered Scattered Load	76	76	0	465,478	465,055	0	0	-423
Total	**18,735**	**19,075**	**340**	**238,187,841**	**242,165,066**	**140,275**	**145,415**	**791,364**

The Residential class consumption was down by .92% in 2015, which can be attributed to milder weather compared to the 2013 – 2014 timeframe although customer connections have increased by 353.

The GS < 50 rate class has seen a 6.8% increase in consumption in 2015 which is attribute to and an increase in customer connections.

The GS > 50 rate class has also seen an upswing of 4.9% in demand plus an additional 5 customers.

The Street Lighting rate class reflects a significant decrease in demand due to a LED conversion program undertaken by the TOI throughout the 2015 timeframe. The conversion program was completed in December 2015 and as such this rate class will see further reductions.

2016 Bridge vs 2015 Actual

Table 3-37 Distribution Revenue - 2016 Bridge vs 2015 Actual

Distribution Revenue	2015 Actuals	2016 Bridge (Forecasted)	2016 Bridge to 2015 Actuals
Residential	7,013,019	6,624,915	- 388,104
General Service <50 kW	753,743	579,590	- 174,153
General Service >50 kW	616,408	461,495	- 154,913
Sentinel Lights	29,171	48,921	19,750
Street Lighting	346,860	396,836	49,976
Umetered Scattered Load	16,741	15,862	- 879
Total	**8,775,942**	**8,127,619**	**- 648,323**

The 2016 Bridge Year (Forecast) is based on the revised 2016 forecast in InnPower Corporation's load forecast and not the 2013 Board Approved forecast. This is reflecting reductions in the Residential, GS< 50 and the GS>50 rate classes. This reduction is partially attributable to the revised CDM Adjustment for the new Conservation First Framework Target which have only been attributed to these rate classes.

Table 3-38 Billing Determinants - 2016 Bridge vs 2015 Actual

Class	Customer Connections			kWh		kW		
	2015 Actual	2016 Bridge	Difference	2015 Actual	2016 Bridge	2015 Actual	2016 Bridge	Volumetric Difference
Residential	14,862	15,419	557	151,526,915	149,674,174	0	0	-1,852,741
GS< 50 kW	1,001	1,026	25	34,326,840	33,122,069	0	0	-1,204,771
GS > 50 kW	72	72	-1	54,636,276	54,889,863	141,987	154,174	12,187
Sentinel Lighting	166	163	-3	103,536	100,673	288	280	-8
Street Lighting	2,898	2,963	65	1,106,444	657,419	3,140	1,854	-1,286
Unmetered Scattered Load	76	75	-1	465,055	496,660	0	0	31,605
Total	**19,075**	**19,718**	**643**	**242,165,066**	**238,940,858**	**145,415**	**156,308**	**-3,015,014**

The 2016 Bridge Year Customer Connections is based on the 2016 forecast. In comparing to the 2015 actuals the forecasted 2016 kWh and kW indicate a decline, which is partially attributable to the revised CDM Adjustment for the new Conservation First Framework Target which was updated for 2016 – 2020.

2017 Test Year vs 2016 Bridge

Table 3-39 Distribution Revenue - 2017 Test vs 2016 Bridge

Distribution Revenue	2016 Bridge	2017 Test Year Proposed Revenue	2017 Test to 2016 Bridge
Residential	6,624,915	10,094,173	3,469,258
General Service <50 kW	579,590	1,035,369	455,779
General Service >50 kW	461,495	862,157	400,662
Sentinel Lights	48,921	52,693	3,772
Street Lighting	396,836	317,324	- 79,512
Umetered Scattered Load	15,862	27,716	11,854
Total	**8,127,619**	**12,389,431**	**4,261,812**

The proposed Test Year distribution revenue is a reflection of the 2017 COS application and the proposed base revenue requirement of InnPower Corporation. 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 with the exception of the Street Lighting rate class which has decreased due to lower demand resulting from the LED Conversion Project.

Table 3-40 Billing Determinants - 2017 Test vs 2016 Bridge

Class	Customer Connections			kWh		kW		
	2016 Bridge	2017 Test	Difference	2016 Bridge	2017 Test	2016 Bridge	2017 Test	Volumetric Difference
Residential	15,419	15,930	511	149,674,174	149,932,101	0	0	257,927
GS< 50 kW	1,026	1,052	26	33,122,069	32,368,433	0	0	-753,636
GS > 50 kW	72	72	0	54,889,863	55,988,819	154,174	157,261	3,087
Sentinel Lighting	163	161	-2	100,673	98,320	280	273	-7
Street Lighting	2,963	3,030	67	657,419	669,627	1,854	1,889	35
Unmetered Scattered Load	75	74	-1	496,660	530,367	0	0	33,707
Total	**19,718**	**20,319**	**601**	**238,940,858**	**239,587,667**	**156,308**	**159,423**	**-458,887**

Although an increase kWh in 2017 for GS < 50 rate class the volumetric difference is attributable to the 1,588,889 kWh allocated CDM savings for this rate class which offsets the total kWh. Table 3-24: on page 24 of this Exhibit identifies the CDM savings by rate class.

InnPower Corporation has completed and enclosed Appendix 2-IB Load Forecast Analysis on the following page.

Table 3.41: Appendix 2-IB Load Forecast Analysis

Distribution System (Total)

	Calendar Year (for 2017 Cost of Service		Consumption (kWh) [3]				
				Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2011*		Actual	246,758,167	248,011,802		
Historical	*2012*		Actual	245,129,838	245,994,875		
Historical	*2013*		Actual	245,129,838	249,473,504	Board-approved	233,355,655
Historical	*2014*		Actual	253,254,985	254,225,266		
Historical	*2015*		Actual	255,186,387	255,095,714		
Bridge Year	*2016*		Forecast		258,773,135		
Test Year	*2017*		Forecast		261,762,895		

Variance Analysis	Year	Year-over-year		Versus Board-approved
	2011			
	2012	-0.7%	-0.8%	
	2013	0.0%	1.4%	
	2014	3.3%	1.9%	
	2015	0.8%	0.3%	
	2016		1.4%	
	2017		1.2%	12.2%
	Geometric Mean	1.1%	1.1%	3.9%

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	13,779			Actual	150,873,413				Actual	10949.518	0		
Historical	*2012*	Actual	13,943			Actual	145,610,872				Actual	10443.358	0		
Historical	*2013*	Actual	14,181	Board-approved	14,189	Actual	148,570,811		Board-approved	148,148,873	Actual	10476.751	0	Board-approved	10,441.11
Historical	*2014*	Actual	14,509			Actual	152,923,212				Actual	10539.765	0		
Historical	*2015*	Actual	14,862			Actual	151,526,915				Actual	10195.88	0		
Bridge Year	*2016*	Forecast	15,419			Forecast		149,674,174			Forecast	0	9707.12586		
Test Year	*2017*	Forecast	15,930			Forecast		149,932,101			Forecast	0	9411.93355		

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	1.2%		*2012*	-3.5%		*2012*	-4.6%	
	2013	1.7%		*2013*	2.0%		*2013*	0.3%	
	2014	2.3%		*2014*	2.9%		*2014*	0.6%	
	2015	2.4%		*2015*	-0.9%		*2015*	-3.3%	
	2016	3.8%		*2016*			*2016*		
	2017	3.3%	12.3%	*2017*	0.2%	1.2%	*2017*	-3.0%	-9.9%
	Geometric Mean	2.9%	3.9%	Geometric Mean	0.1%	0.4%	Geometric Mean	-2.3%	-3.4%

	Calendar Year (for 2017 Cost of Service	Revenues			
Historical	*2011*	Actual	$ 5,971,859		
Historical	*2012*	Actual	$ 7,010,703		
Historical	*2013*	Actual	$ 6,000,110	Board-approved	
Historical	*2014*	Actual	$ 6,122,233		
Historical	*2015*	Actual	$ 7,013,019		
Bridge Year (Foreca	*2016*	Forecast	$ 7,479,200		
Test Year (Forecast	*2017*	Forecast	$ 8,255,205		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2011		
	2012	17.4%	
	2013	-14.4%	
	2014	2.0%	
	2015	14.6%	
	2016	6.6%	
	2017	10.4%	
	Geometric Mean	6.7%	

1

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] Actual (Weather actual)	Consumption (kWh) Weather-normalized		Consumption (kWh) Weather-normalized	Consumption (kWh) per Customer Actual (Weather actual)	Consumption (kWh) per Customer Weather-normalized		Consumption (kWh) per Customer Weather-normalized
Historical	*2011*	Actual	896			Actual	30,721,964			Actual	34287.907	0	
Historical	*2012*	Actual	914			Actual	30,872,636			Actual	33786.743	0	
Historical	*2013*	Actual	949	Board-approved	910	Actual	30,978,542	Board-approved	31,781,016	Actual	32634.756	0	Board-approved 34924.19341
Historical	*2014*	Actual	991			Actual	32,143,896			Actual	32427.638	0	
Historical	*2015*	Actual	1,001			Actual	34,326,840			Actual	34306.828	0	
Bridge Year	*2016*	Forecast	1,026			Forecast		33,122,069		Forecast	0	32282.7184	
Test Year	*2017*	Forecast	1,052			Forecast		32,368,433		Forecast	0	30768.4724	

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	2.0%		*2012*	0.5%		*2012*	-1.5%	
	2013	3.9%		*2013*	0.3%		*2013*	-3.4%	
	2014	4.4%		*2014*	3.8%		*2014*	-0.6%	
	2015	0.9%		*2015*	6.8%		*2015*	5.8%	
	2016	2.5%		*2016*			*2016*		
	2017	2.5%	15.6%	*2017*	-2.3%	1.8%	*2017*	-4.7%	-11.9%
	Geometric Mean	3.3%	5.0%	Geometric Mean	3.8%	0.6%	Geometric Mean	0.0%	-4.1%

	Calendar Year (for 2017 Cost of Service	Revenues			
Historical	*2011*	Actual	$ 579,267		
Historical	*2012*	Actual	$ 570,967		
Historical	*2013*	Actual	$ 622,756	Board-approved	
Historical	*2014*	Actual	$ 647,909		
Historical	*2015*	Actual	$ 753,743		
Bridge Year (Foreca	*2016*	Forecast	$ 801,900		
Test Year (Forecast	*2017*	Forecast	$ 885,124		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2011		
	2012	-1.4%	
	2013	9.1%	
	2014	4.0%	
	2015	16.3%	
	2016	6.4%	
	2017	10.4%	
	Geometric Mean	8.8%	

1

3 Customer Class: GS > 50 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] Actual (Weather actual)	Consumption (kWh) Weather-normalized		Consumption (kWh) Weather-normalized	Consumption (kWh) per Customer Actual (Weather actual)	Consumption (kWh) per Customer Weather-normalized		Consumption (kWh) per Customer Weather-normalized
Historical	*2011*	Actual	67			Actual 49,921,685				Actual 745099.78	0		
Historical	*2012*	Actual	68			Actual 51,138,110				Actual 752953.77	0		
Historical	*2013*	Actual	67	Board-approved	66	Actual 50,921,722		Board-approved	51,329,341	Actual 760025.7	0	Board-approved	777717.2879
Historical	*2014*	Actual	67			Actual 50,592,267				Actual 753234.74	0		
Historical	*2015*	Actual	72			Actual 54,636,276				Actual 764143.72	0		
Bridge Year	*2016*	Forecast	72			Forecast	54,889,863			Forecast 0	767690.395		
Test Year	*2017*	Forecast	72			Forecast	55,988,819			Forecast 0	783060.406		

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	1.4%		*2012*	2.4%		*2012*	1.1%	
	2013	-1.3%		*2013*	-0.4%		*2013*	0.9%	
	2014	0.2%		*2014*	-0.6%		*2014*	-0.9%	
	2015	6.5%		*2015*	8.0%		*2015*	1.4%	
	2016	0.0%		*2016*			*2016*		
	2017	0.0%	8.3%	*2017*	2.0%	9.1%	*2017*	2.0%	0.7%
	Geometric Mean	1.3%	2.7%	Geometric Mean	3.1%	2.9%	Geometric Mean	0.8%	0.2%

	Calendar Year (for 2017 Cost of Service	Revenues				Demand (kW) Actual (Weather actual)	Demand (kW) Weather-normalized		Demand (kW) Weather-normalized	Demand (kW) per Customer Actual (Weather actual)	Demand (kW) per Customer Weather-normalized		Demand (kW) per Customer Weather-normalized
Historical	*2011*	Actual	$ 578,190			Actual 139,425				Actual 0.2411411	0		
Historical	*2012*	Actual	$ 670,333			Actual 144,982				Actual 0.2162836	0		
Historical	*2013*	Actual	$ 555,695	Board-approved		Actual 130,935		Board-approved	147,666	Actual 0.2356238	0	Board-approved	
Historical	*2014*	Actual	$ 521,306			Actual 135,394				Actual 0.2597201	0		
Historical	*2015*	Actual	$ 616,408			Actual 141,987				Actual 0.2303454	0		
Bridge Year (Forecast	*2016*	Forecast	$ 628,800			Forecast	154,174			Forecast 0	0.24518784		
Test Year (Forecast	*2017*	Forecast	$ 706,041			Forecast	157,261			Forecast 0	0.22273614		

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	15.9%		*2012*	4.0%		*2012*	-10.3%	
	2013	-17.1%		*2013*	-9.7%		*2013*	8.9%	
	2014	-6.2%		*2014*	3.4%		*2014*	10.2%	
	2015	18.2%		*2015*	4.9%		*2015*	-11.3%	
	2016	2.0%		*2016*			*2016*		
	2017	12.3%		*2017*	2.0%	6.5%	*2017*	-9.2%	
	Geometric Mean	4.1%		Geometric Mean	0.6%	2.1%	Geometric Mean	-1.5%	

1

4 Customer Class: Streetlighting — 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] Actual (Weather actual)	Consumption (kWh) Weather-normalized		Consumption (kWh) Weather-normalized	Consumption (kWh) per Customer Actual (Weather actual)	Consumption (kWh) per Customer Weather-normalized		Consumption (kWh) per Customer Weather-normalized
Historical	*2011*	Actual	2,728			Actual 1,457,369				Actual 534.22632	0		
Historical	*2012*	Actual	2,728			Actual 1,569,709				Actual 575.40647	0		
Historical	*2013*	Actual	2,843	Board-approved	2,889	Actual 1,472,134		Board-approved	1,516,831	Actual 517.74945	0	Board-approved	525.0366909
Historical	*2014*	Actual	2,923			Actual 1,625,553				Actual 556.06161	0		
Historical	*2015*	Actual	2,898			Actual 1,106,444				Actual 381.83964	0		
Bridge Year	*2016*	Forecast	2,963			Forecast	657,419			Forecast 0	221.876105		
Test Year	*2017*	Forecast	3,030			Forecast	669,627			Forecast 0	220.999115		

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*	7.7%		*2012*	7.7%	
	2013	4.2%		*2013*	-6.2%		*2013*	-10.0%	
	2014	2.8%		*2014*	10.4%		*2014*	7.4%	
	2015	-0.9%		*2015*	-31.9%		*2015*	-31.3%	
	2016	2.3%		*2016*			*2016*		
	2017	2.3%	4.9%	*2017*	1.9%	-55.9%	*2017*	-0.4%	-57.9%
	Geometric Mean	2.1%	1.6%	Geometric Mean	-8.8%	-23.9%	Geometric Mean	-10.6%	-25.1%

	Calendar Year (for 2017 Cost of Service	Revenues				Demand (kW) Actual (Weather actual)	Demand (kW) Weather-normalized		Demand (kW) Weather-normalized	Demand (kW) per Customer Actual (Weather actual)	Demand (kW) per Customer Weather-normalized		Demand (kW) per Customer Weather-normalized
Historical	*2011*	Actual	$ 305,463			Actual 4,416				Actual 0.0144568	0		
Historical	*2012*	Actual	$ 336,670			Actual 4,424				Actual 0.0131405	0		
Historical	*2013*	Actual	$ 351,542	Board-approved		Actual 4,149		Board-approved	4,432	Actual 0.0118023	0	Board-approved	
Historical	*2014*	Actual	$ 369,058			Actual 4,581				Actual 0.0124137	0		
Historical	*2015*	Actual	$ 346,860			Actual 3,140				Actual 0.009052	0		
Bridge Year (Foreca	*2016*	Forecast	$ 412,000			Forecast	1,854			Forecast 0	0.00450028		
Test Year (Forecast	*2017*	Forecast	$ 444,963			Forecast	1,889			Forecast 0	0.00424427		

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	10.2%		*2012*	0.2%		*2012*	-9.1%	
	2013	4.4%		*2013*	-6.2%		*2013*	-10.2%	
	2014	5.0%		*2014*	10.4%		*2014*	5.2%	
	2015	-6.0%		*2015*	-31.5%		*2015*	-27.1%	
	2016	18.8%		*2016*			*2016*		
	2017	8.0%		*2017*	1.9%	-57.4%	*2017*	-5.7%	
	Geometric Mean	7.8%		Geometric Mean	-10.7%	-24.7%	Geometric Mean	-14.4%	

1

5 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	81			Actual 492,456				Actual	6079.7065	0	
Historical	*2012*	Actual	79			Actual 481,035				Actual	6114.8473	0	
Historical	*2013*	Actual	78	Board-approved	78	Actual 473,256		Board-approved	474,652	Actual	6099.9739	0	Board-approved 6085.282051
Historical	*2014*	Actual	76			Actual 465,478				Actual	6158.4736	0	
Historical	*2015*	Actual	76			Actual 465,055				Actual	6119.1424	0	
Bridge Year	*2016*	Forecast	75			Forecast	496,660			Forecast	0	6622.13678	
Test Year	*2017*	Forecast	74			Forecast	530,367			Forecast	0	7167.12066	

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*	-2.3%		*2012*	0.6%	
	2013	-1.4%		*2013*	-1.6%		*2013*	-0.2%	
	2014	-2.6%		*2014*	-1.6%		*2014*	1.0%	
	2015	0.6%		*2015*	-0.1%		*2015*	-0.6%	
	2016	-1.3%		*2016*			*2016*		
	2017	-1.3%	-5.1%	*2017*	6.8%	11.7%	*2017*	8.2%	17.8%
	Geometric Mean	-1.8%	-1.7%	Geometric Mean	-1.9%	3.8%	Geometric Mean	0.2%	5.6%

	Calendar Year (for 2017 Cost of Service	Revenues			
Historical	*2011*	Actual	$ 41,669		
Historical	*2012*	Actual	$ 40,089		
Historical	*2013*	Actual	$ 25,775	Board-approved	
Historical	*2014*	Actual	$ 15,942		
Historical	*2015*	Actual	$ 16,741		
Bridge Year (Foreca	*2016*	Forecast	$ 19,200		
Test Year (Forecast	*2017*	Forecast	$ 20,770		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2011		
	2012	-3.8%	
	2013	-35.7%	
	2014	-38.1%	
	2015	5.0%	
	2016	14.7%	
	2017	8.2%	
	Geometric Mean	-13.0%	

6 Customer Class: Sentinels — 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] Actual (Weather actual)	Consumption (kWh) Weather-normalized		Consumption (kWh) Weather-normalized	Consumption (kWh) per Customer Actual (Weather actual)	Consumption (kWh) per Customer Weather-normalized		Consumption (kWh) per Customer Weather-normalized
Historical	*2011*	Actual	225			Actual 110,241				Actual 489.9592	0		
Historical	*2012*	Actual	172			Actual 113,360				Actual 658.74977	0		
Historical	*2013*	Actual	168	Board-approved	237	Actual 101,844		Board-approved	104,942	Actual 606.21389	0	Board-approved	442.7932489
Historical	*2014*	Actual	169			Actual 107,980				Actual 637.3635	0		
Historical	*2015*	Actual	166			Actual 103,536				Actual 624.65158	0		
Bridge Year	*2016*	Forecast	163			Forecast	100,673			Forecast 0	617.626797		
Test Year	*2017*	Forecast	161			Forecast	98,320			Forecast 0	610.681011		

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	-23.5%		*2012*	2.8%		*2012*	34.4%	
	2013	-2.4%		*2013*	-10.2%		*2013*	-8.0%	
	2014	0.8%		*2014*	6.0%		*2014*	5.1%	
	2015	-2.2%		*2015*	-4.1%		*2015*	-2.0%	
	2016	-1.7%		*2016*			*2016*		
	2017	-1.2%	-32.1%	*2017*	-2.3%	-6.3%	*2017*	-1.1%	37.9%
	Geometric Mean	-6.5%	-12.1%	Geometric Mean	-2.1%	-2.1%	Geometric Mean	8.4%	11.3%

	Calendar Year (for 2017 Cost of Service	Revenues				Demand (kW) Actual (Weather actual)	Demand (kW) Weather-normalized		Demand (kW) Weather-normalized	Demand (kW) per Customer Actual (Weather actual)	Demand (kW) per Customer Weather-normalized		Demand (kW) per Customer Weather-normalized
Historical	*2011*	Actual	$ 22,990			Actual 306				Actual 0.0133242	0		
Historical	*2012*	Actual	$ 25,485			Actual 315				Actual 0.0123603	0		
Historical	*2013*	Actual	$ 31,112	Board-approved		Actual 283		Board-approved	292	Actual 0.0090963	0	Board-approved	
Historical	*2014*	Actual	$ 35,599			Actual 300				Actual 0.0084255	0		
Historical	*2015*	Actual	$ 39,171			Actual 288				Actual 0.0073422	0		
Bridge Year (Foreca	*2016*	Forecast	$ 39,200			Forecast	280			Forecast 0	0.00713589		
Test Year (Forecast	*2017*	Forecast	$ 42,350			Forecast	273			Forecast 0	0.00645071		

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	10.9%		*2012*	2.8%		*2012*	-1.2%	
	2013	22.1%		*2013*	-10.2%		*2013*	-26.4%	
	2014	14.4%		*2014*	6.0%		*2014*	-7.4%	
	2015	10.0%		*2015*	-4.1%		*2015*	-12.9%	
	2016	0.1%		*2016*			*2016*		
	2017	8.0%		*2017*	-2.3%	-6.4%	*2017*	-9.6%	
	Geometric Mean	13.0%		Geometric Mean	-2.1%	-2.2%	Geometric Mean	-18.0%	

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2.3.3 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 InnPower Corporation's proposed revenue requirement. Further details on the derivation of the Revenue Requirement are presented at Exhibit 6.

Other Distribution Revenues includes items such as:

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

The following table reflects InnPower Corporations Other Operating Revenues for the historical and 2017 – 2018 Test Years:

Table 3.42: Appendix 2-H Other Operating Revenue

Appendix 2-H
Other Operating Revenue

USoA #	USoA Description	2013 Actual	2014 Actual	2015 Actual[2]	Actual Year[2]	Bridge Year[2]	Test Year
		2013	2014	2015	2015	2016	2017
	Reporting Basis						
4210	Rent from Electric Property	-$ 153,289	-$ 169,620	-$ 161,207	-$ 161,207	-$ 155,000	-$ 326,649
4225	Late Payment Charges	-$ 73,904	-$ 84,703	-$ 96,925	-$ 96,925	-$ 108,150	-$ 78,000
4235	Specific Service Charges	-$ 116,157	-$ 139,676	-$ 156,170	-$ 156,170	-$ 192,331	-$ 170,000
4245	Deferred Revenues - Contributions	$ -	$ -	-$ 313,330	-$ 313,330	-$ 421,162	-$ 522,116
4355	Gain on Dispositions	$ -	-$ 4,450	-$ 440,397	-$ 440,397	$ 166,450	$ 183,094
4375	Revenues from Non Utility Operations	-$ 682,460	-$ 801,855	-$ 775,120	-$ 775,120	-$ 1,077,311	-$ 1,087,311
4380	Expenses of Non Utility Operations	$ 627,785	$ 718,395	$ 689,823	$ 689,823	$ 980,311	$ 983,861
4390	Misc Non Operating Expense	-$ 11,015	-$ 10,882	-$ 30,116	-$ 30,116	-$ 210,000	-$ 160,000
4405	Interest and Dividend Income	-$ 26,558	-$ 39,974	-$ 27,918	-$ 27,918	-$ 30,000	-$ 30,000
	Total	-$ 435,598	-$ 532,765	-$ 1,311,359	-$ 1,311,359	-$ 1,047,193	-$ 1,207,121
Specific Service Charges		-$ 116,157	-$ 139,676	-$ 156,170	-$ 96,925	-$ 192,331	-$ 170,000
Late Payment Charges		-$ 73,904	-$ 84,703	-$ 96,925	-$ 156,170	-$ 108,150	-$ 78,000
Other Operating Revenues (4210 & 4245)		-$ 153,289	-$ 169,620	-$ 474,537	-$ 474,537	-$ 576,162	-$ 848,765
Other Income or Deductions (4355, 4375,4380, 4390, 4405)		-$ 92,248	-$ 138,766	-$ 583,728	-$ 583,728	-$ 170,550	-$ 110,356
Total		-$ 435,598	-$ 532,765	-$ 1,311,359	-$ 1,311,359	-$ 1,047,193	-$ 1,207,121

Following is the Account Breakdown details:

Table 3-43: Account 4405 – Interest and Dividend Income

Account 4405 - Interest and Dividend Income

	2013 Actual	2014 Actual	2015 Actual[2]	Actual Year[2]	Bridge Year[2]	Test Year
				2015	2016	2017
Reporting Basis	CGAAP	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS
Short-term Investment Interest						
Bank Deposit Interest						
Miscellaneous Interest Revenue						
Interest Income - Bank & Cust	-$ 26,558	-$ 39,974	-$ 27,918	-$ 27,918	-$ 30,000	-$ 30,000
Total	-$ 26,558	-$ 39,974	-$ 27,918	-$ 27,918	-$ 30,000	-$ 30,000

Table 3-44: Account 4210 Rent from Electric Property

Account 4210 - Rent from Electric Property

	2013 Actual	2014 Actual	2015 Actual[2]	Actual Year[2]	Bridge Year[2]	Test Year
				2015	2016	2017
Reporting Basis	CGAAP	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS
Rogers - 2013 per OEB @ $22.35	$ 85,332	$ 86,517	$ 86,517	$ 86,517		
Rogers - 2013 per OEB @ $5.59	$ 7,261	$ 7,261	$ 7,261	$ 7,261		
Rogers Cable Inc (Previously Atria Networks) @ $22.35	$ 19,646	$ 19,646	$ 19,646	$ 19,646		
Hydro One @ $28.61	$ 1,774	$ 1,774	$ 1,974	$ 1,974		
Bell Canada @ $22.35	$ 36,252	$ 37,772	$ 38,084	$ 38,084		
Vianet Internet Solutions	$ -	$ 201	$ 201	$ 201		
MTS Allstream Inc. - 2013 per OEB @ $22.35	$ 2,123	$ 2,123	$ 2,123	$ 2,123		
Atria Networks (Pop use land fee)	$ 900	$ 14,325	$ 5,400	$ 5,400		
Forecasted 6880 poles @ $22.53					$ 155,000	
Forecasted 6880 poles @ $47.48						$ 326,649
Total	$ 153,288	$ 169,619	$ 161,207	$ 161,207	$ 155,000	$ 326,649

Table 3-45: Account 4380 – Expenses of Non-Utility Operations

Account 4380 - Expenses of Non Utility Operations

	2013 Actual	2014 Actual	2015 Actual[2]	Actual Year[2]	Bridge Year[2]	Test Year
				2015	2016	2017
Reporting Basis	CGAAP	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS
Misc. Non Utility Water	$ 190,269	$ 74,549	$ 184,243	$ 184,243	$ 142,000	$ 145,550
IESL Expenses	$ 5,174	$ 8,865	$ 9,244	$ 9,244	$ 8,000	$ 8,000
Misc. Non Utility Exp-OPA	$ 432,342	$ 634,981	$ 496,336	$ 496,336	$ 830,311	$ 830,311
Total	$ 627,785	$ 718,395	$ 689,823	$ 689,823	$ 980,311	$ 983,861

Table 3-46: Account 4375 – Revenues from Non-Utility Operations

Account 4375 -Revenues from Non Utility Operations

	2013 Actual	2014 Actual	2015 Actual[2]	Actual Year[2]	Bridge Year[2]	Test Year
				2015	2016	2017
Reporting Basis	CGAAP	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS
Misc. Non-Utility Water	-$ 251,044	$ 204,916	-$ 269,614	-$ 269,614	-$ 235,000	-$ 245,000
MIESL Management Fee	-$ 3,758	$ 11,573	-$ 12,319	-$ 12,319	-$ 12,000	-$ 12,000
Misc. Non Utility Income OPA	-$ 427,658	$ 585,368	-$ 493,187	-$ 493,187	-$ 830,311	-$ 830,311
etc.[1]						
Total	-$ 682,460	$ 801,856	-$ 775,120	-$ 775,120	-$ 1,077,311	-$ 1,087,311

Table 3-47: Account 4390 – Misc Non-Operating Expense

Account 4390 - Misc Non Operating Expense

	2013 Actual	2014 Actual	2015 Actual[2]	Actual Year[2]	Bridge Year[2]	Test Year
				2015	2016	2017
Reporting Basis	**CGAAP**	**CGAAP**	**CGAAP**	**MIFRS**	**MIFRS**	**MIFRS**
Misc Non-Utility Income	-$ 11,016	$ 10,882	$ 20,000	$ 20,000	$ 160,000	$ 160,000
Carrying Charges - Reg. Ass.	$ -	$ -	-$ 50,000	-$ 50,000	-$ 50,000	$ -
etc.[1]						
Total	-$ 11,016	$ 10,882	-$ 30,000	-$ 30,000	$ 110,000	$ 160,000

Appendix 3-A Monthly Data Used for Regression Analysis

	Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Customers - 3 Main Classes	Predicted Purchases
Jan-06	23,275,097	551.8	0.0	31	0	13,803	23,116,209
Feb-06	21,949,173	604.3	0.0	28	0	13,808	21,884,888
Mar-06	22,008,625	516.6	0.0	31	1	13,817	21,513,310
Apr-06	17,506,649	293.3	0.0	30	1	13,833	18,083,189
May-06	16,720,482	136.9	26.0	31	1	13,832	17,537,736
Jun-06	17,643,645	19.5	73.6	30	0	13,744	17,995,593
Jul-06	20,377,985	0.0	167.3	31	0	13,764	21,240,865
Aug-06	18,444,801	4.2	101.6	31	0	13,786	19,309,232
Sep-06	15,835,529	80.9	12.9	30	1	13,796	15,783,821
Oct-06	18,304,414	288.3	1.1	31	1	13,814	18,674,492
Nov-06	19,538,671	382.2	0.0	30	1	13,635	19,089,721
Dec-06	22,793,828	500.5	0.0	31	0	13,832	22,487,478
Jan-07	24,279,310	647.1	0.0	31	0	13,849	24,340,328
Feb-07	23,881,688	740.1	0.0	28	0	13,861	23,622,173
Mar-07	22,297,190	546.7	0.0	31	1	13,865	21,918,750
Apr-07	18,569,417	356.4	0.0	30	1	13,869	18,896,816
May-07	16,382,762	136.4	22.4	31	1	13,873	17,445,075
Jun-07	17,880,105	16.5	99.2	30	0	13,881	18,812,914
Jul-07	18,476,520	3.2	106.1	31	0	13,905	19,500,297
Aug-07	19,239,334	5.2	141.0	31	0	13,925	20,597,391
Sep-07	16,489,843	36.9	47.5	30	1	13,949	16,368,148
Oct-07	17,241,375	137.7	19.8	31	1	13,987	17,446,462
Nov-07	20,822,608	462.5	0.0	30	1	14,001	20,305,057
Dec-07	25,594,484	630.7	0.0	31	0	14,035	24,238,642
Jan-08	25,337,708	623.5	0.0	31	0	14,052	24,157,664
Feb-08	23,919,251	674.7	0.0	29	0	14,069	23,548,157
Mar-08	23,324,392	610.2	0.0	31	1	14,091	22,844,176
Apr-08	17,845,473	253.9	0.0	30	1	14,109	17,742,884
May-08	17,203,595	193.5	2.5	31	1	14,151	17,714,435
Jun-08	17,657,148	22.7	71.5	30	0	14,186	18,220,384
Jul-08	19,399,006	1.0	111.0	31	0	14,218	19,797,449
Aug-08	18,496,935	12.7	64.0	31	0	14,260	18,539,702
Sep-08	16,944,225	59.0	26.7	30	1	14,297	16,209,413
Oct-08	18,736,114	278.6	0.0	31	1	14,337	18,812,993
Nov-08	20,914,296	451.6	0.0	30	1	14,348	20,362,999
Dec-08	25,844,885	654.6	0.0	31	0	14,388	24,737,519
Jan-09	27,698,758	830.2	0.0	31	0	14,411	26,958,376
Feb-09	22,854,687	606.4	0.0	28	0	14,426	22,258,575
Mar-09	22,750,704	533.8	0.0	31	1	14,438	22,078,544
Apr-09	18,949,042	305.8	1.2	30	1	14,448	18,622,427
May-09	17,348,781	158.8	6.9	31	1	14,455	17,582,689
Jun-09	17,392,957	49.3	34.2	30	0	14,460	17,575,166
Jul-09	18,006,297	6.2	43.7	31	0	14,710	18,093,875
Aug-09	20,135,392	9.8	91.0	31	0	14,976	19,726,196
Sep-09	17,368,091	55.2	20.9	30	1	15,073	16,421,424
Oct-09	19,458,169	287.8	0.0	31	1	15,110	19,363,054
Nov-09	19,998,430	361.2	0.0	30	1	15,107	19,652,858
Dec-09	25,277,881	631.3	0.0	31	0	14,563	24,542,893

	Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Customers - 3 Main Classes	Predicted Purchases
Jan-10	26,451,956	720.0	0.0	31	0	14,554	25,653,118
Feb-10	22,355,018	598.3	0.0	28	0	14,553	22,228,095
Mar-10	21,335,193	422.8	0.0	31	1	14,566	20,754,798
Apr-10	17,366,211	225.1	0.0	30	1	14,576	17,643,191
May-10	18,594,842	107.9	45.7	31	1	14,570	18,186,554
Jun-10	18,232,281	21.7	58.7	30	0	14,584	18,042,437
Jul-10	22,225,962	1.8	164.9	31	0	14,599	21,659,779
Aug-10	21,301,865	2.1	138.8	31	0	14,633	20,889,406
Sep-10	17,785,838	78.1	31.5	30	1	14,646	16,791,574
Oct-10	18,734,173	241.6	0.0	31	1	14,664	18,531,524
Nov-10	20,451,455	405.3	0.0	30	1	14,688	19,971,901
Dec-10	25,404,585	676.2	0.0	31	0	14,707	25,188,370
Jan-11	26,274,474	775.3	0.0	31	0	14,713	26,437,790
Feb-11	22,971,970	654.2	0.0	28	0	14,716	23,022,559
Mar-11	22,951,605	572.8	0.0	31	1	14,728	22,731,881
Apr-11	18,914,567	332.3	0.0	30	1	14,729	19,077,064
May-11	17,615,740	134.1	13.0	31	1	14,733	17,613,737
Jun-11	17,571,916	19.0	52.2	30	0	14,742	17,899,723
Jul-11	22,292,830	0.0	198.5	31	0	14,759	22,748,255
Aug-11	19,354,570	0.0	122.2	31	0	14,772	20,436,592
Sep-11	17,323,768	48.2	39.7	30	1	14,772	16,735,647
Oct-11	18,576,164	235.5	2.4	31	1	14,794	18,600,820
Nov-11	19,598,868	342.1	0.0	30	1	14,809	19,245,242
Dec-11	23,311,694	534.0	0.0	31	0	14,818	23,462,492
Jan-12	24,487,281	611.1	0.0	31	0	14,826	24,436,697
Feb-12	21,711,327	531.7	0.0	29	0	14,835	22,180,575
Mar-12	20,140,444	349.4	0.2	31	1	14,856	20,000,935
Apr-12	18,335,839	321.7	0.0	30	1	14,867	19,021,332
May-12	17,673,429	80.7	36.7	31	1	14,877	17,743,533
Jun-12	19,474,755	23.2	101.6	30	0	14,882	19,532,607
Jul-12	22,780,193	0.0	195.4	31	0	14,921	22,745,073
Aug-12	20,627,757	2.0	112.1	31	0	14,953	20,256,484
Sep-12	17,795,946	85.0	35.6	30	1	14,968	17,183,888
Oct-12	17,475,407	242.5	1.1	31	1	15,012	18,771,829
Nov-12	20,981,769	434.0	0.0	30	1	15,036	20,528,322
Dec-12	23,645,692	533.5	0.0	31	0	15,062	23,593,601
Jan-13	24,487,281	624.4	0.0	31	0	15,076	24,744,413
Feb-13	21,711,327	631.5	0.0	28	0	15,088	22,946,181
Mar-13	20,140,444	554.8	0.0	31	1	15,100	22,714,599
Apr-13	18,335,839	358.6	0.0	30	1	15,107	19,620,167
May-13	17,673,429	109.1	23.1	31	1	15,139	17,834,512
Jun-13	19,474,755	33.0	59.6	30	0	15,172	18,542,297
Jul-13	22,780,193	1.3	120.8	31	0	15,207	20,654,834
Aug-13	20,627,757	4.4	93.8	31	0	15,244	19,893,999
Sep-13	17,795,946	83.0	28.1	30	1	15,260	17,094,883
Oct-13	17,475,407	208.5	0.4	31	1	15,288	18,478,147
Nov-13	20,981,769	478.2	0.0	30	1	15,334	21,251,537
Dec-13	23,645,692	687.9	0.0	31	0	15,352	25,697,936

	Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Customers - 3 Main Classes	Predicted Purchases
Jan-14	27,344,318	825.9	0.0	31	0	15,406	27,463,445
Feb-14	23,698,938	737.1	0.0	28	0	15,425	24,463,334
Mar-14	24,427,815	690.6	0.0	31	1	15,444	24,615,409
Apr-14	19,352,181	356.9	0.0	30	1	15,478	19,807,273
May-14	17,549,445	132.1	11.9	31	1	15,497	17,984,484
Jun-14	18,258,424	14.1	68.1	30	0	15,515	18,755,741
Jul-14	19,452,973	4.0	71.0	31	0	15,587	19,388,762
Aug-14	19,828,414	8.8	81.8	31	0	15,628	19,800,397
Sep-14	17,976,813	69.7	30.1	30	1	15,648	17,206,474
Oct-14	19,058,731	224.3	1.3	31	1	15,688	18,928,942
Nov-14	22,053,999	482.1	0.0	30	1	15,720	21,517,485
Dec-14	24,252,934	557.3	0.0	31	0	15,775	24,293,521
Jan-15	26,951,654	792.4	0.0	31	0	15,793	27,259,700
Feb-15	25,657,093	856.8	0.0	28	0	15,802	26,180,253
Mar-15	23,477,412	615.5	0.0	31	1	15,826	23,885,792
Apr-15	18,850,232	313.7	0.0	30	1	15,843	19,469,201
May-15	18,121,126	89.3	34.1	31	1	15,856	18,322,789
Jun-15	18,217,550	33.8	32.3	30	0	15,883	18,122,176
Jul-15	21,783,994	4.0	114.3	31	0	15,881	20,869,981
Aug-15	20,830,602	4.4	88.6	31	0	15,970	20,143,929
Sep-15	19,861,337	31.1	81.9	30	1	16,005	18,496,092
Oct-15	18,777,773	249.8	0.0	31	1	16,050	19,413,484
Nov-15	20,148,030	345.0	0.0	30	1	16,127	20,022,349
Dec-15	22,509,584	429.7	0.0	31	0	16,168	22,909,967
Jan-16		700.2	0.0	31	0	16,222	26,340,934
Feb-16		663.5	0.0	29	0	16,275	24,647,325
Mar-16		541.3	0.0	31	1	16,329	23,236,388
Apr-16		311.8	0.1	30	1	16,383	19,751,902
May-16		127.9	22.2	31	1	16,436	18,773,306
Jun-16		25.3	65.1	30	0	16,490	19,353,119
Jul-16		2.2	129.3	31	0	16,544	21,675,094
Aug-16		5.4	103.5	31	0	16,598	20,961,190
Sep-16		62.7	35.5	30	1	16,651	17,846,162
Oct-16		239.5	2.6	31	1	16,705	19,730,828
Nov-16		414.4	0.0	30	1	16,759	21,250,145
Dec-16		583.6	0.0	31	0	16,812	25,206,741
Jan-17		700.2	0.0	31	0	16,849	26,693,723
Feb-17		663.5	0.0	28	0	16,887	24,359,420
Mar-17		541.3	0.0	31	1	16,924	23,570,622
Apr-17		311.8	0.1	30	1	16,961	20,076,860
May-17		127.9	22.2	31	1	16,998	19,088,986
Jun-17		25.3	65.1	30	0	17,035	19,659,522
Jul-17		2.2	129.3	31	0	17,073	21,972,221
Aug-17		5.4	103.5	31	0	17,110	21,249,039
Sep-17		62.7	35.5	30	1	17,147	18,124,734
Oct-17		239.5	2.6	31	1	17,184	20,000,123
Nov-17		414.4	0.0	30	1	17,221	21,510,163
Dec-17		583.6	0.0	31	0	17,259	25,457,481

	Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Customers - 3 Main Classes	Predicted Purchases
Jan-18		700.2	0.0	31	0	17,346	26,972,716
Feb-18		663.5	0.0	28	0	17,433	24,666,667
Mar-18		541.3	0.0	31	1	17,521	23,906,121
Apr-18		311.8	0.1	30	1	17,608	20,440,611
May-18		127.9	22.2	31	1	17,696	19,480,991
Jun-18		25.3	65.1	30	0	17,783	20,079,779
Jul-18		2.2	129.3	31	0	17,871	22,420,731
Aug-18		5.4	103.5	31	0	17,958	21,725,802
Sep-18		62.7	35.5	30	1	18,046	18,629,750
Oct-18		239.5	2.6	31	1	18,133	20,533,392
Nov-18		414.4	0.0	30	1	18,221	22,071,684
Dec-18		583.6	0.0	31	0	18,308	26,047,255
Jan-19		700.2	0.0	31	0	18,415	27,573,425
Feb-19		663.5	0.0	28	0	18,522	25,278,309
Mar-19		541.3	0.0	31	1	18,629	24,528,698
Apr-19		311.8	0.1	30	1	18,736	21,074,123
May-19		127.9	22.2	31	1	18,843	20,125,437
Jun-19		25.3	65.1	30	0	18,950	20,735,160
Jul-19		2.2	129.3	31	0	19,056	23,087,045
Aug-19		5.4	103.5	31	0	19,163	22,403,052
Sep-19		62.7	35.5	30	1	19,270	19,317,934
Oct-19		239.5	2.6	31	1	19,377	21,232,510
Nov-19		414.4	0.0	30	1	19,484	22,781,737
Dec-19		583.6	0.0	31	0	19,591	26,768,242
Jan-20		700.2	0.0	31	0	19,667	28,276,947
Feb-20		663.5	0.0	29	0	19,743	26,595,782
Mar-20		541.3	0.0	31	1	19,819	25,197,290
Apr-20		311.8	0.1	30	1	19,894	21,725,249
May-20		127.9	22.2	31	1	19,970	20,759,098
Jun-20		25.3	65.1	30	0	20,046	21,351,355
Jul-20		2.2	129.3	31	0	20,122	23,685,776
Aug-20		5.4	103.5	31	0	20,198	22,984,317
Sep-20		62.7	35.5	30	1	20,274	19,881,733
Oct-20		239.5	2.6	31	1	20,349	21,778,844
Nov-20		414.4	0.0	30	1	20,425	23,310,606
Dec-20		583.6	0.0	31	0	20,501	27,279,646
Jan-21		700.2	0.0	31	0	20,592	28,796,558
Feb-21		663.5	0.0	28	0	20,682	26,492,186
Mar-21		541.3	0.0	31	1	20,772	25,733,317
Apr-21		311.8	0.1	30	1	20,863	22,269,484
May-21		127.9	22.2	31	1	20,953	21,311,541
Jun-21		25.3	65.1	30	0	21,044	21,912,006
Jul-21		2.2	129.3	31	0	21,134	24,254,635
Aug-21		5.4	103.5	31	0	21,225	23,561,383
Sep-21		62.7	35.5	30	1	21,315	20,467,008
Oct-21		239.5	2.6	31	1	21,406	22,372,327
Nov-21		414.4	0.0	30	1	21,496	23,912,296
Dec-21		583.6	0.0	31	0	21,586	27,889,544

LIST OF APPENDICES

A	**IPC Load Forecast EB-2016-0086.xlsx**
B	**2-I Load Forecast CDM Adjustment Work Form**

APPENDIX A: IPC LOAD FORECAST

InnPower Forecast for 2017 EB-2016-0086 Rate Application

	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Weather Normal	2017 Weather Normal
Actual kWh Purchases	234,398,899	241,154,636	245,623,028	247,239,189	250,239,379	246,758,167	245,129,838	245,129,838	253,254,985	255,186,387		
Predicted kWh Purchases Before CDM	236,716,534	243,492,052	242,687,774	242,876,077	245,540,747	248,011,802	245,994,875	249,473,504	254,225,266	255,095,714	258,773,135	261,762,895
% Difference	1.0%	1.0%	-1.2%	-1.8%	-1.9%	0.5%	0.4%	1.8%	0.4%	0.0%		
CDM Adjustment - Purchased											(2,597,557)	(4,893,854)
Predicted kWh Purchases After CDM											256,175,578	256,869,041
Billed kWh	219,381,471	219,752,747	226,836,186	229,135,056	231,850,249	233,577,129	229,785,721	232,518,310	237,858,387	242,165,066	238,940,858	239,587,667
											1.013493748	0.997300324
By Class												
Residential												
Customers	12,867	12,991	13,277	13,533	13,651	13,779	13,943	14,181	14,509	14,862	15,419	15,930
kWh	150,233,092	149,616,200	150,807,968	151,173,730	149,156,465	150,873,413	145,610,872	148,570,811	152,923,212	151,526,915	149,674,174	149,932,101
GS<50												
Customers	797	819	836	855	865	896	914	949	991	1,001	1,026	1,052
kWh	27,443,721	28,670,213	28,589,051	28,292,211	29,371,262	30,721,964	30,872,636	30,978,542	32,143,896	34,326,840	33,122,069	32,368,433
GS>50												
Customers	80	71	73	72	68	67	68	67	67	72	72	72
kWh	39,830,915	39,320,570	45,269,406	47,473,258	51,128,771	49,921,685	51,138,110	50,921,722	50,592,267	54,636,276	54,889,863	55,988,819
kW	118,310	116,956	134,693	136,122	144,502	139,425	144,982	130,935	135,394	141,987	154,174	157,261
Sentinels												
Connections	189	186	186	193	201	225	172	168	169	166	163	161
kWh	131,869	126,371	124,212	122,021	116,703	110,241	113,360	101,844	107,980	103,536	100,673	98,320
kW	367	351	345	339	324	306	315	283	300	288	280	273
Streetlights												
Connections	2,371	2,489	2,588	2,625	2,685	2,728	2,728	2,843	2,923	2,898	2,963	3,030
kWh	1,445,518	1,495,947	1,533,899	1,576,912	1,580,058	1,457,369	1,569,709	1,472,134	1,625,553	1,106,444	657,419	669,627
kW	4,014	4,153	4,261	4,370	4,389	4,416	4,424	4,149	4,581	3,140	1,854	1,889
USL												
Connections	90	89	84	83	82	81	79	78	76	76	75	74
kWh	296,356	523,447	511,651	496,924	496,990	492,456	481,035	473,256	465,478	465,055	496,660	530,367
Total of Above												
Customer/Connections	16,394	16,645	17,044	17,361	17,552	17,776	17,903	18,286	18,736	19,073	19,718	20,319
kWh	219,381,471	219,752,747	226,836,186	229,135,056	231,850,249	233,577,129	229,785,721	232,518,310	237,858,387	242,165,066	238,940,858	239,587,667
kW from applicable classes	122,691	121,460	139,299	140,832	149,215	144,148	149,721	135,367	140,275	145,414	156,308	159,423
Total from Model												
Customer/Connections	16,394	16,645	17,044	17,361	17,552	17,776	17,903	18,286	18,736	19,073	19,718	20,319
kWh	219,381,471	219,752,747	226,836,186	229,135,056	231,850,249	233,577,129	229,785,721	232,518,310	237,858,387	242,165,066	238,940,858	239,587,667
kW from applicable classes	122,691	121,460	139,299	140,832	149,215	144,148	149,721	135,367	140,275	145,414	156,308	159,423
Check should all be zero												
Customer/Connections	0	0	0	0	0	0	0	0	0	0	0	0
kWh	0	0	0	0	0	0	0	0	0	0	0	0
kW from applicable classes	0	0	0	0	0	0	0	0	0	0	0	0
Hydro One Load Transfers												
kWh	1,386,067	1,135,841	1,040,153	981,975	1,001,807	951,716	819,723	744,522	669,321	594,120	542,445	495,264
% Allocated to Residential	81.5%	81.5%	81.5%	81.5%	81.5%	81.5%	81.5%	81.5%	81.5%	81.5%	81.5%	81.5%
% Allocated to GS < 50 kW	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%	18.2%
% Allocated to USL	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Rate Class	kWh
GSE	195,189.0
R2	873,386.0
3Flat rate services	3,542.0
Total	1,072,117.0

InnPower Forecast for 2017 EB-2016-0086 Rate Application

	Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Customers - 3 Main Classes	Predicted Purchases	Variances (kWh)	% Variance
Jan-06	23,275,097	551.8	0.0	31	0	13,803	23,116,209		
Feb-06	21,949,173	604.3	0.0	28	0	13,808	21,884,888		
Mar-06	22,008,625	516.6	0.0	31	1	13,817	21,513,310		
Apr-06	17,506,649	293.3	0.0	30	1	13,833	18,083,189		
May-06	16,720,482	136.9	26.0	31	1	13,832	17,537,736		
Jun-06	17,643,645	19.5	73.6	30	0	13,744	17,995,593		
Jul-06	20,377,985	0.0	167.3	31	0	13,764	21,240,865		
Aug-06	18,444,801	4.2	101.6	31	0	13,786	19,309,232		
Sep-06	15,835,529	80.9	12.9	30	1	13,796	15,783,821		
Oct-06	18,304,414	288.3	1.1	31	1	13,814	18,674,492		
Nov-06	19,538,671	382.2	0.0	30	1	13,635	19,089,721		
Dec-06	22,793,828	500.5	0.0	31	0	13,832	22,487,478		
Jan-07	24,279,310	647.1	0.0	31	0	13,849	24,340,328		
Feb-07	23,881,688	740.1	0.0	28	0	13,861	23,622,173		
Mar-07	22,297,190	546.7	0.0	31	1	13,865	21,918,750		
Apr-07	18,569,417	356.4	0.0	30	1	13,869	18,896,816		
May-07	16,382,762	136.4	22.4	31	1	13,873	17,445,075		
Jun-07	17,880,105	16.5	99.2	30	0	13,881	18,812,914		
Jul-07	18,476,520	3.2	106.1	31	0	13,905	19,500,297		
Aug-07	19,239,334	5.2	141.0	31	0	13,925	20,597,391		
Sep-07	16,489,843	36.9	47.5	30	1	13,949	16,368,148		
Oct-07	17,241,375	137.7	19.8	31	1	13,987	17,446,462		
Nov-07	20,822,608	462.5	0.0	30	1	14,001	20,305,057		
Dec-07	25,594,484	630.7	0.0	31	0	14,035	24,238,642		
Jan-08	25,337,708	623.5	0.0	31	0	14,052	24,157,664		
Feb-08	23,919,251	674.7	0.0	29	0	14,069	23,548,157		
Mar-08	23,324,392	610.2	0.0	31	1	14,091	22,844,176		
Apr-08	17,845,473	253.9	0.0	30	1	14,109	17,742,884		
May-08	17,203,595	193.5	2.5	31	1	14,151	17,714,435		
Jun-08	17,657,148	22.7	71.5	30	0	14,186	18,220,384		
Jul-08	19,399,006	1.0	111.0	31	0	14,218	19,797,449		
Aug-08	18,496,935	12.7	64.0	31	0	14,260	18,539,702		
Sep-08	16,944,225	59.0	26.7	30	1	14,297	16,209,413		
Oct-08	18,736,114	278.6	0.0	31	1	14,337	18,812,993		
Nov-08	20,914,296	451.6	0.0	30	1	14,348	20,362,999		
Dec-08	25,844,885	654.6	0.0	31	0	14,388	24,737,519		
Jan-09	27,698,758	830.2	0.0	31	0	14,411	26,958,376		
Feb-09	22,854,687	606.4	0.0	28	0	14,426	22,258,575		
Mar-09	22,750,704	533.8	0.0	31	1	14,438	22,078,544		
Apr-09	18,949,042	305.8	1.2	30	1	14,448	18,622,427		
May-09	17,348,781	158.8	6.9	31	1	14,455	17,582,689		
Jun-09	17,392,957	49.3	34.2	30	0	14,460	17,575,166		
Jul-09	18,006,297	6.2	43.7	31	0	14,710	18,093,875		
Aug-09	20,135,392	9.8	91.0	31	0	14,976	19,726,196		
Sep-09	17,368,091	55.2	20.9	30	1	15,073	16,421,424		
Oct-09	19,458,169	287.8	0.0	31	1	15,110	19,363,054		
Nov-09	19,998,430	361.2	0.0	30	1	15,107	19,652,858		
Dec-09	25,277,881	631.3	0.0	31	0	14,563	24,542,893		
Jan-10	26,451,956	720.0	0.0	31	0	14,554	25,653,118		
Feb-10	22,355,018	598.3	0.0	28	0	14,553	22,228,095		
Mar-10	21,335,193	422.8	0.0	31	1	14,566	20,754,798		
Apr-10	17,366,211	225.1	0.0	30	1	14,576	17,643,191		
May-10	18,594,842	107.9	45.7	31	1	14,570	18,186,554		
Jun-10	18,232,281	21.7	58.7	30	0	14,584	18,042,437		
Jul-10	22,225,962	1.8	164.9	31	0	14,599	21,659,779		
Aug-10	21,301,865	2.1	138.8	31	0	14,633	20,889,406		
Sep-10	17,785,838	78.1	31.5	30	1	14,646	16,791,574		
Oct-10	18,734,173	241.6	0.0	31	1	14,664	18,531,524		
Nov-10	20,451,455	405.3	0.0	30	1	14,688	19,971,901		
Dec-10	25,404,585	676.2	0.0	31	0	14,707	25,188,370		
Jan-11	26,274,474	775.3	0.0	31	0	14,713	26,437,790		
Feb-11	22,971,970	654.2	0.0	28	0	14,716	23,022,559		
Mar-11	22,951,605	572.8	0.0	31	1	14,728	22,731,881		
Apr-11	18,914,567	332.3	0.0	30	1	14,729	19,077,064		
May-11	17,615,740	134.1	13.0	31	1	14,733	17,613,737		
Jun-11	17,571,916	19.0	52.2	30	0	14,742	17,899,723		
Jul-11	22,292,830	0.0	198.5	31	0	14,759	22,748,255		
Aug-11	19,354,570	0.0	122.2	31	0	14,772	20,436,592		
Sep-11	17,323,768	48.2	39.7	30	1	14,772	16,735,647		
Oct-11	18,576,164	235.5	2.4	31	1	14,794	18,600,820		
Nov-11	19,598,868	342.1	0.0	30	1	14,809	19,245,242		
Dec-11	23,311,694	534.0	0.0	31	0	14,818	23,462,492		
Jan-12	24,487,281	611.1	0.0	31	0	14,826	24,436,697		
Feb-12	21,711,327	531.7	0.0	29	0	14,835	22,180,575		
Mar-12	20,140,444	349.4	0.2	31	1	14,856	20,000,935		
Apr-12	18,335,839	321.7	0.0	30	1	14,867	19,021,332		
May-12	17,673,429	80.7	36.7	31	1	14,877	17,743,533		
Jun-12	19,474,755	23.2	101.6	30	0	14,882	19,532,607		
Jul-12	22,780,193	0.0	195.4	31	0	14,921	22,745,073		
Aug-12	20,627,757	2.0	112.1	31	0	14,953	20,256,484		
Sep-12	17,795,946	85.0	35.6	30	1	14,968	17,183,888		
Oct-12	17,475,407	242.5	1.1	31	1	15,012	18,771,829		
Nov-12	20,981,769	434.0	0.0	30	1	15,036	20,528,322		
Dec-12	23,645,692	533.5	0.0	31	0	15,062	23,593,601		
Jan-13	24,487,281	624.4	0.0	31	0	15,076	24,744,413		
Feb-13	21,711,327	631.5	0.0	28	0	15,088	22,946,181		
Mar-13	20,140,444	554.8	0.0	31	1	15,100	22,714,599		
Apr-13	18,335,839	358.6	0.0	30	1	15,107	19,620,167		
May-13	17,673,429	109.1	23.1	31	1	15,139	17,834,512		
Jun-13	19,474,755	33.0	59.6	30	0	15,172	18,542,297		
Jul-13	22,780,193	1.3	120.8	31	0	15,207	20,654,834		
Aug-13	20,627,757	4.4	93.8	31	0	15,244	19,893,999		
Sep-13	17,795,946	83.0	28.1	30	1	15,260	17,094,883		

SUMMARY OUTPUT

Regression Statistics	
Multiple R	97%
R Square	94%
Adjusted R Square	94%
Standard Error	696812.727
Observations	120

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	9.1174E+14	1.82348E+14	375.5507809	4.71766E-69
Residual	114	5.53525E+13	4.85548E+11		
Total	119	9.67092E+14			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	(11,152,354)	2795758.649	(3.99)	0.000117592	-16690730.22	-5613977.513
Heating Degree Days	12,574	413.7450041	30.39	1.69268E-56	11754.02343	13393.27477
Cooling Degree Days	30,393	2560.999307	11.87	1.21558E-21	25319.45408	35466.09388
Number of Days in Month	631,416	80720.42628	7.82	2.87148E-12	471509.3524	791322.4379
Spring Fall Flag	(1,168,175)	174483.1642	(6.70)	8.50302E-10	-1513824.418	-822524.809
Number of Customers - 3 Main Classes	562	96.23054386	5.84	5.0296E-08	371.3133298	752.5772622

Oct-13	17,475,407	208.5	0.4	31	1	15,288	18,478,147
Nov-13	20,981,769	478.2	0.0	30	1	15,334	21,251,537
Dec-13	23,645,692	687.9	0.0	31	0	15,352	25,697,936
Jan-14	27,344,318	825.9	0.0	31	0	15,406	27,463,445
Feb-14	23,698,938	737.1	0.0	28	0	15,425	24,463,334
Mar-14	24,427,815	690.6	0.0	31	1	15,444	24,615,409
Apr-14	19,352,181	356.9	0.0	30	1	15,478	19,807,273
May-14	17,549,445	132.1	11.9	31	1	15,497	17,984,484
Jun-14	18,258,424	14.1	68.1	30	0	15,515	18,755,741
Jul-14	19,452,973	4.0	71.0	31	0	15,587	19,388,762
Aug-14	19,828,414	8.8	81.8	31	0	15,628	19,800,397
Sep-14	17,976,813	69.7	30.1	30	1	15,648	17,206,474
Oct-14	19,058,731	224.3	1.3	31	1	15,688	18,928,942
Nov-14	22,053,999	482.1	0.0	30	1	15,720	21,517,485
Dec-14	24,252,934	557.3	0.0	31	0	15,775	24,293,521
Jan-15	26,951,654	792.4	0.0	31	0	15,793	27,259,700
Feb-15	25,657,093	856.8	0.0	28	0	15,802	26,180,253
Mar-15	23,477,412	615.5	0.0	31	1	15,826	23,885,792
Apr-15	18,850,232	313.7	0.0	30	1	15,843	19,469,201
May-15	18,121,126	89.3	34.1	31	1	15,856	18,322,789
Jun-15	18,217,550	33.8	32.3	30	0	15,883	18,122,176
Jul-15	21,783,994	4.0	114.3	31	0	15,881	20,869,981
Aug-15	20,830,602	4.4	88.6	31	0	15,970	20,143,929
Sep-15	19,861,337	31.1	81.9	30	1	16,005	18,496,092
Oct-15	18,777,773	249.8	0.0	31	1	16,050	19,413,484
Nov-15	20,148,030	345.0	0.0	30	1	16,127	20,022,349
Dec-15	22,509,584	429.7	0.0	31	0	16,168	22,909,967
Jan-16		700.2	0.0	31	0	16,222	26,340,934
Feb-16		663.5	0.0	29	0	16,275	24,647,325
Mar-16		541.3	0.0	31	1	16,329	23,236,388
Apr-16		311.8	0.1	30	1	16,383	19,751,902
May-16		127.9	22.2	31	1	16,436	18,773,306
Jun-16		25.3	65.1	30	0	16,490	19,353,119
Jul-16		2.2	129.3	31	0	16,544	21,675,094
Aug-16		5.4	103.5	31	0	16,598	20,961,190
Sep-16		62.7	35.5	30	1	16,651	17,846,162
Oct-16		239.5	2.6	31	1	16,705	19,730,828
Nov-16		414.4	0.0	30	1	16,759	21,250,145
Dec-16		583.6	0.0	31	0	16,812	25,206,741
Jan-17		700.2	0.0	31	0	16,849	26,693,723
Feb-17		663.5	0.0	28	0	16,887	24,359,420
Mar-17		541.3	0.0	31	1	16,924	23,570,622
Apr-17		311.8	0.1	30	1	16,961	20,076,860
May-17		127.9	22.2	31	1	16,998	19,088,986
Jun-17		25.3	65.1	30	0	17,035	19,659,522
Jul-17		2.2	129.3	31	0	17,073	21,972,221
Aug-17		5.4	103.5	31	0	17,110	21,249,039
Sep-17		62.7	35.5	30	1	17,147	18,124,734
Oct-17		239.5	2.6	31	1	17,184	20,000,123
Nov-17		414.4	0.0	30	1	17,221	21,510,163
Dec-17		583.6	0.0	31	0	17,259	25,457,481
Jan-18		700.2	0.0	31	0	17,346	26,972,716
Feb-18		663.5	0.0	28	0	17,433	24,666,667
Mar-18		541.3	0.0	31	1	17,521	23,906,121
Apr-18		311.8	0.1	30	1	17,608	20,440,611
May-18		127.9	22.2	31	1	17,696	19,480,991
Jun-18		25.3	65.1	30	0	17,783	20,079,779
Jul-18		2.2	129.3	31	0	17,871	22,420,731
Aug-18		5.4	103.5	31	0	17,958	21,725,802
Sep-18		62.7	35.5	30	1	18,046	18,629,750
Oct-18		239.5	2.6	31	1	18,133	20,533,392
Nov-18		414.4	0.0	30	1	18,221	22,071,684
Dec-18		583.6	0.0	31	0	18,308	26,047,255
Jan-19		700.2	0.0	31	0	18,415	27,573,425
Feb-19		663.5	0.0	28	0	18,522	25,278,309
Mar-19		541.3	0.0	31	1	18,629	24,528,698
Apr-19		311.8	0.1	30	1	18,736	21,074,123
May-19		127.9	22.2	31	1	18,843	20,125,437
Jun-19		25.3	65.1	30	0	18,950	20,735,160
Jul-19		2.2	129.3	31	0	19,056	23,087,045
Aug-19		5.4	103.5	31	0	19,163	22,403,052
Sep-19		62.7	35.5	30	1	19,270	19,317,934
Oct-19		239.5	2.6	31	1	19,377	21,232,510
Nov-19		414.4	0.0	30	1	19,484	22,781,737
Dec-19		583.6	0.0	31	0	19,591	26,768,242
Jan-20		700.2	0.0	31	0	19,667	28,276,947
Feb-20		663.5	0.0	29	0	19,743	26,595,782
Mar-20		541.3	0.0	31	1	19,819	25,197,290
Apr-20		311.8	0.1	30	1	19,894	21,725,249
May-20		127.9	22.2	31	1	19,970	20,759,098
Jun-20		25.3	65.1	30	0	20,046	21,351,355
Jul-20		2.2	129.3	31	0	20,122	23,685,776
Aug-20		5.4	103.5	31	0	20,198	22,984,317
Sep-20		62.7	35.5	30	1	20,274	19,881,733
Oct-20		239.5	2.6	31	1	20,349	21,778,844
Nov-20		414.4	0.0	30	1	20,425	23,310,606
Dec-20		583.6	0.0	31	0	20,501	27,279,646
Jan-21		700.2	0.0	31	0	20,592	28,796,558
Feb-21		663.5	0.0	28	0	20,682	26,492,186
Mar-21		541.3	0.0	31	1	20,772	25,733,317
Apr-21		311.8	0.1	30	1	20,863	22,269,484
May-21		127.9	22.2	31	1	20,953	21,311,541
Jun-21		25.3	65.1	30	0	21,044	21,912,006
Jul-21		2.2	129.3	31	0	21,134	24,254,635
Aug-21		5.4	103.5	31	0	21,225	23,561,383
Sep-21		62.7	35.5	30	1	21,315	20,467,008
Oct-21		239.5	2.6	31	1	21,406	22,372,327

Nov-21		414.4	0.0	30	1	21,496	23,912,296	
Dec-21		583.6	0.0	31	0	21,586	27,889,544	
			Weather Normal				4,098,330,476	
2006	234,398,899						236,716,534	
2007	241,154,636						243,492,052	
2008	245,623,028						242,687,774	Forecast of power purchased for the next 5 years
2009	247,239,189						242,876,077	
2010	250,239,379						245,540,747	
2011	246,758,167						248,011,802	
2012	245,129,838						245,994,875	
2013	245,129,838						249,473,504	
2014	253,254,985						254,225,266	
2015	255,186,387						255,095,714	
2016							258,773,135	
Total to 2015 -	2,464,114,346						2,464,114,346	0.0
							2,722,887,482	1,375,442,994.4
	20 Year Trend							
Jan-17		721.8	0.0	31	0	16,849	26,965,978	
Feb-17		706.0	0.0	28	0	16,887	24,893,428	
Mar-17		544.1	0.0	31	1	16,924	23,605,991	
Apr-17		306.0	0.0	30	1	16,961	20,000,904	
May-17		106.6	26.0	31	1	16,998	18,935,251	
Jun-17		23.9	63.2	30	0	17,035	19,585,355	
Jul-17		0.0	140.3	31	0	17,073	22,280,253	
Aug-17		0.0	107.5	31	0	17,110	21,303,767	
Sep-17		57.6	42.2	30	1	17,147	18,264,676	
Oct-17		230.4	2.3	31	1	17,184	19,876,944	
Nov-17		403.0	0.0	30	1	17,221	21,366,227	
Dec-17		574.1	0.0	31	0	17,259	25,338,873	262,417,646.6
Jan-18		722.3	0.0	31	0	17,346	27,250,917	
Feb-18		712.3	0.0	28	0	17,433	25,280,151	
Mar-18		544.0	0.0	31	1	17,521	23,940,049	
Apr-18		304.5	0.0	30	1	17,608	20,345,168	
May-18		103.2	26.8	31	1	17,696	19,309,693	
Jun-18		23.5	62.8	30	0	17,783	19,987,593	
Jul-18		-0.1	141.6	31	0	17,871	22,766,907	
Aug-18		3.9	107.8	31	0	17,958	21,837,819	
Sep-18		57.5	42.5	30	1	18,046	18,778,987	
Oct-18		229.2	2.3	31	1	18,133	20,394,369	
Nov-18		402.1	0.0	30	1	18,221	21,917,238	
Dec-18		572.4	0.0	31	0	18,308	25,906,776	267,715,668.5
Jan-19		722.8	0.0	31	0	18,415	27,857,571	
Feb-19		718.6	0.0	28	0	18,522	25,971,271	
Mar-19		543.9	0.0	31	1	18,629	24,561,186	
Apr-19		303.1	-0.1	30	1	18,736	20,959,193	
May-19		99.8	27.6	31	1	18,843	19,936,576	
Jun-19		23.0	62.4	30	0	18,950	20,624,954	
Jul-19		-0.3	142.9	31	0	19,056	23,468,823	
Aug-19		3.8	108.0	31	0	19,163	22,521,462	
Sep-19		57.4	42.9	30	1	19,270	19,476,466	
Oct-19		228.0	2.2	31	1	19,377	21,077,644	
Nov-19		401.3	0.0	30	1	19,484	22,616,781	
Dec-19		570.7	0.0	31	0	19,591	26,605,893	275,677,819.0
Jan-20		723.2	0.0	31	0	19,667	28,567,039	
Feb-20		724.9	0.0	29	0	19,743	27,368,220	
Mar-20		543.7	0.0	31	1	19,819	25,228,336	
Apr-20		301.7	-0.1	30	1	19,894	21,590,831	
May-20		96.5	28.4	31	1	19,970	20,552,675	
Jun-20		22.6	62.0	30	0	20,046	21,223,131	
Jul-20		-0.6	144.2	31	0	20,122	24,103,154	
Aug-20		3.6	108.3	31	0	20,198	23,109,121	
Sep-20		57.3	43.2	30	1	20,274	20,049,561	
Oct-20		226.8	2.2	31	1	20,349	21,608,135	
Nov-20		400.5	0.0	30	1	20,425	23,135,140	
Dec-20		568.9	0.0	31	0	20,501	27,095,426	283,630,767.7
Jan-21		723.7	0.0	31	0	20,592	29,092,596	
Feb-21		731.3	0.0	28	0	20,682	27,344,100	
Mar-21		543.6	0.0	31	1	20,772	25,762,923	
Apr-21		300.3	-0.2	30	1	20,863	22,115,580	
May-21		93.1	29.3	31	1	20,953	21,087,555	
Jun-21		22.2	61.5	30	0	21,044	21,765,762	
Jul-21		-0.9	145.4	31	0	21,134	24,707,614	
Aug-21		3.5	108.6	31	0	21,225	23,692,581	
Sep-21		57.2	43.6	30	1	21,315	20,644,131	
Oct-21		225.6	2.2	31	1	21,406	22,185,774	
Nov-21		399.6	0.0	30	1	21,496	23,726,321	
Dec-21		567.2	0.0	31	0	21,586	27,683,454	289,808,390.5

	Consumed	Heating Degree Days	Cooling Degree Days	Spring Fall Flag	Number of Days in Month	Number of Customers	Predicted Consumption	Variances (kWh)	% Variance
Jan-06	15,656,721	551.8	0	0	31	12,828	14,257,018		
Feb-06	14,305,197	604.3	0	0	28	12,835	14,740,250		
Mar-06	14,164,560	516.6	0	1	31	12,843	13,568,446		
Apr-06	10,773,864	293.3	0	1	30	12,856	11,513,102		
May-06	9,989,674	136.9	26	1	31	12,861	10,590,419		
Jun-06	10,480,487	19.5	73.6	0	30	12,867	10,820,699		
Jul-06	12,380,113	0	167.3	0	31	12,888	12,503,991		
Aug-06	11,213,160	4.2	101.6	0	31	12,905	11,236,518		
Sep-06	9,420,147	80.9	12.9	1	30	12,911	9,814,541		
Oct-06	11,103,931	288.3	1.1	1	31	12,926	11,488,948		
Nov-06	12,426,249	382.2	0	1	30	12,757	12,331,374		
Dec-06	14,468,915	500.5	0	0	31	12,949	13,784,832		
Jan-07	16,249,963	647.1	0	0	31	12,963	15,134,198		
Feb-07	15,687,569	740.1	0	0	28	12,973	15,990,208		
Mar-07	14,688,141	546.7	0	1	31	12,975	13,845,498		
Apr-07	11,526,759	356.4	0	1	30	12,979	12,093,900		
May-07	9,949,931	136.4	22.4	1	31	12,984	10,514,248		
Jun-07	10,346,267	16.5	99.2	0	30	12,991	11,302,020		
Jul-07	11,498,005	3.2	106.1	0	31	13,011	11,316,775		
Aug-07	11,423,707	5.2	141	0	31	13,034	12,029,004		
Sep-07	9,689,281	36.9	47.5	1	30	13,055	10,097,404		
Oct-07	10,253,643	137.7	19.8	1	31	13,090	10,474,525		
Nov-07	12,917,037	462.5	0	1	30	13,090	13,070,487		
Dec-07	16,029,153	630.7	0	0	31	13,132	14,983,246		
Jan-08	16,108,836	623.5	0	0	31	13,149	14,916,974		
Feb-08	15,111,865	674.7	0	0	29	13,164	15,388,240		
Mar-08	14,824,395	610.2	0	1	31	13,185	14,429,978		
Apr-08	10,995,224	253.9	0	1	30	13,202	11,150,448		
May-08	10,238,538	193.5	2.5	1	31	13,240	10,644,203		
Jun-08	10,371,805	22.7	71.5	0	30	13,277	10,808,404		
Jul-08	11,432,740	1	111	0	31	13,308	11,393,938		
Aug-08	10,970,422	12.7	64	0	31	13,349	10,567,258		
Sep-08	9,784,362	59	26.7	1	30	13,384	9,887,312		
Oct-08	10,926,030	278.6	0	1	31	13,423	11,377,797		
Nov-08	13,094,794	451.6	0	1	30	13,431	12,970,159		
Dec-08	16,764,512	654.6	0	0	31	13,472	15,203,231		
Jan-09	17,810,584	830.2	0	0	31	13,491	16,819,525		
Feb-09	14,875,943	606.4	0	0	28	13,506	14,759,579		
Mar-09	14,168,411	533.8	0	1	31	13,518	13,726,762		
Apr-09	11,457,915	305.8	1.2	1	30	13,525	11,652,013		
May-09	10,081,810	158.8	6.9	1	31	13,530	10,412,283		
Jun-09	9,854,813	49.3	34.2	0	30	13,533	10,311,709		
Jul-09	10,889,246	6.2	43.7	0	31	13,781	10,103,861		
Aug-09	11,628,804	9.8	91	0	31	14,047	11,077,332		
Sep-09	9,993,074	55.2	20.9	1	30	14,145	9,737,030		
Oct-09	11,313,182	287.8	0	1	31	14,177	11,462,478		
Nov-09	12,003,176	361.2	0	1	30	14,179	12,138,081		
Dec-09	15,992,024	631.3	0	0	31	13,636	14,988,769		
Jan-10	16,758,847	720	0	0	31	13,627	15,805,200		
Feb-10	14,108,588	598.3	0	0	28	13,628	14,685,023		
Mar-10	12,565,986	422.8	0	1	31	13,641	12,705,073		
Apr-10	10,254,608	225.1	0	1	30	13,641	10,885,361		
May-10	10,319,214	107.9	45.7	1	31	13,637	10,715,132		
Jun-10	10,886,710	21.7	58.7	0	30	13,651	10,544,733		
Jul-10	12,945,230	1.8	164.9	0	31	13,662	12,472,846		
Aug-10	12,216,023	2.1	138.8	0	31	13,688	11,956,734		
Sep-10	10,068,692	78.1	31.5	1	30	13,700	10,158,541		
Oct-10	10,537,708	241.6	0	1	31	13,713	11,037,234		
Nov-10	12,377,930	405.3	0	1	30	13,730	12,543,995		
Dec-10	15,852,526	676.2	0	0	31	13,747	15,402,047		
Jan-11	16,696,145	775.3	0	0	31	13,752	16,314,203		
Feb-11	14,407,275	654.2	0	0	28	13,757	15,199,550		
Mar-11	14,015,514	572.8	0	1	31	13,766	14,085,733		
Apr-11	11,306,265	332.3	0	1	30	13,767	11,872,074		
May-11	9,737,594	134.1	13	1	31	13,771	10,306,204		
Jun-11	9,716,476	19	52.2	0	30	13,779	10,390,659		
Jul-11	13,535,935	0	198.5	0	31	13,793	13,124,255		
Aug-11	11,675,437	0	122.2	0	31	13,804	11,607,392		
Sep-11	9,553,832	48.2	39.7	1	30	13,800	10,046,347		
Oct-11	10,426,163	235.5	2.4	1	31	13,820	11,028,800		
Nov-11	11,200,470	342.1	0	1	30	13,839	11,962,277		
Dec-11	14,406,250	534	0	0	31	13,854	14,093,180		
Jan-12	14,419,203	611.1	0	0	31	13,859	14,802,840		
Feb-12	15,186,723	531.7	0	0	29	13,863	14,072,010		
Mar-12	13,290,184	349.4	0.2	1	31	13,884	12,033,445		
Apr-12	11,753,568	321.7	0	1	30	13,893	11,774,507		
May-12	10,732,730	80.7	36.7	1	31	13,898	10,285,850		
Jun-12	9,647,919	23.2	101.6	0	30	13,903	11,411,402		
Jul-12	11,182,332	0	195.4	0	31	13,944	13,062,626		
Aug-12	13,798,406	2	112.1	0	31	13,974	11,425,011		
Sep-12	11,993,115	85	35.6	1	30	13,980	10,303,561		
Oct-12	9,968,055	242.5	1.1	1	31	14,024	11,067,386		
Nov-12	10,745,430	434	0	1	30	14,037	12,808,162		

SUMMARY OUTPUT

Regression Statistics	
Multiple R	88%
R Square	78%
Adjusted R Square	77%
Standard Error	1,066,427
Observations	120

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	4.58424E+14	1.52808E+14	134.3643968	1.37224E-37
Residual	116	1.31923E+14	1.13727E+12		
Total	119	5.90347E+14			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	9,178,027	404,861.40	22.67	1.96159E-44	8,376,148.12	9,979,906.16
Heating Degree Days	9,204	632.81	14.55	6.50133E-28	7,951.05	10,457.77
Cooling Degree Days	19,880	3,858.95	5.15	1.06944E-06	12,237.09	27,523.38
Spring Fall Flag	(364,578)	263,558.87	(1.38)	0.169233405	(886,589.12)	157,433.98

Dec-12	12,225,430	533.5	0	0	31	14,061	14,088,578
Jan-13	14,692,174	624.4	0	0	31	14,074	14,925,258
Feb-13	15,269,953	631.5	0	0	28	14,084	14,990,610
Mar-13	14,126,587	554.8	0	1	31	14,097	13,920,054
Apr-13	13,656,289	358.6	0	1	30	14,105	12,114,150
May-13	11,414,254	109.1	23.1	1	31	14,135	10,276,884
Jun-13	9,912,417	33	59.6	0	30	14,157	10,666,635
Jul-13	10,710,649	1.3	120.8	0	31	14,183	11,591,526
Aug-13	13,234,184	4.4	93.8	0	31	14,221	11,083,293
Sep-13	11,544,524	83	28.1	1	30	14,235	10,136,050
Oct-13	10,038,352	208.5	0.4	1	31	14,261	10,740,520
Nov-13	10,529,891	478.2	0	1	30	14,303	13,214,997
Dec-13	12,835,022	687.9	0	0	31	14,317	15,509,738
Jan-14	16,379,015	825.9	0	0	31	14,372	16,779,946
Feb-14	17,466,985	737.1	0	0	28	14,388	15,962,595
Mar-14	14,955,218	690.6	0	1	31	14,406	15,170,012
Apr-14	15,294,723	356.9	0	1	30	14,439	12,098,502
May-14	11,587,580	132.1	11.9	1	31	14,461	10,265,926
Jun-14	9,833,122	14.1	68.1	0	30	14,474	10,661,654
Jul-14	10,541,057	4	71	0	31	14,507	10,626,342
Aug-14	11,450,190	8.8	81.8	0	31	14,539	10,885,229
Sep-14	11,521,628	69.7	30.1	1	30	14,566	10,053,392
Oct-14	9,968,060	224.3	1.3	1	31	14,612	10,903,842
Nov-14	10,531,538	482.1	0	1	30	14,647	13,250,894
Dec-14	12,848,843	557.3	0	0	31	14,699	14,307,643
Jan-15	14,844,381	792.4	0	0	31	14,727	16,471,599
Feb-15	16,906,264	856.8	0	0	28	14,735	17,064,362
Mar-15	16,266,030	615.5	0	1	31	14,759	14,478,762
Apr-15	14,274,594	313.7	0	1	30	14,776	11,700,872
May-15	10,939,645	89.3	34.1	1	31	14,789	10,313,319
Jun-15	10,005,424	33.8	32.3	0	30	14,816	10,131,268
Jul-15	9,913,946	4	114.3	0	31	14,814	11,487,156
Aug-15	12,836,683	4.4	88.6	0	31	14,895	10,979,916
Sep-15	12,007,590	31.1	81.9	1	30	14,926	10,727,898
Oct-15	11,180,147	249.8	0	1	31	14,975	11,112,710
Nov-15	10,611,038	345	0	1	30	15,045	11,988,970
Dec-15	11,257,182	429.7	0	0	31	15,082	13,133,160
			Weatther Normal				1,489,232,669

2006	146,383,018	146,650,138	267,120	0.2%
2007	150,259,456	150,851,513	592,057	0.4%
2008	150,623,523	148,737,944	(1,885,579)	-1.3%
2009	150,068,982	147,189,421	(2,879,561)	-1.9%
2010	148,892,062	148,911,919	19,857	0.0%
2011	146,677,356	150,030,674	3,353,318	2.3%
2012	144,943,095	147,135,377	2,192,282	1.5%
2013	147,964,296	149,169,714	1,205,418	0.8%
2014	152,377,958	150,965,978	(1,411,981)	-0.9%
2015	151,042,923	149,589,992	(1,452,931)	-1.0%
Total to 2011	1,489,232,669	1,489,232,669	0	

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Customers	Spring Fall Flag	Number of Days in Month	Predicted Consumption	Variances (kWh)	% Variance
Jan-06	2,405,185	551.8	0	894	0	31	2,609,172		
Feb-06	2,220,986	604.3	0	893	0	28	2,652,496		
Mar-06	2,311,304	516.6	0	894	1	31	2,578,636		
Apr-06	1,970,759	293.3	0	897	1	30	2,391,584		
May-06	1,991,763	136.9	26	891	1	31	2,325,993		
Jun-06	2,203,302	19.5	73.6	797	0	30	2,168,198		
Jul-06	2,484,696	0	167.3	811	0	31	2,482,931		
Aug-06	2,359,413	4.2	101.6	815	0	31	2,284,698		
Sep-06	2,127,231	80.9	12.9	818	1	30	2,073,359		
Oct-06	2,278,439	288.3	1.1	821	1	31	2,222,083		
Nov-06	2,340,246	382.2	0	811	1	30	2,277,816		
Dec-06	2,439,858	500.5	0	816	0	31	2,391,539		
Jan-07	2,566,158	647.1	0	816	0	31	2,518,714		
Feb-07	2,449,930	740.1	0	818	0	28	2,603,830		
Mar-07	2,503,057	546.7	0	820	1	31	2,440,496		
Apr-07	2,150,206	356.4	0	819	1	30	2,273,192		
May-07	2,173,559	136.4	22.4	818	1	31	2,151,979		
Jun-07	2,286,735	16.5	99.2	819	0	30	2,296,548		
Jul-07	2,434,031	3.2	106.1	824	0	31	2,318,242		
Aug-07	2,419,591	5.2	141	821	0	31	2,425,272		
Sep-07	2,195,496	36.9	47.5	824	1	30	2,159,498		
Oct-07	2,297,711	137.7	19.8	826	1	31	2,162,523		
Nov-07	2,455,130	462.5	0	826	1	30	2,380,771		
Dec-07	2,654,818	630.7	0	831	0	31	2,537,781		
Jan-08	2,708,152	623.5	0	831	0	31	2,531,535		
Feb-08	2,543,856	674.7	0	832	0	29	2,578,171		
Mar-08	2,579,260	610.2	0	833	1	31	2,524,437		
Apr-08	2,176,154	253.9	0	834	1	30	2,217,568		
May-08	2,168,104	193.5	2.5	838	1	31	2,182,069		
Jun-08	2,214,082	22.7	71.5	836	0	30	2,250,803		
Jul-08	2,343,602	1	111	836	0	31	2,358,688		
Aug-08	2,300,528	12.7	64	837	0	31	2,220,289		
Sep-08	2,111,286	59	26.7	839	1	30	2,145,241		
Oct-08	2,222,937	278.6	0	840	1	31	2,252,313		
Nov-08	2,396,744	451.6	0	843	1	30	2,409,048		
Dec-08	2,623,822	654.6	0	842	0	31	2,582,930		
Jan-09	2,722,823	830.2	0	846	0	31	2,744,141		
Feb-09	2,424,700	606.4	0	846	0	28	2,549,995		
Mar-09	2,427,300	533.8	0	846	1	31	2,487,015		
Apr-09	2,234,311	305.8	1.2	849	1	30	2,299,735		
May-09	2,126,121	158.8	6.9	850	1	31	2,192,717		
Jun-09	2,169,041	49.3	34.2	855	0	30	2,196,399		
Jul-09	2,310,652	6.2	43.7	857	0	31	2,193,923		
Aug-09	2,378,057	9.8	91	857	0	31	2,348,777		
Sep-09	2,164,587	55.2	20.9	856	1	30	2,161,072		
Oct-09	2,341,208	287.8	0	861	1	31	2,306,906		
Nov-09	2,351,792	361.2	0	856	1	30	2,359,482		
Dec-09	2,667,735	631.3	0	855	0	31	2,591,573		
Jan-10	2,750,890	720	0	854	0	31	2,666,300		
Feb-10	2,436,943	598.3	0	852	0	28	2,556,287		
Mar-10	2,344,061	422.8	0	852	1	31	2,404,041		
Apr-10	2,116,368	225.1	0	852	1	30	2,232,537		
May-10	2,317,663	107.9	45.7	862	1	31	2,299,661		
Jun-10	2,346,316	21.7	58.7	865	0	30	2,273,244		
Jul-10	2,633,804	1.8	164.9	870	0	31	2,607,751		
Aug-10	2,573,532	2.1	138.8	877	0	31	2,539,824		
Sep-10	2,297,240	78.1	31.5	878	1	30	2,263,773		
Oct-10	2,376,983	241.6	0	883	1	31	2,315,659		
Nov-10	2,420,856	405.3	0	890	1	30	2,473,206		
Dec-10	2,808,483	676.2	0	892	0	31	2,712,649		
Jan-11	2,916,087	775.3	0	893	0	31	2,800,838		
Feb-11	2,595,862	654.2	0	891	0	28	2,691,345		
Mar-11	2,660,869	572.8	0	894	1	31	2,627,390		
Apr-11	2,340,953	332.3	0	894	1	30	2,418,757		
May-11	2,315,445	134.1	13	894	1	31	2,288,521		
Jun-11	2,399,956	19	52.2	896	0	30	2,318,859		
Jul-11	2,786,776	0	198.5	899	0	31	2,778,342		
Aug-11	2,615,109	0	122.2	900	0	31	2,535,804		
Sep-11	2,322,637	48.2	39.7	905	1	30	2,324,069		

SUMMARY OUTPUT

Regression Statistics	
Multiple R	85%
R Square	72%
Adjusted R Square	71%
Standard Error	135,890
Observations	120

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	5.55059E+12	1.8502E+12	100.1938259	4.60757E-32
Residual	116	2.14208E+12	18466176034		
Total	119	7.69267E+12			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	146,146	179,909.55	0.81	0.418264896	(210,187.18)	502,479.88
Heating Degree Days	867	65.63	13.22	6.82174E-25	737.51	997.48
Cooling Degree Days	3,208	364.93	8.79	1.59801E-14	2,485.05	3,930.63
Number of Customers	2,220	196.72	11.28	2.22612E-20	1,829.99	2,609.25

Oct-11	2,383,183	235.5	2.4	907	1	31	2,371,337
Nov-11	2,441,092	342.1	0	902	1	30	2,445,015
Dec-11	2,685,737	534	0	904	0	31	2,615,927
Jan-12	2,729,350	611.1	0	904	0	31	2,682,811
Feb-12	2,753,257	531.7	0	904	0	29	2,613,932
Mar-12	2,566,239	349.4	0.2	904	1	31	2,456,429
Apr-12	2,561,628	321.7	0	905	1	30	2,433,977
May-12	2,292,791	80.7	36.7	910	1	31	2,353,737
Jun-12	2,451,988	23.2	101.6	910	0	30	2,512,045
Jul-12	2,572,287	0	195.4	909	0	31	2,790,594
Aug-12	2,763,653	2	112.1	911	0	31	2,529,556
Sep-12	2,699,405	85	35.6	920	1	30	2,376,135
Oct-12	2,275,245	242.5	1.1	926	1	31	2,415,412
Nov-12	2,473,946	434	0	930	1	30	2,586,888
Dec-12	2,583,609	533.5	0	932	0	31	2,677,643
Jan-13	2,679,143	624.4	0	933	0	31	2,758,718
Feb-13	2,864,870	631.5	0	935	0	28	2,769,316
Mar-13	2,609,208	554.8	0	935	1	31	2,702,779
Apr-13	2,632,742	358.6	0	934	1	30	2,530,357
May-13	2,375,993	109.1	23.1	936	1	31	2,392,457
Jun-13	2,375,528	33	59.6	946	0	30	2,465,723
Jul-13	2,403,641	1.3	120.8	958	0	31	2,661,179
Aug-13	2,699,207	4.4	93.8	957	0	31	2,575,037
Sep-13	2,574,379	83	28.1	959	1	30	2,436,906
Oct-13	2,365,919	208.5	0.4	962	1	31	2,463,579
Nov-13	2,579,534	478.2	0	966	1	30	2,705,137
Dec-13	2,682,831	687.9	0	970	0	31	2,895,929
Jan-14	2,952,055	825.9	0	968	0	31	3,011,205
Feb-14	3,157,353	737.1	0	971	0	28	2,940,830
Mar-14	2,822,324	690.6	0	972	1	31	2,902,711
Apr-14	2,913,100	356.9	0	973	1	30	2,615,448
May-14	2,373,330	132.1	11.9	970	1	31	2,451,949
Jun-14	2,336,278	14.1	68.1	974	0	30	2,538,744
Jul-14	2,440,130	4	71	1,012	0	31	2,623,630
Aug-14	2,548,929	8.8	81.8	1,021	0	31	2,682,416
Sep-14	2,416,998	69.7	30.1	1,014	1	30	2,553,863
Oct-14	2,501,281	224.3	1.3	1,009	1	31	2,584,494
Nov-14	2,737,984	482.1	0	1,004	1	30	2,792,866
Dec-14	2,822,277	557.3	0	1,007	0	31	2,864,761
Jan-15	3,269,236	792.4	0	997	0	31	3,046,512
Feb-15	3,304,585	856.8	0	998	0	28	3,104,599
Mar-15	3,108,557	615.5	0	998	1	31	2,895,272
Apr-15	3,021,846	313.7	0	997	1	30	2,631,243
May-15	2,605,051	89.3	34.1	997	1	31	2,545,964
Jun-15	2,697,597	33.8	32.3	997	0	30	2,492,044
Jul-15	2,621,303	4	114.3	996	0	31	2,727,016
Aug-15	2,896,317	4.4	88.6	1,003	0	31	2,660,459
Sep-15	2,724,978	31.1	81.9	1,004	1	30	2,664,348
Oct-15	2,670,877	249.8	0	1,000	1	31	2,582,469
Nov-15	2,674,255	345	0	1,008	1	30	2,682,811
Dec-15	2,624,072	429.7	0	1,012	0	31	2,765,166

		Weatther Normal		300,120,411	
2006	27,133,182		28,458,506	1,325,324	4.9%
2007	28,586,422		28,268,846	(317,576)	-1.1%
2008	28,388,527		28,253,092	(135,435)	-0.5%
2009	28,318,327		28,431,736	113,409	0.4%
2010	29,423,139		29,344,933	(78,206)	-0.3%
2011	30,463,706		30,216,204	(247,502)	-0.8%
2012	30,723,398		30,429,157	(294,241)	-1.0%
2013	30,842,995		31,357,117	514,122	1.7%
2014	32,022,040		32,562,916	540,875	1.7%
2015	34,218,675		32,797,902	(1,420,772)	-4.2%
Total to 2011	300,120,411		300,120,411	0	

	Consumed	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Customers	Predicted Consumption	Variances (kWh)	% Variance
Jan-06	3,504,488	551.8	0	31	0	81	4,089,172		
Feb-06	3,222,615	604.3	0	28	0	80	4,041,887		
Mar-06	3,449,527	516.6	0	31	1	80	4,075,868		
Apr-06	3,144,707	293.3	0	30	1	80	3,969,099		
May-06	3,320,523	136.9	26	31	1	80	3,955,595		
Jun-06	3,217,349	19.5	73.6	30	0	80	3,931,378		
Jul-06	3,320,788	0	167.3	31	0	65	4,030,099		
Aug-06	3,261,074	4.2	101.6	31	0	66	3,972,987		
Sep-06	3,173,965	80.9	12.9	30	1	67	3,900,351		
Oct-06	3,391,458	288.3	1.1	31	1	67	3,990,568		
Nov-06	3,386,870	382.2	0	30	1	67	4,002,698		
Dec-06	3,333,891	500.5	0	31	0	67	4,069,783		
Jan-07	3,416,075	647.1	0	31	0	70	4,125,189		
Feb-07	3,153,475	740.1	0	28	0	70	4,093,211		
Mar-07	3,314,545	546.7	0	31	1	70	4,087,244		
Apr-07	3,030,956	356.4	0	30	1	71	3,992,947		
May-07	3,141,479	136.4	22.4	31	1	71	3,952,190		
Jun-07	3,194,900	16.5	99.2	30	0	71	3,953,116		
Jul-07	3,204,487	3.2	106.1	31	0	70	3,976,630		
Aug-07	3,218,318	5.2	141	31	0	70	4,008,567		
Sep-07	3,271,925	36.9	47.5	30	1	70	3,914,635		
Oct-07	3,588,707	137.7	19.8	31	1	71	3,950,358		
Nov-07	3,761,009	462.5	0	30	1	71	4,033,046		
Dec-07	3,870,949	630.7	0	31	0	72	4,118,991		
Jan-08	3,952,667	623.5	0	31	0	72	4,116,270		
Feb-08	3,721,999	674.7	0	29	0	73	4,090,869		
Mar-08	3,767,626	610.2	0	31	1	73	4,111,243		
Apr-08	3,502,956	253.9	0	30	1	73	3,954,209		
May-08	3,563,732	193.5	2.5	31	1	73	3,955,990		
Jun-08	3,531,127	22.7	71.5	30	0	73	3,930,711		
Jul-08	3,652,158	1	111	31	0	74	3,980,176		
Aug-08	3,705,140	12.7	64	31	0	74	3,942,606		
Sep-08	3,825,164	59	26.7	30	1	74	3,904,404		
Oct-08	4,010,251	278.6	0	31	1	74	3,985,919		
Nov-08	4,029,874	451.6	0	30	1	74	4,028,927		
Dec-08	4,253,129	654.6	0	31	0	74	4,128,024		
Jan-09	4,093,327	830.2	0	31	0	74	4,194,389		
Feb-09	3,845,597	606.4	0	28	0	74	4,042,681		
Mar-09	4,098,357	533.8	0	31	1	74	4,082,369		
Apr-09	3,726,593	305.8	1.2	30	1	74	3,974,896		
May-09	3,697,247	158.8	6.9	31	1	75	3,946,807		
Jun-09	3,539,269	49.3	34.2	30	0	72	3,907,438		
Jul-09	3,698,838	6.2	43.7	31	0	72	3,922,012		
Aug-09	4,067,503	9.8	91	31	0	72	3,965,633		
Sep-09	4,020,681	55.2	20.9	30	1	72	3,897,785		
Oct-09	4,114,121	287.8	0	31	1	72	3,989,396		
Nov-09	4,196,370	361.2	0	30	1	72	3,994,761		
Dec-09	4,346,550	631.3	0	31	0	72	4,119,218		
Jan-10	4,467,755	720	0	31	0	73	4,152,741		
Feb-10	4,091,689	598.3	0	28	0	73	4,039,619		
Mar-10	4,408,918	422.8	0	31	1	73	4,040,418		
Apr-10	3,956,850	225.1	0	30	1	73	3,943,324		
May-10	4,178,542	107.9	45.7	31	1	71	3,962,236		
Jun-10	4,295,870	21.7	58.7	30	0	68	3,918,897		
Jul-10	4,296,963	1.8	164.9	31	0	67	4,028,635		
Aug-10	4,422,302	2.1	138.8	31	0	68	4,005,430		
Sep-10	4,190,730	78.1	31.5	30	1	68	3,915,911		
Oct-10	4,346,909	241.6	0	31	1	68	3,971,935		
Nov-10	4,206,995	405.3	0	30	1	68	4,011,428		
Dec-10	4,242,518	676.2	0	31	0	68	4,136,187		
Jan-11	4,294,433	775.3	0	31	0	68	4,173,641		
Feb-11	3,932,436	654.2	0	28	0	68	4,060,746		
Mar-11	4,256,728	572.8	0	31	1	68	4,097,108		
Apr-11	3,978,925	332.3	0	30	1	68	3,983,839		
May-11	4,091,845	134.1	13	31	1	68	3,942,922		
Jun-11	4,026,185	19	52.2	30	0	67	3,912,069		
Jul-11	4,195,592	0	198.5	31	0	67	4,057,975		
Aug-11	4,267,059	0	122.2	31	0	68	3,989,805		
Sep-11	4,093,999	48.2	39.7	30	1	67	3,911,937		

SUMMARY OUTPUT

Regression Statistics	
Multiple R	17%
R Square	3%
Adjusted R Square	0%
Standard Error	437,099.54
Observations	120

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	6.76695E+11	2.25565E+11	1.180622245	0.320267398
Residual	116	2.21625E+13	1.91056E+11		
Total	119	2.28392E+13			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3,186,986	1528131.224	2.09	0.039212717	160329.9502	6213642.825
Heating Degree Days	378	212.4543795	1.78	0.077873622	-42.85523552	798.7301013
Cooling Degree Days	893	1177.388886	0.76	0.44948958	-1438.521499	3225.412587
Number of Days in Month	22,375	49958.81405	0.45	0.655076472	-76574.26474	121325.1876

Oct-11	4,238,340	235.5	2.4	31	1	67	3,971,774
Nov-11	4,324,842	342.1	0	30	1	68	3,987,543
Dec-11	4,305,174	534	0	31	0	68	4,082,444
Jan-12	4,408,677	611.1	0	31	0	68	4,111,583
Feb-12	4,391,689	531.7	0	29	0	68	4,036,824
Mar-12	4,119,900	349.4	0.2	31	1	68	4,012,856
Apr-12	4,274,757	321.7	0	30	1	69	3,979,833
May-12	3,790,260	80.7	36.7	31	1	69	3,943,915
Jun-12	4,258,545	23.2	101.6	30	0	69	3,957,792
Jul-12	4,305,966	0	195.4	31	0	68	4,055,205
Aug-12	4,273,773	2	112.1	31	0	68	3,981,537
Sep-12	4,455,584	85	35.6	30	1	68	3,922,182
Oct-12	3,873,871	242.5	1.1	31	1	62	3,973,258
Nov-12	4,175,824	434	0	30	1	69	4,022,275
Dec-12	4,809,264	533.5	0	31	0	69	4,082,255
Jan-13	4,310,080	624.4	0	31	0	69	4,116,610
Feb-13	4,557,931	631.5	0	28	0	69	4,052,167
Mar-13	4,026,120	554.8	0	31	1	68	4,090,305
Apr-13	4,223,484	358.6	0	30	1	68	3,993,779
May-13	4,095,207	109.1	23.1	31	1	68	3,942,497
Jun-13	4,235,433	33	59.6	30	0	69	3,923,972
Jul-13	4,170,619	1.3	120.8	31	0	66	3,989,045
Aug-13	4,290,304	4.4	93.8	31	0	66	3,966,094
Sep-13	4,398,606	83	28.1	30	1	66	3,914,725
Oct-13	4,043,829	208.5	0.4	31	1	65	3,959,783
Nov-13	4,404,977	478.2	0	30	1	65	4,038,980
Dec-13	4,165,132	687.9	0	31	0	65	4,140,609
Jan-14	4,211,268	825.9	0	31	0	66	4,192,764
Feb-14	4,507,639	737.1	0	28	0	66	4,092,077
Mar-14	4,043,999	690.6	0	31	1	66	4,141,629
Apr-14	4,288,138	356.9	0	30	1	66	3,993,136
May-14	4,013,117	132.1	11.9	31	1	66	3,941,183
Jun-14	4,219,053	14.1	68.1	30	0	67	3,924,423
Jul-14	4,080,609	4	71	31	0	68	3,945,572
Aug-14	4,135,126	8.8	81.8	31	0	68	3,957,035
Sep-14	4,211,480	69.7	30.1	30	1	68	3,911,485
Oct-14	4,339,620	224.3	1.3	31	1	67	3,966,559
Nov-14	4,225,073	482.1	0	30	1	69	4,040,454
Dec-14	4,317,146	557.3	0	31	0	69	4,091,250
Jan-15	4,254,903	792.4	0	31	0	69	4,180,103
Feb-15	4,899,443	856.8	0	28	0	69	4,137,316
Mar-15	4,402,986	615.5	0	31	1	69	4,113,246
Apr-15	4,672,620	313.7	0	30	1	70	3,976,809
May-15	4,059,115	89.3	34.1	31	1	70	3,944,842
Jun-15	4,270,098	33.8	32.3	30	0	70	3,899,883
Jul-15	4,471,002	4	114.3	31	0	71	3,984,258
Aug-15	4,635,023	4.4	88.6	31	0	72	3,961,448
Sep-15	4,812,114	31.1	81.9	30	1	75	3,943,177
Oct-15	4,707,296	249.8	0	31	1	75	3,975,034
Nov-15	4,627,640	345	0	30	1	74	3,988,639
Dec-15	4,824,037	429.7	0	31	0	74	4,043,025

			Weatther Normal				481,254,330
2006	39,727,255					48,029,485	8,302,230	20.9%
2007	40,166,825					48,206,123	8,039,298	20.0%
2008	45,515,823					48,129,346	2,613,523	5.7%
2009	47,444,453					48,037,385	592,932	1.2%
2010	51,106,041					48,126,760	(2,979,281)	-5.8%
2011	50,005,558					48,171,802	(1,833,756)	-3.7%
2012	51,138,110					48,079,515	(3,058,595)	-6.0%
2013	50,921,722					48,128,565	(2,793,157)	-5.5%
2014	50,592,267					48,197,568	(2,394,699)	-4.7%
2015	54,636,276					48,147,782	(6,488,495)	-11.9%
Total to 2011	481,254,330					481,254,330	0	

	Purchases	Modeled Purchases	Difference	% Difference	Loss Factor	Total Billed	Residential	GS<50	GS>50	Sentinels	Streetlights	USL	Hydro One Load Transfers
Weatther Normal Projection													
2006	234,398,899	236,716,534	2,317,635	1.0%	1.0685	219,381,471	149,103,951	27,191,374	39,830,915	131,869	1,445,518	291,777	1,386,067
2007	241,154,636	243,492,052	2,337,416	1.0%	1.0974	219,752,747	148,690,902	28,463,422	39,320,570	126,371	1,495,947	519,694	1,135,841
2008	245,623,028	242,687,774	(2,935,254)	-1.2%	1.0828	226,836,186	149,960,621	28,399,681	45,269,406	124,212	1,533,899	508,215	1,040,153
2009	247,239,189	242,876,077	(4,363,112)	-1.8%	1.0790	229,135,056	150,373,777	28,113,433	47,473,258	122,021	1,576,912	493,680	981,975
2010	250,239,379	245,540,747	(4,698,631)	-1.9%	1.0793	231,850,249	148,340,356	29,188,874	51,128,771	116,703	1,580,058	493,680	1,001,807
2011	246,758,167	248,011,802	1,253,635	0.5%	1.0564	233,577,129	150,098,110	30,548,695	49,921,685	110,241	1,457,369	489,312	951,716
2012	245,129,838	245,994,875	865,037	0.4%	1.0668	229,785,721	144,943,095	30,723,398	51,138,110	113,360	1,569,709	478,327	819,723
2013	245,129,838	249,473,504	4,343,666	1.8%	1.0542	232,518,310	147,964,296	30,842,995	50,921,722	101,844	1,472,134	470,797	744,522
2014	253,254,985	254,225,266	970,281	0.4%	1.0647	237,858,387	152,377,958	32,022,040	50,592,267	107,980	1,625,553	463,267	669,321
2015	255,186,387	255,095,714	(90,673)	0.0%	1.0538	242,165,066	151,042,923	34,218,675	54,636,276	103,536	1,106,444	463,092	594,120
2016		258,773,135				241,363,660							
0		0				0							
0		0				0							
0		0				0							
0		0				0							
0		0				0							
Average					1.0721								
Usage Per Customer													
2006							11,588	34,117	497,886	698	610	3,242	1,386,067
2007							11,446	34,754	553,811	679	601	5,839	1,135,841
2008							11,295	33,971	620,129	668	593	6,050	1,040,153
2009							11,112	32,881	659,351	632	601	5,948	981,975
2010							10,867	33,744	751,894	581	588	6,020	1,001,807
2011							10,893	34,095	745,100	490	534	6,041	951,716
2012							10,395	33,623	752,954	659	575	6,080	819,723
2013							10,434	32,492	760,026	606	518	6,068	744,522
2014							10,502	32,305	753,235	637	556	6,129	669,321
2015							10,163	34,199	764,144	625	382	6,093	594,120
2016							10,039	33,966	804,730	618	377	6,598	542,445
0							9,916	33,735	847,471	611	373	7,145	495,264
0							9,795	33,506	892,483	604	369	7,737	452,187
0							9,675	33,278	939,886	597	365	8,378	412,857
0							9,557	33,052	989,806	590	360	9,072	376,947
0							9,440	32,827	1,042,378	584	356	9,824	344,161
2006													
2007							0.9877	1.0187	1.1123	0.9738	0.9858	1.8011	0.8195
2008							0.9868	0.9775	1.1197	0.9829	0.9861	1.0361	0.9158
2009							0.9838	0.9679	1.0632	0.9467	1.0136	0.9831	0.9441
2010							0.9780	1.0263	1.1404	0.9183	0.9796	1.0122	1.0202
2011							1.0024	1.0104	0.9910	0.8439	0.9078	1.0034	0.9500
2012							0.9543	0.9862	1.0105	1.3445	1.0771	1.0065	0.8613
2013							1.0037	0.9663	1.0094	0.9202	0.8998	0.9980	0.9083
2014							1.0065	0.9942	0.9911	1.0514	1.0740	1.0100	0.8990
2015													
Used							0.9878	0.9932	1.0531	0.9888	0.9886	1.0829	0.9130
Geomean							0.9878	0.9932	1.0531	0.9888	0.9886	1.0829	0.9130

														Residential	GS<50	GS>50	Sentinels	Streetlights	USL	Hydro One Load Transfers
Non Weather Corrected Forecast																				
2016		249,436,427	154,792,526	34,849,288	57,538,177	100,673	1,118,450	494,868	542,445	249,436,427				62.1%	14.0%	23.1%	0.0%	0.4%	0.2%	0.2%
2017	usage * customer	256,304,204	157,967,605	35,489,420	60,594,206	98,320	1,130,658	528,731	495,264	256,304,204				61.6%	13.8%	23.6%	0.0%	0.4%	0.2%	0.2%
2018	includes weather impacts	265,564,891	163,343,788	36,152,741	63,812,551	96,006	1,142,810	564,807	452,187	265,564,891				61.5%	13.6%	24.0%	0.0%	0.4%	0.2%	0.2%
2019		278,760,040	172,454,444	36,838,677	67,201,832	93,733	1,155,265	603,232	412,857	278,760,040				61.9%	13.2%	24.1%	0.0%	0.4%	0.2%	0.1%
2020		290,975,006	180,410,026	37,513,613	70,771,128	91,498	1,167,646	644,147	376,947	290,975,006				62.0%	12.9%	24.3%	0.0%	0.4%	0.2%	0.1%
2021		302,460,400	187,418,439	38,210,492	74,530,001	89,302	1,180,306	687,700	344,161	302,460,400				62.0%	12.6%	24.6%	0.0%	0.4%	0.2%	0.1%
Weather Corrected Forecast											CDM Adjustment									
2016		241,363,660	149,232,278	33,023,312	54,889,863	100,673	657,419	494,868	542,445	238,940,858	2,422,802	0		62.5%	13.8%	23.0%	0.0%	0.3%	0.2%	0.2%
2017		0	(10,373,863)	(3,645,854)	7,663,165	98,320	669,627	528,731	495,264	(4,564,610)	4,564,610	(0)		227.3%	79.9%	-167.9%	-2.2%	-14.7%	-11.6%	-10.9%
2018	this has average weather impacts	0	(11,163,556)	(4,879,891)	8,027,041	96,006	681,779	564,807	452,187	(6,221,626)	6,221,626	0		179.4%	78.4%	-129.0%	-1.5%	-11.0%	-9.1%	-7.3%
2019		0	(12,184,870)	(6,501,396)	8,412,978	93,733	694,234	603,232	412,857	(8,469,232)	8,469,232	0		143.9%	76.8%	-99.3%	-1.1%	-8.2%	-7.1%	-4.9%
2020		0	(13,272,017)	(8,235,918)	8,795,250	91,498	706,615	644,147	376,947	(10,893,477)	10,893,477	0		121.8%	75.6%	-80.7%	-0.8%	-6.5%	-5.9%	-3.5%
2021		0	(14,374,305)	(9,694,814)	9,220,557	89,302	719,275	687,700	344,161	(13,008,124)	13,008,124	0		110.5%	74.5%	-70.9%	-0.7%	-5.5%	-5.3%	-2.6%
% Weather Sensitive			82.50%	82.50%	65.00%															
2016		(8,072,767)	127,703,834	28,750,662	37,399,815	0	0	0	0	193,854,311										
2017		(256,304,204)	130,323,274	29,278,772	39,386,234	0	0	0	0	198,988,280										
2018	this has normalized weahter impacts	(265,564,891)	134,758,625	29,826,011	41,478,158	0	0	0	0	206,062,795										
2019		(278,760,040)	142,274,916	30,391,909	43,681,191	0	0	0	0	216,348,016										
2020		(290,975,006)	148,838,272	30,948,730	46,001,233	0	0	0	0	225,788,236										
2021		(302,460,400)	154,620,212	31,523,656	48,444,500	0	0	0	0	234,588,368										

Allocation of Weather Sensitive Amount

2016			(5,318,031)	(1,197,277)	(1,557,458)	0	0	0	0	(8,072,767)
2017			(167,861,158)	(37,712,132)	(50,730,914)	0	0	0	0	(256,304,204)
2018			(173,671,136)	(38,438,484)	(53,455,271)	0	0	0	0	(265,564,891)
2019			(183,318,350)	(39,159,359)	(56,282,330)	0	0	0	0	(278,760,040)
2020			(191,809,006)	(39,883,863)	(59,282,137)	0	0	0	0	(290,975,006)
2021			(199,355,541)	(40,644,204)	(62,460,654)	0	0	0	0	(302,460,400)

	CDM Adjustment										
	2016	(2,422,802)	(242,217)	(628,698)	(1,090,855)	0	(461,031)	0	0	(2,422,802)	0
load adjustment based on	2017	(4,564,610)	(480,310)	(1,423,143)	(2,200,127)	0	(461,031)	0	0	(4,564,610)	0
2015-2021 programs	2018	(6,221,626)	(836,209)	(2,594,148)	(2,330,239)	0	(461,031)	0	0	(6,221,626)	0
	2019	(8,469,232)	(1,320,964)	(4,180,714)	(2,506,524)	0	(461,031)	0	0	(8,469,232)	0
	2020	(10,893,477)	(1,873,037)	(5,865,668)	(2,693,741)	0	(461,031)	0	0	(10,893,477)	0
	2021	(13,008,124)	(2,437,202)	(7,261,102)	(2,848,789)	0	(461,031)	0	0	(13,008,124)	0

Persistence Assumption - Total

	2015	2016	2017	2018	2019	2020	2021	Total to 2020	Total to 2021
2015 Programs	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889		
2016 Programs		3,143,714	3,143,714	3,143,714	3,143,714	3,143,714	3,143,714		
2017 Programs			1,139,903	1,139,903	1,139,903	1,139,903	1,139,903		
2018 Programs				2,174,129	2,174,129	2,174,129	2,174,129		
2019 Programs					2,321,084	2,321,084	2,321,084		
2020 Programs						2,527,406	2,527,406		
2021 Programs							1,701,889		
Target Credit	1,701,889	3,143,714	1,139,903	2,174,129	2,321,084	2,527,406	1,701,889	13,008,124	14,710,013
Residential %	29.7%	23.0%	19.6%	22.5%	20.7%	24.7%	29.7%		

Persistence Assumption - Residential

2015 Programs	231,434	231,434	231,434	231,434	231,434	231,434	231,434		
2016 Programs		253,000	253,000	253,000	253,000	253,000	253,000		
2017 Programs			223,186	223,186	223,186	223,186	223,186		
2018 Programs				488,612	488,612	488,612	488,612		
2019 Programs					480,898	480,898	480,898		
2020 Programs						623,249	623,249		
2021 Programs							505,080		
Target Credit	231,434	253,000	223,186	488,612	480,898	623,249	505,080	2,300,379	2,805,459

Persistence Assumption - GS < 50 kW

2015 Programs	493,553	493,553	493,553	493,553	493,553	493,553	493,553		
2016 Programs		763,843	763,843	763,843	763,843	763,843	763,843		
2017 Programs			825,045	825,045	825,045	825,045	825,045		
2018 Programs				1,516,965	1,516,965	1,516,965	1,516,965		
2019 Programs					1,656,167	1,656,167	1,656,167		
2020 Programs						1,713,741	1,713,741		
2021 Programs							1,077,128		
Target Credit	493,553	763,843	825,045	1,516,965	1,656,167	1,713,741	1,077,128	6,969,315	8,046,443

Persistence Assumption - GS > 50 kW

2015 Programs	54,839	54,839	54,839	54,839	54,839	54,839	54,839		
2016 Programs		84,871	84,871	84,871	84,871	84,871	84,871		
2016 CHP Prj		2,042,000	2,042,000	2,042,000	2,042,000	2,042,000	2,042,000		
2017 Programs			91,672	91,672	91,672	91,672	91,672		
2018 Programs				168,552	168,552	168,552	168,552		
2019 Programs					184,019	184,019	184,019		
2020 Programs						190,416	190,416		
2021 Programs							119,681		
Target Credit	54,839	2,126,871	91,672	168,552	184,019	190,416	119,681	2,816,368	2,936,049

Persistence Assumption - Streetlight

2015 Programs	922,062	922,062	922,062	922,062	922,062	922,062	922,062		
2016 Programs		0	0	0	0	0	0		
2017 Programs			0	0	0	0	0		
2018 Programs				0	0	0	0		
2019 Programs					0	0	0		
2020 Programs						0	0		
2021 Programs							0		
Target Credit	922,062	0	0	0	0	0	0	922,062	922,062
								13,008,124	14,710,013

2015 Programs	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889	1,701,889
2016 Programs		3,143,714	3,143,714	3,143,714	3,143,714	3,143,714	3,143,714	
2017 Programs			1,139,903	1,139,903	1,139,903	1,139,903	1,139,903	
2018 Programs				2,174,129	2,174,129	2,174,129	2,174,129	
2019 Programs					2,321,084	2,321,084	2,321,084	
2020 Programs						2,527,406	2,527,406	
2021 Programs							1,701,889	

Check	0	0	0	0	0	0	0
		0	0	0	0	0	0
			0	0	0	0	0
				0	0	0	0
					0	0	0
						0	0
							0

	Residential	GS<50	GS>50	Sentinels	Streetlights	USL	Total	Number of Customers - 3 Main Classes		
2006	12,867	797	80	189	2,371	90	16,394	13,744		
2007	12,991	819	71	186	2,489	89	16,645	13,881		
2008	13,277	836	73	186	2,588	84	17,044	14,186		
2009	13,533	855	72	193	2,625	83	17,361	14,460		
2010	13,651	865	68	201	2,685	82	17,552	14,584		
2011	13,779	896	67	225	2,728	81	17,776	14,742		
2012	13,943	914	68	172	2,728	79	17,903	14,925		
2013	14,181	949	67	168	2,843	78	18,286	15,197		
2014	14,509	991	67	169	2,923	76	18,736	15,568		
2015	14,862	1,001	72	166	2,898	76	19,073	15,934		
2016	15,419	1,026	72	163	2,963	75	19,718	16,517	16,517	54
2017	15,930	1,052	72	161	3,030	74	20,319	17,054	17,054	37
2018	16,676	1,079	72	159	3,098	73	21,157	17,827	17,827	87
2019	17,824	1,107	72	157	3,168	72	22,400	19,003	19,003	107
2020	18,877	1,135	72	155	3,239	71	23,549	20,084	20,084	76
2021	19,853	1,164	72	153	3,312	70	24,624	21,089	21,089	90

Growth Rate in Customer Numbers

2006						
2007	1.0096	1.0276	0.8875	0.9841	1.0498	0.9889
2008	1.0220	1.0208	1.0282	1.0000	1.0398	0.9438
2009	1.0193	1.0227	0.9863	1.0376	1.0143	0.9881
2010	1.0087	1.0117	0.9444	1.0415	1.0229	0.9880
2011	1.0094	1.0358	0.9853	1.1194	1.0160	0.9878
2012	1.0119	1.0198	1.0137	0.7648	1.0000	0.9712
2013	1.0171	1.0389	0.9865	0.9763	1.0423	0.9862
2014	1.0231	1.0442	1.0025	1.0084	1.0281	0.9742
2015	1.0243	1.0094	1.0645	0.9784	0.9912	1.0055
Geomean	1.0161	1.0256	0.9876	0.9855	1.0225	0.9814

Year End	Residential		
2015	15,082	Year end Incr	
2016	15,756	674	56.1667
2017	16,104	348	29.0000
2018	17,248	1,144	95.3333
2019	18,399	1,151	95.9167
2020	19,354	955	79.5833
2021	20,351	997	83.0833
	5,269	5,269	439.0833

	GS>50	Sentinels	Streetlights	Total
2006	118,310	367	4,014	122,691
2007	116,956	351	4,153	121,460
2008	134,693	345	4,261	139,299
2009	136,122	339	4,370	140,832
2010	144,502	324	4,389	149,215
2011	139,425	306	4,416	144,148
2012	144,982	315	4,424	149,721
2013	130,935	283	4,149	135,367
2014	135,394	300	4,581	140,275
2015	141,987	288	3,140	145,414
2016	154,174	280	1,854	156,308
2017	21,524	273	1,889	23,686
2018	22,546	267	1,923	24,736
2019	23,630	260	1,958	25,849
2020	24,704	254	1,993	26,951
2021	25,899	248	2,029	28,175

kW/kWh

2006	0.2970%	0.2783%	0.2777%
2007	0.2974%	0.2778%	0.2776%
2008	0.2975%	0.2778%	0.2778%
2009	0.2867%	0.2778%	0.2771%
2010	0.2826%	0.2778%	0.2778%
2011	0.2793%	0.2779%	0.3030%
2012	0.2835%	0.2779%	0.2818%
2013	0.2571%	0.2779%	0.2818%
2014	0.2676%	0.2778%	0.2818%
2015	0.2599%	0.2778%	0.2838%
Average	0.2809%	0.2779%	0.2820%

Summary of Degree | TORONTO LESTER B. PEARSON INT'L A

Summary of All Heating Degree Days

Month	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	10 Year Avg	20 Year Trend				
																						2017	2018	2019	2020	2021
January	765.20	756.60	624.80	749.80	738.90	684.90	572.20	814.50	849.10	770.00	551.80	647.10	623.50	830.20	720.00	775.30	611.10	624.40	825.90	792.40	700.17	721.82	722.30	722.77	723.24	723.71
February	689.80	593.00	512.20	548.10	612.70	587.60	540.20	699.00	631.70	616.40	604.30	740.10	674.70	606.40	598.30	654.20	531.70	631.50	737.10	856.80	663.51	705.98	712.30	718.62	724.94	731.26
March	645.60	600.00	492.30	550.60	418.60	566.60	545.60	581.10	487.30	608.60	516.60	546.70	610.20	533.80	422.80	572.80	349.40	554.80	690.60	615.50	541.32	544.10	543.98	543.86	543.74	543.63
April	408.20	366.80	282.00	296.70	339.20	293.80	329.50	372.50	331.50	306.80	293.30	356.40	253.90	305.80	225.10	332.30	321.70	358.60	356.90	313.70	311.77	305.96	304.55	303.14	301.72	300.31
May	205.90	260.80	59.10	97.10	139.60	111.50	227.50	177.90	158.90	189.40	136.90	136.40	193.50	158.80	107.90	134.10	80.70	109.10	132.10	89.30	127.88	106.57	103.20	99.83	96.46	93.09
June	20.90	20.60	54.70	25.00	34.50	29.80	36.20	43.40	44.20	8.90	19.50	16.50	22.70	49.30	21.70	19.00	23.20	33.00	14.10	33.80	25.28	23.86	23.46	23.05	22.64	22.23
July	10.30	12.40	1.00	-	6.60	9.30	-	0.20	3.60	-	-	3.20	1.00	6.20	1.80	-	-	1.30	4.00	4.00	2.15	0.20	-0.06	-0.33	-0.59	-0.86
August	2.50	17.00	3.40	8.40	11.50	-	0.20	2.00	12.80	0.20	4.20	5.20	12.70	9.80	2.10	-	2.00	4.40	8.80	4.40	5.36	4.05	3.91	3.78	3.65	3.51
September	71.60	87.10	39.70	49.30	99.50	73.60	21.80	54.90	30.00	22.60	80.90	36.90	59.00	55.20	78.10	48.20	85.00	83.00	69.70	31.10	62.71	57.63	57.52	57.42	57.31	57.20
October	273.10	266.90	223.40	267.60	212.70	232.50	292.20	276.00	226.30	220.20	288.30	137.70	278.60	287.80	241.60	235.50	242.50	208.50	224.30	249.80	239.46	230.44	229.24	228.04	226.84	225.63
November	512.10	466.50	392.60	367.50	432.00	325.80	445.00	398.50	379.10	388.40	382.20	462.50	451.60	361.20	405.30	342.10	434.00	478.20	482.10	345.00	414.42	402.97	402.14	401.30	400.46	399.63
December	571.60	586.20	535.10	579.30	780.30	505.00	619.40	561.50	643.40	665.30	500.50	630.70	654.60	631.30	676.20	534.00	533.50	687.90	557.30	429.70	583.57	574.14	572.40	570.66	568.92	567.18
Total	4,176.80	4,033.90	3,220.30	3,539.40	3,826.10	3,420.40	3,629.80	3,981.50	3,797.90	3,796.80	3,378.50	3,719.40	3,836.00	3,835.80	3,500.90	3,647.50	3,214.80	3,774.70	4,102.90	3,765.50						

Summary of All Cooling Degree Days

Month	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	10 Year Avg	20 Year Trend				
																						2017	2018	2019	2020	2021
January	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
February	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
March	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.20	-	-	-	0.02	0.03	0.03	0.04	0.04	0.04
April	-	-	-	-	-	1.40	8.30	2.40	-	-	-	-	-	1.20	-	-	-	-	-	-	0.12	0.02	-0.03	-0.09	-0.15	-0.20
May	8.60	-	28.60	19.40	23.70	12.20	7.80	-	8.60	0.80	26.00	22.40	2.50	6.90	45.70	13.00	36.70	23.10	11.90	34.10	22.23	25.99	26.80	27.62	28.44	29.25
June	38.30	73.20	82.40	96.00	41.10	79.70	70.00	52.90	31.60	146.30	73.60	99.20	71.50	34.20	58.70	52.20	101.60	59.60	68.10	32.30	65.10	63.25	62.82	62.40	61.97	61.55
July	59.60	103.00	101.30	196.50	71.80	100.90	192.40	118.30	86.40	188.70	167.30	106.10	111.00	43.70	164.90	198.50	195.40	120.80	71.00	114.30	129.30	140.32	141.61	142.89	144.17	145.45
August	87.10	46.80	117.70	79.10	92.50	160.00	142.70	128.00	59.60	140.70	101.60	141.00	64.00	91.00	138.80	122.20	112.10	93.80	81.80	88.60	103.49	107.51	107.77	108.04	108.30	108.57
September	27.10	11.70	45.00	48.90	35.20	35.70	87.60	24.00	41.20	52.10	12.90	47.50	26.70	20.90	31.50	39.70	35.60	28.10	30.10	81.90	35.49	42.20	42.55	42.90	43.25	43.60
October	-	2.80	-	-	1.20	2.00	10.00	-	1.50	7.60	1.10	19.80	-	-	-	2.40	1.10	0.40	1.30	-	2.61	2.29	2.26	2.24	2.22	2.19
November	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
December	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	220.70	237.50	375.00	439.90	265.50	391.90	518.80	325.60	228.90	536.20	382.50	436.00	275.70	197.90	439.60	428.00	482.70	325.80	264.20	351.20						

2016 Load Foreacst	**kWh**	**kW**	**2015 %RPP**
Residential	149,674,174		94%
General Service < 50 kW	33,122,069		83%
General Service 50 to 4,999 kW	54,889,863	154,174	4%
Street Lighting	657,419	1,854	0%
Sentinel Lighting	100,673	280	84%
Unmetered Scattered Load	496,660		94%
TOTAL	**238,940,858**	**156,308**	

Electricity - Commodity RPP	**2016**	**2016 Loss**	**Variable Rate**		
Class per Load Forecast RPP	**Forecasted**	**Factor**	**2016**		
Residential	140,693,723	1.0723	150,865,879	$0.10728	$16,184,892
General Service < 50 kW	27,491,317	1.0723	29,478,940	$0.10728	$3,162,501
General Service 50 to 4,999 kW	2,195,595	1.0723	2,354,336	$0.10728	$252,573
Street Lighting	0	1.0723	0	$0.10728	$0
Sentinel Lighting	84,565	1.0723	90,680	$0.10728	$9,728
Unmetered Scattered Load	466,861	1.0723	500,615	$0.10728	$53,706
TOTAL	**170,932,061**		**183,290,449**		**$19,663,399**

Electricity - Commodity Non-RPP	**2016**	**2016 Loss**			
Class per Load Forecast	**Forecasted**	**Factor**	**2016**		
Residential	8,980,450	1.0723	9,629,737	$0.10670	$1,027,493
General Service < 50 kW	5,630,752	1.0723	6,037,855	$0.10670	$644,239
General Service 50 to 4,999 kW	52,694,269	1.0723	56,504,064	$0.10670	$6,028,984
Street Lighting	657,419	1.0723	704,950	$0.10670	$75,218
Sentinel Lighting	16,108	1.0723	17,272	$0.10670	$1,843
Unmetered Scattered Load	29,800	1.0723	31,954	$0.10670	$3,410
TOTAL	**68,008,797**		**72,925,833**		**$7,781,186**

$27,444,586

Transmission - Network		**Volume**			
Class per Load Forecast		**Metric**	**2016**		
Residential		kWh	160,495,616	$0.0057	$914,825
General Service < 50 kW		kWh	35,516,795	$0.0052	$184,687
General Service 50 to 4,999 kW		kW	154,174	$2.1047	$324,490
Street Lighting		kW	1,854	$1.5873	$2,943
Sentinel Lighting		kW	280	$1.5954	$446
Unmetered Scattered Load		kWh	532,569	$0.0052	$2,769
TOTAL					**$1,430,161**

Transmission - Connection		**Volume**			
Class per Load Forecast		**Metric**	**2016**		
Residential		kWh	160,495,616	$0.0041	$658,032
General Service < 50 kW		kWh	35,516,795	$0.0039	$138,515
General Service 50 to 4,999 kW		kW	154,174	$1.4837	$228,748
Street Lighting		kW	1,854	$1.1469	$2,126
Sentinel Lighting		kW	280	$1.7004	$476
Unmetered Scattered Load		kWh	532,569	$0.0039	$2,077
TOTAL					**$1,029,975**

Wholesale Market Service		**Volume**			
Class per Load Forecast		**Metric**	**2016 Rate**		
Residential		kWh	160,495,616	$0.0036	$577,784
General Service < 50 kW		kWh	35,516,795	$0.0036	$127,860

General Service 50 to 4,999 kW		kWh	58,858,400	$0.0036	$211,890
Street Lighting		kWh	704,950	$0.0036	$2,538
Sentinel Lighting		kWh	107,952	$0.0036	$389
Unmetered Scattered Load		kWh	532,569	$0.0036	$1,917
TOTAL			**256,216,282**		**$922,379**

Rural Rate Assistance		**Volume**			
Class per Load Forecast		**Metric**		**2016 Rate**	
Residential		kWh	160,495,616	$0.0013	$208,644
General Service < 50 kW		kWh	35,516,795	$0.0013	$46,172
General Service 50 to 4,999 kW		kWh	58,858,400	$0.0013	$76,516
Street Lighting		kWh	704,950	$0.0013	$916
Sentinel Lighting		kWh	107,952	$0.0013	$140
Unmetered Scattered Load		kWh	532,569	$0.0013	$692
TOTAL			**256,216,282**		**$333,081**

OESP		**Volume**			
Class per Load Forecast		**Metric**		**2016 Rate**	
Residential		kWh	160,495,616	$0.0011	$176,545
General Service < 50 kW		kWh	35,516,795	$0.0011	$39,068
General Service 50 to 4,999 kW		kWh	58,858,400	$0.0011	$64,744
Street Lighting		kWh	704,950	$0.0011	$775
Sentinel Lighting		kWh	107,952	$0.0011	$119
Unmetered Scattered Load		kWh	532,569	$0.0013	$692
TOTAL			**256,216,282**		**$281,944**

LV		**Volume**			
Class per Load Forecast		**Metric(w/o losse**		**2016 Rate**	
Residential		kWh	149,674,174	$0.0022	$329,283
General Service < 50 kW		kWh	33,122,069	$0.0020	$66,244
General Service 50 to 4,999 kW		kW	154,174	$0.7883	$121,535
Street Lighting		kW	1,854	$1.6331	$3,028
Sentinel Lighting		kW	280	$0.6065	$170
Unmetered Scattered Load		kWh	496,660	$0.0020	$993
TOTAL			**183,449,211**		**$521,254**

Summary	**2016**
4062-OESP	$ 281,944
SME	$ 155,899
4705-Power Purchased	$27,444,586
4708-Charges-WMS	$922,379
4714-Charges-NW	$1,430,161
4716-Charges-CN	$1,029,975
4730-Rural Rate Assistance	$333,081
4750-Low Voltage	$521,254
TOTAL	**32,119,278**

Calcualtion Of SME Charges

	Customers	Rate	
Residential	15,419	0.79	$146,172
GS<50	1,026	0.79	$9,726
			$155,899

2017 Load Foreacst	**kWh**	**kW**	**2015 %RPP**
Residential	149,932,101		94%
General Service < 50 kW	32,368,433		83%
General Service 50 to 4,999 kW	55,988,819	157,261	4%
Street Lighting	669,627	1,889	0%
Sentinel Lighting	98,320	273	84%
Unmetered Scattered Load	530,367		94%
TOTAL	**239,587,667**	**159,423**	

Electricity - Commodity RPP	**2017**	**2017 Loss**			
Class per Load Forecast RPP	**Forecasted**	**Factor**	**2017**		
Residential	140,936,175	1.0678	150,491,648	$0.10728	$16,144,744
General Service < 50 kW	26,865,799	1.0678	28,687,301	$0.10728	$3,077,574
General Service 50 to 4,999 kW	2,239,553	1.0678	2,391,394	$0.10728	$256,549
Street Lighting	0	1.0678	0	$0.10728	$0
Sentinel Lighting	82,588	1.0678	88,188	$0.10728	$9,461
Unmetered Scattered Load	498,545	1.0678	532,346	$0.10728	$57,110
TOTAL	**170,622,661**		**182,190,877**		**$19,545,437**

Electricity - Commodity Non-RPP	**2017**	**2017 Loss**			
Class per Load Forecast	**Forecasted**	**Factor**	**2017**		
Residential	8,995,926	1.0678	9,605,850	$0.10670	$1,024,944
General Service < 50 kW	5,502,634	1.0678	5,875,712	$0.10670	$626,938
General Service 50 to 4,999 kW	53,749,266	1.0678	57,393,467	$0.10670	$6,123,883
Street Lighting	669,627	1.0678	715,028	$0.10670	$76,293
Sentinel Lighting	15,731	1.0678	16,798	$0.10670	$1,792
Unmetered Scattered Load	31,822	1.0678	33,980	$0.10670	$3,626
TOTAL	**68,965,006**		**73,640,834**		**$7,857,477**

Transmission - Network		**Volume**			
Class per Load Forecast		**Metric**	**2017**		
Residential		kWh	160,097,498	$0.0057	$912,556
General Service < 50 kW		kW	34,563,013	$0.0052	$179,728
General Service 50 to 4,999 kW		kW	157,261	$2.1047	$330,987
Street Lighting		kWh	1,889	$1.5873	$2,998
Sentinel Lighting		kW	273	$1.5954	$436
Unmetered Scattered Load		kW	566,326	$0.0052	$2,945
TOTAL					**$1,429,649**

Transmission - Connection		**Volume**			
Class per Load Forecast		**Metric**	**2017**		
Residential		kWh	160,097,498	$0.0041	$656,400
General Service < 50 kW		kWh	34,563,013	$0.0039	$134,796
General Service 50 to 4,999 kW		kW	157,261	$1.4837	$233,328
Street Lighting		kW	1,889	$1.1469	$2,166
Sentinel Lighting		kW	273	$1.7004	$465
Unmetered Scattered Load		kWh	566,326	$0.0039	$2,209
TOTAL					**$1,029,363**

Wholesale Market Service		**Volume**			
Class per Load Forecast		**Metric**		**2017**	
Residential		kWh	160,097,498	$0.0036	$576,351
General Service < 50 kW		kWh	34,563,013	$0.0036	$124,427
General Service 50 to 4,999 kW		kWh	59,784,861	$0.0036	$215,225
Street Lighting		kWh	715,028	$0.0036	$2,574
Sentinel Lighting		kWh	104,986	$0.0036	$378
Unmetered Scattered Load		kWh	566,326	$0.0036	$2,039
TOTAL			**255,831,711**		**$920,994**

Rural Rate Assistance		**Volume**			
Class per Load Forecast		**Metric**		**2017**	
Residential		kWh	160,097,498	$0.0013	$208,127
General Service < 50 kW		kWh	34,563,013	$0.0013	$44,932
General Service 50 to 4,999 kW		kWh	59,784,861	$0.0013	$77,720
Street Lighting		kWh	715,028	$0.0013	$930
Sentinel Lighting		kWh	104,986	$0.0013	$136
Unmetered Scattered Load		kWh	566,326	$0.0013	$736
TOTAL			**255,831,711**		**$332,581**

OESP		**Volume**			
Class per Load Forecast		**Metric**		**2017**	
Residential		kWh	160,097,498	$0.0011	$176,107
General Service < 50 kW		kWh	34,563,013	$0.0011	$38,019
General Service 50 to 4,999 kW		kWh	59,784,861	$0.0011	$65,763
Street Lighting		kWh	715,028	$0.0011	$787
Sentinel Lighting		kWh	104,986	$0.0011	$115
Unmetered Scattered Load		kWh	566,326	$0.0013	$736
TOTAL			**255,831,711**		**$281,528**

LV		**Volume**			
Class per Load Forecast		**Metric(w/o losse**		**2017**	
Residential		kWh	149,932,101	$0.0028	$419,810
General Service < 50 kW		kWh	32,368,433	$0.0028	$90,632
General Service 50 to 4,999 kW		kW	157,261	$0.9912	$155,877
Street Lighting		kW	1,889	$0.9870	$1,864
Sentinel Lighting		kW	273	$1.0027	$274
Unmetered Scattered Load		kWh	530,367	$0.0028	$1,485
TOTAL			**182,990,324**		**$669,941**

Summary	**2017**
4062-OESP	$ 281,528
SME	$ 160,989
4705-Power Purchased	$27,402,914
4708-Charges-WMS	$920,994
4714-Charges-NW	$1,429,649
4716-Charges-CN	$1,029,363
4730-Rural Rate Assistance	$332,581
4750-Low Voltage	$669,941
TOTAL	**32,227,960**

Calculation Of SME Charges			
	Customers	**Rate**	
Residential	15,930	0.79	$151,016
GS<50	1,052	0.79	$9,973
			$160,989

APPENDIX B: 2-I LOAD FORECAST CDM ADJUSTMENT WORK FORM

File Number:	EB-2016-0086
Exhibit:	3
Tab:	
Schedule:	
Page:	
Date:	28-Nov-16

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.

6 Year (2015-2020) kWh Target:							
13,010,000							
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
			%				
2015 CDM Programs	4.76%	4.76%	4.76%	4.76%	4.76%	4.76%	28.57%
2016 CDM Programs		4.76%	4.76%	4.76%	4.76%	4.76%	23.81%
2017 CDM Programs			4.76%	4.76%	4.76%	4.76%	19.05%
2018 CDM Programs				4.76%	4.76%	4.76%	14.29%
2019 CDM Programs					4.76%	4.76%	9.52%
2020 CDM Programs						4.76%	4.76%
Total in Year	**4.76%**	**9.52%**	**14.29%**	**19.05%**	**23.81%**	**28.57%**	**100.00%**
			kWh				
2015 CDM Programs	619,523.81	619,523.81	619,523.81	619,523.81	619,523.81	619,523.81	3,717,142.86
2016 CDM Programs		619,523.81	619,523.81	619,523.81	619,523.81	619,523.81	3,097,619.05
2017 CDM Programs			619,523.81	619,523.81	619,523.81	619,523.81	2,478,095.24
2018 CDM Programs				619,523.81	619,523.81	619,523.81	1,858,571.43
2019 CDM Programs					619,523.81	619,523.81	1,239,047.62
2020 CDM Programs						619,523.81	619,523.81
Total in Year	**619,523.81**	**1,239,047.62**	**1,858,571.43**	**2,478,095.24**	**3,097,619.05**	**3,717,142.86**	**13,010,000.00**

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?				**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		**555545**	**-555545**	
2012 CDM program		**601538**	**-601538**	
2013 CDM program		**1063080**	**-1063080**	
2014 CDM program		**1146872**	**-1146872**	
2015 CDM program		**1850172**	**-1850172**	
2006 to 2015 OPA CDM programs: Persistence to 2017	0	5217207	-5217207	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)	619,523.81	619,523.81	619,523.81				1,858,571.43
Manual Adjustment for 2017 Load Forecast (billed basis)	309,761.90	619,523.81	309,761.90	-	-	-	1,239,047.62
Proposed Loss Factor (TLF)	1.0678%	Format: X.XX%					
Manual Adjustment for 2017 Load Forecast (system purchased basis)	313,069.54	626,139.08	313,069.54	-	-	-	1,252,278.17

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 2017 load forecast.