EXHIBIT 3 – OPERATING REVENUE

EB-2016-0089

Table of Contents

1 **Load and Revenue Forecast**

2

3 Ex.3/Tab 1/Sch.1 - Introduction

4

5 The evidence presented in this exhibit provides information supporting the revenues derived from activities
6 regulated by the Ontario Energy Board ("The Board"). Actual operating revenues from regulated operations
7 are derived mainly from fixed and variable tariff charges and specific service charges. Revenues are
8 collected from seven (7) customer classes:

9   1. Residential
10   2. General Service Less than 50 kW ("GS<50 kW")
11   3. General Service 50 to 2999 kW ("GS 50-2999 kW")
12   4. General Service 3000 to 4999 kW ("GS 3000-4999 kW")
13   5. Street Lighting
14   6. Sentinel Lighting
15   7. Unmetered Scattered Load ("USL")

16 Lakefront Utilities Inc. ("LUI") does not anticipate any changes in its customer classes.

17 This exhibit also describes LUI's load and customer forecasts. The load forecast methodology and
18 assumptions are described in detail within this exhibit.

19 The evidence herein is organized according to the following topics:

20   1. Revenue and Load Forecast
21   2. Accuracy of Load Forecast and Variance Analysis, and
22   3. Other Revenues

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1   Ex.3/Tab 1/Sch.2 – Overview of Revenue Forecast

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3   Table 3.0 illustrates LUI's operating revenue for 2012 Board Approved, 2012 Actual, 2013 Actual, 2014

4   Actual, 2015 Actual, 2016 Forecast, and the 2017 Test Year. This Exhibit provides a detailed variance

5   analysis by rate class of the operating revenue components. Distribution revenue excludes revenue from

6   commodity sales. This exhibit also provides supporting evidence for the load forecast.

7   LUI is proposing a total Service Revenue Requirement of $4,862,512 for the 2017 Test Year. This amount

8   includes a Base Revenue Requirement of $4,414,540 plus revenue offsets of $447,972 to be recovered

9   through Other Distribution Revenue.

10   A summary of all operating revenue is presented and provides a comparison of total revenues from the

11   2012 OEB approved year to the 2017 Test Year.

12   **Table 3.0: Distribution Revenue**

Distribution Revenue	2012 Board Approved	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Bridge Year	2017 Test Year
Residential	2,070,307	2,070,965	2,092,190	2,116,987	2,143,042	2,142,486	2,373,288
GS<50 kW	587,442	548,964	568,430	548,611	564,313	606,113	602,311
GS 50-2999 kW	1,031,352	1,160,118	1,099,237	1,053,289	1,022,332	1,135,202	1,028,108
GS 3000-4999 kW	95,472	78,590	95,828	109,230	118,619	185,088	132,204
Street Lighting	211,707	218,666	205,030	212,972	207,652	219,280	234,663
Sentinel Lights	5,545	4,176	4,159	4,125	4,243	5,759	4,878
Unmetered Scattered Load	37,681	32,768	35,499	35,245	35,661	38,984	39,087
Total Distribution Revenue	**4,039,506**	**4,114,248**	**4,100,373**	**4,080,459**	**4,095,862**	**4,332,911**	**4,414,540**

Other Disbtibution Revenue	2012 Board Approved	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Bridge Year	2017 Test Year
Specific Service Charges	126,500	150,289	280,944	233,900	141,958	143,627	146,170
Late Payment Charges	63,140	49,483	63,493	51,364	68,477	69,921	73,000
Other Operating Revenues	122,000	165,713	150,696	176,365	183,854	188,981	194,667
Other Income or Deductions	28,500	(4,219)	20,177	(4,267)	35,779	33,798	34,136
Total Other Disbtibution Revenue	**340,140**	**361,266**	**515,310**	**457,363**	**430,068**	**436,326**	**447,972**
Total Operating Revenue	**4,379,646**	**4,475,515**	**4,615,683**	**4,537,822**	**4,525,930**	**4,769,237**	**4,862,512**

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1   Ex.3/Tab 1/Sch.3 – Proposed Load Forecast

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3   The following section of the application covers the approach taken to determine the Load Forecast. This
4   section also covers economic assumptions and data sources for customer and load forecasts. It explains
5   wholesale purchases and subsequent adjustments to the wholesale purchases. It also provides the
6   rationale behind each variable used in the regression analysis. Lastly, it presents the regression results and
7   explains how they were used to determine the forecast for the bridge and test year.

8   Table 3.1 below presents the 2006-2015 actual and 2016-2017 weather normalized forecast trends for
9   customer/connection counts, kWh consumption and billed kW demand.

10   **Table 3.1: Customer and Volume Trend Table**

Customer Usage												
Year		General Service <50 kW	General Service 50 - 2999 kW		General Service 3000 - 4999 kW		Street Lighting		Sentinel Lights		Unmetered Scattered Load	Total
	Residential											
	kWh	kWh	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kWh	kW
2006	71,590,903	32,947,636	120,975,702	297,477	23,443,190	48,479	1,923,290	5,222	76,064	211	595,251	251,552,035	351,389
2007	72,101,506	34,123,003	122,417,181	300,809	20,583,615	46,227	1,931,928	5,240	76,442	212	605,328	251,839,003	352,488
2008	73,848,511	35,250,366	121,003,376	298,912	18,805,505	40,464	1,867,800	5,091	81,054	225	720,400	251,577,011	344,692
2009	74,657,177	35,803,467	114,875,960	290,143	19,554,367	49,629	1,350,901	3,654	78,800	222	747,874	247,068,546	343,648
2010	73,436,594	34,496,064	120,290,733	299,041	19,036,344	45,256	1,194,282	3,302	54,122	219	716,623	249,224,762	347,817
2011	73,193,401	38,814,987	120,834,914	300,129	15,051,682	42,336	1,222,967	3,321	43,758	132	659,574	249,821,283	345,918
2012	70,966,505	33,200,382	128,532,327	322,335	15,193,348	39,663	1,222,128	3,340	41,938	132	627,467	249,784,096	365,470
2013	74,334,017	33,337,507	125,354,819	323,427	13,952,451	37,943	1,249,953	3,386	44,355	132	668,402	248,941,504	364,888
2014	75,761,820	32,425,865	119,336,146	314,352	12,584,229	36,604	1,258,253	3,409	42,943	132	555,548	241,964,804	354,496
2015	79,671,289	32,930,701	115,685,946	306,814	14,943,860	33,868	1,439,933	3,416	43,818	132	602,228	245,317,776	344,230
2016	80,450,046	33,252,587	116,816,733	295,035	15,089,931	37,270	1,454,008	3,906	44,246	135	608,115	247,715,665	336,345
2017	79,373,076	32,807,440	115,252,929	291,085	14,887,925	36,771	1,434,543	3,853	43,654	133	599,974	244,399,541	331,842

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Customer Counts/Customer Connections								
Year	Residential	General Service <50 kW	General Service 50 - 2999 kW	General Service 3000 - 4999 kW	Street Lighting	Sentinel Lights	Unmetered Scattered Load	Total
2006	7,704	1,037	146	1	2,671	55	69	11,682
2007	7,842	1,043	148	1	2,743	55	81	11,912
2008	7,956	1,048	133	1	2,793	58	90	12,079
2009	8,188	1,063	130	1	2,816	60	96	12,351
2010	8,297	1,069	131	1	2,752	55	95	12,399
2011	8,425	1,073	132	1	2,759	53	96	12,538
2012	8,525	1,067	137	1	2,802	54	95	12,681
2013	8,627	1,058	142	1	2,862	54	94	12,837
2014	8,761	1,069	138	1	2,634	54	93	12,749
2015	8,885	1,078	134	1	2,694	54	90	12,936
2016	9,027	1,082	133	1	2,697	54	93	13,086
2017	9,171	1,087	132	1	2,699	54	96	13,239

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1 Ex.3/Tab 1/Sch.4 – Overview of Load Forecast Methodology

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3 The purpose of weather normalization is to predict future customer consumption based on normal weather
4 conditions. To achieve this goal, the relationship between weather change and customer consumption must
5 be defined. LUI reviewed various processes used by earlier Cost of Service applications and is proposing
6 to adopt a weather normalization methodology using Multifactor Regression (MR) for its load forecast. LUI
7 is proposing to adopt a weather normalization forecasting method similar to its 2012 Cost of Service (EB-
8 2011-0250).

9 In summary, LUI used the regression analysis methodology to determine a prediction model. With regards
10 to the overall process of load forecasting, it is LUI's view that conducting a regression analysis on historical
11 purchases to produce an equation that will predict energy purchases is appropirate. LUI knows by month
12 the specific number of kWh's purchased from the IESO for use by customers of LUI. With a regression
13 analysis these purchases can be related to the monthly explanatory variables such as heating degree days
14 and cooling degree days which occur in the same month. The result of the regression analysis produces an
15 equation that predicts the purchases based on the explanatory variables. This prediction model is then
16 used as the basis to forecast the total level of weather normailzed purchases for LUI for the bridge and test
17 year, which is converted to billed kWh by rate class. A detail explanation of the process is provided later in
18 this exhibit.

19 The following tables provide the material to support the weather normalized load forecast used by LUI in
20 this application. Tables 3.2, 3.3, and 3.4 below provide a summary of the weather normalized load and
21 customer/connection forecast used in this section for the 2016 and 2017 forecast periods. LUI has provided
22 2006 to 2015 actual data, unless otherwise noted. The years 2006 to 2015 are weather actual while 2016
23 and 2017 is weather normalized and adjusted by projected CDM savings.

24 LUI currently does not have a process to adjust weather actual data to a weather normalized basis since it
25 is LUI's understanding that there is not a Board approved method to weather normalize actual data.
26 However, based on the process outlined in this Exhibit, a process to forecast energy on a weather
27 normalized basis has been developed and used in this application.

28 Total customers and connections are annual averages calculated by adding the beginning counts as of
29 January 1st and the ending counts as of December 31st and dividing in half.

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1   **Table 3.2: Summary of Load and Customer/Connection Forecast**

Year	kWh	Growth (kWh)	Percentage Change %	Customer/ Connection Count	Growth	Percentage Change %
2006	251,552,035	-	-	11,682	-	
2007	251,839,003	286,968	0.11%	11,912	231	1.97%
2008	251,577,011	(261,992)	-0.10%	12,079	167	1.40%
2009	247,068,546	(4,508,465)	-1.79%	12,351	273	2.26%
2010	249,224,762	2,156,217	0.87%	12,399	48	0.39%
2011	249,821,283	596,521	0.24%	12,538	139	1.12%
2012	249,784,096	(37,187)	-0.01%	12,681	143	1.14%
2013	248,941,504	(842,591)	-0.34%	12,837	157	1.23%
2014	241,964,804	(6,976,700)	-2.80%	12,749	(88)	-0.69%
2015	245,317,776	3,352,971	1.39%	12,936	187	1.46%
2016	247,715,665	2,397,889	0.98%	13,086	151	1.16%
2017	244,399,541	(3,316,124)	-1.34%	13,239	153	1.17%

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3   On a rate class basis, actual and forecasted billed amount and number of customers are shown in table
4   3.3.

5   **Table 3.3: Billed Energy and Number of Customers by Rate Class**

Year	Residential kWh	GS< 50 kW kWh	GS 50-2999 kW kWh	GS 3000-4999 kW kWh	Street Lighting kWh	Sentinel Lights kWh	Unmetered Scattered Load kWh	Total kWh
2006	71,590,903	32,947,636	120,975,702	23,443,190	1,923,290	76,064	595,251	251,552,035
2007	72,101,506	34,123,003	122,417,181	20,583,615	1,931,928	76,442	605,328	251,839,003
2008	73,848,511	35,250,366	121,003,376	18,805,505	1,867,800	81,054	720,400	251,577,011
2009	74,657,177	35,803,467	114,875,960	19,554,367	1,350,901	78,800	747,874	247,068,546
2010	73,436,594	34,496,064	120,290,733	19,036,344	1,194,282	54,122	716,623	249,224,762
2011	73,193,401	38,814,987	120,834,914	15,051,682	1,222,967	43,758	659,574	249,821,283
2012	70,966,505	33,200,382	128,532,327	15,193,348	1,222,128	41,938	627,467	249,784,096
2013	74,334,017	33,337,507	125,354,819	13,952,451	1,249,953	44,355	668,402	248,941,504
2014	75,761,820	32,425,865	119,336,146	12,584,229	1,258,253	42,943	555,548	241,964,804
2015	79,671,289	32,930,701	115,685,946	14,943,860	1,439,933	43,818	602,228	245,317,776
2016	80,450,046	33,252,587	116,816,733	15,089,931	1,454,008	44,246	608,115	247,715,665
2017	79,373,076	32,807,440	115,252,929	14,887,925	1,434,543	43,654	599,974	244,399,541

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1   **Table 3.4: Number of Customers/Connections (Average)**

Year	Residential	GS< 50 kW	GS 50-2999 kW	GS 3000-4999 kW	Street Lighting	Sentinel Lights	Unmetered Scattered Load	Total
2006	7,704	1,037	146	1	2,671	55	69	11,682
2007	7,842	1,043	148	1	2,743	55	81	11,912
2008	7,956	1,048	133	1	2,793	58	90	12,079
2009	8,188	1,063	130	1	2,816	60	96	12,351
2010	8,297	1,069	131	1	2,752	55	95	12,399
2011	8,425	1,073	132	1	2,759	53	96	12,538
2012	8,525	1,067	137	1	2,802	54	95	12,681
2013	8,627	1,058	142	1	2,862	54	94	12,837
2014	8,761	1,069	138	1	2,634	54	93	12,749
2015	8,885	1,078	134	1	2,694	54	90	12,936
2016	9,027	1,082	133	1	2,697	54	93	13,086
2017	9,171	1,087	132	1	2,699	54	96	13,239

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1   Ex.3/Tab 1/Sch.5 – Load Forecast Details

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3   The following section of the application covers the approach taken to determine the Load Forecast. This

4   section also covers economic assumptions and data sources for customer and load forecasts. It explains

5   wholesale purchases and subsequent adjustments to the wholesale purchases. It also provides the

6   rationale behind each variable used in the regression analysis. Lastly, it presents the regression results and

7   explains how they were used to determine the forecast for the bridge and test year.

8   The load forecast presented in this application uses a multiple regression model developed based on

9   monthly wholesale purchased kWh from January 2004 to December 31, 2015 as measured at the

10 wholesale point of delivery (exclusive of losses; i.e., not loss adjusted).

11 The methodology proposed in this application predicts wholesale consumption using a multiple regression

12 analysis that relates historical monthly wholesale kWh usage to monthly historical heating degree days and

13 cooling degree days. Heating degree-day provides a measure of how much (in degrees), and for how long

14 (in days), the outside temperature was below that base temperature. The most readily available heating

15 degree days come with a base temperature of 18C. Cooling degree-day figures also come with a base

16 temperature, and provide a measure of how much, and for how long, the outside temperature was above

17 that base temperature. For degree days, daily observations as reported in Cobourg are used. The

18 regression model also uses other variables which are tested to see their relationship and contribution to the

19 fluctuating wholesale purchases. Each variable is discussed in detail later in this section.

20 **Explanation of Multiple Regression Analysis**

21 Multiple regression can be utilized for forecasting purposes by analyzing how a number of variables has

22 affected a depended variable historically. From this, the relationship between these variables and the

23 depended variable can be expressed as:

24 **$Y = A + B_1X_1 + B_2X_2 \ldots + b_Nx_N + E$**

25 **Where:**

26 Y = Predicted depended variable value

27 A = the value of Y when all Xs are zero

28 X = the independent variable

29 B = the coefficients corresponding to the independent variables

30 n = the number of independent variables

31 E = an error term

32

33 By forecasting the independent variables, the dependent variable can be predicted. However, to ascertain

34 that the relationship is not coincidental, the utility must first assess the correlation between the depended

35 and individual independent variables. This can be accomplished by the Person Correlation Coefficient

1 (otherwise known as "R") to each independent variable. This depicts how much of the change in depended

2 variable can be explained by the change in independent variables. Those variables with a high R-squared

3 should then be used for multiple regression. The same correlation coefficient can be applied to multiple

4 independent variables to ascertain how much of the change in dependent variable can be explained by

5 changes in all independent variables.

6

7 **R Squared=(B'X'Y – nAVG(Y)^2)/Y'Y-nAVG(Y)^2)**

8

9 Where:

10

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

12 ^2 = Squared

13

14 The adjusted R-squared is calculated by "correcting" for the number of independent variables in a multiple

15 regression analysis. The formula: Adj RSq=(1-(1-RSq)*((n-1)/(n-k)). It is often used to compare models

16 involving different number of coefficients. The statistical significance of the multiple regression can be

17 tested with the F-test which is derived from a normal probability distribution. A critical point along the

18 distribution can be found given a degree of confidence required, the number of variables and the number of

19 observations. If the F-statistic is above this point, then the analysis can be deemed statistically significant at

20 the level of confidence.

21

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

23

24 **Where:**

25

26 K = number of independent variable

27 n = number of observations

28 Independent variables that are highly correlated themselves, can lead to high variances in slope estimation

29 (B). This is known as "Multicollinearity". For this reason independent variables with a high level of

30 multicollinearity to the other independent variables should consider being omitted from the analysis.

31

32 **Origin of Variables**

33   • HDD   Stats Canada (Cobourg)

34   • CDD   Stats Canada (Cobourg)

35   • Spring and Fall   Computed by LUI

36   • Employment   Stats Canada (Cobourg)

37   • Day per Month   Computed by LUI

38   • Holiday Months   Computed by LUI

1 **Ex.3/Tab 1/Sch.6 – Economic Overview**

2

3 Situated along the north shore of Lake Ontario, Cobourg is located on the south west end of

4 Northumberland County abutting the Township of Hamilton. With a total population of approximately

5 18,000, Cobourg is made up of just over 1,000 businesses and is considered the shopping hub of the

6 County. Cobourg is positioned to tourists as "Ontario's Feel Good town" and because of its extraordinarily

7 high number of health care professionals is considered a "wellness community". It is well known for its

8 friendly atmosphere, exceptional marina, beachfront and historic downtown with unique shopping and

9 restaurant facilities.

10 The Town of Cobourg is a unique community that possesses many positive attributes to support new

11 opportunities in economic development and tourism. Cobourg's relatively strong and diverse economy has

12 provided net employment growth despite the recent recession, decline in North American manufacturing

13 and challenges in the tourism industry due to higher fuel costs and border crossing issues. Cobourg's

14 natural location advantages, predominance as a regional hub and employment centre, and strong local

15 labour force are augmented by a demonstrated commitment by municipal leadership and staff to support

16 local business and provide resources to meet and address new challenges and opportunities as they arise.

17 Cobourg's historic and ongoing strengths in manufacturing provide a significant opportunity to focus on

18 specialized food processing, packaging and advanced materials and advanced manufacturing, while the

19 opening of new amenities like the Cobourg Community Centre and redevelopment of Cobourg waterfront

20 provide a framework for enhanced tourism development.

21 LUI is projecting customer numbers to increase (growth) in the residential class, GS< 50kW class, Street

22 Lighting and Unmetered Scattered Load. The utility projects a decrease in the GS 50-2999 kW rate class

23 and virtually no change in the GS 3000-4999 kW rate class and the Sentinel Lights. Overall, the trend table

24 shows a slow yet stable growth in customers.

25 Economic conditions remain relatively unchanged from the past as Cobourg continues to evolve into a

26 retirement community. In 2011, the percentage of the population aged 65 and over in Cobourg was 26.4%,

27 compared with a national percentage of 14.8%. The percentage of the working age population (15 to 64)

28 was 59.9% and the percentage of children aged 0 to 14 was 13.6%. In comparison, the national

29 percentages were 68.5% for the population aged 15 to 64 and 16.7% for the population aged 0 to 14.

30 Housing market activity will largely reflect economic conditions and population growth. Low mortgage rates

31 are expected during the forecast and will underpin housing sales and housing prices. Housing sales are

32 forecast to increase while the average MLS sale price continues to increase. In Cobourg, 58.9% of private

33 households live in single-detached houses and 4.5% live in apartments in buildings that have five or more

34 storeys. The remaining live in other types of dwelling structures.

35

1 Ex.3/Tab 1/Sch.7 – Overview of Wholesale Purchases

2

3 LUI purchases its power from the IESO. Table 3.5 outlines the unadjusted monthly wholesale purchases:

4 **Table 3.5: Unadjusted Wholesale Purchases 2006-2015 (kWh)**

Month	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January	26,817,115	27,264,426	26,907,991	25,602,870	25,102,489	25,280,038	24,661,415	24,525,821	24,436,239	24,545,396
February	25,311,949	26,230,425	25,497,644	22,117,612	22,657,765	22,933,219	22,891,233	22,406,076	21,999,576	23,214,860
March	27,026,370	27,093,283	25,682,528	22,665,029	22,985,701	24,373,637	22,613,348	22,949,758	23,407,004	22,960,336
April	23,542,027	24,473,677	22,564,521	20,109,223	20,452,236	21,210,410	20,387,692	21,342,594	19,803,682	19,821,057
May	23,594,804	23,433,104	21,827,055	19,485,273	21,307,341	20,370,130	20,532,741	19,856,595	18,789,088	18,913,830
June	24,393,760	24,099,862	22,607,091	20,406,593	21,585,694	20,125,692	21,256,195	19,952,203	19,194,905	19,352,886
July	25,023,621	23,042,716	24,337,168	20,738,546	22,982,463	22,481,329	23,878,303	22,595,752	20,208,703	21,020,965
August	24,820,037	25,156,769	22,452,560	22,020,601	22,592,532	22,073,076	22,916,905	20,483,499	19,892,388	20,743,590
September	22,477,600	23,115,006	22,496,229	19,999,575	19,831,509	20,224,886	20,363,041	18,849,394	19,587,581	20,566,314
October	23,787,971	23,500,919	21,865,207	20,858,420	19,683,209	20,124,841	20,987,563	20,065,544	19,752,445	19,315,191
November	24,490,934	24,801,467	22,177,406	20,896,295	21,151,312	20,676,388	21,546,676	21,282,596	21,153,366	19,532,582
December	24,544,738	25,783,134	23,390,423	23,140,679	23,903,359	22,475,131	21,986,713	23,218,277	22,098,682	20,256,240
Total	**295,830,926**	**297,994,787**	**281,805,823**	**258,040,716**	**264,235,611**	**262,348,777**	**264,021,825**	**257,528,109**	**250,323,659**	**250,243,247**

6 LUI's usage has decreased over the past 10 years, with wholesale purchases decreasing by approximately
7 15% from 2006 to 2015. The decrease is primarly the result of the loss of a large customer in early 2009
8 and being further reduced by energy conservation initiatives being underkaten by LUI's customer base.

9 In order to better represent the trend in wholesale purchaes, LUI has adjusted its base wholesale
10 purchases prior to running the regression analysis. The purpose of the adjustment was to normalize the
11 data as best as possible. The following adjustments were made to the wholesale purchases:

12 • LUI adjusted wholesale purchases for the loss of a large customer in 2009 as its inclusion would
13   have distorted the regression as it would have included consumption related to a customer that no
14   longer exists, nor is expected to be replaced.

15

16 • LUI removed it's only GS 3000-4999 kW customer in order to bettter predict the 2016 and 2017
17   data. The customer's usage from 2006 to 2015 is on average 14,887,925 kWh to 23,443,190 kWh
18   (or approximately 5% of unadjusted wholesale purchases) and the large variation may cause a
19   negative impact on the regression analysis.

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21 • LUI adjusted the wholesale purchases to add CDM activity including persistence as reported by the
22   OPA/IESO (adjusted for losses) as if no programs ever existed from 2011 to 2015.

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24 • LUI adjusted the wholesale purchases to add back all Microfit/FIT Generation.

1 The adjustments that were added/subtracted from the wholesale purchases by month are illustrated in table
2 3.6 to table 3.9 by month. The final results are summarized in table 3.10 as the adjusted wholesale
3 purchases used in the regression analysis.

4 **Table 3.6: Loss of Large Customer Adjustment (kWh)**

Month	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January	2,612,043	2,165,951	2,091,843	483,317						
February	2,635,193	2,178,438	2,051,853	367,134						
March	2,700,439	2,320,895	2,087,020	250,099						
April	2,416,600	2,552,010	2,052,242							
May	2,664,711	2,745,510	2,097,715							
June	2,672,909	2,671,934	2,071,844							
July	2,416,512	2,175,447	2,101,677							
August	2,557,912	2,317,085	1,789,821							
September	2,531,686	2,429,810	1,759,869							
October	2,787,075	2,307,735	1,165,992							
November	2,645,364	2,122,510	805,206							
December	2,032,814	1,839,231	593,847							
Total	30,673,258	27,826,556	20,668,929	1,100,550	0	0	0	0	0	0

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7 **Table 3.7: Large Customer Adjustment (kWh)**

Month	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January	1,851,400	1,905,585	2,226,385	1,578,844	1,573,886	1,527,291	1,463,576	1,227,899	462,759	1,189,994
February	2,180,089	1,999,329	1,845,598	1,729,600	1,761,873	1,529,094	1,703,759	1,384,325	1,139,662	1,496,624
March	2,772,699	2,532,285	1,747,623	1,501,644	2,174,724	2,165,762	1,845,227	1,545,727	1,481,130	1,542,569
April	2,666,000	2,572,558	1,880,044	1,650,019	2,287,274	1,885,923	1,627,384	1,720,655	1,083,335	1,535,310
May	2,329,487	2,303,985	1,598,627	1,911,296	2,305,460	1,668,095	1,520,892	1,425,413	1,083,523	1,557,974
June	2,501,167	1,627,280	1,548,458	1,979,470	2,043,340	1,194,523	1,345,782	1,387,510	1,161,099	1,652,810
July	1,764,031	1,061,128	1,712,261	1,750,420	1,512,885	966,871	1,406,540	1,138,886	1,064,557	1,374,192
August	1,888,942	1,337,316	1,108,712	1,632,661	1,317,398	1,049,800	1,094,444	697,434	983,778	1,178,554
September	1,629,291	1,389,034	1,751,959	1,592,813	1,603,035	929,057	1,033,023	878,363	1,317,550	1,313,341
October	1,485,638	1,502,184	1,566,094	1,681,377	1,004,145	817,723	1,174,249	1,262,490	1,252,073	1,040,675
November	1,925,007	1,766,661	1,670,775	1,877,472	1,054,100	738,926	957,581	1,146,181	1,298,522	946,642
December	1,476,249	1,487,833	972,650	1,527,750	1,054,100	858,779	925,882	967,249	959,503	904,338
Total	24,470,000	21,485,178	19,629,186	20,413,366	19,692,220	15,331,844	16,098,339	14,782,131	13,287,490	15,733,022

9 **Table 3.8: CDM Wholesale Adjustment (kWh)**

Month	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January						20,317	28,444	41,718	54,179	21,672
February						40,635	56,888	83,436	108,359	43,344
March						60,952	85,333	125,155	162,538	65,015
April						81,269	113,777	166,873	216,718	86,687
May						101,587	142,221	208,591	270,897	108,359
June						121,904	170,665	250,309	325,077	130,031
July						142,221	199,110	292,027	379,256	151,703
August						162,538	227,554	333,746	433,436	173,374
September						182,856	255,998	375,464	487,615	195,046
October						203,173	284,442	417,182	541,795	216,718
November						223,490	312,887	458,900	595,974	238,390
December						243,808	341,331	500,618	650,154	260,062
Total	0	0	0	0	0	1,584,750	2,218,650	3,254,020	4,226,000	1,690,400

1 **Table 3.9: Microfit/FIT Generation (kWh)**

Month	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January								856	15,182	84,528
February								1,713	24,356	24,638
March								3,595	85,662	241,627
April								3,664	130,896	347,523
May								5,255	166,742	337,229
June								4,158	161,809	326,400
July								17,275	171,166	525,799
August								35,183	137,339	449,902
September								34,857	153,397	358,834
October								25,082	116,582	264,798
November							1,609	23,434	53,873	159,426
December							657	11,555	56,091	79,954
Total	0	0	0	0	0	0	2,265	166,628	1,273,095	3,200,657

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4 **Table 3.10: Adjusted Wholesale Purchases for 2006-2015 (kWh)**

Month	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January	22,353,672	23,192,890	22,589,763	23,540,709	23,528,603	23,773,064	23,226,283	23,340,497	24,042,841	23,461,602
February	20,496,667	22,052,658	21,600,193	20,020,878	20,895,892	21,444,759	21,244,363	21,106,901	20,992,629	21,786,217
March	21,553,232	22,240,103	21,847,885	20,913,286	20,810,977	22,268,827	20,853,453	21,532,781	22,174,074	21,724,410
April	18,459,427	19,349,109	18,632,235	18,459,204	18,164,962	19,405,756	18,874,085	19,792,476	19,067,961	18,719,957
May	18,600,606	18,383,609	18,130,713	17,573,977	19,001,881	18,803,622	19,154,071	18,645,028	18,143,205	17,801,445
June	19,219,684	19,800,648	18,986,789	18,427,123	19,542,354	19,053,073	20,081,078	18,819,160	18,520,691	18,156,506
July	20,843,078	19,806,141	20,523,230	18,988,126	21,469,578	21,656,679	22,670,873	21,766,169	19,694,568	20,324,275
August	20,373,183	21,502,368	19,554,027	20,387,940	21,275,134	21,185,815	22,050,015	20,154,993	19,479,386	20,188,313
September	18,316,623	19,296,162	18,984,401	18,406,762	18,228,474	19,478,684	19,586,016	18,381,351	18,911,044	19,806,852
October	19,515,258	19,691,000	19,133,121	19,177,043	18,679,064	19,510,291	20,097,756	19,245,318	19,158,750	18,756,032
November	19,920,563	20,912,296	19,701,425	19,018,823	20,097,212	20,160,952	20,903,590	20,618,750	20,504,691	18,983,756
December	21,035,675	22,456,070	21,823,926	21,612,929	22,849,259	21,860,160	21,402,819	22,763,202	21,845,424	19,691,917
Total	240,687,668	248,683,053	241,507,708	236,526,800	244,543,391	248,601,683	250,144,402	246,166,626	242,535,263	239,401,283

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1   Ex.3/Tab 1/Sch.8 – Conservation and Demand Management Impact

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3   LUI has proceeded to follow similar methodologies and has isolated CDM savings from wholesale

4   purchases by adding back net CDM savings including persistence as reported by the IESO (formally OPA)

5   to Wholesale Purchases for the years 2011 to 2014 and 2015. The purpose of this approach is to show

6   what actual wholesale purchase would have been if CDM initiatives never existed. LUI gathered this

7   information from the 2011 – 2014 Final CDM Results Report.

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1   Ex.3/Tab 1/Sch.9 – Overview of Variables Used

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3   The purpose of a multiple regression equation is to predict a single dependent variable from multiple

4   independent variables. Several variables and the interactions among each variables, affects overall

5   electricity purchases. Various combinations of economic drivers were tested using different model

6   specifications while adding and removing independent variables one at a time. Results from these various

7   scenarios can be found in the excel model filed in conjunction with this application. The decision to

8   add/delete a variable is made on the basis of whether that variable improves the accuracy of the model.

9   The variables listed below were used as initial inputs for the purpose of regression analysis.

10   Tested and Included:

11   • Wholesale Purchases (main)

12   • Heating Degree Days (included)

13   • Cooling Degree Days (included)

14   • Spring and Fall Flag (included)

15   • Employment (included)

16   • Number of days in a month (included)

17   • Holiday months (included)

18   Tested and Excluded:

19   • Average Temperature (excluded)

20   • CPI Canada (excluded)

21   • Full Time Employment for Cobourg (excluded)

22   **List of variables**

23   In LUI's case, variation in monthly electricity consumption is influenced by seven main factors – weather

24   (e.g. heating and cooling), which is by far the most dominant effect for most systems; seasonality, in this

25   case, spring and fall flag factors. Specifics relating to each variable used in the regression analysis are

26   presented in the next section.

27   **Heating and Cooling Degree Days:**

28   In order to determine the relationship between observed weather and energy consumption, monthly

29   weather observations describing the extent of heating or cooling required within the month are necessary.

30   Environment Canada publishes monthly observations on heating degree days (HDD) and cooling degree

31   days (CDD) for selected weather stations across Canada. Heating degree-days for a given day are the

32   number of Celsius degrees that the mean temperature is below 18°C. For LUI, the monthly HDD and CDD

33   as reported at Cobourg were used.

1   LUI has adopted the 10 year average from 2006 to 2015 as the definition of weather normal. Our view is

2   that a ten-year average based on the most recent ten calendar years available is a reasonable compromise

3   that likely reflects the "average" weather experienced in recent years. Many other LDCs have also adopted

4   this definition for the purposes of cost-of-service rebasing.

5   **Table 3.11: HDD and CDD as reported at Cobourg, ON**

6   **Heating Degree Days**

HDD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1996	761.80	669.30	625.50	415.60	252.70	38.70	12.90	3.10	65.50	275.30	513.00	539.00
1997	739.00	582.80	601.60	389.40	290.00	33.30	24.60	17.10	105.70	293.70	457.60	578.60
1998	639.30	520.70	518.80	323.60	78.80	66.30	4.60	5.20	56.30	247.60	419.10	566.40
1999	738.50	551.80	576.50	335.60	136.10	36.10	4.40	14.90	56.70	269.10	385.30	586.60
2000	678.50	577.00	473.90	377.80	193.70	73.50	16.90	25.70	124.00	251.10	432.20	769.60
2001	657.40	601.00	581.10	335.80	158.20	51.10	28.00	3.00	80.90	263.80	368.50	521.10
2002	573.80	547.40	474.80	354.00	261.90	57.80	5.00	3.00	35.80	295.90	446.60	617.40
2003	832.60	713.40	592.20	435.40	207.70	65.40	11.90	9.70	59.90	325.60	420.50	606.40
2004	872.60	636.40	519.90	372.30	205.40	100.80	14.70	26.90	50.30	250.10	411.00	645.20
2005	782.80	631.30	612.10	362.50	259.90	40.70	4.20	1.00	45.50	251.90	411.50	668.40
2006	589.00	627.20	564.40	342.60	192.10	40.10	5.90	6.70	103.30	296.40	390.90	505.50
2007	669.30	728.20	578.30	401.00	208.10	45.40	22.40	12.10	61.80	165.80	441.50	648.30
2008	633.30	660.60	632.30	326.30	253.60	71.00	9.40	15.20	73.50	288.10	459.00	652.50
2009	823.90	608.50	568.10	345.40	231.10	86.10	41.50	15.70	70.10	313.30	361.00	638.60
2010	718.00	597.20	450.70	262.70	160.40	37.90	5.10	6.00	99.90	265.50	412.10	676.50
2011	789.50	648.90	574.50	372.40	177.60	64.00	8.40	9.10	59.70	244.30	360.30	546.20
2012	633.00	539.60	425.10	355.60	136.00	36.60	0.00	7.30	87.50	245.10	449.40	535.80
2013	649.60	633.30	556.10	383.60	171.60	67.10	9.30	18.50	110.40	202.20	481.90	683.90
2014	792.30	714.70	692.70	394.20	218.90	61.90	36.90	26.90	97.30	231.40	473.20	519.40
2015	759.20	842.50	639.70	351.00	183.40	88.30	18.50	12.90	43.10	271.10	349.80	430.80
10 year average	705.71	660.07	568.19	353.48	193.28	59.84	15.74	13.04	80.66	252.32	417.91	583.75
20 year average	716.67	631.59	562.92	361.84	198.86	58.11	14.23	12.00	74.36	262.37	422.22	596.81
20 year trend	706.98	572.62	553.46	370.72	208.42	48.94	12.11	9.32	70.73	279.98	435.04	616.76

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1   **Cooling Degree Days**

CDD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1996	0.00	0.00	0.00	0.00	0.00	18.10	35.00	61.80	26.30	0.00	0.00	0.00
1997	0.00	0.00	0.00	0.00	0.00	17.70	45.80	12.70	0.80	0.30	0.00	0.00
1998	0.00	0.00	0.00	0.00	4.00	35.60	58.50	64.00	14.30	0.00	0.00	0.00
1999	0.00	0.00	0.00	0.00	0.00	27.50	95.50	48.10	32.90	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	2.00	30.20	46.20	15.00	0.00	0.00	0.00
2001	0.00	0.00	0.00	0.00	0.00	26.50	45.40	83.20	18.50	0.00	0.00	0.00
2002	0.00	0.00	0.00	0.00	0.00	18.30	72.70	68.40	30.30	2.80	0.00	0.00
2003	0.00	0.00	0.00	0.00	0.00	5.60	20.40	77.70	10.90	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00	0.00	5.10	41.20	43.10	18.10	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00	0.00	52.60	116.80	87.60	16.30	0.00	0.00	0.00
2006	0.00	0.00	0.00	0.00	6.30	18.00	86.90	56.40	1.30	0.00	0.00	0.00
2007	0.00	0.00	0.00	0.00	0.00	19.90	45.30	91.50	17.90	4.10	0.00	0.00
2008	0.00	0.00	0.00	0.00	0.00	2.60	50.90	40.40	16.20	0.00	0.00	0.00
2009	0.00	0.00	0.00	0.00	0.00	12.10	18.20	58.60	11.60	0.00	0.00	0.00
2010	0.00	0.00	0.00	0.00	9.10	15.70	90.20	80.70	14.40	0.00	0.00	0.00
2011	0.00	0.00	0.00	0.00	0.10	14.70	91.30	57.50	21.40	0.00	0.00	0.00
2012	0.00	0.00	0.00	0.00	5.60	39.30	120.30	74.20	18.20	0.00	0.00	0.00
2013	0.00	0.00	0.00	0.00	0.10	13.30	72.00	40.60	14.50	0.00	0.00	0.00
2014	0.00	0.00	0.00	0.00	0.00	17.50	18.80	33.30	10.10	0.00	0.00	0.00
2015	0.00	0.00	0.00	0.00	0.00	5.60	37.00	44.70	41.70	0.00	0.00	0.00
10 year average	0.00	0.00	0.00	0.00	2.12	15.87	63.09	57.79	16.73	0.41	0.00	0.00
20 year average	0.00	0.00	0.00	0.00	1.26	18.39	59.62	58.54	17.54	0.36	0.00	0.00
20 year trend	0.00	0.00	0.00	0.00	0.52	21.44	52.96	58.72	16.28	0.45	0.00	0.00

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4   **Spring and Fall Flag:**

5   LUI used a spring and fall flag. This utility specific flag was created following the analysis of the wholesale

6   purchases which showed lower purchases during the spring and fall seasons. The assumption is that

7   consumers are not using as much electricity to heat or cool their homes; and as such would have an impact

8   on the wholesale purchases. The variable applies to the months of March, April, May, September, October

9   and November.

10   **Days per Month:**

11   LUI used a "days per month" variable. Although the variables did not particularly change the results, it did

12   signficaintly improve the R-Square and therefore LUI opted to keep it as a variable.

13   **Employment:**

14   The Consumer Price Index (CPI) is an indicator of changes in consumer prices experienced by Ontario

15   residents. It is obtained by comparing, over time, the cost of a fixed basket of goods and services

16   purchased by consumers. The utility accepted this variable as it significantly improved the R-Square.

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1   Ex.3/Tab 1/Sch.10 – Regression Results

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3   Table 3.12 below presents the regression results used to determine the load forecast.

4   **Table 3.12: Correlation/Regression Results**

Regression Statistics	
Multiple R	0.93613
R Square	0.876339
Adjusted R Square	0.869773
Standard Error	562293.8
Observations	120

ANOVA

	df	SS	MS	F	Significance F
Regression	6	2.53188E+14	4.21981E+13	133.4645524	6.67501E-49
Residual	113	3.57277E+13	3.16174E+11		
Total	119	2.88916E+14			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-208229	2656633.633	-0.078380791	0.93766378	-5471499.422	5055041.329	-5471499.422	5055041.329
HDD	6515.51	286.5569516	22.73722588	5.66838E-44	5947.789131	7083.23114	5947.789131	7083.23114
CDD	39804.22	3223.748937	12.3471849	1.08578E-22	33417.39612	46191.05228	33417.39612	46191.05228
Number of Days in Month	379690.6	72377.53761	5.245973515	7.34228E-07	236297.6894	523083.6014	236297.6894	523083.6014
Employment Stats	29288.58	12989.58022	2.254774774	0.026074295	3553.876594	55023.27902	3553.876594	55023.27902
Spring and Fall Flag	-666791	124829.3749	-5.341622446	4.82853E-07	-914100.8967	-419481.885	-914100.8967	-419481.885
Holiday Months	7607.137	3416.921105	2.226313186	0.027976633	837.5995294	14376.67349	837.5995294	14376.67349

6   The resulting regression equation yields an adjusted R-squared of 86.98% when actual annual wholesale
7   values are compared to annual values predicted by the regression equation; the mean absolute percentage
8   error (MAPE) is 1.66%.

9   Table 3.13 as seen below, demonstrates the monthly results by year comparison between the actual and
10   predicted wholesale purchases from January 1, 2006 to December 31, 2015. Table 3.14 provides a graph
11   showing annual Actual Purchases versus Adjusted Purchases.

12   **Table 3.13: Actual Purchased vs Predicted Purchases**

| Year	Actual kWh Purchased	Year over Year	Predicted kWh	Year over Year	Purchased vs Predicted
2006	240,687,668.00		244,958,698.74		1.77%
2007	248,683,053.35	3.32%	248,683,575.31	1.52%	0.00%
2008	241,507,708.00	-2.89%	247,069,840.93	-0.65%	2.30%
2009	236,526,800.00	-2.06%	245,470,671.75	-0.65%	3.78%
2010	244,543,390.56	3.39%	247,205,392.77	0.71%	1.09%
2011	248,601,682.74	1.66%	248,673,994.55	0.59%	0.03%
2012	250,144,401.57	0.62%	250,342,774.98	0.67%	0.08%
2013	246,166,626.33	-1.59%	249,342,246.09	-0.40%	1.29%
2014	242,535,263.39	-1.48%	249,658,428.48	0.13%	2.94%
2015	239,401,282.52	-1.29%	247,399,736.29	-0.90%	3.34%

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1   **Table 3.14: Graphed Actual Purchased Versus Predicted Purchase**

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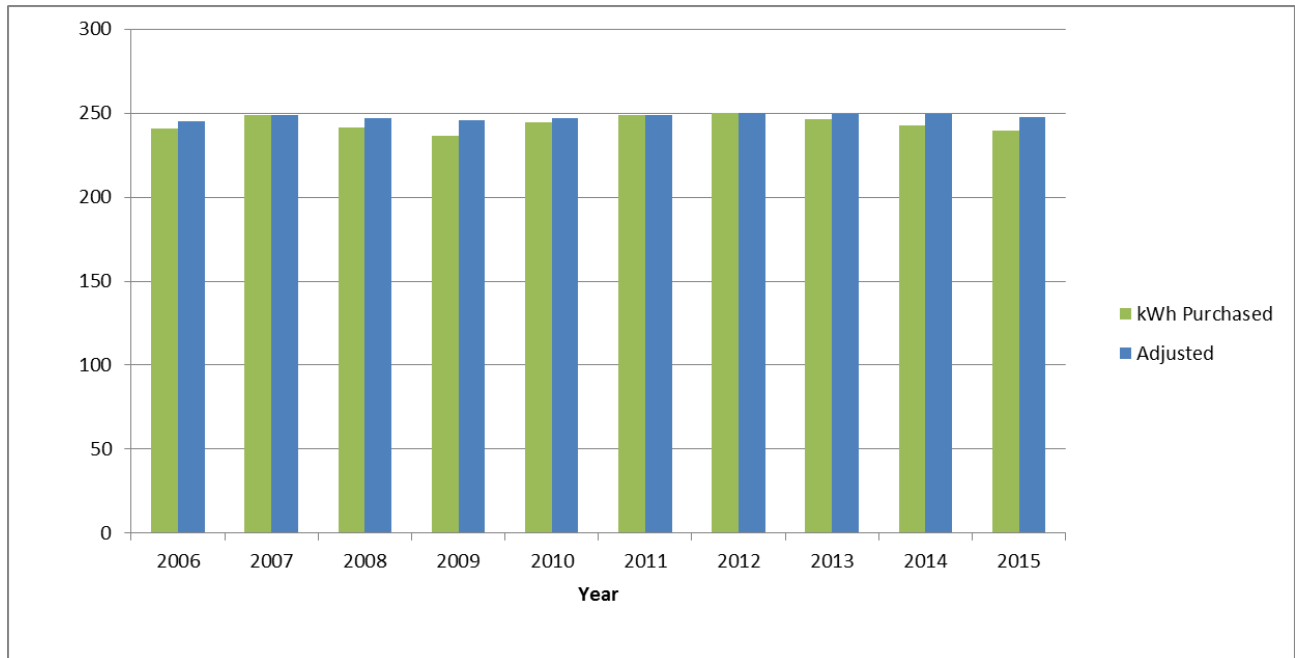
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1 Ex.3/Tab 1/Sch.11 – Determination of Customer Forecast

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3 Historic customer counts and projected customer counts for 2016 and 2017 are presented in Table 3.15.

4 Customer counts are presented as an average between January 1 and December 31 of the given year for
5 the 2016 Bridge Year and 2016 Test Year.

6 **Table 3.15: Customer Forecast**

Date	Residential Customers or Connections	Residential Growth Rate	General Service < 50 kW Customers or Connections	General Service < 50 kW Growth Rate	Unmetered Scattered Load Customers or Connections	Unmetered Scattered Load Growth Rate	General Service > 50 kW - 2999 kW Customers or Connections	General Service > 50 kW - 2999 kW Growth Rate	Streetlighting Customers or Connections	Streetlighting Growth Rate	Sentinel Lighting Customers or Connections	Sentinel Lighting Growth Rate	General Service 3000-4999 kW Customers or Connections	General Service 3000-4999 kW Growth Rate	Total Customers Customers & Connections	Total Customers Growth Rate
2006	7,704		1,037		69		146		2,671		55		1		11,682	
2007	7,842	1.0179	1,043	1.0063	81	1.1752	148	1.0137	2,743	1.0270	55	1.0000	1	1.0000	11,912	1.0197
2008	7,956	1.0145	1,048	1.0043	90	1.1180	133	0.9017	2,793	1.0182	58	1.0545	1	1.0000	12,079	1.0140
2009	8,188	1.0291	1,063	1.0143	96	1.0611	130	0.9737	2,816	1.0081	60	1.0259	1	1.0000	12,351	1.0226
2010	8,297	1.0133	1,069	1.0056	95	0.9948	131	1.0116	2,752	0.9774	55	0.9244	1	1.0000	12,399	1.0039
2011	8,425	1.0155	1,073	1.0037	96	1.0105	132	1.0038	2,759	1.0025	53	0.9636	1	1.0000	12,538	1.0112
2012	8,525	1.0119	1,067	0.9949	95	0.9844	137	1.0418	2,802	1.0156	54	1.0189	1	1.0000	12,681	1.0114
2013	8,627	1.0120	1,058	0.9916	94	0.9894	142	1.0328	2,862	1.0214	54	1.0000	1	1.0000	12,837	1.0123
2014	8,761	1.0155	1,069	1.0099	93	0.9947	138	0.9753	2,634	0.9203	54	1.0000	1	1.0000	12,749	0.9931
2015	8,885	1.0142	1,078	1.0084	90	0.9677	134	0.9710	2,694	1.0228	54	1.0000	1	1.0000	12,936	1.0146
Geomean		1.0160		1.0043		1.0308		0.9909		1.0010		0.9980		1.0000		1.0114
2016	9,027		1,082		93		133		2,697		54		1		13,085	
2017	9,171		1,087		96		132		2,699		54		1		13,238	

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1 **Residential Customers:**

2 The residential customer class has been increasing steadily during the last 10 years. Growth rates, using
3 average customers throughout the year, have increased in recent years to about 1% per year over the last
4 five years. The increase in residential customers since 2006 is primarily the result of increased
5 development in the Town of Cobourg, as well as the Town's close proximity to Toronto and Cobourg's
6 image as a retirement community.

7 Furthermore, the increase in residential customers is the result of housing stock that has kept pace with
8 demand mitigating any potential supply problems and house price inflation as seen in some parts of
9 Ontario. As a result, Cobourg and Colborne can continue to offer affordable housing as a key selling point.

10 **GS<50 kW Customers:**

11 The GS<50 kW customer class had increased on average 0.43% from the period 2006 to 2015. The
12 sectors in Cobourg that have the highest labour force are mainly manufacturing, retail trade, and health and
13 social assistance. Service industries employ significant numbers in Cobourg and the combination of
14 employment in retail, accommodation and food service employment and other services represents a portion
15 of Cobourg's labour force.

16 The number of customers in the GS<50 kW class have grown since 2006 as a result of a small but stable
17 manufacturing sector. Although there were slight decreases in 2012 and 2013, the result of a struggling
18 economy, the sector has held up well in light of the recession and contraction of the various industries
19 throughout the province.

20 LUI does not forecast significant growth within the GS<50 kW class.

21 **GS 50-2999 kW Customers:**

22 The GS 50-2999 kW customer class had an average decrease of 0.83% from 2006 to 2015. A significant
23 decrease of 9.83% in 2008 and 2.63% in 2009 was the result of a reclassification in the customer class.
24 Futhermore, a few customers had experienced declines in consumption as a result of the downturn in the
25 economy and as a result were reclassified to a more appropriate class.

26 The customer class rebounded in 2012 and 2013 with increases of 4.18% and 3.28% respectively. The
27 increase was associated with the opening of the Northumberland Hills Hospital in 2012, which attracted
28 additional businesses in the accommodation and food services industry and the retail trade industry.

29 LUI has not forecasted growth within the GS 50-2999 kW customer class and LUI has not been contacted
30 by any developments suggesting a GS 50-2999 kW customer will be added within the next two years. GS
31 50-2999 kW customers has fluctuated over the past 10 years.

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1 **GS 3000-4999 kW Customers:**

2 LUI has one GS 3000-4999 kW customer. The customer is a company that is commited to and striving to
3 act and operate in a sustainable manner, one that recognizes its responsibility towards the environment, its
4 employees, and the community that the company operates in.

5 LUI does not expect any growth within the GS 3000-4999 kW class and has not been contacted by any
6 developments suggesting a new customer will be added within the next two years.

7 **Street Lighting:**

8 This customer class is based on connections and follows the same methodolgy in applying growth as the
9 residential customer class. This customer class also follows the same historical growth trends as the
10 residential customer class and has an average increase of 0.15% from 2006 to 2015.

11 **Sentinel Lighting:**

12 This customer class has remained steady since 2012 and LUI does not expect any additional customers.

13 **Unmetered Scattered Load:**

14 This customer class has remained steady since 2012 and LUI does not expect any additional customers.

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1   Ex.3/Tab 1/Sch.12 – Determination of Weather Normailized Forecast

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3   Allocation to specific weather sensitive rate classes is based on the share of each class's actual retail kWh

4   (exclusive of distribution losses) and a share of actual wholesale kWh. Weather normalized wholesale kWh,

5   for historical years, are allocated to these classes based on these historical shares.

6   **Calculation of Average Consumption per Rate Class for 2016 Bridge and 2017 Test Year**

7   LUI has applied a percentage of change using the last year actual (2015) average kWh per customer for

8   each rate class to determine the 2016 and 2017 average forecasted consumption per customer prior to

9   weather normalization. That is, the 2016 average customer usage per class is equal to the percentage of

10   change x 2015 average kWh per customer class.

11   LUI calculated the percentage of change using the 9 year geometric mean based on the average metered

12   kWh per customer class. The average kWh per customer class is illustrated in Table 3.16.

13   **Table 3.16: Average Customer Usage**

Residential			Geomean Average Years	9.00
Year	Metered kWh	Average Customer	Average kWh/Customer	% of Change
2006	71,590,903	7,704	9,293	-
2007	72,101,506	7,842	9,194	98.94%
2008	73,848,511	7,956	9,282	100.96%
2009	74,657,177	8,188	9,118	98.24%
2010	73,436,594	8,297	8,852	97.07%
2011	73,193,401	8,425	8,688	98.15%
2012	70,966,505	8,525	8,325	95.82%
2013	74,334,017	8,627	8,616	103.51%
2014	75,761,820	8,761	8,648	100.37%
2015	79,671,289	8,885	8,967	103.69%
2016			8,912	99.39%
2017			8,655	

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General Service < 50 kW			Geomean Average Years	9.00
Year	Metered kWh	Average Customer	Average kWh/Customer	% of Change
2006	32,947,636	1,037	31,787	-
2007	34,123,003	1,043	32,716	102.92%
2008	35,250,366	1,048	33,652	102.86%
2009	35,803,467	1,063	33,697	100.14%
2010	34,496,064	1,069	32,285	95.81%
2011	38,814,987	1,073	36,191	112.10%
2012	33,200,382	1,067	31,116	85.98%
2013	33,337,507	1,058	31,510	101.27%
2014	32,425,865	1,069	30,347	96.31%
2015	32,930,701	1,078	30,562	100.71%
2016			30,728	100.54%
2017			30,186	

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General Service 50-2999 kW			Geomean Average Years	9.00
Year	Metered kWh	Average Customer	Average kWh/Customer	% of Change
2006	120,975,702	146	831,448	-
2007	122,417,181	148	829,947	99.82%
2008	121,003,376	133	909,800	109.62%
2009	114,875,960	130	887,073	97.50%
2010	120,290,733	131	918,250	103.51%
2011	120,834,914	132	918,897	100.07%
2012	128,532,327	137	938,192	102.10%
2013	125,354,819	142	885,900	94.43%
2014	119,336,146	138	864,755	97.61%
2015	115,685,946	134	863,328	99.84%
2016			879,779	101.91%
2017			875,978	

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General Service 3000-4999 kW			Geomean Average Years	9.00
Year	Metered kWh	Average Customer	Average kWh/Customer	% of Change
2006	23,443,190	1	23,443,190	-
2007	20,583,615	1	20,583,615	87.80%
2008	18,805,505	1	18,805,505	91.36%
2009	19,554,367	1	19,554,367	103.98%
2010	19,036,344	1	19,036,344	97.35%
2011	15,051,682	1	15,051,682	79.07%
2012	15,193,348	1	15,193,348	100.94%
2013	13,952,451	1	13,952,451	91.83%
2014	12,584,229	1	12,584,229	90.19%
2015	14,943,860	1	14,943,860	118.75%
2016			15,089,931	100.98%
2017			14,887,925	

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Street Lighting			Geomean Average Years	9.00
Year	Metered kWh	Average Customer	Average kWh/Customer	% of Change
2006	1,923,290	2,671	720	-
2007	1,931,928	2,743	704	97.81%
2008	1,867,800	2,793	669	94.95%
2009	1,350,901	2,816	480	71.75%
2010	1,194,282	2,752	434	90.45%
2011	1,222,967	2,759	443	102.14%
2012	1,222,128	2,802	436	98.40%
2013	1,249,953	2,862	437	100.13%
2014	1,258,253	2,634	478	109.38%
2015	1,439,933	2,694	534	111.89%
2016			539	100.88%
2017			531	

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Sentinel Lighting			Geomean Average Years	9.00
Year	Metered kWh	Average Customer	Average kWh/Customer	% of Change
2006	76,064	55	1,383	-
2007	76,442	55	1,390	100.50%
2008	81,054	58	1,397	100.55%
2009	78,800	60	1,324	94.77%
2010	54,122	55	984	74.30%
2011	43,758	53	826	83.90%
2012	41,938	54	777	94.07%
2013	44,355	54	821	105.76%
2014	42,943	54	795	96.82%
2015	43,818	54	811	102.04%
2016			821	101.18%
2017			812	

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Unmetered Scattered Load			Geomean Average Years	9.00
Year	Metered kWh	Average Customer	Average kWh/Customer	% of Change
2006	595,251	69	8,690	-
2007	605,328	81	7,520	86.53%
2008	720,400	90	8,004	106.45%
2009	747,874	96	7,831	97.83%
2010	716,623	95	7,543	96.33%
2011	659,574	96	6,871	91.08%
2012	627,467	95	6,640	96.64%
2013	668,402	94	7,149	107.66%
2014	555,548	93	5,974	83.56%
2015	602,228	90	6,691	112.02%
2016			6,555	97.96%
2017			6,274	

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1 **Calculation of Non-Weather Billed (metered) Consumption by Rate Class:**

2 From table 3.16 LUI used the average kWh per customer for the 2016 Bridge and 2017 Test Year and
3 multiplied by the forecasted average customer in that rate class for the 2016 Bridge and 2017 Test Year,
4 illustrated previously in Table 3.15. The non-weather billed consumption by rate class is illustrated in Table
5 3.17.

6 **Table 3.17: Non-Weather Billed Consumption**

Non-Weather	Residential	General Service <50 kW	General Service 50 - 2999 kW	General Service 3000 - 4999 kW	Street Lighting	Sentinel Lights	Unmetered Scattered Load	Total
2016	247,254,306	80,017,554	33,201,156	116,816,733	15,089,931	1,454,008	44,246	630,679	247,254,306
2017	243,899,016	78,903,830	32,751,628	115,252,929	14,887,925	1,434,543	43,654	624,507	243,899,016

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8 **Calculation of Weather Corrected Billed (metered) consumption:**

9 Total weather corrected billed kWh is calculated from the predicted/forecasted wholesale purchase
10 calculated from line of best fit as determined by the regression analysis and presented in Ex.3/Tab
11 1/Sch.10 and divided by the proposed loss factor of 3.69% as presented in Ex.8/Tab 1/Sch.11. Total
12 predicted/forecasted wholesale purchases calculated for the 2016 Bridge Year and 2017 Test Year is
13 249,817,976 kWh, and 250,282,671 kWh (using 20 year average HDD and CDD average), respectively.
14 The total weather corrected billed (metered) kWh for the 2016 Bridge Year and 2017 Test Year are
15 247,715,665 kWh and 248,176,449 kWh, respectively.

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1   Ex.3/Tab 1/Sch.13 – Load Forecast by Class

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3   The following section presents class specific historic and forecast values for all rate classes. Historic class
4   specific kWh consumption is allocated based on each class's share in wholesale kWh, exclusive of
5   distribution losses.

6   Table 3.18 to 3.24 illustrates historical and forecasted details for each customer class, including where
7   applicable the billed kW (2016 and 2017 forecast was developed using a 5 year average kWh to kW
8   conversion rate).

9   **Table 3.18: Residential Forecast**

Residential					
Year	Residential Metered kWh	Normalized Purchases	Ratio%	Normalized Consumption	Per customer
2006	71,590,903	244,958,699	29.23%	71,590,903	9,293
2007	72,101,506	248,683,575	28.99%	72,101,506	9,194
2008	73,848,511	247,069,841	29.89%	73,848,511	9,282
2009	74,657,177	245,470,672	30.41%	74,657,177	9,118
2010	73,436,594	247,205,393	29.71%	73,436,594	8,852
2011	73,193,401	248,673,995	29.43%	73,193,401	8,688
2012	70,966,505	250,342,775	28.35%	70,966,505	8,325
2013	74,334,017	249,342,246	29.81%	74,334,017	8,616
2014	75,761,820	249,658,428	30.35%	75,761,820	8,648
2015	79,671,289	247,399,736	32.20%	79,671,289	8,967
2016		249,817,976		80,450,046	8,912
2017		250,282,671		80,599,694	8,788

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2 **Table 3.19: General Service <50 kW**

General Service < 50 kW					
Year	GS< 50 kW Metered kWh	Normalized Purchases	Ratio%	Normalized Consumption	Per customer
2006	32,947,636	244,958,699	13.45%	32,947,636	31,787
2007	34,123,003	248,683,575	13.72%	34,123,003	32,716
2008	35,250,366	247,069,841	14.27%	35,250,366	33,652
2009	35,803,467	245,470,672	14.59%	35,803,467	33,697
2010	34,496,064	247,205,393	13.95%	34,496,064	32,285
2011	38,814,987	248,673,995	15.61%	38,814,987	36,191
2012	33,200,382	250,342,775	13.26%	33,200,382	31,116
2013	33,337,507	249,342,246	13.37%	33,337,507	31,510
2014	32,425,865	249,658,428	12.99%	32,425,865	30,347
2015	32,930,701	247,399,736	13.31%	32,930,701	30,562
2016		249,817,976		33,252,587	30,728
2017		250,282,671		33,314,441	30,653

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4 **Table 3.20: General Service 50-2999 kW**

General Service 50-2999 kW						
Year	kWh	kW	Customer/ Connection	kWh per connection	kW per connection	kW/kWh Ratio
2006	120,975,702	297,477	146	831,448	2,045	0.002459
2007	122,417,181	300,809	148	829,947	2,039	0.002457
2008	121,003,376	298,912	133	909,800	2,247	0.002470
2009	114,875,960	290,143	130	887,073	2,240	0.002526
2010	120,290,733	299,041	131	918,250	2,283	0.002486
2011	120,834,914	300,129	132	918,897	2,282	0.002484
2012	128,532,327	322,335	137	938,192	2,353	0.002508
2013	125,354,819	323,427	142	885,900	2,286	0.002580
2014	119,336,146	314,352	138	864,755	2,278	0.002634
2015	115,685,946	306,814	134	863,328	2,290	0.002652
2016	116,816,733	295,035	133	879,779	2,222	0.002526
2017	115,252,929	291,085	132	875,978	2,212	0.002526

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2   **Table 3.21: General Service 3000-4999 kW**

General Service 3000-4999 kW						
Year	kWh	kW	Customer/ Connection	kWh per connection	kW per connection	kW/kWh Ratio
2006	23,443,190	48,479	1	23,443,190	48,479	0.002068
2007	20,583,615	46,227	1	20,583,615	46,227	0.002246
2008	18,805,505	40,464	1	18,805,505	40,464	0.002152
2009	19,554,367	49,629	1	19,554,367	49,629	0.002538
2010	19,036,344	45,256	1	19,036,344	45,256	0.002377
2011	15,051,682	42,336	1	15,051,682	42,336	0.002813
2012	15,193,348	39,663	1	15,193,348	39,663	0.002611
2013	13,952,451	37,943	1	13,952,451	37,943	0.002719
2014	12,584,229	36,604	1	12,584,229	36,604	0.002909
2015	14,943,860	33,868	1	14,943,860	33,868	0.002266
2016	15,089,931	37,270	1	15,089,931	37,270	0.002470
2017	14,887,925	36,771	1	14,887,925	36,771	0.002470

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5   **Table 3.22: Street Lighting**

Street Lighting						
Year	kWh	kW	Customer/ Connection	kWh per connection	kW per connection	kW/kWh Ratio
2006	1,923,290	5,222	2,671	720	2	0.002715
2007	1,931,928	5,240	2,743	704	2	0.002712
2008	1,867,800	5,091	2,793	669	2	0.002726
2009	1,350,901	3,654	2,816	480	1	0.002705
2010	1,194,282	3,302	2,752	434	1	0.002765
2011	1,222,967	3,321	2,759	443	1	0.002716
2012	1,222,128	3,340	2,802	436	1	0.002733
2013	1,249,953	3,386	2,862	437	1	0.002709
2014	1,258,253	3,409	2,634	478	1	0.002709
2015	1,439,933	3,416	2,694	534	1	0.002372
2016	1,454,008	3,906	2,697	539	1	0.002686
2017	1,434,543	3,853	2,699	531	1	0.002686

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2 **Table 3.23: Sentinel Lights**

Sentinel Lights						
Year	kWh	kW	Customer/ Connection	kWh per connection	kW per connection	kW/kWh Ratio
2006	76,064	211	55	1,383	4	0.002779
2007	76,442	212	55	1,390	4	0.002778
2008	81,054	225	58	1,397	4	0.002776
2009	78,800	222	60	1,324	4	0.002819
2010	54,122	219	55	984	4	0.004048
2011	43,758	132	53	826	2	0.003017
2012	41,938	132	54	777	2	0.003148
2013	44,355	132	54	821	2	0.002976
2014	42,943	132	54	795	2	0.003074
2015	43,818	132	54	811	2	0.003012
2016	44,246	135	54	821	2	0.003043
2017	43,654	133	54	812	2	0.003043

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5 **Table 3.24: Unmetered Scattered Load**

Unmetered Scattered Load					
Year	Residential Metered kWh	Normalized Purchases	Ratio%	Normalized Consumption	Per customer
2006	595,251	244,958,699	0.24%	605,814	8,844
2007	605,328	248,683,575	0.24%	605,329	7,520
2008	720,400	247,069,841	0.29%	736,991	8,189
2009	747,874	245,470,672	0.30%	776,154	8,127
2010	716,623	247,205,393	0.29%	724,424	7,626
2011	659,574	248,673,995	0.27%	659,766	6,873
2012	627,467	250,342,775	0.25%	627,965	6,645
2013	668,402	249,342,246	0.27%	677,025	7,241
2014	555,548	249,658,428	0.22%	571,864	6,149
2015	602,228	247,399,736	0.24%	622,349	6,915
2016		249,817,976		628,432	6,774
2017		250,282,671		629,601	6,584

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1   Ex.3/Tab 1/Sch.14 – Final Normalized Load Forecast

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3   Table 3.25 below presents historical and projected weather normalized Load Forecast by customer class.

4   **Table 3.25: Final Load Forecast (not CDM adjusted)**

		Year	2012	2013	2014	2015	2016	2017
Residential-WN	Residential	Cust/Conn	8,525	8,627	8,761	8,885	9,027	9,171
		kWh	70,966,505	74,334,017	75,761,820	79,671,289	80,450,046	80,599,694
		kW	-	-	-	-	-	-
General Service < 50 kW-WN	General Service < 50 kW	Cust/Conn	1,067	1,058	1,069	1,078	1,082	1,087
		kWh	33,200,382	33,337,507	32,425,865	32,930,701	33,252,587	33,314,441
		kW	-	-	-	-	-	-
General Service > 50 kW - 2999 kW-Non-WN/kW	General Service > 50 kW - 2999 kW	Cust/Conn	137	142	138	134	133	132
		kWh	128,532,327	125,354,819	119,336,146	115,685,946	116,816,733	117,034,027
		kW	322,335	323,427	314,352	306,814	295,035	295,584
Streetlighting-Non-WN/kW	Streetlighting	Cust/Conn	2,802	2,862	2,634	2,694	2,697	2,699
		kWh	1,222,128	1,249,953	1,258,253	1,439,933	1,454,008	1,456,712
		kW	3,340	3,386	3,409	3,416	3,906	3,913
Sentinel Lighting-Non-WN/kW	Sentinel Lighting	Cust/Conn	54	54	54	54	54	54
		kWh	41,938	44,355	42,943	43,818	44,246	44,329
		kW	132	132	132	132	135	135
General Service 3000-4999 kW-Non-WN/kW	General Service 3000-4999 kW	Cust/Conn	1	1	1	1	1	1
		kWh	15,193,348	13,952,451	12,584,229	14,943,860	15,089,931	15,118,000
		kW	39,663	37,943	36,604	33,868	37,270	37,339
Unmetered Scattered Load-Non-WN/kW	Unmetered Scattered Load	Cust/Conn	95	94	93	90	93	96
		kWh	627,467	668,402	555,548	602,228	608,115	609,246
		kW	-	-	-	-	-	-
Total		**Cust/Conn**	**12,681**	**12,837**	**12,749**	**12,936**	**13,086**	**13,239**
		kWh	**249,784,096**	**248,941,504**	**241,964,804**	**245,317,776**	**247,715,665**	**248,176,449**
		kW	**365,470**	**364,888**	**354,496**	**344,230**	**336,345**	**336,970**

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1   **Impact and Persistence from CDM Programs**

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3   Ex.3/Tab 2/Sch.1 – Load Forecast CDM Adjustments

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5   **2016-2014 CDM Activity**

6   As discussed in Ex.3/Tab 1/Sch.8, LUI added the impact of CDM from 2006 to 2014 (adjusted for losses)

7   back to the actual wholesale purchases (loss adjusted). Furthermore, LUI added back CDM kWh savings

8   on metered consumption (not loss adjusted) as discussed Ex.3/Tab 1/Sch.12.

9   For the purpose of presenting a reasonable forecast for billed kWhs for the 2016 Test and 2017 Bridge

10 Year, LUI has made an adjustment to subtract CDM activity (the persistence) for the 2016 Bridge and 2017

11 Test Year relating to CDM acitivity specific to the years 2011-2014. This is to align with LUI's CDM

12 treatment within this load forecasting model. The schedule to achieve CDM targets are presented at

13 Appendix 2-I below.

14 **Appendix 2-I: Load Forecast CDM Adjustment Work Form**

4 Year (2011-2014) kWh Target: 13,600,000					
	2011	**2012**	**2013**	**2014**	**Total**
2011 CDM Programs	13.22%	13.22%	13.22%	12.28%	51.94%
2012 CDM Programs		6.61%	6.61%	6.61%	19.83%
2013 CDM Programs			7.55%	7.55%	15.11%
2014 CDM Programs				11.33%	11.33%
Total in Year	**13.22%**	**19.83%**	**27.38%**	**37.77%**	**98.21%**
kWh					
2011 CDM Programs	1,400,000.00	1,400,000.00	1,400,000.00	1,300,000.00	5,500,000.00
2012 CDM Programs	10,000.00	700,000.00	700,000.00	700,000.00	2,110,000.00
2013 CDM Programs			800,000.00	800,000.00	1,600,000.00
2014 CDM Programs			180,000.00	1,200,000.00	1,380,000.00
Total in Year	**1,410,000.00**	**2,100,000.00**	**3,080,000.00**	**4,000,000.00**	**10,590,000.00**

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6 Year (2015-2020) kWh Target: 12,170,000							
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
%							
2015 CDM Programs	16.67%						16.67%
2016 CDM Programs		16.67%					16.67%
2017 CDM Programs			16.67%				16.67%
2018 CDM Programs				16.67%			16.67%
2019 CDM Programs					16.67%		16.67%
2020 CDM Programs						16.67%	16.67%
Total in Year	**16.67%**	**16.67%**	**16.67%**	**16.67%**	**16.67%**	**16.67%**	**100.00%**
kWh							
2015 CDM Programs	2,028,333.33						2,028,333.33
2016 CDM Programs		2,028,333.33					2,028,333.33
2017 CDM Programs			2,028,333.33				2,028,333.33
2018 CDM Programs				2,028,333.33			2,028,333.33
2019 CDM Programs					2,028,333.33		2,028,333.33
2020 CDM Programs						2,028,333.33	2,028,333.33
Total in Year	**2,028,333.33**	**2,028,333.33**	**2,028,333.33**	**2,028,333.33**	**2,028,333.33**	**2,028,333.33**	**12,170,000.00**

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1   Ex.3/Tab 2/Sch.2 – Allocation of CDM Results

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3   Table 3.26 below illustrates the method behind LUI's allocation of CDM reduction in consumption per class

4   and the manual adjustment for the load forecasts for CDM results for 2016 and 2017 included in the target

5   column.

6   **Table 3.26: CDM Adjustments to Load Forecast**

kWh		Year	2016	2017		Share	Target	Adjusted (kWh)
Residential		kWh	80,450,046	80,599,694		32.48%	1,226,618	79,373,076
General Service < 50 kW		kWh	33,252,587	33,314,441		13.42%	507,001	32,807,440
General Service > 50 kW - 2999 kW		kWh	116,816,733	117,034,027		47.16%	1,781,099	115,252,929
Streetlighting		kWh	1,454,008	1,456,712		0.59%	22,169	1,434,543
Sentinel Lighting		kWh	44,246	44,329		0.02%	675	43,654
General Service 3000-4999 kW		kWh	15,089,931	15,118,000		6.09%	230,075	14,887,925
Unmetered Scattered Load		kWh	608,115	609,246		0.25%	9,272	599,974
Total			247,715,665	248,176,449		100.00%	3,776,908.25	244,399,541

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1   **Final Weather Adjusted Load Forecast**

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3   Ex.3/Tab 3/Sch.1 – Final Weather Adjusted Load Forecast

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5   Table 3.27 provides details of the final average customers during the year and the final billed volume load

6   forecast for the 2016 Bridge and 2017 Test Year. Additionally, Table 3.27 provides the 2012-2015 actual

7   average customers during the year and actual load. This summary of the billing determinants by rate class

8   will be used to develop LUI's proposed rates.

9   **Table 3.27: Final Customer and Volume Load Forecast**

	Year	2012	2013	2014	2015	2016	2017
Residential	Cust/Conn	8,525	8,627	8,761	8,885	9,027	9,171
	kWh	70,966,505	74,334,017	75,761,820	79,671,289	80,450,046	79,373,076
	kW	-	-	-	-	-	-
General Service < 50 kW	Cust/Conn	1,067	1,058	1,069	1,078	1,082	1,087
	kWh	33,200,382	33,337,507	32,425,865	32,930,701	33,252,587	32,807,440
	kW	-	-	-	-	-	-
General Service > 50 kW - 2999 kW	Cust/Conn	137	142	138	134	133	132
	kWh	128,532,327	125,354,819	119,336,146	115,685,946	116,816,733	115,252,929
	kW	322,335	323,427	314,352	306,814	295,035	291,085
Streetlighting	Cust/Conn	2,802	2,862	2,634	2,694	2,697	2,699
	kWh	1,222,128	1,249,953	1,258,253	1,439,933	1,454,008	1,434,543
	kW	3,340	3,386	3,409	3,416	3,906	3,853
Sentinel Lighting	Cust/Conn	54	54	54	54	54	54
	kWh	41,938	44,355	42,943	43,818	44,246	43,654
	kW	132	132	132	132	135	133
General Service 3000-4999 kW	Cust/Conn	1	1	1	1	1	1
	kWh	15,193,348	13,952,451	12,584,229	14,943,860	15,089,931	14,887,925
	kW	39,663	37,943	36,604	33,868	37,270	36,771
Unmetered Scattered Load	Cust/Conn	95	94	93	90	93	96
	kWh	627,467	668,402	555,548	602,228	608,115	599,974
	kW	-	-	-	-	-	-
Total	**Cust/Conn**	**12,681**	**12,837**	**12,749**	**12,936**	**13,086**	**13,239**
	kWh	**249,784,096**	**248,941,504**	**241,964,804**	**245,317,776**	**247,715,665**	**244,399,541**
	kW	**365,470**	**364,888**	**354,496**	**344,230**	**336,345**	**331,842**

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1   **Accuracy of Load Forecast and Variance Analysis**

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3   Ex.3/Tab 4/Sch.1 – Variance Analysis of Load Forecast

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5   According to section 2.3.2 of the OEB filing requirements applicants must demonstrate the historical

6   accuracy of the load forecast approach. LUI has provided revenue, customer/connection count by rate

7   class and total system load in kWh and variances.

8   **Distribution Revenues**

9   LUI has provided the 2017 Test Year Revenue on both existing and proposed rates in Table 3.28. This is

10   provided further and discussed in detail in Exhibit 6.

11   **Table 3.28: 2017 Test Year Revenue Provided on Existing and Proposed Rates**

Customer Class Name	per	Test Year Volume	Fixed Rate	Variable Distribution Rate	Customers/Connections (Average)	Fixed Charge Revenue	Transformer Allowance	Variable Revenue	Total	% Total
					Test Year Projected Revenue from Existing Rates					
Residential	kWh	79,373,076	13.14	0.0113	9,171	1,446,101		896,916	2,343,017	52.12%
General Service < 50 kW	kWh	32,807,440	23.96	0.0086	1,087	312,485		282,144	594,629	13.23%
General Service 50-2999 kW	kW	291,085	78.03	3.4597	132	123,197	(115,270)	1,007,067	1,130,265	25.14%
General Service 3000-4999 kW	kW	36,771	5800.89	2.2564	1	69,611	(22,062)	82,970	152,580	3.39%
Street Lighting	kW	3,853	4.08	25.8268	2,699	132,150		99,520	231,670	5.15%
Sentinel Lights	kW	133	4.95	12.2032	54	3,195		1,621	4,815	0.11%
Unmetered Scattered Load	kWh	599,974	14.23	0.0371	96	16,330		22,259	38,589	0.86%
Total Fixed Revenue		**113,112,333**			**13,239**	**2,103,068**	**(137,332)**	**2,392,497**	**4,495,565**	**100.00%**

Customer Class Name	per	Test Year Volume	Fixed Rate	Variable Distribution Rate	Customers/Connections (Average)	Fixed Charge Revenue	Transformer Allowance	Variable Revenue	Total	% Total
					Test Year Projected Revenue from Proposed Rates					
Residential	kWh	79,373,076	16.46	0.0078	9,171	1,811,479		620,933	2,432,411	53.44%
General Service < 50 kW	kWh	32,807,440	23.96	0.0089	1,087	312,485		292,307	604,792	13.29%
General Service 50-2999 kW	kW	291,085	78.03	3.5064	132	123,197	(115,270)	1,020,660	1,143,857	25.13%
General Service 3000-4999 kW	kW	36,771	5800.89	2.3086	1	69,611	(22,062)	84,888	154,499	3.39%
Street Lighting	kW	3,853	4.08	12.6763	2,699	132,150		48,846	180,996	3.98%
Sentinel Lights	kW	133	4.95	12.5089	54	3,195		1,661	4,856	0.11%
Unmetered Scattered Load	kWh	599,974	14.23	0.0236	96	16,330		14,131	30,460	0.67%
Total Fixed Revenue		**113,112,333**			**13,239**	**2,468,446**	**(137,332)**	**2,083,426**	**4,551,872**	**100.00%**

13   Table 3.29 to Table 3.34 illustrates LUI's revenues, provided using both existing and proposed rates, as

14   previously illustrated in Table 3.0 (Ex3/Tab 1/Sch.2). Yearly variances are discussed following each of the

15   tables.

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2 **Table 3.29: Revenue Variance 2012 Board Approved to 2012 Actual**

Distribution Revenue	2012 Board Approved	2012 Actual	Variance
Residential	2,070,307	2,070,965	658
GS<50 kW	587,442	548,964	(38,478)
GS 50-29999 kW	1,031,352	1,160,118	128,766
GS 3000-4999 kW	95,472	78,590	(16,882)
Street Lighting	211,707	218,666	6,959
Sentinel Lights	5,545	4,176	(1,369)
Unmetered Scattered Load	37,681	32,768	(4,913)
Total Distribution Revenue	**4,039,506**	**4,114,248**	**74,742**

3

4 The total distribution revenue in 2012 of $4,114,248 is $74,742 or 1.85% greater than 2012 Board

5 Approved. The main reasons for the variance is:

6   1) The 2012 Board Approved kWh for residential and GS <50 kW was 73,125,152 and 35,160,634

7   respectively. The actual kWh for residential was 70,966,505 (a 3% decrease) and the actual for

8   GS< 50 kWh was 32,312,958 (an 8% decrease).

9

10   2) The 2012 Board Approved kWh for GS 50-2999 kWh was 120,608,902 and the customer count

11   was 127. The actual kWh was 128,532,327 and the actual customer count was 137.

12

13 **Table 3.30: Revenue Variance 2012 Actual to 2013 Actual**

Distribution Revenue	2012 Actual	2013 Actual	Variance
Residential	2,070,965	2,092,190	21,225
GS<50 kW	548,964	568,430	19,465
GS 50-2999 kW	1,160,118	1,099,237	(60,881)
GS 3000-4999 kW	78,590	95,828	17,238
Street Lighting	218,666	205,030	(13,636)
Sentinel Lights	4,176	4,159	(17)
Unmetered Scattered Load	32,768	35,499	2,731
Total Distribution Revenue	**4,114,248**	**4,100,373**	**(13,875)**

14

15 The total distribution revenue in 2013 of $4,100,373 is $13,875 or 0.34% less than 2012 Actual. The main

16 reasons for the variance is:

1) Increase in residential revenue was primarily due to an increase in rates. Furthermore, LUI's number of residential customers increased by 1.20% and subsequently kWh consumption increased by 4.75%. Increases were expected as a large residential development was completed in 2013.

2) The decrease in revenue related to GS 50-2999 kW is related to a decrease in consumption of 3,117,508 kWh or 2.47%. Although the number of customers increased from 2012, the consumption decreased, primarily as a result of conservation efforts in 2013.

Table 3.31: Revenue Variance 2013 Actual to 2014 Actual

Distribution Revenue	2013 Actual	2014 Actual	Variance
Residential	2,092,190	2,116,987	24,797
GS<50 kW	568,430	548,611	(19,819)
GS 50-2999 kW	1,099,237	1,053,289	(45,948)
GS 3000-4999 kW	95,828	109,230	13,402
Street Lighting	205,030	212,972	7,942
Sentinel Lights	4,159	4,125	(34)
Unmetered Scattered Load	35,499	35,245	(254)
Total Distribution Revenue	**4,100,373**	**4,080,459**	**(19,914)**

The total distribution revenue in 2014 of $4,080,459 is $19,914 or 0.49% less than 2013 Actual. The main reasons for the variance is:

1) Increase in residential revenue of $24,797 or 1.19% is the result of an increase in rates and an increase in consumption of 1,427,803 kWh or 1.92%. The increase in consumption is consistent with the average annual increase in residential customers.

2) The decrease in GS 50-2999 kW revenue of $45,948 or 4.18% is the result of a decrease in customers and a subsequent decrease in consumption of 6,018,673 kWh or 4.80%. The decrease is mainly the result of the loss of a significant GS 50-2999 kW customer that in 2013 accounted for approximately 4.50% of the total GS 50-2999 kW consumption.

Table 3.32: Revenue Variance 2014 Actual to 2015 Actual

Distribution Revenue	2014 Actual	2015 Actual	Variance
Residential	2,116,987	2,143,042	26,055
GS<50 kW	548,611	564,313	15,702
GS 50-2999 kW	1,053,289	1,022,332	(30,957)
GS 3000-4999 kW	109,230	118,619	9,390
Street Lighting	212,972	207,652	(5,320)
Sentinel Lights	4,125	4,243	118
Unmetered Scattered Load	35,245	35,661	416
Total Distribution Revenue	4,080,459	4,095,862	15,403

The total distribution revenue in 2015 of $4,095,862 is $15,403 or 0.38% greater than 2014 Actual. The main reasons for the variance is:

1) Residential revenue increased by $26,055 or 1.23%. The increase is due to an increase in rates and an increase in consumption of 3,909,469 kWh or 5.16% from 2014. The increase is the result of an increase in residential customers, mainly the result of the completion of a new subdivision.

2) Increase in revenue related to GS < 50kW is primarily the result of a slight increase in customers as a result of two new manufacturing businesses.

3) The decrease in revenue related to GS 50-2999 is the result of a decrease in consumption of 3,650,200 kWh or 3.06%.

Table 3.33: Revenue Variance 2015 Actual to 2016 Bridge

Distribution Revenue	2015 Actual	2016 Bridge	Variance
Residential	2,143,042	2,142,486	(556)
GS<50 kW	564,313	606,113	41,800
GS 50-2999 kW	1,022,332	1,135,202	112,870
GS 3000-4999 kW	118,619	185,088	66,468
Street Lighting	207,652	219,280	11,628
Sentinel Lights	4,243	5,759	1,515
Unmetered Scattered Load	35,661	38,984	3,323
Total Distribution Revenue	4,095,862	4,332,911	237,049

The total distribution revenue in 2016 of $4,332,911 is $237,049 or 5.79% greater than 2015 Actual. The main reasons for the variance is:

1) Average customer growth is expected to increase by 1.16% and an increase in usage of .98%.

2) Increase in rates effective May 1, 2016 of 1.95% as per LUI's 2016 IRM.

1 **Table 3.34: Revenue Variance 2016 Bridge to 2017 Test**

Distribution Revenue	2016 Bridge	2017 Test	Variance
Residential	2,142,486	2,373,288	230,802
GS<50 kW	606,113	602,311	(3,802)
GS 50-2999 kW	1,135,202	1,028,108	(107,094)
GS 3000-4999 kW	185,088	132,204	(52,884)
Street Lighting	219,280	234,663	15,384
Sentinel Lights	5,759	4,878	(881)
Unmetered Scattered Load	38,984	39,087	103
Total Distribution Revenue	**4,332,911**	**4,414,540**	**81,629**

2

3 The total distribution revenue in 2017 of $4,414,540 is $81,629 or 1.88% greater than the 2016 Bridge
4 Year.

5 **Customer/Connection Count and Consumption by Rate Class**

6 Table 3.45 below illustrates the yearly change in the average change in customer and consumption for the
7 Residential class.

8 **Table 3.45: Residential Variance**

Year	Customer Count	% Change	kWh	% Change
2006	7,704	-	71,590,903	-
2007	7,842	1.79%	72,101,506	0.71%
2008	7,956	1.45%	73,848,511	2.42%
2009	8,188	2.91%	74,657,177	1.10%
2010	8,297	1.33%	73,436,594	-1.63%
2011	8,425	1.55%	73,193,401	-0.33%
2012	8,525	1.19%	70,966,505	-3.04%
2013	8,627	1.20%	74,334,017	4.75%
2014	8,761	1.55%	75,761,820	1.92%
2015	8,885	1.42%	79,671,289	5.16%
2016	9,027	1.60%	80,450,046	0.98%
2017	9,171	1.60%	79,373,076	-1.34%

9

10 The residential customer class has been growing steadily since 2006, with an average annual increase of
11 1.6%. LUI is expecting the increase in growth from the addition of new customers to be offset by the
12 allocated CDM savings based on the 2016 to 2020 target assigned by the IESO.

13 Table 3.46 below illustrates the yearly change in the average change in customer and consumption for the
14 GS < 50 kW class.

15

1   **Table 3.46: GS < 50 kW Variance**

Year	Customer Count	% Change	kWh	% Change
2006	1,037	-	32,947,636	-
2007	1,043	0.63%	34,123,003	3.57%
2008	1,048	0.43%	35,250,366	3.30%
2009	1,063	1.43%	35,803,467	1.57%
2010	1,069	0.56%	34,496,064	-3.65%
2011	1,073	0.37%	38,814,987	12.52%
2012	1,067	-0.51%	33,200,382	-14.47%
2013	1,058	-0.84%	33,337,507	0.41%
2014	1,069	0.99%	32,425,865	-2.73%
2015	1,078	0.84%	32,930,701	1.56%
2016	1,082	0.43%	33,252,587	0.98%
2017	1,087	0.43%	32,807,440	-1.34%

2

3   The number of customers in the GS < 50 kW class has been steadily increasing since 2006. The customer
4   count had decreased slightly in 2012 and 2013 due to an economic downturn, but recovered in 2014 and
5   2015. Furthermore the kWh consumption decreased significantly in 2012 as a result of LUI's increased
6   conservation initiatives.

7   Table 3.47 below illustrates the yearly change in the average change in customer and consumption for the
8   GS 50-2999 kW class.

9   **Table 3.47: GS 50-2999 kW Variance**

Year	Customer Count	% Change	kWh	% Change	kW	% Change
2006	146	-	120,975,702	-	297,477	-
2007	148	1.37%	122,417,181	1.19%	300,809	1.12%
2008	133	-9.83%	121,003,376	-1.15%	298,912	-0.63%
2009	130	-2.63%	114,875,960	-5.06%	290,143	-2.93%
2010	131	1.16%	120,290,733	4.71%	299,041	3.07%
2011	132	0.38%	120,834,914	0.45%	300,129	0.36%
2012	137	4.18%	128,532,327	6.37%	322,335	7.40%
2013	142	3.28%	125,354,819	-2.47%	323,427	0.34%
2014	138	-2.47%	119,336,146	-4.80%	314,352	-2.81%
2015	134	-2.90%	115,685,946	-3.06%	306,814	-2.40%
2016	133	-0.91%	116,816,733	0.98%	295,035	-3.84%
2017	132	-0.91%	115,252,929	-1.34%	291,085	-1.34%

10

11   The GS 50-2999 kW class increased steadily from 2006 to 2013. Decreases in customer counts in 2014
12   and 2015, are mainly the result of the closure of a few manufacturing businesses within Cobourg. Total

1 consumption for both kWh and kW were consistent from 2006 to 2012, and decreased in 2013 to 2015, the

2 result of decreases in customer count and conservation initiatives.

3 Table 3.48 below illustrates the yearly change in the average change in customer and consumption for the

4 GS 3000-4999 kW class.

5 **Table 3.48: GS 3000-4999 kW Variance**

Year	Customer Count	% Change	kWh	% Change	kW	% Change
2006	1	-	23,443,190	-	48,479	-
2007	1	0.00%	20,583,615	-12.20%	46,227	-4.65%
2008	1	0.00%	18,805,505	-8.64%	40,464	-12.47%
2009	1	0.00%	19,554,367	3.98%	49,629	22.65%
2010	1	0.00%	19,036,344	-2.65%	45,256	-8.81%
2011	1	0.00%	15,051,682	-20.93%	42,336	-6.45%
2012	1	0.00%	15,193,348	0.94%	39,663	-6.31%
2013	1	0.00%	13,952,451	-8.17%	37,943	-4.34%
2014	1	0.00%	12,584,229	-9.81%	36,604	-3.53%
2015	1	0.00%	14,943,860	18.75%	33,868	-7.47%
2016	1	0.00%	15,089,931	0.98%	37,270	10.05%
2017	1	0.00%	14,887,925	-1.34%	36,771	-1.34%

6

7 LUI only has one GS 3000-4999 kW customer and doesn't expect any changes in the customer count for

8 the class. Total consumption for both kWh and kW has decreased consistently since 2006 and is primarily

9 the result of a decrease in operating activity and conservation efforts.

10 Table 3.49 below illustrates the yearly change in the average change in customer and consumption for the

11 Street Light class.

12 **Table 3.49: Street Light Class**

Year	Customer Count	% Change	kWh	% Change	kW	% Change
2006	2,671	-	1,923,290	-	5,222	-
2007	2,743	2.70%	1,931,928	0.45%	5,240	0.35%
2008	2,793	1.82%	1,867,800	-3.32%	5,091	-2.84%
2009	2,816	0.81%	1,350,901	-27.67%	3,654	-28.23%
2010	2,752	-2.26%	1,194,282	-11.59%	3,302	-9.64%
2011	2,759	0.25%	1,222,967	2.40%	3,321	0.58%
2012	2,802	1.56%	1,222,128	-0.07%	3,340	0.57%
2013	2,862	2.14%	1,249,953	2.28%	3,386	1.38%
2014	2,634	-7.97%	1,258,253	0.66%	3,409	0.67%
2015	2,694	2.28%	1,439,933	14.44%	3,416	0.22%
2016	2,697	0.10%	1,454,008	0.98%	3,906	14.33%
2017	2,699	0.10%	1,434,543	-1.34%	3,853	-1.34%

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1   The customer count for street lights increased consistently from 2006 to 2013 and decreased in 2014.

2   Table 3.50 below illustrates the yearly change in the average change in customer and consumption for the
3   Sentinel Light class.

4   **Table 3.50: Sentinel Light Class**

Year	Customer Count	% Change	kWh	% Change	kW	% Change
2006	55	-	76,064	-	211	-
2007	55	0.00%	76,442	0.50%	212	0.47%
2008	58	5.45%	81,054	6.03%	225	5.98%
2009	60	2.59%	78,800	-2.78%	222	-1.30%
2010	55	-7.56%	54,122	-31.32%	219	-1.36%
2011	53	-3.64%	43,758	-19.15%	132	-39.75%
2012	54	1.89%	41,938	-4.16%	132	0.00%
2013	54	0.00%	44,355	5.76%	132	0.00%
2014	54	0.00%	42,943	-3.18%	132	0.00%
2015	54	0.00%	43,818	2.04%	132	0.00%
2016	54	-0.20%	44,246	0.98%	135	1.99%
2017	54	-0.20%	43,654	-1.34%	133	-1.34%

5

6   Total customer count, kWh consumption, kW consumption were consistent from the period 2006 to 2015.
7   LUI does not expect any significant changes in the Sentinel Light class.

8   Table 3.51 below illustrates the yearly change in the average change in customer and consumption for the
9   Unmetered Scattered Load class.

10   **Table 3.51: Unmetered Scattered Load Class**

Year	Customer Count	% Change	kWh	% Change
2006	69	-	595,251	-
2007	81	17.52%	605,328	1.69%
2008	90	11.80%	720,400	19.01%
2009	96	6.11%	747,874	3.81%
2010	95	-0.52%	716,623	-4.18%
2011	96	1.05%	659,574	-7.96%
2012	95	-1.56%	627,467	-4.87%
2013	94	-1.06%	668,402	6.52%
2014	93	-0.53%	555,548	-16.88%
2015	90	-3.23%	602,228	8.40%
2016	93	3.08%	608,115	0.98%
2017	96	3.08%	599,974	-1.34%

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1   Customer count has remained consistent from 2006 to 2015 and LUI does not expect changes in the

2   customer counts in 2016 and 2017.

3   Table 3.52 below provides details of the variances by rate class between the 2016 Bridge Year and 2017

4   Test Year (Weather Normalized).

5   **Table 3.52: Variance Analysis by Class**

	Year	2016	2017	Variance
Residential	Cust/Conn	9,027	9,171	144
	kWh	80,450,046	80,599,694	149,648
	kW	-	-	-
General Service < 50 kW	Cust/Conn	1,082	1,087	5
	kWh	33,252,587	33,314,441	61,854
	kW	-	-	-
General Service > 50 kW - 2999 kW	Cust/Conn	133	132	(1)
	kWh	116,816,733	117,034,027	217,295
	kW	295,035	295,584	549
Streetlighting	Cust/Conn	2,697	2,699	3
	kWh	1,454,008	1,456,712	2,705
	kW	3,906	3,913	7
Sentinel Lighting	Cust/Conn	54	54	(0)
	kWh	44,246	44,329	82
	kW	135	135	0
General Service 3000-4999 kW	Cust/Conn	1	1	0
	kWh	15,089,931	15,118,000	28,069
	kW	37,270	37,339	69
Unmetered Scattered Load	Cust/Conn	93	96	3
	kWh	608,115	609,246	1,131
Total	**Cust/Conn**	**13,086**	**13,239**	**153**
	kWh	**247,715,665**	**248,176,449**	**460,784**
	kW	**336,345**	**336,970**	**626**

6

7   Table 3.53 below presents the actual average use per customer, by customer class, and historical and

8   adjusted forecast average use per customer generated using the load forecast. As can been seen from the

1 results below, the predicted use per customer follows the trend created from its historical usage per

2 customer.

3 LUI also presented Board Appendix 2-IA in Table 3.54.

4 **Table 3.53: Average per Customer Use**

Year	Residential Per Customer kWh	General Service < 50 Per Customer kWh	General Service 50-2999 kW Per Customer kWh	General Service 50-2999 kW Per Customer kW	General Service 3000-4999 kW Per Customer kWh	General Service 3000-4999 kW Per Customer kW	Street Lighting Per Customer kWh	Street Lighting Per Customer kW	Sentinel Lighting Per Customer kWh	Sentinel Lighting Per Customer kW	Unmetered Scattered Load Per Customer kWh
2006	9,293	31,787	831,448	2,045	23,443,190	48,479	720	2	1,383	4	8,690
2007	9,194	32,716	829,947	2,039	20,583,615	46,227	704	2	1,390	4	7,520
2008	9,282	33,652	909,800	2,247	18,805,505	40,464	669	2	1,397	4	8,004
2009	9,118	33,697	887,073	2,240	19,554,367	49,629	480	1	1,324	4	7,831
2010	8,852	32,285	918,250	2,283	19,036,344	45,256	434	1	984	4	7,543
2011	8,688	36,191	918,897	2,282	15,051,682	42,336	443	1	826	2	6,871
2012	8,325	31,116	938,192	2,353	15,193,348	39,663	436	1	777	2	6,640
2013	8,616	31,510	885,900	2,286	13,952,451	37,943	437	1	821	2	7,149
2014	8,648	30,347	864,755	2,278	12,584,229	36,604	478	1	795	2	5,974
2015	8,967	30,562	863,328	2,290	14,943,860	33,868	534	1	811	2	6,691
2016	8,912	30,728	879,779	2,222	15,089,931	37,270	539	1	821	2	6,555
2017	8,788	30,653	889,516	2,247	15,118,000	37,339	540	1	824	3	6,371

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1   **Table 3.54: OEB Appendix 2-IA Summary and Variances of Actual and Forecast Data**

	2012 Board Approved	2012	2013	2014	2015	2016 Bridge	2017 Test
Residential							
# of Customers	8,603	8,525	8,627	8,761	8,885	9,027	9,171
kWh	73,125,152	70,966,505	74,334,017	75,761,820	79,671,289	80,450,046	79,373,076
kW							
Variance Analysis							
# of Customers		-0.91%	0.28%	1.83%	3.28%	4.93%	6.60%
kWh		-2.95%	1.65%	3.61%	8.95%	10.02%	8.54%
kW		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service < 50 kW							
# of Customers	1,102	1,067	1,058	1,069	1,078	1,082	1,087
kWh	35,160,634	33,200,382	33,337,507	32,425,865	32,930,701	33,252,587	32,807,440
kW							
Variance Analysis							
# of Customers		-3.18%	-3.99%	-3.04%	-2.22%	-1.80%	-1.38%
kWh		-5.58%	-5.19%	-7.78%	-6.34%	-5.43%	-6.69%
kW		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service 50-2999 kW							
# of Customers	127	137	142	138	134	133	132
kWh	120,608,902	128,532,327	125,354,819	119,336,146	115,685,946	116,816,733	115,252,929
kW	303,629	322,335	323,427	314,352	306,814	295,035	291,085
Variance Analysis							
# of Customers		7.87%	11.42%	8.66%	5.51%	4.55%	3.60%
kWh		6.57%	3.93%	-1.06%	-4.08%	-3.14%	-4.44%
kW		6.16%	6.52%	3.53%	1.05%	-2.83%	-4.13%
General Service 3000-4999 kW							
# of Customers	1	1	1	1	1	1	1
kWh	19,295,356	15,193,348	13,952,451	12,584,229	14,943,860	15,089,931	14,887,925
kW	47,442	39,663	37,943	36,604	33,868	37,270	36,771
Variance Analysis							
# of Customers		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
kWh		-21.26%	-27.69%	-34.78%	-22.55%	-21.80%	-22.84%
kW		-16.40%	-20.02%	-22.85%	-28.61%	-21.44%	-22.49%
Street Lighting							
# of Customers	2,804	2,802	2,862	2,634	2,694	2,697	2,699
kWh	1,215,575	1,222,128	1,249,953	1,258,253	1,439,933	1,454,008	1,434,543
kW	3,343	3,340	3,386	3,409	3,416	3,906	3,853
Variance Analysis							
# of Customers		-0.07%	2.07%	-6.06%	-3.92%	-3.83%	-3.74%
kWh		0.54%	2.83%	3.51%	18.46%	19.61%	18.01%
kW		-0.09%	1.29%	1.96%	2.18%	16.83%	15.27%
Sentinel Lights							
# of Customers	54	54	54	54	54	54	54
kWh	78,431	41,938	44,355	42,943	43,818	44,246	43,654
kW	218	132	132	132	132	135	133
Variance Analysis							
# of Customers		0.00%	0.00%	0.00%	0.00%	-0.20%	-0.41%
kWh		-46.53%	-43.45%	-45.25%	-44.13%	-43.59%	-44.34%
kW		-39.45%	-39.45%	-39.45%	-39.45%	-38.25%	-39.07%
Unmetered Scattered Load							
# of Customers	77	95	94	93	90	93	96
kWh	716,623	627,467	668,402	555,548	602,228	608,115	599,974
kW							
Variance Analysis							
# of Customers		22.73%	21.43%	20.78%	16.88%	20.48%	24.19%
kWh		-12.44%	-6.73%	-22.48%	-15.96%	-15.14%	-16.28%
kW		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Totals

	2012 Board Approved	2012	2013	2014	2015	2016 Bridge	2017 Test
Customers / Connections	12,768	12,681	12,837	12,749	12,936	13,086	13,239
kWh	250,200,673	249,784,096	248,941,504	241,964,804	245,317,776	247,715,665	244,399,541
kW from applicable classes	354,632	365,470	364,888	354,496	344,230	336,345	331,842

Totals - Variance

		2012	2013	2014	2015	2016 Bridge	2017 Test
Customers / Connections		-0.69%	0.54%	-0.15%	1.31%	2.49%	3.69%
kWh		-0.17%	-0.50%	-3.29%	-1.95%	-0.99%	-2.32%
kW from applicable classes		3.06%	2.89%	-0.04%	-2.93%	-5.16%	-6.43%

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1   **Other Revenues**

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3   Ex.3/Tab 5/Sch.1 – Overview of Other Revenue

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

6   than distribution rates. For this reason, other revenues are deducted from LUI's proposed revenue

7   requirement. Further details on the derivation of the Revenue Requirement are presented at Exhibit 6.

8   Other Distribution Revenues includes items such as:

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10   • Specific Service Charges

11   • Late Payment Charges

12   • Other Distribution Revenues

13   • Other Income and Expenses

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15   **OEB Appendix 2-H: Other Operating Revenues**

16   A detailed breakdown by USoA account is shown in OEB Appendix 2-H. Year over year variance analysis

17   follows at Ex.3/Tab1/Sch.2

USoA #	USoA Description	2012 Actual	2013 Actual²	Actual Year²	Actual Year²	Bridge Year²	Test Year
		2012	**2013**	**2014**	**2015**	**2016**	**2017**
	Reporting Basis	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**
4235	Specific Service Charges	150,289	280,944	233,900	141,958	143,627	146,170
4225	Late Payment Charges	49,483	63,493	51,364	68,477	69,921	73,000
4082	Retail Services Revenues	7,815	7,983	7,593	8,056	7,861	7,959
4084	Service Transaction Requests	2,956	2,798	2,612	2,620	2,747	2,984
4086	SSS Administration	36,198	35,886	36,268	35,555	36,622	37,721
4210	Rent from Electric Property	118,744	104,029	129,893	137,622	141,751	146,003
4355	Gain on Disposition	0	9,250	0	2,500	0	0
4360	Loss on Disposition	0	0	(11,230)	0	0	0
4390	Miscellaneous Non-Operating	5,147	(30)	0	0	0	0
4405	Interest and Dividend	(9,366)	10,957	6,963	33,279	33,798	34,136
Specific Service Charges		$150,289	$280,944	$233,900	$141,958	$143,627	$146,170
Late Payment Charges		49,483	63,493	51,364	68,477	69,921	73,000
Other Operating Revenues		165,713	150,696	176,365	183,854	188,981	194,667
Other Income or Deductions		(4,219)	20,177	(4,267)	35,779	33,798	34,136
Total		$361,266	$515,310	$457,363	$430,068	$436,326	$447,972

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Account 4086 - SSS Administration	2012 Actual	2013 Actual	2014 Actual	2014 Actual	Bridge Year	Test Year
	2012	2013	2014	2015	2016	2017
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Residential	23,333	24,249	24,701	24,892	25,640	26,410
General Service less than 50 kW	2,930	2,883	2,836	2,826	2,911	2,998
General Service 50-2999 kW	341	325	341	287	295	304
General Service 3000-4999 kW	3	3	3	3	3	3
Street Lighting	9,127	7,853	7,946	7,167	7,382	7,603
Sentinel Lights	234	307	219	122	126	130
Unmtered Scattered Load	230	266	222	258	265	273
Total	36,198	35,886	36,268	35,555	36,622	37,721

Account 4210 - Rent from Electric Property	2012 Actual	2013 Actual	2014 Actual	2014 Actual	Bridge Year	Test Year
	2012	2013	2014	2015	2016	2017
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Pole rentals	51,600	55,600	64,800	60,930	62,758	64,640
Building rental - affiliate	67,144	48,429	65,093	76,692	78,993	81,363
Total	118,744	104,029	129,893	137,622	141,751	146,003

Account 4355/4360 - Gain/Loss on Disposition	2012 Actual	2013 Actual	2014 Actual	2014 Actual	Bridge Year	Test Year
	2012	2013	2014	2015	2016	2017
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Truck	0	1,750				
Bucket truck	0	7,500				
Tension machine			(16,730)			
Derrick truck			5,500			
Chevrolet van - 2007				2,500		
Total	0	9,250	(11,230)	2,500	0	0

Account 4405 - Interest and Dividend Income

	2012 Actual	2013 Actual	2014 Actual	2014 Actual	Bridge Year	Test Year
	2012	2013	2014	2015	2016	2017
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Bank deposit interest	5,073	4,518	5,052	5,451	5,691	5,748
Smart meter adjustment	(36,322)					
Regulatory interest income	21,883	6,439	1,911	27,828	28,106	28,388
Total	(9,366)	10,957	6,963	33,279	33,797	34,136

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1 Ex.3/Tab 5/Sch.2 – Other Revenue Variance Analysis

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3 Table 3.55 to 3.61 below presents year over year variances of other operating revenues.

4 **Table 3.55: Variance Analysis of Other Operating Revenues 2012 Board Appproved to 2012 Actual**

USoA #	USoA Description	Board Approved	Actual Year		
		2012	2012	Variance	Variance
	Reporting Basis	MIFRS	MIFRS	$	%
4235	Specific Service Charges	126,500	150,289	23,789	18.81%
4225	Late Payment Charges	63,140	49,483	(13,657)	-21.63%
4082	Retail Services Revenues	9,985	7,815	(2,171)	-21.74%
4084	Service Transaction Requests	4,015	2,956	(1,059)	-26.37%
4086	SSS Administration	0	36,198	36,198	0.00%
4210	Rent from Electric Property	108,000	118,744	10,744	9.95%
4355	Gain on Disposition	0	0	0	0.00%
4360	Loss on Disposition	0	0	0	0.00%
4390	Miscellaneous Non-Operating	0	5,147	5,147	0.00%
4405	Interest and Dividend	28,500	(9,366)	(37,866)	-132.86%
Specific Service Charges		126,500	150,289	23,789	18.81%
Late Payment Charges		63,140	49,483	(13,657)	-21.63%
Other Operating Revenues		122,000	165,713	43,713	35.83%
Other Income or Deductions		28,500	(4,219)	(32,719)	-114.80%
Total		**340,140**	**361,266**	**21,126**	**6.21%**

5

6 The 2012 other revenue was higher than the 2012 Board Approved amount by $21,126. The items primarily
7 related to this variance include:

8 • Increase in specific service charges is associated with slight increases in late payment charges
9   and change in occupancy charges.

10

11 • The interest (account #4405) variance from the 2012 Board Approved amount compared to the
12   2012 Actual is derived from $36,322 in debit adjustments related to smart meter interest recovery.
13   Bank account interest was $5,073 and interest on DVAD accounts was $21,883.

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1 **Table 3.56: Variance Analysis of Other Operating Revenues 2012 Actual to 2013 Actual**

USoA #	USoA Description	MIFRS	MIFRS	Variance	Variance
	Reporting Basis	**2012**	**2013**	**$**	**%**
4235	Specific Service Charges	150,289	280,944	130,655	86.94%
4225	Late Payment Charges	49,483	63,493	14,010	28.31%
4082	Retail Services Revenues	7,815	7,983	168	2.15%
4084	Service Transaction Requests	2,956	2,798	(158)	-5.34%
4086	SSS Administration	36,198	35,886	(312)	-0.86%
4210	Rent from Electric Property	118,744	104,029	(14,715)	-12.39%
4355	Gain on Disposition	0	9,250	9,250	0.00%
4360	Loss on Disposition	0	0	0	0.00%
4390	Miscellaneous Non-Operating	5,147	(30)	(5,177)	-100.58%
4405	Interest and Dividend	(9,366)	10,957	20,322	-216.99%
Specific Service Charges		150,289	280,944	130,655	86.94%
Late Payment Charges		49,483	63,493	14,010	28.31%
Other Operating Revenues		165,713	150,696	(15,017)	-9.06%
Other Income or Deductions		(4,219)	20,177	24,395	-578.25%
Total		**361,266**	**515,310**	**154,044**	**42.64%**

2

3 The 2013 other revenue was greater than the 2012 amount by $154,044. The items primarily related to this
4 variance include:

5 • Increase in specific service charges is the result of an allocation of revenue received from the
6 Town of Cobourg for various contract work.

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8 • A decrease in rent associated with a decrease in pole rentals.

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10 • Increase in interest and dividend income is the result of 2012 adjustment of $36,322 associated
11 with smart meters, which did not occur in 2013.

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1   **Table 3.57: Variance Analysis of Other Operating Revenues 2013 Actual to 2014 Actual**

USoA #	USoA Description	MIFRS	MIFRS	Variance	Variance
	Reporting Basis	**2013**	**2014**	**$**	**%**
4235	Specific Service Charges	280,944	233,900	(47,043)	-16.74%
4225	Late Payment Charges	63,493	51,364	(12,129)	-19.10%
4082	Retail Services Revenues	7,983	7,593	(390)	-4.89%
4084	Service Transaction Requests	2,798	2,612	(187)	-6.67%
4086	SSS Administration	35,886	36,268	382	1.06%
4210	Rent from Electric Property	104,029	129,893	25,864	24.86%
4355	Gain on Disposition	9,250	0	(9,250)	-100.00%
4360	Loss on Disposition	0	(11,230)	(11,230)	0.00%
4390	Miscellaneous Non-Operating	(30)	0	30	-100.00%
4405	Interest and Dividend	10,957	6,963	(3,993)	-36.45%
Specific Service Charges		280,944	233,900	(47,043)	-16.74%
Late Payment Charges		63,493	51,364	(12,129)	-19.10%
Other Operating Revenues		150,696	176,365	25,669	17.03%
Other Income or Deductions		20,177	(4,267)	(24,443)	-121.15%
Total		**515,310**	**457,363**	**(57,947)**	**-11.25%**

2

3   The 2014 other revenue was less than the 2013 amount by $57,947. The items primarily related to this

4   variance include:

5   • A decrease in specific service charges (account #4235) as a result of a large amount of revenue

6   received from contract work completed for the Town of Cobourg in the prior year.

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8   • An increase in rent related to pole rentals.

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1   **Table 3.58: Variance Analysis of Other Operating Revenues 2014 Actual to 2015 Actual**

USoA #	USoA Description	MIFRS	MIFRS	Variance	Variance
	Reporting Basis	**2014**	**2015**	**$**	**%**
4235	Specific Service Charges	233,900	141,958	(91,942)	-39.31%
4225	Late Payment Charges	51,364	68,477	17,113	33.32%
4082	Retail Services Revenues	7,593	8,056	464	6.10%
4084	Service Transaction Requests	2,612	2,620	9	0.34%
4086	SSS Administration	36,268	35,555	(712)	-1.96%
4210	Rent from Electric Property	129,893	137,622	7,729	5.95%
4355	Gain on Disposition	0	2,500	2,500	0.00%
4360	Loss on Disposition	(11,230)	0	11,230	-100.00%
4390	Miscellaneous Non-Operating	0	0	0	0.00%
4405	Interest and Dividend	6,963	33,279	26,316	377.94%
Specific Service Charges		233,900	141,958	(91,942)	-39.31%
Late Payment Charges		51,364	68,477	17,113	33.32%
Other Operating Revenues		176,365	183,854	7,489	4.25%
Other Income or Deductions		(4,267)	35,779	40,046	-938.53%
Total		**457,363**	**430,068**	**(27,294)**	**-5.97%**

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3   The 2015 other revenue was lower than the 2014 amount by $27,294. The items primarily related to this
4   variance include:

5   • A decrease in specific service charges as a result of approximately $70,000 received in 2014
6   related to FIT customers, not received in 2015.

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8   • An increase in interest as a result of DVAD carrying charges, primarily the result of adjustment
9   associated with an OEB DVAD audit.

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1   **Table 3.59: Variance Analysis of Other Operating Revenues 2015 Actual to 2016 Bridge Year**

USoA #	USoA Description	MIFRS	MIFRS	Variance	Variance
	Reporting Basis	**2015**	**2016 Bridge**	**$**	**%**
4235	Specific Service Charges	141,958	143,627	1,668	1.18%
4225	Late Payment Charges	68,477	69,921	1,444	2.11%
4082	Retail Services Revenues	8,056	7,861	(195)	-2.42%
4084	Service Transaction Requests	2,620	2,747	127	4.83%
4086	SSS Administration	35,555	36,622	1,067	3.00%
4210	Rent from Electric Property	137,622	141,751	4,129	3.00%
4355	Gain on Disposition	2,500	0	(2,500)	-100.00%
4360	Loss on Disposition	0	0	0	0.00%
4390	Miscellaneous Non-Operating	0	0	0	0.00%
4405	Interest and Dividend	33,279	33,798	519	1.56%
Specific Service Charges		141,958	143,627	1,668	1.18%
Late Payment Charges		68,477	69,921	1,444	2.11%
Other Operating Revenues		183,854	188,981	5,127	2.79%
Other Income or Deductions		35,779	33,798	(1,981)	-5.54%
Total		**430,068**	**436,326**	**6,258**	**1.46%**

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3   The 2016 other revenue is expected to be higher than 2015 by $6,258. The items primarily related to this
4   variance include:

5   • Slight increases in specific service charges and late payments charges consistent with historical
6   increases.
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8   • An inflationary increase in rental revenue.

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1 **Table 3.60: Variance Analysis of Other Operating Revenues 2016 Bridge Year to 2017 Test Year**

USoA #	USoA Description	MIFRS	MIFRS	Variance	Variance
	Reporting Basis	2016 Bridge	2017 Test	$	%
4235	Specific Service Charges	143,627	146,170	2,543	1.77%
4225	Late Payment Charges	69,921	73,000	3,079	4.40%
4082	Retail Services Revenues	7,861	7,959	98	1.25%
4084	Service Transaction Requests	2,747	2,984	237	8.63%
4086	SSS Administration	36,622	37,721	1,099	3.00%
4210	Rent from Electric Property	141,751	146,003	4,253	3.00%
4355	Gain on Disposition	0	0	0	0.00%
4360	Loss on Disposition	0	0	0	0.00%
4390	Miscellaneous Non-Operating	0	0	0	0.00%
4405	Interest and Dividend	33,798	34,136	338	1.00%
Specific Service Charges		143,627	146,170	2,543	1.77%
Late Payment Charges		69,921	73,000	3,079	4.40%
Other Operating Revenues		188,981	194,667	5,686	3.01%
Other Income or Deductions		33,798	34,136	338	1.00%
Total		**436,326**	**447,972**	**11,646**	**2.67%**

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3 The 2017 other revenue is expected to be higher than 2016 by $11,646. The items primarily related to this
4 variance include:

5 • An inflationary increase in rental revenue.

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1   Ex.3/Tab 5/Sch.3 – Proposed Specific Service Charges
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3   LUI is proposing no changes to the current specific services charges.
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