Exhibit 3

OPERATING REVENUE

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Exhibit 3: Operating Revenue

3.1 Load and Revenue Forecasts

3.1.1 Introduction

Exhibit 3 provides evidence for KWHI's proposed service revenue requirement of $48,771,170 including:

- $45,527,270 in base distribution revenue
- $3,243,900 in other revenue

Other Revenue includes:

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

3.1.2 Overview of Current Revenue

This Exhibit provides the details of KWHI's Operating Revenue for the 2014 Board Approved, 2014 ~ 2018 Actuals and the forecasted 2019 Bridge and 2020 Test Years. This Exhibit also provides a detailed variance analysis of the Operating Revenue components. Distribution revenue does not include revenue from commodity sales. Table 3.1.2-1 provides a summary of total revenue net of all electricity-related items.

Table 3.1.2-1 – Summary of Total Revenue

Gross Revenue (net of electricity related items)

Revenue Item	2014 Board Approved	2014 Actual CGAAP	2015 Actual MIFRS	2016 Actual	2017 Actual	2018 Actual	2019 Bridge	2020 Test
Distribution Revenue	38,449,392	37,859,292	38,030,504	40,318,129	40,176,585	41,711,864	41,917,080	45,527,270
SSS Administration Charges	251,800	258,797	272,251	269,835	276,204	282,310	288,300	292,200
Retailer Services Revenue	70,300	45,849	44,141	38,655	34,521	28,383	24,400	44,800
Late Payment Charges	266,100	266,081	265,905	228,268	196,978	203,653	205,100	207,100
Specific Service Charges	517,050	404,973	462,194	467,036	425,771	405,359	380,000	407,000
Other Distribution Revenue	541,400	548,607	548,229	561,579	557,203	597,750	633,500	958,300
Other Income and Deductions	426,700	1,194,909	(3,274,240)	1,054,301	1,493,388	3,013,190	1,365,400	1,334,500
Gross Revenue	40,522,742	40,578,506	36,348,984	42,937,803	43,160,649	46,242,508	44,813,780	48,771,170

Table 3.1.2-2 provides a summary of Distribution Revenue compared to 2014 Board Approved. The data presented in this table is inclusive of all rate riders, whether they are removed from distribution revenue as a regulatory asset/liability or not.

Table 3.1.2-2 – Summary of Gross Distribution Revenue

Distribution Revenue

Revenue	2014 Board Approved	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Bridge	2020 Test
Residential	20,965,268	20,562,008	20,895,701	22,168,556	22,499,819	23,460,555	24,097,278	26,312,908
GS<50 kW	5,423,998	5,668,569	5,404,890	5,660,242	5,615,245	5,778,444	5,744,346	6,195,147
GS>50 kW	11,181,169	10,802,927	10,853,980	11,557,868	11,146,537	11,666,321	11,226,748	12,087,641
Large User	245,561	215,152	220,443	256,618	256,922	270,014	272,843	297,667
Street Lighting	415,847	404,345	419,700	431,706	424,329	322,046	330,270	334,895
Unmetered Scatted Load	119,375	133,432	125,568	129,648	129,662	137,207	142,992	151,850
Embedded Distributor	98,174	72,859	110,223	113,492	104,072	77,277	102,603	147,161
Total Distribution Revenue	38,449,392	37,859,292	38,030,504	40,318,129	40,176,585	41,711,864	41,917,080	45,527,270

3.1.3 Proposed Load Forecast

This section presents the process used by KWHI to develop its 2019 Bridge Year and 2020 Test Year weather-normalized load and customer/connections forecast utilized in the 2020 proposed distribution rates design.

KWHI has utilized the same methodology as was approved by the OEB in KWHI's 2014 Cost of Service Application (EB-2013-0147). A copy of the model has been filed in live

Excel format (EB-20019-0049_KWHI_Appl_KWHI Load Forecast_20190430) and is included as Appendix 3-2 of this Exhibit.

3.1.4 Load Forecast Methodology and Detail

KWHI'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 a multifactor regression model that incorporates independent variables that impact the monthly historical load pattern for KWHI. Second, the weather normalized purchased energy forecast is adjusted by a historical loss factor to produce a weather normalized billed energy forecast. Next, the forecast of billed energy by rate class is developed based on a forecast of customer numbers and historical usage patterns per customer. For the rate classes that have weather sensitive load, their forecasted billed energy is adjusted to ensure that the total billed energy forecast by rate class is equivalent to the total weather normalized billed energy forecast that has been determined from the regression model.

The forecast average number of customers by rate class is determined using a geometric mean analysis. For those rate classes that use kW for the distribution volumetric billing determinant, an adjustment factor is applied to the rate class energy forecast based on the historical relationship between kW and kWh.

A detailed explanation of the load forecasting process follows.

Purchased kWh Load Forecast

An equation to predict total system purchased energy is developed using a multifactor regression model with the following independent variables: weather (heating and cooling degree days); days in month; spring/fall seasonal "flag"; CDM activity; number of peak hours and the number of residential customers. The regression model uses monthly kWh and monthly values of independent variables from January 2009 to December 2018 to determine

a prediction formula with coefficients for each independent variable. This provides 120 monthly data points which represent a reasonable data set for use in a regression analysis.

Consistent with the approach used by many other distributors in their Cost of Service Applications, KWHI submits that it is appropriate to review the impact of weather over the period January 2009 to December 2018 and then determine the average weather conditions over this period which would be applied in the prediction formula to the Bridge and Test Years.

3.1.5 Economic Overview

The City of Kitchener and the Township of Wilmot are located within the Regional Municipality of Waterloo in Southwestern Ontario. The City of Kitchener's economic heritage was mainly manufacturing but beginning in the early 2000's, several large manufacturing companies left the area and the economy has diversified to include new digital media firms in addition to Kitchener's internationally recognized finance and insurance clusters. The Township of Wilmot is a small municipality also within the Regional Municipality of Waterloo. The majority of residents live in the towns of New Hamburg and Baden and the smaller communities of St. Agatha, Petersburg, Mannheim, New Dundee, Philipsburg, Shingletown, Wilmot Centre, Haysville, Luxemburg, Lisbon, Sunfish Lake and Foxboro Green.

3.1.6 Overview of Wholesale Purchases

KWHI has utilized kWh purchases from the IESO and approximately 850 embedded generators, by month for its service territory for the period of January 1, 2009 to December 31, 2018 as part of this regression analysis. As shown in Table 3.1.6-1, KWHI has experienced a significant decline in kWh purchases. KWHI has included an adjustment to the historic purchases for the loss of street lighting consumption due to the installation of LED lighting as well as the consumption loss of three (3) large use customers, thus reducing the historic purchases to more accurately model future customer consumption.

Table 3.1.6-1 – Total System Purchases

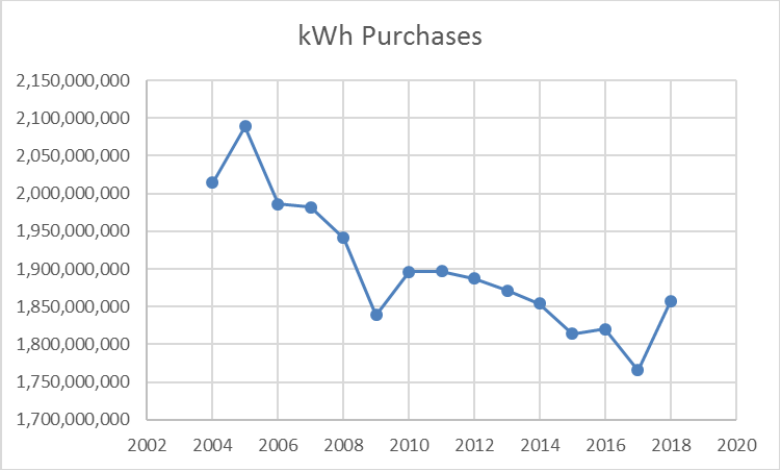


Table 3.1.6.2 illustrates the adjusted historical purchases and the purchases predicted by the model.

Table 3.1.6-2 – Adjusted Historical and Predicted Purchases

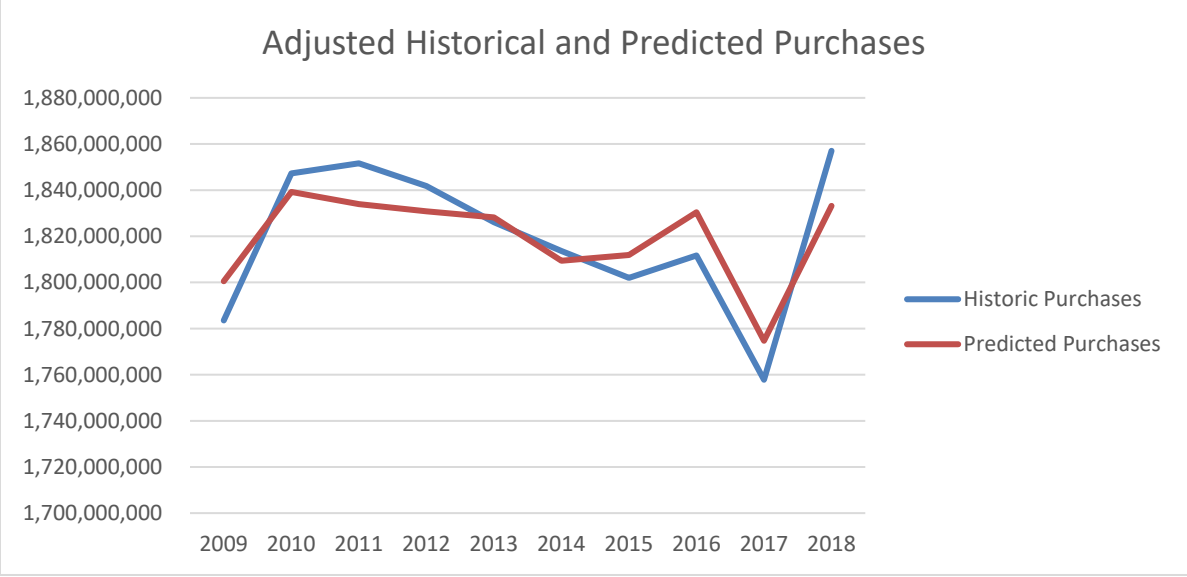


Table 3.1.6-3 – Total System Purchases

Table 3.1.6-3 Total System Purchases			
Year	**Actual**	**Predicted**	**% Difference**
Purchased Energy (GWh)			
2009	1,783.5	1,800.5	1.0%
2010	1,847.3	1,839.2	(0.4%)
2011	1,851.6	1,834.0	(1.0%)
2012	1,841.8	1,830.9	(0.6%)
2013	1,826.1	1,828.2	0.1%
2014	1,813.6	1,809.4	(0.2%)
2015	1,802.0	1,811.9	0.5%
2016	1,811.7	1,830.4	1.0%
2017	1,757.8	1,774.7	1.0%
2018	1,857.0	1,833.2	(1.3%)
2019 Weather Normal		**1,799.0**	
2020 Weather Normal		**1,806.0**	

3.1.7 Overview of Variables Used

Variables included in the model are:

- Weather (heating and cooling days)
- Number of days per month
- Spring/Fall Flag
- Number of Peak Hours
- CDM
- Residential Customers

Weather

KWHI has utilized both heating degree days and cooling degree days because weather impacts consumption in both the winter heating season and the summer cooling season. The data was sourced from the Waterloo International Airport weather station operated by Environment Canada. The 10-year average monthly values were used in the regression analysis.

Table 3.1.7-1 – 10 Year HDD and CDD Data

HDD	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	891	753	826	656	681	868	842	717	652	791
February	649	644	686	573	697	831	917	627	538	595
March	563	471	624	370	612	757	657	493	598	591
April	343	265	361	366	385	391	359	432	282	475
May	193	145	156	108	153	172	117	175	214	95
June	76	39	49	42	55	38	57	51	45	36
July	38	9	1	1	15	37	20	5	3	4
August	35	13	7	20	33	32	30	2	35	7
September	100	123	99	126	131	118	58	69	81	77
October	330	286	281	281	261	272	291	248	209	320
November	397	454	383	484	518	532	392	389	480	539
December	669	719	575	565	727	598	468	648	756	601
CDD	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-	-	-
April	3	-	-	-	-	-	-	-	-	-
May	2	21	13	18	20	9	29	18	3	33
June	26	32	22	60	37	44	15	34	43	42
July	14	105	128	126	85	38	57	102	59	89
August	57	85	62	58	42	27	48	104	29	94
September	5	23	21	16	21	11	45	26	36	49
October	-	-	-	-	-	-	-	2	3	5
November	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-	-	-

Number of days per month

KWHI has used the number of days per month variable to identify less/more days in a calendar month.

Spring/Fall Flag

A binary variable representing shoulder month consumption has also been included. The shoulder variable designates the months of March, April, May, September, October and November as shoulder months. Therefore, the variable takes a value of 1 in these months and a value of 0 in all other months.

Number of Peak Hours

This measurement of the daylight hours per month captures the variation in demand between months due to the need for electric lighting.

Conservation and Demand Management

The CDM activity variable is an estimated level of monthly activity in Conservation and Demand Management (CDM). For each year, the monthly values grow at a constant value over the year. For the years 2005 to 2017, the addition of the monthly CDM activity will equal the Net Energy Savings from the 2008 Final CDM Results for Third-Tranche programs submitted to the Board, the 2006-2010 Final CDM Results and the 2011 through 2017 Final CDM Results as published by the IESO. Table 3.1.7-2 outlines the Net Energy Savings for the years 2005 to 2017. The impact of 2019 and 2020 CDM programs has not been included in the CDM activity variable since they do not impact the actual purchases used in the regression analysis. A discussion on how the load forecast is adjusted for 2019 and 2020 programs and how Lost Revenue Adjustment Mechanism (LRAM) variance account values are determined by rate class is provided later in this Exhibit.

Half Year Rule

As noted in the Filing Requirements, dated July 18, 2014, although it is recognized that the CDM programs in a year are not in effect for the full year, the CDM results reported by the IESO are annualized. In light of this, KWHI is proposing that it is appropriate to use the methodology introduced by Board staff in London Hydro's Cost of Service Application, EB-2012-0146/EB-2012-0380 in order to estimate the impact of CDM on historical load. In its Interrogatories, Board staff proposed a methodology for implementing the half-year rule for London Hydro's CDM variable. KWHI has used the methodology proposed by Board staff to estimate the monthly impact of its 2006 to 2017 CDM savings in order to record the impact of CDM to historical load data.

Table 3.1.7-2 – CDM Activity Variable Supporting Data

Program Year	2013	2014	2015	2016	2017	2018	2019	2020
Third Tranche	9,108,721	9,108,721	8,889,479	8,889,479	8,433,284	7,106,535	7,106,535	7,106,535
2006	958,933	901,065	901,065	851,308	851,308	851,308	851,308	770,593
2007	2,920,742	2,920,674	1,036,730	900,764	577,413	577,413	577,413	577,413
2008	3,372,859	3,070,530	2,844,942	2,206,893	1,920,979	1,772,269	1,772,269	1,743,360
2009	7,796,526	7,491,580	7,041,836	6,832,205	5,280,326	3,555,175	2,950,717	864,117
2010	7,117,426	7,023,483	6,565,926	6,533,244	6,022,794	4,928,030	1,963,457	1,202,683
2011	13,123,211	12,936,022	12,318,158	11,872,233	11,206,434	11,199,433	10,960,078	10,531,707
2012	6,754,594	6,679,287	6,359,018	6,093,073	5,398,744	5,172,457	5,168,162	4,975,668
2013	10,156,432	9,881,775	8,950,597	8,751,966	8,052,439	7,902,937	7,889,636	7,876,805
2014		10,262,354	9,722,970	9,493,634	9,308,070	8,464,732	8,417,314	8,197,711
2015			26,122,981	26,071,643	26,001,608	26,015,673	26,003,647	25,991,840
2016				21,628,788	21,628,788	22,395,334	22,395,334	22,395,334
2017					43,015,770	39,769,271	39,769,271	39,768,618
2018								
2019								
2020								
Total	61,309,444	70,275,491	90,753,702	110,125,229	147,697,956	139,710,565	135,825,138	132,002,384

Residential Customers

The number of residential customers is based on historical information from KWHI's billing system and population forecast for both the City of Kitchener and the Township of Wilmot.

The monthly data used in the regression model and the resulting monthly prediction for the actual and forecasted years is provided in Appendix 3-2 as well as filed in the live Excel format (EB-2019-0049_KWHI_Appl_KWHI Load Forecast Model_20190430).

3.1.8 Regression Results

The regression statistics achieved in the load forecast (shown below) indicate a very high degree of accuracy to the actual data set.

Regression Statistics	
Multiple R	0.960789868
R Square	0.923117170
Adjusted R Square	0.918311993
Standard Error	3285390.358
Observations	120

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	7	1.45151E+16	2.07358E+15	208.9993424	3.25214E-61
Residual	112	1.2089E+15	1.07938E+13		
Total	119	1.5724E+16	0		

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-2768767.489	29744463.48	-0.093085138	0.926002233	-61703609.07	56166074.09	-61703609.07	56166074.09
Heating Degree Days	39852.28035	1748.073008	22.7978352	6.98122E-44	36388.69776	43315.86294	36388.69776	43315.86294
Cooling Degree Days	376298.9239	17358.67537	21.67785939	7.00393E-42	341904.9338	410692.914	341904.9338	410692.914
Number of Days in Month	3585328.515	431109.0053	8.316524291	2.41877E-13	2731141.282	4439515.747	2731141.282	4439515.747
Spring Fall Flag	-5666921.725	753200.9761	-7.523784361	1.43632E-11	-7159292.91	-4174550.54	-7159292.91	-4174550.54
Number of Peak Hours	74947.71476	20250.61648	3.701009045	0.000334704	34823.71403	115071.7155	34823.71403	115071.7155
CDM	-0.363377575	0.418060482	-0.869198575	0.386597409	-1.191710831	0.464955681	-1.191710831	0.464955681
Residential Customers	58.48715351	365.4605251	0.160036856	0.873140315	-665.6260304	782.6003374	-665.6260304	782.6003374

KWHI's Monthly Predicted kWh Purchases

= Heating Degree Days * 39,852
+ Cooling Degree Days * 376,299
+ Number of Days in the Month * 3,585,329
+ Spring Fall Flag * (5,666,922)
+ Number of Peak Hours * 74,948
+ CDM Activity * (0.36)
+ Residential Customers * 58
+ Intercept of (2,768,767)

The prediction formula indicates a very good fit to the actual data set.

3.1.9 Determination of Customer Forecast

Once the total weather normalized system purchases is determined this amount must be distributed by rate class for the purpose of rate design. This is completed based on the forecast and expected usage per customer or connection by rate class. KWHI has used a growth rate equal to the geometric mean (2009-2018) for all classes, with the exception, of Residential. The Residential class forecast customer count has been increased by 1.4% for

the 2020 Test Year rather than the 1.5 % calculated because 2016 and 2017 had some unusual increases that affected the geomean.

In late 2017, KWHI completed the transfers of long-term load transfers with its neighbouring utility, Hydro One Networks Inc. (HONI). As a result, 55 residential customers and 12 General Service<50 kW (GS<50) customers were transferred from HONI to KWHI. The ten year average customer count information is found in Table 3.1.9-1 below,

Table 3.1.9-1 – Historical Customer/Connection Data

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
Number of Customers/Connections							
2009	76,255	7,370	1,005	3	1,551	817	87,001
2010	77,506	7,448	989	1	1,574	811	88,329
2011	78,761	7,538	975	2	1,568	841	89,685
2012	79,997	7,645	952	2	1,573	869	91,038
2013	80,893	7,687	950	3	1,551	844	91,928
2014	81,868	7,744	944	2	1,616	877	93,051
2015	83,106	7,796	939	1	1,637	891	94,370
2016	84,530	7,845	940	1	1,653	866	95,835
2017	86,064	7,936	936	1	1,696	886	97,519
2018	87,395	7,983	950	1	1,666	931	98,926

From the historic data, the growth rate for each class is determined. The results are displayed in Table 3.1.9-2.

Table 3.1.9-2 – Growth Rate in Customer/Connections

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL
Growth Rate in Customers/Connections for Energy						
2009	1.0%	0.9%	0.9%	0.0%	(0.0%)	0.2%
2010	1.6%	1.1%	(1.6%)	(66.7%)	1.5%	(0.7%)
2011	1.6%	1.2%	(1.4%)	100.0%	(0.4%)	3.7%
2012	1.6%	1.4%	(2.4%)	0.0%	0.3%	3.3%
2013	1.1%	0.5%	(0.2%)	50.0%	(1.4%)	(2.9%)
2014	1.2%	0.7%	(0.6%)	(33.3%)	4.2%	3.9%
2015	1.5%	0.7%	(0.5%)	(50.0%)	1.3%	1.6%
2016	1.7%	0.6%	0.1%	0.0%	1.0%	(2.8%)
2017	1.8%	1.2%	(0.4%)	0.0%	2.6%	2.3%
2018	1.5%	0.6%	1.5%	0.0%	(1.8%)	5.1%

The geomean (2009-2018) has been applied to determine the forecast number of customers. Table 3.1.9-3 shows the forecasted number of customers/connections for KWHI for the 2019 Bridge and the 2020 Test Years.

Table 3.1.9-3 – Customer/Connection Forecast

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
Forecast Number of Customers/Connections							
2019 Bridge	88,619	8,059	944	1	1,681	943	100,247
2020 Test	89,860	8,136	938	1	1,696	955	101,586

The historic average annual consumption per customer/connection is used to determine the non-normalized weather forecast usage per customer/connection. The historic values are shown in Table 3.1.9-4.

Table 3.1.9-4 – Annual Usage per Customer/Connection

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL
Usage per Customer/Connection (kWh per customer/connection)						
2014 Board Approved	7,892	30,867	894,838	31,798,990	10,133	3,838
2009 Actual	8,221	31,289	816,816	26,600,000	10,251	4,039
2010 Actual	8,395	31,700	886,653	46,600,000	10,165	4,069
2011 Actual	8,219	31,865	893,641	28,000,000	10,140	3,924
2012 Actual	8,057	31,524	893,697	34,700,000	10,108	4,258
2013 Actual	7,915	31,378	866,947	29,500,000	10,316	4,384
2014 Actual	7,783	31,276	890,466	31,700,000	9,901	4,561
2015 Actual	7,649	30,528	887,007	35,800,000	9,896	4,377
2016 Actual	7,698	30,478	879,681	28,900,000	9,861	4,503
2017 Actual	7,227	29,309	859,188	31,400,000	8,785	4,402
2018 Actual	7,790	30,139	883,895	33,400,000	4,502	4,296
2019 Bridge	**7,441**	**28,552**	**844,703**	**34,200,000**	**4,402**	**4,348**
2020 Test	**7,472**	**28,343**	**828,891**	**35,100,000**	**4,304**	**4,398**

3.1.10 Determination of Weather Normalized Forecast

The forecasted weather normalized billed kWh for the 2019 Bridge Year and 2020 Test year are shown in Table 3.1.10-1. These amounts are then adjusted based on weather sensitivity factors.

Table 3.1.10-1 – Non-Normalized Weather Billed Forecast (GWh)

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
Non-normalized Weather Billed Energy Forecast (GWh)							
2019 (Not Normalized)	686.2	241.9	823.0	34.2	7.4	4.1	1,796.8
2020 (Not Normalized)	691.7	243.2	806.8	35.1	7.3	4.2	1,788.3

To determine the weather sensitivity of the various rate classes, KWHI utilized the HONI weather sensitivity data prepared in the 2006 Load Profile Study for KWHI. These amounts are shown in Table 3.1.10-2.

Table 3.1.10-2 – Weather Sensitivity by Rate Class

Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL
Weather Sensitivity					
82.0%	82.0%	64.0%	0.0%	0.0%	0.0%

KWHI then allocated the necessary weather sensitivity adjustment among the applicable rate classes to calculate the 2019 Bridge and 2020 Test Year weather normalized kWh forecast. The results are presented in Table 3.1.10-3. These results are exclusive of adjustments for CDM. The impact and persistence of the CDM programs is discussed further in section 3.2.

Table 3.1.10-3 – Normalized Weather Billed Forecast (GWh)

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
Normalized Weather Billed Energy Forecast (GWh)							
2019 (Normalized)	659.9	232.6	804.6	34.2	7.4	4.1	1,742.8
2020 (Normalized)	672.6	236.5	794.0	35.1	7.3	4.2	1,749.7

KWHI then adjusted the kWh further to reduce the expected load forecast for the anticipated CDM program savings. The result of these adjustments is the final load forecast for KWHI and is presented in Table 3.1.10-4.

Table 3.1.10-4 – CDM Adjusted Normalized Weather Billed Forecast (GWh)

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
Normalized Weather Billed Energy Forecast (GWh)							
2019 (Normalized)	659.4	230.1	797.4	34.2	7.4	4.1	1,732.6
2020 (Normalized)	671.4	230.6	777.5	35.1	7.3	4.2	1,726.1

3.1.11 Billed kW Load Forecast

The volumetric revenue components for General Service>50 kW (GS>50), Large User, Street Lighting and Embedded Distributor are calculated based on billed kW demand. Since

the load forecast is calculated based on kWh, forecasted kW for these classes must be correlated with the forecasted kWh for each class. Table 3.1.11-1 presents the historical billed kW.

Table 3.1.11-1 – Historical Annual kW per Applicable Rate Class

Year	GS>50 kW	Large User	Street Lighting	Total
Billed Annual kW				
2009	2,169,096	171,311	44,226	2,384,633
2010	2,260,312	95,621	44,895	2,400,828
2011	2,244,883	105,771	44,252	2,394,906
2012	2,227,931	136,790	44,229	2,408,950
2013	2,225,336	181,961	44,582	2,451,879
2014	2,159,271	126,219	44,712	2,330,202
2015	2,147,080	62,998	45,213	2,255,291
2016	2,170,742	62,931	45,218	2,278,892
2017	2,109,153	58,806	42,036	2,209,995
2018	2,202,763	69,011	20,809	2,292,582

The annual historical ratios are then calculated between the billed kW and the billed kWh. KWHI utilized the average of 2009 to 2018 for all classes, with the exception, of the GS>50 kW class. The average of 2013 to 2018 was used for this class because the transition of Class A customers and the Wholesale Market Participants produced results that were unreasonable as the ratios are different for primary metered customers.

The resulting percentages are shown in Table 3.1.11-2.

Table 3.1.11-2 – Historical kW/kWh Ratio per Applicable Rate Class

Year	GS>50 kW	Large User	Street Lighting
Ratio of kW to kWh			
2009	0.2642%	0.2146%	0.2778%
2010	0.2578%	0.2054%	0.2800%
2011	0.2577%	0.1888%	0.2791%
2012	0.2622%	0.1972%	0.2774%
2013	0.2716%	0.2056%	0.2789%
2014	0.2600%	0.1989%	0.2788%
2015	0.2608%	0.1761%	0.2790%
2016	0.2648%	0.2177%	0.2781%
2017	0.2668%	0.1871%	0.2827%
2018	0.2700%	0.2068%	0.2787%
Average 2009 to 2018	**0.2657%**	**0.1998%**	**0.2791%**

To derive forecasted amounts, KWHI then applied the average relationship by rate class to the 2019 Bridge Year weather normalized CDM adjusted forecast. The same approach is used for the 2020 Test Year as well. The results are shown in Table 3.1.11-3.

Table 3.1.11-3 – kW Forecast by Applicable Rate Class

Year	GS>50 kW	Large User	Street Lighting	Total
Predicted Billed kW				
2019 Normalized Bridge	2,025,253	68,383	20,613	2,114,249
2020 Normalized Test	1,974,563	70,127	20,391	2,065,081

3.2 Impact and Persistence from Historical CDM Programs

The load forecast, which draws on the regression analysis of historical usage inherently includes some but not all CDM efforts. KWHI has made a manual adjustment to its load forecast to capture forecasted future amounts.

KWHI has followed the OEB's Guidelines for Electricity Distributor Conservation Demand Management (EB-2012-0003) in its load forecast adjustments for CDM impacts. In the process of developing its 2019 Bridge Year and 2020 Test Year Load Forecast, Appendix 2-I was completed. The results of Appendix 2-I were integrated as a manual adjustment to the 2019 Bridge Year and 2020 Test Year. Table 3.2.1 illustrates the savings forecast and Table 3.2.-2 shows the manual adjustment adjusted for the ½ year rule Appendix 3-1 contains a copy of the completed Appendix 2-I which has also been submitted in live Excel format (EB-2019-0049_KWHI_Appl_Chapter 2 Filing Appendices_20190430).

Table 3.2-1 – Net Savings Forecast

5 Year 2015 to 2020 kWh Net Savings Forecast							
105,710,000							
	2015	2016	2017	2018	2019	2020	Total
2015 Programs	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	16.7%
2016 Programs		3.3%	3.3%	3.3%	3.3%	3.3%	16.7%
2017 Programs			4.2%	4.2%	4.2%	4.2%	16.7%
2018 Programs				5.6%	5.6%	5.6%	16.7%
2019 Programs					8.3%	8.3%	16.7%
2020 Programs						16.7%	16.7%
kWh							
2015 Programs	2,936,389	2,936,389	2,936,389	2,936,389	2,936,389	2,936,389	17,618,333
2016 Programs		3,523,667	3,523,667	3,523,667	3,523,667	3,523,667	17,618,333
2017 Programs			4,404,583	4,404,583	4,404,583	4,404,583	17,618,333
2018 Programs				5,872,778	5,872,778	5,872,778	17,618,333
2019 Programs					8,809,167	8,809,167	17,618,333
2020 Programs						17,618,333	17,618,333

Table 3.2-2 – Appendix 2-I Manual CDM Adjustment

	2019	2020
Total Manual CDM Adjustment (kWh)	10,277,361	23,491,111

3.2.1 Allocation of CDM Results

Based on input from the CDM staff at KWHI, Table 3.2.1-1 indicates the amounts allocated to the various classes.

Table 3.2.1-1 – Rate Class CDM Allocator

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
2019 Bridge	5%	25%	70%	0%	0%	0%	100%
2020 Test	5%	25%	70%	0%	0%	0%	100%

After applying the percentages, the kWh adjustments shown in Table 3.2.1-2 have been made to the load forecast.

Table 3.2.1-2 – Manual CDM Adjustment by Rate Class

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
2019 Bridge	(513,868)	(2,569,340)	(7,194,153)	0	0	0	(10,277,361)
2020 Test	(1,174,556)	(5,872,778)	(16,443,778)	0	0	0	(23,491,111)

Table 3.2.1-3 shows the alignment of the non-weather normal to the weather normal, then illustrates the further adjustment to the CDM adjusted weather normal forecast.

Table 3.2.1-3 – Alignment of Non-Weather to CDM Adjusted Weather Normal

Year	Residential	GS<50 kW	GS>50 kW	Large User	Street Lighting	USL	Total
Non-normalized Weather Billed Energy Forecast (GWh)							
2019 Non-Normalized Bridge	686.2	241.9	823.0	34.2	7.4	4.1	1,796.8
2020 Non-Normalized Test	691.7	243.2	806.8	35.1	7.3	4.2	1,788.3
Weather Adjustment (GWh)							
2019 Bridge	(26.3)	(9.3)	(18.3)	0.0	0.0	0.0	(53.9)
2020 Test	(19.1)	(6.7)	(12.8)	0.0	0.0	0.0	(38.6)
CDM Adjustment (GWh)							
2019 Bridge	(0.5)	(2.6)	(7.2)	0.0	0.0	0.0	(10.3)
2020 Test	(1.2)	(5.9)	(16.4)	0.0	0.0	0.0	(23.5)
Weather Normalized Billed Energy Forecast (GWh)							
2019 Normalized Bridge	659.4	230.0	797.5	34.2	7.4	4.1	1,732.6
2020 Normalized Test	671.4	230.6	777.6	35.1	7.3	4.2	1,726.2

3.2.2 Final CDM Adjusted Load Forecast

KWHI has completed Board Appendix 2-I, Summary and Variances of Actual and Forecast Data, A copy is attached as Appendix 3-1 and has been filed in live Excel format (EB-2019-0049_KWHI_Appl_Filing_Req_Chap2_Appendices_20190430). Table 3.2.2-1 below provides a

summary of the total forecasted customers/connections, forecasted billed kWh and kW for all customer classes including CDM adjustments. Embedded Distributor consumption and kW demand are also forecasted.

Table 3.2.2-1 – Summary of Forecast

	2014 Board Approved	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Normalized Bridge	2020 Normalized Test
ACTUAL AND PREDICTED KWH PURCHASES								
Actual kWh Purchases		1,813,646,737	1,801,989,952	1,811,690,676	1,757,808,742	1,857,049,843		
Predicted kWh Purchases		1,809,415,813	1,811,886,027	1,830,430,876	1,774,710,777	1,833,212,923	1,798,998,944	1,806,036,789
% Difference of actual and predicted purchases		(0.2%)	0.5%	1.0%	1.0%	(1.3%)		
BILLING DETERMINANTS BY CLASS								
Residential								
Customers	82,577	81,868	83,106	84,530	86,064	87,395	88,619	89,860
kWh	651,728,155	637,186,640	635,723,827	650,672,520	621,996,671	680,846,103	659,417,797	671,446,586
GS<50 kW								
Customers	7,830	7,744	7,796	7,845	7,936	7,983	8,059	8,136
kWh	241,683,206	242,185,854	237,964,967	239,091,361	232,588,463	240,602,997	230,055,002	230,635,457
GS>50 kW								
Customers	945	944	939	940	936	950	944	938
kWh	845,285,977	840,637,054	832,883,576	826,789,278	804,219,318	839,662,733	797,429,992	777,549,790
kW	2,236,472	2,159,271	2,147,080	2,170,742	2,109,153	2,202,763	2,059,333	2,008,643
Large User								
Customers	1	2	1	1	1	1	1	1
kWh	31,798,990	63,442,910	35,769,406	28,906,567	31,425,634	33,369,028	34,219,939	35,092,547
kW	63,002	126,219	62,998	62,931	58,806	69,011	68,383	70,127
Street Lighting								
Connections	1,592	1,616	1,637	1,653	1,696	1,666	1,681	1,696
kWh	16,128,465	16,039,251	16,203,416	16,260,857	14,867,141	7,466,579	7,386,896	7,307,482
kW	45,145	44,712	45,213	45,218	42,036	20,809	20,613	20,391
USL								
Connections	890	877	891	891	886	931	943	955
kWh	3,417,188	4,039,940	3,943,092	3,917,912	3,907,712	4,009,942	4,091,278	4,173,587
Sub-Total of Above								
Customer/Connections	93,835	93,051	94,370	95,860	97,519	98,926	100,247	101,586
kWh	1,790,041,981	1,803,531,651	1,762,488,284	1,765,638,494	1,709,004,940	1,805,957,382	1,732,600,903	1,726,205,449
kW from applicable classes	2,344,619	2,330,202	2,255,291	2,278,892	2,209,995	2,292,582	2,148,329	2,099,161
Embedded Distributor	1	1	1	1	1	1	1	1
kWh	20,328,822	14,039,293	23,075,917	19,564,437	20,383,812	12,731,869	19,053,029	19,053,029
kW	44,674	32,611	49,709	49,930	44,998	33,065	43,316	43,316
Total incl Embedded Distributor								
Customer/Connections	93,836	93,052	94,371	95,861	97,520	98,927	100,248	101,587
kWh	1,810,370,803	1,817,570,944	1,785,564,201	1,785,202,931	1,729,388,751	1,818,689,251	1,751,653,932	1,745,258,478
kW from applicable classes	2,389,292	2,362,814	2,305,000	2,328,822	2,254,994	2,325,648	2,191,645	2,142,477

3.3 Accuracy of Load Forecast and Variance Analyses

3.3.1 Variance Analysis of Load Forecast and Distribution Revenue

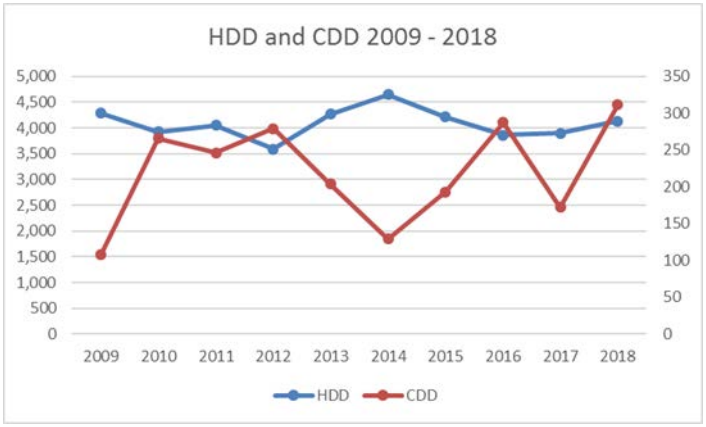
Distribution Revenue in this Application includes fixed charges revenue from monthly charges multiplied by the number of customers plus variable charges revenue from the consumption of KWHI's seven rate classes (Residential, GS<50 kW, GS>50 kW, Large User, Street Lighting, Unmetered Scattered Load (USL) and Embedded Distributor). The distribution revenue is shown in Table 3.3.1-1. Note that 2016 also had approximately $500K of LRAM revenue from EB-2014-0089.

Table 3.3.1-1 – Distribution Revenue

Distribution Revenue								
Revenue	2014 Board Approved	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Bridge	2020 Test
Residential	20,965,268	20,562,008	20,895,701	22,168,556	22,499,819	23,460,555	24,097,278	26,312,908
GS<50 kW	5,423,998	5,668,569	5,404,890	5,660,242	5,615,245	5,778,444	5,744,346	6,195,147
GS>50 kW	11,181,169	10,802,927	10,853,980	11,557,868	11,146,537	11,666,321	11,226,748	12,087,641
Large User	245,561	215,152	220,443	256,618	256,922	270,014	272,843	297,667
Street Lighting	415,847	404,345	419,700	431,706	424,329	322,046	330,270	334,895
Unmetered Scatted Load	119,375	133,432	125,568	129,648	129,662	137,207	142,992	151,850
Embedded Distributor	98,174	72,859	110,223	113,492	104,072	77,277	102,603	147,161
Total Distribution Revenue	38,449,392	37,859,292	38,030,504	40,318,129	40,176,585	41,711,864	41,917,080	45,527,270

Slightly more than half of KWHI's distribution revenue comes from the Residential class; therefore, the weather had a substantial impact on the consumption patterns and revenue. With the move to fixed rates for this class (Residential rates are fully fixed effective January 1, 2019), it is expected that there will be more revenue stability in this class.

KWHI is typically a summer peaking utility as air conditioning load is increased in periods of warmer summer temperatures. As can be seen in the chart below – the cooling degree days (CDD) are erratic. The heating degree days (HDD) also have an impact but the CDD typically have a more defined impact.



The GS<50 kW class includes small commercial businesses typically neighbouring the residential areas of the service area. GS<50 kW and the residential rate class are symbiotic in nature.

The GS>50 kW class includes large commercial and industrial businesses. The customers in this rate class vary both in numbers and kW demand relative to the economic environment. Traditionally this class is not greatly affected by weather patterns. KWHI has five (5) wholesale market participants in the GS>50 kW class that are included in the Distribution Revenue but not in the Cost of Power calculations.

KWHI has one large user. Previously there were two but during the last Cost of Service Application, KWHI was in the process of its other large user closing its operations. The plant started shutting down operations in October 2014. The distribution revenue related to the account has been transferred to a variance account as ordered in EB-2013-0047. The plant was reclassified in March 2015 to be a GS>50 kW class customer due to reduced demand and the plant ceased being a customer in September 2017 and the building was demolished in 2018.

The Street Lighting class is billed on a per-connection basis, rather than on customer count

The USL class includes small unmetered loads such as bus shelters and cable television amplifiers. This class is billed on a per-connection basis, rather than on customer count. Growth in the USL class often directly correlates to the population growth in KWHI's service area.

KWHI has only one Embedded Distributor, Waterloo North Hydro Inc. (WNHI) since 2002 and expects that it will continue to have only one Embedded Distributor in 2020 and beyond.

WNHI is billed directly from the IESO for power consumed.

Table 3.3.1.1-1 – 2014 Board Approved vs 2014 Actual

Rate Class	2014 Board Approved				2014 Actual				Variance			
	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$
Residential	82,577	651,728,155		$ 20,965,268	81,868	637,186,640		$ 20,562,008	(709)	-14,541,515	-	(403,260)
GS <50kW	7,830	241,683,206		$ 5,423,998	7,744	242,185,854		$ 5,668,569	(86)	502,648	-	244,571
GS >50kW	945	845,285,977	2,236,472	$ 11,181,169	944	840,637,054	2,159,271	$ 10,802,927	(1)	-4,648,923	(77,201)	(378,242)
Large User	1	31,798,990	63,002	$ 245,561	2	63,442,910	126,219	$ 215,152	1	31,643,920	63,218	(30,409)
SL	1,592	16,128,465	45,145	$ 415,847	1,616	16,039,251	44,712	$ 404,345	24	-89,213	(433)	(11,502)
USL	890	3,417,188		$ 119,375	877	4,039,940		$ 133,432	(13)	622,752	-	14,057
ED	1	20,328,822	44,674	$ 98,174	1	14,039,293	32,611	$ 72,859	0	-6,289,529	(12,062)	(25,315)
Total	93,836	1,810,370,803	2,389,292	38,449,392	93,052	1,817,570,944	2,362,814	37,859,292	(784)	7,200,140	(26,479)	$ (590,100)

Table 3.3.1.1-1 shows that the year 2014 saw a decrease of $590K in distribution revenue over the Board Approved amount – a 1.53% decrease. The primary drivers of this decrease are:

- Overestimation of the customer count.
- Overestimation of the kW demand. As can be seen in Table 3.3.1-1, KWHI had two Large Use customers in 2014; however, one of these customers only briefly transferred to the Large User category from the GS>50kW rate class during the year before transferring back to GS>50 kW.
- CDM impacts were underestimated. KWHI delivered seventeen (17) Consumer, Business and Industrial programs over the 2011-2014 period with a total of 96,532,461 kWh net cumulative energy savings. The target was 90,290,000 with KWHI achieving 114% of its target.

- September and October saw zero consumption for the Embedded Distributor class due to a thunderstorm and repairs that WNHI needed to undertake.
- While there was no month, in particular, standing out, the CDD were lower in 2014 than in 2013.

Statistic	2013	2014	Degree Variance	%% Variance
Heating Degree Days	4,234.8	4,633.1	398.3	9.41%
Cooling Degree Days	199.4	131.6	-67.8	-34.00%
Mean Temperature	6.8	5.6	-1.2	-18.10%
Daily High (average)	12.0	11.0	-1.0	-8.22%
Daily Low (average)	1.5	0.1	-1.5	-96.70%

Table 3.3.1.1-2 – 2014 Actual vs 2015 Actual

Rate Class	2014 Actual				2015 Actual				Variance			
	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$
Residential	81,868	637,186,640		$ 20,562,008	83,106	635,723,827		$ 20,895,701	1,238	-1,462,813	-	333,693
GS <50kW	7,744	242,185,854		$ 5,668,569	7,796	237,964,967		$ 5,404,890	52	-4,220,887	-	(263,679)
GS >50kW	944	840,637,054	2,159,271	$ 10,802,927	939	832,883,576	2,147,080	$ 10,853,980	(5)	-7,753,478	(12,191)	51,053
Large User	2	63,442,910	126,219	$ 215,152	1	35,769,406	62,998	$ 220,443	(1)	-27,673,505	(63,222)	5,291
SL	1,616	16,039,251	44,712	$ 404,345	1,637	16,203,416	45,213	$ 419,700	21	164,164	501	15,355
USL	877	4,039,940		$ 133,432	891	3,943,092		$ 125,568	14	-96,848	-	(7,864)
ED	1	14,039,293	32,611	$ 72,859	1	23,075,917	49,709	$ 110,223	0	9,036,624	17,097	37,365
Total	93,052	1,817,570,944	2,362,814	37,859,292	94,371	1,785,564,201	2,305,000	38,030,504	1,319	-32,006,743	(57,814)	$ 171,213

In 2015 as shown in Table 3.3.1.1-2, an increase of $171K or 0.45% was achieved in the Distribution Revenue. Factors contributing to this increase are:

- Price cap index adjustment of 1.45%
- Both General Service classes were lower than 2014 actual and still not at the 2014 Board Approved level.
- KWHI achieved a 114.09% success rate for the 2011-2014 programs target of 90.29 GWh contributing to the lower consumption and demand. Also a new six-year energy conservation framework began in 2015 with aggressive targets, resulting in further reduces consumption and demand.

Table 3.3.1.1-3 – 2015 Actual vs 2016 Actual

Rate Class	2015 Actual				2016 Actual				Variance			
	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$
Residential	83,106	635,723,827		$ 20,895,701	84,530	650,672,520		$ 22,168,556	1,424	14,948,693	-	1,272,855
GS <50kW	7,796	237,964,967		$ 5,404,890	7,845	239,091,361		$ 5,660,242	49	1,126,394	-	255,352
GS >50kW	939	832,883,576	2,147,080	$ 10,853,980	940	826,940,979	2,170,742	$ 11,557,868	1	-5,942,597	23,662	703,888
Large User	1	35,769,406	62,998	$ 220,443	1	28,906,567	62,931	$ 256,618	0	-6,862,839	(67)	36,175
SL	1,637	16,203,416	45,213	$ 419,700	1,653	16,260,857	45,218	$ 431,706	16	57,441	5	12,006
USL	891	3,943,092		$ 125,568	866	3,917,912		$ 129,648	(25)	-25,180	-	4,080
ED	1	23,075,917	49,709	$ 110,223	1	19,564,437	49,930	$ 113,492	0	-3,511,480	222	3,269
Total	94,371	1,785,564,201	2,305,000	38,030,504	95,836	1,785,354,632	2,328,822	40,318,129	1,465	-209,568	23,823	$ 2,287,625

Table 3.3.1.1-3 shows that 2016 realized an uncharacteristic increase of $2.2M or 6% in Distribution Revenue. Detailed below are the drivers for this increase:

- Price cap index adjustment of 1.95%.
- Collection of LRAM amounts from KWHI's 2016 IRM EB-2015-0054 "Kitchener-Wilmot Hydro's updated LRAMVA balance is a debit of $574,655 which represents lost revenues in 2013 ($337,702) and 2014 ($221,527) from the delivery of CDM programs in 2011, 2012, 2013 and 2014, as well as carrying charges of $15,426." (page 8 of the Decision and Rate Order)

Table 3.3.1.1-4 – 2016 Actual vs 2017 Actual

Rate Class	2016 Actual				2017 Actual				Variance			
	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$
Residential	84,530	650,672,520		$ 22,168,556	86,064	621,996,671		$ 22,499,819	1,534	-28,675,848	-	331,263
GS <50kW	7,845	239,091,361		$ 5,660,242	7,936	232,588,463		$ 5,615,245	91	-6,502,897	-	(44,997)
GS >50kW	940	826,940,979	2,170,742	$ 11,557,868	936	804,219,318	2,109,153	$ 11,146,537	(4)	-22,721,661	(61,589)	(411,331)
Large User	1	28,906,567	62,931	$ 256,618	1	31,425,634	58,806	$ 256,922	0	2,519,067	(4,125)	304
SL	1,653	16,260,857	45,218	$ 431,706	1,696	14,867,141	42,036	$ 424,329	43	-1,393,716	(3,183)	(7,377)
USL	866	3,917,912		$ 129,648	886	3,907,712		$ 129,662	20	-10,200	-	14
ED	1	19,564,437	49,930	$ 113,492	1	20,383,812	44,998	$ 104,072	0	819,374	(4,932)	(9,420)
Total	95,836	1,785,354,632	2,328,822	40,318,129	97,520	1,729,388,751	2,254,994	40,176,585	1,684	-55,965,881	(73,829)	$ (141,544)

Table 3.3.1.1-4 indicates that 2017 saw a decrease of $141k in Distribution Revenue from 2016 actuals. The drivers of this decrease are:

- The previous year had LRAM amounts of $500k that were only applicable to that year.
- Price cap index adjustment of 1.75%.

- 2017 notably had a large decrease in consumption as the number of CDD for August in particular was 73% lower than 2016.

Statistic	August 2016	August 2017	Degree Variance	%% Variance
Heating Degree Days	2.1	34.5	32.4	1542.86%
Cooling Degree Days	105.0	28.6	-76.4	-72.76%
Mean Temperature	21.3	17.8	-3.5	-16.46%
Daily High (average)	28.2	24.3	-4.0	-14.08%
Daily Low (average)	14.4	11.3	-3.1	-21.26%

- Also, weather related, the year overall saw only a slight increase in HDD and a 40% decrease in CDD.

Statistic	2016	2017	Degree Variance	%% Variance
Heating Degree Days	3,849.0	3,892.0	43.0	1.12%
Cooling Degree Days	287.4	172.3	-115.1	-40.05%
Mean Temperature	8.2	7.8	-0.4	-5.41%
Daily High (average)	14.0	13.1	-0.9	-6.45%
Daily Low (average)	2.4	2.4	0.0	0.16%

- Installation of LED street lights began in 2017 with an estimated 50% reduction in demand.
- In 2017, KWHI was in the top third of 68 local distribution companies for CDM savings. Based on preliminary results, it was estimated that 74.5 GWh of savings were achieved to date for the Conservation First Framework (2015-2020).

Table 3.3.1.1-5 – 2017 Actual vs 2018 Actual

Rate Class	2017 Actual				2018 Actual				Variance			
	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$
Residential	86,064	621,996,671		$ 22,499,819	87,395	680,846,103		$ 23,460,555	1,331	58,849,431	-	960,737
GS <50kW	7,936	232,588,463		$ 5,615,245	7,983	240,602,997		$ 5,778,444	47	8,014,534	-	163,198
GS >50kW	936	804,219,318	2,109,153	$ 11,146,537	950	839,662,733	2,202,763	$ 11,666,321	14	35,443,415	93,610	519,784
Large User	1	31,425,634	58,806	$ 256,922	1	33,369,028	69,011	$ 270,014	0	1,943,395	10,204	13,092
SL	1,696	14,867,141	42,036	$ 424,329	1,666	7,466,579	20,809	$ 322,046	(30)	-7,400,562	(21,227)	(102,283)
USL	886	3,907,712		$ 129,662	931	4,009,942		$ 137,207	45	102,230	-	7,545
ED	1	20,383,812	44,998	$ 104,072	1	12,731,869	33,065	$ 77,277	0	-7,651,943	(11,933)	(26,795)
Total	97,520	1,729,388,751	2,254,994	40,176,585	98,927	1,818,689,251	2,325,648	41,711,864	1,407	89,300,500	70,654	$ 1,535,279

As shown in Table 3.3.1.1-5 KWHI's 2018 Distribution Revenue was $1.5M higher than 2017 Actual.

- Price cap index adjustment of 1.05%.
- 2017 consumption was particularly low due to weather conditions.
- 2018 had a large increase in consumption as the CDD was 80% higher than 2017. August in particular had an increase of 228% as shown in the charts below.

Statistic	2017	2018	Degree Variance	%% Variance
Heating Degree Days	3,892.0	4,127.8	235.8	6.06%
Cooling Degree Days	172.3	311.2	138.9	80.62%
Mean Temperature	7.8	7.5	-0.3	-3.82%
Daily High (average)	13.1	12.8	-0.4	-2.79%
Daily Low (average)	2.4	2.2	-0.2	-10.15%

Statistic	August 2017	August 2018	Degree Variance	%% Variance
Heating Degree Days	34.5	6.6	-27.9	-80.87%
Cooling Degree Days	28.6	93.9	65.3	228.32%
Mean Temperature	17.8	20.8	3.0	16.88%
Daily High (average)	24.3	26.9	2.6	10.92%
Daily Low (average)	11.3	14.7	3.4	29.65%

- 2018 saw an uncharacteristic increase in new connections in the USL class due to the construction of a Light Rail Transit system in the City of Kitchener.
- LED street lights were in use for the full year of 2018 and a savings of 50.5% was achieved.

Table 3.3.1.1-6 – 2018 Actual vs 2019 Bridge Year

Rate Class	2018 Actual				2019 Bridge Year				Variance			
	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$
Residential	87,395	680,846,103		$ 23,460,555	88,619	659,417,797		$ 24,097,278	1,224	-21,428,306	-	636,723
GS <50kW	7,983	240,602,997		$ 5,778,444	8,059	230,055,002		$ 5,744,346	76	-10,547,994	-	(34,098)
GS >50kW	950	839,662,733	2,202,763	$ 11,666,321	944	797,429,992	2,059,333	$ 11,226,748	(6)	-42,232,741	(143,430)	(439,573)
Large User	1	33,369,028	69,011	$ 270,014	1	34,219,939	68,383	$ 272,843	0	850,910	(628)	2,829
SL	1,666	7,466,579	20,809	$ 322,046	1,681	7,386,896	20,613	$ 330,270	15	-79,683	(196)	8,224
USL	931	4,009,942		$ 137,207	943	4,091,278		$ 142,992	12	81,336	-	5,785
ED	1	12,731,869	33,065	$ 77,277	1	19,053,029	43,316	$ 102,603	0	6,321,160	10,251	25,326
Total	98,927	1,818,689,251	2,325,648	41,711,864	100,248	1,751,653,932	2,191,645	41,917,080	1,321	-67,035,319	(134,003)	$ 205,216

Table 3.3.1.1-6 indicates that KWHI has forecasted a $200K or 0.49% increase in Distribution Revenue for the Bridge Year 2019. Drivers influencing this are:

- Price cap index adjustment of 1.35%.
- Forecasted lower consumption and demand as 2018 was unusually high
- Further items for the 2019 Bridge Year are discussed in the following section

Table 3.3.1.1-7 – 2019 Bridge Year vs 2020 Test Year

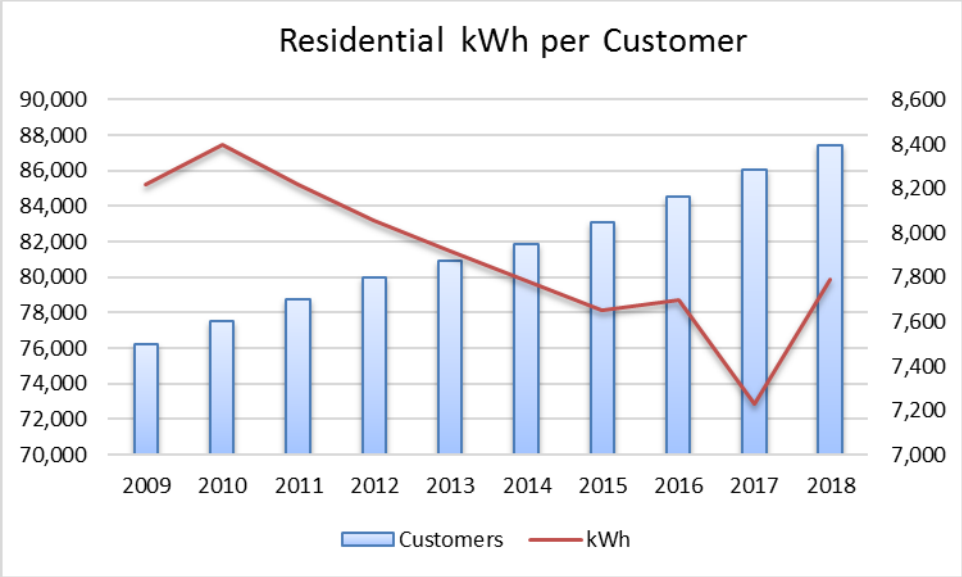
Rate Class	2019 Bridge Year				2020 Test Year				Variance			
	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$	#	kWh	kW	Dist $$
Residential	88,619	659,417,797		$ 24,097,278	89,860	671,446,586		$ 26,312,908	1,241	12,028,789	-	2,215,630
GS <50kW	8,059	230,055,002		$ 5,744,346	8,136	230,635,457		$ 6,195,147	77	580,455	-	450,801
GS >50kW	944	797,429,992	2,059,333	$ 11,226,748	938	777,549,790	2,008,643	$ 12,087,641	(6)	-19,880,201	(50,690)	860,893
Large User	1	34,219,939	68,383	$ 272,843	1	35,092,547	70,127	$ 297,667	0	872,608	1,744	24,824
SL	1,681	7,386,896	20,613	$ 330,270	1,696	7,307,482	20,391	$ 334,895	15	-79,415	(222)	4,625
USL	943	4,091,278		$ 142,992	955	4,173,587		$ 151,850	12	82,309	-	8,858
ED	1	19,053,029	43,316	$ 102,603	1	19,053,029	43,316	$ 147,161	0	0	0	44,558
Total	100,248	1,751,653,932	2,191,645	41,917,080	101,587	1,745,258,478	2,142,477	45,527,270	1,339	-6,395,454	(49,168)	$ 3,610,189

Table 3.3.1.1-7 indicates that KWHI has forecasted that 2020 will have a $3.6M or 8.3% increase in Distribution Revenue.

Residential

The average number of customers had been increasing in the years following the 2014 Board Approved year but seems to be settling back to the 1.4% (~1300 per year) range that is more typical for KWHI.

Although there has been an increase in the customer count from the Board Approved, there has been a consistent decrease in kWh consumption per customer. This decrease in consumption, in spite of increased customers is attributed in part to the success of IESO funded conservation programs (CDM). Other factors such as weather play a role as well, particularly in the year 2017 and 2018.



For the 2019 Bridge and 2020 Test years, it is expected that the residential class customer count will grow at a rate of 1.4%, which is consistent with the average growth rate from 2009 to 2018. Consumption, however, will continue to decrease as CDM programs continue to change customer behavior. The manual adjustment to the weather normalized forecast is 5% of the total adjustment as Residential programs are not being focused on in 2019 and 2020. A reduction of 513,868 kWh has been applied to 2019 and 1,174,556 kWh has been applied to 2020.

General Service Less than 50kW

The average growth rate of the GS<50 kW class has remained consistent throughout the rebasing period, with the exception, of 2017 which includes the addition of 10 long-term load transfer customers transferred from HONI.

For the 2019 Bridge and 2020 Test years, it is expected that the GS<50 kW class customer count will continue to grow at the geometric mean of 0.95%, which is consistent with long term customer growth. Growth in the rate class fluctuates as the economy fluctuates. For the 2019 Bridge Year, consumption is expected to fall from higher than normal and remain fairly consistent for the 2020 Test year. Consistent with the residential class, average kWh

per customer consumption will continue to fall each year as CDM programs continue to change customer behaviour. The manual adjustment to the weather normalized forecast is 25% of the total manual adjustment for CDM in 2019 and 2020. A reduction of 2,569,340 kWh has been applied to 2019 and a reduction of 5,872,778 kWh has been applied to 2020.

Unmetered Scattered Load

For the 2019 Bridge and 2020 Test years, it is expected that the USL class customer count will continue to grow at the geometric mean of 1.28%, consistent with long-term customer growth. It is estimated that consumption will increase by 2.03% and 2.01% respectively.

General Service Greater than 50kW

Relative to a decrease in customers and a high uptake of CDM initiatives, KWHI has yet to achieve the 2014 Board Approved demand of 2,236,471 kW.

For the 2019 Bridge and 2020 Test years, it is expected that the GS>50 customer count will continue to decline at the geometric mean of 0.64%. It is estimated that kW demand will continue to decline by 6.51% for 2019 and further decrease by 2.44% for the 2020 Test Year. In 2020, a project is scheduled to be completed, an 800kW blended gas fired combined heat and power project that is expected to operate year-round and displace 4,800 MWh/year. This project has not been specifically included in the load forecast and could further reduce kW demand.

Large User

The large user classification is expected to remain flat for 2020 and the balance of the term of the Cost of Service.

Conservation and Demand initiatives had not greatly affected this class

A weather normalization factor is not calculated for this class.

Street Lighting

For the 2019 Bridge and 2020 Test years, it is expected that the Street Lighting class customer count will continue to decline at the geometric mean of 1.3%. Growth is reasonably consistent with this rate class.

It is estimated that kW demand will continue to fall in 2019 by 0.94% and 1.08% in 2020 respectively, due to the installation of LED Streetlights.

KWHI does not anticipate any further significant impacts in 2020 from CDM programs for this rate class.

A weather normalization factor is not calculated for this class.

Embedded Distributor

KWHI did not build in a growth factor for the Embedded Distributor as there has been no growth in this account over recent years.

KWHI has utilized the average of the past ten years for the forecasted demand and does not anticipate any impacts from CDM programs for this rate class.

A weather normalization factor is not calculated for this class.

3.4 Other Revenue

3.4.1 Overview of Other Revenue

Other Distribution Revenues are revenues that are distribution related but are sourced from means other than distribution rates. For this reason, other revenues are deducted from KWHI's proposed Revenue Requirement. Further details on the derivation of the Revenue Requirement are presented at Exhibit 6. OEB Required Filing Appendix 2-H is also attached in Appendix 3-1.

Other Distribution Revenues includes:

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

As a part of the review of Customer Service Rules (EB-2017-0183), KWHI has taken into consideration the proposed amendments to the Distribution System Code, Standard Supply Service Code, Unit Submetering Code, and Gas Distribution Access Rule. In light of these proposed amendments, KWHI has adjusted its budgeted revenue for the proposed changes.

A detailed breakdown of Other Revenue by USoA account is presented in Table 3.4.1-1

Table 3.4.1-1 – Other Revenue

	2014 Board Approved CGAAP	2014 Actual CGAAP	2015 Actual MIFRS	2016 Actual MIFRS	2017 Actual MIFRS	2018 Actual MIFRS	2019 Bridge MIFRS	2020 Test MIFRS
4082 - Retail Services Revenues	68,000	44,818	43,187	37,848	33,820	27,973	24,000	44,000
4084 - STR Revenues	2,300	1,031	954	807	701	410	400	800
4086 - SSS Administration Revenue	251,800	258,797	272,251	269,835	276,204	282,310	288,300	292,200
4210 - Rent from Electric Property	503,000	508,407	507,129	519,579	509,641	528,858	563,400	886,700
4220 - Other Electric Revenues	38,400	40,200	41,100	42,000	47,562	68,891	70,100	71,600
4225 - Late Payment Charges	266,100	266,081	265,905	228,268	196,978	203,653	205,100	207,100
4235 - Miscellaneous Service Revenues	517,050	404,973	462,194	467,036	425,771	405,359	380,000	407,000
4245 - Deferred Income-Cont Capital	-	-	271,373	480,409	658,473	781,552	857,100	939,700
4305 - Regulatory Debits	-	-	(4,197,954)	-	-	-	-	-
4355 - Gains-Disp of Utility Property	30,000	25,542	43,046	53,832	28,575	128,387	15,000	15,000
4375 - Revenue non Utility Operation	2,331,800	3,943,897	2,728,279	3,438,664	4,628,442	5,801,968	5,207,400	5,662,600
4380 - Expenses-Non-Utility Operation	(2,264,000)	(3,361,801)	(2,686,955)	(3,448,373)	(4,615,757)	(4,491,927)	(5,194,700)	(5,649,900)
4390 - Misc. Non-Operating Income	165,000	251,873	304,986	241,916	434,663	227,056	225,000	225,200
4398 - Foreign Xchg Gains/Losses	-	1,242	2,402	(446)	(732)	1,172	-	-
4405 - Interest & Dividend Income	163,900	334,156	260,582	288,300	359,724	564,982	255,600	141,900
	2,073,350	2,719,214	(1,681,521)	2,619,674	2,984,064	4,530,644	2,896,700	3,243,900
Specific Service Charges	517,050	404,973	462,194	467,036	425,771	405,359	380,000	407,000
Late Payment Charges	266,100	266,081	265,905	228,268	196,978	203,653	205,100	207,100
Other Operating Revenues	863,500	853,252	864,620	870,068	867,928	908,442	946,200	1,295,300
Other Income or Deductions	426,700	1,194,909	(3,274,240)	1,054,301	1,493,388	3,013,190	1,365,400	1,334,500
	2,073,350	2,719,214	(1,681,521)	2,619,674	2,984,064	4,530,644	2,896,700	3,243,900

Table 3.4.1-2 – Specific Service Charges Revenue Breakdown

	2014 Board Approved CGAAP	2014 Actual CGAAP	2015 Actual MIFRS	2016 Actual MIFRS	2017 Actual MIFRS	2018 Actual MIFRS	2019 Bridge MIFRS	2020 Test MIFRS
4235 - Specific Service Charges								
MicroFit Generator Revenue	27,000	23,215	29,732	34,352	38,564	49,799	47,600	48,200
Reconnection Fee after hours	27,600	14,780	15,235	20,634	9,101	12,515	10,300	10,500
Reconnection Fee	70,650	67,145	71,335	78,150	48,355	45,805	38,200	38,700
Account Setup Fee	333,600	258,660	305,270	288,200	300,935	271,480	270,900	294,800
Returned Cheque Fee	20,200	20,533	20,372	21,971	13,756	12,320	12,400	12,600
Meter Removal without Authorization	-	720	300	420	420	300	400	2,000
Meter Dispute Charge	-	150	60	180	120	30	200	200
Collection of Account Charge	25,200	19,770	19,890	23,130	14,520	13,110	-	-
Credit Check	12,800	-	-	-	-	-	-	-
Total Specific Service Charges	517,050	404,973	462,194	467,036	425,771	405,359	380,000	407,000

Table 3.4.1-2 (account 4235) includes all Specific Service Charges that are listed on KWHI's Tariff of Rates and Charges. For 2019 and 2020, KWHI is not including any revenue from Collection of Account Charge, as the proposed customer service rules are disallowing this charge. The proposed revenue from reconnection fee have also been reduced due to the Winter Disconnection ban. KWHI is unable to collect reconnection fees for one half of the year resulting in a decrease in revenue. Return cheque fees are also projected to be lower as fewer customers continue to pay their hydro bills in the winter.

Table 3.4.1-3 – Other Operating Revenue

	2014 Board Approved CGAAP	2014 Actual CGAAP	2015 Actual MIFRS	2016 Actual MIFRS	2017 Actual MIFRS	2018 Actual MIFRS	2019 Bridge MIFRS	2020 Test MIFRS
4082 - Retail Services Revenues	68,000	44,818	43,187	37,848	33,820	27,973	24,000	44,000
4084 - STR Revenues	2,300	1,031	954	807	701	410	400	800
4086 - SSS Administration Revenue	251,800	258,797	272,251	269,835	276,204	282,310	288,300	292,200
4210 - Rent from Electric Property								
Pole Rental Revenue	493,500	499,157	493,837	510,829	503,391	510,108	527,100	850,400
Other	9,500	9,250	13,292	8,750	6,250	18,750	36,300	36,300
	503,000	508,407	507,129	519,579	509,641	528,858	563,400	886,700
4220 - Other Electric Revenues								
Control Room Services	38,400	29,400	30,300	31,200	32,100	33,000	33,000	33,900
Meter Reading Service					3,662	24,091	25,300	25,700
Accounting Services	-	10,800	10,800	10,800	11,800	11,800	11,800	12,000
	38,400	40,200	41,100	42,000	47,562	68,891	70,100	71,600
Total Other Operating Revenues	863,500	853,252	864,620	870,068	867,927	908,442	946,200	1,295,300

Table 3.4.1-3 illustrates Other Operating Revenue consists of SSS Administration Fees and Rental Revenue from Electric Property. The largest increase is in Pole Rental Revenue as a result of the EB-2015-0304 report that increased the pole attachment charge. Prior to this rebasing, the additional revenues were recorded to a variance account, as per Board Order.

Table 3.4.1-4 – Other Income or Deductions

	2014 Board Approved CGAAP	2014 Actual CGAAP	2015 Actual MIFRS	2016 Actual MIFRS	2017 Actual MIFRS	2018 Actual MIFRS	2019 Bridge MIFRS	2020 Test MIFRS
4245 - Government Assistance credited Directly to Income Deferred Income Contributed Capital	-	-	271,373	480,409	658,473	781,552	857,100	939,700
4355 - Gains/Losses on Disposals of Property	30,000	25,542	43,046	53,832	28,575	128,387	15,000	15,000
4390 - Misc. Non-Operating Income								
Scrap Sales	125,000	186,930	242,973	169,817	356,936	175,418	176,000	176,000
Material Sales	-	-	-	-	6,323	-	-	-
Other Miscellaneous Income	10,000	21,546	11,695	27,061	34,352	19,110	16,000	16,200
A/P Discounts	30,000	43,397	50,318	45,037	37,052	32,527	33,000	33,000
	165,000	251,873	304,986	241,916	434,663	227,056	225,000	225,200
4398 - Foreign Xchange Gains/Losses	-	1,242	2,402	(446)	(732)	1,172	-	-
4405 - Interest and Dividend Income								
Bank Interest	163,900	231,267	197,348	226,662	296,861	491,601	255,600	141,900
Deferral and Variance Account Interest	-	102,889	63,234	61,023	62,862	73,382		
Other	-	-	-	614	2	-	-	-
	163,900	334,156	260,582	288,300	359,724	564,982	255,600	141,900
4305 - Regulatory Debits	-	-	(4,197,954)	-	-	-	-	-
4375 - Revenue-Non-Utility Operations								
Streetlighting Capital and Maintenance	-	1,567,226	1,250,340	995,556	1,105,813	2,130,748	1,100,000	1,100,000
CDM Programs	2,331,800	2,376,672	1,477,940	2,443,108	3,522,629	3,600,598	3,789,100	4,562,600
Affordability Trust Fund Revenue	-	-	-	-	-	70,622	318,300	-
	2,331,800	3,943,897	2,728,279	3,438,664	4,628,442	5,801,968	5,207,400	5,662,600
4380 - Expenses-Non-Utility Operation								
Streetlighting Capital and Maintenance	-	(1,096,606)	(1,110,169)	(995,556)	(1,105,813)	(830,847)	(1,100,000)	(1,100,000)
CDM Programs	(2,264,000)	(2,265,195)	(1,441,303)	(2,443,108)	(3,522,629)	(3,603,142)	(3,789,100)	(4,562,600)
Affordability Trust Fund Expense	-	-	-	-	-	(70,622)	(318,300)	-
Other	-	-	(135,482)	(9,709)	12,684	12,684	12,700	12,700
	(2,264,000)	(3,361,801)	(2,686,955)	(3,448,373)	(4,615,757)	(4,491,927)	(5,194,700)	(5,649,900)
Total - Other Income or Deductions	426,700	1,194,909	(3,274,240)	1,054,301	1,493,388	3,013,190	1,365,400	1,334,500

3.4.2 Other Revenue Variance Analysis

Table 3.4.2-1 below details the year over year variances for the Other Revenue accounts.

Table 3.4.2-1 – Year over Year Variances

	2014 vs 2014 OEB Board Approved CGAAP	2015 vs 2014 MIFRS	2016 vs 2015 MIFRS	2017 vs 2016 MIFRS	2018 vs 2017 MIFRS	2019 vs 2018 MIFRS	2020 vs 2019 MIFRS
4082 - Retail Services Revenues	(23,182)	(1,631)	(5,340)	(4,027)	(5,847)	(3,973)	20,000
4084 - STR Revenues	(1,269)	(77)	(147)	(107)	(291)	(10)	400
4086 - SSS Administration Revenue	6,997	13,454	(2,416)	6,369	6,106	5,991	3,900
4210 - Rent from Electric Property	5,407	(1,278)	12,450	(9,938)	19,217	34,542	323,300
4220 - Other Electric Revenues	1,800	900	900	5,562	21,329	1,209	1,500
4225 - Late Payment Charges	(19)	(175)	(37,637)	(31,290)	6,676	1,447	2,000
4235 - Miscellaneous Service Revenues	(112,077)	57,222	4,842	(41,266)	(20,412)	(25,359)	27,000
4245 - Deferred Income-Cont Capital	-	271,373	209,037	178,064	123,078	75,548	82,600
4305 - Regulatory Debits	-	(4,197,954)	4,197,954	-	-	-	-
4355 - Gains-Disp of Utility Property	(4,458)	17,504	10,786	(25,257)	99,812	(113,387)	-
4375 - Revenue-Non-Utility Operations	1,612,097	(1,215,618)	710,385	1,189,778	1,173,526	(594,568)	455,200
4380 - Expenses-Non-Utility Operation	(1,097,801)	674,847	(761,419)	(1,167,384)	123,831	(702,773)	(455,200)
4390 - Misc. Non-Operating Income	86,873	53,113	(63,070)	192,748	(207,607)	(2,056)	200
4398 - Foreign Xchg Gains/Losses	1,242	1,161	(2,849)	(286)	1,904	(1,172)	-
4405 - Interest & Dividend Income	170,256	(73,574)	27,718	71,424	205,258	(309,382)	(113,700)
	645,864	(4,400,734)	4,301,195	364,390	1,546,580	(1,633,944)	347,200
Specific Service Charges	(112,077)	57,222	4,842	(41,266)	(20,412)	(25,359)	27,000
Late Payment Charges	(19)	(175)	(37,637)	(31,290)	6,676	1,447	2,000
Other Operating Revenues	(10,248)	11,368	5,448	(2,141)	40,514	37,758	349,100
Other Income or Deductions	768,209	(4,469,149)	4,328,542	439,086	1,519,803	(1,647,790)	(30,900)
	645,864	(4,400,734)	4,301,195	364,390	1,546,580	(1,633,944)	347,200

Table 3.4.2-2 – 2014 Board Approved vs 2014 Actual

	2014 Board Approved CGAAP	2014 Actual CGAAP	Difference $	Difference %
Specific Service Charges	517,050	404,973	(112,077)	-22%
Late Payment Charges	266,100	266,081	(19)	0%
Other Operating Revenues	863,500	853,252	(10,248)	-1%
Other Income or Deductions	426,700	1,194,909	768,209	180%
	2,073,350	2,719,214	645,864	157%

Table 3.4.2-2 shows actual revenue is $645,864 greater than Board Approved. Three main factors account for the increase:

- A CDM incentive of $470,620 was received in 2014

- Account set up fees were lower by $74,940
- Interest income was higher by $170,256, primarily due to Deferral and Variance Account Interest of $102,889 that not included in the Board Approved amount.

Table 3.4.2-3 – 2014 Actual vs 2015 Actual

	2014 Actual CGAAP	2015 Actual MIFRS	Difference $	Difference %
Specific Service Charges	404,973	462,194	57,222	14%
Late Payment Charges	266,081	265,905	(175)	0%
Other Operating Revenues	853,252	864,620	11,368	1%
Other Income or Deductions	1,194,909	(3,274,240)	(4,469,149)	-374%
	2,719,214	(1,681,521)	(4,400,734)	-359%

Table 3.4.2-3 illustrates the difference between 2014 Actual and 2015 Actual is a result of the guidance for disposition of Account 1576. KWHI last rebased in 2014 and switched its accounting standard from GAAP to IFRS. As a result of the financial differences resulting from the accounting change, an amount was set up in Account 1576. This amount was approved for a one-year disposition in KWHI's last Cost of Service Application (EB-2013-0147). While the majority of the customer refunds were recorded in 2014, the accounting guidance was not issued until 2015, which is when KWHI recorded the remainder of the transaction.

Table 3.4.2-4 – 2015 Actual vs 2016 Actual

	2015 Actual MIFRS	2016 Actual MIFRS	Difference $	Difference %
Specific Service Charges	462,194	467,036	4,842	1%
Late Payment Charges	265,905	228,268	(37,637)	-14%
Other Operating Revenues	864,620	870,068	5,448	1%
Other Income or Deductions	(3,274,240)	1,054,301	4,328,542	-132%
	(1,681,521)	2,619,674	4,301,195	-145%

The major variance due to the fact the account 1576 was being repaid during the years 2014 and 2015 and did not continue past 2015. Account 1576 was a one-time regulatory anomaly.

Table 3.4.2-5 – 2016 Actual vs 2017 Actual

	2016 Actual MIFRS	2017 Actual MIFRS	Difference $	Difference %
Specific Service Charges	467,036	425,771	(41,266)	-9%
Late Payment Charges	228,268	196,978	(31,290)	-14%
Other Operating Revenues	870,068	867,928	(2,141)	0%
Other Income or Deductions	1,054,301	1,493,388	439,086	42%
	2,619,674	2,984,064	364,390	19%

As shown in Table 3.4.2-5 KWHI, in 2017 had a significant one-time sale of scrap material accounting for a $187,119 increase in scrap sales. Contributed capital amortization (deferred revenue) increased by $178,064 in 2017 due to amounts received from developers.

Table 3.4.2-6 – 2017 Actual vs 2018 Actual

	2017 Actual MIFRS	2018 Actual MIFRS	Difference $	Difference %
Specific Service Charges	425,771	405,359	(20,412)	-5%
Late Payment Charges	196,978	203,653	6,676	3%
Other Operating Revenues	867,928	908,442	40,514	5%
Other Income or Deductions	1,493,388	3,013,190	1,519,803	102%
	2,984,064	4,530,644	1,546,580	105%

In 2018 as shown in Table 3.4.2-6, KWHI received its CDM midterm incentive, accounting for a $1,322,367 variance in Other Income. KWHI's declining Specific Service Charge revenue is a direct result of the Winter Disconnection ban. KWHI is unable to collect reconnection fees during the winter. As a result of the reduced number of payments during the Disconnection Ban, there are less returned cheques.

Table 3.4.2-7 – 2018 Actual versus 2019 Bridge

	2018 Actual MIFRS	2019 Bridge MIFRS	Difference $	Difference %
Specific Service Charges	405,359	380,000	(25,359)	-6%
Late Payment Charges	203,653	205,100	1,447	1%
Other Operating Revenues	908,442	946,200	37,758	4%
Other Income or Deductions	3,013,190	1,365,400	(1,647,790)	-55%
	4,530,644	2,896,700	(1,633,944)	-56%

The variance shown in Table 3.4.2-7 between 2018 and 2019 is the result of receiving the CDM midterm incentive in 2018 and expected decreasing Specific Service Charges.

Table 3.4.2-8 – 2019 Bridge vs 2020 Test

	2019 Bridge MIFRS	2020 Test MIFRS	Difference $	Difference %
Specific Service Charges	380,000	407,000	27,000	7%
Late Payment Charges	205,100	207,100	2,000	1%
Other Operating Revenues	946,200	1,295,300	349,100	37%
Other Income or Deductions	1,365,400	1,334,500	(30,900)	-2%
	2,896,700	3,243,900	347,200	43%

Table 3.4.2-8 shows the result of the various code changes stemming from Phase 1 of the Customer Service Rules Review issued December 20, 2018, KWHI is projecting less revenue for reconnections and no revenue for Collection of Account Charges. Due to the Winter Disconnection ban, KWHI is projecting less income for reconnections as KWHI cannot collect any reconnection fees for 5 months. The increase in Other Operating Revenues is a result of the increase to the allowed Pole Rental charge as per the *Report of the Board Wireline Pole Attachment Charges* (EB-2015-0304).

3.4.3 Proposed Specific Service Charges

KWHI is proposing to increase the rate it charges customers who remove a meter without authorization from the current $60 to $355. This charge would be used for cases where a

customer has removed a meter and tampered with the service connection or stolen a meter from one service to be used at another. KWHI's practice is to involve the police in these instances of vandalism or theft which requires time to administer and communicate in written form. These instances also involve the Electrical Safety Authority.

A detailed breakdown of the costs incurred by KWHI are included in Table 3.4.3-1 below. It supports the increased charge from $60 to $355. It is estimated that KWHI would receive an additional $1,600 from the additional charge. This rate only applies to customers who tamper with meters. These customers typically are in the Residential and GS<50 kW class.

Table 3.4.3-1 – Calculation of Meter Removal without Authorization Charge

Specific Service Charges
Generic Rates and Model for Deriving LDC Specific Rates

LDC Name: ***Kitchener-Wilmot Hydro Inc.***

Please complete one model for each Specific Service Charge Requested.

Fill in only the blue ranges that are appropriate for the Specific Service Charge Described.

Specific Service Charge Description:		**Meter Remval Without Autorization**			
		Rate/Amount	**Hours/Units**	**O/T Factor**	**Calculated Cost**
L	Direct Labour (inside staff) Straight Time	35.00	3		$105.00
A	Direct Labour (inside staff) Overtime				
B	Direct Labour (field staff) Straight Time	35.00	1		$35.00
O	Direct Labour (field staff) Overtime				
U	Other Labour (Specify) Administration w Police	35.00	1		$35.00
R	Payroll Burden %	40%			$70.00
	Total Labour Cost				$245.00
O	Small Vehicle Time	10.00	1		$10.00
T	Large Vehicle Time				
H	Other: Material	100.00			$100.00
E	Contract				
R	Other				
	Total Other				$110.00
Total Cost					$355.00
	Specific Service Charge Value Requested - Round to nearest $5				**$355.00**

KWHI also proposes to eliminate the currently approved rate for "Credit Check" of $15. It has not been KWHI's practice to charge for a credit check and no income has been received for this charge since the charge was approved in 2014 (EB-2013-0147).

3.4.4 Revenue from Affiliate Transactions, Shared Services and Corporate Cost Allocation

Table 3.4.4-1 below summarizes KWHI's revenue related to affiliate transactions and shared services. For a complete description of the nature of the service provided to affiliated entities, refer to Exhibit 4, Section 4.5 Shared Services/Corporate Cost Allocation.

Table 3.4.4-1 Revenue from Affiliates and Shared Services

	2014 Board Approved	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Budget	2020 Budget
4220	-	10,800	10,800	10,800	11,800	11,800	11,800	12,000

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Other Operating Revenue

USoA #	USoA Description	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
		2014	2015	2016	2017	2018	2019	2020	
	Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
4235	**Specific Service Charges**	$ 404,973	$ 462,194	$ 467,036	$ 425,771	$ 405,359	$ 380,000	$ 407,000	
4225	**Late Payment Charges**	$ 266,081	$ 265,905	$ 228,268	$ 196,978	$ 203,653	$ 205,100	$ 207,100	
4082	**Retail Services Revenues**	$ 44,818	$ 43,187	$ 37,848	$ 33,820	$ 27,973	$ 24,000	$ 44,000	
4084	STR Revenues	$ 1,031	$ 954	$ 807	$ 701	$ 410	$ 400	$ 800	
4086	SSS Administration Revenue	$ 258,797	$ 272,251	$ 269,835	$ 276,204	$ 282,310	$ 288,300	$ 292,200	
4210	Rent from Electric Property	$ 508,407	$ 507,129	$ 519,579	$ 509,641	$ 528,858	$ 563,400	$ 886,700	
4220	Other Electric revenues	$ 40,200	$ 41,100	$ 42,000	$ 47,562	$ 68,891	$ 70,100	$ 71,600	
4245	Government and Other Assistance	$ -	$ 271,373	$ 480,409	$ 658,473	$ 781,552	$ 857,100	$ 939,700	
4305	Regulatory Debits	$ -	-$ 4,197,954	$ -	$ -	$ -	$ -	$ -	
4355	Gains-Disp of utility property	$ 25,542	$ 43,046	$ 53,832	$ 28,575	$ 128,387	$ 15,000	$ 15,000	
4375	Revenue Non-Utility Operations	$ 3,943,897	$ 2,728,279	$ 3,438,664	$ 4,628,442	$ 5,801,968	$ 5,207,400	$ 5,662,600	
4380	Expenses - Non Utility Operations	-$ 3,361,801	-$ 2,686,955	-$ 3,448,373	-$ 4,615,757	-$ 4,491,927	-$ 5,194,700	-$ 5,649,900	
4390	Misc Non-Operating Income	$ 251,873	$ 304,986	$ 241,916	$ 434,663	$ 227,056	$ 225,000	$ 225,200	
4398	Foreign Exchange Gains/Losses	$ 1,242	$ 2,402	-$ 446	-$ 732	$ 1,172	$ -	$ -	
4405	Interest & Dividend Income	$ 334,156	$ 260,582	$ 288,300	$ 359,724	$ 564,982	$ 255,600	$ 141,900	
Specific Service Charges		$ 404,973	$ 462,194	$ 467,036	$ 425,771	$ 405,359	$ 380,000	$ 407,000	$ -
Late Payment Charges		$ 266,081	$ 265,905	$ 228,268	$ 196,978	$ 203,653	$ 205,100	$ 207,100	$ -
Other Operating Revenues		$ 853,252	$ 864,620	$ 870,068	$ 867,928	$ 908,442	$ 946,200	$ 1,295,300	
Other Income or Deductions		$ 1,194,909	-$ 3,274,240	$ 1,054,301	$ 1,493,388	$ 3,013,190	$ 1,365,400	$ 1,334,500	
Total		$ 2,719,214	-$ 1,681,521	$ 2,619,674	$ 2,984,064	$ 4,530,644	$ 2,896,700	$ 3,243,900	$ -

Description	**Account(s)**
Specific Service Charges:	4235
Late Payment Charges:	4225
Other Distribution Revenues:	4082, 4084, 4090, 4205, 4210, 4215, 4220, 4230, 4240, 4245
Other Income and Expenses:	4305, 4310, 4315, 4320, 4325, 4330, 4335, 4340, 4345, 4350, 4355, 4357, 4360, 4362, 4365, 4370, 4375, 4380, 4385, 4390, 4395, 4398, 4405, 4410, 4415, 4420

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

Account Breakdown Details

For each "Other Operating Revenue" and "Other Income or Deductions" Account, a detailed breakdown of the account components is required. See the example below for Account 4405, Interest and Dividend Income.

Account 4082 - Retail Services Revenues

	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Retail Service Revenue	$ 44,818	$ 43,187	$ 37,848	$ 33,820	$ 27,973	$ 24,000	$ 44,000	$ 44,818
Total	$ 44,818	$ 43,187	$ 37,848	$ 33,820	$ 27,973	$ 24,000	$ 44,000	$ 44,818

Account 4084 - STR Revenues

	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
STR Revenue	$ 1,031	$ 954	$ 807	$ 701	$ 410	$ 400	$ 800	$ 1,031
Total	$ 1,031	$ 954	$ 807	$ 701	$ 410	$ 400	$ 800	$ 1,031

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Other Operating Revenue

Account 4086 - SSS Administration Revenue

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
SSS Revenue	$ 258,797	$ 272,251	$ 269,835	$ 276,204	$ 282,310	$ 288,300	$ 292,200	$ 258,797
Total	$ 258,797	$ 272,251	$ 269,835	$ 276,204	$ 282,310	$ 288,300	$ 292,200	$ 258,797

Account 4210 - Rent from Electric Property

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Pole Rental Revenue	$ 499,157	$ 493,837	$ 510,829	$ 503,391	$ 510,108	$ 527,100	$ 850,400	$ 499,157
Other Rental Revenue	$ 9,250	$ 13,292	$ 8,750	$ 6,250	$ 18,750	$ 36,300	$ 36,300	$ 9,250
Total	$ 508,407	$ 507,129	$ 519,579	$ 509,641	$ 528,858	$ 563,400	$ 886,700	$ 508,407

Account 4220 - Other Electric revenues

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Control Room Services	$ 29,400	$ 30,300	$ 31,200	$ 32,100	$ 33,000	$ 33,000	$ 33,900	$ 29,400
Metering Services				$ 3,662	$ 24,091	$ 25,300	$ 25,700	$ -
Accounting Services	$ 10,800	$ 10,800	$ 10,800	$ 11,800	$ 11,800	$ 11,800	$ 12,000	$ 10,800
Total	$ 40,200	$ 41,100	$ 42,000	$ 47,562	$ 68,891	$ 70,100	$ 71,600	$ 40,200

Account 4245 - Government and Other Assistance Directly Credited to Income

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Deferred Revenue amortization	$ -	$ 271,373	$ 480,409	$ 658,473	$ 781,552	$ 857,100	$ 939,700	$ -
Total	$ -	$ 271,373	$ 480,409	$ 658,473	$ 781,552	$ 857,100	$ 939,700	$ -

Account 4305 - Regulatory Debits

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Regulatory Debits	$ -	-$ 4,197,954	$ -	$ -	$ -	$ -	$ -	
Total	$ -	-$ 4,197,954	$ -	$ -	$ -	$ -	$ -	$ -

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Account 4355 - Gains-Disp of utility property

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Gains/Losses on Disposals of Property	$ 25,542	$ 43,046	$ 53,832	$ 28,575	$ 128,387	$ 15,000	$ 15,000	$ 25,542
Total	$ 25,542	$ 43,046	$ 53,832	$ 28,575	$ 128,387	$ 15,000	$ 15,000	$ 25,542

Account 4375 - Revenue Non-Utility Operations

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Streetlighting Capital and Maintenance	$ 1,567,226	$ 1,250,340	$ 995,556	$ 1,105,813	$ 2,130,748	$ 1,100,000	$ 1,100,000	$ 1,567,226
CDM Revenue	$ 2,376,672	$ 1,477,940	$ 2,443,108	$ 3,522,629	$ 3,600,598	$ 3,789,100	$ 4,562,600	$ 2,376,672
AFT Revenue	$ -	$ -	$ -	$ -	$ 70,622	$ 318,300	$ -	$ -
Total	$ 3,943,897	$ 2,728,279	$ 3,438,664	$ 4,628,442	$ 5,801,968	$ 5,207,400	$ 5,662,600	$ 3,943,897

Account 4380 - Expenses - Non Utility Operations

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Streetlighting Capital and Maintenance	-$ 1,096,606	-$ 1,110,169	-$ 995,556	-$ 1,105,813	-$ 830,847	-$ 1,100,000	-$ 1,100,000	-$ 1,096,606
CDM Expense	-$ 2,265,195	-$ 1,441,303	-$ 2,443,108	-$ 3,522,629	-$ 3,603,142	-$ 3,789,100	-$ 4,562,600	-$ 2,265,195
AFT Expense	$ -	$ -	$ -	$ -	-$ 70,622	-$ 318,300	$ -	$ -
Other	$ -	-$ 135,482	-$ 9,709	$ 12,684	$ 12,684	$ 12,700	$ 12,700	$ -
Total	-$ 3,361,801	-$ 2,686,955	-$ 3,448,373	-$ 4,615,757	-$ 4,491,927	-$ 5,194,700	-$ 5,649,900	-$ 3,361,801

Account 4390 - Misc Non-Operating Income

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Scrap Sales	$ 186,930	$ 242,973	$ 169,817	$ 356,936	$ 175,418	$ 176,000	$ 176,000	$ 186,930
Material Sales	$ -	$ -	$ -	$ 6,323	$ -	$ -	$ -	$ -
Other	$ 21,546	$ 11,695	$ 27,061	$ 34,352	$ 19,110	$ 16,000	$ 16,200	$ 21,546
A/P Discounts	$ 43,397	$ 50,318	$ 45,037	$ 37,052	$ 32,527	$ 33,000	$ 33,000	$ 43,397
Total	$ 251,873	$ 304,986	$ 241,916	$ 434,663	$ 227,056	$ 225,000	$ 225,200	$ 251,873

Account 4398 - Foreign Exchange Gains/Losses

	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Foreign Exchange gains/losses	$ 1,242	$ 2,402	-$ 446	-$ 732	$ 1,172	$ -	$ -	$ 1,242
Total	$ 1,242	$ 2,402	-$ 446	-$ 732	$ 1,172	$ -	$ -	$ 1,242

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Account 4405 - Interest & Dividend Income

	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2014	2015	2016	2017	2018	2019	2020	2014
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Bank Deposit Interest	$ 231,267	$ 197,348	$ 226,662	$ 296,861	$ 491,601	$ 255,600	$ 141,900	$ 231,267
Deferral and Variance Interest	$ 102,889	$ 63,234	$ 61,023	$ 62,862	$ 73,382			$ 102,889
Other Interest	$ -	$ -	$ 614	$ 2	$ -	$ -	$ -	$ -
Total	$ 334,156	$ 260,582	$ 288,300	$ 359,724	$ 564,982	$ 255,600	$ 141,900	$ 334,156

Notes:

1 List and specify any other interest revenue.

2 In the transition year to IFRS, the applicant is to present information in both MIFRS and CGAAP. In column N, present CGAAP transition year information. For the typical applicant that adopted IFRS on January 1, 2015, 2014 must be presented in both a CGAAP and MIFRS basis.

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

Appendix 2-I was initially developed to help determine what would be the amount of CDM savings needed in each year to cumulatively achieve the four year 2011-2014 CDM target. This then 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 in 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.

2018 is the fourth year of the six-year (2015-2020) Conservation First program. Final results for the 2011-14 program were issued in the fall of 2015, and the program is 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 actual and forecasted impacts of 2015 to 2018 CDM programs need to be reflected in the manual load forecast adjustment and for the LRAMVA threshold amount in 2018 and carrying forward, although the full year impact of 2015 CDM programs and half-year impact of 2016 CDM programs on 2016 historical data is also assumed to be reflected in the base load forecast.

The new six year (2015-2020) CDM program works in a slightly different manner to the previous 2011-2014 CDM program. Distributors will offer programs each year that, over the six years (from January 1, 2015 to December 31, 2020) will strive to achieve savings equal to the new six year CDM target with the full target in place (i.e., persisting) on December 31, 2020. In other words, distributors will be able to offer and execute programs on a basis so that, as long as savings equal to the full target are in place at the end the period, the distributor's 2015-2020 CDM target will have been met.

2015-2020 CDM Program - 2018 fourth year of the current CDM plan

For the first year of the new 2015-2020 CDM plan, it is assumed that each year's program will achieve an equal amount of new CDM savings. This results in each year's program being about 1/6 (16.67%) 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:							
105,710,000							
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
%							
2015 CDM Programs						16.67%	16.67%
2016 CDM Programs						16.67%	16.67%
2017 CDM Programs						16.67%	16.67%
2018 CDM Programs						16.67%	16.67%
2019 CDM Programs						16.67%	16.67%
2020 CDM Programs						16.67%	16.67%
Total in Year						**100.00%**	**100.00%**
kWh							
2015 CDM Programs	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33
2016 CDM Programs		17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33
2017 CDM Programs			17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33
2018 CDM Programs				17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33
2019 CDM Programs					17,618,333.33	17,618,333.33	17,618,333.33
2020 CDM Programs						17,618,333.33	17,618,333.33
Total in Year	**17,618,333.33**	**35,236,666.67**	**52,855,000.00**	**70,473,333.33**	**88,091,666.67**	**105,710,000.00**	**105,710,000.00**

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

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

Determination of 2018 Load Forecast Adjustment

The Board determined that the "net" number should be used in its Decision and Order with respect to Centre Wellington Hydro Ltd.'s 2013 Cost of Service rates (EB-2012-0113). This approach has

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

Net-to-Gross Conversion

Is CDM adjustment being done on a "net" or "gross" basis?				**net**
Persistence of Historical CDM programs to 2015	**"Gross" kWh**	**"Net" kWh**	**Difference kWh**	**"Net-to-Gross" Conversion Factor ('g')**
2006-2010 CDM programs	**178,296,792.08**	**135,839,222.18**	**42,457,569.91**	
2011 CDM program	**65,677,230.15**	**50,620,379.92**	**15,056,850.23**	
2012 CDM program	**71,029,722.03**	**56,622,171.72**	**14,407,550.31**	
2013 CDM program	**75,626,820.64**	**61,309,444.24**	**14,317,376.40**	
2014 CDM program	**83,853,805.56**	**70,275,491.08**	**13,578,314.48**	
2015 CDM program	**102,523,021.44**	**90,753,702.11**	**11,769,319.33**	
2016 CDM program	**121,091,398.37**	**110,125,229.09**	**10,966,169.27**	
2006 to 2016 OPA CDM programs: Persistence to 2018.	698,098,790.27	575,545,640.34	122,553,149.93	0.00%

The default values below represent the factor used for how each year's CDM program is factored into the manual CDM adjustment. Distributors can choose alternative weights of "0", "0.5" or "1"

These factors do not mean that CDM programs are excluded, but the assumption that impacts of previous year CDM programs are already implicitly reflected in the actual data for historical years

Weight Factor for Inclusion in CDM Adjustment to 2018 Load Forecast

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

2015-2020 LRAMVA and 2018 CDM adjustment to Load Forecast

One manual adjustment for CDM impacts to the 2018 load forecast is made. There is a different but related threshold amount that is used for the 2018 LRAMVA amount for Account 1568.

The amount used for the CDM threshold of the LRAMVA is the kWh that will be used to determine the base amount for the LRAMVA balance for 2018, for assessing performance against the six-year target.

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

The Manual Adjustment for the 2018 Load Forecast is the amount manually subtracted from the system-wide load forecast (either based on a purchased or billed basis) derived from the base forecast from historical data. If the distributor has developed their load forecast on a system purchased basis, then the manual adjustment should be on a system purchased basis, including the adjustment for losses. If the load forecast has been developed on a billed basis, either on a system basis or on a class-specific basis, the manual adjustment should be on a billed basis, excluding losses.

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

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

	2015	2016	2017	2018	2019	2020	Total for 2018
Amount used for CDM threshold for LRAMVA (2018)	17,618,333.33	17,618,333.33	17,618,333.33	17,618,333.33			**70,473,333.33**
Manual Adjustment for 2018 Load Forecast (billed basis)	-	8,809,166.67	17,618,333.33	8,809,166.67			35,236,666.67
Manual Adjustment for 2018 LDC-only CDM programs (billed basis)							
Total Manual Forecast to Load Forecast	-	8,809,166.67	17,618,333.33	8,809,166.67			**35,236,666.67**
Proposed Loss Factor (TLF)	3.49%	Format: X.XX%					
Manual Adjustment for 2018 Load Forecast (system purchased basis)	-	9,116,606.58	18,233,213.17	9,116,606.58			**36,466,426.33**

Manual adjustment uses "gross" versus "net" (i.e. numbers multiplied by (1 + g). The Weight factor is also used to calculate the impact of each year's program on the CDM adjustment to the 2018

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

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

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

Distribution System (Total)

	Calendar Year (for 2020 Cost of Service)		Consumption (kWh) [3]				
				Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2014*		Actual	1,803,531,651	1,809,415,813	Board-approved	1,851,998,782
Historical	*2015*		Actual	1,762,488,284	1,811,886,027		
Historical	*2016*		Actual	1,765,790,195	1,830,430,876		
Historical	*2017*		Actual	1,709,004,940	1,774,710,777		
Historical	*2018*		Actual	1,805,957,382	1,833,212,923		
Bridge Year	*2019*		Forecast		1,798,998,944		
Test Year	*2020*		Forecast		1,806,036,789		

Variance Analysis	Year	Year-over-year		Versus Board-approved
	2014			
	2015	-2.3%	0.1%	
	2016	0.2%	1.0%	
	2017	-3.2%	-3.0%	
	2018	5.7%	3.3%	
	2019		-1.9%	
	2020		0.4%	-2.5%
	Geometric Mean	0.0%	0.0%	-0.4%

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

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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 2020 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	*2014*	Actual	81,868	Board-approved	82,577	Actual	637,186,640	639,265,511	Board-approved 651,728,155	Actual	7,783	7,808	Board-approved 7,892
Historical	*2015*	Actual	83,106			Actual	635,723,827	653,541,433		Actual	7,650	7,864	
Historical	*2016*	Actual	84,530			Actual	650,672,520	674,491,836		Actual	7,698	7,979	
Historical	*2017*	Actual	86,064			Actual	621,996,671	645,910,477		Actual	7,227	7,505	
Historical	*2018*	Actual	87,395			Actual	680,846,103	691,121,444		Actual	7,790	7,908	
Bridge Year	*2019*	Forecast	88,619			Forecast		659,417,797		Forecast	0	7,441	
Test Year	*2020*	Forecast	89,860			Forecast		671,446,586		Forecast	0	7,472	

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
	2014			*2014*				*2014*			
	2015	1.5%		*2015*	-0.2%	2.2%		*2015*	-1.7%	0.7%	
	2016	1.7%		*2016*	2.4%	3.2%		*2016*	0.6%	1.5%	
	2017	1.8%		*2017*	-4.4%	-4.2%		*2017*	-6.1%	-5.9%	
	2018	1.5%		*2018*	9.5%	7.0%		*2018*	7.8%	5.4%	
	2019	1.4%		*2019*		-4.6%		*2019*		-5.9%	
	2020	1.4%	8.8%	*2020*		1.8%	3.0%	*2020*		0.4%	-5.3%
	Geometric Mean	1.6%	1.5%	Geometric Mean	1.7%	0.8%	0.0%	Geometric Mean	0.0%	0.0%	-1.5%

	Calendar Year (for 2020 Cost of Service	Revenues			
Historical	*2014*	Actual	$ 20,562,008	Board-approved	$ 20,965,268
Historical	*2015*	Actual	$ 20,895,701		
Historical	*2016*	Actual	$ 22,168,556		
Historical	*2017*	Actual	$ 22,499,819		
Historical	*2018*	Actual	$ 23,460,555		
Bridge Year (Forecast)	*2019*	Forecast	$ 24,097,278		
Test Year (Forecast)	*2020*	Forecast	$ 26,246,309		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2014		
	2015	1.6%	
	2016	6.1%	
	2017	1.5%	
	2018	4.3%	
	2019	2.7%	
	2020	8.9%	25.2%
	Geometric Mean	4.2%	2.9%

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

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

	Calendar Year (for 2020 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	*2014*	Actual	7,744	Board-approved	7,830	Actual	242,185,854	242,976,005	Board-approved	241,683,206	Actual	31,274	31,376	Board-approved	30,866
Historical	*2015*	Actual	7,796			Actual	237,964,967	244,634,476			Actual	30,524	31,379		
Historical	*2016*	Actual	7,845			Actual	239,091,361	247,843,832			Actual	30,477	31,593		
Historical	*2017*	Actual	7,936			Actual	232,588,463	241,530,755			Actual	29,308	30,435		
Historical	*2018*	Actual	7,983			Actual	240,602,997	244,234,182			Actual	30,139	30,594		
Bridge Year	*2019*	Forecast	8,059			Forecast		230,055,002			Forecast	0	28,546		
Test Year	*2020*	Forecast	8,136			Forecast		230,635,457			Forecast	0	28,348		

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
	2014			*2014*				*2014*			
	2015	0.7%		*2015*	-1.7%	0.7%		*2015*	-2.4%	0.0%	
	2016	0.6%		*2016*	0.5%	1.3%		*2016*	-0.2%	0.7%	
	2017	1.2%		*2017*	-2.7%	-2.5%		*2017*	-3.8%	-3.7%	
	2018	0.6%		*2018*	3.4%	1.1%		*2018*	2.8%	0.5%	
	2019	1.0%		*2019*		-5.8%		*2019*		-6.7%	
	2020	1.0%	3.9%	*2020*		0.3%	-4.6%	*2020*		-0.7%	-8.2%
	Geometric Mean	0.8%	0.6%	Geometric Mean	-0.2%	-0.9%		Geometric Mean	-0.9%	-1.7%	

	Calendar Year (for 2020 Cost of Service	Revenues			
Historical	*2014*	Actual	$ 5,668,569	Board-approved	$ 5,423,998
Historical	*2015*	Actual	$ 5,404,890		
Historical	*2016*	Actual	$ 5,660,242		
Historical	*2017*	Actual	$ 5,615,245		
Historical	*2018*	Actual	$ 5,778,444		
Bridge Year (Forecast)	*2019*	Forecast	$ 5,744,346		
Test Year (Forecast)	*2020*	Forecast	$ 6,172,741		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2014		
	2015	-4.7%	
	2016	4.7%	
	2017	-0.8%	
	2018	2.9%	
	2019	-0.6%	
	2020	7.5%	13.8%
	Geometric Mean	1.4%	1.6%

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

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

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

	Calendar Year (for 2020 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	*2014*	Actual	944	Board-approved	945	Actual	840,637,054	843,379,698	Board-approved	845,285,977	Actual	890,505	893,411	Board-approved	894,483
Historical	*2015*	Actual	939			Actual	832,883,576	856,227,033			Actual	886,990	911,850		
Historical	*2016*	Actual	940			Actual	826,940,979	857,212,995			Actual	879,724	911,929		
Historical	*2017*	Actual	936			Actual	804,219,318	835,139,009			Actual	859,209	892,243		
Historical	*2018*	Actual	950			Actual	839,662,733	852,334,938			Actual	883,856	897,195		
Bridge Year	*2019*	Forecast	944			Forecast		797,429,992			Forecast	0	844,735		
Test Year	*2020*	Forecast	938			Forecast		777,549,790			Forecast	0	828,944		

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
	2014				*2014*				*2014*			
	2015	-0.5%			*2015*	-0.9%	1.5%		*2015*	-0.4%	2.1%	
	2016	0.1%			*2016*	-0.7%	0.1%		*2016*	-0.8%	0.0%	
	2017	-0.4%			*2017*	-2.7%	-2.6%		*2017*	-2.3%	-2.2%	
	2018	1.5%			*2018*	4.4%	2.1%		*2018*	2.9%	0.6%	
	2019	-0.6%			*2019*		-6.4%		*2019*		-5.8%	
	2020	-0.6%		-0.7%	*2020*		-2.5%	-8.0%	*2020*		-1.9%	-7.3%
	Geometric Mean	-0.1%		-0.8%	Geometric Mean	0.0%	-1.3%		Geometric Mean	-0.2%	-1.2%	

	Calendar Year (for 2020 Cost of Service	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather-normalized		Weather-normalized	Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2014*	Actual	$ 10,803,159	Board-approved	$ 11,181,169	Actual	2,159,271	2,166,316	Board-approved	2,236,472	Actual	0.19987	0.20053	Board-approved	0
Historical	*2015*	Actual	$ 10,821,529			Actual	2,147,080	2,207,257			Actual	0.19841	0.20397		
Historical	*2016*	Actual	$ 11,557,868			Actual	2,170,742	2,250,207			Actual	0.18782	0.19469		
Historical	*2017*	Actual	$ 11,146,537			Actual	2,109,153	2,235,342			Actual	0.18922	0.20054		
Historical	*2018*	Actual	$ 11,666,321			Actual	2,202,763	2,236,007			Actual	0.18881	0.19166		
Bridge Year (Forecast)	*2019*	Forecast	$ 11,226,748			Forecast		2,089,215			Forecast	0.00000	0.18609		
Test Year (Forecast)	*2020*	Forecast	$ 12,048,412			Forecast		2,037,130			Forecast	0.00000	0.16908		

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
	2014				*2014*				*2014*			
	2015	0.2%			*2015*	-0.6%	1.9%		*2015*	-0.7%	1.7%	
	2016	6.8%			*2016*	1.1%	1.9%		*2016*	-5.3%	-4.5%	
	2017	-3.6%			*2017*	-2.8%	-0.7%		*2017*	0.7%	3.0%	
	2018	4.7%			*2018*	4.4%	0.0%		*2018*	-0.2%	-4.4%	
	2019	-3.8%			*2019*		-6.6%		*2019*		-2.9%	
	2020	7.3%		7.8%	*2020*		-2.5%	-8.9%	*2020*		-9.1%	-15.5%
	Geometric Mean	1.8%		0.5%	Geometric Mean	0.5%	-1.2%		Geometric Mean	-1.4%	-2.8%	

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

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

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

	Calendar Year (for 2020 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	*2014*	Actual	2	Board-approved	1	Actual	63,442,910	63,649,898	Board-approved	31,798,990	Actual	31,721,455	31,824,949	Board-approved	31,798,990
Historical	*2015*	Actual	1			Actual	35,769,406	36,771,925			Actual	35,769,406	36,771,925		
Historical	*2016*	Actual	1			Actual	28,906,567	29,964,756			Actual	28,906,567	29,964,756		
Historical	*2017*	Actual	1			Actual	31,425,634	32,633,850			Actual	31,425,634	32,633,850		
Historical	*2018*	Actual	1			Actual	33,369,028	33,872,634			Actual	33,369,028	33,872,634		
Bridge Year	*2019*	Forecast	1			Forecast		34,219,939			Forecast	0	34,219,939		
Test Year	*2020*	Forecast	1			Forecast		35,092,547			Forecast	0	35,092,547		

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
	2014			*2014*				*2014*			
	2015	-50.0%		*2015*	-43.6%	-42.2%		*2015*	12.8%	15.5%	
	2016	0.0%		*2016*	-19.2%	-18.5%		*2016*	-19.2%	-18.5%	
	2017	0.0%		*2017*	8.7%	8.9%		*2017*	8.7%	8.9%	
	2018	0.0%		*2018*	6.2%	3.8%		*2018*	6.2%	3.8%	
	2019	0.0%		*2019*		1.0%		*2019*		1.0%	
	2020	0.0%	0.0%	*2020*		2.5%	10.4%	*2020*		2.5%	10.4%
	Geometric Mean	-10.9%		Geometric Mean	-14.8%	-9.4%		Geometric Mean	1.3%	1.6%	

	Calendar Year (for 2020 Cost of Service	Revenues				Demand (kW)				Demand (kW) per Customer			
						Actual (Weather actual)	Weather-normalized		Weather-normalized	Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2014*	Actual	$ 215,152	Board-approved	$ 245,561	Actual	126,219	126,631	Board-approved	63,002	Actual	0.58665	0.58857	Board-approved	0
Historical	*2015*	Actual	$ 252,894			Actual	62,998	64,764			Actual	0.24911	0.25609		
Historical	*2016*	Actual	$ 256,618			Actual	62,931	65,235			Actual	0.24523	0.25421		
Historical	*2017*	Actual	$ 256,922			Actual	58,806	61,067			Actual	0.22889	0.23769		
Historical	*2018*	Actual	$ 270,014			Actual	69,011	70,052			Actual	0.25558	0.25944		
Bridge Year (Forecast)	*2019*	Forecast	$ 272,843			Forecast		68,383			Forecast	0.00000	0.25063		
Test Year (Forecast)	*2020*	Forecast	$ 296,654			Forecast		70,127			Forecast	0.00000	0.23639		

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
	2014			*2014*				*2014*			
	2015	17.5%		*2015*	-50.1%	-48.9%		*2015*	-57.5%	-56.5%	
	2016	1.5%		*2016*	-0.1%	0.7%		*2016*	-1.6%	-0.7%	
	2017	0.1%		*2017*	-6.6%	-6.4%		*2017*	-6.7%	-6.5%	
	2018	5.1%		*2018*	17.4%	14.7%		*2018*	11.7%	9.2%	
	2019	1.0%		*2019*		-2.4%		*2019*		-3.4%	
	2020	8.7%	20.8%	*2020*		2.6%	11.3%	*2020*		-5.7%	-7.9%
	Geometric Mean	5.5%		Geometric Mean	-14.0%	-9.4%		Geometric Mean	-18.8%	-14.1%	

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

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

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

5 **Customer Class:** Street Lighting — Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2020 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	*2014*	Actual	1,616	Board-approved	1,619	Actual	16,039,251	16,091,581	Board-approved	16,128,465	Actual	9,925	9,958	Board-approved	9,962
Historical	*2015*	Actual	1,637			Actual	16,203,416	16,657,553			Actual	9,898	10,176		
Historical	*2016*	Actual	1,653			Actual	16,260,857	16,856,121			Actual	9,837	10,197		
Historical	*2017*	Actual	1,696			Actual	14,867,141	15,438,736			Actual	8,766	9,103		
Historical	*2018*	Actual	1,666			Actual	7,466,579	7,579,265			Actual	4,482	4,549		
Bridge Year	*2019*	Forecast	1,681			Forecast		7,386,896			Forecast	0	4,394		
Test Year	*2020*	Forecast	1,696			Forecast		7,307,482			Forecast	0	4,309		

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
	2014			*2014*				*2014*			
	2015	1.3%		*2015*	1.0%	3.5%		*2015*	-0.3%	2.2%	
	2016	1.0%		*2016*	0.4%	1.2%		*2016*	-0.6%	0.2%	
	2017	2.6%		*2017*	-8.6%	-8.4%		*2017*	-10.9%	-10.7%	
	2018	-1.8%		*2018*	-49.8%	-50.9%		*2018*	-48.9%	-50.0%	
	2019	0.9%		*2019*		-2.5%		*2019*		-3.4%	
	2020	0.9%	4.8%	*2020*		-1.1%	-54.7%	*2020*		-2.0%	-56.7%
	Geometric Mean	0.8%	0.0%	Geometric Mean	-17.4%	-12.3%		Geometric Mean	-18.0%	-13.0%	

	Calendar Year (for 2020 Cost of Service	Revenues				Demand (kW)				Demand (kW) per Customer			
						Actual (Weather actual)	Weather-normalized		Weather-normalized	Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2014*	Actual	$ 404,345	Board-approved	$ 415,847	Actual	126,219	32,014	Board-approved	45,145	Actual	0.31216	0.07918	Board-approved	0.10856226
Historical	*2015*	Actual	$ 419,700			Actual	62,998	29,338			Actual	0.15010	0.06990		
Historical	*2016*	Actual	$ 431,706			Actual	62,931	36,697			Actual	0.14577	0.08500		
Historical	*2017*	Actual	$ 424,329			Actual	58,806	28,890			Actual	0.13859	0.06808		
Historical	*2018*	Actual	$ 322,046			Actual	69,011	15,675			Actual	0.21429	0.04867		
Bridge Year (Forecast)	*2019*	Forecast	$ 330,270			Forecast		14,761			Forecast	0.00000	0.04470		
Test Year (Forecast)	*2020*	Forecast	$ 335,065			Forecast		14,603			Forecast	0.00000	0.04358		

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
	2014			*2014*				*2014*			
	2015	3.8%		*2015*	-50.1%	-8.4%		*2015*	-51.9%	-11.7%	
	2016	2.9%		*2016*	-0.1%	25.1%		*2016*	-2.9%	21.6%	
	2017	-1.7%		*2017*	-6.6%	-21.3%		*2017*	-4.9%	-19.9%	
	2018	-24.1%		*2018*	17.4%	-45.7%		*2018*	54.6%	-28.5%	
	2019	2.6%		*2019*		-5.8%		*2019*		-8.2%	
	2020	1.5%	-19.4%	*2020*		-1.1%	-67.7%	*2020*		-2.5%	-59.9%
	Geometric Mean	-3.1%	2.2%	Geometric Mean	-14.0%	-12.3%		Geometric Mean	-9.0%	-9.5%	

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

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

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

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

	Calendar Year (for 2020 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	*2014*	Actual	877	Board-approved	890	Actual	4,039,940	4,053,121	Board-approved	3,417,188	Actual	4,607	4,622	Board-approved	3839.537576
Historical	*2015*	Actual	891			Actual	3,943,092	4,053,606			Actual	4,425	4,550		
Historical	*2016*	Actual	866			Actual	3,917,912	4,061,336			Actual	4,524	4,690		
Historical	*2017*	Actual	886			Actual	3,907,712	4,057,951			Actual	4,411	4,580		
Historical	*2018*	Actual	931			Actual	4,009,942	4,070,460			Actual	4,307	4,372		
Bridge Year	*2019*	Forecast	943			Forecast		4,091,278			Forecast	0	4,339		
Test Year	*2020*	Forecast	955			Forecast		4,173,587			Forecast	0	4,370		

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
	2014			*2014*				*2014*			
	2015	1.6%		*2015*	-2.4%	0.0%		*2015*	-3.9%	-1.6%	
	2016	-2.8%		*2016*	-0.6%	0.2%		*2016*	2.2%	3.1%	
	2017	2.3%		*2017*	-0.3%	-0.1%		*2017*	-2.5%	-2.3%	
	2018	5.1%		*2018*	2.6%	0.3%		*2018*	-2.3%	-4.5%	
	2019	1.3%		*2019*		0.5%		*2019*		-0.8%	
	2020	1.3%	7.3%	*2020*		2.0%	22.1%	*2020*		0.7%	13.8%
	Geometric Mean	1.4%	1.2%	Geometric Mean	-0.2%	0.5%		Geometric Mean	-1.7%	-0.9%	

	Calendar Year (for 2020 Cost of Service	Revenues				
Historical	*2014*	Actual	$ 133,432	Board-approved	$ 119,375	
Historical	*2015*	Actual	$ 125,568			
Historical	*2016*	Actual	$ 129,648			
Historical	*2017*	Actual	$ 129,662			
Historical	*2018*	Actual	$ 137,207			
Bridge Year (Forecast)	*2019*	Forecast	$ 142,992			
Test Year (Forecast)	*2020*	Forecast	$ 151,304			

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2014		
	2015	-5.9%	
	2016	3.2%	
	2017	0.0%	
	2018	5.8%	
	2019	4.2%	
	2020	5.8%	26.7%
	Geometric Mean	2.1%	3.6%

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

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

7 **Customer Class:** Embedded Distributor — Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2020 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	*2014*	Actual	1	Board-approved	1	Actual	14,039,293	14,039,293	Board-approved	20,328,822	Actual	14,039,293	14,039,293	Board-approved	20,328,822
Historical	*2015*	Actual	1			Actual	23,075,917	23,075,917			Actual	23,075,917	23,075,917		
Historical	*2016*	Actual	1			Actual	19,564,437	19,564,437			Actual	19,564,437	19,564,437		
Historical	*2017*	Actual	1			Actual	20,383,812	20,383,812			Actual	20,383,812	20,383,812		
Historical	*2018*	Actual	1			Actual	12,731,869	12,731,869			Actual	12,731,869	12,731,869		
Bridge Year	*2019*	Forecast	1			Forecast		19,053,029			Forecast	0	19,053,029		
Test Year	*2020*	Forecast	1			Forecast		19,053,029			Forecast	0	19,053,029		

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
	2014			*2014*				*2014*			
	2015	0.0%		*2015*	64.4%	64.4%		*2015*	64.4%	64.4%	
	2016	0.0%		*2016*	-15.2%	-15.2%		*2016*	-15.2%	-15.2%	
	2017	0.0%		*2017*	4.2%	4.2%		*2017*	4.2%	4.2%	
	2018	0.0%		*2018*	-37.5%	-37.5%		*2018*	-37.5%	-37.5%	
	2019	0.0%		*2019*		49.6%		*2019*		49.6%	
	2020	0.0%	0.0%	*2020*		0.0%	-6.3%	*2020*		0.0%	-6.3%
	Geometric Mean	0.0%	0.0%	Geometric Mean	-2.4%	5.2%		Geometric Mean	-2.4%	5.2%	

	Calendar Year (for 2020 Cost of Service	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather-normalized		Weather-normalized	Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2014*	Actual	$ 72,859	Board-approved	$ 98,174	Actual	32,611	32,611	Board-approved	44,674	Actual	0.44760	0.44760	Board-approved	0.455046828
Historical	*2015*	Actual	$ 110,223			Actual	49,709	49,709			Actual	0.45098	0.45098		
Historical	*2016*	Actual	$ 113,492			Actual	49,930	49,930			Actual	0.43995	0.43995		
Historical	*2017*	Actual	$ 104,072			Actual	44,998	44,998			Actual	0.43238	0.43238		
Historical	*2018*	Actual	$ 77,277			Actual	33,065	33,065			Actual	0.42788	0.42788		
Bridge Year (Forecast)	*2019*	Forecast	$ 102,603			Forecast		43,316			Forecast	0.00000	0.42217		
Test Year (Forecast)	*2020*	Forecast	$ 146,422			Forecast		43,316			Forecast	0.00000	0.29583		

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
	2014			*2014*				*2014*			
	2015	51.3%		*2015*	52.4%	52.4%		*2015*	0.8%	0.8%	
	2016	3.0%		*2016*	0.4%	0.4%		*2016*	-2.4%	-2.4%	
	2017	-8.3%		*2017*	-9.9%	-9.9%		*2017*	-1.7%	-1.7%	
	2018	-25.7%		*2018*	-26.5%	-26.5%		*2018*	-1.0%	-1.0%	
	2019	32.8%		*2019*		31.0%		*2019*		-1.3%	
	2020	42.7%	49.1%	*2020*		0.0%	-3.0%	*2020*		-29.9%	-35.0%
	Geometric Mean	12.3%	2.2%	Geometric Mean	0.3%	4.8%		Geometric Mean	-1.1%	-6.7%	

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Appendix 3-2: KWHI Load Forecast

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	IESO	Generation	Large Use Losses	Street Lighting	Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Peak Hours	CDM	Residential Customers	Predicted Purchases	MAPE
Jan-09	176,131,307	2,752,419	(4,618,860)	(785,405)	173,479,461	891.2	-	31	0	336	2,295,813	75,899	172,680,070	0.5%
Feb-09	151,717,789	2,657,941	(4,605,190)	(693,134)	149,077,406	649.2	-	29	0	304	2,361,077	75,958	153,446,570	2.9%
Mar-09	156,553,861	3,106,254	(4,587,065)	(723,686)	154,349,364	562.5	-	31	1	352	2,426,342	75,998	155,071,227	0.5%
Apr-09	138,889,187	3,087,875	(4,230,043)	(556,703)	137,190,316	342.5	3.2	30	1	336	2,491,606	76,028	142,701,428	4.0%
May-09	134,434,411	3,609,399	(4,064,523)	(516,499)	133,462,788	193.1	2.3	31	1	320	2,556,871	76,065	138,773,442	4.0%
Jun-09	142,548,339	3,450,522	(4,201,126)	(532,050)	141,265,685	76.4	26.1	30	0	352	2,622,135	76,141	147,539,245	4.4%
Jul-09	143,270,941	3,581,701	(4,185,228)	(555,944)	142,111,469	38.4	14.2	31	0	352	2,687,400	76,250	145,114,889	2.1%
Aug-09	157,674,451	3,670,763	(4,413,159)	(588,278)	156,343,777	35.1	56.9	31	0	320	2,752,664	76,340	158,634,562	1.5%
Sep-09	140,458,615	3,470,623	(3,392,971)	(738,937)	139,797,329	99.5	5.4	30	1	336	2,817,929	76,437	133,750,525	4.3%
Oct-09	145,285,176	3,644,924	(3,132,639)	(750,310)	145,047,152	329.6	-	31	1	336	2,883,194	76,536	144,455,923	0.4%
Nov-09	145,607,812	3,580,102	(3,160,287)	(839,354)	145,188,273	397.2	-	30	1	336	2,948,458	76,655	143,547,853	1.1%
Dec-09	166,545,329	3,573,132	(2,961,658)	(944,279)	166,212,525	669.1	-	31	0	352	3,013,723	76,755	164,817,235	0.8%
Jan-10	171,587,069	3,440,714	(3,178,162)	(764,788)	171,084,833	752.5	-	31	0	320	3,039,170	76,818	165,737,026	3.1%
Feb-10	152,386,226	3,088,617	(2,750,443)	(749,368)	151,975,032	643.6	-	28	0	304	3,064,617	76,927	149,439,092	1.7%
Mar-10	152,881,624	3,388,526	(3,251,381)	(686,220)	152,332,549	471.2	-	31	1	368	3,090,064	77,054	152,452,457	0.1%
Apr-10	134,783,810	3,474,388	(3,017,909)	(582,020)	134,658,269	264.9	-	30	1	336	3,115,512	77,210	138,247,154	2.7%
May-10	147,558,538	3,554,304	(3,078,010)	(519,806)	147,515,026	145.1	20.6	31	1	320	3,140,959	77,319	143,607,901	2.6%
Jun-10	152,085,417	3,365,360	(3,356,871)	(534,543)	151,559,364	38.5	31.9	30	0	352	3,166,406	77,427	148,088,816	2.3%
Jul-10	173,774,673	3,414,396	(3,773,578)	(557,932)	172,857,559	9.2	105.2	31	0	336	3,191,853	77,585	176,890,014	2.3%
Aug-10	169,918,494	3,110,959	(3,919,906)	(569,676)	168,539,871	12.9	85.1	31	0	336	3,217,301	77,725	169,472,801	0.6%
Sep-10	141,552,978	3,138,948	(3,317,453)	(765,009)	140,609,464	123.2	23.2	30	1	336	3,242,748	77,864	141,322,236	0.5%
Oct-10	141,431,853	3,513,334	(3,326,607)	(727,249)	140,891,332	285.5	-	31	1	320	3,268,195	77,942	141,441,606	0.4%
Nov-10	149,100,645	3,312,803	(2,811,710)	(842,611)	148,759,127	453.8	-	30	1	352	3,293,642	78,058	146,959,281	1.2%
Dec-10	169,078,607	3,230,196	(4,828,827)	(979,708)	166,500,268	718.8	-	31	0	336	3,319,090	78,142	165,568,888	0.6%
Jan-11	173,480,601	2,965,560	(2,945,323)	(743,524)	172,757,313	825.9	-	31	0	320	3,387,076	78,212	168,617,293	2.4%
Feb-11	154,641,844	2,793,478	(2,750,496)	(708,178)	153,976,648	686.4	-	28	0	304	3,455,062	78,243	151,079,860	1.9%
Mar-11	161,467,012	3,394,932	(3,086,295)	(620,284)	161,155,366	623.8	-	31	1	368	3,523,048	78,316	158,450,390	1.7%
Apr-11	141,723,732	3,572,400	(2,866,114)	(551,322)	141,878,696	360.8	-	30	1	320	3,591,034	78,430	140,768,384	0.8%
May-11	142,626,392	3,355,063	(3,207,072)	(508,685)	142,265,698	156.4	13.1	31	1	336	3,659,020	78,515	142,316,852	0.0%
Jun-11	148,833,888	3,642,232	(3,427,963)	(526,143)	148,522,014	48.9	21.5	30	0	352	3,727,006	78,683	144,459,521	2.7%
Jul-11	178,623,729	3,655,249	(3,789,024)	(461,202)	178,028,752	0.9	128.0	31	0	320	3,794,992	78,827	183,793,166	3.2%
Aug-11	164,128,078	3,433,021	(3,755,391)	(591,302)	163,214,406	6.9	62.3	31	0	352	3,862,978	78,974	161,691,661	0.9%
Sep-11	143,183,425	2,919,649	(3,198,183)	(674,867)	142,230,025	98.9	21.1	30	1	336	3,930,964	79,048	139,382,764	2.0%
Oct-11	143,618,154	3,035,029	(2,964,005)	(761,844)	142,927,334	280.5	-	31	1	320	3,998,950	79,169	141,048,569	1.3%
Nov-11	146,066,573	3,083,190	(2,978,683)	(811,159)	145,359,921	383.1	-	30	1	352	4,066,936	79,320	143,934,538	1.0%
Dec-11	159,732,793	3,298,547	(2,868,216)	(878,191)	159,284,932	575.1	-	31	0	320	4,134,922	79,391	158,419,547	0.5%
Jan-12	167,297,863	3,308,989	(2,945,813)	(857,696)	166,803,343	656.3	-	31	0	336	4,186,233	79,527	162,844,025	2.4%
Feb-12	151,749,261	3,070,041	(2,754,826)	(741,050)	151,323,426	572.6	-	29	0	320	4,237,543	79,677	151,128,697	0.1%
Mar-12	149,081,825	3,441,733	(2,939,880)	(708,360)	148,875,318	370.2	-	31	1	352	4,288,853	79,729	146,949,054	1.3%
Apr-12	137,212,331	3,211,863	(2,842,603)	(602,375)	136,979,216	365.9	-	30	1	320	4,340,164	79,814	140,780,360	2.8%
May-12	146,013,521	3,295,565	(3,333,557)	(549,466)	145,426,063	107.8	18.1	31	1	352	4,391,474	79,902	143,275,654	1.5%
Jun-12	156,866,745	3,174,356	(3,402,437)	(496,239)	156,142,425	42.3	60.4	30	0	336	4,442,784	79,956	157,449,717	0.8%
Jul-12	181,523,408	3,077,558	(3,687,072)	(532,987)	180,380,907	0.6	126.4	31	0	336	4,494,095	80,039	184,195,144	2.1%
Aug-12	164,407,829	3,066,640	(3,561,125)	(599,914)	163,313,430	19.5	58.2	31	0	352	4,545,405	80,099	160,468,793	1.7%
Sep-12	143,005,966	2,785,144	(3,177,710)	(662,438)	141,950,962	125.8	16.2	30	1	304	4,596,715	80,189	136,037,414	4.2%
Oct-12	145,715,525	2,739,275	(3,134,256)	(770,991)	144,549,554	280.5	-	31	1	352	4,648,026	80,266	143,275,196	0.9%
Nov-12	149,958,942	2,848,806	(2,934,946)	(819,564)	149,053,239	484.0	-	30	1	352	4,699,336	80,345	147,785,782	0.9%
Dec-12	157,244,281	3,332,783	(2,737,694)	(885,766)	156,953,603	565.2	-	31	0	304	4,750,646	80,415	156,661,997	0.2%
Jan-13	166,887,939	3,380,704	(2,983,843)	(864,039)	166,420,761	680.7	-	31	0	352	4,775,750	80,473	164,856,696	0.9%
Feb-13	151,813,490	3,110,014	(2,601,826)	(720,996)	151,600,683	696.9	-	29	0	304	4,800,853	80,540	154,728,952	2.1%
Mar-13	156,390,854	3,559,799	(2,817,950)	(714,800)	156,417,902	612.0	-	31	1	320	4,825,956	80,596	154,042,545	1.5%
Apr-13	141,874,301	3,477,633	(2,931,379)	(607,439)	141,813,116	384.9	-	30	1	352	4,851,059	80,632	143,798,075	1.4%
May-13	141,124,268	3,738,460	(3,353,943)	(553,833)	140,954,952	153.2	19.5	31	1	352	4,876,163	80,705	145,482,606	3.2%
Jun-13	147,458,381	3,589,014	(3,438,076)	(499,557)	147,109,762	54.6	36.9	30	0	320	4,901,266	80,830	147,782,228	0.5%
Jul-13	168,337,886	3,710,032	(3,764,271)	(536,639)	167,747,009	15.4	85.4	31	0	352	4,926,369	80,929	170,450,840	1.6%
Aug-13	156,613,822	3,609,240	(3,507,067)	(602,352)	156,113,643	33.1	41.8	31	0	336	4,951,472	80,985	153,544,582	1.6%
Sep-13	141,695,735	3,066,299	(3,160,455)	(663,797)	140,937,783	130.8	20.5	30	1	320	4,976,575	81,159	138,972,624	1.4%
Oct-13	143,048,402	3,464,665	(3,144,989)	(772,868)	142,595,209	261.1	-	31	1	352	5,001,679	81,234	142,430,168	0.1%
Nov-13	150,584,277	3,374,965	(2,799,523)	(822,160)	150,337,558	517.7	-	30	1	336	5,026,782	81,279	147,865,282	1.6%
Dec-13	164,601,317	3,053,675	(2,737,200)	(888,719)	164,029,073	726.6	-	31	0	320	5,051,885	81,351	164,238,599	0.1%
Jan-14	176,937,928	3,117,285	(2,753,338)	(866,485)	176,435,390	867.6	-	31	0	352	5,118,165	81,405	172,235,171	2.4%
Feb-14	156,052,442	2,695,981	(2,421,010)	(722,960)	155,604,454	830.9	-	28	0	304	5,184,445	81,457	156,398,073	0.5%
Mar-14	164,051,051	3,508,123	(2,698,786)	(716,753)	164,143,636	757.1	-	31	1	336	5,250,725	81,528	160,924,433	2.0%
Apr-14	139,469,349	3,309,528	(2,679,379)	(609,286)	139,490,211	390.7	-	30	1	336	5,317,005	81,614	142,718,174	2.3%
May-14	138,347,944	3,782,221	(2,764,046)	(557,154)	138,808,964	172.1	8.6	31	1	336	5,383,285	81,675	140,807,448	1.4%
Jun-14	151,167,417	3,556,971	(3,103,498)	(502,784)	151,118,106	37.8	43.9	30	0	336	5,449,566	81,753	150,800,709	0.2%
Jul-14	151,381,290	3,307,853	(3,244,493)	(538,867)	150,905,783	37.3	37.7	31	0	352	5,515,846	81,852	153,213,927	1.5%
Aug-14	149,335,010	3,642,562	(2,926,685)	(605,462)	149,445,425	31.9	27.1	31	0	320	5,582,126	82,014	146,597,020	1.9%
Sep-14	139,766,061	3,545,628	(2,483,016)	(667,672)	140,161,001	117.6	11.2	30	1	336	5,648,406	82,117	135,958,060	3.0%
Oct-14	139,367,657	3,215,895	(2,397,696)	(778,284)	139,407,573	271.7	-	31	1	352	5,714,686	82,238	142,652,233	2.3%
Nov-14	149,943,539	2,898,608	(2,214,509)	(827,745)	149,799,893	532.2	-	30	1	320	5,780,966	82,340	147,031,977	1.8%
Dec-14	158,404,135	3,028,319	(2,207,246)	(898,906)	158,326,301	597.8	-	31	0	336	5,847,246	82,425	160,078,587	1.1%
Jan-15	170,394,114	3,041,341	(2,044,579)	(876,866)	170,514,010	842.4	-	31	0	336	5,979,908	82,551	169,785,618	0.4%
Feb-15	159,595,479	2,620,562	(1,646,141)	(733,523)	159,836,377	917.1	-	28	0	304	6,112,570	82,614	159,563,749	0.2%
Mar-15	156,767,280	3,638,362	-	(727,368)	159,678,274	657.3	-	31	1	352	6,245,232	82,707	157,853,914	1.1%
Apr-15	134,799,746	3,692,707	-	(618,310)	137,874,143	359.4	-	30	1	336	6,377,895	82,847	141,157,409	2.4%
May-15	138,723,842	3,988,853	-	(563,834)	142,148,860	116.6	29.2	31	1	320	6,510,557	82,982	144,815,059	1.9%
Jun-15	139,875,437	3,955,694	-	(508,129)	143,323,001	56.5	14.5	30	0	352	6,643,219	83,063	141,324,794	1.4%
Jul-15	156,564,116	4,317,132	-	(545,174)	160,336,073	19.9	57.0	31	0	352	6,775,881	83,165	159,401,992	0.6%
Aug-15	150,055,351	3,839,833	-	(611,438)	153,283,746	29.8	47.8	31	0	320	6,908,543	83,275	153,894,480	0.4%
Sep-15	146,219,596	3,512,059	-	(675,090)	149,056,565	58.4	44.7	30	1	336	7,041,205	83,382	145,772,693	2.2%
Oct-15	135,439,538	3,234,044	-	(785,850)	137,887,732	290.9	-	31	1	336	7,173,867	83,492	141,761,342	2.8%
Nov-15	137,059,823	3,137,506	-	(835,840)	139,361,489	391.7	-	30	1	336	7,306,529	83,554	142,148,543	2.0%
Dec-15	146,474,820	3,119,516	-	(904,655)	148,689,682	468.2	-	31	0	336	7,439,191	83,642	154,406,434	3.8%
Jan-16	159,251,541	3,281,606	-	(883,556)	161,649,591	717.0	-	31	0	320	7,582,386	83,745	163,076,494	0.9%
Feb-16	145,700,617	3,249,979	-	(763,116)	148,187,480	627.1	-	29	0	320	7,725,580	83,848	152,277,100	2.8%
Mar-16	143,585,865	3,698,906	-	(729,634)	146,555,137	492.6	-	31	1	352	7,868,775	83,951	150,773,022	2.9%
Apr-16	133,317,772	4,216,858	-	(620,044)	136,914,586	432.3	-	30	1	336	8,011,969	84,054	143,539,436	4.8%
May-16	135,340,999	4,699,994	-	(565,249)	139,475,744	175.1	18.3	31	1	336	8,155,164	84,157	143,715,034	3.0%
Jun-16	145,060,761	4,734,009	-	(510,597)	149,284,173	51.4	33.8	30	0	352	8,298,358	84,260	147,852,710	1.0%
Jul-16	165,663,035	4,471,435	-	(542,805)	169,591,665	5.0	102.3	31	0	320	8,441,553	84,690	172,940,133	2.0%
Aug-16	172,843,200	4,537,730	-	(609,557)	176,771,374	2.1	104.4	31	0	352	8,584,747	84,785	175,966,638	0.5%
Sep-16	143,586,382	4,409,993	-	(671,831)	147,324,544	69.2	26.3	30	1	336	8,727,942	84,919	138,756,170	5.8%
Oct-16	135,079,937	3,925,741	-	(784,165)	138,221,512	247.7	1.8	31	1	320	8,871,136	85,012	138,990,049	0.6%
Nov-16	136,705,849	3,722,646	-	(833,886)	139,594,609	388.8	-	30	1	352	9,014,331	85,166	142,705,840	2.2%
Dec-16	155,844,338	3,177,289	-	(901,367)	158,120,260	647.9	-	31	0	320	9,157,525	85,248	159,838,251	1.1%
Jan-17	157,837,189	3,445,293	-	(870,967)	160,411,515	651.9	-	31	0	336	9,401,388	85,338	161,113,473	0.4%
Feb-17	137,035,802	3,474,854	-	(726,273)	139,784,383	537.9	-	28	0	304	9,645,251	85,498	143,336,745	2.5%
Mar-17	150,658,537	4,089,076	-	(719,967)	154,027,645	597.6	-	31	1	368	9,889,113	85,646	155,521,685	1.0%
Apr-17	127,304,279	4,330,316	-	(611,823)	131,022,772	281.6	-	30	1	304	10,132,976	85,773	134,465,196	2.6%
May-17	131,264,949	4,577,362	-	(557,389)	135,284,921	214.4	2.7	31	1	352	10,376,839	85,929	139,906,458	3.4%

	IESO	Generation	Large Use Losses	Street Lighting	Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Peak Hours	CDM	Residential Customers	Predicted Purchases	MAPE
Jun-17	141,608,182	4,667,636	-	(503,066)	145,772,752	45.2	43.0	30	0	352	10,620,701	86,044	150,328,004	3.1%
Jul-17	151,242,759	4,754,141	-	(539,686)	155,457,214	3.2	58.5	31	0	320	10,864,564	86,130	155,590,259	0.1%
Aug-17	146,987,028	4,553,488	-	(605,595)	150,934,921	34.5	28.6	31	0	352	11,108,427	86,233	147,902,034	2.0%
Sep-17	140,693,454	4,316,092	-	(667,112)	144,342,434	81.1	36.3	30	1	320	11,352,289	86,301	140,921,438	2.4%
Oct-17	133,632,621	3,681,789	-	(593,850)	136,720,560	208.9	3.2	31	1	336	11,596,152	86,429	138,262,429	1.1%
Nov-17	141,644,892	3,213,518	-	(631,400)	144,227,010	480.0	-	30	1	352	11,840,015	86,606	145,397,799	0.8%
Dec-17	157,394,233	3,107,981	-	(679,599)	159,822,614	755.7	-	31	0	304	12,083,877	86,846	161,965,255	1.3%
Jan-18	165,079,988	3,266,073	-	-	168,346,061	791.1	-	31	0	352	12,067,182	86,890	166,982,157	0.8%
Feb-18	140,447,382	3,167,678	-	-	143,615,060	594.9	-	28	0	304	12,050,486	86,950	144,819,239	0.8%
Mar-18	148,006,583	4,325,859	-	-	152,332,442	591.1	-	31	1	336	12,033,790	87,041	152,166,581	0.1%
Apr-18	138,011,812	4,328,439	-	-	142,340,251	474.8	-	30	1	336	12,017,094	87,199	143,961,740	1.1%
May-18	139,618,568	4,981,302	-	-	144,599,870	95.2	32.5	31	1	352	12,000,399	87,308	145,860,463	0.9%
Jun-18	147,243,341	4,613,999	-	-	151,857,340	36.4	41.5	30	0	336	11,983,703	87,372	147,796,079	2.7%
Jul-18	170,652,291	4,759,524	-	-	175,411,815	3.6	89.3	31	0	336	11,967,007	87,462	168,072,672	4.2%
Aug-18	169,978,732	4,346,729	-	-	174,325,461	6.6	93.9	31	0	352	11,950,311	87,528	171,132,294	1.8%
Sep-18	149,561,165	3,907,560	-	-	153,468,725	77.2	48.8	30	1	304	11,933,616	87,638	144,137,544	6.1%
Oct-18	140,901,104	2,918,532	-	-	143,819,636	319.5	5.2	31	1	352	11,916,920	87,717	144,580,624	0.5%
Nov-18	147,572,258	2,798,293	-	-	150,370,551	538.6	-	30	1	352	11,900,224	87,783	147,780,103	1.7%
Dec-18	153,313,471	3,249,161	-	-	156,562,632	600.8	-	31	0	304	11,883,528	87,846	155,923,427	0.4%
Jan-19	-	-	-	-	-	763.8	-	31	0	352	11,821,548	87,946	166,043,808	0.0%
Feb-19	-	-	-	-	-	675.6	-	28	0	304	11,759,567	88,046	148,203,932	0.0%
Mar-19	-	-	-	-	-	561.5	-	31	1	336	11,697,587	88,146	151,171,958	0.0%
Apr-19	-	-	-	-	-	363.8	0.3	30	1	336	11,635,606	88,246	139,859,623	0.0%
May-19	-	-	-	-	-	151.7	16.8	31	1	352	11,573,625	88,347	142,428,371	0.0%
Jun-19	-	-	-	-	-	47.5	34.9	30	0	320	11,511,645	88,447	144,800,918	0.0%
Jul-19	-	-	-	-	-	12.8	80.8	31	0	352	11,449,664	88,548	166,698,549	0.0%
Aug-19	-	-	-	-	-	21.0	60.9	31	0	336	11,387,683	88,648	158,350,588	0.0%
Sep-19	-	-	-	-	-	96.5	25.2	30	1	320	11,325,703	88,749	137,522,291	0.0%
Oct-19	-	-	-	-	-	275.8	1.0	31	1	352	11,263,722	88,850	141,572,144	0.0%
Nov-19	-	-	-	-	-	457.6	-	30	1	336	11,201,742	88,951	143,674,238	0.0%
Dec-19	-	-	-	-	-	631.1	-	31	0	320	11,139,761	89,052	158,672,525	0.0%
Jan-20	-	-	-	-	-	763.8	-	31	0	352	11,142,795	89,153	166,361,081	0.0%
Feb-20	-	-	-	-	-	675.6	-	29	0	304	11,145,828	89,255	152,082,988	0.0%
Mar-20	-	-	-	-	-	561.5	-	31	1	352	11,148,862	89,356	152,641,305	0.0%
Apr-20	-	-	-	-	-	363.8	0.3	30	1	336	11,151,896	89,458	140,106,262	0.0%
May-20	-	-	-	-	-	151.7	16.8	31	1	320	11,154,930	89,560	140,253,139	0.0%
Jun-20	-	-	-	-	-	47.5	34.9	30	0	352	11,157,963	89,662	147,398,795	0.0%
Jul-20	-	-	-	-	-	12.8	80.8	31	0	352	11,160,997	89,763	166,874,556	0.0%
Aug-20	-	-	-	-	-	21.0	60.9	31	0	320	11,164,031	89,866	157,303,887	0.0%
Sep-20	-	-	-	-	-	96.5	25.2	30	1	336	11,167,064	89,968	138,850,373	0.0%
Oct-20	-	-	-	-	-	275.8	1.0	31	1	336	11,170,098	90,070	140,478,356	0.0%
Nov-20	-	-	-	-	-	457.6	-	30	1	336	11,173,132	90,172	143,756,070	0.0%
Dec-20	-	-	-	-	-	631.1	-	31	0	336	11,176,166	90,275	159,929,977	0.0%
								Weather Normal					21,797,459,969	1.73% MAPE
2009	1,799,117,218	40,185,655			1,783,525,546								1,800,532,969	101.0% 17,007,424
2010	1,856,139,934	40,032,546			1,847,282,694								1,839,227,273	99.6% (8,055,421)
2011	1,858,126,221	39,148,349			1,851,601,106								1,833,962,546	99.0% (17,638,561)
2012	1,850,077,497	37,352,756			1,841,751,487								1,830,851,833	99.4% (10,899,654)
2013	1,830,430,672	41,134,501			1,826,077,452								1,828,193,197	100.1% 2,115,745
2014	1,814,223,823	39,608,973			1,813,646,737								1,809,415,813	99.8% (4,230,924)
2015	1,771,969,142	38,406,888			1,801,989,952								1,811,886,027	100.5% 9,896,075
2016	1,771,980,296	48,126,186			1,811,690,676								1,830,430,876	101.0% 18,740,201
2017	1,717,303,925	48,211,544			1,757,808,742								1,774,710,777	101.0% 16,902,036
2018	1,810,386,695	46,663,149			1,857,049,843								1,833,212,923	98.7% (23,836,920)
2019					-								1,798,998,944	
2020					-								1,806,036,789	
Total to 2018					18,192,424,235								18,192,424,235	0
													21,797,459,969	0

Check totals above should be zero

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.960789868
R Square	0.923117170
Adjusted R Square	0.918311993
Standard Error	3285390.358
Observations	120

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	7	1.45151E+16	2.07358E+15	208.9993424	3.25214E-61
Residual	112	1.2089E+15	1.07938E+13		
Total	119	1.5724E+16	0		

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-2768767.489	29744463.48	-0.093085138	0.926002233	-61703609.07	56166074.09	-61703609.07	56166074.09
Heating Degree Days	39852.28035	1748.073008	22.7978352	6.98122E-44	36388.69776	43315.86294	36388.69776	43315.86294
Cooling Degree Days	376298.9239	17358.67537	21.67785939	7.00393E-42	341904.9338	410692.914	341904.9338	410692.914
Number of Days in Month	3585328.515	431109.0053	8.316524291	2.41877E-13	2731141.282	4439515.747	2731141.282	4439515.747
Spring Fall Flag	-5666921.725	753200.9761	-7.523784361	1.43632E-11	-7159292.91	-4174550.54	-7159292.91	-4174550.54
Number of Peak Hours	74947.71476	20250.61648	3.701009045	0.000334704	34823.71403	115071.7155	34823.71403	115071.7155
CDM	-0.363377575	0.418060482	-0.869198575	0.386597409	-1.191710831	0.464955681	-1.191710831	0.464955681
Residential Customers	58.48715351	365.4605251	0.160036856	0.873140315	-665.6260304	782.6003374	-665.6260304	782.6003374

	Actual Purchases	Modeled Purchases	Loss Factor	Total Billed
	Weather Normal Projection			
2009	1,839,302,873	1,800,532,969	1.0348	1,777,401,233
2010	1,896,172,480	1,839,227,273	1.0364	1,829,500,492
2011	1,897,274,570	1,833,962,546	1.0346	1,833,881,352
2012	1,887,430,253	1,830,851,833	1.0341	1,825,234,090
2013	1,871,565,173	1,828,193,197	1.0322	1,813,262,317
2014	1,853,832,796	1,809,415,813	1.0279	1,803,531,651
2015	1,814,066,750	1,811,886,027	1.0293	1,762,488,284
2016	1,820,106,482	1,830,430,876	1.0308	1,765,790,195
2017	1,765,515,469	1,774,710,777	1.0331	1,709,004,940
2018	1,857,049,843	1,833,212,923	1.0283	1,805,957,382
2019		1,798,998,944		1,742,878,264
2020		1,806,036,789		1,749,696,560
Average			1.0322	

Residential	GS<50 kW	GS>50 kW	GS>50 kW WMP	GS>50 kW Cl A	Large User	Streetlights	USL	
Annual kWh at the Meter								
626,869,704	230,572,826	820,920,003			79,822,385	15,920,914	3,295,401	1,777,401,233
650,651,967	236,095,929	876,884,814			46,563,626	16,035,117	3,269,039	1,829,500,492
647,280,211	240,155,523	871,254,048			56,015,269	15,857,518	3,318,783	1,833,881,352
644,467,300	240,981,970	835,716,636	2,539,059	12,532,788	69,356,376	15,943,501	3,696,460	1,825,234,090
640,344,407	241,162,382	799,792,370	17,811,733	5,958,678	88,505,648	15,982,945	3,704,154	1,813,262,317
637,186,640	242,185,854	797,257,776	17,075,274	26,304,004	63,442,910	16,039,251	4,039,940	1,803,531,651
635,723,827	237,964,967	791,055,891	16,690,370	25,137,315	35,769,406	16,203,416	3,943,092	1,762,488,284
650,672,520	239,091,361	788,651,342	16,842,071	21,447,565	28,906,567	16,260,857	3,917,912	1,765,790,195
621,996,671	232,588,463	686,659,318	15,631,701	101,928,299	31,425,634	14,867,141	3,907,712	1,709,004,940
680,846,103	240,602,997	616,139,318	14,788,959	208,734,456	33,369,028	7,466,579	4,009,942	1,805,957,382

Usage/ Customer	Residential	GS<50 kW	GS>50 kW	GS>50 kW WMP	GS>50 kW Cl A	Large User	Streetlights	USL
2009	8,221	31,285	816,836			26,607,462	10,265	4,034
2010	8,395	31,699	886,638			46,563,626	10,187	4,031
2011	8,218	31,859	893,594			28,007,635	10,113	3,946
2012	8,056	31,522	882,489	634,765	12,532,788	34,678,188	10,136	4,255
2013	7,916	31,373	846,341	4,452,933	5,958,678	29,501,883	10,305	4,391
2014	7,783	31,274	849,050	4,268,818	26,304,004	31,721,455	9,925	4,608
2015	7,650	30,524	846,955	4,172,592	25,137,315	35,769,406	9,898	4,425
2016	7,698	30,477	843,477	4,210,518	21,447,565	28,906,567	9,837	4,522
2017	7,227	29,308	758,740	3,907,925	3,775,122	31,425,634	8,766	4,410
2018	7,790	30,139	676,333	2,957,792	6,139,249	33,369,028	4,482	4,307
2019	7,744	30,016	662,265	2,725,605	6,176,084	34,219,939	4,394	4,339
2020	7,697	29,893	648,490	2,511,645	6,213,141	35,092,547	4,309	4,370
2010	1.0212	1.0132	1.0855	0.0000	0.0000	1.7500	0.9925	0.9993
2011	0.9790	1.0050	1.0078	0.0000	0.0000	0.6015	0.9927	0.9790
2012	0.9803	0.9894	0.9876	0.0000	0.0000	1.2382	1.0022	1.0782
2013	0.9826	0.9953	0.9590	0.0000	0.0000	0.8507	1.0167	1.0321
2014	0.9832	0.9969	1.0032	0.9587	4.4144	1.0752	0.9632	1.0493
2015	0.9828	0.9760	0.9975	0.9775	0.9556	1.1276	0.9973	0.9604
2016	1.0063	0.9985	0.9959	1.0091	0.8532	0.8081	0.9938	1.0219
2017	0.9389	0.9616	0.8995	0.9281	0.1760	1.0871	0.8911	0.9752
2018	1.0779	1.0284	0.8914	0.7569	1.6262	1.0618	0.5113	0.9767
2019								
2020								
Used	0.9940	0.9959	0.9792	0.9215	1.0060	1.0255	0.9805	1.0073
Geomean	0.9940	0.9959	0.9792	0.9215	1.0060	1.0255	0.9805	1.0073

		Residential	GS<50 kW	GS>50 kW	WMP	Class A	Large User	Streetlights	USL	
Non Weather Corrected Forecast										Total
2019	1,796,800,081	686,239,322	241,897,730	599,350,028	13,628,026	209,986,863	34,219,939	7,386,896	4,091,278	1,796,800,081
2020	1,788,253,092	691,674,166	243,207,693	582,992,607	12,558,226	211,246,784	35,092,547	7,307,482	4,173,587	1,788,253,092
Weather Corrected Forecast										Total
2019	1,742,878,264	659,931,665	232,624,343	581,417,017	13,220,265	209,986,863	34,219,939	7,386,896	4,091,278	1,742,878,264
2020	1,749,696,560	672,621,142	236,508,235	570,458,554	12,288,230	211,246,784	35,092,547	7,307,482	4,173,587	1,749,696,560
		Weather Normalization Percentage from 2006 Hydro One Study								
% Weather Sensitive		82.00%	82.00%	64.00%	64.00%					Total
2019	(53,921,817)	562,716,244	198,356,138	383,584,018	8,721,937	0	0	0	0	1,153,378,337
2020	(38,556,531)	567,172,816	199,430,308	373,115,269	8,037,265	0	0	0	0	1,147,755,658
Allocation of Weather Sensitive Amount										
2019		(26,307,658)	(9,273,387)	(17,933,012)	(407,761)	0	0	0	0	(53,921,817)
2020		(19,053,024)	(6,699,458)	(12,534,053)	(269,996)	0	0	0	0	(38,556,531)
			GS> Cl B	582,746,784						
CDM		Manual Adjustment to the Load Forecast from 2019 and 2020 Programs on a Net Level								
		5.00%	25.00%	70.00%						
2019	(10,277,361)	(513,868)	(2,569,340)	(7,194,153)	0	0	0	0	0	(10,277,361)
2020	(23,491,111)	(1,174,556)	(5,872,778)	(16,443,778)	0	0	0	0	0	(23,491,111)
Weather Corrected Forecast after 2019 and 2020 CDM Adjustments										Total
2019	1,732,600,903	659,417,797	230,055,002	574,222,864	13,220,265	209,986,863	34,219,939	7,386,896	4,091,278	1,732,600,903
2020	1,726,205,449	671,446,586	230,635,457	554,014,776	12,288,230	211,246,784	35,092,547	7,307,482	4,173,587	1,726,205,449

Average Number of Customers or Connections

	Residential	GS<50 kW	GS>50 kW	WMP	GS>50 kW CI A	Large User	Streetlights	USL	Subtotal	Embedded Distributor	Total
2008	75,154	7,265	1,014			4	1,522	820	85,779	1	85,780
2009	76,255	7,370	1,005			3	1,551	817	87,001	1	87,002
2010	77,506	7,448	989			1	1,574	811	88,329	1	88,330
2011	78,761	7,538	975			2	1,568	841	89,685	1	89,686
2012	79,997	7,645	947	4	1	2	1,573	869	91,038	1	91,039
2013	80,893	7,687	945	4	1	3	1,551	844	91,928	1	91,929
2014	81,868	7,744	939	4	1	2	1,616	877	93,051	1	93,052
2015	83,106	7,796	934	4	1	1	1,637	891	94,370	1	94,371
2016	84,530	7,845	935	4	1	1	1,653	866	95,835	1	95,836
2017	86,064	7,936	905	4	27	1	1,696	886	97,519	1	97,520
2018	87,395	7,983	911	5	34	1	1,666	931	98,926	1	98,927
2019	88,619	8,059	905	5	34	1	1,681	943	100,247	1	100,248
2020	89,860	8,136	899	5	34	1	1,696	955	101,586	1	101,587

Growth Rate in Customer Numbers

2009	1.0146	1.0145	0.9911			0.7500	1.0191	0.9963		1.0000
2010	1.0164	1.0106	0.9841			0.3333	1.0148	0.9927		1.0000
2011	1.0162	1.0121	0.9858			2.0000	0.9962	1.0370		1.0000
2012	1.0157	1.0142	0.9713			1.0000	1.0032	1.0330		1.0000
2013	1.0112	1.0055	0.9979	1.0000	1.0000	1.5000	0.9860	0.9709		1.0000
2014	1.0121	1.0074	0.9937	1.0000	1.0000	0.6667	1.0419	1.0394		1.0000
2015	1.0151	1.0067	0.9947	1.0000	1.0000	0.5000	1.0130	1.0163		1.0000
2016	1.0171	1.0063	1.0011	1.0000	1.0000	1.0000	1.0098	0.9723		1.0000
2017	1.0181	1.0116	0.9679	1.0000	27.000	1.0000	1.0260	1.0228		1.0000
2018	1.0155	1.0059	1.0066	1.2500	1.2593	1.0000	0.9823	1.0507		1.0000
Used	1.0140	1.0095	0.9936	1.0000	1.0000	0.8705	1.0091	1.0128		1.0000
Geomean	1.0152	1.0095	0.9936	1.0379	1.7999	0.8705	1.0091	1.0128		1.0000

WNHI - Embedded Distributor

Wellesley	kW	kWh	Avg/month
2009	49,918.17	22,622,441.55	1,885,203.46
2010	53,143.52	24,190,281.49	2,015,856.79
2011	49,138.90	21,309,995.49	1,775,832.96
2012	37,866.88	17,590,423.55	1,465,868.63
2013	32,780.50	15,021,820.60	1,251,818.38
2014	32,611.38	14,039,293.18	1,169,941.10
2015	49,708.52	23,075,916.90	1,922,993.08
2016	49,930.49	19,564,437.33	1,630,369.78
2017	44,998.20	20,383,811.50	1,698,650.96
2018	33,065.30	12,731,868.73	1,060,989.06
Bridge	43,316.19	19,053,029.03	1,587,752.42
Test	43,316.19	19,053,029.03	1,587,752.42

Meter History	Start	End
0244192680	2002/04/01	2005/01/07
1000023320	2005/01/08	2011/12/31
1000023650	2012/01/01	2012/12/31

Annual kW for those classes that charge distribution volumetric charges on a kW basis

	GS>50 kW	GS>50 kW WMP	GS>50 kW Class A	Large User	Streetlights	Total	TX Allowance GS>50kW	TX Allowance Large User
2009	2,169,096			171,311	44,226	2,384,633	1,029,080	171,311
2010	2,260,312			95,621	44,895	2,400,828	1,114,074	95,621
2011	2,244,883			105,771	44,252	2,394,906	1,109,675	105,771
2012	2,191,042	4,891	31,998	136,790	44,229	2,408,950	1,090,919	136,790
2013	2,172,493	36,056	16,787	181,961	44,582	2,451,879	1,097,384	181,961
2014	2,072,802	31,006	55,462	126,219	44,712	2,330,202	1,057,011	126,219
2015	2,063,303	30,562	53,216	62,998	45,213	2,255,291	1,071,480	74,090
2016	2,088,280	31,133	51,330	62,931	45,218	2,278,892	1,072,434	62,478
2017	1,832,120	30,206	246,827	58,806	42,036	2,209,995	1,056,504	58,119
2018	1,663,599	34,080	505,084	69,011	20,809	2,292,582	1,081,230	68,265
2019	1,525,580	34,080	499,673	68,383	20,613	2,148,329	1,098,555	68,383
2020	1,471,892	34,080	502,671	70,127	20,391	2,099,161	1,071,514	70,127

kW/kWh

2009	0.2642%			0.2146%	0.2778%
2010	0.2578%			0.2054%	0.2800%
2011	0.2577%			0.1888%	0.2791%
2012	0.2622%	0.1926%	0.2553%	0.1972%	0.2774%
2013	0.2716%	0.2024%	0.2817%	0.2056%	0.2789%
2014	0.2600%	0.1816%	0.2109%	0.1989%	0.2788%
2015	0.2608%	0.1831%	0.2117%	0.1761%	0.2790%
2016	0.2648%	0.1849%	0.2393%	0.2177%	0.2781%
2017	0.2668%	0.1932%	0.2422%	0.1871%	0.2827%
2018	0.2700%	0.2304%	0.2420%	0.2068%	0.2787%
2019					
2020					
2021					
2022					
Average	0.2657%	0.1959%	0.2380%	0.1998%	0.2790%

2019 Load Forecast	kWh	kW	2018 %RPP
Residential	659,417,797		98.09%
GS<50 kW	230,055,002		84.74%
GS>50 kW	574,222,864	1,525,580	14.69%
GS>50 kW, WMP	13,220,265	34,080	0.00%
GS>50 kW, Class A	209,986,863	499,673	0.00%
Large User	34,219,939	68,383	0.00%
Streetlights	7,386,896	20,613	1.27%
USL	4,091,278		100.00%
Embedded Distributor	19,053,029	43,316	0%
TOTAL	**1,751,653,932**	**2,191,645**	

Commodity RPP	2019 Forecasted	2019			
Class per Load Forecast RPP	**Metered kWhs**	**Loss Factor**	**2019**		
Residential	659,417,797	1.0351	682,563,361	$0.0943	$64,365,725
GS<50 kW	230,055,002	1.0351	238,129,933	$0.0943	$22,455,653
GS>50 kW	784,209,726	1.0351	811,735,488	$0.0913	$74,116,025
Large User	34,219,939	1.0053	34,401,304	$0.0248	$851,797
Streetlights	7,386,896	1.0351	7,646,176	$0.0943	$721,034
USL	4,091,278	1.0351	4,234,881	$0.0943	$399,349
Embedded Distributor	0	1.0351	0	$0.0943	$0
TOTAL	**1,719,380,638**		**1,778,711,144**		**$162,909,583**

Transmission - Network		Volume			
Class per Load Forecast		**Metric**	**2019**		
Residential		kWh	682,563,361	$0.0059	$4,027,124
GS<50 kW		kWh	238,129,933	$0.0051	$1,214,463
GS>50 kW		kW	2,059,333	$2.7205	$5,602,416
Large User		kW	68,383	$2.5569	$174,848
Streetlights		kW	20,613	$1.6543	$34,100
USL		kWh	4,234,881	$0.0051	$21,598
Embedded Distributor		kW	43,316	$2.5650	$111,106
TOTAL					**$11,185,654**

Transmission - Connection		Volume			
Class per Load Forecast		**Metric**	**2019**		
Residential		kWh	682,563,361	$0.0017	$1,160,358
GS<50 kW		kWh	238,129,933	$0.0015	$357,195
GS>50 kW		kW	2,059,333	$0.8449	$1,739,931
Large User		kW	68,383	$0.7943	$54,316
Streetlights		kW	20,613	$0.5143	$10,601
USL		kWh	4,234,881	$0.0015	$6,352
Embedded Distributor		kW	43,316	$0.7970	$34,523
TOTAL					**$3,363,276**

Wholesale Market Service		Volume			
Class per Load Forecast		**Metric**	**2019**		
Residential		kWh	682,563,361	$0.0030	$2,047,690
GS<50 kW		kWh	238,129,933	$0.0030	$714,390
GS>50 kW		kWh	811,735,488	$0.0030	$2,435,206
Large User		kWh	34,401,304	$0.0030	$103,204
Streetlights		kWh	7,646,176	$0.0030	$22,939
USL		kWh	4,234,881	$0.0030	$12,705
Embedded Distributor		kWh	0	$0.0030	$0
TOTAL			**1,778,711,144**		**$5,336,133**

Capacity Based Recovery		Volume			
Class per Load Forecast		**Metric**	**2019**		
Residential		kWh	682,563,361	$0.0004	$273,025
GS<50 kW		kWh	238,129,933	$0.0004	$95,252
GS>50 kW		kWh	594,378,086	$0.0004	$237,751
Large User		kWh	0	$0.0004	$0
Streetlights		kWh	7,646,176	$0.0004	$3,058
USL		kWh	4,234,881	$0.0004	$1,694
Embedded Distributor		kWh	0	$0.0004	$0
TOTAL			**1,526,952,439**		**$610,781**

Rural Rate Assistance		Volume			
Class per Load Forecast		**Metric**	**2019**		
Residential		kWh	682,563,361	$0.0005	$341,282
GS<50 kW		kWh	238,129,933	$0.0005	$119,065
GS>50 kW		kWh	811,735,488	$0.0005	$405,868
Large User		kWh	34,401,304	$0.0005	$17,201
Streetlights		kWh	7,646,176	$0.0005	$3,823
USL		kWh	4,234,881	$0.0005	$2,117
Embedded Distributor		kWh	0	$0.0005	$0
TOTAL			**1,778,711,144**		**$889,356**

Smart Meter Entity Charge					
Class per Load Forecast			**2019**		
Residential			1,063,428	$0.5700	$606,154
GS<50 kW			96,708	$0.5700	$55,124
TOTAL			**1,160,136**		**$661,278**

	2019
4705-Power Purchased	$162,909,583
4708-Charges-WMS	$5,946,914
4714-Charges-NW	$11,185,654
4716-Charges-CN	$3,363,276
4708-Rural Rate Assistance	$889,356
4751-Smart Meter Entity	$661,278
TOTAL	**$184,956,061**

2020 Load Forecast	kWh	kW	2018 %RPP
Residential	671,446,586		98.09%
GS<50 kW	230,635,457		84.74%
GS>50 kW	554,014,776	1,471,892	14.69%
GS>50 kW, WMP	12,288,230	34,080	0.00%
GS>50 kW, Class A	211,246,784	502,671	0.00%
Large User	35,092,547	70,127	0.00%
Streetlights	7,307,482	20,391	1.27%
USL	4,173,587		100.00%
Embedded Distributor	19,053,029	43,316	0%
TOTAL	**1,745,258,478**	**2,142,477**	

Commodity RPP	2020 Forecasted	2020			
Class per Load Forecast RPP	**Metered kWhs**	**Loss Factor**	**2020**		
Residential	671,446,586	1.0322	693,067,166	$0.0943	$65,356,234
GS<50 kW	230,635,457	1.0322	238,061,919	$0.0943	$22,449,239
GS>50 kW	765,261,560	1.0322	789,902,982	$0.0913	$72,080,631
Large User	35,092,547	1.0053	35,278,537	$0.0247	$872,459
Streetlights	7,307,482	1.0322	7,542,783	$0.0943	$711,284
USL	4,173,587	1.0322	4,307,976	$0.0943	$406,242
Embedded Distributor	0	1.0322	0	$0.0943	$0
TOTAL	**1,713,917,219**		**1,768,161,364**		**$161,876,090**

Transmission - Network		Volume			
Class per Load Forecast		**Metric**	**2020**		
Residential		kWh	693,067,166	$0.0061	$4,227,710
GS<50 kW		kWh	238,061,919	$0.0053	$1,261,728
GS>50 kW		kW	2,008,643	$2.8298	$5,684,058
Large User		kW	70,127	$2.6596	$186,509
Streetlights		kW	20,391	$1.7207	$35,088
USL		kWh	4,307,976	$0.0053	$22,832
Embedded Distributor		kW	43,316	$2.6680	$115,568
TOTAL					**$11,533,492**

Transmission - Connection		Volume			
Class per Load Forecast		**Metric**	**2020**		
Residential		kWh	693,067,166	$0.0017	$1,178,214
GS<50 kW		kWh	238,061,919	$0.0015	$357,093
GS>50 kW		kW	2,008,643	$0.8451	$1,697,504
Large User		kW	70,127	$0.7945	$55,716
Streetlights		kW	20,391	$0.5144	$10,489
USL		kWh	4,307,976	$0.0015	$6,462
Embedded Distributor		kW	43,316	$0.7972	$34,532
TOTAL					**$3,340,010**

Wholesale Market Service		Volume			
Class per Load Forecast		**Metric**	**2020**		
Residential		kWh	693,067,166	$0.0030	$2,079,202
GS<50 kW		kWh	238,061,919	$0.0030	$714,186
GS>50 kW		kWh	789,902,982	$0.0030	$2,369,709
Large User		kWh	35,278,537	$0.0030	$105,836
Streetlights		kWh	7,542,783	$0.0030	$22,628
USL		kWh	4,307,976	$0.0030	$12,924
Embedded Distributor		kWh	0	$0.0030	$0
TOTAL			**1,768,161,364**		**$5,304,484**

Capacity Based Recovery		Volume			
Class per Load Forecast		**Metric**	**2020**		
Residential		kWh	693,067,166	$0.0004	$277,227
GS<50 kW		kWh	238,061,919	$0.0004	$95,225
GS>50 kW		kWh	571,854,052	$0.0004	$228,742
Large User		kWh	0	$0.0004	$0
Streetlights		kWh	7,542,783	$0.0004	$3,017
USL		kWh	4,307,976	$0.0004	$1,723
Embedded Distributor		kWh	0	$0.0004	$0
TOTAL			**1,514,833,896**		**$605,934**

Rural Rate Assistance		Volume			
Class per Load Forecast		**Metric**	**2020**		
Residential		kWh	693,067,166	$0.0005	$346,534
GS<50 kW		kWh	238,061,919	$0.0005	$119,031
GS>50 kW		kWh	789,902,982	$0.0005	$394,951
Large User		kWh	35,278,537	$0.0005	$17,639
Streetlights		kWh	7,542,783	$0.0005	$3,771
USL		kWh	4,307,976	$0.0005	$2,154
Embedded Distributor		kWh	0	$0.0005	$0
TOTAL			**1,768,161,364**		**$884,081**

Smart Meter Entity Charge					
Class per Load Forecast			**2020**		
Residential			1,078,320	$0.5700	$614,642
GS<50 kW			97,632	$0.5700	$55,650
TOTAL			**1,175,952**		**$670,293**

	2020
4705-Power Purchased	$161,876,090
4708-Charges-WMS	$5,910,418
4714-Charges-NW	$11,533,492
4716-Charges-CN	$3,340,010
4708-Rural Rate Assistance	$884,081
4751-Smart Meter Entity	$670,293
TOTAL	**$184,214,382**