EXHIBIT 3 - REVENUES

2018 Cost of Service

Westario Power Inc.
EB-2017-00084

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3.1 LOAD AND REVENUE FORECAST

3.1.1 INTRODUCTION

The evidence presented in this exhibit provides information supporting the revenues derived from activities regulated by the Ontario Energy Board. Actual operating revenues from regulated operations are derived mainly from fixed and variable tariff charges as well as pass through charges and specific service charges. Revenues are collected from six (6) customer classes: Residential, General Service less than 50 kW, General Service greater than 50 kW, Unmetered Scattered Load (USL), Sentinel and Street Lighting. WPI does not anticipate any significant changes in its customer classes.

This exhibit also describes WPI's load and customer forecasts. The load forecast methodology and assumptions are described in detail at 3.1.4 Load Forecast Methodology.

The evidence herein is organized per the following topics:

1) Revenue and Load Forecast
2) Impact and Persistence from Historical CDM Programs
3) Accuracy of Load Forecast and Variance Analysis, and
4) Other Revenues

3.1.2 OVERVIEW OF CURRENT REVENUES

Table 1 below shows revenues from current distribution charges for 2017. Distribution Revenues are derived from a combination of fixed monthly charges and volumetric charges applied to the utility's proposed Load Forecast. Fixed rate revenues are determined by applying the current fixed monthly charge to the number of customers or connections in each of the customer classes in each month. Variable rate revenue is based on a volumetric rate applied to meter readings for consumption or demand volume.

WPI's 2018 forecasted revenues recovered through its currently approved distribution rates are projected at $9,905,725 (exclusive of all rate riders). The revenues at proposed distribution rates are presented in Exhibit 6 and Exhibit 8.

Table 1 - Revenues at Current Rates

2017 Rates at 2018 Load

	Test Year Projected Revenue from Existing Variable Charges							
Customer Class Name	**Variable Distribution Rate**	**per**	**Test Year Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0082	kWh	182,208,797	$1,494,112			$0	$1,494,112
General Service < 50 kW	$0.0113	kWh	63,336,490	$715,702			$0	$715,702
General Service > 50 to 4999 kW	$2.1801	kW	434,344	$946,914	-0.60	165000	-$99,000	$847,914
Unmetered Scattered Load	$0.0239	kWh	261,852	$6,258			$0	$6,258
Sentinel Lighting	$29.7440	kW	17	$492			$0	$492
Street Lighting	$5.0515	kW	6,664	$33,663			$0	$33,663
Total Variable Revenue			**246,248,163**	**$3,197,142**	**-0.6**	165000	-$99,000	$3,098,142

2017 Rates at 2018 Load

	Test Year Projected Revenue from Existing Fixed Charges							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$20.0600	20,786	$5,003,726	$1,494,112.14	$6,497,838.10	77.01%	22.99%	65.60%
General Service < 50 kW	$25.1400	2,578	$777,731	$715,702.33	$1,493,433.37	52.08%	47.92%	15.08%
General Service > 50 to 4999 kW	$232.0200	207	$575,554	$847,913.53	$1,423,467.06	40.43%	59.57%	14.37%
Unmetered Scattered Load	$6.3800	54	$4,122	$6,258.26	$10,379.91	39.71%	60.29%	0.10%
Sentinel Lighting	$5.7500	8	$541	$492.20	$1,033.13	52.36%	47.64%	0.01%
Street Lighting	$6.0000	6,193	$445,910	$33,663.15	$479,573.15	92.98%	7.02%	4.84%
Total Fixed Revenue		**29,826**	**6,807,583**	**$3,098,141.62**	**$9,905,724.73**			

A completed Appendix 2-IB Load Forecast Analysis is presented at Appendix A of this Exhibit and in Tab 10 of the RRWF.[1]

WPI does not foresee or plan for any changes in the composition of its customer classes.

3.1.3 PROPOSED LOAD FORECAST

The following section of the application covers the approach taken to determine the Load Forecast. This section also covers economic assumptions and data sources for customer and

[1] MFR - Completed Appendix 2-IB; the customer and load forecast for the test year must be entered on RRWF, Tab 10

load forecasts. It explains wholesale purchases and subsequent adjustments to the wholesale purchases. It also provides the rationale behind each variable used in the regression analysis. Lastly, it presents the regression results and explains how they were used to determine the forecast for the bridge and test year.

Table 2 below presents the actual and forecast trends for customer/connection counts, kWh consumption and billed kW demand. The forecast trend is what WPI has based its proposed rates on.

Table 2 - Customer and Volume Trend Table

Final Load Forecast Results

	Year	2013	2014	2015	2016	2017	2018 Predicted	2018 Final CDM Adjusted
Residential	Cust/Conn	19,932	20,040	20,089	20,292	20,567	20,786	20,786
	kWh	194,642,138	193,528,854	188,956,242	179,260,363	187,825,276	187,185,327	182,208,797
	kW							
General Service < 50 kW	Cust/Conn	2,504	2,533	2,532	2,537	2,574	2,578	2,578
	kWh	65,332,255	67,617,018	66,434,816	65,187,475	65,288,799	65,066,351	63,336,490
	kW							
General Service > 50 to 4999 kW	Cust/Conn	259	235	235	236	208	207	207
	kWh	170,762,458	170,816,518	176,860,411	178,050,372	166,312,517	165,745,865	161,339,327
	kW	476,639	446,787	460,418	460,265	447,732	446,207	434,344
Unmetered Scattered Load	Cust/Conn	58	57	57	57	55	54	54
	kWh	288,532	286,287	290,832	275,586	273,985	269,004	261,852
	kW	-	-	-		-	-	-
Sentinel Lighting	Cust/Conn	9	8	8	8	8	8	8
	kWh	17,011	16,498	15,251	7,843	14,199	13,915	13,545
	kW	19	15	16	17	17	17	17
Street Lighting	Cust/Conn	6,020	6,067	6,107	6,215	6,181	6,193	6,193
	kWh	4,930,318	4,957,256	3,576,079	2,112,226	2,196,082	2,196,082	2,137,697
	kW	13,618	13,131	7,486	3,406	6,846	6,846	6,664
Total	Cust/Conn	28,782	28,939	29,027	29,343	29,593	29,826	29,826
	kWh	435,972,711	437,222,431	436,133,630	424,893,866	421,910,858	420,476,544	409,297,707
	kW	490,276	459,933	467,920	463,689	454,595	453,070	441,025

3.1.4 LOAD FORECAST METHODOLOGY AND DETAIL[2]

WPI's load forecast methodology has not changed since its last Cost of Service in 2013. The forecast is prepared in two phases. The first phase, a billed energy forecast by customer class for 2018, is developed using a total purchase (**Wholesale**) basis regression analysis. Then, in the second phase, usage associated with the known change in customers for 2018 is determined and added (if applicable) (**Adjusted Wholesale**). The methodology proposed in this application predicts wholesale consumption (**Predicted**) using a multiple regression analysis that relates historical monthly wholesale kWh usage to carefully selected variables. The one-way analysis of variance (**ANOVA**) is used to determine whether there are any statistically significant differences between the means of three or more independent (unrelated) groups. The ANOVA compares the means between the groups you are interested in and determines whether any of those means are statistically significantly different from each other. The utility did not test the NAC method because NAC is generally seen as an alternative when sound historical data is not available. [3] Lastly, the Predicted load forecast is further adjusted to remove the effects of Conservation and Demand Management Results. **(CDM Adjusted).**

The most significant variables used in weather related regressions are monthly historical heating degree days and cooling degree days. Heating degree-days provide a measure of how much (in degrees), and for how long (in days), the outside temperature was below that base temperature. The most readily available heating degree days come with a base temperature of 18°C. Cooling degree-day figures also come with a base temperature, and provide a measure of how much, and for how long, the outside temperature was above that base temperature.

For degree days, daily observations as reported in Wiarton are used. The regression model also uses other variables which are tested to see their relationship and contribution to the fluctuating wholesale purchases. Each variable is discussed in detail later in this section.

[2] MFR - Explanation of weather normalization methodology
[3] MFR - NAC Model - rationale for choice, data supporting NAC variables, description of accounting for CDM including license conditions, discussion of weather normalization considerations

Explanation of Multiple Regression Analysis

Multiple regression can be utilized for forecasting purposes by analyzing how several variables have affected a depended variable historically. From this, the relationship between these variables and the depended variable can be expressed as:

$$Y=A+B1X1+B2X2...+bNxN + E$$

Where:

Y = Predicted depended variable value

A = the value of Y when all Xs are zero

X = the independent variable

B = the coefficients corresponding to the independent variables

n = the number of independent variables

E = an error term

By forecasting the independent variables, the dependent variable can be predicted. However, to ascertain that the relationship is not coincidental, the utility must first assess the correlation between the dependent and individual independent variables. This can be accomplished by the Person Correlation Coefficient (otherwise known as "R") to each independent variable. This depicts how much of the change in depended variable can be explained by the change in independent variables. Those variables with a high R-squared should then be used for multiple regression. The same correlation coefficient can be applied to multiple independent variables to ascertain how much of the change in a dependent variable can be explained by changes in all independent variables.

$$R\ Squared=(B'X'Y - nAVG(Y)^2)/Y'Y-nAVG(Y)^2$$

Where:

B',X',Y' = Matrixes of all combinations of B,X&Y respectively

^2 = Squared

The adjusted R-squared is calculated by "correcting" for the number of independent variables in a multiple regression analysis. The formula: Adj RSq=(1-(1-RSq)*((n-1)/(n-k)). It is often used to compare models involving a different number of coefficients. The statistical significance of the multiple regression can be tested with the F-test which is derived from a normal probability distribution. A critical point along the distribution can be found given a degree of confidence required, the number of variables and the number of observations. If the F-statistic is at this point, then the analysis can be deemed statistically significant at the level of confidence.

F-statistic = (R Squared/k-1)/(1-R Squared)/(n-k)

Where:

K = number of independent variable

n = number of observations

Independent variables that are highly correlated themselves can lead to high variances in slope estimation (B). This is known as "Multicollinearity." For this reason, independent variables with a high level of multicollinearity to the other independent variables should consider being omitted from the analysis.

The formula behind the monthly weather normalized values is as follows; (coefficient for the intercept) + (monthly HDD*coefficient for HDD) + (monthly CDD*coefficient for CDD) + (monthly Number of Days*coefficient for monthly Number of Days) + (monthly Employment Stats*coefficient for monthly Employment Stats) + (monthly Daylight Hours*coefficient for monthly Daylight Hours). When the regression line is linear (y = ax + b), the regression coefficient is the constant (a) that represents the rate of change of one variable (y) as a function of changes in the other (x); it is the slope of the regression line. The intercept is the predicted value of the dependent variable when all predictor variables are set to 0.

3.1.5 ECONOMIC OVERVIEW

WPI's Service area has seen a limited amount of growth with a few of its communities experiencing decreases in population while the majority have experienced slow growth. The following tables show information from the 2016 census, and were released by Statistics Canada on February 8, 2017.

Table 3 – Population by Subdivision

Census Subdivision	Population 2016	Population 2011	% Change
Walkerton	4,517	4,403	2.6%
Hanover	7,688	7,490	2.6%
Kincardine	8,315	7,802	6.6%
Port Elgin	7,862	7,304	7.6%
Southampton	3,678	3,382	8.8%
Mildmay	1,219	1,178	3.5%
Minto	8,671	8,334	4.0%
Huron-Kinloss	7,069	6,790	4.1%
Wingham	2,934	2,875	2.1%
Palmerston	2,624	2,599	1.0%

Table 4 – Population Age Distribution

Census Subdivision	2016 Population Age Group %		
	0 - 14	15-64	65+
Walkerton	16.4	61.5	22.1
Hanover	15.4	57.7	26.9
Kincardine	16.2	60.4	23.3
Port Elgin	16.5	64.0	19.5
Southampton	10.8	55.1	34.1
Mildmay	16.4	66.0	17.6
Minto	17.9	61.8	20.2
Huron-Kinloss	18.2	59.1	22.8
Wingham	17.2	60.9	21.8
Palmerston	17.7	62.0	20.3
Provincial Avg.	16.4	66.8	16.7

The age distribution data shows that WPI's service area has a higher than average level of individuals aged 65 and over. This information supports the number of senior living homes that have been going up in the area.

Unemployment for Central Ontario at the end of December for each of the following year was as follows (Per Government of Canada Website):

- 2016 6.9%
- 2015 7.0%
- 2014 6.3%
- 2013 6.8%

Unemployment has been relatively consistent in the service area over the past 4 years. The area has a lot of farming and seasonal work that results in unemployment typically being higher in winter months.

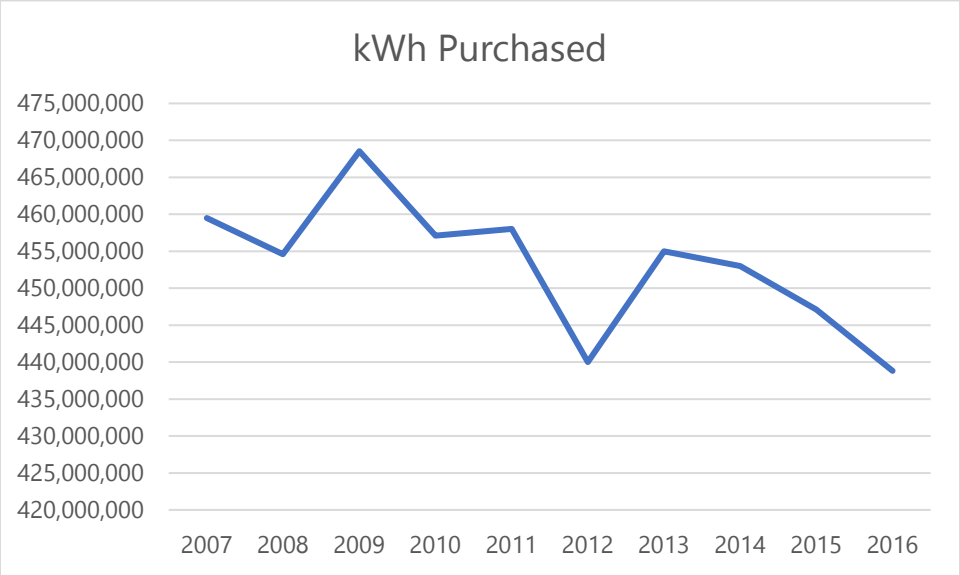
3.1.6 OVERVIEW OF WHOLESALE PURCHASES

WPI purchases electricity from Hydro One and embedded generation and IESO as a market participant

The following table outlines the unadjusted monthly wholesale purchases:

Table 5 - Wholesale Purchases 2007-2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
January		47,849,227	52,027,191	49,591,076	49,805,023	45,369,495	45,827,933	48,560,156	48,032,769	43,864,034	41,514,979
February		46,269,796	44,167,909	43,406,844	43,229,464	41,964,345	41,082,657	43,502,029	47,536,665	40,674,581	42,080,448
March		45,833,053	45,008,945	41,147,113	44,386,809	38,661,393	42,975,875	44,749,296	43,095,042	38,928,433	36,909,244
April		35,580,307	37,217,172	33,747,449	35,654,195	34,080,697	36,308,878	36,703,502	34,966,161	35,386,382	40,479,118
May		34,069,975	33,256,744	34,234,491	31,729,973	33,202,265	34,245,333	33,120,208	32,451,519	31,888,708	32,386,223
June		32,999,581	32,539,926	33,170,122	31,456,612	33,100,041	33,534,201	31,986,696	31,428,889	31,951,747	32,436,217
July		32,507,310	33,013,844	36,952,067	36,451,973	35,696,965	34,321,063	33,114,324	34,059,071	35,780,161	
August	34,566,788	30,700,685	35,268,623	36,350,761	35,618,178	34,259,567	34,126,512	32,996,892	34,233,109	37,904,701	
September	31,514,547	30,175,349	32,755,104	32,911,157	32,608,143	31,962,470	32,127,847	31,808,440	33,226,979	32,759,695	
October	33,950,544	31,931,161	37,474,563	31,389,137	35,235,111	35,358,629	35,018,159	34,772,520	33,947,866	33,305,506	
November	40,357,585	37,490,136	38,266,031	36,595,338	37,638,570	38,220,365	39,153,192	39,442,096	35,403,758	34,856,223	
December	47,630,762	49,210,374	47,538,361	47,624,936	44,188,812	38,153,309	46,270,576	42,249,292	38,731,924	41,514,979	
Total	459,506,033	454,618,962	468,536,422	457,122,501	458,004,874	440,031,553	454,994,239	453,007,465	447,115,766	438,817,166	
% change		-1.06%	3.06%	-2.44%	0.19%	-3.92%	3.40%	-0.44%	-1.30%	-1.86%	
% from 2007		-1.06%	1.97%	-0.52%	-0.33%	-4.24%	-0.98%	-1.41%	-2.70%	-4.50%	


kWh Purchased
475,000,000
470,000,000
465,000,000
460,000,000
455,000,000
450,000,000
445,000,000
440,000,000
435,000,000
430,000,000
425,000,000
420,000,000
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

1

WPI's load has seen a decline over the past ten years with the lowest total wholesale being in 2012. Wholesale purchases, on the whole, have decreased by 4.50% since 2007. Since the number of customers has only moderately increased over the past five years, the assumption is that the effects of energy efficiency changes have contributed to the modest decline.

Adjustments to Wholesale Purchases:

In order to better represent the trend in wholesale purchases, WPI adjusted its base wholesale purchases prior to running the regression analysis. The purpose of the adjustment was to normalize the data as best as possible. WPI adjusted the wholesale purchases to remove the consumption associated with the Energizer plant located in Walkerton and add the consumption of the Holiday Inn built in Kincardine. The Energizer plant was removed because historically it was a large customer for WPI consuming about 170,000kWh per month in 2012 and prior years. By 2015 it was down to about 120,000kWh per month and by the middle of 2016 it was down to approximately 60,000kWh per month. The plant has now closed completely so energy consumption in the building has ceased. The Holiday Inn has been adjusted because it is a new customer that is a fairly large customer for WPI. It was fully running in November of 2010 and has monthly consumption between 40,000kWh and 65,000kWh.

Table 6 – Adjustments to the Wholesale Purchases

	Unadjusted Wholesale Purchases kWh	Adjustment to Wholesale (i.e loss of user)	Adjustment to Wholesale (FIT & Microfit)	Adjustments	Adjustments	Revised Wholesale Purchases
2007-August	34,566,788	(281,911.32)			59041.61	34343918
2007-September	31,514,547	(254,324.02)			52266.35	31312489
2007-October	33,950,544	(254,015.50)			29883.77	33726412
2007-November	40,357,585	(258,679.21)			12219.68	40111125
2007-December	47,630,762	(223,639.07)			54686.09	47461809
2008-January	47,849,227	(224,424.69)			53960.16	47678762
2008-February	46,269,796	(206,039.05)			50209.57	46113967
2008-March	45,833,053	(219,285.26)			53113.26	45666881
2008-April	35,580,307	(226,331.00)			53718.19	35407694
2008-May	34,069,975	(204,968.71)			60493.46	33925500
2008-June	32,999,581	(196,783.05)			63155.17	32865953
2008-July	32,507,310	(200,375.50)			59283.59	32366218
2008-August	30,700,685	(200,470.42)			54565.10	30554780
2008-September	30,175,349	(206,358.46)			51540.43	30020531
2008-October	31,931,161	(230,722.46)			46458.98	31746898
2008-November	37,490,136	(212,429.24)			48636.74	37326344
2008-December	49,210,374	(204,636.30)			52387.33	49058125
2009-January	52,027,191	(209,346.64)			51782.40	51869627
2009-February	44,167,909	(192,047.93)			46096.01	44021957

2009-March	45,008,945	(222,022.01)	-434.40	0.00	48394.77	44834883
2009-April	37,217,172	(209,253.18)	-512.80	0.00	54444.11	37061850
2009-May	33,256,744	(196,055.32)	-683.61	0.00	57468.79	33117474
2009-June	32,539,926	(194,075.00)	-599.85	0.00	62187.27	32407438
2009-July	33,013,844	(186,364.50)	-602.02	0.00	56258.92	32883136
2009-August	35,268,623	(193,145.25)	-550.17	0.00	55291.02	35130219
2009-September	32,755,104	(194,226.81)	-523.21	0.00	45491.08	32605845
2009-October	37,474,563	(205,683.78)	-247.77	0.00	40680.00	37309311
2009-November	38,266,031	(187,921.07)	-242.23	0.00	45000.00	38122868
2009-December	47,538,361	(197,087.92)	-77.59	0.00	56520.00	47397715
2010-January	49,591,076	(189,884.52)	-72.17	0.00	51480.00	49452599
2010-February	43,406,844	(173,796.93)	-24.60	0.00	43920.00	43276942
2010-March	41,147,113	(201,897.36)	-502.71	0.00	43920.00	40988633
2010-April	33,747,449	(172,239.50)	-239.20	0.00	45360.00	33620330
2010-May	34,234,491	(174,264.74)	-621.58	0.00	55800.00	34115405
2010-June	33,170,122	(177,410.73)	-545.04	0.00	55440.00	33047606
2010-July	36,952,067	(179,726.93)	-1335.43	0.00	51840.00	36822845
2010-August	36,350,761	(196,026.91)	-795.00	0.00	54360.00	36208299
2010-September	32,911,157	(182,205.79)	-1734.57	0.00	43920.00	32771137
2010-October	31,389,137	(186,341.05)	-2141.54	0.00	45360.00	31246014
2010-November	36,595,338	(178,118.94)	-2737.86	0.00	45000.00	36459481
2010-December	47,624,936	(167,029.21)	-2811.49	0.00	49680.00	47504775
2011-January	49,805,023	(171,562.72)	-244.72	0.00	47520.00	49680736
2011-February	43,229,464	(160,730.01)	-372.10	0.00	46080.00	43114442
2011-March	44,386,809	(178,479.77)	-949.41	0.00	46080.00	44253460
2011-April	35,654,195	(154,681.33)	-1101.61	0.00	47880.00	35546292
2011-May	31,729,973	(150,818.57)	-2601.17	0.00	50040.00	31626593
2011-June	31,456,612	(154,230.18)	-9671.08	0.00	61200.00	31353911
2011-July	36,451,973	(153,132.24)	-25316.54	0.00	58320.00	36331844
2011-August	35,618,178	(151,232.79)	-25150.72	0.00	52920.00	35494714
2011-September	32,608,143	(147,547.69)	-17143.86	-3961.04	45360.00	32484850
2011-October	35,235,111	(153,573.41)	-16454.73	-1433.12	43920.00	35107570
2011-November	37,638,570	(179,141.53)	-12554.25	0.00	44640.00	37491514
2011-December	44,188,812	(178,480.77)	-6611.96	0.00	50040.00	44053759
2012-January	45,369,495	(179,843.21)	-11195.15	0.00	52200.00	45230657
2012-February	41,964,345	(170,496.72)	-13528.84	0.00	49680.00	41829999
2012-March	38,661,393	(175,601.16)	-25064.30	0.00	42480.00	38503208
2012-April	34,080,697	(149,394.24)	-32614.13	0.00	43200.00	33941888
2012-May	33,202,265	(153,848.89)	-41916.31	0.00	46440.00	33052940
2012-June	33,100,041	(157,415.21)	-40857.08	0.00	54000.00	32955769
2012-July	35,696,965	(162,297.07)	-52962.57	0.00	51480.00	35533186
2012-August	34,259,567	(156,785.39)	-42471.59	0.00	47880.00	34108190
2012-September	31,962,470	(140,629.15)	-43330.96	0.00	46080.00	31824590
2012-October	35,358,629	(144,008.82)	-20069.10	0.00	46080.00	35240631
2012-November	38,220,365	(147,391.49)	-22780.07	-3497.53	46080.00	38092776
2012-December	38,153,309	(134,114.85)	-12493.37	-1739.32	54360.00	38059321
2013-January	45,827,933	(136,226.39)	-14718.54	-1330.54	57600.00	45733258
2013-February	41,082,657	(133,333.81)	-17097.00	-84.72	46440.00	40978582
2013-March	42,975,875	(147,662.48)	-45001.19	-9308.38	43560.00	42817463
2013-April	36,308,878	(141,684.67)	-48332.86	-1.00	41400.00	36160259
2013-May	34,245,333	(130,515.17)	-48819.52	-6235.37	45720.00	34105483
2013-June	33,534,201	(123,857.91)	-73243.54	-15203.61		33321896
2013-July	34,321,063	(140,207.27)	-73983.88	-15139.90		34091732
2013-August	34,126,512	(131,008.19)	-77060.34	-15253.63		33903190
2013-September	32,127,847	(117,518.94)	-60939.71	-12419.04		31936969

2013-October	35,018,159	(124,843.46)	-53819.70	-8512.18		34830984
2013-November	39,153,192	(130,172.13)	-20303.47	-14731.30		38987985
2013-December	46,270,576	(140,800.28)	-7719.71	-590.74		46121465
2014-January	48,560,156	(154,222.70)	-14915.82	-263.37		48390754
2014-February	43,502,029	(136,768.01)	-21779.00	-356.78		43343125
2014-March	44,749,296	(154,435.05)	-55778.90	-5782.69		44533299
2014-April	36,703,502	(123,554.57)	-67702.92	-12068.06		36500176
2014-May	33,120,208	(103,109.79)	-87047.64	-15365.18		32914685
2014-June	31,986,696	(102,793.19)	-88957.26	-14985.52		31779961
2014-July	33,114,324	(114,560.33)	-92648.65	-74169.70		32832946
2014-August	32,996,892	(114,875.24)	-79797.38	-25294.40		32776925
2014-September	31,808,440	(106,569.94)	-70012.66	-21885.10		31609973
2014-October	34,772,520	(112,530.73)	-37216.36	-11799.51		34610973
2014-November	39,442,096	(122,579.13)	-14387.18	-3666.67		39301463
2014-December	42,249,292	(146,870.06)	-13498.63	-3348.60		42085574
2015-January	48,032,769	(160,247.54)	-25185.12	-1584.95		47845751
2015-February	47,536,665	(159,566.72)	-26151.15	-1155.26		47349791
2015-March	43,095,042	(164,382.27)	-93237.62	-19495.98		42817926
2015-April	34,966,161	(138,162.12)	-79285.86	-25081.94		34723631
2015-May	32,451,519	(126,627.83)	-87984.62	-28081.63		32208825
2015-June	31,428,889	(114,761.20)	-88790.68	-27333.01		31198004
2015-July	34,059,071	(124,303.21)	-101408.16	-54983.52		33778376
2015-August	34,233,109	(111,679.03)	-84288.95	-32068.47		34005072
2015-September	33,226,979	(111,601.02)	-75904.82	-28651.79		33010821
2015-October	38,729,355	(112,551.81)	-47421.10	-18563.30		38550819
2015-November	35,403,758	(115,023.05)	-33626.87	-10968.69		35244140
2015-December	42,249,292	(132,748.61)	-14599.94	-10714.00		42091229
2016-January	43,864,034	(124,201.54)	-15550.64	-67290.81		43656991
2016-February	40,674,581	(125,874.94)	-29405.01	-30603.23		40488698
2016-March	38,928,433	(132,745.83)	-52510.26	-70973.75		38672204
2016-April	35,386,382	(126,787.82)	-76607.44	-119414.06		35063572
2016-May	31,888,708	(110,024.64)	-104448.47	-164913.42		31509322
2016-June	31,951,747	(92,589.75)	-106474.61	-172073.20		31580609
2016-July	35,780,161	(65,521.37)	-105936.37	-164867.83		35443836
2016-August	37,904,701	(57,357.14)	-89904.40	-149957.34		37607482
2016-September	32,759,695	(52,601.47)	-75367.99	-123723.14		32508002
2016-October	33,305,506	(56,137.06)	-46450.79	-75362.28		33127556
2016-November	34,856,223	(32,065.31)	-34511.08	-47910.02		34741736
2016-December	41,514,979	-	-7159.90	-5681.47		41502138
2017-January	42,080,448		-13341.00	-10946.00		42056161
2017-February	36,909,244		-27411.00	-27491.00		36854342
2017-March	40,479,118		-49017.00	-46656.00		40383445
2017-April	32,386,223		-71972.00	-91471.00		32222780
2017-May	32,436,217		-81281.00	-141066.00		32213870
2017-June	31,900,630		-85484.00	-147377.00		31667769
2017-July	34,436,783		-86964.00	-149513.00		34200306

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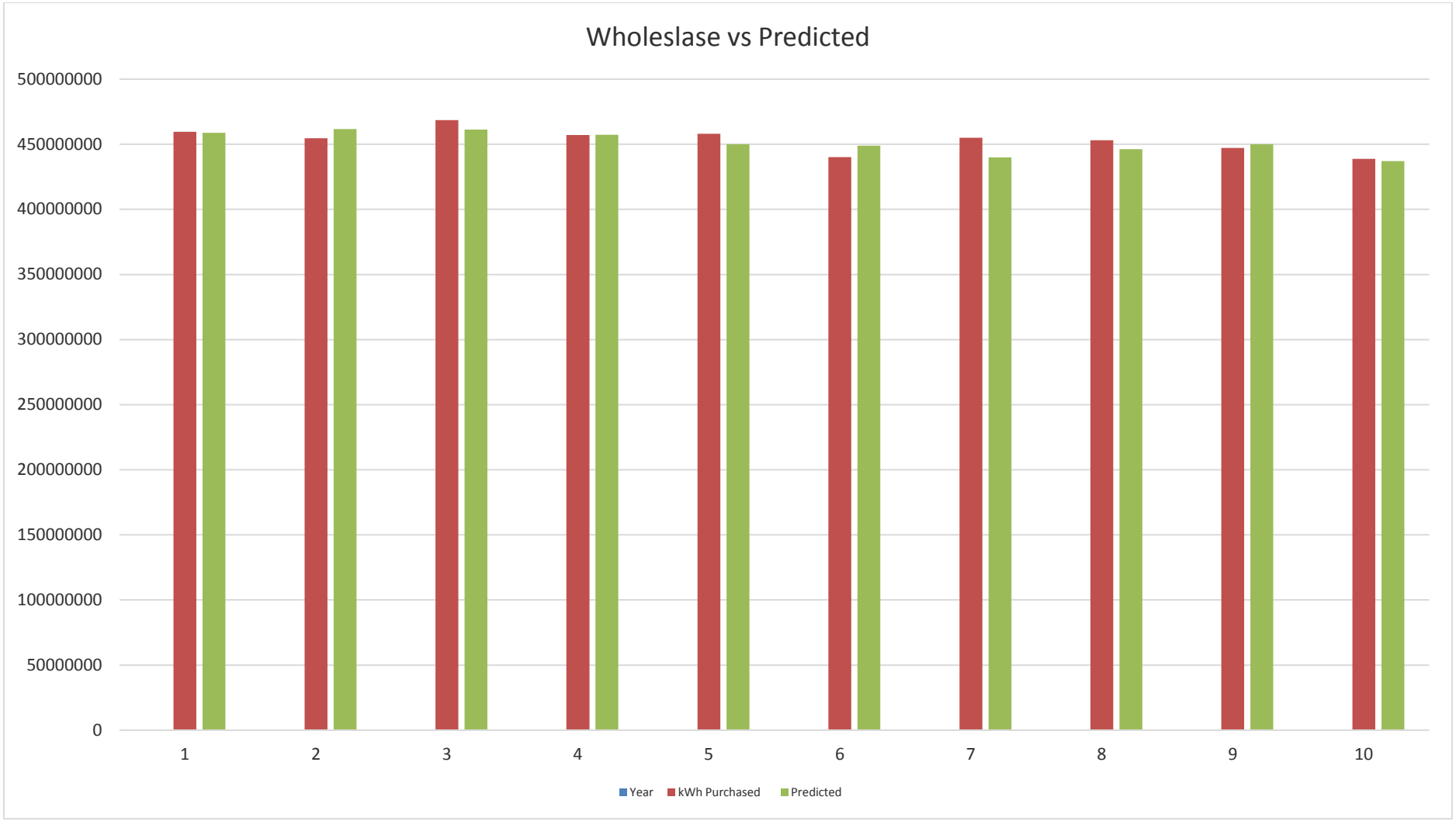
Wholeslase vs Predicted
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2
3
4
5
6
7
8
9
10
Year
kWh Purchased
Predicted

3.1.7 OVERVIEW OF VARIABLES USED[4]

In WPI's case, variation in monthly electricity consumption is influenced by four main factors – weather (e.g. heating and cooling), which is by far the most dominant effect on most systems; three secondary weather related factors namely Daylight Hours, Days per months and Spring/Fall Flag. Lastly, WPI used the Consumer Price Index as a variable. Other variables tested but excluded were; Number of Customers, CPI Energy, Employment, Labour Force and Blended RPP Hydro Rates.

Specifics relating to each variable used in the regression analysis are presented in the next section.

Heating and Cooling:

To determine the relationship between observed weather and energy consumption, monthly weather observations describing the extent of heating or cooling required within the month are necessary. Environment Canada publishes monthly observations on heating degree days (HDD) and cooling degree days (CDD) for selected weather stations across Canada. Heating degree-days for a given day are the number of Celsius degrees that the mean temperature is below 18°C. Cooling degree-days for a given day are the number of Celsius degrees that the mean temperature is above 18°C. For WPI, the monthly HDD and CDD as reported at Wiarton.

With the exception of Street Lighting, which is not weather sensitive, WPI has adopted the 10-year average from August 2007 to July 2016 as the definition of weather normal. Our view is that a ten-year average based on the most recent ten calendar years available is a reasonable compromise that likely reflects the "average" weather experienced in recent years. Many other

[4] MFR - Multivariate Regression Model - rationale for choice, regression statistics, explanation of weather normalization methodology, sources of data for endogenous and exogenous variables, any binary variables used to either account for individual data points or to account for seasonal or cyclical trends or for discontinuities in the historical data, explanation of any specific adjustments made; data used in load forecast must be provided in Excel format, including derivation of constructed variables

LDCs have also adopted this definition for the purposes of cost-of-service rebasing. The following table outlines the monthly weather data used in the regression analysis.

Table 7 - HDD and CDD as reported in Wiarton

HDD	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January		689.50	638.30	865.60	746.90	844.00	663.20	672.80	841.40	708.00	642.60
February		751.90	711.10	665.20	655.90	681.30	587.30	673.00	794.60	662.80	543.60
March		580.50	670.20	586.60	503.70	634.30	386.30	610.00	777.70	535.30	641.20
April		406.70	303.90	372.00	281.00	395.20	399.60	405.50	417.70	469.90	332.60
May		201.90	275.80	237.50	162.10	196.30	152.60	179.50	211.10	212.40	242.40
June		59.90	60.60	113.80	67.20	84.00	52.30	86.50	65.40	76.60	78.10
July	5.60	32.70	16.40	55.20	13.20	5.60	2.50	25.30	64.90	13.10	
August	37.50	27.10	39.00	47.30	19.70	12.60	22.90	35.20	41.70	6.20	
September	130.00	79.90	112.00	100.30	122.00	106.40	119.50	140.20	113.00	56.90	
October	323.20	184.20	317.60	310.00	278.10	252.00	255.80	255.70	270.80	234.60	
November	400.30	483.50	474.90	379.50	419.60	367.70	467.10	499.10	516.80	370.00	
December	523.40	659.40	694.70	656.60	677.80	573.60	558.40	741.20	603.30	618.50	

CDD	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
February		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
March		0.00	0.00	0.00	0.00	0.00	4.70	0.00	0.00	0.00	0.00
April		0.00	0.00	0.00	2.80	0.00	0.00	0.00	0.00	0.00	0.00
May		14.90	0.00	0.30	16.30	4.00	10.00	9.20	2.20	12.20	5.10
June		41.20	33.60	12.30	7.00	11.00	51.50	23.40	27.00	16.50	21.20
July	88.40	36.90	49.70	10.70	87.60	83.30	77.90	70.70	21.40	76.10	
August	42.00	57.70	29.00	41.40	85.80	46.40	57.10	35.20	23.40	79.90	
September	4.30	30.30	5.50	5.40	14.60	18.40	11.20	17.00	14.90	20.20	
October	0.00	11.10	0.00	0.00	0.00	0.30	0.30	0.00	0.30	3.20	
November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

CPI:

To measure the change in economic activity, a data series must be chosen which represents, as much as possible, regional economic activity. After testing the CPI and full-time employment levels for the WPI economic region, as reported in Statistics Canada's Monthly Labour Force Survey (CANSIM), WPI found that using the CPI as a variable yielded more meaningful results. The negative coefficient is indicative of consumers using less electricity as the CPI increases.

The following table outlines the CPI levels for the WPI economic region which were tested and ultimately included in the regression analysis.

Table 8 - CPI Ontario (all items)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January		110.90	112.40	114.50	117.80	120.60	121.30	123.30	125.30	127.80	131.20
February		111.40	113.10	115.10	118.00	121.40	122.80	124.60	126.20	128.20	131.40
March		111.70	113.70	115.30	119.40	122.00	123.20	125.10	127.10	129.00	132.00
April		112.50	113.20	115.70	119.90	122.40	122.90	125.90	126.90	129.60	131.90
May		113.60	114.00	116.20	120.90	122.40	123.00	126.50	127.70	130.10	132.10
June		114.20	114.20	116.00	120.20	121.60	123.20	126.90	128.20	130.40	131.90
July	111.10	115.10	113.70	117.00	120.50	121.40	123.40	126.50	128.40	130.30	
August	110.90	114.80	113.70	117.00	120.60	121.80	123.40	126.50	128.00	129.90	
September	111.00	115.10	113.80	117.10	121.10	122.00	123.50	126.70	127.80	130.10	
October	110.90	113.70	113.90	117.80	121.00	122.20	123.30	126.80	127.90	130.60	
November	111.20	113.50	114.60	118.00	121.00	121.90	123.30	126.30	127.90	130.20	
December	111.10	112.80	114.10	117.90	120.30	121.30	123.10	125.40	127.50	130.00	

Days per month:

Lastly, WPI also tested a "Days per month" variable. Although the variables did not yield particularly significant results, it did slightly improve the R-Square, and therefore WPI opted to keep it as a variable. All relevant scenarios tested by the utility can be found in the regression model at tab 6.1 entitled Regression Scenarios.

Spring and Fall Flag:

Lastly, WPI also tested a "Spring/Fall Flag" variable. Although the variables did not yield particularly strong results, it did slightly improve the R-Square, and therefore WPI opted to keep it as a variable. The variable accounts for the seasonal increase in consumption in the summer and winter months.

Origin of variables

- HDD: Stats Canada
- CDD: Stats Canada
- CPI: Stats Canada
- Days per month Computed by the utility
- Spring/Fall Flag Computed by the utility

Using a combination of wholesale purchases and variables listed above, a multiple regression analysis was used to develop an equation describing the relationship between monthly actual wholesale kWh and the explanatory variables. WPI also used a correlation function to examine the relationship between the variables included in the analysis.

To project the adjusted wholesale purchases for the bridge and test year, the model uses, for the most part, a simple average of the last ten years of historical data. WPI has applied this method of prediction to all variables.

Rational for including and excluding variables

During the process of testing the regression analysis, many different variables and times periods are tested to arrive at the best R-Squared. The utility's rational behind selecting or dropping certain variables involves a "no-worse" rational. In other words, if a variable is justified and does not worsen the results, it is generally kept as one of the regression variables. In this case, the Days per Month only slightly improved the R-Square. However, the utility still opted to keep them as part of the regression analysis.

List Variables tested

- HDD
- CDD
- Daylight Hours
- #Cust
- Employment
- CPI Ontario All Items
- Days per month

- Labour Force
- Spring Fall Flag
- CPI Ontario Energy
- Blended RPP Hydro Rates

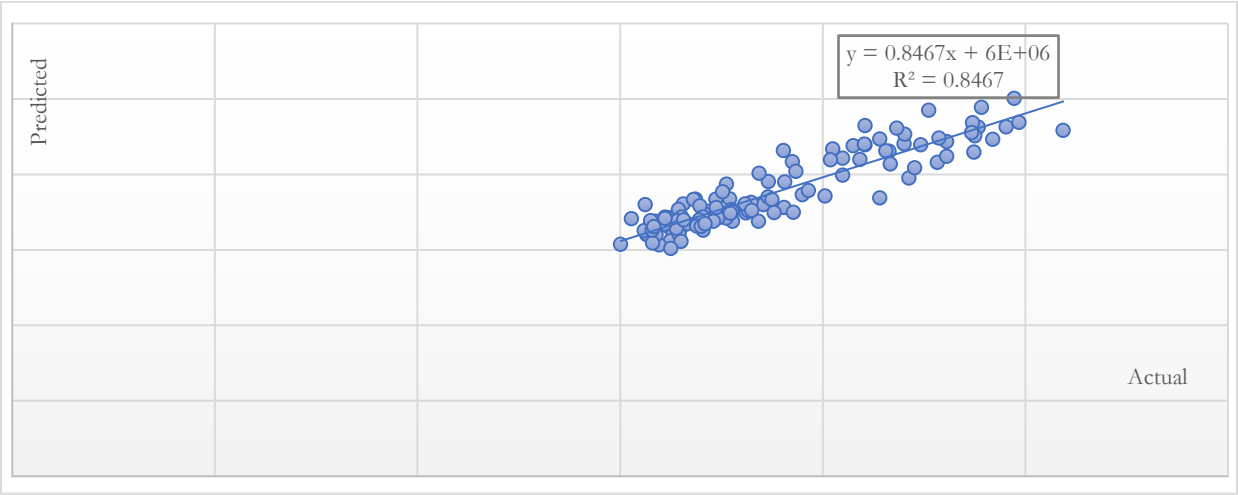
3.1.8 REGRESSION RESULTS

Table 9 below presents the regression results used to determine the load forecast

Table 9 - Correlation/Regression Results

R Squared	**0.8467**		**1.355**	**Durbin-Watson Statistic**			
Adjusted R Squared	**0.8400**		**1.63 - 1.77**	**Positive autocorrelation detected**			
Standard Error	**2190305.2500**		**2.290**	**Critical F-Statistic - 95% Confidence**			
F - Statistic	**125.9254**		**89.62%**	**Confidence to which analysis holds**			

Multiple Regression Equation					**Independent Analysis**			**Auto Correlation**	**Multicollinearity**	
	Coefficients	**Standard Error**	**t Stat**	**p Value**	**R Squared**	**Coefficient**	**Intercept**	**Dl=1.69 Du=1.72**	**Adjusted R-Squared against other Indep**	**Variables with RSQ at > 90%**
Intercept	4,950,758.346	8,513,936.562	0.581	56.21%				**DW-Stat**		
HDD	19,826.699	1,198.869	16.538	0.00%	72.34%	17934.23	31282570.00	**0.33**	56.95%	
CDD	39,700.905	15,737.416	2.523	1.30%	14.91%	-96062.72	38716672.00	**0.84**	65.22%	
Days per month	1,041,113.042	265,530.386	3.921	0.02%	0.03%	-112907.11	40928612.00	**3.00**	4.47%	
Spring Fall Flag	2,356,162.159	504,875.507	4.667	0.00%	10.39%	3515456.70	35732864.00	**1.35**	35.08%	
CPI Ont Energy	-50,882.755	16,107.878	-3.159	0.20%	11.56%	-142178.63	59034088.00	**0.18**	6.23%	



The resulting regression equation yields an adjusted R-squared of 0.8400. When actual annual wholesale values are compared to annual values predicted by the regression equation, the mean absolute percentage error (MAPE) is 0.181. More detailed model statistics can be found in the next section.

Once WPI calculated its preferred Regression Results, the Load Forecast model then uses the coefficients from the regression results to adjust the wholesale purchases.

Table 10 as seen below, demonstrates the results of this adjustment. The table shows a comparison of the actual and predicted wholesale purchases.

Table 10 - Wholesale vs. Adjusted using the coefficients from the regression results

Year	kWh Purchased	year over year	Adjusted	year over year	Purch. VS Adj.
2007	463,129,475		460,980,730		-0.46%
2008	456,739,436	-1.38%	454,903,043	-1.32%	-0.40%
2009	463,551,844	1.49%	461,890,319	1.54%	-0.36%
2010	457,585,378	-1.29%	456,096,984	-1.25%	-0.33%
2011	447,364,016	-2.23%	445,680,055	-2.28%	-0.38%
2012	446,250,280	-0.25%	444,534,181	-0.26%	-0.38%
2013	458,432,496	2.73%	456,075,538	2.60%	-0.51%
2014	452,839,354	-1.22%	450,307,212	-1.26%	-0.56%
2015	442,316,538	-2.32%	439,317,312	-2.44%	-0.68%
2016	430,969,767	-2.57%	429,085,587	-2.33%	-0.44%

Table 11 as seen below, shows the results of the mean absolute deviation (MAD), the mean square error (MSE), the root mean square (RMSE) and the mean absolute Percentage error (MAPE).

Table 11 - MAP-MSE-MAPE

Period	Actual	Forecast	Error	Absolute Value of Error	Square of Error	Absolute Values of Errors Divided by Actual Values.
t	A_t	F_t	$A_t - F_t$	$\lvert A_t - F_t \rvert$	$(A_t - F_t)^2$	$\lvert (A_t - F_t)/A_t \rvert$
1	463,129,475	453,134,268	9,995,207	9,995,207	99,904,159,764,351	0.0216
2	456,739,436	459,645,673	-2,906,237	2,906,237	8,446,213,716,806	0.0064
3	463,551,844	464,946,555	-1,394,711	1,394,711	1,945,219,095,131	0.0030
4	457,585,378	446,926,267	10,659,111	10,659,111	113,616,642,779,802	0.0233
5	447,364,016	452,336,745	-4,972,730	4,972,730	24,728,040,999,052	0.0111
6	446,250,280	435,665,899	10,584,381	10,584,381	112,029,116,996,765	0.0237
7	458,432,496	438,662,655	19,769,841	19,769,841	390,846,610,289,826	0.0431
8	452,839,354	456,912,366	-4,073,012	4,073,012	16,589,424,116,142	0.0090
9	442,316,538	450,857,172	-8,540,634	8,540,634	72,942,423,166,549	0.0193
10	430,969,767	439,783,380	-8,813,614	8,813,614	77,679,786,177,965	0.0205
	Totals		20307602.460	81709476.256	918727637102388.000	0.181

The mean absolute deviation (MAD) is the sum of absolute differences between the actual value and the forecast divided by the number of observations.

Mean square error (MSE) is probably the most commonly used error metric. It penalizes larger errors because squaring larger numbers has a greater impact than squaring smaller numbers. The MSE is the sum of the squared errors divided by the number of observations.

Mean Absolute Percentage Error (MAPE) is the average of absolute errors divided by actual observation values.

In accordance with the Filing Requirements, WPI has also provided a 2018 forecast assuming twenty-year normal weather conditions. Table 12 below displays 20 years of historical Heating Degree Days and Cooling Degree Days. The impact of using both a 10-year average as well as a 20-year average to weather normalize wholesale purchases is presented in Table 13.

Table 12 - Forecast using a twenty-year weather normalization

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	10 year avg.	20 year avg
HDD																						
Jan	796.6	656.2	758.1	739.6	709	607.6	835.4	883.3	803.6	599.1	599.10	689.50	638.30	865.60	746.90	844.00	663.20	672.80	841.40	708.00	726.88	732.865
Feb	647.9	554.2	585.1	643	652.9	608.4	793.3	695.7	655.3	681.2	681.20	751.90	711.10	665.20	655.90	681.30	587.30	673.00	794.60	662.80	686.43	669.065
Mar	661.7	528.8	587.9	484.9	632.9	619.1	666.5	554.3	676.9	583.8	583.80	580.50	670.20	586.60	503.70	634.30	386.30	610.00	777.70	535.30	586.84	593.26
Apr	428.7	345.1	344.5	399.8	351.2	380	458.9	388.9	364.6	338.5	338.50	406.70	303.90	372.00	281.00	395.20	399.60	405.50	417.70	469.90	379	379.51
May	325.5	120	153.6	191.7	170.8	281.7	245.1	248.9	240.7	175.2	175.20	201.90	275.80	237.50	162.10	196.30	152.60	179.50	211.10	212.40	200.44	207.88
Jun	52.9	80.5	54.9	86.5	72.9	80	99	112.5	32	65.3	65.30	59.90	60.60	113.80	67.20	84.00	52.30	86.50	65.40	76.60	73.16	73.405
Jul	42.8	16.9	11.6	46.7	41.7	19.4	23.6	30.5	18.4	5.6	5.60	32.70	16.40	55.20	13.20	5.60	2.50	25.30	64.90	13.10	23.45	24.585
Aug	73.7	19.3	38.3	41	9.9	22	22.1	58.1	10.6	37.5	37.50	27.10	39.00	47.30	19.70	12.60	22.90	35.20	41.70	6.20	28.92	31.085
Sep	130.8	87.8	83	145.7	131.8	60.8	103.5	78.2	70.9	130	130.00	79.90	112.00	100.30	122.00	106.40	119.50	140.20	113.00	56.90	108.02	105.135
Oct	293.8	273.1	305	263	270.2	347.5	306.9	256.7	247.4	323.2	323.20	184.20	317.60	310.00	278.10	252.00	255.80	255.70	270.80	234.60	268.2	278.44
Nov	476.9	410.3	388.6	464.7	353.4	483.6	411.8	430.6	424.2	400.3	400.30	483.50	474.90	379.50	419.60	367.70	467.10	499.10	516.80	370.00	437.85	431.145
Dec	611.1	556.7	616	788.6	527.8	619.3	608.3	677.7	677.9	523.4	523.40	659.40	694.70	656.60	677.80	573.60	558.40	741.20	603.30	618.50	630.69	625.685
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	10 year avg.	20 year avg
CDD																						
Jan	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
Mar	0	0.8	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	4.70	0.00	0.00	0.00	0.00	0.47	0.275
Apr	0	0	0	0	0	4.9	0	0	0	0	0.00	0.00	0.00	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.385
May	0	6.9	10.8	3.8	5	0	0	1.8	0.5	11.9	14.90	0.00	0.30	16.30	4.00	10.00	9.20	2.20	2.20	12.20	7.13	5.6
Jun	22.1	46	54.5	17.2	39.6	33.8	13.9	9.6	67.3	22.1	41.20	33.60	12.30	7.00	11.00	51.50	23.40	27.00	27.00	16.50	25.05	28.83
Jul	41.4	55.2	104.6	28.7	53.6	83.5	35.8	30.6	83.5	88.4	36.90	49.70	10.70	87.60	83.30	77.90	70.70	21.40	21.40	76.10	53.57	57.05
Aug	17.6	66.6	29	28.6	69.5	55.8	51.3	28.1	58.3	42	57.70	29.00	41.40	85.80	46.40	57.10	35.20	23.40	23.40	79.90	47.93	46.305
Sep	0.8	13.2	23.6	16	19.5	58	9.8	29.3	27.5	4.3	30.30	5.50	5.40	14.60	18.40	11.20	17.00	14.90	14.90	20.20	15.24	17.72
Oct	3.1	0	0	0.1	0	5.2	0	0	13.7	0	11.10	0.00	0.00	0.00	0.30	0.30	0.00	0.30	0.30	3.20	1.55	1.88
Nov	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
Dec	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0

Table 13 - Forecast using a ten year vs. twenty-year weather normalization

Date	Weather Normalized 10Year	Yearly Total 10Year	Weather Normalized 20Year	Yearly Total 20Year
2018-January	45,462,927		45,335,214	
2018-February	41,925,957		41,589,652	
2018-March	39,534,041		39,640,276	
2018-April	34,395,500		34,331,730	
2018-May	31,813,265		31,829,042	
2018-June	31,400,726		31,536,040	
2018-July	32,539,310		32,512,375	
2018-August	32,591,480		32,494,153	
2018-September	29,858,747		29,938,096	
2018-October	33,571,190		33,874,632	
2018-November	36,298,248		36,101,594	
2018-December	45,465,685	434,857,075	43,247,285	432,430,087

3.1.9 DETERMINATION OF CUSTOMER FORECAST

WPI has used a simple geometric mean function to determine the forecasted number of customers of 2017 and 2018. The geometric mean is more appropriate to use when dealing with percentages and rates of change. Although the formula is somewhat simplistic, it is reasonably representative of WPI's natural customer growth. The geometric mean results were analyzed by WPI and then further adjusted for known particulars – in WPI's case the MicroFit related consumption was removed from the Wholesale Purchases. Historical customer counts and projected customer counts for 2017 and 2018 are presented in Table 14 below. A variance analysis of customer counts and projections is presented at 3.3.1.

All classes except Street Lighting classes used a 10 year historical geomean. The reason for using 9 years vs 10 years geomean for Streetlights was because 2007 did not reflect accurate year end counts and as such skewed the 10-year average.

Table 14 - Customer Forecast

	Residential	2 year	General Service < 50 kW	2 year	General Service > 50 to 4999 kW	10 year	Unmetered Scattered Load	2 years	Sentinel Lighting		Street Lighting	
Date	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate
2007	18439		2356		250		69		9		4461	
2008	18713	1.0149	2377	1.0089	251	1.0040	68	0.9927	9	1.0000	6072	1.3611
2009	18948	1.0125	2413	1.0151	263	1.0479	65	0.9485	9	1.0000	6036	0.9940
2010	19181	1.0123	2433	1.0085	277	1.0533	62	0.9612	9	1.0000	6023	0.9978
2011	19488	1.0160	2446	1.0053	277	1.0018	62	1.0000	9	1.0000	6030	1.0012
2012	19745	1.0132	2467	1.0084	279	1.0054	60	0.9677	9	1.0000	6031	1.0001
2013	19932	1.0095	2504	1.0152	259	0.9300	58	0.9667	9	0.9444	6020	0.9983
2014	20040	1.0054	2533	1.0116	235	0.9054	57	0.9828	8	0.9412	6067	1.0077
2015	20089	1.0024	2532	0.9994	235	1.0000	57	1.0000	8	1.0000	6135	1.0113
2016	20292	1.0101	2537	1.0020	236	1.0064	57	0.9912	8	0.9375	6169	1.0055
Geomean		*1.0107*		*1.0083*		*0.9938*		*0.9788*		*0.9799*	*9 years*	*1.0121*
2017	20567		2571		208		55		8		6181	
2018	20786		2592		207		54		8		6193	

3.1.10 DETERMINATION OF WEATHER NORMALIZED FORECAST

Allocation to specific weather sensitive rate classes (Residential, GS<50, GS>50) is based on the share (%) of each classes' actual retail kWh (exclusive of distribution losses) and a share of actual wholesale kWh. Weather normalized wholesale kWh, for historical years, are allocated to these classes based on these historical shares. Forecast values for 2016 and 2018 are allocated based on the most recent year's (2016) actual share. For those rate classes that use kW consumption as a billing determinant, sales for these customer classes are then converted to kW based on the historical volumetric relationship between kWh and kW. The utility then forecasts a consumption per customer and adds new customer's load to the total consumption for the class.

Allocation to specific non-weather sensitive rate classes (GS>50, USL, Sentinel and Streetlights) is based on an average of demand/customer. The utility then uses an appropriate historical average to determine an average demand per customer. This average is then applied to the customer count for the bridge and test year.[5]

Explanations for material changes in the definition of or major changes over time, explanations of the bridge and test year forecasts by rate class, variance analysis between the last OEB-approved and the actual and weather-normalized actual results are presented at Section 3.3.1 Variance Analysis of Load Forecast.

[5] MFR - For consumption and demand - explanation to support how kWh are converted to kW for applicable demand-billed classes, year-over-year variances in kWh and kW by rate class and for system consumption overall (kWh) with explanations for material changes in the definition of or major changes over time (should be done for both historical actuals against each other and historical weather-normalized actuals over time), explanations of the bridge and test year forecasts by rate class, variance analysis between the last OEB-approved and the actual and weather-normalized actual results

3.1.11 LOAD FORECAST BY CLASS.

The following section presents class specific adjusted historical and forecast values for those classes that have weather sensitive load. Historic class, specific kWh consumption is allocated based on each class' share in wholesale kWh, exclusive of distribution losses. Forecast class values are allocated based on the class share for 2016.

Tables 15 to 21 show historical and forecasted details for each of the weather sensitive classes.

Table 15 - Residential Forecast (Weather Sensitive)

Year	Residential Metered kWh	Wholesale Purchases	Weather Normalized	*Ratio%* *	Weather Normal	Per customer
2007	199,390,161	463,129,475	43.05%	453,134,268	195,086,946	10,580
2008	205,134,958	456,739,436	44.91%	459,645,673	206,440,233	11,032
2009	196,404,112	463,551,844	42.37%	464,946,555	196,995,042	10,397
2010	204,294,579	457,585,378	44.65%	446,926,267	199,535,689	10,403
2011	185,222,269	447,364,016	41.40%	452,336,745	187,281,130	9,610
2012	192,991,580	446,250,280	43.25%	435,665,899	188,414,112	9,542
2013	196,769,022	458,432,496	42.92%	438,662,655	188,283,384	9,446
2014	190,196,716	452,839,354	42.00%	456,912,366	191,907,419	9,576
2015	181,203,663	442,316,538	40.97%	450,857,172	184,702,501	9,194
2016	173,850,940	430,969,767	40.34%	439,783,380	177,406,305	8,743
2017			42.59%	441,048,072	187,825,276	9,133
2018		*Avg*	42.59%	439,545,356	187,185,327	9,005

Table 16 - General Service <50 Forecast (Weather Sensitive)

Year	GS<50 Metered kWh	Wholesale Purchases	Weather Normalized	*Ratio%* *	Weather Normal	Per customer
2007	72,229,654	463,129,475	15.60%	453,134,268	70,670,802	30,002
2008	71,769,164	456,739,436	15.71%	459,645,673	72,225,832	30,392
2009	65,738,286	463,551,844	14.18%	464,946,555	65,936,076	27,331
2010	65,591,735	457,585,378	14.33%	446,926,267	64,063,824	26,331
2011	63,134,683	447,364,016	14.11%	452,336,745	63,836,464	26,098
2012	66,007,069	446,250,280	14.79%	435,665,899	64,441,482	26,127
2013	67,287,328	458,432,496	14.68%	438,662,655	64,385,571	25,713
2014	66,865,508	452,839,354	14.77%	456,912,366	67,466,922	26,635
2015	64,887,895	442,316,538	14.67%	450,857,172	66,140,807	26,127
2016	65,456,901	430,969,767	15.19%	439,783,380	66,795,538	26,334
2017			14.80%	441,048,072	65,288,799	25,394
2018		*Avg*	14.80%	439,545,356	65,066,351	25,100

Table 17 - General Service >50 (kWh) (Weather Sensitive)

Year	GS>50 Metered kWh	Wholesale Purchases	Weather Normalized	*Ratio%* *	Weather Normal	Per customer
2007	164,026,426	463,129,475	35.42%	453,134,268	160,486,426	643,232
2008	163,922,770	456,739,436	35.89%	459,645,673	164,965,812	658,546
2009	171,341,623	463,551,844	36.96%	464,946,555	171,857,147	654,694
2010	171,028,862	457,585,378	37.38%	446,926,267	167,044,872	604,141
2011	170,481,070	447,364,016	38.11%	452,336,745	172,376,073	622,296
2012	168,765,466	446,250,280	37.82%	435,665,899	164,762,605	591,607
2013	168,598,455	458,432,496	36.78%	438,662,655	161,327,669	622,887
2014	174,937,862	452,839,354	38.63%	456,912,366	176,511,321	752,714
2015	177,010,310	442,316,538	40.02%	450,857,172	180,428,179	769,417
2016	172,754,187	430,969,767	40.08%	439,783,380	176,287,123	746,979
2017			37.71%	441,048,072	166,312,517	799,579
2018		*Avg*	37.71%	439,545,356	165,745,865	801,796

Table 18 - General Service >50 Demand (kW) (Non-Weather Sensitive)

Year	kWh	kWh	kW
2007	164,026,426	446,167	0.00272
2008	163,922,770	456,557	0.00279
2009	171,341,623	467,689	0.00273
2010	171,028,862	465,704	0.00272
2011	170,481,070	470,757	0.00276
2012	168,765,466	466,875	0.00277
2013	168,598,455	442,859	0.00263
2014	174,937,862	459,073	0.00262
2015	177,010,310	461,953	0.00261
2016	172,754,187	444,828	0.00257
2017	166,312,517	447,732	0.00269
2018	165,745,865	446,207	0.00269
Avg			*0.00269*

Table 19 - Street Lighting (Non-Weather Sensitive)

Year	kWh	kW	Connection	kWh per connection	KW per connection	KW/kWh Ratio
2007	3,836,041	8,637	4461	860	1.9361	0.00225
2008	3,073,211	8,727	6072	506	1.4373	0.00284
2009	5,590,081	7,289	6036	926	1.2077	0.00130
2010	6,501,804	19,652	6023	1,080	3.2631	0.00302
2011	4,600,072	12,194	6030	763	2.0221	0.00265
2012	5,454,725	15,169	6031	905	2.5154	0.00278
2013	4,923,873	13,627	6020	818	2.2637	0.00277
2014	3,012,105	6,188	6067	497	1.0200	0.00205
2015	3,932,787	6,443	6135	641	1.0503	0.00164
2016	2,481,449	7,740	6169	402	1.2548	0.00312
2017	2,196,082	6,846	6181	355	1.1076	0.00312
2018	2,196,082	6,846	6193	355	1.1054	0.00312
Avg				*402*	*1.2548*	*0.00312*

Table 20 - Unmetered Scattered Load (Non-Weather Sensitive)

Year	kWh	kW	Customer	kWh per customer
2007	408,015	0	69	5,913
2008	349,537	0	68	5,140
2009	301,552	0	65	4,675
2010	249,031	0	62	4,017
2011	342,537	0	62	5,525
2012	289,152	0	60	4,819
2013	287,354	0	58	4,954
2014	286,287	0	57	5,023
2015	284,934	0	57	4,999
2016	268,395	0	57	4,750
2017	273,985	0	55	4,982
2018	269,004	0	54	4,982
Avg			*61*	*4982*

Table 21 - Sentinel (Non-Weather Sensitive)

Year	kWh	kW	Connection	kWh per connection	KW per connection	KW/kWh Ratio
2007	14,720	20	9	1,636	2.2222	0.00136
2008	17,886	20	9	1,987	2.2222	0.00112
2009	17,825	23	9	1,981	2.5556	0.00129
2010	17,576	21	9	1,953	2.3333	0.00119
2011	18,493	21	9	2,055	2.3333	0.00114
2012	17,378	20	9	1,931	2.2222	0.00115
2013	16,669	17	9	1,961	2.0000	0.00102
2014	16,488	15	8	2,061	1.8750	0.00091
2015	10,250	17	8	1,281	2.1250	0.00166
2016	6,779	14	8	904	1.8667	0.00207
2017	14,199	17	8	1,775	2.1250	0.00120
2018	13,915	17	8	1,775	2.1685	0.00122
Avg				*1,775*	*2.1756*	*0.00129*

3.1.12 FINAL NORMALIZED LOAD FORECAST

Table 22 below presents historical and projected weather normalized Load Forecast by customer class.

Table 22 - Final Load Forecast (not CDM adjusted)

	Year	2017	2018
Residential	Cust/Conn	20,567	20,786
	kWh	187,825,276	187,185,327
	kW		
General Service < 50 kW	Cust/Conn	2,574	2,578
	kWh	65,288,799	65,066,351
	kW		
General Service > 50 to 4999 kW	Cust/Conn	208	207
	kWh	166,312,517	165,745,865
	kW	447,732	446,207
Unmetered Scattered Load	Cust/Conn	55	54
	kWh	273,985	269,004
	kW		-
Sentinel Lighting	Cust/Conn	8	8
	kWh	14,199	13,915
	kW	17	17
Street Lighting	Cust/Conn	6,181	6,193
	kWh	2,196,082	2,196,082
	kW	6,846	6,846
Total	Cust/Conn	**29,593**	**29,826**
	kWh	**421,910,858**	**420,476,544**
	kW	**454,595**	**453,070**

3.2 IMPACT AND PERSISTENCE FROM HISTORICAL CDM PROGRAMS[6]

3.2.1 LOAD FORECAST CDM ADJUSTMENT WORK FORM

While the forecast as presented in the previous section assumes some level of embedded "natural conservation," it does not consider the impacts on energy purchases arising from CDM programs undertaken by WPI's customers. The load forecast is a projection of the expected level of electricity purchases that would occur over the specified period in the absence of any CDM initiatives. Therefore, in accordance with the filing requirements, the forecasted energy purchases are further adjusted to reflect CDM reductions.

The values entered in the 2011-2014 report originate from the OPA issued report; 2006-2010 Final OPA CDM Results. The report provides a portfolio-level summary of the annual resource savings (demand and energy, net and gross for each) for the 2006–2010 program portfolios for WPI. The final annual results of OPA CDM programs for 2010-2014, 2015 and 2016 are filed in conjunction with this application.[7]

The values entered in the 2010-2014 originate from WPI's approved CDM plan which shows WPI's targets to be 20,950,000 kWh. The 2015-2020 originate from WPI's approved 2015 CDM plan which shows WPI's targets to be 23,010,000 kWh.

The schedule to achieve CDM targets are presented in Table 23 below:

[6] MFR - Quantification of any impacts arising from the persistence of historical CDM programs as well as the forecasted impacts arising from new programs in the bridge and test years through the current 6-year CDM framework.
[7] MFR - CDM Adjustment - account for CDM in 2017 load forecast. Consider impact of persistence of historical CDM and impact of new programs. Adjustments may be required for IESO reported results which are full year impacts

Table 23 – OEB Appendix 2-I [8]

2011-2014 CDM Program - 2014, last year of the current CDM plan					
4 Year (2011-2014) kWh Target:					
20,950,000					
	2011	**2012**	**2013**	**2014**	**Total**
2011 CDM Programs	6.91%	6.91%	6.90%	6.52%	27.25%
2012 CDM Programs		13.08%	12.78%	10.89%	36.74%
2013 CDM Programs			8.70%	8.68%	17.38%
2014 CDM Programs				13.90%	13.90%
Total in Year	**6.91%**	**19.99%**	**28.37%**	**39.99%**	**95.26%**
kWh					
2011 CDM Programs	1,606,000	1,606,000	1,603,000	1,515,000	6330000
2012 CDM Programs	668,000	3,038,000	2,968,000	2,530,000	9204000
2013 CDM Programs	-	108,000	2,020,000	2,017,000	4145000
2014 CDM Programs	1,000	41,000	282,000	3,228,000	3552000
Total in Year	**2,275,000.00**	**4,793,000.00**	**6,873,000.00**	**9,290,000.00**	**23,231,000.00**

[8] MFR - Completed Appendix 2-I

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6 Year (2015-2020) kWh Target:							
7,920,000							
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
%							
2015 CDM Programs	19.20%	19.20%	19.20%	19.20%	19.20%	19.20%	115.19%
2016 CDM Programs		13.35%	13.35%	13.35%	13.35%	13.35%	66.73%
2017 CDM Programs			16.86%	16.86%	16.86%	16.86%	67.45%
2018 CDM Programs				16.86%	16.86%	16.86%	50.59%
2019 CDM Programs					16.86%	16.86%	33.73%
2020 CDM Programs						16.86%	16.86%
Total in Year	**19.20%**	**32.55%**	**49.41%**	**66.27%**	**83.14%**	**100.00%**	**350.56%**
kWh							
2015 CDM Programs	4,417,623.00	4,417,623.00	4,417,623.00	4,417,623.00	4,417,623.00	4,417,623.00	4,417,623.00
2016 CDM Programs		3,071,071.00	3,071,071.00	3,071,071.00	3,071,071.00	3,071,071.00	3,071,071.00
2017 CDM Programs			3,880,326.50	3,880,326.50	3,880,326.50	3,880,326.50	3,880,326.50
2018 CDM Programs				3,880,326.50	3,880,326.50	3,880,326.50	3,880,326.50
2019 CDM Programs					3,880,326.50	3,880,326.50	3,880,326.50
2020 CDM Programs						3,880,326.50	3,880,326.50
Total in Year	**4,417,623.00**	**7,488,694.00**	**11,369,020.50**	**15,249,347.00**	**19,129,673.50**	**23,010,000.00**	**23,010,000.00**

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Weight Factor for Inclusion in CDM Adjustment to 2014 Load Forecast									
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	2018	
Weight Factor for each year's CDM program impact on approved load forecast	**0**	**0**	**1**	**0.5**	**0.5**	**0.5**	**1**	**0.5**	Distributor can select "0", "0.5", or "1" from drop-down list
Default Value selection rationale.									
2011-2014 and 2015-2020 LRAMVA and 2015 CDM adjustment to Load Forecast									
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**Total for 2018**
	kWh								
Amount used for CDM threshold for LRAMVA	1,603,142.00	2,436,516.00	6,476,174.00						6,476,174.00
Amount used for CDM threshold for LRAMVA (2018)				3,228,000.00	4,417,623.00	3,071,071.00	3,880,326.50	3,880,326.50	18,477,347.00
Manual Adjustment for 2018 Load Forecast (billed basis)	-			1,614,000.00	2,208,811.50	1,535,535.50	3,880,326.50	1,940,163.25	**11,178,836.75**

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3.2.2 ALLOCATION OF CDM RESULTS

The overall CDM adjustment for 2015, as calculated above, is allocated on a pro-rata basis (using kWh forecast) per class. Table 24 below presents the method behind WPI's allocation of CDM reduction in consumption.

Table 24 - CDM adjustments to Load Forecast

	Year	2017	2018		Share	Target	Final Adjusted (kWh)
Residential	Cust/Conn	20,567	20,786				
	kWh	187,825,276	187,185,327		44.52%	4,976,530	182,208,797
General Service < 50 kW	Cust/Conn	2,574	2,578				
	kWh	65,288,799	65,066,351		15.47%	1,729,861	63,336,490
General Service > 50 to 4999 kW	Cust/Conn	208	207				
	kWh	166,312,517	165,745,865		39.42%	4,406,538	161,339,327
	kW	447,732	446,207				434,344
USL	Cust/Conn	55	54				
	kWh	273,985	269,004		0.06%	7,152	261,852
Sentinel	Cust/Conn	8	8				
	kWh	14,199	13,915		0.00%	370	13,545
	kW	17	17				17
Street Lighting	Cust/Conn	6,181	6,193				
	kWh	2,196,082	2,196,082		0.52%	58,385	2,137,697
	kW	6,846	6,846				6,664
					0.52%	58,385	2,137,697
Total	Cust/Conn	29,593	29,826				
	kWh	421,910,858	420,476,544				409,297,707
	kW	454,595	453,070			12,508,399.400	441,025

The following table shows the per class allocation of the amount used for CDM threshold for LRAMVA (2018).

Table 25 - Allocation of amount used for CDM threshold for LRAMVA[9]

Description	Residential	GS<50 kW	GS>50-4999 kW	USL	Sentinel Lighting	Street Lighting	Total
	kWh	kWh	kW	kWh	kW	kW	
2011 Actuals	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
2011 Forecast	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Amount Cleared							
2012 Actuals	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
2012 Forecast	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Amount Cleared							
2013 Actuals	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
2013 Forecast	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Amount Cleared							
2014 Actuals	$30,740.48	$44,126.38	$229.80	$0.00	$0.00	$0.00	$75,096.66
2014 Forecast	($30,862.10)	($6,790.97)	($1,738.54)	($60.26)	($0.76)	($127.57)	($39,580.20)
Amount Cleared							
2015 Actuals	$61,724.44	$100,640.82	$862.86	$0.00	$0.00	$0.00	$163,228.12
2015 Forecast	($46,589.91)	($10,280.77)	($2,630.49)	($91.18)	($1.15)	($193.02)	($59,786.51)
Amount Cleared							
2016 Actuals	$79,048.59	$90,300.51	$283.96	$0.00	$0.00	$0.00	$169,633.06
2016 Forecast	($39,467.88)	($10,375.09)	($2,673.48)	($92.77)	($1.16)	($196.17)	($52,806.55)
Amount Cleared							
Carrying Charges	$439.89	$2,966.91	($85.29)	($3.72)	($0.05)	($7.88)	$3,309.86
Total LRAMVA Balance	**$55,034**	**$210,588**	**-$5,751**	**-$248**	**-$3**	**-$525**	**$259,094**

[9] MFR - CDM savings for 2017 LRAMVA balance and adjustment to 2017 load forecast; data by customer class and for both kWh and, as applicable, kW. Provide rationale for level of CDM reductions in 2017 load forecast

3.2.3 FINAL CDM ADJUSTED LOAD FORECAST

The table below provides details of the Final Customer and Volume Load Forecast for each of the years. This summary of the billing determinants by rate class will be used to develop WPI's proposed rates.

Table 26 - Final Customer and Volume Load Forecast

	Year	2013	2014	2015	2016	2017	2018 Weather Adj	2018 Final Adjusted (kWh)
Residential	19,932	20,040	20,089	20,292	20,567	20,786	20,786	19,932
	196,769,022	190,196,716	181,203,663	173,850,940	187,825,276	187,185,327	182,208,797	196,769,022
General Service < 50 kW								
	2,504	2,533	2,532	2,537	2,574	2,578	2,578	2,504
	67,287,328	66,865,508	64,887,895	65,456,901	65,288,799	65,066,351	63,336,490	67,287,328
General Service > 50 to 4999 kW								
	259	235	235	236	208	207	207	259
	168,598,455	174,937,862	177,010,310	172,754,187	166,312,517	165,745,865	161,339,327	168,598,455
Unmetered Scattered Load	442,859	459,073	461,953	444,828	447,732	446,207	434,344	442,859
	58	57	57	57	55	54	54	58
Sentinel Lighting	287,354	286,287	284,934	268,395	273,985	269,004	261,852	287,354
	-	-	-		-	-	-	-
	9	8	8	8	8	8	8	9
Street Lighting	16,669	16,488	10,250	6,779	14,199	13,915	13,545	16,669
	17	15	17	14	17	17	17	17
Total	**Cust/Conn**	**28,782**	**28,939**	**29,055**	**29,297**	**29,593**	**29,826**	**29,826**
	kWh	**437,882,702**	**435,314,966**	**427,329,838**	**414,818,651**	**421,910,858**	**420,476,544**	**409,297,707**
	kW	**456,503**	**465,276**	**468,413**	**452,582**	**454,595**	**453,070**	**441,025**

3.3 ACCURACY OF LOAD FORECAST AND VARIANCE ANALYSIS

3.3.1 VARIANCE ANALYSIS OF LOAD FORECAST[10]

Table 27 below shows the yearly change in consumption for the Residential class.

Table 27 - Residential Variance

Year	Cust	%chg.	kWh	%chg.
2007	18,439		199,390,161	
2008	18,713	1.49%	205,134,958	2.88%
2009	18,948	1.25%	196,404,112	-4.26%
2010	19,181	1.23%	204,294,579	4.02%
2011	19,488	1.60%	185,222,269	-9.34%
2012	19,745	1.32%	192,991,580	4.19%
2013	19,932	0.95%	196,769,022	1.96%
2014	20,040	0.54%	190,196,716	-3.34%
2015	20,089	0.24%	181,203,663	-4.73%
2016	20,292	1.01%	173,850,940	-4.06%
2017	20,567	2.38%	187,825,276	3.65%
2018	20,786	1.07%	187,185,327	-0.34%

The number of residential customers has grown slightly since 2007 however the consumption has diminished in contrast to the increase in customer count indicating that that reduction is offsetting the growth in customer count due to the adoption of conservation measures. The projected consumption for 2018 factors into the reduction in CDM targets. The increase in customers from the 2013BA is 750. The reason that the population has been increasing faster in the past couple years is due largely to Bruce Power's refurbishment announcement. With Bruce Power being the largest employer of the region and the refurbishment estimated spending of $13 billion there will be many new jobs coming to Westario's Service Area.

[10] MFR - For customer/connection counts - identification as to whether customer/connection count is shown in year-end or average format, year-over-year variances in changes of customer/connection counts with explanation of major changes, explanations of bridge and test year forecasts by rate class, for last rebasing variance analysis between last OEB-approved and actuals with explanations for material differences

As explained in Section 3.1.9 Determination of Customer Forecast, the Load Forecast model uses a 10-year average to determine the projections.

Table 28 below shows the yearly change in consumption for the GS<50 kW class.

Table 28 - GS <50 kW Variance

Year	Cust	%chg.	kWh	%chg.
2007	2,355.5		72,229,654	
2008	2,376.5	0.89%	71,769,164	-0.64%
2009	2,412.5	1.51%	65,738,286	-8.40%
2010	2,433.0	0.85%	65,591,735	-0.22%
2011	2,446.0	0.53%	63,134,683	-3.75%
2012	2,466.5	0.84%	66,007,069	4.55%
2013	2,504.0	1.52%	67,287,328	1.94%
2014	2,533.0	1.16%	66,865,508	-0.63%
2015	2,531.5	-0.06%	64,887,895	-2.96%
2016	2,536.5	0.20%	65,456,901	0.88%
2017	2,574.0	1.68%	65,288,799	0.62%
2018	2,578.0	0.16%	65,066,351	-0.34%

The number of customers in the GS<50 kW class has remained relatively steady over the past ten years. The region's manufacturing and retail footprint has struggled over the past decade, reflecting the challenges faced in most parts of rural Ontario and Canada with its relatively narrow economic base and concentration in slow growing or declining industries. The projected consumption for 2018 is lower than any historical years due to the reduction attributed to CDM targets. The Load Forecast model uses a 10-year average to determine the projections.

The increase in customers from the 2013BA is 107. This increase was because the 2013BA customer base was set slightly low combined with a slow increase in WPI's GS<50.

As explained in Section 3.1.9 Determination of Customer Forecast, WPI has used a simple 10-year (2014-2016) geometric mean function to determine the forecasted number of customers of 2017 and 2018. The methodology behind the projections for 2017 and 2018 are explained in detailed at Section 3.3.1.

Table 29 below shows the yearly change in consumption for the GS>50kW class.

Table 29 - GS>50 Variance

Year	Cust	%chg.	kWh	%chg.	kW	%chg.
2007	249.5		164,026,426		446,167	
2008	250.5	0.40%	163,922,770	-0.06%	456,557	2.33%
2009	262.5	4.79%	171,341,623	4.53%	467,689	2.44%
2010	276.5	5.33%	171,028,862	-0.18%	465,704	-0.42%
2011	277.0	0.18%	170,481,070	-0.32%	470,757	1.08%
2012	278.5	0.54%	168,765,466	-1.01%	466,875	-0.82%
2013	259.0	-7.00%	168,598,455	-0.10%	442,859	-5.14%
2014	234.5	-9.46%	174,937,862	3.76%	459,073	3.66%
2015	234.5	0.00%	177,010,310	1.18%	461,953	0.63%
2016	236.0	0.64%	172,754,187	-2.40%	444,828	-3.71%
2017	208.0	-11.30%	166,312,517	-6.04%	447,732	-3.08%
2018	206.7	-0.62%	165,745,865	-0.34%	446,207	-0.34%

The number of customers in the GS>50 kW class has declined slowly but steadily over the past 10 years. The region's manufacturing and retail footprint has struggled over the past decade, reflecting the challenges faced in most parts of rural Ontario and Canada with its relatively narrow economic base and concentration in slow growing or declining industries. The projected consumption for 2018 is lower than any historical years due to the reduction attributed to CDM targets. The Load Forecast model uses a 10-year average to determine the projections.

The decrease in customers from the 2013BA is 73. This decrease is due to significant losses in 2013 and 2014 for GS>50 customers that WPI has not seen recovered. Manufacturing in the area has slowed down significantly. The major factor in the loss of GS>50 customers is the remoteness of WPI's service territory and increasing shipping costs making it difficult for many larger businesses to continue to operate and turn a profit.

WPI has used a simple 10-year geometric mean function to determine the forecasted number of customers of 2017 and 2018. The methodology behind the projections for 2017 and 2018 are explained in detailed at Section 3.3.1.

Table 30 below shows the yearly change in consumption for the Streetlight class.

Table 30 - Streetlights Variance

Year	Cust	%chg.	kWh	%chg.	kW	%chg.
2007	4,461.0		3,836,041		8,637	
2008	6,072.0	36.11%	3,073,211	-19.89%	8,727	1.05%
2009	6,035.5	-0.60%	5,590,081	81.90%	7,289	-16.48%
2010	6,022.5	-0.22%	6,501,804	16.31%	19,652	169.62%
2011	6,030.0	0.12%	4,600,072	-29.25%	12,194	-37.95%
2012	6,030.5	0.01%	5,454,725	18.58%	15,169	24.40%
2013	6,020.0	-0.17%	4,923,873	-9.73%	13,627	-10.16%
2014	6,066.5	0.77%	3,012,105	-38.83%	6,188	-54.59%
2015	6,135.0	1.13%	3,932,787	30.57%	6,443	4.13%
2016	6,168.5	0.55%	2,481,449	-36.90%	7,740	20.13%
2017	6,181.0	0.75%	2,196,082	-44.16%	6,846	6.25%
2018	6,193.2	0.20%	2,196,082	0.00%	6,846	0.00%

Connection count and consumption for the Streetlight class was consistent from 2007 to 2015 but decreased significantly from 2015 to 2018 coinciding with the conversion to LED lights. The Load Forecast model uses a 2-year (2016-2017) average to determine the projections.

WPI determined that using a 2 year average to determine the growth rate would be more accurate of the current trend of WPI's service territory. With WPI predicting increases to the residential customer base and therefore increases in development in the area it will also lead to an increased number of streetlights and therefore streetlight connections.

WPI has used a simple 9-year (2014-2016) geometric mean function to determine the forecasted number of customers of 2017 and 2018. The methodology behind the projections for 2017 and 2018 are explained in detailed at Section 3.3.1.

Table 31 below shows the yearly change in consumption for the Sentinel Lighting class.

Table 31 - Sentinel Lights Variance

Year	Cust	%chg.	kWh	%chg.	kW	%chg.
2007	9.0		14,720		20	
2008	9.0	0.00%	17,886	21.51%	20	0.00%
2009	9.0	0.00%	17,825	-0.34%	23	15.00%
2010	9.0	0.00%	17,576	-1.39%	21	-8.70%
2011	9.0	0.00%	18,493	5.21%	21	0.00%
2012	9.0	0.00%	17,378	-6.03%	20	-4.76%
2013	8.5	-5.56%	16,669	-4.08%	17	-15.00%
2014	8.0	-5.88%	16,488	-1.09%	15	-11.76%
2015	8.0	0.00%	10,250	-37.83%	17	13.33%
2016	9.0	12.50%	6,779	-33.86%	14	-17.65%
2017	7.9	-1.46%	14,199	38.53%	17	0.00%
2018	7.8	-1.46%	13,915	-2.01%	17	0.00%

WPI projects a marginal decrease in both connections and consumption of the Sentinel Lights class.

The decrease in customer change from 2014 to 2015 is nil. As explained in Section 3.1.9 Determination of Customer Forecast, WPI has used a simple 10-year geometric mean function to determine the forecasted number of customers of 2017 and 2018. The methodology behind the projections for 2017 and 2018 are explained in detailed at Section 3.3.1.

Table 32 below shows the yearly change in consumption for the USL class.

Table 32 - USL Variance

Year	Cust	%chg.	kWh	%chg.
2007	68.5		408,015	
2008	68.0	-0.73%	349,537	-14.33%
2009	64.5	-5.15%	301,552	-13.73%
2010	62.0	-3.88%	249,031	-17.42%
2011	62.0	0.00%	342,537	37.55%
2012	60.0	-3.23%	289,152	-15.58%
2013	58.0	-3.33%	287,354	-0.62%
2014	57.0	-1.72%	286,287	-0.37%

2015	57.0	0.00%	284,934	-0.47%
2016	56.5	-0.88%	268,395	-5.80%
2017	55.0	-3.51%	273,985	-3.84%
2018	53.8	-2.12%	269,004	-1.82%

WPI anticipates a modest decrease in USL connection for 2016 to the 2018 Test year. The Load Forecast model uses a 10-year average to determine the projections. The methodology behind the projections for 2017 and 2018 are explained in detailed at Section 3.3.1.

Summary of Customer Variances:

In summary, for customer counts WPI expects slight increases in the Residential and USL classes only. WPI projects a small or no material change in the GS<50 category, GS>50 Class and a decrease in Streetlights and Sentinel Lights. WPI is expecting reduced consumption in each of the classes except a small increase in the USL class.

Table 34 below shows the difference between the 2013 Board Approved Load Forecast and the 2018 Load Forecast. Table 33 below shows the year over year variance from the 2013 Board Approved Forecast up to the 2018 Test Year Forecast (CDM Adjusted). WPI notes that has little control over its Board Approved Load Forecast as the OEB dictates the manner in which the forecast is determined (i.e. using a multivariate regression analysis based on multi-year historical values.) In other words, the Load Forecasting process is formulaic in natures and year over year variances are outside of the utility's control. That said WPI notes that all classes have remained relatively similar since the utility's Board Approved 2013 Load Forecast.

The overall decline in consumption can be explained by change in weather patterns and the increasingly efficient use of energy.

Table 33 – 2013 Board Approved VS 2018 Load Forecast

Customers or Connections

	2013 Board Appr.	Projected	Variance
Customer Class Name		2018	
Residential	20,036	20786	750
General Service < 50 kW	2471	2578	107
General Service > 50 to 4999 kW	280	207	-73
Unmetered Scattered Load	60	54	-6

Sentinel Lighting	9	8	-1
Street Lighting	6,026	6193	167
TOTAL	28,882	29,826	944
	Consumption (kWh)		
	2013 Board Appr.	Projected	Variance
Customer Class Name		2018	
Residential	206,340,893	182,208,797	-24,132,096
General Service < 50 kW	65,583,143	63,336,490	-2,246,653
General Service > 50 to 4999 kW	172,663,135	161,339,327	-11,323,808
Unmetered Scattered Load	275,664	261,852	-13,812
Sentinel Lighting	18,246	13,545	-4,701
Street Lighting	5,458,939	2,137,697	-3,321,242
TOTAL	450,340,020	409,297,707	-41,042,313
	Consumption (kW)		
	2013 Board Appr.	Projected	Variance
Customer Class Name		2018	0
Residential	0	0	0
General Service < 50 kW	0	0	0
General Service > 50 to 4999 kW	479,272	434,344	-44,928
Unmetered Scattered Load	0	0	0
Sentinel Lighting	17	17	0
Street Lighting	15,177	6,664	-8,513
TOTAL	494,466	441,025	-53,441

Table 34 presents variances between actuals and 2013 Board Approved. As shown in the table below, the trend in Residential customer count declined between the last Board Approved and 2016 only to end at a similar count as the 2013 BA. The overall consumption has declined due to energy conservation. Most classes saw a moderate increase in consumption in 2017 only to be offset by CDM target reductions in 2018.

With respect to consumption, as explained in section 3.1.6, the assumption is that the effects of energy efficient changes have contributed to the modest decline in consumption vs the increase in customer count. The customer/connection count has remained relatively unchanged.

Table 34 - Yearly Variances from Last Board Approved

	Year		2013	2014	2015	2016	2017	2018 Final
Residential	Cust/Conn	20,036	(104)	4	53	256	531	750
	kWh	206,340,893	(9,571,871)	(16,144,177)	(25,137,230)	(32,489,953)	(18,515,617)	(24,132,096)
General Service < 50 kW	Cust/Conn	2,471	33	62	61	66	103	107
	kWh	65,583,143	1,704,185	1,282,365	(695,248)	(126,242)	(294,344)	(2,246,653)
General Service > 50 to 4999 kW	Cust/Conn	280	(21)	(46)	(46)	(44)	(72)	(73)
	kWh	172,663,135	(4,064,680)	2,274,727	4,347,175	91,052	(6,350,618)	(11,323,808)
	kW	479,272	(36,413)	(20,199)	(17,319)	(34,444)	(31,540)	(44,928)
Unmetered Scattered Load	Cust/Conn	60	(2)	(3)	(3)	(4)	(5)	(6)
	kWh	275,664	11,690	10,623	9,270	(7,269)	(1,679)	(13,812)
			-	-	-		-	-
Sentinel Lighting	Cust/Conn	9	(1)	(1)	(1)	(2)	(1)	(1)
	kWh	18,246	(1,577)	(1,758)	(7,996)	(11,467)	(4,047)	(4,701)
	kW	17	-	(2)	-	(3)	-	(0)
Street Lighting	Cust/Conn	6,026	(6)	41	109	143	155	167
	kWh	5,458,939	(535,066)	(2,446,834)	(1,526,152)	(2,977,490)	(3,262,857)	(3,321,242)
	kW	15,177	(1,550)	(8,989)	(8,734)	(7,437)	(8,331)	(8,513)
		28,882	**(101)**	**57**	**173**	**415**	**711**	**944**
		450,340,020	**(12,457,318)**	**(15,025,054)**	**(23,010,182)**	**(35,521,369)**	**(28,429,162)**	**(41,042,313)**
		494,466	**(37,963)**	**(29,190)**	**(26,053)**	**(41,884)**	**(39,871)**	**(53,441)**

Table 35 – OEB Appendix 2-IB

	Calendar Year		Customers / Connections			Consumption (kWh) [3]				Demand (kW or kVA)				Revenues	
	(for 2017 Cost of Service)					Weather-actual	Weather-normalized			Weather-actual	Weather-normalized			Weather-actual	Weather-normalized
Historical	2012														
Historical	2013														
Historical	2014														
Historical	2015														
Historical	2016														
Bridge Year (Forecast)	2017														
Test Year (Forecast)	2018														

Due to its length when printed, WPI has filed the OEB Appendix 2-IB at Appendix A of this Exhibit.[11]

[11] MFR - Completed Appendix 2-IB; the customer and load forecast for the test year must be entered on RRWF, Tab 10

Table 36 below presents the actual average use per customer, by customer class, and historical and adjusted forecast average use per customer generated using the load forecast. As can be seen from the results below, the predicted use per customer follows the trend created from its historical usage per customer.[12]

Table 36 - Average per customer use

	Residential	GS<50	GS>50		USL		Sentinel		Streetlights	
Year	kWh/Cust	kWh/Cust	kWh/Cust	kW/Cust	kWh/Cust	kW/Cust	kWh/conn	kW/conn	kWh/conn	kW/conn
2007	10,580	30,002	643,232	1,788	5,956	0	1,636	2	860	2
2008	11,032	30,392	658,546	1,823	5,140	0	1,987	2	506	1
2009	10,397	27,331	654,694	1,782	4,675	0	1,981	3	926	1
2010	10,403	26,331	604,141	1,684	4,017	0	1,953	2	1,080	3
2011	9,610	26,098	622,296	1,699	5,525	0	2,055	2	763	2
2012	9,542	26,127	591,607	1,676	4,819	0	1,931	2	905	3
2013	9,446	25,713	622,887	1,710	4,954	0	1,961	2	818	2
2014	9,576	26,635	752,714	1,958	5,023	0	2,061	2	497	1
2015	9,194	26,127	769,417	1,970	4,999	0	1,281	2	641	1
2016	8,743	26,334	746,979	1,885	4,750	0	904	2	402	1
2017	9,133	25,394	799,579	2,153	4,982	0	1,775	2	355	1
2018	9,005	25,100	801,796	2,159	4,997	0	1,775	2	355	1

The next section details a variance analysis of the utility's past and projected revenues.

[12] MFR - With respect to average consumption, for each rate class, distributors are to provide weather-actual and weather-normalized average annual consumption or demand per customer as applicable for last OEB approved and historical, weather normalized average annual consumption or demand per customer for the bridge and test years, explanation of the net change in average consumption from last OEB-approved and actuals from historical, bridge and test years based on year-over-year variances and any apparent trends in data

3.3.2 VARIANCE ANALYSIS OF DISTRIBUTION REVENUES[13]

The tables below provide details of the Final Customer and Volume Load Forecast for each of the years. This summary of the billing determinants by rate class will be used to develop WPI's proposed rates.

[13] MFR - For revenues - calculation of bridge year forecast of revenues at existing rates, calculation of test year forecasted revenues at existing and proposed rates, year-over-year variances in revenues comparing historical actuals and bridge and test year forecasts

Table 37 - Variance Analysis of Revenues

The table below shows year over year of WPI's revenues. A detailed analysis follows.

Year	2013 Board Approved	2013	Variances	2014	Variances	2015	Variances	2016	Variances	2017	Variances	2018 Predicted	Variances	2018 CDM Adjusted	Variances
Fixed	$12.33	$12.33	$0.00	$12.50	$0.17	$12.66	$0.16	$16.31	$3.65	$20.06	$3.75	$24.41	$4.35	$24.41	$0.00
Variable	$0.0154	$0.0154	$0.0000	$0.0156	$0.0002	$0.0158	$0.0002	$0.0121	-$0.0037	$0.0082	-$0.0039	$0.0061	-$0.0021	$0.0061	$0.0000
Cust/Conn	20,036	19,932	-104	20,040	108	20,089	49	20,292	203	20,567	275	20,786	220	20,786	0
kWh	206,340,893	196,769,022	-9,571,871	190,196,716	-6,572,306	181,203,663	-8,993,053	173,850,940	-7,352,723	187,825,276	13,974,336	187,185,327	-639,948	182,208,797	-4,976,530
Revenues from Fixed	$2,964,527	$2,949,139	-$15,388	$3,006,000	$56,861	$3,051,921	$45,921	$3,971,452	$919,532	$4,950,768	$979,316	$6,088,781	$1,138,013	$6,088,781	$0
Revenues from Variable	$3,177,650	$3,030,243	-$147,407	$2,967,069	-$63,174	$2,863,018	-$104,051	$2,103,596	-$759,421	$1,540,167	-$563,429	$1,133,367	-$406,800	$1,103,235	-$30,132

Fixed	$23.66	$23.66	$0.00	$23.99	$0.33	$24.30	$0.31	$24.74	$0.44	$25.14	$0.40	$25.14	$0.00	$25.14	$0.00
Variable	$0.0107	$0.0107	$0.0000	$0.0108	$0.0001	$0.0109	$0.0001	$0.0111	$0.0002	$0.0113	$0.0002	$0.0138	$0.0025	$0.0138	$0.0000
Cust/Conn	2,471	2,504	33	2,533	29	2,532	-2	2,537	5	2,574	38	2,578	4	2,578	0
kWh	65,583,143	67,287,328	1,704,185	66,865,508	-421,820	64,887,895	-1,977,613	65,456,901	569,006	65,288,799	-168,102	65,066,351	-222,449	63,336,490	-1,729,861
Revenues from Fixed	$701,566	$710,936	$9,369	$729,200	$18,264	$738,185	$8,985	$753,036	$14,851	$776,524	$23,488	$777,731	$1,207	$777,731	$0
Revenues from Variable	$701,740	$719,974	$18,235	$722,147	$2,173	$707,278	-$14,869	$726,572	$19,294	$737,763	$11,192	$899,231	$161,468	$875,324	-$23,907

Fixed	$218.39	$218.39	$0.00	$221.45	$3.06	$224.33	$2.88	$228.37	$4.04	$232.02	$3.65	$232.02	$0.00	$232.02	$0.00
Variable	$2.0521	$2.0521	$0.0000	$2.0808	$0.0287	$2.1079	$0.0271	$2.1458	$0.0379	$2.1801	$0.0343	$2.8578	$0.6777	$2.8578	$0.0000
Cust/Conn	280	259	-21	235	-25	235	0	236	2	208	-28	207	-1	207	0

kWh	172,663,135	168,598,455	-4,064,680	174,937,862	6,339,407	177,010,310	2,072,447	172,754,187	-4,256,123	166,312,517	-6,441,670	165,745,865	-566,651	161,339,327	-4,406,538
kW	479,272	442,859	-36,413	459,073	16,213	461,953	2,880	444,828	-17,125	447,732	2,904	446,207	-1,525	434,344	-11,863
kW	0	0		0		0		0		165,000		165,000		165,000	
$	$0.60	$0.6000		$0.60		$0.60		$0.60		$0.60		$0.60		$0.60	
Revenues from Fixed	$733,790	$678,756	-$55,034	$623,160	-$55,596	$631,265	$8,104	$646,744	$15,479	$579,122	-$67,622	$575,554	-$3,568	$575,554	$0
Revenues from Variable	$983,514	$908,791	-$74,723	$955,238	$46,447	$973,750	$18,512	$954,512	-$19,238	$877,102	-$77,410	$1,176,153	$299,052	$1,142,252	-$33,901

Fixed	$6.01	$6.01	$0.00	$6.09	$0.08	$6.17	$0.08	$6.28	$0.11	$6.38	$0.10	$7.07	$0.69	$7.07	$0.00
Variable	$0.0225	$0.0225	$0.0000	$0.0228	$0.0003	$0.0231	$0.0003	$0.0235	$0.0004	$0.0239	$0.0004	$0.0265	$0.0026	$0.0265	$0.0000
Cust/Conn	60	58	-2	57	-1	57	0	57	-1	55	-2	54	-1	54	0
kWh	275,664	287,354	11,690	286,287	-1,067	284,934	-1,353	268,395	-16,539	273,985	5,590	269,004	-4,982	261,852	-7,152
Revenues from Fixed	$4,327	$4,183	-$144	$4,166	-$17	$4,220	$55	$4,258	$38	$4,211	-$47	$4,567	$357	$4,567	$0
Revenues from Variable	$6,202	$6,465	-$144	$6,527	$62	$6,582	$55	$6,307	-$275	$6,548	$241	$7,119	$571	$6,930	-$189

Fixed	$5.41	$5.41	$0.00	$5.49	$0.08	$5.56	$0.07	$5.66	$0.10	$5.75	$0.09	$6.43	$0.68	$6.43	$0.00
Variable	$27.9969	$27.9969	$0.0000	$28.3889	$0.3920	$28.7580	$0.3691	$29.2756	$0.5176	$29.7440	$0.4684	$37.8382	$8.0942	$37.8382	$0.0000
Cust/Conn	9	9	-1	8	-1	8	0	8	-1	8	1	8	-0	8	0
kWh	18,246	16,669	-1,577	16,488	-182	10,250	-6,238	6,779	-3,471	14,199	7,420	13,915	-285	13,545	-370
kW	17	17	0	15	-2	17	2	14	-3	17	3	17	0	17	0
Revenues from Fixed	$584	$552	-$32	$527	-$25	$534	$7	$509	-$24	$552	$43	$604	$52	$604	$0
Revenues from Variable	$476	$476	$0	$426	-$50	$489	$63	$410	-$79	$506	$96	$643	$138	$626	-$17

Fixed	$5.66	$5.66	$0.00	$5.74	$0.08	$5.81	$0.07	$5.91	$0.10	$6.00	$0.09	$4.86	-$1.14	$4.86	$0.00

Variable	$4.7547	$4.7547	$0.0000	$4.8213	$0.0666	$4.8840	$0.0627	$4.9719	$0.0879	$5.0515	$0.0796	$4.0957	-$0.9558	$4.0957	$0.0000
Cust/Conn	6,026	6,020	-6	6,067	47	6,135	69	6,169	34	6,181	13	6,193	12	6,193	0
kWh	5,458,939	4,923,873	-535,066	3,012,105	-1,911,768	3,932,787	920,682	2,481,449	-1,451,338	2,196,082	-285,367	2,196,082	0	2,137,697	-58,385
kW	15,177	13,627	-1,550	6,188	-7,439	6,443	255	7,740	1,297	6,846	-894	6,846	0	6,664	-182
Revenues from Fixed	$409,286	$408,878	-$408	$417,861	$8,982	$427,732	$9,872	$437,470	$9,738	$445,032	$7,562	$361,540	-$83,492	$361,540	$0
Revenues from Variable	$72,162	$64,794	-$7,368	$29,834	-$34,960	$31,469	$1,635	$38,485	$7,015	$34,583	-$3,902	$28,039	-$6,543	$27,294	-$745

Cust/Conn	28,822	28,998	-101	28,998	0	28,998	0	29,240	242	29,538	298	29,772	235	29,772	0
kWh	450,064,356	427,044,904	-12,457,318	427,044,904	0	427,044,904	0	414,550,256	-12,494,648	421,636,873	7,086,617	420,207,540	-1,429,333	409,035,855	-11,171,685
kW	4,160,559	4,258,520	-44,125	4,258,520	0	4,258,520	0	5,177,071	918,551	6,181,888	1,004,817	7,319,582	1,137,695	7,307,537	-12,045
Revenues from Fixed	$4,814,081	$4,752,444	-$61,637	$4,780,913	$28,470	$4,853,857	$72,944	$5,813,470	$959,612	$6,756,209	$942,739	$7,808,778	$1,052,569	$7,808,778	$0
Revenues from Variable	$4,941,744	$4,730,744	-$211,407	$4,681,242	-$49,502	$4,582,587	-$98,655	$3,829,882	-$752,705	$3,196,669	-$633,213	$3,244,553	$47,884	$3,155,661	-$88,892
Total	*$9,755,825*	*$9,483,188*	*-$273,044*	*$9,462,155*	*-$21,032*	*$9,436,444*	*-$25,711*	*$9,643,351*	*$206,908*	*$9,952,878*	*$309,526*	*$11,053,331*	*$1,100,453*	*$10,964,439*	*-$88,892*

2013 Board Approved VS 2013 Actual

The total distribution revenue in 2013 of $9,755,825 was -$273,044 lower than the 2013 Board Approved, the reason being that the regression analysis used in Cost of Service applications overestimate the Load Forecast compared to actuals.

2013 Actual VS 2014 Actual

The total distribution revenue in 2014 of $9,462,155 was a marginal $21,032 lower than the 2014 Actual therefore no explanation is required.

2014 Actual VS 2015 Actual

The total distribution revenue in 2015 of $9,436,444 was a marginal $25,711 lower than the 2014 Actual therefore no explanation is required.

2015 Actual VS 2016 Actual

The total distribution revenue in 2016 of $9,643,351 was $206,908 higher than the 2015 Actual. The main reason for the overall increase in distribution revenues was an increase in the Residential MFC and the increase in the revenues from variable charges related to the Streetlights. The overall increase in revenues from fixed rates of $959,612 is offset by a decrease of -$752,705 in revenues from the variable charge.

2016 Actual VS 2017 Actual

The total distribution revenue in 2017 of $9,952,878 was $309,526 higher than the 2016 Actual. The reason being that the change in residential distribution revenue moving more towards being a fully fixed rate and decreasing the variable amount. WPI's residential customers average consumption has been continuing to drop and therefore a switch to a fixed rate has offset much of the decrease in consumption per customer. In addition to this WPI has seen a larger increase in the customer base in the past year. The increase of $942,739 in fixed distribution revenue was only offset by a decrease of $633,213 in variable distribution revenue for a net increase of $309,526.

2017 Actual VS 2018 Predicted

The total distribution revenue in 2018 of $11,053,331 is projected to be $1,100,453 higher than 2017. The reason for the large increase from 2017 to 2018 is due to the manner in which the utility determines the Load Forecast. The OEB prescribes the method used for load forecasting (i.e. using a multivariate regression analysis based on multi-year historical values.) In other

words, the Load Forecasting process is formulaic in natures and year over year variances are outside of the utility's control. The method used tends to overestimate the test year results which in turn lead to increased projected revenues.

2018 Predicted VS 2018 CDM Adjusted

The total distribution revenue in 2018 CDM adjusted of $11,485,318 is -$88,892 higher than the 2018 Predicted (pre-CDM adjusted) $10,964,439. The majority of the variance is attributed to revenues from variable charges.

Table 38 - Revenues at proposed rates

2018 Rates at 2018 Load

	Test Year Projected Revenue from Proposed Variable Charges							
Customer Class Name	Variable Distribution Rate	per	Test Year Volume	Gross Variable Revenue	Transform. Allowance Rate	Transform. Allowance kW's	Transform. Allowance $'s	Net Variable Revenue
Residential	$0.0061	kWh	182,208,797	$1,103,235.10			$0.00	$1,103,235.10
General Service < 50 kW	$0.0138	kWh	63,336,490	$875,324.06			$0.00	$875,324.06
General Service > 50 to 4999 kW	$2.8578	kW	434,344	$1,241,252.00	-0.60	165000	-$99,000.00	$1,142,252.00
Unmetered Scattered Load	$0.0265	kWh	261,852	$6,929.81			$0.00	$6,929.81
Sentinel Lighting	$37.8382	kW	17	$626.15			$0.00	$626.15
Street Lighting	$4.0957	kW	6,664	$27,293.80			$0.00	$27,293.80
Total Variable Revenue			**246,248,163**	**$3,254,660.92**	**-0.6**	165000	-$99,000.00	$3,155,660.92

2018 Rates at 2018 Load

	Test Year Projected Revenue from Proposed Fixed Charges							
Customer Class Name	Fixed Rate	Customers (Connections)	Fixed Charge Revenue	Variable Revenue	TOTAL	% Fixed Revenue	% Variable Revenue	% Total Revenue
Residential	$24.4100	20,786	$6,088,781.19	$1,103,235.10	$7,192,016.29	69.57%	20.77%	59.26%
General Service < 50 kW	$25.1400	2,578	$777,731.04	$875,324.06	$1,653,055.10	47.05%	43.30%	13.62%
General Service > 50 to 4999 kW	$232.0200	207	$575,553.53	$1,142,252.00	$1,717,805.52	33.51%	49.36%	12.98%
Unmetered Scattered Load	$7.0700	54	$4,567.41	$6,929.81	$11,497.22	35.85%	54.43%	0.09%
Sentinel Lighting	$6.4255	8	$604.48	$626.15	$1,230.63	43.96%	40.00%	0.01%
Street Lighting	$4.8648	6,193	$361,540.12	$27,293.80	$388,833.93	114.68%	8.66%	4.37%
Total Fixed Revenue		**29,826**	**$7,808,777.76**	**$3,155,660.92**	**$10,964,438.68**			

3.4 OTHER REVENUES

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 WPI's proposed revenue requirement. Further details on the derivation of the Revenue Requirement is presented in Exhibit 6.

Other Distribution Revenues includes items such as:

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

WPI is proposing one change to the MicroFit Service Charges as explained in 3.4.3

OEB APPENDIX 2-H OTHER OPERATING REVENUES

A detailed breakdown by USoA account is shown in Table 39 - OEB Appendix 2-H presented on the next page. Year over year variance analysis follow at Section 3.4.2 - Other Revenue Variance Analysis.

Table 39 – OEB Appendix 2-H[14]

	Reporting Basis	CGAAP	CGAAP	CGAAP	CGAAP	CGAAP	CGAAP	CGAAP
		2013	2013	2014	2015	2016	2017	2018
	USoA Description	**Board Approved**						
4235	**4235-Miscellaneous Service Revenues**	$130,636	-$20,362	-$10,387	-$92,445	-$99,504	-$100,000	-$100,000
4225	**4225-Late Payment Charges**	$89,685	-$81,746	-$90,433	-$208,407	-$204,775	-$200,000	-$200,000
4082	4082-Retail Services Revenues	$19,900	-$12,372	-$11,425	-$10,874	-$12,037	-$14,122	-$14,546
4084	4084-Service Transaction Requests (STR) Revenues	-$115,125	-$451	-$475	-$362	-$327	-$166	-$171
4086	4086-SSS Administration Revenue	$0	$0	$0	-$65,189	-$66,102	$0	$0
4205	4205-Interdepartmental Rents	$0	$0	$0	$0	$0	$0	$0
4210	4210-Rent from Electric Property	-$105,000	-$105,257	-$105,257	-$105,257	-$92,373	-$124,474	-$124,474
4215	4215-Other Utility Operating Income	$0	$0	$0	$0	$0	$0	$0
4220	4220-Other Electric Revenues	$0	-$222,978	-$223,688	$0	-$113,382	-$42	-$42
4240	4240-Provision for Rate Refunds	$0	$0	$0	$0	$0	$0	$0
4245	4245-Government Assistance Directly Credited to Income	$0	$0	$0	-$8,361	-$57,851	-$35,747	-$35,747
4324	4324-Special Purpose Charge Recovery	$0	$52	$0	$0	$25	$0	$0
4325	4325-Revenues from Merchandise Jobbing, Etc.	-$210,938	-$209,580	-$698,373	-$127,904	-$46,084	$24,190	-$10,350
4330	4330-Costs and Expenses of Merchandising Jobbing, Etc.	$167,000	$56,990	$582,679	$61,684	$28,050	$57,767	$59,500
4335	4335-Profits and Losses from Financial Instrument Hedges	$0	$0	$0	-$13,321	$0	$0	$0
4355	4355-Gain on Disposition of Utility and Other Property	-$8,000	$0	$0	$0	-$3,750	-$1,208	-$1,244
4360	4360-Loss on Disposition of Utility and Other Property	$0	$45,079	$12,574	$813	$0	$0	$0
4362	4362 - Loss from retirement of utility and other property	$0	$0	$0	$201,444	$146,493	$89,751	$140,000
4375	4375-Sub-account Generation Facility Revenues	-$200,000	-$33,207	-$53,970	-$155,226	$0	$0	$0
4380	4380-Expenses of Non-Utility Operations	$200,000	$0	$0	$0	$0	$0	$0
4390	4390-Miscellaneous Non-Operating Income	$0	-$4,252	$0	$0	-$5,021	-$20,000	-$20,600
4395	4395-Rate-Payer Benefit Including Interest	-$20,000	$0	-$10,561	-$10,720	$0	$0	$0

[14] MFR - Completed Appendix 2-H

4405	4405-Interest and Dividend Income	-$55,000	$16,240	-$91,544	-$65,638	-$37,792	-$30,000	-$30,000
	Total	-$106,842	-$571,844	-$700,860	-$599,762	-$564,430	-$354,051	-$337,674
	Specific Service Charges	$130,636	-$20,362	-$10,387	-$92,445	-$99,504	-$100,000	-$100,000
	Late Payment Charges	$89,685	-$81,746	-$90,433	-$208,407	-$204,775	-$200,000	-$200,000
	Other Distribution/Operating Revenues	-$200,225	-$341,058	-$340,845	-$190,042	-$342,072	-$174,551	-$174,980
	Other Income or Deductions	-$126,938	-$128,678	-$259,195	-$108,868	$81,921	$120,500	$137,306
	Total	-$106,842	-$571,844	-$700,860	-$599,762	-$564,430	-$354,051	-$337,674

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3.4.2 OTHER REVENUE VARIANCE ANALYSIS[15]

Table 40 to 45 below presents year over year variances of other operating revenues:

Table 40 - Variance Analysis of Other Operating Revenues

2013 BA – 2013

		2013	2013	Var $	Var %
	USoA Description	**Board Approved**			
4235	**4235-Miscellaneous Service Revenues**	-$130,636	-$20,362	$110,274	-84.41%
4225	**4225-Late Payment Charges**	-$89,685	-$81,746	$7,939	-8.85%
4082	4082-Retail Services Revenues	-$19,900	-$12,372	$7,528	-37.83%
4084	4084-Service Transaction Requests (STR) Revenues	-$115,125	-$451	$114,674	-99.61%
4210	4210-Rent from Electric Property	-$105,000	-$105,257	-$257	0.24%
4220	4220-Other Electric Revenues	$0	-$222,978	-$222,978	
4324	4324-Special Purpose Charge Recovery	$0	$52	$52	
4325	4325-Revenues from Merchandise Jobbing, Etc.	-$210,938	-$209,580	$1,358	-0.64%
4330	4330-Costs and Expenses of Merchandising Jobbing, Etc.	$167,000	$56,990	-$110,010	-65.87%
4355	4355-Gain on Disposition of Utility and Other Property	-$8,000	$0	$8,000	-100.00%
4360	4360-Loss on Disposition of Utility and Other Property	$0	$45,079	$45,079	
4375	4375-Sub-account Generation Facility Revenues	-$200,000	-$33,207	$166,793	-83.40%
4380	4380-Expenses of Non-Utility Operations	$200,000	$0	-$200,000	-100.00%
4390	4390-Miscellaneous Non-Operating Income	$0	-$4,252	-$4,252	
4395	4395-Rate-Payer Benefit Including Interest	-$20,000	$0	$20,000	-100.00%
4405	4405-Interest and Dividend Income	-$55,000	$16,240	$71,240	-129.53%
	Total	-$587,284	-$571,844	$15,440	-2.63%
	Specific Service Charges	**-$130,636**	**-$20,362**	**$110,274**	**-84.41%**
	Late Payment Charges	**-$89,685**	**-$81,746**	**$7,939**	**-8.85%**
	Other Distribution/Operating Revenues	**-$240,025**	**-$341,058**	**-$101,033**	**42.09%**
	Other Income or Deductions	**-$126,938**	**-$128,678**	**-$1,740**	**1.37%**
	Total	**-$587,284**	**-$571,844**	**$15,440**	**-2.63%**

The 2013 Actual revenue for Account 4235 was $110,274 or 84.41% lower than the 2013 Board Approved Revenue. This account should have included reconnection charges, arrears certificates, and change of occupancy revenue but for 2013 and 2014 these amounts were included in account 4220. The total amount of these accounts for 2013 was $97,007.

[15] MFR - Variance analysis - year over year, historical, bridge and test

Account 4084 was $114,674 or 99.61% lower in the 2013 actual year vs the 2013 board approved revenue. This account has never historically had a balance of more than $2,000 and the 2013 actual spending is consistent with the level of spending it has always had in the past.

The Actual revenue of Account 4220 was $222,978 and no amount was budgeted for this account. This account included amounts for collections charges, reconnect charges, arrears certificates, and change in occupancy revenue. The reconnect charges, arrears certificates, and change in occupancy revenue totaled $97,007 and should have been included with account 4235. This Correction was made in the 2015 year to reallocate these expenses. The Revenue collections charges of $124,245 should have been included in account 4225. This correction was also made in 2015.

Account 4330 2013 actual revenue was $110,010 lower than the 2013 Board Approved revenue or 65.87% lower than budgeted. This account is completely customer driven and is difficult to budget for as the jobs that will be completed in the year are not known ahead of time.

The actual revenue of account 4375 was $166,793 lower than the 2013 Board Approved budgeted amount. The only activity in this account for 2013 was $10,000 of revenue related to CDM Administration Allocation and $23,207.26 for OPA 2010 ERIP Bonus. In prior years adjustments were made to balance CDM revenues and expenses through this account and account 4380. Since these entries would net each other out the overall impact would have been $nil.

Account 4380 had a board approved amount of $200,000 but incurred no spending in the year. Similar to account 4375 in the past this account was used in the balancing of CDM revenues and expenses. Since these entries were not done this way in 2013 there was no expenses to record. The end result is that the revenue in account 4375 would have been netted against the expenses recorded in 4380 for a $nil impact.

Account 4405 had board approved revenue of $55,000 and the actual amount in the year was an expense of $16,240. This account included $16,579 of bank interest received in the year but also included $32,819 of carrying charges related to regulatory assets.

Table 41 - Variance Analysis of Other Operating Revenues

2013-2014

		2013	2014	Var $	Var %
	USoA Description				
4235	**4235-Miscellaneous Service Revenues**	-$20,362	-$10,387	$9,975	-48.99%
4225	**4225-Late Payment Charges**	-$81,746	-$90,433	-$8,687	10.63%
4082	4082-Retail Services Revenues	-$12,372	-$11,425	$947	-7.65%
4084	4084-Service Transaction Requests (STR) Revenues	-$451	-$475	-$24	5.32%
4210	4210-Rent from Electric Property	-$105,257	-$105,257	$0	0.00%
4215	4215-Other Utility Operating Income	$0	$0	$0	
4220	4220-Other Electric Revenues	-$222,978	-$223,688	-$710	0.32%
4324	4324-Special Purpose Charge Recovery	$52	$0	-$52	-100.00%
4325	4325-Revenues from Merchandise Jobbing, Etc.	-$209,580	-$698,373	-$488,793	233.23%
4330	4330-Costs and Expenses of Merchandising Jobbing, Etc.	$56,990	$582,679	$525,689	922.42%
4360	4360-Loss on Disposition of Utility and Other Property	$45,079	$12,574	-$32,505	-72.11%
4375	4375-Sub-account Generation Facility Revenues	-$33,207	-$53,970	-$20,763	62.53%
4390	4390-Miscellaneous Non-Operating Income	-$4,252	$0	$4,252	-100.00%
4395	4395-Rate-Payer Benefit Including Interest	$0	-$10,561	-$10,561	
4405	4405-Interest and Dividend Income	$16,240	-$91,544	-$107,784	-663.69%
	Total	-$571,844	-$700,860	-$129,016	22.56%
	Specific Service Charges	**-$20,362**	**-$10,387**	**$9,975**	**-48.99%**
	Late Payment Charges	**-$81,746**	**-$90,433**	**-$8,687**	**10.63%**
	Other Distribution/Operating Revenues	**-$341,058**	**-$340,845**	**$213**	**-0.06%**
	Other Income or Deductions	**-$128,678**	**-$259,195**	**-$130,517**	**101.43%**
	Total	**-$571,844**	**-$700,860**	**-$129,016**	**22.56%**

Account 4325 had $488,793 or 233% more revenue in 2014 than it did in 2013. This increase was due to a very large NR Stor project being completed in 2014 that resulted in $527,016 of revenue. Projects of this size are not very common for WPI.

Account 4330 had $525,689 or 922% more expenses in 2014 than it did in 2013. This increase was largely due to the additional costs tied to the NR Stor Project completed in the year that had revenue recognized in account 4325. The net amount between account 4325 and 4330 is within $50,000 of 2013.

Account 4405 had revenue of $91,544 in 2014 which is $107,784 more than 2013's expense of $16,240. Due to a higher bank account balance in the year the total amount of interest from the bank increased to $32,493. The regulatory assets had $59,052 of interest revenue recorded on them while in the prior year they had incurred carrying charges of $32,819.

Table 42 - Variance Analysis of Other Operating Revenues

2014-2015

		2014	2015	Var $	Var %
	USoA Description				
4235	**4235-Miscellaneous Service Revenues**	-$10,387	-$92,445	-$82,058	790.01%
4225	**4225-Late Payment Charges**	-$90,433	-$208,407	-$117,974	130.45%
4082	4082-Retail Services Revenues	-$11,425	-$10,874	$551	-4.82%
4084	4084-Service Transaction Requests (STR) Revenues	-$475	-$362	$114	-23.89%
4086	4086-SSS Administration Revenue	$0	-$65,189	-$65,189	
4210	4210-Rent from Electric Property	-$105,257	-$105,257	$0	0.00%
4220	4220-Other Electric Revenues	-$223,688	$0	$223,688	-100.00%
4245	4245-Government Assistance Directly Credited to Income	$0	-$8,361	-$8,361	
4325	4325-Revenues from Merchandise Jobbing, Etc.	-$698,373	-$127,904	$570,469	-81.69%
4330	4330-Costs and Expenses of Merchandising Jobbing, Etc.	$582,679	$61,684	-$520,995	-89.41%
4335	4335-Profits and Losses from Financial Instrument Hedges	$0	-$13,321	-$13,321	#DIV/0!
4360	4360-Loss on Disposition of Utility and Other Property	$12,574	$813	-$11,761	-93.53%
4362	4362 - Loss from retirement of utility and other property	$0	$201,444	$201,444	
4375	4375-Sub-account Generation Facility Revenues	-$53,970	-$155,226	-$101,256	187.62%
4395	4395-Rate-Payer Benefit Including Interest	-$10,561	-$10,720	-$159	1.51%
4405	4405-Interest and Dividend Income	-$91,544	-$65,638	$25,906	-28.30%
	Total	-$700,860	-$599,762	$101,098	-14.42%
				$0	
	Specific Service Charges	**-$10,387**	**-$92,445**	**-$82,058**	**790.01%**
	Late Payment Charges	**-$90,433**	**-$208,407**	**-$117,974**	**130.45%**
	Other Distribution/Operating Revenues	**-$340,845**	**-$190,042**	**$150,803**	**-44.24%**
	Other Income or Deductions	**-$259,195**	**-$108,868**	**$150,327**	**-58.00%**
	Total	**-$700,860**	**-$599,762**	**$101,098**	**-14.42%**

Account 4235 had revenue increase by $82,058 or 790% from 2014 to 2015. The reason for the increase was the reallocation of revenues to ensure they were recorded in the correct accounts in accordance with the Accounting Procedures Handbook. Previously revenue from reconnect charges, arrears certificates, and change of occupancy revenue were recorded in account 4220. For 2014 the revenue from these 3 accounts were $8,748, $105, and $75,000 respectively. This accounts for an $83,853 increase in this account.

Account 4225 had revenue increase by $117,974 or 130% from 2014 to 2015. This increase is also related to a reallocation of revenue accounts. Revenue from collections charges are now included in this account which had previously been included in account 4220. The revenue from collections charges for 2015 was $125,655.

Account 4086 had revenue increase by $65,189 from 2014 to 2015. This increase was related to a reallocation of expenses for Administration Revenue. This revenue had previously been

recorded incorrectly in account 4080. In 2014 the amount of Administration revenue was $64,213.

Account 4220 decreased by $223,688 from 2014 to 2015. Prior to 2015 account 4220 was used to record reconnect charges, arrears interest, change in occupancy revenue and collections charges. Changes were made to the accounts that this revenue was recorded in to be more in line with the Accounting Procedures Handbook. Reconnect charges, arrears interest, and change in occupancy revenue are now all recorded in account 4235 resulting in that account having a revenue increase of $82,058 in 2015 from 2014. Collections charges are now recorded in account 4225 resulting in that account increasing revenue by $117,974 in 2015 from 2014.

Account 4325 decreased by $570,469 from 2014 to 2015. This is a result of the NR Stor project that was done in 2014. The NR Stor project resulted in $527,016 of revenue in account 4325 in 2014. Projects of this size are not very common for WPI and in 2015 the revenue has decreased back down to what is closer to the average level. Because this revenue is all customer driven it can fluctuate depending on the jobs that are completed in the year.

Account 4330 decreased by $520,995 from 2014 to 2015. This account is the other side of account 4325 and since the 2014 amount included such a large amount of revenue it also included a significant amount of expenses in account 4330. For 2015 without the NR Stor project this account has also returned to a more average level of spending.

Account 4362 increased by $201,444 from 2014 to 2015. This account had not been used in the past. The entries made in 2015 were to scrap old assets that were no longer in use in the system. The NBV of the assets to be scrapped was $201,443.

Account 4375 increased by $101,256 from 2014 to 2015. The reason for this increase was a $140,226 entry for PAB funding for 2011 to 2014 extension to 2015.

Table 43 - Variance Analysis of Other Operating Revenues

2015 – 2016

		2015	2016	Var $	Var %
	USoA Description				
4235	**4235-Miscellaneous Service Revenues**	-$92,445	-$99,504	-$7,059	7.64%
4225	**4225-Late Payment Charges**	-$208,407	-$204,775	$3,632	-1.74%
4082	4082-Retail Services Revenues	-$10,874	-$12,037	-$1,163	10.70%
4084	4084-Service Transaction Requests (STR) Revenues	-$362	-$327	$35	-9.54%
4086	4086-SSS Administration Revenue	-$65,189	-$66,102	-$913	1.40%
4210	4210-Rent from Electric Property	-$105,257	-$92,373	$12,884	-12.24%
4220	4220-Other Electric Revenues	$0	-$113,382	-$113,382	
4245	4245-Government Assistance Directly Credited to Income	-$8,361	-$57,851	-$49,490	591.91%
4324	4324-Special Purpose Charge Recovery	$0	$25	$25	
4325	4325-Revenues from Merchandise Jobbing, Etc.	-$127,904	-$46,084	$81,820	-63.97%
4330	4330-Costs and Expenses of Merchandising Jobbing, Etc.	$61,684	$28,050	-$33,634	-54.53%
4335	4335-Profits and Losses from Financial Instrument Hedges	-$13,321	$0	$13,321	-100.00%
4355	4355-Gain on Disposition of Utility and Other Property	$0	-$3,750	-$3,750	
4360	4360-Loss on Disposition of Utility and Other Property	$813	$0	-$813	-100.00%
4362	4362 - Loss from retirement of utility and other property	$201,444	$146,493	-$54,951	-27.28%
4375	4375-Sub-account Generation Facility Revenues	-$155,226	$0	$155,226	-100.00%
4390	4390-Miscellaneous Non-Operating Income	$0	-$5,021	-$5,021	
4395	4395-Rate-Payer Benefit Including Interest	-$10,720	$0	$10,720	-100.00%
4405	4405-Interest and Dividend Income	-$65,638	-$37,792	$27,846	-42.42%
	Total	-$599,762	-$564,430	$35,332	-5.89%
				$0	
	Specific Service Charges	**-$92,445**	**-$99,504**	**-$7,059**	**7.64%**
	Late Payment Charges	**-$208,407**	**-$204,775**	**$3,632**	**-1.74%**
	Other Distribution/Operating Revenues	**-$190,042**	**-$342,072**	**-$152,030**	**80.00%**
	Other Income or Deductions	**-$108,868**	**$81,921**	**$190,789**	**-175.25%**
	Total	**-$599,762**	**-$564,430**	**$35,332**	**-5.89%**

Account 4220 has increased by $113,382 from 2015 to 2016. The reason for the increase is the misclassification of revenue from account 4050. The amount that should have been recorded in account 4050 was $113,224 and was misclassified in the preparation of the OEB trial balance and included in account 4220.

Account 4325 decreased by $81,820 from 2015 to 2016. The decrease is made up of 2 separate sub accounts. The first is IFRS vs GAAP customer billing differences which resulted in $43,291 of revenue decrease from 2015 to 2016. The reason for this year over year difference is to do with the burdens that are allocated to customer jobs and caused by changes in the burden rate which are driven by OM&A expenses in the year. As 2016 had higher OM&A spending it would have caused a change in Burden rates so that less was recovered from customer driven jobs. The other reason for the increase in account 4325 is that the year end inventory adjustment was

$39,344 different between 2015 and 2016. WPI was missing a stores keeper for a portion of 2015 resulting in less accuracy of inventory recording which resulted in a year end adjustment of $36,795 in 2015 while in 2016 the adjustment was $2,548 in the other direction.

Account 4362 changed by $54,951 from 2015 to 2016. This account is used for the scrapping of capital assets. In 2016 the NBV of the capital assets scrapped was $54,951 lower than 2015. This account is largely unpredictable and can fluctuate depending on the amount of assets that are required to be scrapped in the year that still have a remaining useful life for accounting purposes.

Account 4375 decreased by $155,226 from 2015 to 2016. In 2015 there was $140,226 of one time PAB funding that went through this account.

Table 44 - Variance Analysis of Other Operating Revenues

2016 – 2017

		2016	2017	Var $	Var %
	USoA Description				
4235	**4235-Miscellaneous Service Revenues**	-$99,504	-$100,000	-$496	0.50%
4225	**4225-Late Payment Charges**	-$204,775	-$200,000	$4,775	-2.33%
4082	4082-Retail Services Revenues	-$12,037	-$14,122	-$2,085	17.32%
4084	4084-Service Transaction Requests (STR) Revenues	-$327	-$166	$161	-49.24%
4086	4086-SSS Administration Revenue	-$66,102	$0	$66,102	-100.00%
4210	4210-Rent from Electric Property	-$92,373	-$124,474	-$32,101	34.75%
4215	4215-Other Utility Operating Income	$0	$0	$0	
4220	4220-Other Electric Revenues	-$113,382	-$42	$113,340	-99.96%
4245	4245-Government Assistance Directly Credited to Income	-$57,851	-$35,747	$22,104	-38.21%
4324	4324-Special Purpose Charge Recovery	$25	$0	-$25	-100.00%
4325	4325-Revenues from Merchandise Jobbing, Etc.	-$46,084	$24,190	$70,274	-152.49%
4330	4330-Costs and Expenses of Merchandising Jobbing, Etc.	$28,050	$57,767	$29,717	105.94%
4355	4355-Gain on Disposition of Utility and Other Property	-$3,750	-$1,208	$2,542	-67.79%
4362	4362 - Loss from retirement of utility and other property	$146,493	$89,751	-$56,742	-38.73%
4390	4390-Miscellaneous Non-Operating Income	-$5,021	-$20,000	-$14,979	298.33%
4405	4405-Interest and Dividend Income	-$37,792	-$30,000	$7,792	-20.62%
	Total	-$564,430	-$354,051	$210,379	-37.27%
	Specific Service Charges	**-$99,504**	**-$100,000**	**-$496**	**0.50%**
	Late Payment Charges	**-$204,775**	**-$200,000**	**$4,775**	**-2.33%**
	Other Distribution/Operating Revenues	**-$342,072**	**-$174,551**	**$167,521**	**-48.97%**
	Other Income or Deductions	**$81,921**	**$120,500**	**$38,579**	**47.09%**
	Total	**-$564,430**	**-$354,051**	**$210,379**	**-37.27%**

Account 4086 has decreased by $66,102. When preparing this 2017 budget figure the revenue was included with account 4080 as this was WPI's old practice. The information for this account is being correctly recorded and at the end of October 2017 the actual revenue in this account is approximately $55,000. Therefore, this account is on pace to be consistent with prior years.

Account 4220 has decreased by $113,340. The reason for the decrease is the misclassification of revenue from account 4050 in 2016. The amount that should have been recorded in account 4050 in 2016 was $113,224 but was misclassified in the preparation of the OEB trial balance and included in account 4220.

Account 4325 has decreased by $70,274. The reason for the decrease is the change in overhead costs applied to jobs. The overhead allocation and it's billing portion are effected by the split between capital work and OM&A work completed in any particular year.

Account 4362 has increased by $56,742. This account is difficult to predict, as it has to do with NBV of assets that are scrapped in the year. The 2017 amount is based off actual data at the end of August 2017 which was a balance of $59,834, combined with a prediction for the remainder of the year.

Table 45 - Variance Analysis of Other Operating Revenues

2017 – 2018

		2017	2018	Var $	Var %
	USoA Description				
4235	**4235-Miscellaneous Service Revenues**	-$100,000	-$100,000	$0	0.00%
4225	**4225-Late Payment Charges**	-$200,000	-$200,000	$0	0.00%
4082	4082-Retail Services Revenues	-$14,122	-$14,546	-$424	3.00%
4084	4084-Service Transaction Requests (STR) Revenues	-$166	-$171	-$5	3.00%
4210	4210-Rent from Electric Property	-$124,474	-$124,474	$0	0.00%
4220	4220-Other Electric Revenues	-$42	-$42	$0	0.00%
4245	4245-Government Assistance Directly Credited to Income	-$35,747	-$35,747	$0	0.00%
4325	4325-Revenues from Merchandise Jobbing, Etc.	$24,190	-$10,350	-$34,540	-142.79%
4330	4330-Costs and Expenses of Merchandising Jobbing, Etc.	$57,767	$59,500	$1,733	3.00%
4355	4355-Gain on Disposition of Utility and Other Property	-$1,208	-$1,244	-$36	3.00%
4362	4362 - Loss from retirement of utility and other property	$89,751	$140,000	$50,249	55.99%
4390	4390-Miscellaneous Non-Operating Income	-$20,000	-$20,600	-$600	3.00%
4405	4405-Interest and Dividend Income	-$30,000	-$30,000	$0	0.00%
	Total	-$354,051	-$337,674	$16,377	-4.63%
	Specific Service Charges	**-$100,000**	**-$100,000**	**$0**	**0.00%**
	Late Payment Charges	**-$200,000**	**-$200,000**	**$0**	**0.00%**
	Other Distribution/Operating Revenues	**-$174,551**	**-$174,980**	**-$429**	**0.25%**
	Other Income or Deductions	**$120,500**	**$137,306**	**$16,806**	**13.95%**
	Total	**-$354,051**	**-$337,674**	**$16,377**	**-4.63%**

Account 4362 had a decrease of $50,249. This decrease is due to large loss on disposals expected in 2018 as the historical average in this account has been much higher than the 2017 amount. The average balance between 2015 and 2016 was $approximately $174K.

3.4.3 PROPOSED SPECIFIC SERVICE CHARGES[16]

WPI is proposing no changes to the current specific services charges except for the MicroFit service charge. WPI incurs a $10.00 monthly fee per MicroFit meter point from WPI's vendor Utilismart and would like to pass this charge onto its MicroFit customers. This increase in the customer charge from $5.40 to $10.00 was also agreed to in St. Thomas Energy Inc. (EB-2014-0113) Cost of Service Application as well as Renfrew Hydro Inc.

Other than the MicroFit class, no other class or discrete customer groups will be materially impacted by changes to other rates and charges.[17]

3.4.4 REVENUE FROM AFFILIATE TRANSACTIONS, SHARED SERVICES, CORPORATE COST ALLOCATION.

WPI does not have any affiliates and as such does not have any affiliate transactions, shared services and corporate cost allocation.[18]

[16] MFR – Any new proposed specific service charges
[17] MFR - Distributors must identify any discrete customer groups that may be materially impacted by changes to other rates and charges
[18] MFR - Revenue from affiliate transactions, shared services, corporate cost allocation

APPENDICES

Appendix A	OEB Appendix 2-IB

File Number:	EB-2017-0084
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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 2018 Cost of Service		Consumption (kWh) [3]				
				Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*		Actual	446,250,280	435,665,899		
Historical	*2013*		Actual	458,432,496	438,662,655	Board-approved	
Historical	*2014*		Actual	452,839,354	456,912,366		
Historical	*2015*		Actual	442,316,538	450,857,172		
Historical	*2016*		Actual	430,969,767	439,783,380		
Bridge Year	*2017*		Forecast		441,048,072		
Test Year	*2018*		Forecast		439,545,356		

Variance Analysis	Year	Year-over-year		Versus Board-approved
	2012			
	2013	2.7%	0.7%	
	2014	-1.2%	4.2%	
	2015	-2.3%	-1.3%	
	2016	-2.6%	-2.5%	
	2017		0.3%	
	2018		-0.3%	
	Geometric Mean	-1.2%	0.2%	

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

1 **Customer Class:** Residential

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2018 Cost of Service	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather-normalized			Actual (Weather actual)	Weather-normalized	
Historical	*2012*	Actual	19,745			Actual	192991580	188,414,112			Actual	9774.2001	9542.37084	
Historical	*2013*	Actual	19,932	Board-approved	20036	Actual	196769022	188,283,384	Board-approved	204299044	Actual	9872.016	9446.28657 Board-approved	10196.59832
Historical	*2014*	Actual	20,040			Actual	190196716	191,907,419			Actual	9490.8541	9576.21849	
Historical	*2015*	Actual	20,089			Actual	181203663	184,702,501			Actual	9020.0439	9194.21081	
Historical	*2016*	Actual	20,292			Actual	173850940	177,406,305			Actual	8567.6732	8742.88768	
Bridge Year	*2017*	Forecast	20,567			Forecast		187825275.6			Forecast	0	9132.58336	
Test Year	*2018*	Forecast	20,786			Forecast		187185327.2			Forecast	0	9005.13984	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			*2012*				*2012*			
	2013	0.9%		*2013*	2.0%	-0.1%		*2013*	1.0%	-1.0%	
	2014	0.5%		*2014*	-3.3%	1.9%		*2014*	-3.9%	1.4%	
	2015	0.2%		*2015*	-4.7%	-3.8%		*2015*	-5.0%	-4.0%	
	2016	1.0%		*2016*	-4.1%	-4.0%		*2016*	-5.0%	-4.9%	
	2017	1.4%		*2017*		5.9%		*2017*		4.5%	
	2018	1.1%	3.7%	*2018*		-0.3%	-8.4%	*2018*		-1.4%	-11.7%
	Geometric Mean	1.0%	0.9%	Geometric Mean	-3.4%	-0.1%	-2.2%	Geometric Mean	-4.3%	-1.2%	-3.1%

	Calendar Year (for 2018 Cost of Service	Revenues			
Historical	*2012*	Actual			
Historical	*2013*	Actual	$ 5,946,628	Board-approved	6116745
Historical	*2014*	Actual	$ 6,025,050		
Historical	*2015*	Actual	$ 6,037,430		
Historical	*2016*	Actual	$ 6,140,503		
Bridge Year (Foreca	*2017*	Forecast	$ 6,451,131		
Test Year (Forecast	*2018*	Forecast	$ 7,385,494		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2012		
	2013		
	2014	1.3%	
	2015	0.2%	
	2016	1.7%	
	2017	5.1%	
	2018	14.5%	20.7%
	Geometric Mean		4.8%

2 Customer Class: GS < 50 kW

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2018 Cost of Service)	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*	Actual	2,467			Actual	66,007,069	64,441,482			Actual	26761.431	26126.6904		
Historical	*2013*	Actual	2,504	Board-approved	2471	Actual	67,287,328	64,385,571	Board-approved	64934164	Actual	26871.936	25713.0873	Board-approved	26278.49616
Historical	*2014*	Actual	2,533			Actual	66,865,508	67,466,922			Actual	26397.753	26635.1845		
Historical	*2015*	Actual	2,532			Actual	64,887,895	66,140,807			Actual	25632.192	26127.1212		
Historical	*2016*	Actual	2,537			Actual	65,456,901	66,795,538			Actual	25805.993	26333.7424		
Bridge Year	*2017*	Forecast	2,574			Forecast		65,288,799			Forecast	0	25364.7239		
Test Year	*2018*	Forecast	2,578			Forecast		65,066,351			Forecast	0	25239.081		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			*2012*				*2012*			
	2013	1.5%		*2013*	1.9%	-0.1%		*2013*	0.4%	-1.6%	
	2014	1.2%		*2014*	-0.6%	4.8%		*2014*	-1.8%	3.6%	
	2015	-0.1%		*2015*	-3.0%	-2.0%		*2015*	-2.9%	-1.9%	
	2016	0.2%		*2016*	0.9%	1.0%		*2016*	0.7%	0.8%	
	2017	1.5%		*2017*		-2.3%		*2017*		-3.7%	
	2018	0.2%	4.3%	*2018*		-0.3%	0.2%	*2018*		-0.5%	-4.0%
	Geometric Mean	0.9%	1.1%	Geometric Mean	-0.3%	0.2%	0.1%	Geometric Mean	-1.2%	-0.7%	-1.0%

	Calendar Year (for 2018 Cost of Service)	Revenues			
Historical	*2012*	Actual			
Historical	*2013*	Actual	$ 1,409,991	Board-approved	1399405
Historical	*2014*	Actual	$ 1,459,464		
Historical	*2015*	Actual	$ 1,462,325		
Historical	*2016*	Actual	$ 1,476,617		
Bridge Year (Foreca	*2017*	Forecast	$ 1,496,945		
Test Year (Forecast	*2018*	Forecast	$ 1,764,869		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2012		
	2013		
	2014	3.5%	
	2015	0.2%	
	2016	1.0%	
	2017	1.4%	
	2018	17.9%	26.1%
	Geometric Mean		6.0%

3 Customer Class: GS > 50 kW

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2018 Cost of Service)	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*	Actual	279			Actual	168,765,466	164,762,605			Actual	605980.13	591607.198		
Historical	*2013*	Actual	259	Board-approved	280	Actual	168,598,455	161,327,669	Board-approved	170954545	Actual	650959.29	622886.754	Board-approved	610551.9464
Historical	*2014*	Actual	235			Actual	174,937,862	176,511,321			Actual	746003.68	752713.521		
Historical	*2015*	Actual	235			Actual	177,010,310	180,428,179			Actual	754841.41	769416.542		
Historical	*2016*	Actual	236			Actual	172,754,187	176,287,123			Actual	732009.27	746979.334		
Bridge Year	*2017*	Forecast	208			Forecast		166,312,517			Forecast	0	799579.407		
Test Year	*2018*	Forecast	207			Forecast		165,745,865			Forecast	0	801795.568		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			*2012*				*2012*			
	2013	-7.0%		*2013*	-0.1%	-2.1%		*2013*	7.4%	5.3%	
	2014	-9.5%		*2014*	3.8%	9.4%		*2014*	14.6%	20.8%	
	2015	0.0%		*2015*	1.2%	2.2%		*2015*	1.2%	2.2%	
	2016	0.6%		*2016*	-2.4%	-2.3%		*2016*	-3.0%	-2.9%	
	2017	-11.9%		*2017*		-5.7%		*2017*		7.0%	
	2018	-0.6%	-26.2%	*2018*		-0.3%	-3.0%	*2018*		0.3%	31.3%
	Geometric Mean	-5.8%	-7.3%	Geometric Mean	0.8%	0.1%	-0.8%	Geometric Mean	6.5%	6.3%	7.0%

	Calendar Year (for 2018 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*	Actual				Actual	466,875	466,875			Actual				
Historical	*2013*	Actual	$ 1,575,961	Board-approved	1715592	Actual	442,859	442,859	Board-approved	478427	Actual	0.2810089	0.28100893	Board-approved	0.278869918
Historical	*2014*	Actual	$ 1,468,853			Actual	459,073	459,073			Actual	0.3125381	0.31253811		
Historical	*2015*	Actual	$ 1,515,232			Actual	461,953	461,953			Actual	0.3048727	0.30487269		
Historical	*2016*	Actual	$ 1,533,854			Actual	444,828	444,828			Actual	0.2900067	0.29000675		
Bridge Year (Foreca	*2017*	Forecast	$ 1,519,914			Forecast		447,732			Forecast	0	0.29457751		
Test Year (Forecast	*2018*	Forecast	$ 1,865,301			Forecast		446,207			Forecast	0	0.23921447		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			*2012*				*2012*			
	2013			*2013*	-5.1%	-5.1%		*2013*			
	2014	-6.8%		*2014*	3.7%	3.7%		*2014*	11.2%	11.2%	
	2015	3.2%		*2015*	0.6%	0.6%		*2015*	-2.5%	-2.5%	
	2016	1.2%		*2016*	-3.7%	-3.7%		*2016*	-4.9%	-4.9%	
	2017	-0.9%		*2017*		0.7%		*2017*		1.6%	
	2018	22.7%	8.7%	*2018*		-0.3%	-6.7%	*2018*		-18.8%	-14.2%
	Geometric Mean		2.1%	Geometric Mean	-1.6%	-0.9%	-1.7%	Geometric Mean			-3.8%

4 Customer Class: Streetlighting

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2018 Cost of Service)	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*	Actual	6,031			Actual	5454725.421	5,454,725			Actual	904.52291	904.522912		
Historical	*2013*	Actual	6,020	Board-approved	6026	Actual	4923872.885	4,923,873	Board-approved	5404920	Actual	817.91908	817.919084	Board-approved	896.9332891
Historical	*2014*	Actual	6,067			Actual	3012104.877	3,012,105			Actual	496.51444	496.514444		
Historical	*2015*	Actual	6,135			Actual	3932787.016	3,932,787			Actual	641.04108	641.041078		
Historical	*2016*	Actual	6,169			Actual	2481449.1	2,481,449			Actual	402.27756	402.277555		
Bridge Year	*2017*	Forecast	6,181			Forecast		2,196,082			Forecast	0	355.295583		
Test Year	*2018*	Forecast	6,193			Forecast		2,196,082			Forecast	0	354.596001		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			*2012*				*2012*			
	2013	-0.2%		*2013*	-9.7%	-9.7%		*2013*	-9.6%	-9.6%	
	2014	0.8%		*2014*	-38.8%	-38.8%		*2014*	-39.3%	-39.3%	
	2015	1.1%		*2015*	30.6%	30.6%		*2015*	29.1%	29.1%	
	2016	0.5%		*2016*	-36.9%	-36.9%		*2016*	-37.2%	-37.2%	
	2017	0.2%		*2017*		-11.5%		*2017*		-11.7%	
	2018	0.2%	2.8%	*2018*		0.0%	-59.4%	*2018*		-0.2%	-60.5%
	Geometric Mean	0.5%	0.7%	Geometric Mean	-23.1%	-16.6%	-20.2%	Geometric Mean	-23.7%	-17.1%	-20.7%

	Calendar Year (for 2018 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*	Actual				Actual	15169.19793	15,169			Actual				
Historical	*2013*	Actual	$ 473,630	Board-approved	481320	Actual	13627.36196	13,627	Board-approved	15150	Actual	0.0287722	0.02877217	Board-approved	0.031475941
Historical	*2014*	Actual	$ 481,169			Actual	6187.99007	6,188			Actual	0.0128603	0.01286033		
Historical	*2015*	Actual	$ 462,339			Actual	6443.3779	6,443			Actual	0.0139365	0.01393648		
Historical	*2016*	Actual	$ 457,669			Actual	7740.45656	7,740			Actual	0.0169128	0.01691278		
Bridge Year (Foreca	*2017*	Forecast	$ 475,842			Forecast		6,846			Forecast	0	0.01438713		
Test Year (Forecast	*2018*	Forecast	$ 455,219			Forecast		6,846			Forecast	0	0.01503892		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			*2012*				*2012*			
	2013			*2013*	-10.2%	-10.2%		*2013*			
	2014	1.6%		*2014*	-54.6%	-54.6%		*2014*	-55.3%	-55.3%	
	2015	-3.9%		*2015*	4.1%	4.1%		*2015*	8.4%	8.4%	
	2016	-1.0%		*2016*	20.1%	20.1%		*2016*	21.4%	21.4%	
	2017	4.0%		*2017*		-11.6%		*2017*		-14.9%	
	2018	-4.3%	-5.4%	*2018*		0.0%	-54.8%	*2018*		4.5%	-52.2%
	Geometric Mean		-1.4%	Geometric Mean	-20.1%	-14.7%	-18.0%	Geometric Mean			-16.9%

5 Customer Class: Unmetered Scattered Load

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2018 Cost of Service)	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2012*	Actual	60			Actual	289152	289,152			Actual	4819.2067	4819.20672		
Historical	*2013*	Actual	58	Board-approved	60	Actual	287354	287,354	Board-approved	272936	Actual	4954.3832	4954.38316	Board-approved	4548.933333
Historical	*2014*	Actual	57			Actual	286287	286,287			Actual	5022.5749	5022.57495		
Historical	*2015*	Actual	57			Actual	284934	284,934			Actual	4998.8395	4998.8395		
Historical	*2016*	Actual	57			Actual	268395	268,395			Actual	4750.3584	4750.35835		
Bridge Year	*2017*	Forecast	55			Forecast		273,985			Forecast	0	4981.55169		
Test Year	*2018*	Forecast	54			Forecast		269,004			Forecast	0	4996.76909		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			*2012*				*2012*			
	2013	-3.3%		*2013*	-0.6%	-0.6%		*2013*	2.8%	2.8%	
	2014	-1.7%		*2014*	-0.4%	-0.4%		*2014*	1.4%	1.4%	
	2015	0.0%		*2015*	-0.5%	-0.5%		*2015*	-0.5%	-0.5%	
	2016	-0.9%		*2016*	-5.8%	-5.8%		*2016*	-5.0%	-5.0%	
	2017	-2.7%		*2017*		2.1%		*2017*		4.9%	
	2018	-2.1%	-10.3%	*2018*		-1.8%	-1.4%	*2018*		0.3%	9.8%
	Geometric Mean	-2.1%	-2.7%	Geometric Mean	-2.5%	-1.4%	-0.4%	Geometric Mean	-0.5%	0.7%	2.4%

	Calendar Year (for 2018 Cost of Service)	Revenues			
Historical	*2012*	Actual			
Historical	*2013*	Actual	$ 10,675	Board-approved	10459
Historical	*2014*	Actual	$ 10,693		
Historical	*2015*	Actual	$ 10,938		
Historical	*2016*	Actual	$ 10,734		
Bridge Year (Foreca	*2017*	Forecast	$ 11,253		
Test Year (Forecast	*2018*	Forecast	$ 13,224		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2012		
	2013		
	2014	0.2%	
	2015	2.3%	
	2016	-1.9%	
	2017	4.8%	
	2018	17.5%	26.4%
	Geometric Mean		6.0%

6 Customer Class: Sentinel Lighting

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2018 Cost of Service)	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2012	Actual	9			Actual	17,378	17,378			Actual	1930.9072	1930.90725		
Historical	2013	Actual	9	Board-approved	9	Actual	16,669	16,669	Board-approved	18065	Actual	1852.1627	1852.16272	Board-approved	2007.222222
Historical	2014	Actual	8			Actual	16,488	16,488			Actual	2060.991	2060.99099		
Historical	2015	Actual	8			Actual	10,250	10,250			Actual	1281.2595	1281.2595		
Historical	2016	Actual	8			Actual	6,779	6,779			Actual	847.41877	847.418774		
Bridge Year	2017	Forecast	8			Forecast		14,199			Forecast	0	1774.92979		
Test Year	2018	Forecast	8			Forecast		13,915			Forecast	0	1739.3351		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			2012				2012			
	2013	0.0%		2013	-4.1%	-4.1%		2013	-4.1%	-4.1%	
	2014	-11.1%		2014	-1.1%	-1.1%		2014	11.3%	11.3%	
	2015	0.0%		2015	-37.8%	-37.8%		2015	-37.8%	-37.8%	
	2016	0.0%		2016	-33.9%	-33.9%		2016	-33.9%	-33.9%	
	2017	0.0%		2017		109.5%		2017		109.5%	
	2018	0.0%	-11.1%	2018		-2.0%	-23.0%	2018		-2.0%	-13.3%
	Geometric Mean	-2.3%	-2.9%	Geometric Mean	-26.9%	-4.3%	-6.3%	Geometric Mean	-24.0%	-2.1%	-3.5%

	Calendar Year (for 2018 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2012	Actual				Actual	20	20			Actual				
Historical	2013	Actual	$ 1,084	Board-approved	1060	Actual	17	17	Board-approved	17	Actual	0.0156827	0.01568266	Board-approved	0.016037736
Historical	2014	Actual	$ 953			Actual	15	15			Actual	0.0157398	0.01573977		
Historical	2015	Actual	$ 994			Actual	17	17			Actual	0.0171026	0.01710262		
Historical	2016	Actual	$ 1,007			Actual	14	14			Actual	0.0139027	0.01390268		
Bridge Year (Foreca	2017	Forecast	$ 1,076			Forecast		17			Forecast	0	0.01579926		
Test Year (Forecast	2018	Forecast	$ 1,212			Forecast		17			Forecast	0	0.0140264		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved	Year	Year-over-year		Test Year Versus Board-approved
	2012			2012				2012			
	2013			2013	-15.0%	-15.0%		2013			
	2014	-12.1%		2014	-11.8%	-11.8%		2014	0.4%	0.4%	
	2015	4.3%		2015	13.3%	13.3%		2015	8.7%	8.7%	
	2016	1.3%		2016	-17.6%	-17.6%		2016	-18.7%	-18.7%	
	2017	6.9%		2017		21.4%		2017		13.6%	
	2018	12.6%	14.3%	2018		0.0%	0.0%	2018		-11.2%	-12.5%
	Geometric Mean		3.4%	Geometric Mean	-11.2%	-3.2%	0.0%	Geometric Mean			-3.3%