EXHIBIT 3:

OPERATING REVENUES

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21

22

1 **Exhibit 3: Operating Revenue**

2 **2.3.1   Load and Revenue Forecasts**

3 This Exhibit provides the details of PUC Distribution Inc. ("PUC Distribution") operating revenue for

4 2013 Board Approved, 2013 Actual, 2014 Actual, 2015 Actual, 2016 Actual, the 2017 Bridge Year

5 ("Bridge Year") and the 2018 Test Year ("Test Year"). This Exhibit also provides a detailed variance

6 analysis by rate classification of the operating revenue components. Distribution revenue excludes

7 revenue from commodity sales.

8 PUC Distribution is proposing a total Service Revenue Requirement of $22,081,244 for the 2018 Test

9 Year. This amount includes a Base Revenue Requirement of $19,691,584 plus Other Revenue of

10 $2,389,661.

11 Other Revenue include Late Payment charges, Specific Service charges, Rent from Electric Property,

12 Miscellaneous Service revenues, Standard Supply Service ("SSS") Administrative charges and

13 Interest. A summary of these operating revenues is presented with a materiality analysis of variances

14 and presented in this exhibit.

15 The following Table 3-1 summarizes PUC Distribution's total operating revenue. Revenue for each of

16 the actual years is from PUC Distribution's audited Financial Statements. The Test Year is provided

17 on the basis of both existing and proposed distribution rates.

1   **Table 3-1: Summary of Operating Revenue**

2

	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Bridge	2018 Test at Current Rates	2018 Test at Proposed Rates
Distribution Throughput Revenue								
Residential	9,069,512	8,383,231	9,058,873	8,805,836	8,499,404	9,020,207	9,084,381	11,487,469
General Service <50 kW	2,664,966	2,479,550	2,662,132	2,636,671	2,537,809	2,660,109	2,640,479	3,247,287
General Service 50 to 4,999 kW	3,725,714	3,723,727	3,753,660	4,011,125	3,820,758	4,011,695	3,797,584	4,670,305
Sentinel Lighting	31,753	28,613	31,255	28,967	29,440	30,523	29,086	35,771
Street Lighting	720,198	663,166	702,906	727,781	577,771	460,504	420,382	203,298
Unmetered Scattered Load	29,206	27,443	29,446	30,919	30,762	31,000	39,984	47,454
Total Distribution	**16,241,349**	**15,305,730**	**16,238,272**	**16,241,299**	**15,495,944**	**16,214,038**	**16,011,896**	**19,691,584**
Smart meter & LRAM riders	-	1,429,327	148,495	50,198	(3)	120,187		
Total	**16,241,349**	**16,735,058**	**16,386,767**	**16,291,496**	**15,495,940**	**16,334,224**	**16,011,896**	**19,691,584**
Late Payment Charges	250,000	245,293	270,758	246,557	177,225	245,000	259,000	259,000
Miscellaneous Service Revenue	232,090	247,215	238,812	291,424	316,019	170,100	170,100	170,100
Other Operating Revenues	1,848,340	2,812,268	1,758,306	1,777,417	1,874,741	1,823,061	1,848,061	1,848,061
Other Income or Deductions	269,570	227,694	(74,745)	382,805	284,378	87,847	112,500	112,500
Total	**2,600,000**	**3,532,470**	**2,193,131**	**2,698,203**	**2,652,363**	**2,326,008**	**2,389,661**	**2,389,661**
Grand Total	**18,841,349**	**20,267,528**	**18,579,898**	**18,989,699**	**18,148,303**	**18,660,232**	**18,401,557**	**22,081,245**

4   *Summary of Load and Customer/Connection Forecast*

5   The purpose of this evidence is to present the process used by PUC Distribution to prepare the weather

6   normalized load and customer/connection forecast used to design the proposed 2018 distribution rates.

7   In summary, as a starting point, PUC Distribution used the same regression analysis methodology

8   approved by the Ontario Energy Board in its 2013 Cost of Service ("COS") application (EB-2012-0162)

9   and updated the analysis for actual power purchases to the end of the 2016. The updated regression

10   analysis included the variables used in the 2013 COS application but also includes two additional

11   variables. These variables are Conservation and Demand Management ("CDM") Activity and Number

12   of Customers. They were included since the coefficients on these variables were intuitive and the

13   variables were statistically significant. The regression analysis methodology used in this application has

14   also been used by a number of distributors in more recent cost of service rate applications to determine

15   the forecasted volume.   With regards to the overall process of load forecasting, PUC Distribution

16   believes that conducting a regression analysis on historical electricity purchases to produce an equation

17   that will predict purchases is appropriate. PUC Distribution has the data for the amount of electricity (in

18   kWh) purchased from the IESO for use by PUC Distribution's customers. With a regression analysis,

19   these purchases can be related to other monthly explanatory variables such as heating degree days and

20   cooling degree days which occur in the same month. The results of the regression analysis produce an

1   equation that predicts the purchases based on the explanatory variables. This prediction model is then

2   used as the basis to forecast the total level of weather normalized purchases for the Bridge and the Test

3   Year which is converted to billed kWh and kW, where applicable, by rate class. A detailed explanation

4   of the process is provided later in this evidence. A live Excel file named "2018 PUC Load Forecast

5   Model - With Regression Analysis" has also been provided.

6   Based on the Board's approval of this methodology in a number of previous costs of service applications

7   as well as the discussion that follows, PUC Distribution submits the load forecasting methodology is

8   reasonable at this time for the purposes of this Application.

9   The following provides the material to support the weather normalized load forecast used by PUC

10   Distribution in this Application.

11

1   Table 3-2, Table 3-3, Table 3-4 and Table 3-5 below provide a summary of the weather normalized load

2   and customer/connection forecast used in this Application.

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

Year	Billed Actual (GWh)	Growth (GWh)	Billed Weather Normal (GWh)	Growth (GWh)	Customer/ Connection Count	Growth
Billed Energy (GWh) and Customer Count / Connections						
2013 Board Approved			703.4		42,383	
2003	719.3		705.2		41,290	
2004	727.3	8.0	718.3	13.1	41,351	61
2005	717.8	(9.5)	712.5	(5.8)	41,409	58
2006	697.1	(20.6)	709.8	(2.8)	41,469	60
2007	701.8	4.7	699.3	(10.5)	41,538	69
2008	710.7	8.9	701.7	2.4	41,729	191
2009	707.8	(2.9)	699.3	(2.4)	41,995	266
2010	683.8	(24.0)	692.5	(6.8)	42,110	115
2011	711.9	28.2	712.9	20.5	42,160	50
2012	676.8	(35.2)	709.1	(3.9)	42,400	240
2013	688.2	11.5	698.7	(10.4)	42,592	192
2014	701.8	13.6	673.5	(25.2)	42,577	(15)
2015	669.4	(32.5)	658.3	(15.2)	42,590	13
2016	636.9	(32.5)	644.6	(13.7)	42,650	60
2017 Bridge			640.8	(3.7)	41,937	(713)
2018 Test			642.9	2.0	42,026	89

4

5   In the above Table 3-2, the billed GWh data from 2003 to 2016 reflects actual weather and weather

6   normal conditions in each year. The weather normal values are the actual values adjusted by the weather

7   normal conversion factor outlined in Table 3-8. The weather conversion factor is determined consistent

8   with the approach outlined by the Board in Appendix 2-IA. For 2017 and 2018, the forecasted billed

9   GWh is on a weather normal basis.

1 Customer/Connection values are on an average basis and street lights and sentinel lights are measured as
2 connections. The historical connection values for street lights have been measured as devices but the
3 2017 and 2018 forecast has been changed to connections to be consistent with the 2017 rate order for
4 PUC Distribution (EB-2016-0102).

5 On a rate class basis, the actual and forecasted billed amounts are shown in Table 3-3. Actual volumes
6 have been weather normalized by rate class using the weather normal conversion factor from Table 3-8.
7 The actual and forecasted number of customers/connections is shown in Table 3-4. The
8 customer/connection usage on an actual and weather normal basis is shown in Table 3-5.

1 **Table 3-3: Billed GWh by Rate Class**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load	Total
Billed Energy (GWh) - Actual							
2003	351.0	96.2	263.8	0.3	7.2	0.9	719.3
2004	356.5	95.7	266.6	0.3	7.4	0.8	727.3
2005	347.3	95.6	266.1	0.3	7.7	0.8	717.8
2006	335.4	86.8	266.2	0.3	7.6	0.9	697.1
2007	338.9	94.2	259.9	0.3	7.6	0.9	701.8
2008	347.4	93.5	261.1	0.3	7.6	0.8	710.7
2009	348.6	91.5	259.0	0.3	7.6	0.8	707.8
2010	326.5	91.4	257.0	0.3	7.8	0.8	683.8
2011	345.3	101.7	256.0	0.3	7.8	0.9	711.9
2012	316.1	97.5	254.3	0.2	7.7	0.9	676.8
2013	324.2	95.8	259.0	0.2	8.1	0.9	688.2
2014	335.0	99.2	258.8	0.2	7.8	0.9	701.8
2015	310.5	95.7	254.8	0.2	7.3	0.9	669.4
2016	288.7	92.2	250.0	0.2	4.9	0.9	636.9
Billed Energy (GWh) - Weather Normal							
2003	344.2	94.3	258.6	0.3	7.1	0.8	705.2
2004	352.1	94.5	263.3	0.3	7.3	0.8	718.3
2005	344.7	94.9	264.1	0.3	7.7	0.8	712.5
2006	341.5	88.3	271.1	0.3	7.7	0.9	709.8
2007	337.7	93.9	259.0	0.3	7.6	0.9	699.3
2008	343.0	92.3	257.8	0.3	7.5	0.8	701.7
2009	344.4	90.4	255.9	0.3	7.5	0.8	699.3
2010	330.7	92.5	260.3	0.3	7.9	0.8	692.5
2011	345.8	101.9	256.3	0.3	7.8	0.9	712.9
2012	331.2	102.1	266.5	0.3	8.1	0.9	709.1
2013	329.1	97.3	263.0	0.2	8.2	0.9	698.7
2013 Board Approved	340.6	102.2	251.6	0.3	7.9	0.9	703.4
2014	321.4	95.1	248.3	0.2	7.5	0.8	673.5
2015	305.3	94.1	250.5	0.2	7.2	0.9	658.3
2016	292.2	93.3	253.0	0.2	4.9	0.9	644.6
2017 Bridge	293.4	93.6	250.1	0.2	2.4	1.1	640.8
2018 Test	296.4	94.3	248.3	0.2	2.4	1.2	642.9

2

Table 3-4: Number of Customers/Connections

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load	Total
2003	28,544	3,230	419	466	8,619	12	41,290
2004	28,560	3,247	424	466	8,635	19	41,351
2005	28,576	3,274	431	459	8,642	27	41,409
2006	28,596	3,301	432	449	8,663	28	41,469
2007	28,630	3,302	429	443	8,707	27	41,538
2008	28,780	3,325	426	435	8,741	22	41,729
2009	28,971	3,352	433	423	8,799	17	41,995
2010	29,057	3,345	435	411	8,846	16	42,110
2011	29,124	3,366	403	402	8,846	19	42,160
2012	29,327	3,448	366	392	8,846	21	42,400
2013	29,504	3,474	373	374	8,846	21	42,592
2013 Board Approved	29,271	3,401	399	387	8,904	21	42,383
2014	29,514	3,464	370	362	8,846	21	42,577
2015	29,566	3,431	373	360	8,839	21	42,590
2016	29,620	3,414	361	362	8,872	21	42,650
2017 Bridge	29,704	3,429	357	355	8,070	22	41,937
2018 Test	29,789	3,443	353	348	8,070	23	42,026

Table 3-5: Annual Usage by Rate Class

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load
Actual Annual Energy Usage per Customer/Connection (kWh per customer/connection)						
2003	12,298	29,772	629,506	593	834	70,970
2004	12,482	29,480	628,742	625	854	44,350
2005	12,153	29,197	617,336	613	893	31,327
2006	11,729	26,286	616,293	610	878	30,577
2007	11,836	28,536	605,898	607	877	31,999
2008	12,070	28,113	612,967	618	872	38,560
2009	12,033	27,282	598,148	621	864	48,438
2010	11,236	27,318	590,889	628	877	52,327
2011	11,856	30,222	635,157	648	883	46,046
2012	10,779	28,271	694,847	629	875	41,047
2013	10,988	27,584	694,501	635	914	40,830
2014	11,349	28,624	699,481	672	883	41,715
2015	10,501	27,893	683,069	653	825	43,462
2016	9,748	26,999	692,397	627	549	43,012
Normalized Annual Energy Usage per Customer/Connection (kWh per customer/connection)						
2003	12,057	29,189	617,170	582	818	69,579
2004	12,328	29,115	620,965	617	844	43,802
2005	12,064	28,983	612,810	609	887	31,097
2006	11,941	26,762	627,455	621	894	31,131
2007	11,794	28,434	603,745	605	874	31,886
2008	11,917	27,756	605,203	610	861	38,072
2009	11,889	26,955	590,973	613	854	47,857
2010	11,379	27,666	598,415	636	888	52,993
2011	11,872	30,265	636,057	649	885	46,111
2012	11,294	29,621	728,020	659	916	43,007
2013	11,155	28,003	705,044	644	928	41,449
2013 Board Approved	11,635	30,044	630,659	657	888	41,566
2014	10,890	27,467	671,214	645	847	40,030
2015	10,326	27,429	671,704	643	812	42,739
2016	9,867	27,326	700,789	635	555	43,533
2017 Bridge	9,877	27,303	700,703	627	299	51,786
2018 Test	9,950	27,393	703,899	627	299	51,416

1   ## 2.3.1.1 Multivariate Regression Model

2   PUC Distribution's weather normalized load forecast is developed in a three-step process. First, a total

3   system weather normalized purchased forecast is developed based on a regression analysis that

4   incorporates variables that impact PUC Distribution usage. Second, the weather normalized purchased

5   forecast is adjusted by a historical loss factor to produce a weather normalized billed forecast. Finally,

6   the forecast of billed energy by rate class is developed based on a forecast of customer numbers and

7   historical usage patterns per customer. For the rate classes that have weather sensitive load, their

8   forecasted billed energy is adjusted to ensure that the total billed energy forecast by rate class is

9   equivalent to the total weather normalized billed energy forecast. The forecast of customers by rate

10   class is determined using a geometric mean analysis and judgment of PUC Distribution. The forecast is

11   also adjusted for expected CDM results. For those rate classes that use kW for the distribution

12   volumetric billing determinant an adjustment factor is applied to the class energy forecast based on the

13   historical relationship between kW and kWh. The following will explain the forecasting process in more

14   detail.

15

16   *Purchased KWh Load Forecast*

17

18   An equation to predict total system purchased energy is developed using a multivariate regression model

19   with independent variables outlined below. The regression model uses monthly kWh and monthly values

20   of independent variables from January 2003 to December 2016 to determine the monthly regression

21   coefficients. This provides 168 monthly data points which are a reasonable data set for use in a multiple

22   regression analysis.

23

24   With regards to weather normalization, PUC Distribution submits that it is appropriate to review the

25   impact of weather over the past ten years January 2007 to December 2016 since it is consistent with the

26   time period for weather normalization outlined in the filing requirements. It is also reflective of more

27   recent weather conditions. The average weather conditions over this period are applied in the prediction

28   formula to determine a weather normalized forecast. In accordance with the filing requirement, PUC

1   Distribution has also provided sensitivity analysis showing the impact on the 2018 forecast of purchases.

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

3

4   The multivariate regression model has determined drivers of year-over-year changes in PUC

5   Distribution's load growth are weather (heating and cooling degree days), calendar variables (days in

6   month and seasonal flag), number of customers and CDM activity. These factors are captured within the

7   multivariate regression model.

8

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

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

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

12

13 Other factors determining energy use in the monthly model are the number of days in a particular month

14 and a flag that indicates spring and fall months.

15

16 The regression analysis also indicates that the number of customers and CDM activity are significant

17 contributors to the total energy used in the PUC Distribution service area.

18

19 The following outlines the predication model used by PUC Distribution to predict weather normal

20 purchases for 2017 and 2018. The 2017 and 2018 weather normal purchases have been adjusted to

21 include the impact of reduced consumption from the recent installation of new street lights. On a billed

22 energy basis the average historical annual kWh for street lights from 2003 to 2016, of 7,437,417 kWh

23 has been reduced to 2,415,793 kWh for 2017 and 2018 to reflect the consumption of the new energy

24 efficient street lights installed during 2016 in the PUC Distribution service area. The reduction in billed

25 consumption of 5,021,624 (i.e. 7,437,417 minus 2,415,793) times the loss factor, explained below, of

26 1.0459 has been applied to the 2017 and 2018 forecast of weather normal purchases. This is an

27 adjustment of 5,252,259 kWh for both years.

28

1   PUC Distribution Monthly Predicted kWh Purchases

2   = Heating Degree Days * 39,811

3   + Cooling Degree Days * 84,271

4   + Spring Fall Flag * (2,894,992)

5   + Number of Days in the Month * 1,815,877

6   + CDM Activity * (3.68)

7   + Number of Customers * 2,620

8   + Constant of (92,792,690)

9   - 5,252,259 for street lights

10

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

12   forecasted years are provided in Appendix 1.

13

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

15

16   a) The Environment Canada website provided the monthly heating degree day and cooling degree

17   information. Weather data from the Sault Ste. Marie Weather Station was used. 18° C is the base

18   numbers from which heating degree days and cooling degree days are measured.

19

20   b) The calendar provided information related to number of days in the month and the months defined to

21   be spring or fall (i.e. March to May and September to November).

22

23   c) PUC Distribution's billing system provided the customer data.

24

25   d) The CDM activity variable is an estimated level of monthly activity in CDM for the years 2006 to

26   2018 for all verified savings from 2006 to 2016 programs including their persistence. For each year

27   the monthly values grow at constant value over the year. The addition of the monthly values will

28   equal the total annual CDM results shown in the table below. In the first year of the program the half

1   year rule is applied. The following table supports the level of annual CDM results and provides the

2   source of the annual program and persistence data by year which was used to develop the monthly

3   values shown in Appendix 1.

4   **Table 3-6: CDM Activity Variable Supporting Data**

Year	OPA Annual CDM Final Results 2006 to 2010 programs (kWh)	OPA/IESO Annual CDM Final Results 2011 to 2014 programs (kWh)	IESO Annual Final CDM Results 2015 programs (kWh)	IESO Annual Final CDM Results 2016 programs (kWh)	Total Annual CDM Results (kWh)
2006	1,571,522	0	0	0	1,571,522
2007	4,551,504	0	0	0	4,551,504
2008	6,625,849	0	0	0	6,625,849
2009	8,277,544	0	0	0	8,277,544
2010	7,031,262	0	0	0	7,031,262
2011	6,681,180	2,252,978	0	0	8,934,158
2012	6,429,476	5,995,033	0	0	12,424,509
2013	6,368,225	7,754,369	0	0	14,122,594
2014	5,978,749	13,124,709	0	0	19,103,457
2015	4,582,235	14,272,201	2,700,374	0	21,554,810
2016	3,917,535	13,893,402	5,259,083	4,409,060	27,479,080
2017	3,161,652	11,963,920	5,227,909	8,793,170	29,146,651
2018	2,827,981	11,022,261	5,222,016	8,793,170	27,865,428

5

6

7   The prediction formula has the following statistical results (Table 3-7) which generally indicate the

8   formula has a very good fit to the actual data set.

1   **Table 3-7: Statistical Results**
2
3

R Square	96.5%
Adjusted R Square	96.4%
F Test	745.1
MAPE (Monthly)	2.6%
T-stats by Coefficient	
Heating Degree Days	50.7
Cooling Degree Days	5.8
Spring Fall Flag	(7.4)
Number of Days in Month	8.6
CDM Activity	(6.6)
Number of Customers	3.1
Constant	(3.3)

4

5   The annual results of the above prediction formula compared to the actual annual purchases from 2003

6   to 2016 are shown below in Table 3-8 along with the predicted total system purchases for PUC

7   Distribution for 2017 and 2018 on a weather normal basis. In addition, weather normal values for 2018

8   are provided on a 20 year trend assumption for weather normalization. Information is also provided to

9   show the Weather Normal Conversion Factor which is used to weather normalize actual volume data. In

10   Table 3-8, the Predicted Weather Normal values are similar to the Predicted amounts but the weather

11   normalized heating degree days and cooling degree days used to determine the weather normal forecast

12   for 2017 and 2018 are used in the prediction formula in place of actual heating degree days and cooling

13   degree days. The ratio of Predicted Weather Normal to Predicted values results in a Weather Normal

14   Conversion Factor. This factor is applied to the Actual amount which results in the Actual Weather

15   Normal value.

1 **Table 3-8: Total System Purchase**

Year	Actual	Predicted	% Difference	Predicted Weather Normal	Weather Normal Conversion Factor	Actual Weather Normal
Purchased Energy (GWh)						
2003	755.1	755.4	0.0%	740.6	0.9804	740.3
2004	757.7	753.0	(0.6%)	743.7	0.9876	748.3
2005	749.2	751.2	0.3%	745.7	0.9927	743.7
2006	728.1	729.2	0.2%	742.4	1.0181	741.3
2007	738.1	734.2	(0.5%)	731.6	0.9964	735.5
2008	741.0	741.0	0.0%	731.6	0.9873	731.6
2009	732.9	738.4	0.7%	729.5	0.9880	724.1
2010	714.2	730.4	2.3%	739.7	1.0127	723.3
2011	745.0	735.5	(1.3%)	736.6	1.0014	746.1
2012	707.0	694.7	(1.7%)	727.8	1.0477	740.7
2013	730.6	715.4	(2.1%)	726.3	1.0152	741.7
2014	730.5	737.6	1.0%	707.8	0.9596	701.0
2015	698.5	711.3	1.8%	699.5	0.9834	686.9
2016	670.0	670.5	0.1%	678.6	1.0121	678.1
2017 Bridge		672.0		672.0	1.0000	
2018 Test		678.0		678.0	1.0000	
2018 - 20 year trend		682.6		682.6	1.0000	

2

3 The weather normalized amount for 2018 is determined by using 2018 dependent variables in the

4 prediction formula on a monthly basis along with the average monthly heating degree days and cooling

5 degree days which have occurred from January 2007 to December 2016 (i.e. 10 years). The 2018

6 weather normal 20 year trend value reflects the trend in monthly heating degree days and cooling degree

7 days which have occurred from January 1997 to December 2016.

1   *Billed KWh Load Forecast*

2   To determine the total weather normalized energy billed forecast, the total system weather normalized

3   purchases forecast is adjusted by a historical loss factor. The historical loss factor used is 4.59% which

4   represents the average loss factor from 2003 to 2016. With this average loss factor the total weather

5   normalized billed energy before the adjustment discussed below will be 642.5 (GWh) for 2017 (i.e.

6   672.0/1.0459) and 648.2 (GWh) for 2018 (i.e. (i.e. 678.0/1.0459).

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

8   Since the total weather normalized billed PUC Distribution amount is known this amount needs to be

9   distributed by rate class for rate design purposes taking into consideration the customer/connection

10   forecast and expected usage per customer by rate class.

11

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

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

14   as shown in the following Table 3-9.

1 **Table 3-9: Historical Customer/Connection Data**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load	Total
Number of Customers/Connections							
2003	28,544	3,230	419	466	8,619	12	41,290
2004	28,560	3,247	424	466	8,635	19	41,351
2005	28,576	3,274	431	459	8,642	27	41,409
2006	28,596	3,301	432	449	8,663	28	41,469
2007	28,630	3,302	429	443	8,707	27	41,538
2008	28,780	3,325	426	435	8,741	22	41,729
2009	28,971	3,352	433	423	8,799	17	41,995
2010	29,057	3,345	435	411	8,846	16	42,110
2011	29,124	3,366	403	402	8,846	19	42,160
2012	29,197	3,383	401	395	8,875	20	42,271
2013	29,271	3,401	399	387	8,904	21	42,383
2014	29,514	3,464	370	362	8,846	21	42,577
2015	29,566	3,431	373	360	8,839	21	42,590
2016	29,620	3,414	361	362	8,872	21	42,650

2

3 From the historical customer/connection data the growth rate in customer/connection can be evaluated

4 which is provided on the following Table 3-10.

1 **Table 3-10: Growth Rate in Customer/Connections**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load
Growth Rate in Customers/Connections						
2003						
2004	0.1%	0.5%	1.2%	0.0%	0.2%	58.3%
2005	0.1%	0.8%	1.7%	(1.5%)	0.1%	42.1%
2006	0.1%	0.8%	0.2%	(2.2%)	0.2%	3.7%
2007	0.1%	0.0%	(0.7%)	(1.3%)	0.5%	(3.6%)
2008	0.5%	0.7%	(0.7%)	(1.8%)	0.4%	(18.5%)
2009	0.7%	0.8%	1.6%	(2.8%)	0.7%	(22.7%)
2010	0.3%	(0.2%)	0.5%	(2.8%)	0.5%	(5.9%)
2011	0.2%	0.6%	(7.4%)	(2.2%)	0.0%	18.8%
2012	0.7%	2.4%	(9.2%)	(2.5%)	0.0%	10.5%
2013	0.6%	0.8%	1.9%	(4.6%)	0.0%	0.0%
2014	0.0%	(0.3%)	(0.8%)	(3.2%)	0.0%	0.0%
2015	0.2%	(1.0%)	0.8%	(0.6%)	(0.1%)	0.0%
2016	0.2%	(0.5%)	(3.2%)	0.6%	0.4%	0.0%
Geometric Mean	0.3%	0.4%	(1.1%)	(1.9%)	0.2%	4.4%

2
3
4 The geometric mean was determined for each rate class to reflect the average growth rate from 2003 to
5 2016.

6 The geometric mean analysis was used to forecast the number of customers/connections for 2017 and
7 2018. The results of the geometric mean analysis were applied to the 2016 customer/connection value to
8 determine the 2017 customer/connection forecast. The 2018 customer/connection forecast is determined
9 by applying the geometric mean factor to the 2017 forecast. Table 3-11 outlines the forecast of
10 customers/connections by rate class.

1   **Table 3-11: Customer/Connection Forecast**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load	Total
Forecast Number of Customers/Connections							
2017 Bridge	29,704	3,429	357	355	8,070	22	41,937
2018 Test	29,789	3,443	353	348	8,070	23	42,026

3

4   The next step in the process is to review the historical customer/connection usage and to reflect this

5   usage per customer in the forecast. Table 3-12 below provides the average annual usage per customer by

6   rate class for 2016.

7   **Table 3-12: 2016 Actual Annual Usage per Customer**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load
Annual kWh Usage Per Customer/Connection						
2016	9,748	26,999	692,397	627	549	43,012

9   The 2017 and 2018 forecast of usage per customer/connection have been held constant at the 2016 level

10   since as observed in Table 3-5 the usage per customer/connection has generally been declining since

11   2008. To continue this declining pattern into the 2017 and 2018 could cause double counting of CDM

12   results when a manual adjustment for CDM is applied to 2017 and 2018 later on in the process. The

13   resulting usage forecast is as follows in Table 3-13.

14   **Table 3-13: Forecast Annual kWh Usage per Customer/Connection**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load
Forecast Annual kWh Usage per Customers/Connection						
2017 Bridge	9,748	26,999	692,397	627	549	43,012
2018 Test	9,748	26,999	692,397	627	549	43,012

15

1 Except for the Street Lights and Unmetered Scattered Load classes, the preceding information is used to

2 determine the non-normalized weather billed energy forecast by applying the forecast number of

3 customer/connection from Table 3-11 by the forecast of annual usage per customer/connection from

4 Table 3-13. For Street Lights, the value represents the known 2017 annual kW of 7,076 kW divided by

5 the 2016 kW/kWh ratio of 0.2929%. For Unmetered Scattered Load, it is the forecasted number of

6 customer from Table 3-11 times the forecast of annual usage per customer/connection from Table 3-13

7 plus an adjustment of 192,360 kWh for traffic lights. This amount had not been previously included in

8 the kWh for the Unmetered Scattered Load class. The resulting non-normalized weather billed PUC

9 Distribution forecast is shown in the following Table 3-14.

10 **Table 3-14: Non-normalized Weather Billed PUC Distribution Forecast**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load	Total
NON-normalized Weather Billed Energy Forecast (GWh)							
2017 Bridge	289.6	92.6	247.1	0.2	2.4	1.1	633.0
2018 Test	290.4	93.0	244.3	0.2	2.4	1.2	631.5

11

12 The non-normalized weather billed energy forecast has been determined but it needs to be adjusted in

13 order to be aligned with the total weather normalized billed energy forecast. As previously determined,

14 the total weather normalized billed energy forecast is 642.5 (GWh) for 2017 and 648.2 (GWh) for 2018.

15

16 The difference between the non-normalized and normalized forecast adjustments is 9.5 GWh in 2017

17 (i.e. 642.5 – 633.0) and 16.7 GWh in 2018 (i.e. 648.2 – 631.5). The difference is assumed to be the

18 adjustment needed to move the forecast to a weather normal basis and this amount will be assigned to

19 those rate classes that are weather sensitive. Based on the weather normalization work completed by

20 Hydro One for PUC Distribution for the cost allocation study, which has been used to support this

21 Application, it was determined that the weather sensitivity by rate classes is as follows in Table 3-15.

1   **Table 3-15: Weather Sensitivity by Rate Class**

	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load
Weather Sensitivity						
	92.7%	92.7%	85.3%	0.0%	0.0%	0.0%

2

3

4   For the GS > 50 kW class the weather sensitivity amount of 85.3% was provided in the weather

5   normalization work completed by Hydro One. For the Residential and General Service < 50 kW classes,

6   it was assumed in the 2013 COS application that the weather sensitivity for the Residential and General

7   Service < 50 kW classes was mid-way between 100% and 85.3%, or 92.7%. This assumption has been

8   maintained in this application.

9

10   The difference between the non-normalized and normalized forecast of 9.5 GWh in 2017 and 16.7 GWh

11   in 2018 has been assigned on a pro rata basis to each rate class based on the above level of weather

12   sensitivity.

13   **2.3.1.2 Normalized Average use per Customer ("NAC") Model**

14   PUC Distribution did not use this methodology.

15

16   **2.3.1.3 CDM Adjustment and LRAMVA**

17   A manual adjustment has been made to reflect the impact of 2017 to 2018 CDM programs on the load

18   forecast. PUC Distribution has made this adjustment to reflect the "net" impact of the CDM programs

19   on the load forecast.

20

21   The following Table 3-16, outlines the expected full year savings from 2017 to 2018 CDM programs

22   based on the projected CDM savings for PUC Distribution. It is assumed that the savings that occur for

23   the 2017 program in 2017 will persist at 99.7% in 2018 which is consistent with the persistence of 2016

24   programs into 2017.

1   **Table 3-16: 2017 to 2018 Expected Full Year Total kWh Savings**

	2017	2018
2017 Programs	3,375,904	3,366,352
2018 Programs		3,913,998
Total Including Persistence	3,375,904	7,280,350

2

3

4   The following outlines how the above information is assigned to rate class.

5

6   **Table 3-17: 2017 to 2018 Expected Full Year Residential kWh Savings**

7

	2017	2018
2017 Programs	1,400,602	1,396,639
2018 Programs		1,189,716
Total Including Persistence	1,400,602	2,586,355

8

9

10   **Table 3-18: 2017 to 2018 Expected Full Year GS < 50 kW kWh Savings**

11

	2017	2018
2017 Programs	802,685	800,414
2018 Programs		802,685
Total Including Persistence	802,685	1,603,099

12   **Table 3-19: 2017 to 2018 Expected Full Year GS > 50 kW kWh Savings**

13

	2017	2018
2017 Programs	1,172,617	1,169,299
2018 Programs		1,921,597
Total Including Persistence	1,172,617	3,090,896

14

1   Since the regression analysis is based on actual power purchased data up to and including 2016 actual

2   data, it is assumed that any savings from programs initiated up to and including 2016 are reflected in the

3   prediction equation on a full year basis since the CDM Activity variable is used in the prediction

4   formula. It is also assumed the savings in the first year of the program will be occur evenly over the year

5   which means the actual impact on the load forecast will be one half of the full year results in the first

6   year of the program. This has been classified as the half year rule for CDM purposes. As a result,

7   consistent with the approach used in previous COS applications the following table outlines the total

8   manual CDM adjustment for 2017 and 2018.

9

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

11

12   Rate class CDM adjustment 2018 = 2017 Programs rate class persistence savings + 2018 Programs rate

13   class savings x 50%.

14

15   The following table outlines the CDM adjustment by rate class.

16

Table 3-20: Manual CDM Adjustment by Rate Class (kWh)

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Total
2017 Bridge	700,301	401,343	586,308	1,687,952
2018 Test	1,991,497	1,201,757	2,130,097	5,323,351

17

18

19   In accordance with the Guidelines for Electricity Distributor Conservation and Demand Management

20   (EB-2013-0003), issued April 26, 2013 ("CDM Guidelines"), it is PUC Distribution's understanding

21   that as part of this application expected CDM savings in 2018 from 2017 and 2018 programs will need

22   to be established for lost revenue adjustment mechanism ("LRAM") variance accounts purposes. PUC

23   Distribution also understands that the IESO will measure CDM results on a full year net basis.

1   Consistent with past practices, it is expected the full year net level of savings will be used for LRAM

2   variance calculations. As a result, it is PUC Distribution's view the units used for the LRAM variance

3   account should also be on a full year net basis. Based on the evidence provided above in regards to the

4   CDM manual adjustment the following equation is used to determine the rate class kWh assumed in the

5   load forecast for LRAM variance account purposes

6

7   Rate class LRAMVA Threshold 2018 = Rate class 2017 Program Persistence savings + Rate class 2018

8   Program savings. The conversion to kW for the GS > 50 kW class uses the kW/kWh factor from Table

9   3-24.

10

11   **Table 3-21: 2018 Expected CDM Savings by Rate Class for LRAM Variance Account**

12

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Total
2018 Test - kWh	2,586,355	1,603,099	3,090,896	7,280,350
2018 Test - kW Annual			7,708	7,708
2018 Test - kW Monthly			642	642

13

14

15   The following Table 3-22 outlines how the classes have been adjusted to align the non-normalized

16   forecast with the normalized forecast and reflect the adjustments discussed above.

17

1   **Table 3-22: Alignment of Non-normal to Weather Normal Forecast**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Unmetered Scattered Load	Total
Non-normalized Weather Billed Energy Forecast (GWh)							
2017 Bridge	289.6	92.6	247.1	0.2	2.4	1.1	633.0
2018 Test	290.4	93.0	244.3	0.2	2.4	1.2	631.5
Weather Adjustment (GWh)							
2017 Bridge	4.5	1.4	3.6	0.0	0.0	0.0	9.5
2018 Test	8.0	2.6	6.2	0.0	0.0	0.0	16.7
CDM Adjustment (GWh)							
2017 Bridge	(0.7)	(0.4)	(0.6)				(1.7)
2018 Test	(2.0)	(1.2)	(2.1)				(5.3)
Weather Normalized Billed Energy Forecast (GWh)							
2017 Bridge	293.4	93.6	250.1	0.2	2.4	1.1	640.8
2018 Test	296.4	94.3	248.3	0.2	2.4	1.2	642.9

2

1   *Billed KW Load Forecast*

2   There are three rate classes that charge volumetric distribution on per kW basis. These include General

3   Service 50 to 4,999 kW, Sentinel Lights and Street Lights. The forecast of kW for General Service 50 to

4   4,999 kW and Sentinel Lights classes is based on a review of the historical ratio of kW to kWh and

5   applying the average ratio to the forecasted kWh to produce the required kW. For Street Lights, the

6   forecasted kW for 2017 and 2018 is based on the known information for 2017 reflecting the new energy

7   efficient street lights installed in 2016

8

9   The following Table 3-23 outlines the annual demand units by applicable rate class on actual and

10   weather normal basis. The weather normal values are actual values adjusted by the weather normal

11   conversion factor outlined in Table 3-8. PUC Distribution is uncertain if this weather normalization

12   adjustment is the appropriate adjustment to weather normalize monthly kW but it has been done to be

13   consistent with the weather normalization adjustment used for kWh.

14

15   **Table 3-23: Historical Annual kW per Applicable Rate Class**

16

Year	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Total	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Total
Billed Annual kW								
	Actual				**Weather Normal**			
2003	659,827	768	21,295	681,890	646,896	753	20,878	668,527
2004	673,069	873	21,340	695,282	664,744	862	21,076	686,682
2005	682,195	784	21,295	704,274	677,194	778	21,139	699,111
2006	657,827	766	23,029	681,622	669,741	780	23,446	693,967
2007	657,184	747	21,406	679,337	654,849	744	21,330	676,923
2008	650,699	744	21,317	672,760	642,457	735	21,047	664,239
2009	637,622	730	21,346	659,698	629,974	721	21,090	651,785
2010	635,104	714	23,264	659,082	643,193	723	23,560	667,476
2011	629,024	703	21,619	651,346	629,915	704	21,650	652,268
2012	627,836	687	21,596	650,119	657,810	720	22,627	681,156
2013	656,137	660	21,588	678,385	666,098	670	21,916	688,683
2014	634,289	676	21,876	656,841	608,657	649	20,992	630,298
2015	711,311	752	21,794	733,857	699,477	739	21,431	721,648
2016	622,066	630	14,262	636,959	629,606	638	14,435	644,679

17

1   The following Table 3-24 shows the historical ratio of kW/kWh as well as the average

2   **Table 3-24: Historical kW/kWh Ratio per Applicable Rate Class**

Year	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights
Ratio of kW to kWh			
2003	0.2502%	0.2777%	0.2961%
2004	0.2525%	0.2998%	0.2894%
2005	0.2564%	0.2786%	0.2759%
2006	0.2471%	0.2796%	0.3028%
2007	0.2528%	0.2776%	0.2803%
2008	0.2492%	0.2768%	0.2797%
2009	0.2462%	0.2781%	0.2808%
2010	0.2471%	0.2766%	0.3000%
2011	0.2457%	0.2700%	0.2766%
2012	0.2469%	0.2787%	0.2791%
2013	0.2533%	0.2781%	0.2669%
2014	0.2451%	0.2778%	0.2800%
2015	0.2792%	0.3197%	0.2987%
2016	0.2489%	0.2775%	0.2929%
Average 2003 to 2016	0.2515%	0.2819%	0.2857%
Used for Forecast	0.2515%	0.2819%	Reflects 2017 actual

3

4   The following Table 3-25 outlines the forecast of kW for the applicable rate classes.

5   **Table 3-25: kW Forecast by Applicable Rate Class**

Year	General Service 50 to 4,999 kW	Sentinel Lighting	Street Lights	Total
Predicted Billed kW				
2017 Bridge	628,830	628	7,076	636,534
2018 Test	624,500	616	7,076	632,192

6

1   Table 3-26 provides a summary of the total load forecast on a power purchased and billed level from

2   2013 Board Approved to 2018 Test.

3   **Table 3-26: Summary of Total Load Forecast**

	2013 Board Approved	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Bridge Weather Normal	2018 Test Weather Normal
Purchases							
Actual kWh Purchases		730,568,311	730,490,285	698,517,377	669,958,462		
Predicted kWh Purchases before CDM		715,403,222	737,634,264	711,332,613	670,476,629	672,043,983	677,967,857
% Difference between actual and predicted purchases		(2.1%)	1.0%	1.8%	0.1%		
Loss Factor						1.0459	1.0459
Total Billed Before CDM Adjustments						642,533,500	648,197,248
CDM Adjustment						1,687,952	5,323,351
Total Billed After Adjustments		688,244,167	701,843,127	669,387,526	636,876,244	640,845,548	642,873,897
Billing Determinants							
Residential							
Customers	29,271	29,504	29,514	29,566	29,620	29,704	29,789
kWh	340,561,449	324,185,392	334,950,383	310,458,240	288,746,486	293,388,553	296,393,596
General Service < 50 kW							
Customers	3,401	3,474	3,464	3,431	3,414	3,429	3,443
kWh	102,179,766	95,827,695	99,153,426	95,701,162	92,174,996	93,612,036	94,320,130
General Service 50 to 4,999 kW							
Customers	399	373	370	373	361	357	353
kWh	251,632,820	259,048,750	258,807,830	254,784,565	249,955,178	250,071,137	248,349,153
kW	628,286	656,137	634,289	711,311	622,066	628,830	624,500
Sentinel Lighting							
Connections	387	374	362	360	362	355	348
kWh	254,165	237,315	243,349	235,238	227,056	222,688	218,403
kW	710	660	676	752	630	628	616
Street Lights							
Connections	8,904	8,846	8,846	8,839	8,872	8,070	8,070
kWh	7,907,160	8,087,592	7,812,115	7,295,612	4,869,277	2,415,793	2,415,793
kW	22,680	21,588	21,876	21,794	14,262	7,076	7,076
Unmetered Scattered Load							
Connections	21	21	21	21	21	22	23
kWh	872,889	857,423	876,024	912,709	903,251	1,135,342	1,176,822
Total							
Customer/Connections	42,383	42,592	42,577	42,590	42,650	41,937	42,026
kWh	703,408,249	688,244,167	701,843,127	669,387,526	636,876,244	640,845,548	642,873,897
kW from applicable classes	651,676	678,385	656,841	733,857	636,959	636,534	632,192

1
2

1 **2.3.2   Accuracy of Load Forecast and Variance Analyses**

2 The following discussion provides a year over year variance analysis on PUC Distribution's distribution

3 revenue and billing determinants. The variance analysis will compare 2013 Board Approved to 2013

4 Actual; 2013 Actual to 2014 Actual; 2014 Actual to 2015 Actual; 2015 Actual to 2016 Actual; 2016

5 Actual to 2017 Bridge and 2017 Bridge Year to 2018 Test Year. The distribution revenue variance

6 analysis is based on information provided in Table 3-1. The billing determinant variance analysis is

7 based on data outlined in Table 3-26. The overall variance analysis has been provided based on PUC

8 Distribution's materiality of $110,400; the materiality calculation being noted earlier in Exhibit 1 of this

9 Application.

10 *2013 Board Approved vs. 2013 Actual*

11 **Table 3-27: Distribution Revenue - 2013 Board Approved vs 2013 Actual**

Distribution Throughput Revenue	2013 Board Approved	2013 Actual	Difference $	Difference %
Residential	9,069,512.00	8,383,231.09	(686,280.91)	-8%
General Service <50 kW	2,664,966.00	2,479,550.11	(185,415.89)	-7%
General Service 50 to 4,999 kW	3,725,714.00	3,723,727.25	(1,986.75)	0%
Sentinel Lighting	31,753.00	28,613.17	(3,139.83)	-10%
Street Lighting	720,198.00	663,165.82	(57,032.18)	-8%
Unmetered Scattered Load	29,206.00	27,443.00	(1,763.00)	-6%
Total	**16,241,349.00**	**15,305,730.44**	**(935,618.56)**	**-6%**

12
13

14 Throughput revenue for 2013 was $935,619 or 6.0% lower than the amounts approved in the 2013 Cost

15 of Service due to the revised rates not being in effect for the full year (July 1)

1   **Table 3-28: Billing Determinants – 2013 Board Approved vs 2013 Actual**

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor							1.0152				
	2013 Board Approved	2013 Actual		2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual	2013 Board Approved	2013 Actual
Residential	29,271	29,504	kWh	340,561,449	324,185,392	340,561,449	329,106,723	11,635	10,988	11,635	11,155
General Service < 50 kW	3,401	3,474	kWh	102,179,766	95,827,695	102,179,766	97,282,417	30,044	27,584	30,044	28,003
General Service 50 to 4,999 kW	399	373	kW	628,286	656,137	628,286	666,098	1,575	1,759	1,575	1,786
Sentinel Lighting	387	374	kW	710	660	710	670	2	2	2	2
Street Lights	8,904	8,846	kW	22,680	21,588	22,680	21,916	3	2	3	2
Unmetered Scattered Load	21	21	kWh	872,889	857,423	872,889	870,439	41,566	40,830	41,566	41,449
Total	42,383	42,592									
	Variance			Variance		Variance		Variance		Variance	
Residential	233		kWh	(16,376,057)		(11,454,726)		(647)		(480)	
General Service < 50 kW	73		kWh	(6,352,071)		(4,897,349)		(2,460)		(2,041)	
General Service 50 to 4,999 kW	(26)		kW	27,851		37,812		184		211	
Sentinel Lighting	(13)		kW	(50)		(40)		(0)		(0)	
Street Lights	(58)		kW	(1,092)		(764)		(0)		(0)	
Unmetered Scattered Load	0		kWh	(15,466)		(2,450)		(736)		(117)	

3   When comparing the 2013 actual results to the 2013 board approved amounts the customer/connection

4   forecast for 2013 was fairly consistent with 2013 actual values. Volume forecasts supporting the 2013

5   cost of service application were on the high side for the Residential and GS < 50 kW classes and on

6   the low side for GS > 50 kW class.

1   *2013 Actual vs. 2014 Actual*

2   **Table 3-29: Distribution Revenue – 2013 Actual vs 2014 Actual**

Distribution Throughput Revenue	2013 Actual	2014 Actual	Difference $	Difference %
Residential	8,383,231.09	9,058,873.42	675,642.33	8%
General Service <50 kW	2,479,550.11	2,662,132.09	182,581.98	7%
General Service 50 to 4,999 kW	3,723,727.25	3,753,659.93	29,932.68	1%
Sentinel Lighting	28,613.17	31,254.59	2,641.42	9%
Street Lighting	663,165.82	702,906.23	39,740.41	6%
Unmetered Scattered Load	27,443.00	29,446.14	2,003.14	7%
Total	**15,305,730.44**	**16,238,272.40**	**932,541.96**	**6%**

4   The 2014 throughput revenue was $932,542 or 6.0% higher than 2013 actual revenue due to the

5   increase in rates being in effect for the full year. The 2014 revenue is within $3,000 of the 2013 Board

6   approved revenue.

7   **Table 3-30: Billing Determinants - 2013 Actual vs 2014 Actual**

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0152	0.9596				
	2013 Actual	2014 Actual		2013 Actual	2014 Actual	2013 Actual	2014 Actual	2013 Actual	2014 Actual	2013 Actual	2014 Actual
Residential	29,504	29,514	kWh	324,185,392	334,950,383	329,106,723	321,414,848	10,988	11,349	11,155	10,890
General Service < 50 kW	3,474	3,464	kWh	95,827,695	99,153,426	97,282,417	95,146,580	27,584	28,624	28,003	27,467
General Service 50 to 4,999 kW	373	370	kW	656,137	634,289	666,098	608,657	1,759	1,714	1,786	1,645
Sentinel Lighting	374	362	kW	660	676	670	649	2	2	2	2
Street Lights	8,846	8,846	kW	21,588	21,876	21,916	20,992	2	2	2	2
Unmetered Scattered Load	21	21	kWh	857,423	876,024	870,439	840,623	40,830	41,715	41,449	40,030
Total	42,592	42,577									
	Variance			Variance		Variance		Variance		Variance	
Residential	10		kWh	10,764,991		(7,691,875)		361		(264)	
General Service < 50 kW	(10)		kWh	3,325,731		(2,135,838)		1,040		(536)	
General Service 50 to 4,999 kW	(3)		kW	(21,848)		(57,441)		(45)		(141)	
Sentinel Lighting	(12)		kW	16		(21)		0		0	
Street Lights	0		kW	288		(924)		0		(0)	
Unmetered Scattered Load	0		kWh	18,601		(29,816)		886		(1,420)	

9   There is no material differences in the customer connections or usage per customer between 2013 and

10   2014.

1 *2014 Actual vs. 2015 Actual*

2 **Table 3-31: Distribution Revenue - 2014 Actual vs 2015 Actual**

Distribution Throughput Revenue	2014 Actual	2015 Actual	Difference $	Difference %
Residential	9,058,873.42	8,805,835.69	(253,037.73)	-3%
General Service <50 kW	2,662,132.09	2,636,670.63	(25,461.46)	-1%
General Service 50 to 4,999 kW	3,753,659.93	4,011,125.36	257,465.43	7%
Sentinel Lighting	31,254.59	28,967.18	(2,287.41)	-7%
Street Lighting	702,906.23	727,781.03	24,874.80	4%
Unmetered Scattered Load	29,446.14	30,918.73	1,472.59	5%
Total	**16,238,272.40**	**16,241,298.62**	**3,026.22**	**0%**

3

4 The 2015 throughput revenue was $3,026 or virtually unchanged from 2014.

5 **Table 3-32: Billing Determinants - 2014 Actual vs 2015 Actual**

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						0.9596	0.9834				
	2014 Actual	2015 Actual		2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual
Residential	29,514	29,566	kWh	334,950,383	310,458,240	321,414,848	305,293,020	11,349	10,501	10,890	10,326
General Service < 50 kW	3,464	3,431	kWh	99,153,426	95,701,162	95,146,580	94,108,943	28,624	27,893	27,467	27,429
General Service 50 to 4,999 kW	370	373	kW	634,289	711,311	608,657	699,477	1,714	1,907	1,645	1,875
Sentinel Lighting	362	360	kW	676	752	649	739	2	2	2	2
Street Lights	8,846	8,839	kW	21,876	21,794	20,992	21,431	2	2	2	2
Unmetered Scattered Load	21	21	kWh	876,024	912,709	840,623	897,524	41,715	43,462	40,030	42,739
Total	42,577	42,590									
	Variance			Variance		Variance		Variance		Variance	
Residential	52		kWh	(24,492,143)		(16,121,828)		(848)		(564)	
General Service < 50 kW	(33)		kWh	(3,452,264)		(1,037,637)		(731)		(38)	
General Service 50 to 4,999 kW	3		kW	77,022		90,820		193		230	
Sentinel Lighting	(2)		kW	76		91		0		0	
Street Lights	(7)		kW	(82)		439		(0)		0	
Unmetered Scattered Load	0		kWh	36,685		56,901		1,747		2,710	

6

7 There is no material differences in the customer connections or usage per customer between 2014

8 and 2015.

1 *2015 Actual vs. 2016 Actual*

2 **Table 3-33: Distribution Revenue - 2015 Actual vs 2016 Actual**

Distribution Throughput Revenue	2015 Actual	2016 Actual	Difference $	Difference %
Residential	8,805,835.69	8,499,404.43	(306,431.26)	-3%
General Service <50 kW	2,636,670.63	2,537,808.73	(98,861.90)	-4%
General Service 50 to 4,999 kW	4,011,125.36	3,820,757.83	(190,367.53)	-5%
Sentinel Lighting	28,967.18	29,440.08	472.90	2%
Street Lighting	727,781.03	577,770.60	(150,010.43)	-21%
Unmetered Scattered Load	30,918.73	30,762.16	(156.57)	-1%
Total	**16,241,298.62**	**15,495,943.83**	**(745,354.79)**	**-5%**

4 The 2016 throughput revenue was $745,355 or 5% lower than the 2015 actual revenue primarily due

5 to a reduction in kWh which can be attributed mainly to a milder year weather-wise.

6 **Table 3-34: Billing Determinants - 2015 Actual vs 2016 Actual**

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						0.9834	1.0121				
	2015 Actual	2016 Actual		2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual
Residential	29,566	29,620	kWh	310,458,240	288,746,486	305,293,020	292,246,243	10,501	9,748	10,326	9,867
General Service < 50 kW	3,431	3,414	kWh	95,701,162	92,174,996	94,108,943	93,292,204	27,893	26,999	27,429	27,326
General Service 50 to 4,999 kW	373	361	kW	711,311	622,066	699,477	629,606	1,907	1,723	1,875	1,744
Sentinel Lighting	360	362	kW	752	630	739	638	2	2	2	2
Street Lights	8,839	8,872	kW	21,794	14,262	21,431	14,435	2	2	2	2
Unmetered Scattered Load	21	21	kWh	912,709	903,251	897,524	914,198	43,462	43,012	42,739	43,533
Total	42,590	42,650									
	Variance			Variance		Variance		Variance		Variance	
Residential	54		kWh	(21,711,754)		(13,046,778)		(752)		(459)	
General Service < 50 kW	(17)		kWh	(3,526,166)		(816,739)		(894)		(103)	
General Service 50 to 4,999 kW	(12)		kW	(89,245)		(69,871)		(184)		(131)	
Sentinel Lighting	2		kW	(122)		(102)		(0)		(0)	
Street Lights	33		kW	(7,532)		(6,996)		(1)		(1)	
Unmetered Scattered Load	0		kWh	(9,458)		16,675		(450)		794	

8 There is no material differences in the customer connections or usage per customer between 2015 and

9 2016. A drop in consumption as a result of milder weather conditions can be detected in the usage per

10 customer.

1   *2016 Actual vs. 2017 Bridge*

2   **Table 3-35: Distribution Revenue – 2016 Actual vs 2017 Bridge**
3

Distribution Throughput Revenue	2016 Actual	2017 Bridge	Difference $	Difference %
Residential	8,499,404.43	9,020,207	520,802.31	6%
General Service <50 kW	2,537,808.73	2,660,109	122,299.98	5%
General Service 50 to 4,999 kW	3,820,757.83	4,011,695	190,937.31	5%
Sentinel Lighting	29,440.08	30,523	1,083.20	4%
Street Lighting	577,770.60	460,504	(117,266.96)	-20%
Unmetered Scattered Load	30,762.16	31,000	237.84	1%
Total	**15,495,943.83**	**16,214,037.51**	**718,093.68**	**5%**

4
5

6   Throughput revenue for 2017 is forecasted to be $$718,093 or 5% higher than 2016. The 2017

7   revenue is in line with prior years other than the low year of 2016..

8   **Table 3-36: Billing Determinants - 2016 Actual vs 2017 Bridge**

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0121	1.0000				
	2016 Actual	2017 Bridge		2016 Actual	2017 Bridge	2016 Actual	2017 Bridge	2016 Actual	2017 Bridge	2016 Actual	2017 Bridge
Residential	29,620	29,704	kWh	288,746,486	293,388,553	292,246,243	293,388,553	9,748	9,877	9,867	9,877
General Service < 50 kW	3,414	3,429	kWh	92,174,996	93,612,036	93,292,204	93,612,036	26,999	27,303	27,326	27,303
General Service 50 to 4,999 kW	361	357	kW	622,066	628,830	629,606	628,830	1,723	1,762	1,744	1,762
Sentinel Lighting	362	355	kW	630	628	638	628	2	2	2	2
Street Lights	8,872	8,070	kW	14,262	7,076	14,435	7,076	2	1	2	1
Unmetered Scattered Load	21	22	kWh	903,251	1,135,342	914,198	1,135,342	43,012	51,786	43,533	51,786
Total	42,650	41,937									
	Variance			Variance		Variance		Variance		Variance	
Residential	84		kWh	4,642,067		1,142,310		129		10	
General Service < 50 kW	15		kWh	1,437,040		319,831		304		(23)	
General Service 50 to 4,999 kW	(4)		kW	6,764		(776)		39		18	
Sentinel Lighting	(7)		kW	(2)		(10)		0		0	
Street Lights	(802)		kW	(7,186)		(7,359)		(1)		(1)	
Unmetered Scattered Load	1		kWh	232,092		221,144		8,774		8,253	

9

10   There is no material differences in the customer connections or usage per customer between 2016

11   and 2017.

1 *2017 Bridge vs. 2018 Test*

2 **Table 3-37: Distribution Revenue - 2017 Bridge vs 2018 Test**

3

Distribution Throughput Revenue	2017 Bridge	2018 Test	Difference $	Difference %
Residential	9,020,207	11,487,469	2,467,262.26	27%
General Service <50 kW	2,660,109	3,247,287	587,178.29	22%
General Service 50 to 4,999 kW	4,011,695	4,670,305	658,609.86	16%
Sentinel Lighting	30,523	35,771	5,247.72	17%
Street Lighting	460,504	203,298	(257,205.64)	-56%
Unmetered Scattered Load	31,000	47,454	16,454.00	53%
Total	**16,214,037.51**	**19,691,584.00**	**3,477,546.49**	**21%**

4
5

6 The proposed Test Year distribution revenue is a reflection of the 2018 COS application and the

7 proposed base revenue requirement of $19,691,584. The variance in distribution revenue over the

8 Bridge Year is a result of the proposed increases to fixed and variable distribution revenue in the Test

9 Year.

10 **Table 3-38: Billing Determinants - 2017 Bridge vs 2018 Test**

Billing Quantiites	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0000	1.0000				
	2017 Bridge	2018 Test		2017 Bridge	2018 Test	2017 Bridge	2018 Test	2017 Bridge	2018 Test	2017 Bridge	2018 Test
Residential	29,704	29,789	kWh	293,388,553	296,393,596	293,388,553	296,393,596	9,877	9,950	9,877	9,950
General Service < 50 kW	3,429	3,443	kWh	93,612,036	94,320,130	93,612,036	94,320,130	27,303	27,393	27,303	27,393
General Service 50 to 4,999 kW	357	353	kW	628,830	624,500	628,830	624,500	1,762	1,770	1,762	1,770
Sentinel Lighting	355	348	kW	628	616	628	616	2	2	2	2
Street Lights	8,070	8,070	kW	7,076	7,076	7,076	7,076	1	1	1	1
Unmetered Scattered Load	22	23	kWh	1,135,342	1,176,822	1,135,342	1,176,822	51,786	51,416	51,786	51,416
Total	41,937	42,026									
	Variance			Variance		Variance		Variance		Variance	
Residential	85		kWh	3,005,043		3,005,043		73		73	
General Service < 50 kW	15		kWh	708,094		708,094		90		90	
General Service 50 to 4,999 kW	(4)		kW	(4,330)		(4,330)		8		8	
Sentinel Lighting	(7)		kW	(12)		(12)		0		0	
Street Lights	0		kW	0		0		0		0	
Unmetered Scattered Load	1		kWh	41,479		41,479		(370)		(370)	

11

12 There is no material differences in the customer connections or usage per customer between 2016 and

13 2017.

1

1 **2.3.3 Other Revenue**

2 *Variance Analysis of Other Revenue*

3 Other Distribution Revenues are revenues that are distribution related but are sourced from means

4 other than distribution rates. For this reason, other revenues are deducted from PUC Distribution's

5 proposed revenue requirement. Further details on the derivation of the Revenue Requirement are

6 presented at Exhibit 6.

7

8 Accounts used to record the revenues and associated costs are detailed in which corresponds to Board

9 Appendix 2-N Shared Services and Corporate Cost Allocation is attached as Appendix 3.

10

11 PUC Distribution does not have any discrete customer groups that may be materially impacted by

12 changes to other rates and charges.

13

14 Other Distribution revenues include such items as:

15

16 • Specific Service Charges

17

18 • Late Payment Charges

19

20 • Other Distribution Revenues

21

22 • Other Income and Expenses

1

2   **Table 3-39: OEB Appendix 2-H Other Operating Revenue**

3

4

5   A detailed breakdown by USoA account is shown below in Table 3-39 – OEB Appendix 2-H. Year over year variance analysis will
6   follow with a discussion on those variances over $110,400.

Appendix 2-H
Other Operating Revenue

USoA #	USoA Description	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	Bridge Year	Test Year
		2013	2014	2015	2016	2017	2018
	Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
4080-2	SSS Revenue	$ 119,697	$ 119,614	$ 121,349	$ 118,839	$ 105,000	$ 105,000
4082	Retail Services Revenue	$ 29,639	$ 28,305	$ 27,321	$ 23,850	$ 23,500	$ 23,500
4084	STR Revenues	$ 470	$ 408	$ 360	$ 275	$ 300	$ 300
4210	Rent from Electric Property	$ 2,662,462	$ 1,609,979	$ 1,628,387	$ 1,731,777	$ 1,694,261	$ 1,719,261
4225	Late Payment Charges	$ 245,293	$ 270,758	$ 246,557	$ 177,225	$ 245,000	$ 259,000
4235	Miscellaneous Service Revenues	$ 247,215	$ 238,812	$ 291,424	$ 316,019	$ 170,100	$ 170,100
4305	Regulatory Debits	$ 43,830	$ -	$ -	$ -	$ -	$ -
4325	Revenues from Merchandise	$ 213,339	$ 83,547	$ 80,941	$ 229,685	$ 80,000	$ 80,000
4330	Costs & Expenses of Merchandising	-$ 7,548	-$ 8,212	-$ 12,050	-$ 2,507	-$ 12,653	-$ 7,500
4360	Loss on Disposition of Utility and Other Property	-$ 110,632	$ -	$ -	$ -	$ -	$ -
4375	Revenues of Non-Utility Operations	$ 1,381,145	$ 1,779,725	$ 1,110,897	$ 766,822	$ 1,537,447	$ 1,537,447
4380	Expenses of Non-Utility Operations	-$ 1,381,145	-$ 1,958,374	-$ 858,672	-$ 762,273	-$ 1,537,447	-$ 1,537,447
4390	Miscellaneous Non-Operating Income	$ 46,721	$ 21,014	$ 35,229	$ 19,338	$ -	$ 20,000
4405	Interest and Dividend Income	$ 41,984	$ 7,555	$ 26,460	$ 33,313	$ 20,500	$ 20,000
Specific Service Charges		$ 247,215	$ 238,812	$ 291,424	$ 316,019	$ 170,100	$ 170,100
Late Payment Charges		$ 245,293	$ 270,758	$ 246,557	$ 177,225	$ 245,000	$ 259,000
Other Operating Revenues		$ 2,812,268	$ 1,758,306	$ 1,777,417	$ 1,874,741	$ 1,823,061	$ 1,848,061
Other Income or Deductions		$ 227,694	-$ 74,745	$ 382,805	$ 284,378	$ 87,847	$ 112,500
Total		$ 3,532,470	$ 2,193,131	$ 2,698,203	$ 2,652,363	$ 2,326,008	$ 2,389,661

7

1 **2013 Board Approved Comparison to 2013 Actual – Other Operating Revenue**

2 Table 3-40 below summarizes the variance by account description followed by a discussion on

3 those variances over $100,400.

Other Distribution Revenue	2013 Board Approved	2013 Actual	Difference $	Difference %
Specific Service Charges	232,090	247,215	15,125.00	7%
Late Payment Charges	250,000	245,293	(4,707.00)	-2%
Other Operating Revenues	1,848,340	2,812,268	963,928.00	52%
Other Income or Deductions	269,570	227,694	(41,876.00)	-16%
Total	**2,600,000.00**	**3,532,470.00**	**932,470.00**	**36%**

4

5

6 Other operating revenues for 2013 were 36% or $932,470 higher than the amounts approved in

7 the 2013 Board Approved COS. Virtually the entire variance ($961,175) relates to the treatment

8 of the new building usage fee. In the 2013 cost of service application the total building usage

9 fees were billed to PUC Services and an offsetting expense for PUC Distribution's usage of a

10 portion of the building was billed back to PUC Distribution and included in expenses. In the

11 2013 actual only the net amount of the expense was included with no offsetting revenue. The

12 treatment results in a variance in both revenue and expense with no net difference overall. The

13 treatment was changed in the 2014 actual and onward to reflect the treatment in the cost of

14 service rate application.

1   **2013 Actual Comparison to 2014 Actual – Other Operating Revenue**

2

3   Table 3-41 below summarizes the variance by account

Other Distribution Revenue	2013 Actual	2014 Actual	Difference $	Difference %
Specific Service Charges	247,215	238,812	(8,403.00)	-3%
Late Payment Charges	245,293	270,758	25,465.00	10%
Other Operating Revenues	2,812,268	1,758,306	(1,053,962.00)	-37%
Other Income or Deductions	227,694	(74,745)	(302,439.00)	-133%
Total	**3,532,470.00**	**2,193,131.00**	**(1,339,339.00)**	**-38%**

4

5

6   Other operating revenues for 2014 were 38% or $1,339,339 lower than the 2013 amount, again due

7   mainly to the treatment of the new building usage fees ($1,034,574).

8

9   Other Income or deductions for 2014 were 133% or $302,439 lower than 2013 primarily because of

10   an adjustment to reduce prior years CDM revenue by $178,649 and a reduction in jobbing revenue

11   ($129,792) which is dependent on customer demand.

12

13   **2014 Actual Comparison to 2015 Actual – Other Operating Revenue**

14

15   Table 3-42 below summarizes the variance by account

Other Distribution Revenue	2014 Actual	2015 Actual	Difference $	Difference %
Specific Service Charges	238,812	291,424	52,612.00	22%
Late Payment Charges	270,758	246,557	(24,201.00)	-9%
Other Operating Revenues	1,758,306	1,777,417	19,111.00	1%
Other Income or Deductions	(74,745)	382,805	457,550.00	-612%
Total	**2,193,131.00**	**2,698,203.00**	**505,072.00**	**23%**

16

17

18   Other Income or Deductions for 2015 were 612% or $457,550 higher than 2014 due to the CDM

19   adjustment in 2014 mentioned above and an additional CDM adjustment in 2015 which increased

20   revenue by $252,224. The CDM adjustments account for $430,873 of the difference.

21

22

1 **2015 Actual Comparison to 2016 Actual – Other Operating Revenue**

2

3 Table 3-43 below summarizes the variance by account

Other Distribution Revenue	2015 Actual	2016 Actual	Difference $	Difference %
Specific Service Charges	291,424	316,019	24,595.00	8%
Late Payment Charges	246,557	177,225	(69,332.00)	-28%
Other Operating Revenues	1,777,417	1,874,741	97,324.00	5%
Other Income or Deductions	382,805	284,378	(98,427.00)	-26%
Total	**2,698,203.00**	**2,652,363.00**	**(45,840.00)**	**-2%**

4

5

6 Other Distribution Revenue is within 2% of prior year and there are no variances greater than

7 materiality.

8

9 **2016 Actual Comparison to 2017 Bridge – Other Operating Revenue**

10 Table 3-44 below summarizes the variance by account

Other Distribution Revenue	2016 Actual	2017 Bridge	Difference $	Difference %
Specific Service Charges	316,019	170,100	(145,919.00)	-46%
Late Payment Charges	177,225	245,000	67,775.00	38%
Other Operating Revenues	1,874,741	1,823,061	(51,680.00)	-3%
Other Income or Deductions	284,378	87,847	(196,531.00)	-69%
Total	**2,652,363.00**	**2,326,008.00**	**(326,355.00)**	**-12%**

11

12

13 Specific Service Charges in 2017 are 46% ($145,919) less than 2016. Collection fees are projected

14 to be $120,000 under prior year as a result in a change to collection processes. By utilizing an

15 automated call system, PUC has substantially reduced the number of collection visits to customers'

16 premises, therefore is no longer charging a collection charge in these circumstances.

17

18 Other Income or Deductions for 2017 are being projected at a 69% or $196,531 lower than 2016.

19 Based on current year projections and the current economic outlook in PUC's service territory

20 jobbing revenue, which is dependent on customer demand, is expected to be $149,685 less than

21 prior year. Also based on current year projections, interest income will be $11,981 under prior

22 year.

1

2

3 **2017 Bridge Comparison to 2018 Test – Other Operating Revenue**

4

5 Table 3-45 below summarizes the variance by account

Other Distribution Revenue	2017 Bridge	2018 Test	Difference $	Difference %
Specific Service Charges	170,100	170,100	-	0%
Late Payment Charges	245,000	259,000	14,000.00	6%
Other Operating Revenues	1,823,061	1,848,061	25,000.00	1%
Other Income or Deductions	87,847	112,500	24,653.00	28%
Total	**2,326,008.00**	**2,389,661.00**	**63,653.00**	**3%**

6

7

8 Other Distribution Revenue is within 3% of prior year and there are no variances greater than

9 materiality.

10 *Affiliate Transactions*

PUC Distribution owns an integrated office/service centre building for which it receives a usage fee for a portion of building used by its affiliate PUC Services Inc. The fee, which is included in Other Operating Revenues (Account 4327), is based on a cost of capital charge and a depreciation charge and is prorated based on the portion of the building utilized by PUC Services. The method to determine fees is the same as that used by PUC Services in determining fees to PUC Distribution. A copy of the Management, Operations and Maintenance Agreement is included in Exhibit 4.

APPENDIX 1

Monthly Data Used For Regression Analysis

	Purchased kWh	Heating Degree Days	Cooling Degree Days	Spring Fall Flag	Number of Days in Month	CDM Activity	Number of Customers	Predicted Purchases
Jan-03	85,049,952	920.6	-	-	31.00	0	32,198	84,514,925
Feb-03	76,788,076	902.6	-	-	28.00	0	32,198	78,350,700
Mar-03	75,545,096	745.5	-	1.00	31.00	0	32,199	74,651,671
Apr-03	63,274,204	497.2	-	1.00	30.00	0	32,198	62,948,136
May-03	52,784,032	236.5	-	1.00	31.00	0	32,136	54,222,866
Jun-03	49,325,848	112.8	11.9	-	30.00	0	32,119	51,335,664
Jul-03	51,148,508	28.0	27.9	-	31.00	0	32,132	51,157,983
Aug-03	50,113,412	32.2	48.6	-	31.00	0	32,143	53,098,429
Sep-03	49,728,476	123.1	14.2	1.00	30.00	0	32,159	49,149,356
Oct-03	58,883,124	348.5	-	1.00	31.00	0	32,189	58,820,555
Nov-03	66,040,876	494.7	-	1.00	30.00	0	32,230	62,932,455
Dec-03	76,444,416	657.8	-	-	31.00	0	32,256	74,204,602
Jan-04	89,226,740	1,006.0	-	-	31.00	0	32,257	88,069,366
Feb-04	73,066,340	707.0	-	-	29.00	0	32,250	72,515,822
Mar-04	71,196,888	652.7	-	1.00	31.00	0	32,199	70,957,222
Apr-04	61,357,220	457.4	-	1.00	30.00	0	32,154	61,248,374
May-04	55,571,152	297.9	0.2	1.00	31.00	0	32,212	56,883,244
Jun-04	49,366,380	151.4	2.2	-	30.00	0	32,194	52,251,447
Jul-04	51,210,208	54.7	15.4	-	31.00	0	32,195	51,332,615
Aug-04	50,192,756	83.0	13.5	-	31.00	0	32,205	52,325,349
Sep-04	50,272,804	84.1	24.3	1.00	30.00	0	32,206	48,571,023
Oct-04	57,641,764	307.3	-	1.00	31.00	0	32,231	57,290,396
Nov-04	64,887,008	462.7	-	1.00	30.00	0	32,250	61,710,912
Dec-04	83,696,492	796.9	-	-	31.00	0	32,296	79,847,102
Jan-05	88,287,600	925.1	-	-	31.00	0	32,294	84,945,615
Feb-05	71,065,788	693.6	-	-	28.00	0	32,296	70,287,010
Mar-05	73,186,104	744.9	-	1.00	31.00	0	32,283	74,847,882
Apr-05	56,446,820	369.1	-	1.00	30.00	0	32,297	58,107,765
May-05	53,664,344	259.0	-	1.00	31.00	0	32,300	55,548,326
Jun-05	51,111,168	31.7	41.8	-	30.00	0	32,310	51,127,177
Jul-05	53,387,012	34.9	78.8	-	31.00	0	32,356	56,309,018
Aug-05	52,102,684	23.7	40.6	-	31.00	0	32,376	52,696,375
Sep-05	49,504,120	82.6	22.3	1.00	30.00	0	32,360	48,746,276
Oct-05	55,381,484	273.6	9.6	1.00	31.00	0	32,400	57,200,590
Nov-05	65,851,664	497.6	-	1.00	30.00	0	32,410	63,519,545
Dec-05	79,230,244	738.6	-	-	31.00	0	32,415	77,837,934
Jan-06	76,234,176	689.8	-	-	31.00	20,148	32,395	75,768,624
Feb-06	71,202,696	734.6	-	-	28.00	40,295	32,399	72,040,868
Mar-06	70,367,240	635.4	-	1.00	31.00	60,443	32,453	70,711,624
Apr-06	56,652,640	360.0	-	1.00	30.00	80,591	32,445	57,836,738
May-06	52,446,572	185.1	8.4	1.00	31.00	100,739	32,425	53,271,035
Jun-06	49,917,449	81.2	12.9	-	30.00	120,886	32,422	50,511,028
Jul-06	53,606,640	8.4	78.2	-	31.00	141,034	32,399	54,797,193
Aug-06	51,038,392	35.0	20.1	-	31.00	161,182	32,410	50,914,684
Sep-06	49,455,772	151.9	5.2	1.00	30.00	181,329	32,415	49,541,028
Oct-06	58,920,568	375.3	-	1.00	31.00	201,477	32,423	59,759,268
Nov-06	63,979,576	467.9	-	1.00	30.00	221,625	32,436	61,589,806
Dec-06	74,271,612	624.3	-	-	31.00	241,773	32,453	72,497,503

	Purchased kWh	Heating Degree Days	Cooling Degree Days	Spring Fall Flag	Number of Days in Month	CDM Activity	Number of Customers	Predicted Purchases
Jan-07	78,292,016	776.9	-	-	31.00	262,929	32,399	78,353,302
Feb-07	75,583,244	843.5	-	-	28.00	284,086	32,404	75,492,330
Mar-07	71,668,468	654.6	-	1.00	31.00	305,243	32,410	70,462,567
Apr-07	60,506,916	459.1	-	1.00	30.00	326,400	32,393	60,741,275
May-07	51,273,936	204.6	12.5	1.00	31.00	347,557	32,375	53,353,667
Jun-07	50,644,216	67.8	35.9	-	30.00	368,714	32,366	50,857,176
Jul-07	51,622,068	38.0	41.7	-	31.00	389,870	32,389	51,957,880
Aug-07	51,764,316	33.8	42.5	-	31.00	411,027	32,395	51,795,965
Sep-07	48,836,864	127.6	17.0	1.00	30.00	432,184	32,450	48,736,699
Oct-07	54,192,940	233.5	0.8	1.00	31.00	453,341	32,485	53,417,210
Nov-07	65,729,492	541.0	-	1.00	30.00	474,498	32,507	63,755,554
Dec-07	77,979,100	711.6	-	-	31.00	495,655	32,536	75,256,295
Jan-08	79,006,867	761.9	-	-	31.00	504,347	32,538	77,232,039
Feb-08	75,126,905	831.3	-	-	29.00	513,039	32,549	76,359,999
Mar-08	74,573,962	795.5	-	1.00	31.00	521,731	32,544	75,626,446
Apr-08	58,751,936	391.8	-	1.00	30.00	530,423	32,526	57,659,775
May-08	53,931,566	320.0	-	1.00	31.00	539,116	32,565	56,687,436
Jun-08	48,466,638	99.8	7.8	-	30.00	547,808	32,555	49,599,330
Jul-08	50,725,082	34.8	18.7	-	31.00	556,500	32,552	49,706,214
Aug-08	50,225,177	29.0	24.0	-	31.00	565,192	32,581	49,965,952
Sep-08	48,690,797	140.1	9.8	1.00	30.00	573,885	32,677	48,700,973
Oct-08	56,073,867	334.5	1.3	1.00	31.00	582,577	32,716	57,609,980
Nov-08	63,785,625	496.8	-	1.00	30.00	591,269	32,770	62,255,362
Dec-08	81,608,064	814.7	-	-	31.00	599,961	32,782	79,621,565
Jan-09	85,774,977	970.4	-	-	31.00	613,782	32,783	85,771,883
Feb-09	71,566,146	747.8	-	-	28.00	627,603	32,787	71,421,982
Mar-09	72,767,317	680.7	-	1.00	31.00	641,423	32,784	71,244,595
Apr-09	59,966,273	425.5	-	1.00	30.00	655,244	32,749	59,126,425
May-09	52,676,063	298.9	-	1.00	31.00	669,064	32,756	55,869,733
Jun-09	49,196,438	126.1	19.2	-	30.00	682,885	32,739	51,592,144
Jul-09	48,238,905	87.7	8.0	-	31.00	696,706	32,752	50,918,653
Aug-09	49,652,791	69.3	25.2	-	31.00	710,526	32,766	51,621,430
Sep-09	48,812,970	93.1	5.0	1.00	30.00	724,347	32,815	46,233,315
Oct-09	57,724,020	381.1	-	1.00	31.00	738,167	32,815	59,042,510
Nov-09	59,532,749	416.7	-	1.00	30.00	751,988	32,883	58,771,221
Dec-09	76,961,335	748.5	-	-	31.00	765,809	32,923	76,745,290
Jan-10	79,854,695	810.7	-	-	31.00	738,136	32,936	79,357,411
Feb-10	68,437,902	691.1	-	-	28.00	710,464	32,950	69,286,907
Mar-10	63,113,132	510.8	-	1.00	31.00	682,792	32,936	64,726,784
Apr-10	53,091,250	327.8	0.2	1.00	30.00	655,119	32,921	55,704,892
May-10	51,133,107	168.0	19.0	1.00	31.00	627,447	32,906	52,805,812
Jun-10	47,900,766	87.8	5.3	-	30.00	599,775	32,935	49,715,387
Jul-10	53,067,071	6.7	58.5	-	31.00	572,102	32,948	52,921,724
Aug-10	53,169,361	32.7	78.6	-	31.00	544,430	32,962	55,789,165
Sep-10	48,479,950	171.8	-	1.00	30.00	516,758	32,989	50,164,827
Oct-10	54,414,298	315.5	-	1.00	31.00	489,085	33,019	57,881,953
Nov-10	63,109,939	476.0	-	1.00	30.00	461,413	33,077	62,709,515
Dec-10	78,427,591	770.2	-	-	31.00	433,741	33,118	79,341,991

	Purchased kWh	Heating Degree Days	Cooling Degree Days	Spring Fall Flag	Number of Days in Month	CDM Activity	Number of Customers	Predicted Purchases
Jan-11	83,643,833	935.0	-	-	31.00	481,552	33,040	85,522,521
Feb-11	72,687,185	732.3	-	-	28.00	529,363	33,045	71,842,406
Mar-11	72,688,244	699.2	-	1.00	31.00	577,174	33,047	72,906,620
Apr-11	60,902,854	444.6	-	1.00	30.00	624,985	33,047	60,778,973
May-11	52,597,908	221.9	3.2	1.00	31.00	672,796	33,046	53,820,094
Jun-11	48,777,799	99.4	2.7	-	30.00	720,608	33,056	49,830,521
Jul-11	54,638,457	14.0	73.6	-	31.00	768,419	33,071	54,084,768
Aug-11	54,146,196	24.2	35.4	-	31.00	816,230	33,098	51,166,495
Sep-11	52,585,712	129.6	11.0	1.00	30.00	864,041	33,126	48,492,912
Oct-11	56,921,149	269.5	1.5	1.00	31.00	911,852	33,143	54,946,370
Nov-11	61,640,573	428.9	-	1.00	30.00	959,663	33,199	59,320,746
Dec-11	73,819,284	650.4	-	-	31.00	1,007,475	33,248	72,802,189
Jan-12	73,790,226	756.8	-	-	31.00	1,011,767	33,203	76,904,361
Feb-12	68,046,427	622.6	-	-	29.00	1,016,060	33,203	67,914,195
Mar-12	64,860,708	479.7	-	1.00	31.00	1,020,352	33,203	62,946,188
Apr-12	55,490,558	437.5	-	1.00	30.00	1,024,645	33,210	59,452,840
May-12	50,211,578	94.4	8.4	1.00	31.00	1,028,937	33,210	48,301,694
Jun-12	50,441,593	38.5	23.5	-	30.00	1,033,230	33,210	48,412,085
Jul-12	52,218,431	9.5	59.6	-	31.00	1,037,522	33,212	52,105,089
Aug-12	51,797,361	34.3	37.7	-	31.00	1,041,815	33,212	51,231,061
Sep-12	49,181,637	181.9	5.3	1.00	30.00	1,046,107	33,212	49,650,089
Oct-12	55,200,719	299.6	-	1.00	31.00	1,050,400	33,055	55,277,899
Nov-12	63,048,824	426.4	-	1.00	30.00	1,054,692	33,055	58,494,246
Dec-12	72,665,451	445.9	-	-	31.00	1,058,984	33,055	63,965,632
Jan-13	77,430,385	598.5	-	-	31.00	1,077,123	33,306	70,631,703
Feb-13	69,794,850	618.9	-	-	28.00	1,095,261	33,306	65,929,474
Mar-13	69,264,159	651.4	-	1.00	31.00	1,113,399	33,306	69,709,224
Apr-13	62,490,524	367.2	-	1.00	30.00	1,131,537	33,294	56,480,916
May-13	51,260,742	193.0	3.0	1.00	31.00	1,149,676	33,294	51,547,813
Jun-13	48,246,051	106.2	12.4	-	30.00	1,167,814	33,294	49,896,756
Jul-13	52,370,705	45.0	48.8	-	31.00	1,185,952	33,515	52,856,011
Aug-13	51,254,455	57.3	27.1	-	31.00	1,204,090	33,515	51,450,256
Sep-13	48,184,318	165.6	5.8	1.00	30.00	1,222,228	33,515	49,189,183
Oct-13	54,286,247	245.2	-	1.00	31.00	1,240,367	33,393	53,298,824
Nov-13	64,675,563	543.7	-	1.00	30.00	1,258,505	33,393	63,299,750
Dec-13	81,310,312	874.5	-	-	31.00	1,276,643	33,393	81,113,313
Jan-14	84,076,331	980.3	-	-	31.00	1,325,152	33,166	84,552,021
Feb-14	73,283,050	912.0	-	-	28.00	1,373,662	33,166	76,206,816
Mar-14	75,936,435	895.0	-	1.00	31.00	1,422,172	33,166	77,904,175
Apr-14	60,945,928	511.1	-	1.00	30.00	1,470,681	33,415	61,278,846
May-14	53,127,584	267.9	0.8	1.00	31.00	1,519,191	33,415	53,301,643
Jun-14	47,524,355	96.9	12.0	-	30.00	1,567,700	33,415	48,338,447
Jul-14	48,026,904	88.1	6.4	-	31.00	1,616,210	33,400	49,114,271
Aug-14	48,878,137	63.4	13.5	-	31.00	1,664,719	33,400	48,550,776
Sep-14	47,959,876	158.2	1.4	1.00	30.00	1,713,229	33,400	46,415,800
Oct-14	54,613,898	341.0	-	1.00	31.00	1,761,738	33,513	55,508,713
Nov-14	64,852,403	616.1	-	1.00	30.00	1,810,248	33,513	64,466,312
Dec-14	71,265,383	691.4	-	-	31.00	1,858,757	33,513	71,996,446

	Purchased kWh	Heating Degree Days	Cooling Degree Days	Spring Fall Flag	Number of Days in Month	CDM Activity	Number of Customers	Predicted Purchases
Jan-15	79,807,046	923.4	-	-	31.00	1,849,138	33,539	81,336,085
Feb-15	75,728,990	1,015.2	-	-	28.00	1,839,519	33,539	79,578,487
Mar-15	70,753,091	786.6	-	1.00	31.00	1,829,900	33,539	73,065,753
Apr-15	57,109,492	474.4	-	1.00	30.00	1,820,281	33,261	58,127,899
May-15	49,113,111	242.9	1.1	1.00	31.00	1,810,663	33,261	50,855,652
Jun-15	46,018,522	141.8	0.4	-	30.00	1,801,044	33,261	47,886,293
Jul-15	50,056,826	52.6	29.2	-	31.00	1,791,425	33,371	48,901,672
Aug-15	49,818,190	37.5	35.6	-	31.00	1,781,806	33,371	48,875,258
Sep-15	48,683,583	75.5	31.4	1.00	30.00	1,772,187	33,371	45,358,655
Oct-15	52,100,033	331.2	-	1.00	31.00	1,762,568	33,411	54,848,251
Nov-15	55,680,534	413.0	-	1.00	30.00	1,752,949	33,411	56,324,297
Dec-15	63,647,960	541.2	-	-	31.00	1,743,330	33,411	66,174,312
Jan-16	71,224,983	794.2	-	-	31.00	1,827,421	33,412	75,939,663
Feb-16	65,961,523	731.2	-	-	28.00	1,911,513	33,412	67,674,530
Mar-16	61,438,716	588.8	-	1.00	31.00	1,995,604	33,412	64,248,681
Apr-16	55,510,528	499.7	-	1.00	30.00	2,079,695	33,360	58,439,986
May-16	47,972,678	241.2	3.5	1.00	31.00	2,163,786	33,360	49,950,285
Jun-16	46,020,697	116.8	8.6	-	30.00	2,247,878	33,360	46,197,294
Jul-16	50,843,952	27.2	44.2	-	31.00	2,331,969	33,412	47,273,010
Aug-16	52,655,660	17.1	51.7	-	31.00	2,416,060	33,412	47,193,536
Sep-16	47,273,740	65.1	12.8	1.00	30.00	2,500,152	33,412	40,806,014
Oct-16	50,073,798	277.4	-	1.00	31.00	2,584,243	33,513	49,950,287
Nov-16	53,720,228	485.6	-	1.00	30.00	2,668,334	33,513	56,114,410
Dec-16	67,261,960	640.7	-	-	31.00	2,752,425	33,513	66,688,933
Jan-17		830.8	-	-	31.00	2,702,650	33,508	73,989,996
Feb-17		774.6	-	-	29.00	2,652,875	33,508	68,303,227
Mar-17		674.2	-	1.00	31.00	2,603,100	33,508	65,227,719
Apr-17		433.9	0.0	1.00	30.00	2,553,325	33,456	53,891,097
May-17		225.3	5.2	1.00	31.00	2,503,550	33,456	48,018,287
Jun-17		98.1	12.8	-	30.00	2,453,775	33,456	44,860,796
Jul-17		40.4	38.9	-	31.00	2,404,000	33,508	46,896,026
Aug-17		39.9	37.1	-	31.00	2,354,225	33,508	46,912,639
Sep-17		130.9	10.0	1.00	30.00	2,304,450	33,508	43,716,815
Oct-17		302.9	0.4	1.00	31.00	2,254,675	33,609	52,020,549
Nov-17		484.4	-	1.00	30.00	2,204,900	33,609	57,586,023
Dec-17		688.9	-	-	31.00	2,155,125	33,609	70,620,807
Jan-18		830.8	-	-	31.00	2,180,816	33,604	76,162,141
Feb-18		774.6	-	-	28.00	2,206,508	33,604	68,381,812
Mar-18		674.2	-	1.00	31.00	2,232,199	33,604	66,844,497
Apr-18		433.9	0.0	1.00	30.00	2,257,890	33,552	55,229,800
May-18		225.3	5.2	1.00	31.00	2,283,582	33,552	49,079,307
Jun-18		98.1	12.8	-	30.00	2,309,273	33,552	45,644,132
Jul-18		40.4	38.9	-	31.00	2,334,965	33,604	47,402,072
Aug-18		39.9	37.1	-	31.00	2,360,656	33,604	47,141,001
Sep-18		130.9	10.0	1.00	30.00	2,386,347	33,604	43,667,494
Oct-18		302.9	0.4	1.00	31.00	2,412,039	33,706	51,694,306
Nov-18		484.4	-	1.00	30.00	2,437,730	33,706	56,982,097
Dec-18		688.9	-	-	31.00	2,463,422	33,706	69,739,198

APPENDIX 2

CDM Load Forecast Adjustment Workform 2-I

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

2018 is the fourth year of the six-year (2015-2020) Conservation First program. Final results for the 2011-14 program were issued in the fall of 2015, and the program is completed, although in some

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

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

For the first year of the new 2015-2020 CDM plan, it is assumed that each year's program will achieve an equal amount of new CDM savings. This results in each year's program being about 1/6

6 Year (2015-2020) kWh Target:							
26,410,000							
	2015	2016	2017	2018	2019	2020	Total
%							
2015 CDM Programs						19.68%	19.68%
2016 CDM Programs						33.29%	33.29%
2017 CDM Programs						12.75%	12.75%
2018 CDM Programs						14.82%	14.82%
2019 CDM Programs						9.73%	9.73%
2020 CDM Programs						9.73%	9.73%
Total in Year						**100.00%**	**100.00%**
kWh							
2015 CDM Programs	5,400,747.00	5,259,083.00	5,227,909.00	5,222,016.00	5,211,179.00	5,197,342.00	5,197,342.00
2016 CDM Programs		8,818,120.00	8,793,170.00	8,793,170.00	8,793,170.00	8,793,170.00	8,793,170.00
2017 CDM Programs			3,375,904.00	3,366,352.21	3,366,352.21	3,366,352.21	3,366,352.21
2018 CDM Programs				3,913,998.00	3,913,998.00	3,913,998.00	3,913,998.00
2019 CDM Programs					2,569,568.89	2,569,568.89	2,569,568.89
2020 CDM Programs						2,569,568.89	2,569,568.89
Total in Year	**5,400,747.00**	**14,077,203.00**	**17,396,983.00**	**21,295,536.21**	**23,854,268.11**	**26,410,000.00**	**26,410,000.00**

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

Determination of 2018 Load Forecast Adjustment

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

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

Net-to-Gross Conversion				
Is CDM adjustment being done on a "net" or "gross" basis?				net
Persistence of Historical CDM programs to 2015	"Gross" kWh	"Net" kWh	Difference kWh	"Net-to-Gross" Conversion Factor ('g')
2006-2010 CDM programs				0
2011 CDM program				0
2012 CDM program				0
2013 CDM program				0
2014 CDM program				0
2015 CDM program				0
2016 CDM program				0
2006 to 2016 OPA CDM programs: Persistence to 2018.	-	-	-	0.00%

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

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

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

2015-2020 LRAMVA and 2018 CDM adjustment to Load Forecast

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

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

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

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

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

	2015	2016	2017	2018	2019	2020	Total for 2018
Amount used for CDM threshold for LRAMVA (2018)			3,366,352	3,913,998			**7,280,350**
Manual Adjustment for 2018 Load Forecast (billed basis)	-	-	3,366,352	1,956,999			5,323,351
Manual Adjustment for 2018 LDC-only CDM programs (billed basis)							
Total Manual Forecast to Load Forecast	-	-	3,366,352	1,956,999			**5,323,351**
Proposed Loss Factor (TLF)	1.0489%	Format: X.XX%					
Manual Adjustment for 2018 Load Forecast (system purchased basis)	-	-	3,401,662	1,977,526			**5,379,188**

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

APPENDIX 3

Board Appendix 2-N Shared Services and Corporate Cost Allocation

Appendix 2-N
Shared Services and Corporate Cost Allocation [1]

Year: 2013 Approved

Shared Services

Name of Company		Service Offered	Pricing Methodology	Price for the Service $	Cost for the Service $
From	To				
PUC Distribution	PUC Services	Building rental		$ -	$ -

Year: 2013 Actual

Shared Services

Name of Company		Service Offered	Pricing Methodology	Price for the Service $	Cost for the Service $
From	To				
PUC Distribution	PUC Services	Building rental - 2013 - Account 4327	Cost - no markup	$2,281,174.80	$2,281,174.80

Year: 2014 Actual

Shared Services

Name of Company		Service Offered	Pricing Methodology	Price for the Service $	Cost for the Service $
From	To				
PUC Distribution	PUC Services	Building rental - 2014 - Account 4327	Cost - no markup	$1,246,600.41	$1,246,600.41

Year: 2015 Actual

Shared Services

Name of Company		Service Offered	Pricing Methodology	Price for the Service $	Cost for the Service $
From	To				
PUC Distribution	PUC Services	Building rental - 2015 - Account 4327	Cost - no markup	$1,240,120.24	$1,240,120.24

Year: 2016 Actual

Shared Services

Name of Company		Service Offered	Pricing Methodology	Price for the Service $	Cost for the Service $
From	To				
PUC Distribution	PUC Services	Building rental - 2016 - Account 4327	Cost - no markup	$1,293,858.00	$1,293,858.00

Year: 2017 Bridge Year

Shared Services

Name of Company		Service Offered	Pricing Methodology	Price for the Service $	Cost for the Service $
From	To				
PUC Distribution	PUC Services	Building rental - 2017 - Account 4327	Cost - no markup	$1,332,390.95	$1,332,390.95

Year: 2018 Test Year

Shared Services

Name of Company		Service Offered	Pricing Methodology	Price for the Service $	Cost for the Service $
From	To				
PUC Distribution	PUC Services	Building rental - 2018 - Account 4327	Cost - no markup	$1,334,160.93	$1,334,160.93