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3.0 OPERATING REVENUE

3.1 OVERVIEW

Energy+ Inc. is proposing a total Service Revenue Requirement of \$36,825,314 for the 2019 Test Year. This amount includes a Base Revenue Requirement of \$35,170,323 plus revenue offsets of \$1,654,991 to be recovered through Other Revenue.

Other Revenue includes Late Payment charges, Specific Service charges, Rent from Electric Property, Miscellaneous Service revenues, Standard Supply Service ("SSS") Administrative charges and Interest.

3.1.1 2014 Board Approved Proxy

On November 28, 2014, the former Cambridge and North Dumfries Hydro ("CND") acquired all of the shares of the former Brant County Power ("BCP"). On January 1, 2016 the former CND and BCP legally amalgamated to become Energy+ Inc.

The last Board Approved amounts were established for each of these entities in the following Applications:

- CND – 2014 Rate Rebasing, EB-2013-0116
- BCP – 2011 Rate Rebasing, EB-2010-0125

As a result of the acquisition and subsequent amalgamation, and in light of the fact that each of the former utilities had different rate rebasing years, Energy+ has developed 2014 Board Approved Proxy Operating Revenue figures for comparative purposes.

For purposes of this Exhibit, the 2014 Board Approved Proxy was calculated as the aggregate of:

- Former CND Board Approved Operating Revenue, as approved in EB-2013-0116; and
- Former BCP Board Approved Operating Revenue for 2011, as approved in EB-2010-0125, inflated for 2012, 2013, 2014 and 2015 utilizing the Board Incentive Regulation Mechanism ("IRM") inflation factors for each of those years.

3.1.1.1 2014 Board Approved Proxy – Distribution Revenue

Energy+ proposes to utilize the 2014 Board Approved Proxy for Distribution Revenue as shown in Table 3-1A, below, to facilitate a comparison of Distribution Revenue in a manner consistent with the current Energy+ corporate structure and Board Filing Requirements.

Table 3-1A: 2014 Board Approved Distribution Revenue Proxy Calculation

USoA Description	Former CND 2014 Board Approved	Former BCP 2014 Board Approved Proxy	Energy+ 2014 Board Approved Proxy	Former BCP 2014 Board Approved Proxy			
				2011 Board Approved	Proxy 2012 IRM Factor	Proxy 2013 IRM Factor	Proxy 2014 IRM Factor
					0.68%	0.28%	1.60%
Residential	13,473,027	3,144,679	16,617,706	3,065,668	3,086,515	3,095,157	3,144,679
General Service < 50 kW	2,894,872	982,829	3,877,701	958,135	964,650	967,351	982,829
General Service > 50 to 999 kW	6,454,976	1,440,256	7,895,232	1,404,069	1,413,617	1,417,575	1,440,256
General Service > 1000 to 4999 kW	1,854,779	-	1,854,779	-	-	-	-
Large User	1,504,085	-	1,504,085	-	-	-	-
Street Lights	777,185	264,340	1,041,525	257,698	259,450	260,177	264,340
Sentinel Lights	-	22,962	22,962	22,385	22,537	22,600	22,962
Unmetered Loads	53,096	11,020	64,116	10,743	10,816	10,846	11,020
Embedded Distributor	194,006	-	194,006	-	-	-	-
Total	27,206,026	5,866,086	33,072,112	5,718,698	5,757,585	5,773,706	5,866,086

3.1.1.2 2014 Board Approved Proxy – Other Revenue

Table 3-1B below shows the calculation of the 2014 Board Approved Proxy for Other Revenue.

Table 3-1B: 2014 Board Approved Other Revenue Proxy Calculation

USoA #	USoA Description	Former CND 2014 Board Approved	Former BCP 2014 Board Approved Proxy	Energy+ 2014 Board Approved Proxy	Former BCP 2014 Board Approved Proxy			
					2011 Board Approved	Proxy 2012	Proxy 2013	Proxy 2014
						IRM Factor	IRM Factor	IRM Factor
						0.68%	0.28%	1.60%
4235	Specific Service Charges	554,855	120,959	675,814	117,920	118,722	119,054	120,959
4225	Late Payment Charges	137,500	99,500	237,000	97,000	97,660	97,933	99,500
4082	Retail Services Revenue	36,000	-	36,000	-	-	-	-
4084	Service Tax Requests	960	-	960	-	-	-	-
4086	SSS Administration Revenue	146,868	30,942	177,810	30,165	30,370	30,455	30,942
4210	Rent from Electric Property	211,684	38,542	250,226	37,574	37,830	37,935	38,542
4215	Other Utility Operating Income	-	-	-	-	-	-	-
4220	Other Electric Revenues	-	123,946	123,946	120,832	121,654	121,994	123,946
4325	Revenues from Merchandise, Jobbing, Etc.	24,000	-	24,000	-	-	-	-
4355	Gain on Disposition of Utility and Other Property	23,000	-	23,000	-	-	-	-
4360	Loss on Disposition of Utility and Other Property	-	-	-	-	-	-	-
4375	Revenues from Non-Utility Operations	26,400	-	26,400	-	-	-	-
4390	Miscellaneous Non-Operating Income	139,400	8,206	147,606	8,000	8,054	8,077	8,206
4405	Interest and Dividend Income	52,712	44,108	96,820	43,000	43,292	43,414	44,108
	Specific Service Charges	\$ 554,855	\$ 120,959	\$ 675,814	\$ 117,920	\$ 118,722	\$ 119,054	\$ 120,959
	Late Payment Charges	\$ 137,500	\$ 99,500	\$ 237,000	\$ 97,000	\$ 97,660	\$ 97,933	\$ 99,500
	Other Operating Revenues	\$ 395,512	\$ 193,431	\$ 588,943	\$ 188,571	\$ 189,853	\$ 190,385	\$ 193,431
	Other Income or Deductions	\$ 265,512	\$ 52,314	\$ 317,826	\$ 51,000	\$ 51,347	\$ 51,491	\$ 52,314
	Total	\$ 1,353,379	\$ 466,205	\$ 1,819,584	454,491	457,582	458,863	466,205

3.1.2 Presentation of Consolidated Revenue

For comparative purposes, and throughout this Exhibit, the actual results for the 2014 and 2015 years represent the combined actual results for the former CND and BCP. The 2016 through 2019 Test Year figures represent Energy+ Inc.

In order for Energy+ to complete this Application and file on-time for April 27, 2018, the revenue figures presented for the 2017 Year are based on Energy+'s 2017 Forecast for the year, which includes 11 months of actuals. The filing date of April 27, 2018 also precedes the timing of the filing of the RRR Filing, which is due April 30, 2018. Energy+ intends to update the 2017 Forecast for the 2017 Actuals upon completion and filing of the RRR Filing.

3.1.3 Operating Revenue Summary

Table 3-2 summarizes Energy+ Inc.'s total operating revenue. Revenue for 2014 was determined utilizing the proxy method explained above. The 2019 Test Year is provided on the basis of (i) existing distribution rates; and (ii) proposed distribution rates.

Table 3-2: Summary of Total Operating Revenue (Service Revenue)

	2014 Board Approved	2014 Actual	2015 Actual	2016 Actual	2017 Forecast	2018 Bridge	2019 Test at Existing Rates	2019 Test at Proposed Rates
Distribution Throughput Revenue								
Residential	16,617,706	16,422,948	16,660,342	16,495,528	16,964,395	17,364,576	17,550,323	19,242,393
General Service < 50 kW	3,877,701	3,926,809	4,171,987	4,059,569	4,081,599	4,098,914	4,151,920	4,342,482
General Service > 50 to 999 kW	7,895,232	7,634,122	7,544,907	8,246,828	7,791,032	7,665,822	7,653,216	7,526,897
General Service > 1000 to 4999 kW	1,854,779	1,841,141	1,833,026	1,896,554	1,792,008	2,560,515	2,503,247	2,602,122
Large User	1,504,085	1,244,376	1,228,321	1,173,640	1,288,466	1,044,401	1,042,118	1,089,949
Street Lights	1,041,525	1,000,647	1,069,866	1,042,981	956,389	826,624	758,180	528,827
Sentinel Lights	22,962	17,721	28,319	16,538	14,535	14,573	14,573	20,346
Unmetered Loads	64,116	58,509	56,137	64,700	64,855	64,042	64,042	67,090
Embedded Distributor	194,006	196,448	260,109	281,674	264,331	400,890	400,890	261,791
Transformer Allowance						(511,575)	(511,575)	(511,575)
Other		(24,598)	49,728					
Total	\$33,072,112	\$32,318,123	\$32,902,742	\$33,278,012	\$33,217,611	\$33,528,781	\$33,626,933	\$35,170,323
Other Distribution Revenue								
Specific Service Charges	675,814	751,308	728,545	809,688	768,275	638,145	637,145	637,145
Late Payment Charges	237,000	192,312	188,882	225,148	192,353	189,000	189,000	189,000
Other Operating Revenues	588,943	649,545	468,566	634,964	666,388	691,124	724,986	724,986
Other Income or Deductions	317,826	377,194	197,564	357,818	61,984	306,731	103,860	103,860
Total	\$ 1,819,584	\$ 1,970,360	\$ 1,583,557	\$ 2,027,617	\$ 1,689,000	\$ 1,825,000	\$ 1,654,991	\$ 1,654,991
Grand Total	\$34,891,695	\$34,288,483	\$34,486,299	\$35,305,629	\$34,906,611	\$35,353,781	\$35,281,924	\$36,825,314

3.2 SUMMARY OF LOAD AND CUSTOMER/CONNECTION FORECAST

3.2.1 Load and Revenue Forecasts

The purpose of this evidence is to present the process used by Energy+ to prepare the weather normalized load and customer/connection forecast used to design the proposed 2019 Test Year distribution rates.

In summary, Energy+ used the same regression analysis methodology approved by the Ontario Energy Board (the "OEB" or "Board") in the 2014 Cost of Service ("COS") application (EB-2013-0116) for the former Cambridge and North Dumfries Hydro Inc. ("CND") which is a predecessor company to Energy+ Inc. The regression analysis has been updated to include actual data to the end of the 2017. The updated regression analysis used most of the same variables as those in the 2014 COS application for the former CND. However, the variables named Ontario Real GDP Monthly % and Employment Kitchener-Waterloo-Barrie (000's) have been eliminated since these variables were statistically insignificant. The variable named Co-generation Facility Flag has been added to reflect the impact of new co-generation facilities added in 2016.

With regards to the overall process of load forecasting, Energy+ Inc. is of the view that conducting a regression analysis on historical electricity purchases to produce an equation that will predict purchases is appropriate. Energy+ has the data for the amount of electricity (in kWh) purchased from the IESO for use by Energy+'s customers. With a regression analysis, these purchases can be related to other monthly explanatory variables such as heating degree days and cooling degree days which occur in the same month. The results of the regression analysis produce an equation that predicts the purchases based on the explanatory variables. This prediction model is then used as the basis to forecast the total level of weather normalized purchases for the Bridge Year and the Test Years, which is converted to billed kWh by rate class. A detailed explanation of the process is provided later in this evidence.

Based on the OEB's approval of this methodology in Energy+'s last COS application along with the OEB's approval of this same method in recent COS applications for other applicants, Energy+ submits the load forecasting methodology is reasonable at this time for the purposes of this Application.

The following provides the material to support the weather normalized load forecast used by Energy+ in this Application.

Table 3-3, Table 3-4 and Table 3-5 below provide a summary of the weather normalized load and customer/connection forecast used in this Application.

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

Year	Billed Actual (GWh)	Growth (GWh)	Billed Weather Normal (GWh)	Growth (GWh)	Customer/Connection Count	Growth
Billed Energy (GWh) and Customer Count / Connections						
2010	1,700.9		1,693.7		75,797	
2011	1,705.5	4.6	1,699.3	5.6	76,834	1037
2012	1,721.4	16.0	1,710.6	11.3	77,572	738
2013	1,745.5	24.0	1,740.8	30.2	78,132	560
2014	1,730.4	(15.1)	1,745.0	4.2	78,616	484
2015	1,750.2	19.8	1,751.2	6.2	79,179	563
2016	1,676.6	(73.6)	1,654.5	(96.7)	80,076	897
2017	1,596.7	(79.9)	1,607.7	(46.8)	81,094	1018
2018 Bridge	1,613.4	16.7	1,613.4	5.6	81,988	894
2019 Test	1,607.2	(6.2)	1,607.2	(6.2)	82,892	904

In the above Table 3-3, the billed GWh data from 2010 to 2017 reflects actual weather and weather normal conditions in each year. The weather normal values are the actual values adjusted by the weather normal conversion factor outlined in Table 3-12. The weather conversion factor is determined consistent with the approach outlined by the OEB in Appendix 2-1A. For 2018 and 2019, the forecasted billed GWh is on a weather normal basis.

Customer/Connection values are on an average basis and street lights, sentinel lights and unmetered loads are measured as connections.

In the following tables, the historical billed amounts for the Brant and the CND service areas are provided on an actual and weather normalized basis by rate class using the weather normal conversion factor from Table 3-12. The actual number of customers/connections along with the customer/connection usage on an actual and weather normal basis is also provided for Brant and CND. The actual data for the two service areas is used to determine the actual data for Energy+ Inc. The actual data for Energy+ Inc. is used to determine the Bridge Year and Test Year forecast for Energy+ Inc. The forecast data is provided below.

Table 3-4: Billed Energy by Rate Class - Brant County

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
Billed Energy (GWh) - Actual											
2010	80.2	35.8	60.0	29.5	1.7	0.2	0.5	0.4	13.3	50.3	271.9
2011	81.9	36.2	63.3	29.1	1.7	0.2	0.4	0.4	13.7	51.5	278.4
2012	79.7	35.7	63.7	29.8	1.7	0.2	0.4	0.4	9.9	52.3	273.8
2013	79.9	37.1	66.0	30.9	1.7	0.2	0.4	0.4	13.9	52.1	282.6
2014	81.5	37.6	67.8	30.6	1.7	0.1	0.4	0.3	13.0	51.5	284.6
2015	85.2	35.9	49.5	35.8	1.7	0.1	0.4	0.4	13.8	62.3	285.2
2016	83.4	42.7	68.1	38.7	1.5	0.1	0.4	0.4	13.6	46.1	294.8
2017	79.6	36.8	63.0	34.1	0.8	0.1	0.4	0.3	12.2	43.3	270.6
Billed Energy (GWh) - Weather Normal											
2010	79.9	35.6	59.8	29.4	1.7	0.2	0.5	0.4	13.3	50.0	270.7
2011	81.6	36.0	63.1	29.0	1.7	0.2	0.4	0.4	13.6	51.4	277.4
2011 Board Approved	82.8	40.4	62.8	28.9	1.8	0.2	0.5	0.4	13.6	51.1	282.5
2012	79.2	35.5	63.3	29.6	1.7	0.2	0.4	0.4	9.8	52.0	272.0
2013	79.7	37.0	65.8	30.9	1.7	0.2	0.4	0.4	13.8	52.0	281.9
2014	82.2	37.9	68.4	30.9	1.7	0.1	0.4	0.3	13.1	51.9	287.0
2015	85.3	36.0	49.5	35.8	1.7	0.1	0.4	0.4	13.8	62.4	285.4
2016	82.3	42.1	67.2	38.2	1.4	0.1	0.4	0.4	13.4	45.4	290.9
2017	80.2	37.0	63.4	34.4	0.8	0.1	0.4	0.4	12.3	43.6	216.6

**Table 3-5: Number of Customers/Connections
and Annual Normalized Usage by Rate Class - Brant County**

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
Number of Customers/Connections											
2010	8,133	1,289	95	5	2,640	219	51	1	1	4	12,439
2011	8,239	1,303	99	5	2,640	189	50	1	1	4	12,531
2011 Board Approved	8,335	1,338	101	5	2,630	218	51	1	1	4	12,684
2012	8,350	1,319	102	5	2,640	177	48	1	1	4	12,648
2013	8,432	1,308	104	5	2,640	191	48	1	1	4	12,733
2014	8,520	1,298	106	5	2,640	189	49	1	1	4	12,812
2015	8,600	1,298	112	6	2,640	189	49	1	1	4	12,899
2016	8,731	1,320	113	6	2,784	181	48	1	1	4	13,188
2017	8,896	1,339	108	6	2,930	168	47	1	1	4	13,499
Actual Annual Energy Usage per Customer/Connection (kWh per customer/connection)											
2010	9,863	27,733	634,412	5,908,334	648	800	9,337	373,339	13,348,829	12,563,307	
2011	9,941	27,764	640,006	5,816,951	648	867	8,827	373,339	13,695,350	12,886,943	
2012	9,540	27,060	621,897	5,955,656	650	1,009	9,219	374,823	9,863,707	13,079,740	
2013	9,480	28,376	634,530	6,188,271	643	802	9,307	356,273	13,883,197	13,029,275	
2014	9,572	28,977	639,448	6,119,124	648	777	9,022	338,022	12,996,387	12,871,435	
2015	9,908	27,704	441,858	6,510,077	643	756	8,981	352,068	13,819,342	15,584,864	
2016	9,549	32,342	602,522	6,446,269	525	755	8,764	380,114	13,560,292	11,512,572	
2017	8,949	27,449	585,719	5,690,048	256	756	8,897	347,757	12,191,720	10,818,530	
Normalized Annual Energy Usage per Customer/Connection (kWh per customer/connection)											
2010	9,821	27,616	631,735	5,883,398	645	796	9,298	371,763	13,292,491	12,510,284	
2011	9,905	27,663	637,669	5,795,713	645	864	8,794	371,976	13,645,346	12,839,892	
2011 Board Approved	9,934	30,194	622,136	5,771,685	684	917	9,804	370,434	13,588,775	12,786,659	
2012	9,480	26,889	617,975	5,918,102	645	1,002	9,161	372,459	9,801,509	12,997,264	
2013	9,454	28,300	632,821	6,171,607	641	800	9,282	355,314	13,845,814	12,994,191	
2014	9,652	29,220	644,822	6,170,551	653	784	9,098	340,863	13,105,613	12,979,611	
2015	9,914	27,721	442,119	6,513,921	643	756	8,986	352,276	13,827,503	15,594,068	
2016	9,423	31,915	594,576	6,361,248	518	745	8,648	375,101	13,381,442	11,360,730	
2017	9,011	27,639	589,779	5,729,486	258	761	8,959	350,167	12,276,220	10,893,513	

Table 3-6: Billed Energy by Rate Class - Cambridge and North Dumfries

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Total
Billed Energy (GWh) - Actual									
2010	396.3	163.5	426.5	220.9	196.6	9.5	2.1	13.6	1,429.0
2011	396.6	158.3	437.2	240.8	169.2	9.5	2.1	13.5	1,427.1
2012	399.6	158.6	437.4	226.2	201.2	9.6	2.0	13.0	1,447.7
2013	384.9	156.6	452.4	239.3	204.9	9.6	2.0	13.2	1,462.8
2014	395.5	160.5	426.5	232.4	205.3	9.7	2.0	13.8	1,445.8
2015	401.3	167.2	436.4	227.4	207.4	9.7	2.0	13.5	1,464.9
2016	396.6	170.1	416.1	223.1	151.3	9.6	1.9	13.0	1,381.8
2017	374.2	152.3	424.1	207.2	146.2	7.6	1.9	12.6	1,326.1
Billed Energy (GWh) - Weather Normal									
2010	394.6	162.8	424.7	220.0	195.7	9.5	2.1	13.6	1,423.0
2011	395.1	157.7	435.6	239.9	168.6	9.5	2.1	13.4	1,421.9
2012	397.1	157.6	434.6	224.8	199.9	9.6	2.0	12.9	1,438.5
2013	383.9	156.2	451.1	238.7	204.4	9.5	2.0	13.1	1,458.9
2014	398.8	161.9	430.1	234.4	207.0	9.8	2.0	14.0	1,457.9
2014 Board Approved	400.6	155.6	434.5	221.4	207.1	9.6	1.7	12.6	1,443.2
2015	401.6	167.3	436.7	227.6	207.5	9.7	2.0	13.6	1,465.8
2016	391.3	167.9	410.6	220.2	149.3	9.5	1.9	12.9	1,363.6
2017	376.8	153.3	427.0	208.6	147.2	7.7	1.9	12.7	1,335.3

**Table 3-7: Number of Customers/Connections
and Annual Normalized Usage by Rate Class - Cambridge and North Dumfries**

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Total
Number of Customers/Connections									
2010	44,921	4,604	708	26	2	12,559	538	2	63,359
2011	45,781	4,630	724	28	2	12,624	515	2	64,304
2012	46,284	4,661	737	27	2	12,722	491	2	64,925
2013	46,638	4,696	736	25	3	12,813	487	2	65,399
2014	46,944	4,759	719	24	3	12,872	482	2	65,804
2014 Board Approved	48,091	4,740	773	27	2	12,997	482	2	67,114
2015	47,322	4,852	696	24	2	12,899	485	2	66,280
2016	47,830	4,921	693	23	2	12,943	475	2	66,887
2017	48,376	4,959	689	22	2	13,095	452	2	67,596
Actual Annual Energy Usage per Customer/Connection (kWh per customer/connection)									
2010	8,822	35,508	602,421	8,496,833	98,278,640	758	3,963	6,807,493	
2011	8,662	34,199	604,228	8,598,828	84,597,900	754	4,019	6,739,297	
2012	8,633	34,026	593,892	8,378,887	100,594,753	758	4,109	6,504,264	
2013	8,253	33,346	614,616	9,768,947	81,962,503	747	4,088	6,588,356	
2014	8,425	33,735	593,179	9,685,273	82,106,158	753	4,169	6,922,954	
2015	8,481	34,454	627,091	9,678,720	103,687,181	752	4,069	6,774,101	
2016	8,291	34,571	600,509	9,916,756	75,625,156	745	4,055	6,513,806	
2017	7,736	30,705	615,937	9,418,710	73,113,194	583	4,106	6,302,581	
Normalized Annual Energy Usage per Customer/Connection (kWh per customer/connection)									
2010	8,784	35,358	599,878	8,460,973	97,863,859	755	3,947	6,778,762	
2011	8,631	34,074	602,022	8,567,432	84,289,023	751	4,004	6,714,691	
2012	8,579	33,811	590,147	8,326,052	99,960,436	753	4,083	6,463,251	
2013	8,231	33,256	612,961	9,742,642	81,741,802	745	4,077	6,570,615	
2014	8,495	34,018	598,164	9,766,671	82,796,205	760	4,204	6,981,136	
2014 Board Approved	8,331	32,829	562,158	8,198,882	103,536,175	738	3,624	6,306,789	
2015	8,486	34,474	627,462	9,684,436	103,748,417	752	4,072	6,778,102	
2016	8,182	34,115	592,589	9,785,962	74,627,718	736	4,002	6,427,894	
2017	7,790	30,918	620,206	9,483,990	73,619,937	587	4,134	6,346,264	

Table 3-8: Billed Energy by Rate Class - Energy+ Inc.

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
Billed Energy (GWh) - Actual													
2010	476.5	199.2	486.5	250.5	196.6	11.2	0.2	2.6	13.6	0.4	13.3	50.3	1,700.9
2011	478.5	194.5	500.5	269.9	169.2	11.2	0.2	2.5	13.5	0.4	13.7	51.5	1,705.5
2012	479.2	194.3	501.1	256.0	201.2	11.4	0.2	2.5	13.0	0.4	9.9	52.3	1,721.4
2013	464.8	193.7	518.3	270.3	204.9	11.3	0.2	2.4	13.2	0.4	13.9	52.1	1,745.5
2014	477.0	198.1	494.3	263.0	205.3	11.4	0.1	2.5	13.8	0.3	13.0	51.5	1,730.4
2015	486.5	203.1	485.9	263.3	207.4	11.4	0.1	2.4	13.5	0.4	13.8	62.3	1,750.2
2016	479.9	212.8	484.2	261.8	151.3	11.1	0.1	2.3	13.0	0.4	13.6	46.1	1,676.6
2017	453.9	189.0	487.0	241.4	146.2	8.4	0.1	2.3	12.6	0.3	12.2	43.3	1,596.7
Billed Energy (GWh) - Weather Normal													
2010	474.5	198.4	484.5	249.4	195.7	11.2	0.2	2.6	13.6	0.4	13.3	50.0	1,693.7
2011	476.7	193.8	498.7	268.9	168.6	11.2	0.2	2.5	13.4	0.4	13.6	51.4	1,699.3
2012	476.2	193.1	498.0	254.4	199.9	11.3	0.2	2.4	12.9	0.4	9.8	52.0	1,710.6
2013	463.6	193.2	517.0	269.6	204.4	11.2	0.2	2.4	13.1	0.4	13.8	52.0	1,740.8
2014	481.0	199.8	498.4	265.3	207.0	11.5	0.1	2.5	14.0	0.3	13.1	51.9	1,745.0
2015	486.8	203.2	486.2	263.4	207.5	11.4	0.1	2.4	13.6	0.4	13.8	62.4	1,751.2
2016	473.6	210.0	477.8	258.4	149.3	11.0	0.1	2.3	12.9	0.4	13.4	45.4	1,654.5
2017	457.0	190.3	490.4	243.0	147.2	8.4	0.1	2.3	12.7	0.4	12.3	43.6	1,607.7
2018 Bridge	465.9	192.7	494.3	237.0	145.9	6.7	0.1	2.3	12.6	0.3	12.2	43.3	1,613.4
2019 Test	466.1	195.3	493.1	231.0	145.5	5.4	0.1	2.3	12.6	0.3	12.2	43.3	1,607.2

**Table 3-9: Number of Customers/Connections
and Annual Normalized Usage by Rate Class - Energy+ Inc.**

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
Number of Customers/Connections													
2010	53,054	5,893	803	31	2	15,199	219	589	2	1	1	4	75,797
2011	54,019	5,932	822	33	2	15,264	189	565	2	1	1	4	76,834
2012	54,633	5,980	839	32	2	15,362	177	538	2	1	1	4	77,572
2013	55,070	6,004	840	30	3	15,453	191	534	2	1	1	4	78,132
2014	55,463	6,057	825	29	3	15,512	189	531	2	1	1	4	78,616
2015	55,922	6,149	808	29	2	15,539	189	534	2	1	1	4	79,179
2016	56,561	6,241	806	29	2	15,726	181	523	2	1	1	4	80,076
2017	57,272	6,298	796	28	2	16,024	168	499	2	1	1	4	81,094
2018 Bridge	57,970	6,374	798	27	2	16,141	168	499	2	1	1	4	81,988
2019 Test	58,677	6,451	800	27	2	16,260	168	499	2	1	1	4	82,892
Actual Annual Energy Usage per Customer/Connection (kWh per customer/connection)													
2010	8,981	33,807	606,191	8,079,334	98,278,640	739	800	4,432	6,807,493	373,339	13,348,829	12,563,307	
2011	8,857	32,785	608,533	8,177,331	84,597,900	736	867	4,448	6,739,297	373,339	13,695,350	12,886,943	
2012	8,772	32,489	597,313	8,000,257	100,594,753	739	1,009	4,564	6,504,264	374,823	9,863,707	13,079,740	
2013	8,441	32,263	617,082	9,162,052	81,962,503	729	802	4,552	6,588,356	356,273	13,883,197	13,029,275	
2014	8,601	32,715	599,124	9,070,420	82,106,158	735	777	4,617	6,922,954	338,022	12,996,387	12,871,435	
2015	8,700	33,029	601,413	9,077,770	103,687,181	733	756	4,520	6,774,101	352,068	13,819,342	15,584,864	
2016	8,485	34,100	600,791	9,186,127	75,625,156	706	755	4,487	6,513,806	380,114	13,560,292	11,512,572	
2017	7,925	30,013	611,856	8,619,711	73,113,194	523	756	4,557	6,302,581	347,757	12,191,720	10,818,530	
Normalized Annual Energy Usage per Customer/Connection (kWh per customer/connection)													
2010	8,943	33,664	603,633	8,045,235	97,863,859	736	796	4,413	6,778,762	371,763	13,292,491	12,510,284	
2011	8,825	32,666	606,311	8,147,475	84,289,023	733	864	4,432	6,714,691	371,976	13,645,346	12,839,892	
2012	8,717	32,284	593,546	7,949,810	99,960,436	735	1,002	4,535	6,463,251	372,459	9,801,509	12,997,264	
2013	8,418	32,176	615,420	9,137,382	81,741,802	727	800	4,540	6,570,615	355,314	13,845,814	12,994,191	
2014	8,673	32,990	604,159	9,146,651	82,796,205	741	784	4,655	6,981,136	340,863	13,105,613	12,979,611	
2015	8,706	33,049	601,769	9,083,131	103,748,417	734	756	4,523	6,778,102	352,276	13,827,503	15,594,068	
2016	8,374	33,650	592,867	9,064,969	74,627,718	697	745	4,428	6,427,894	375,101	13,381,442	11,360,730	
2017	7,980	30,221	616,097	8,679,454	73,619,937	526	761	4,589	6,346,264	350,167	12,276,220	10,893,513	
2018 Bridge	8,037	30,237	619,267	8,620,941	72,952,496	413	756	4,557	6,302,581	347,757	12,191,720	10,818,530	
2019 Test	7,943	30,272	616,082	8,557,426	72,751,563	330	756	4,557	6,302,581	347,757	12,191,720	10,818,530	

3.2.2 Forecast Methodology – Multivariate Regression Model

Energy+'s weather normalized load forecast is developed in a three-step process. First, a total system weather normalized purchased energy forecast is developed based on multivariate regression model that incorporates historical load, weather, and other variables that impact electricity usage. Second, the weather normalized purchased energy forecast is adjusted by a historical loss factor to produce a weather normalized billed energy forecast. Finally, the forecast of billed energy by rate class is developed based on a forecast of customer/connections numbers and historical usage patterns per customer/connection. For the rate classes that have weather sensitive load their forecasted billed energy is adjusted to ensure that the total billed energy forecast by rate class is equivalent to the total weather normalized billed energy forecast that has been determined from the regression analysis. The forecast of customers by rate class is determined using a geometric mean analysis.

The billed energy forecast is also adjusted for expected Conservation and Demand Management ("CDM") from 2018 and 2019 programs. For those rate classes that use kW for the distribution volumetric billing determinant an adjustment factor is applied to the class energy forecast based on the historical relationship between kW and kWh. The following will explain the forecasting process in more detail.

Purchased KWh Load Forecast

An equation to predict total system purchased energy is developed using a multivariate regression model with the independent variables outlined below. The regression model uses monthly kWh and monthly values of independent variables from January 2008 to December 2017 to determine the monthly regression coefficients.

With regards to weather normalization, Energy+ submits that it is appropriate to review the impact of weather over the past ten years, January 2008 to December 2017, since it is consistent with a time period outlined in the filing requirements and it is reflective of more recent weather conditions. The average weather conditions over this period are applied in the prediction formula to determine a weather normalized forecast for 2019. In accordance with the filing requirement, Energy+ has also provided sensitivity analysis showing the impact on the 2019 forecast of purchases. This analysis assumes weather normal conditions are based on a 20 year trend of weather data.

1 The multivariate regression model has determined drivers of year-over-year changes in Energy+'s
2 load growth are: weather (heating and cooling degree days); days in month, spring/fall flag, number
3 of peak hours, co-generation facility flag, unemployment conditions, and CDM activity. These
4 factors are captured within the multivariate regression model.

5
6 The following outlines the predication model used by Energy+ to predict weather normal purchases
7 the 2019 Test Year.

8
9 Energy+ Inc. Monthly Predicted kWh Purchases:

10 = Heating Degree Days * 22,762
11 + Cooling Degree Days * 300,321
12 + Number of Days in the Month * 2,389,780
13 + Spring Fall Flag * (3,448,341)
14 + Number of Peak Hours * 89,372
15 + Co-generation Facility Flag * (7,336,223)
16 + Unemployment Kitchener-Waterloo-Barrie * (281,899)
17 + CDM Activity * (0.30)
18 + Constant of 48,974,306

19 The monthly data used in the regression model and the resulting monthly prediction for the actual
20 and forecasted years are provided in Appendix 3-A.

21
22 The sources of historical data from 2008 to 2017 for the various data points are:

- 23
24 a) Environment Canada website for monthly heating degree day and cooling degree information.
25 Weather data was obtained from the Region of Waterloo International Airport.
26 b) The calendar provided information related to number of days in the month, number of peak
27 hours and the spring fall flag.
28 c) The co-generation facility began to be operational at the beginning of 2016 which means all
29 months for 2016 and 2017 were assigned a value of "1" to indicate the facility was running. All
30 other months from 2008 to 2015 were assigned a value of "0".
31 d) Unemployment data was provided from Statistic Canada. Table 282-0122 provides
32 employment data and unemployment information for the Kitchener-Waterloo-Barrie area.
33 e) The CDM activity variable is an estimated level of monthly activity in CDM for all programs from
34 2006 to 2017 and their persistence. For each year the monthly values grow at constant value

over the year. The addition of the monthly values will equal the total annual CDM results shown in the table below. In the first year of the program the half year rule is applied. The following table supports the level of annual CDM results and provides the source of the annual program and persistence data by year which was used to develop the monthly values shown in Appendix 3-A.

Table 3-10: CDM Activity Variable Supporting Data

Year	IESO/OPA Annual CDM Results 2006 to 2010 programs (kWh)	IESO/OPA Annual CDM Results 2011 to 2014 programs (kWh)	IESO/OPA Annual CDM Results 2015 programs (kWh)	IESO/OPA Annual CDM Results 2016 programs (kWh)	2017 Programs (kWh)	Total Annual CDM Results (kWh)
2006	2,199,695	0	0	0	0	2,199,695
2007	5,865,381	0	0	0	0	5,865,381
2008	8,715,686	0	0	0	0	8,715,686
2009	14,062,057	0	0	0	0	14,062,057
2010	19,632,401	0	0	0	0	19,632,401
2011	23,543,736	6,993,904	0	0	0	30,537,640
2012	23,185,906	19,010,177	0	0	0	42,196,083
2013	23,093,273	29,756,733	0	0	0	52,850,006
2014	22,519,904	45,730,999	0	0	0	68,250,903
2015	20,225,485	55,118,689	39,052,345	0	0	114,396,518
2016	19,336,761	54,157,230	78,044,009	7,213,352	0	158,751,352
2017	16,614,719	52,313,262	77,653,661	14,252,795	9,320,799	170,155,235
2018	13,279,279	51,465,422	77,386,461	14,252,795	18,416,880	174,800,836
2019	7,609,615	50,830,908	77,374,944	14,252,795	18,416,880	168,485,142

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

Table 3-11: Statistical Results

Statistical Results	
R Square	86.2%
Adjusted R Square	85.2%
F Test	86.8
MAPE (Monthly)	2.4%
T-stats by Coefficient	
Heating Degree Days	11.2
Cooling Degree Days	14.5
Number of Days in Month	4.9
Spring Fall Flag	(4.0)
Number of Peak Hours	4.0
Co-generation Facility Factor	(4.5)
Unemployment Kitchen	(6.0)
CDM Activity	(1.9)
Constant	3.6

The annual results of the above prediction formula compared to the actual annual purchases from 2008 to 2017 are shown below in Table 3-12 along with the predicted total system purchases for Energy+ for 2018 and 2019 on a weather normal basis. In addition, weather normal values for 2019 are provided on a 20 year trend assumption for weather normalization. Information is also provided to show the Weather Normal Conversion Factor which is used to weather normalize actual volume data. In Table 3-12, the Predicted Weather Normal values are similar to the Predicted amounts but the weather normalized heating degree days and cooling degree days used to determine the weather normal forecast for 2018 and 2019 are used in the prediction formula in place of actual heating degree days and cooling degree days. The ratio of Predicted Weather Normal to Predicted values results in a Weather Normal Conversion Factor. This factor is applied to the Actual amount which results in the Actual Weather Normal value.

Table 3-12: Total System Purchases Excluding Wholesale Market Participants

Year	Actual	Predicted	% Difference	Predicted Weather Normal	Weather Normal Conversion Factor	Actual Weather Normal
Purchased Energy (GWh)						
2008	1,813.4	1,811.3	(0.1%)	1,814.7	1.0019	1,816.8
2009	1,693.7	1,712.5	1.1%	1,734.1	1.0126	1,715.0
2010	1,761.9	1,750.2	(0.7%)	1,742.8	0.9958	1,754.5
2011	1,767.0	1,771.2	0.2%	1,764.8	0.9963	1,760.6
2012	1,775.2	1,788.5	0.8%	1,777.2	0.9937	1,764.0
2013	1,780.7	1,776.1	(0.3%)	1,771.3	0.9973	1,775.9
2014	1,782.4	1,764.7	(1.0%)	1,779.6	1.0084	1,797.4
2015	1,777.4	1,777.1	(0.0%)	1,778.2	1.0006	1,778.4
2016	1,722.2	1,700.6	(1.3%)	1,678.1	0.9868	1,699.5
2017	1,643.6	1,665.2	1.3%	1,676.8	1.0069	1,655.0
2018 Bridge		1,675.4		1,675.4	1.0000	
2019 Test		1,677.3		1,677.3	1.0000	
2019 Test - 20 Yr Trend		1,675.2		1,675.2	1.0000	

The weather normalized amount for 2019 is determined by using 2019 dependent variables in the prediction formula on a monthly basis along with the average monthly heating degree days and cooling degree days which have occurred from January 2008 to December 2017 (i.e. 10 years). The 2019 weather normal 20 year trend value reflects the trend in monthly heating degree days and cooling degree days which have occurred from January 1998 to December 2017.

Billed KWh Load Forecast

To determine the total weather normalized energy billed forecast, the total system weather normalized purchases forecast is adjusted by a historical loss factor. The historical loss factor used is 2.82% which represents the average loss factor from 2010 to 2017. 2010 was the first year that BCP billing data was readably available. With this average loss factor the total weather normalized billed energy before adjustment discussed below will be 1,629.4 (GWh) for 2018 (i.e. $1,675.4/1.0282$) and 1,631.3 (GWh) for 2019 (i.e. $1,677.3/1.0282$)

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

Since the total weather normalized billed energy amount is known this amount needs to be distributed by rate class for rate design purposes taking into consideration the customer/connection forecast and expected usage per customer by rate class.

The next step in the forecasting process is to determine a customer/connection forecast. The customer/connection forecast is based on reviewing historical customer/connection data that is available as shown in the following Table 3-13.

Table 3-13: Historical Customer/Connection Data

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
Number of Customers/Connections													
2008	51,351	5,652	777	33	2	15,006	139	512	2	1	1	4	73,478
2009	51,970	5,789	786	32	2	15,100	179	550	2	1	1	4	74,415
2010	53,054	5,893	803	31	2	15,199	219	589	2	1	1	4	75,797
2011	54,019	5,932	822	33	2	15,264	189	565	2	1	1	4	76,834
2012	54,633	5,980	839	32	2	15,362	177	538	2	1	1	4	77,572
2013	55,070	6,004	840	30	3	15,453	191	534	2	1	1	4	78,132
2014	55,463	6,057	825	29	3	15,512	189	531	2	1	1	4	78,616
2015	55,922	6,149	808	29	2	15,539	189	534	2	1	1	4	79,179
2016	56,561	6,241	806	29	2	15,726	181	523	2	1	1	4	80,076
2017	57,272	6,298	796	28	2	16,024	168	499	2	1	1	4	81,094

From the historical customer/connection data the growth rate in customer/connection can be evaluated which is provided on the following Table 3-14.

Table 3-14: Growth Rate in Customer/Connections

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP
Growth Rate in Customers/Connections												
2008												
2009	1.2%	2.4%	1.2%	(4.5%)	0.0%	0.6%	29.3%	7.6%		0.0%	0.0%	0.0%
2010	2.1%	1.8%	2.2%	(1.6%)	0.0%	0.7%	22.4%	7.0%	0.0%	0.0%	0.0%	0.0%
2011	1.8%	0.7%	2.5%	6.5%	0.0%	0.4%	(13.7%)	(4.1%)	0.0%	0.0%	0.0%	0.0%
2012	1.1%	0.8%	2.0%	(3.0%)	0.0%	0.6%	(6.5%)	(4.7%)	0.0%	0.0%	0.0%	0.0%
2013	0.8%	0.4%	0.1%	(7.8%)	25.0%	0.6%	7.7%	(0.8%)	0.0%	0.0%	0.0%	0.0%
2014	0.7%	0.9%	(1.8%)	(1.7%)	0.0%	0.4%	(1.1%)	(0.6%)	0.0%	0.0%	0.0%	0.0%
2015	0.8%	1.5%	(2.1%)	0.0%	(20.0%)	0.2%	0.1%	0.6%	0.0%	0.0%	0.0%	0.0%
2016	1.1%	1.5%	(0.2%)	(1.7%)	0.0%	1.2%	(4.1%)	(2.1%)	0.0%	0.0%	0.0%	0.0%
2017	1.3%	0.9%	(1.2%)	(1.8%)	0.0%	1.9%	(7.2%)	(4.6%)	0.0%	0.0%	0.0%	0.0%
Geometric Mean	1.2%	1.2%	0.3%	(1.8%)	0.0%	0.7%	2.2%	(0.3%)	0.0%	0.0%	0.0%	0.0%

For all classes, except Sentinel Lights and Unmetered Loads, the factor resulting from the geometric mean analysis from 2008 to 2017 is applied to the 2017 customer/connection numbers

to determine the forecast of customer/connections for 2018. Then the factor is applied again to 2018 forecast to determine the 2019 forecast. For Sentinel Lights, Energy+ does not expect the number of connections for Sentinel Lights to increase by 2.2%. Energy+ Inc. does expect the number of connections for Sentinel Lights to reduce in 2018 and 2019 reflecting the decline in connections since 2010. However, for the purposes of this Application, Energy+ has assumed the number of connections for Sentinel Lights will remain at the 2017 level in 2018 and 2019. For Unmetered Loads, Energy+ expects the number of connections will remain at the 2017 level of this class for 2018 and 2019. Table 3-15 outlines the forecast of customers by rate class for the 2018 Bridge Year and 2019 Test Year.

Table 3-15: Customer/Connection Forecast

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
Forecast Number of Customers/Connections													
2018 Bridge	57,970	6,374	798	27	2	16,141	168	499	2	1	1	4	81,988
2019 Test	58,677	6,451	800	27	2	16,260	168	499	2	1	1	4	82,892

The next step in the process is to review the historical customer/connection usage and to reflect this usage per customer in the forecast. Table 3-16 below provides the average annual usage per customer by rate class for 2017.

Table 3-16: 2017 Actual Annual Usage per Customer

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP
Annual kWh Usage Per Customer/Connection												
2017	7,925	30,013	611,856	8,619,711	73,113,194	523	756	4,557	6,302,581	347,757	12,191,720	10,818,530

The 2018 and 2019 forecast of usage per customer/connection have been held constant at the 2017 level since as can be observed in Table 3-8 the usage per customer/connection has generally been declining since 2010. To continue this declining pattern into the 2018 and 2019 could cause double counting of CDM results when a manual adjustment for CDM is applied to 2018 and 2019 later on in the process. The resulting usage forecast is as follows in Table 3-17.

Table 3-17: Forecast Annual kWh Usage per Customer/Connection

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP
Forecast Annual kWh Usage per Customers/Connection												
2018 Bridge	7,925	30,013	611,856	8,619,711	73,113,194	523	756	4,557	6,302,581	347,757	12,191,720	10,818,530
2019 Test	7,925	30,013	611,856	8,619,711	73,113,194	523	756	4,557	6,302,581	347,757	12,191,720	10,818,530

The preceding information is used to determine the non-normalized weather billed energy forecast by applying the forecast number of customer/connection from Table 3-15 by the forecast of annual usage per customer/connection from Table 3-17. The resulting non-normalized weather billed energy forecast is shown in the following Table 3-18.

Table 3-18: Non-normalized Weather Billed Energy Forecast

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
NON-normalized Weather Billed Energy Forecast (GWh)													
2018 Bridge	459.4	191.3	488.4	237.0	146.2	8.4	0.1	2.3	12.6	0.3	12.2	43.3	1,601.5
2019 Test	465.0	193.6	489.7	232.7	146.2	8.5	0.1	2.3	12.6	0.3	12.2	43.3	1,606.6

The non-normalized weather billed energy forecast has been determined but this needs to be adjusted in order to be aligned with the total weather normalized billed energy forecast mentioned above of 1,629.4 (GWh) for 2018 and 1,631.3 (GWh) for 2019.

The difference between the non-normalized and normalized forecast is assumed to be the adjustment to move the forecast to a weather normal basis and this amount will be assigned to those rate classes that are weather sensitive. Based on the weather normalization work completed by Hydro One for CND for the original cost allocation informational study it was determined that the weather sensitivity by rate classes is as follows in Table 3-19. The values in the table are consistent with the rate class weather sensitivity percentages used in the 2014 COS application for CND. The Hydro One weather sensitive data for BCP was not reflected in the table below as the weather normalization work completed by Hydro One for BCP was not readily available. Even if the data was readily available it is expected it would have limited impact on the information in Table 3-19.

Table 3-19: Weather Sensitivity by Rate Class

Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor Hydro One, CND	Embedded Distributor Brantford Power, BCP	Embedded Distributor Hydro One #1, BCP	Embedded Distributor Hydro One #2, BCP
Weather Sensitivity											
74%	74%	48%	23%	0%	0%	0%	0%	0%	0%	0%	0%

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

CDM Adjustment and LRAMVA

A manual adjustment has been made to reflect the impact of 2018 to 2019 CDM programs on the load forecast. Energy has made this adjustment to reflect the “net” impact of the CDM programs on the load forecast.

The following Table 3-20, outlines the expected full year savings from 2018 to 2019 CDM programs based on the 2015 to 2020 CDM Plan for Energy. The savings for 2019 have been reduced by the amount of savings associated with new load displacement generation that will be charged a standby charge which is discussed in Exhibit 8. Since the standby charge will collect revenues associated with the load displacement generation the kWh savings for the load displacement generation are not included in the values below and will not reduce the load forecast for 2019.

Table 3-20: 2018 - 2019 Expected Full Year Total kWh Savings

	2018	2019
2018 Programs	32,139,658	16,869,658
2019 Programs		14,478,178
Total Including Persistence	32,139,658	31,347,837

Since the regression analysis is based on actual power purchased data up to and including 2017 actual data, it is assumed that any savings from programs initiated up to and including 2017 are reflected in the prediction equation on a full year basis since the CDM Activity variable is used in the prediction formula. It is also assumed the savings in the first year of the program will be occur evenly over the year which mean the actual impact on the load forecast will be one half of the full year results in the first year of the program. This has been classified as the half year rule for CDM

purposes. As a result, consistent with approach used in previous COS applications the following table outlines the total manual CDM adjustment for 2018 and 2019.

Table 3-21: 2018 - 2019 Manual CDM Adjustment with 1/2 year rule (kWh)

	2018	2019
Total Manual CDM Adjustment	16,069,829	24,108,748

Based on input from Energy+ CDM staff the following outlines the allocation of CDM results by rate class.

Table 3-22: Rate Class CDM Allocator

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP
2018 Bridge	36%	23%	16%	12%	2%	11%	0%	0%	0%	0%	0%	0%
2019 Test	41%	12%	17%	14%	3%	13%	0%	0%	0%	0%	0%	0%

Table 3-23: Manual CDM Adjustment by Rate Class (kWh)

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
2018 Bridge	5,785,139	3,696,061	2,571,173	1,928,380	321,397	1,767,681	0	0	0	0	0	0	16,069,829
2019 Test	9,884,587	2,893,050	4,098,487	3,375,225	723,262	3,134,137	0	0	0	0	0	0	24,108,748

In accordance with the *Guidelines for Electricity Distributor Conservation and Demand Management* (EB-2013-0003), issued April 26, 2013 ("CDM Guidelines"), it is Energy+'s understanding that as part of this application expected CDM savings in 2019 from 2018 and 2017 programs will need to be established for lost revenue adjustment mechanism ("LRAM") variance accounts purposes. Energy+ also understands that the IESO will measure CDM results on a full year net basis. Consistent with past practices, it is expected the full year net level of savings will be used for LRAM variance calculations. As a result, it is Energy+'s view the units used for the LRAM variance account should also be on a full year net basis. Based on the evidence provided above in regards to the CDM manual adjustment the following equation is used to determine the rate class kWh assumed in the load forecast for LRAM variance account purposes.

The following table provides expected CDM savings by rate class for LRAM variance account purposes. The expected kW saving has also been provided for those classes billed distribution charges on a kW basis using the average kW/KWh ratios from Table 3-29.

Table 3-24: 2019 Expected CDM Savings by Rate Class for LRAM Variance Account

	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
2019 kWh	12,852,613	3,761,740	5,329,132	4,388,697	940,435	4,075,219	0	0	0	0	0	0	31,347,837
2019 kW - Annual			16,819	10,300	2,144	11,744			0	0	0	0	41,006
2019 kW - Monthly			1,402	858	179	979			0	0	0	0	3,417

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

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

Year	Residential	General Service < 50 kW	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Unmetered Loads	Embedded Distributor - Hydro One, CND	Embedded Distributor - Brantford Power, BCP	Embedded Distributor - Hydro One #1, BCP	Embedded Distributor - Hydro One #2, BCP	Total
Non-normalized Weather Billed Energy Forecast (GWh)													
2018 Bridge	459.4	191.3	488.4	237.0	146.2	8.4	0.1	2.3	12.6	0.3	12.2	43.3	1,601.5
2019 Test	465.0	193.6	489.7	232.7	146.2	8.5	0.1	2.3	12.6	0.3	12.2	43.3	1,606.6
Weather Adjustment (GWh)													
2018 Bridge	12.3	5.1	8.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9
2019 Test	11.0	4.6	7.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.7
CDM Adjustment (GWh)													
2018 Bridge	(5.8)	(3.7)	(2.6)	(1.9)	(0.3)	(1.8)	0.0	0.0	0.0	0.0	0.0	0.0	(16.1)
2019 Test	(9.9)	(2.9)	(4.1)	(3.4)	(0.7)	(3.1)	0.0	0.0	0.0	0.0	0.0	0.0	(24.1)
Weather Normalized Billed Energy Forecast (GWh)													
2018 Bridge	465.9	192.7	494.3	237.0	145.9	6.7	0.1	2.3	12.6	0.3	12.2	43.3	1,613.4
2019 Test	466.1	195.3	493.1	231.0	145.5	5.4	0.1	2.3	12.6	0.3	12.2	43.3	1,607.2

Billed KW Load Forecast

There are a number of Energy+ customers/connections that are charged volumetric distribution on a per kW basis. This includes Wholesale Market Participants ("WMP"). However WMPs only have kW associated with them since there are no charges to them from Energy+ that are based on kWh. The kW forecast for these customers is simply the 2017 actual value held constant. The WMP are included in three rate classes. One WMP is in the General Service > 50 to 999 kW class, three are in the General Service > 1000 to 4999 kW class and one is an Embedded Distributor class.

The following table shows the forecasted number of customers and kW for the WMP included in the General Service classes

Table 3-26: Direct Market Participant

Year	Number of Meter Points	kW
2010	4	75,928
2011	4	81,848
2012	4	81,651
2013	4	73,573
2014	4	69,661
2015	4	69,115
2016	4	70,836
2017	4	67,942
2018 Bridge	4	67,942
2019 Test	4	67,942

The following table shows the forecasted number of customers and kW for the WMP in the Embedded Distributor class for Waterloo North.

Table 3-27: Embedded Distributor Waterloo North

Year	Number of Meter Points	kW
2010	1	73,663
2011	1	78,980
2012	1	70,982
2013	1	92,130
2014	1	106,790
2015	1	108,929
2016	1	121,168
2017	1	114,657
2018 Bridge	1	114,657
2019 Test	1	114,657

The information in the above two table is included in the Table 3-30: Forecast Summary.

For the General Service > 50 to 999 kW, General Service > 1000 to 4999 kW, Large User, Street Lights, Sentinel Lights, Embedded Distributors - BCP and Embedded Distributors - Hydro One, the energy forecast for these classes needs to be converted to a kW basis for rate setting purposes. The forecast of kW for these classes is based on a review of the historical ratio of kW to kWh and applying the average ratio from 2010 to 2017 to the forecasted kWh to produce the required kW.

The following Table 3-28 outlines the annual historical demand units by applicable rate class.

Table 3-28: Historical Annual kW per Applicable Rate Class

Year	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Embedded Distributors - Hydro One & Waterloo, CND	Embedded Distributors - BPI - BCP	Embedded Distributors - Hydro One #1, BCP	Embedded Distributors - Hydro One #2, BCP	Total
Billed Annual kW										
2010	1,535,992	646,504	421,436	31,415	487	101,371	10	29,200	109,926	2,876,341
2011	1,559,458	659,131	431,699	31,403	228	107,151	44	31,128	117,161	2,937,403
2012	1,578,630	606,302	483,777	31,677	311	100,035	88	24,429	129,577	2,954,827
2013	1,568,193	586,435	425,912	31,772	307	119,938	31	31,865	119,621	2,884,073
2014	1,605,303	581,849	457,867	31,886	293	135,496	95	31,822	126,065	2,970,676
2015	1,555,819	581,153	430,087	31,873	288	137,772	95	30,827	139,060	2,906,975
2016	1,564,561	631,904	358,566	31,300	417	148,634	1,313	29,428	99,936	2,866,059
2017	1,518,753	574,484	348,189	24,144	343	139,044	1,075	29,011	102,973	2,738,017

Table 3-29 shows the historical ratio of kW/kWh and the average ratio from 2010 to 2017. For the General Service > 50 to 999 kW class, the General Service > 1000 to 4999 kW class and the Large

User class the average factor was applied to the weather normalized billed energy forecast in Table 3-24 to provide the forecast of kW by rate class. For the Street Lights class the ratio used reflects the new load of recently converted streetlights to energy efficient lights. For all other classes, the 2017 ratio was used since the forecasted kWh for these classes was maintained at the 2017 level.

Table 3-29: Historical kW/KWh Ratio per Applicable Rate Class

Year	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Embedded Distributors - Hydro One & Waterloo, CND	Embedded Distributors - BPI - BCP	Embedded Distributors - Hydro One #1, BCP	Embedded Distributors - Hydro One #2, BCP
Ratio of kW to kWh									
2010	0.3157%	0.2581%	0.2144%	0.2798%	0.2778%		0.0028%	0.2187%	0.2187%
2011	0.3116%	0.2443%	0.2551%	0.2796%	0.1392%		0.0119%	0.2273%	0.2273%
2012	0.3150%	0.2368%	0.2405%	0.2788%	0.1744%		0.0233%	0.2477%	0.2477%
2013	0.3025%	0.2170%	0.2079%	0.2821%	0.2009%	0.2027%	0.0087%	0.2295%	0.2295%
2014	0.3248%	0.2212%	0.2231%	0.2796%	0.1998%	0.1866%	0.0280%	0.2449%	0.2449%
2015	0.3202%	0.2208%	0.2074%	0.2797%	0.2021%	0.1864%	0.0271%	0.2231%	0.2231%
2016	0.3231%	0.2414%	0.2371%	0.2818%	0.3048%	0.1997%	0.3455%	0.2170%	0.2170%
2017	0.3118%	0.2380%	0.2381%	0.2882%	0.2700%	0.1966%	0.3091%	0.2380%	0.2380%
Average 2010 to 2017	0.3156%	0.2347%	0.2279%	0.2812%	0.2211%	0.1944%	0.0946%	0.2308%	0.2308%
Used for Forecast	0.3156%	0.2347%	0.2279%	0.2882%	0.2700%	0.1966%	0.3091%	0.2380%	0.2380%

The following Table 3-30 outlines the forecast of kW for the applicable rate classes.

Table 3-30: kW Forecast by Applicable Rate Class

Year	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Embedded Distributors - Hydro One & Waterloo, CND	Embedded Distributors - BPI - BCP	Embedded Distributors - Hydro One #1, BCP	Embedded Distributors - Hydro One #2, BCP	Total
Predicted Billed kW										
2018 Bridge	1,559,982	556,266	332,575	19,227	343	139,044	1,075	29,995	102,973	2,741,479
2019 Test	1,556,242	542,178	382,038	15,467	343	139,044	1,075	29,995	102,973	2,769,356

Table 3-31 provides a summary of the load forecast on a billing determinant basis by rate class.

Table 3-31: Summary of Total Load Forecast

	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Bridge	2019 Test
Purchases										
Actual kWh Purchases	1,761,921,851	1,767,032,101	1,775,157,464	1,780,674,124	1,782,419,695	1,777,379,399	1,722,187,256	1,643,582,347		
Predicted kWh Purchases	1,750,181,987	1,771,238,583	1,788,477,370	1,776,111,888	1,764,743,832	1,777,115,136	1,700,560,186	1,665,209,417	1,675,356,044	1,677,252,320
% Difference between actual and predicted purchases	(0.7%)	0.2%	0.8%	(0.3%)	(1.0%)	(0.0%)	(1.3%)	1.3%		
Loss Factor										
Loss Factor									1.0282	1.0282
Total Billed Before CDM Adjustments									1,629,428,572	1,631,272,864
CDM Adjustment									16,069,829	24,108,748
Total Billed After Adjustments	1,700,869,074	1,705,485,901	1,721,439,858	1,745,480,851	1,730,430,155	1,750,185,363	1,676,617,027	1,596,674,910	1,613,358,743	1,607,164,117
Billing Determinants										
Residential										
Customers	53,054	54,019	54,633	55,070	55,463	55,922	56,561	57,272	57,970	58,677
kWh	476,486,462	478,456,723	479,247,118	464,848,343	477,025,968	486,541,296	479,944,152	453,855,075	465,920,846	466,068,279
General Service < 50 kW										
Customers	5,893	5,932	5,980	6,004	6,057	6,149	6,241	6,298	6,374	6,451
kWh	199,237,830	194,492,494	194,297,829	193,717,267	198,149,245	203,100,575	212,807,519	189,005,848	192,724,357	195,276,256
General Service > 50 to 999 kW										
Customers	803	822	839	840	825	808	806	796	798	800
kWh	486,523,861	500,487,578	501,135,345	518,348,767	494,277,242	485,904,146	484,199,963	487,037,522	494,297,087	493,112,062
kW	1,535,992	1,559,458	1,578,630	1,568,193	1,605,303	1,555,819	1,564,561	1,518,753	1,559,982	1,556,242
General Service > 1000 to 4999 kW										
Customers	31	33	32	30	29	29	29	28	27	27
kWh	250,459,340	269,851,932	256,008,219	270,280,543	263,042,176	263,255,330	261,804,628	241,351,905	237,019,612	231,017,192
kW	646,504	659,131	606,302	586,435	581,849	581,153	631,904	574,484	556,266	542,178
Large User										
Customers	2	2	2	3	3	2	2	2	2	2
kWh	196,557,281	169,195,800	201,189,505	204,906,257	205,265,395	207,374,362	151,250,312	146,226,388	145,904,992	145,503,126
kW	421,436	431,699	483,777	425,912	457,867	430,087	358,566	348,189	332,575	382,038
Direct Market Participant										
Customers	4	4	4	4	4	4	4	4	4	4
kW	75,928	81,848	81,651	73,573	69,661	69,115	70,836	67,942	67,942	67,942

Table 3-31: Summary of Total Load Forecast (Continued)

	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Bridge	2019 Test
Street Lights										
Connections	15,199	15,264	15,362	15,453	15,512	15,539	15,726	16,024	16,141	16,260
kWh	11,228,686	11,229,393	11,359,959	11,262,943	11,406,116	11,394,266	11,108,606	8,378,434	6,672,112	5,367,464
kW	31,415	31,403	31,677	31,772	31,886	31,873	31,300	24,144	19,227	15,467
Sentinel Lights										
Connections	219	189	177	191	189	189	181	168	168	168
kWh	175,284	164,006	178,406	152,803	146,515	142,708	136,701	126,989	126,989	126,989
kW	487	228	311	307	293	288	417	343	343	343
Unmetered Loads										
Connections	589	565	538	534	531	534	523	499	499	499
kWh	2,609,945	2,512,919	2,457,458	2,430,645	2,451,442	2,413,614	2,346,838	2,273,988	2,273,988	2,273,988
Embedded Distributor - Hydro One, CND										
Customers	2	2	2	2	2	2	2	2	2	2
kWh	13,614,985	13,478,594	13,008,529	13,176,711	13,845,907	13,548,203	13,027,612	12,605,162	12,605,162	12,605,162
kW	27,708	28,171	29,053	27,809	28,706	28,843	27,466	24,387	24,387	24,387
Embedded Distributor - Waterloo North, CND										
Customers	1	1	1	1	1	1	1	1	1	1
kWh				45,983,610	58,781,039	60,363,736	61,404,044	58,104,381	58,104,381	58,104,381
kW	73,663	78,980	70,982	92,130	106,790	108,929	121,168	114,657	114,657	114,657
Embedded Distributor - Brantford Power, BCP										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	373,339	373,339	374,823	356,273	338,022	352,068	380,114	347,757	347,757	347,757
kW	10	44	88	31	95	95	1,313	1,075	1,075	1,075
Embedded Distributor - Hydro One #1, BCP										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	13,348,829	13,695,350	9,863,707	13,883,197	12,996,387	13,819,342	13,560,292	12,191,720	12,191,720	12,191,720
kW	29,200	31,128	24,429	31,865	31,822	30,827	29,428	29,011	29,995	29,995
Embedded Distributor - Hydro One #2, BCP										
Customers	4	4	4	4	4	4	4	4	4	4
kWh	50,253,230	51,547,773	52,318,962	52,117,102	51,485,741	62,339,455	46,050,289	43,274,122	43,274,122	43,274,122
kW - Estimated	109,926	117,161	129,577	119,621	126,065	139,060	99,936	102,973	102,973	102,973
Total										
Customer/Connections	75,802	76,839	77,577	78,137	78,621	79,184	80,081	81,099	81,993	82,897
kWh	1,700,869,074	1,705,485,901	1,721,439,858	1,791,464,461	1,789,211,194	1,810,549,098	1,738,021,070	1,654,779,291	1,671,463,124	1,665,268,498
kW from applicable classes	2,952,269	3,019,251	3,036,478	2,957,647	3,040,337	2,976,090	2,936,895	2,805,958	2,809,421	2,837,297

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3.3 ACCURACY OF LOAD FORECAST AND VARIANCE ANALYSIS

3.3.1 Variance Analysis of Distribution Revenue and Billing Determinants

The following discussion provides a year over year variance analysis on Energy+'s distribution revenue and billing determinants. The variance analysis compares 2014 Board Approved Proxy to 2014 Actual; 2014 Actual to 2015 Actual; 2015 Actual to 2016 Actual; 2016 Actual to 2017 Actual; 2017 Actual to 2018 Bridge Year and 2018 Bridge Year to 2019 Test Year. The overall variance analysis has been provided based on Energy+ Inc.'s materiality of \$175,000; the materiality calculation being noted earlier in Exhibit 1 of this Application. The 2014 Board Approved revenue amount was determined on a proxy basis as described at the beginning of this Exhibit. The 2014 Board Approved billing quantities reflect the 2014 Board Approved billing quantities for CND plus the 2011 Board approved billing quantities for the former BCP.

2014 Board Approved to 2014 Actual

Table 3-32 compares distribution revenues for the 2014 Board Approved Proxy to the 2014 Actuals. Table 3-33 compares the billing determinants (customers/connections and volumes).

2014 Actual Distribution revenue was \$753,989 lower than the 2014 Board Approved Proxy, principally due to lower distribution revenue in the Residential, GS 50-999 kW and Large User customer classes. Distribution revenue for residential customers was \$194,758 lower than the 2014 Board Approved Proxy amount due to a lower than forecast number of customers and lower than forecast volumes. Distribution revenue for the General Service 50 to 999 kW customers was \$261,110 lower than the 2014 Board Approved Proxy amount principally explained by a lower than forecast number of customers. Distribution revenue for the Large User customer was \$259,709 lower than the 2014 Board Approved Proxy amount principally explained by the reclassification of 1 Large User customer to the GS 1,000 – 4,999 customer class during the year.

Table 3-32: Comparison 2014 Board Approved Proxy to 2014 Actual

	2014 Board Approved	2014 Actual	Difference \$	Difference %
Distribution Throughput Revenue				
Residential	16,617,706	16,422,948	(194,758)	-1.19%
General Service < 50 kW	3,877,701	3,926,809	49,108	1.25%
General Service > 50 to 999 kW	7,895,232	7,634,122	(261,110)	-3.42%
General Service > 1000 to 4999 kW	1,854,779	1,841,141	(13,638)	-0.74%
Large User	1,504,085	1,244,376	(259,709)	-20.87%
Street Lights	1,041,525	1,000,647	(40,878)	-4.09%
Sentinel Lights	22,962	17,721	(5,241)	-29.57%
Unmetered Loads	64,116	58,509	(5,607)	-9.58%
Embedded Distributor	194,006	196,448	2,442	1.24%
Other	-	(24,598)	(24,598)	100.00%
Total	33,072,112	32,318,123	(753,989)	-2.33%

Table 3-33: Comparison 2014 Board Approved Proxy to 2014 Actual

Billing Quantiities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor							1.0084				
	2014 Board Approved	2014 Actual		2014 Board Approved	2014 Actual	2014 Board Approved	2014 Actual	2014 Board Approved	2014 Actual	2014 Board Approved	2014 Actual
Residential	56,426	55,463	kWh	483,440,220	477,025,968	483,440,220	481,035,054	8,568	8,601	8,568	8,673
General Service < 50 kW	6,078	6,057	kWh	196,006,542	198,149,245	196,006,542	199,814,557	32,249	32,715	32,249	32,990
General Service > 50 to 999 kW	874	825	kW	1,403,590	1,605,303	1,403,590	1,618,795	1,606	1,946	1,606	1,962
General Service > 1000 to 4999 kW	32	29	kW	721,911	581,849	721,911	586,739	22,560	20,064	22,560	20,232
Large User	2	3	kW	429,057	457,867	429,057	461,715	214,529	183,147	214,529	184,686
Direct Market Participant	1	4	kW	79,211	69,661	79,211	70,246	79,211	17,415	79,211	17,562
Street Lights	15,627	15,512	kW	30,534	31,886	30,534	32,154	2	2	2	2
Sentinel Lights	218	189	kW	574	293	574	295	3	2	3	2
Unmetered Loads	533	531	kWh	1,842,943	2,451,442	1,842,943	2,472,045	3,458	4,617	3,458	4,655
Embedded Distributor - Hydro One, CND	1	2	kW	29,869	28,706	29,869	28,948	29,869	14,353	29,869	14,474
Embedded Distributor - Waterloo North, CN	1	1	kW	72,975	106,790	72,975	107,687	72,975	106,790	72,975	107,687
Embedded Distributor - Brantford Power, B	1	1	kW	38	95	38	95	38	95	38	95
Embedded Distributor - Hydro One #1, BCP	1	1	kW	26,712	31,822	26,712	32,090	26,712	31,822	26,712	32,090
Embedded Distributor - Hydro One #2, BCP	4	4	kW	100,541	126,065	100,541	127,124	25,135	31,516	25,135	31,781
Total	79,799	78,621									
	Variance			Variance		Variance		Variance		Variance	
Residential	(963)		kWh	(6,414,252)		(2,405,166)		33		105	
General Service < 50 kW	(21)		kWh	2,142,703		3,808,015		467		742	
General Service > 50 to 999 kW	(49)		kW	201,713		215,205		340		356	
General Service > 1000 to 4999 kW	(3)		kW	(140,062)		(135,172)		(2,496)		(2,327)	
Large User	1		kW	28,810		32,658		(31,382)		(29,843)	
Direct Market Participant	3		kW	(9,550)		(8,965)		(61,796)		(61,649)	
Street Lights	(115)		kW	1,352		1,620		0		0	
Sentinel Lights	(29)		kW	(281)		(279)		(1)		(1)	
Unmetered Loads	(2)		kWh	608,499		629,102		1,159		1,198	
Embedded Distributor - Hydro One, CND	1		kW	(1,162)		(921)		(15,516)		(15,395)	
Embedded Distributor - Waterloo North, CN	0		kW	33,815		34,712		33,815		34,712	
Embedded Distributor - Brantford Power, B	0		kW	57		57		57		57	
Embedded Distributor - Hydro One #1, BCP	0		kW	5,110		5,378		5,110		5,378	
Embedded Distributor - Hydro One #2, BCP	0		kW	25,524		26,583		6,381		6,646	

2014 Actual to 2015 Actual

Table 3-34 compares distribution revenues for the 2015 Actual to the 2014 Actuals. Table 3-35 compares the billing determinants (customers/connections and volumes).

2015 Actual distribution revenue was \$32,902,742 or \$584,619 higher than the 2014 Actuals, principally explained by higher revenue in the Residential and GS < 50 kW customer classes. Distribution revenue in the Residential customer class was \$237,394 higher than the 2014 Actuals, explained by an increase in the number of customers (459), as well as higher annual consumption per customer. Distribution revenue for the General Service 50 to 999 kW customers was \$245,178 higher than the 2014 Actuals principally explained by an increase in the number of customers (92) as well as higher annual consumption per customer.

Table 3-34: Comparison 2015 Actual to 2014 Actual

	2014 Actual	2015 Actual	Difference \$	Difference %
Distribution Throughput Revenue				
Residential	16,422,948	16,660,342	237,394	1.42%
General Service < 50 kW	3,926,809	4,171,987	245,178	5.88%
General Service > 50 to 999 kW	7,634,122	7,544,907	(89,215)	-1.18%
General Service > 1000 to 4999 kW	1,841,141	1,833,026	(8,115)	-0.44%
Large User	1,244,376	1,228,321	(16,055)	-1.31%
Street Lights	1,000,647	1,069,866	69,219	6.47%
Sentinel Lights	17,721	28,319	10,598	37.42%
Unmetered Loads	58,509	56,137	(2,372)	-4.23%
Embedded Distributor	196,448	260,109	63,661	24.47%
Other	(24,598)	49,728	74,326	149.47%
Total	32,318,123	32,902,742	584,619	1.78%

Table 3-35: Comparison 2014 Actual to 2015 Actual

Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0084	1.0006				
	2014 Actual	2015 Actual		2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual	2014 Actual	2015 Actual
Residential	55,463	55,922	kWh	477,025,968	486,541,296	481,035,054	486,828,639	8,601	8,700	8,673	8,706
General Service < 50 kW	6,057	6,149	kWh	198,149,245	203,100,575	199,814,557	203,220,523	32,715	33,029	32,990	33,049
General Service > 50 to 999 kW	825	808	kW	1,605,303	1,555,819	1,618,795	1,556,738	1,946	1,926	1,962	1,927
General Service > 1000 to 4999 kW	29	29	kW	581,849	581,153	586,739	581,496	20,064	20,040	20,232	20,052
Large User	3	2	kW	457,867	430,087	461,715	430,341	183,147	215,043	184,686	215,170
Direct Market Participant	4	4	kW	69,661	69,115	70,246	69,156	17,415	17,279	17,562	17,289
Street Lights	15,512	15,539	kW	31,886	31,873	32,154	31,892	2	2	2	2
Sentinel Lights	189	189	kW	293	288	295	289	2	2	2	2
Unmetered Loads	531	534	kWh	2,451,442	2,413,614	2,472,045	2,415,039	4,617	4,520	4,655	4,523
Embedded Distributor - Hydro One, CND	2	2	kW	28,706	28,843	28,948	28,860	14,353	14,422	14,474	14,430
Embedded Distributor - Waterloo North, CN	1	1	kW	106,790	108,929	107,687	108,993	106,790	108,929	107,687	108,993
Embedded Distributor - Brantford Power, B	1	1	kW	95	95	95	96	95	95	95	96
Embedded Distributor - Hydro One #1, BCP	1	1	kW	31,822	30,827	32,090	30,845	31,822	30,827	32,090	30,845
Embedded Distributor - Hydro One #2, BCP	4	4	kW	126,065	139,060	127,124	139,142	31,516	34,765	31,781	34,786
Total	78,621	79,184									
	Variance			Variance		Variance		Variance		Variance	
Residential	459		kWh	9,515,328		5,793,585		100		32	
General Service < 50 kW	92		kWh	4,951,330		3,405,966		314		59	
General Service > 50 to 999 kW	(17)		kW	(49,484)		(62,057)		(20)		(35)	
General Service > 1000 to 4999 kW	0		kW	(696)		(5,243)		(24)		(181)	
Large User	(1)		kW	(27,780)		(31,374)		31,896		30,484	
Direct Market Participant	0		kW	(545)		(1,090)		(136)		(272)	
Street Lights	26		kW	(13)		(262)		(0)		(0)	
Sentinel Lights	0		kW	(4)		(7)		(0)		(0)	
Unmetered Loads	3		kWh	(37,828)		(57,005)		(97)		(133)	
Embedded Distributor - Hydro One, CND	0		kW	137		(87)		68		(44)	
Embedded Distributor - Waterloo North, CN	0		kW	2,139		1,306		2,139		1,306	
Embedded Distributor - Brantford Power, B	0		kW	1		0		1		0	
Embedded Distributor - Hydro One #1, BCP	0		kW	(995)		(1,245)		(995)		(1,245)	
Embedded Distributor - Hydro One #2, BCP	0		kW	12,995		12,018		3,249		3,004	

2015 Actual to 2016 Actual - Energy+

Table 3-36 compares distribution revenues for the 2016 Actual to the 2015 Actual. Table 3-37 compares the billing determinants (customers/connections and volumes).

2016 Actual distribution revenue was \$33,278,012 or \$375,270 higher than the 2015 Actuals, principally explained by higher revenue in the GS >50 - 999 kW customer class, partially offset by lower distribution revenue in the Residential and GS<50 kW. Distribution revenue in the GS >50 – 999 kW customer class was \$701,920 higher, principally explained by: (i) recognition of an LRAM adjustment of approximately \$532,000 for this customer class based on conservation results attributable to this customer class; and (ii) an increase in volumes per customer. Distribution revenue in the Residential customer class was \$164,814 lower than the 2015 Actuals, principally explained by: (i) recognition of an LRAM adjustment of approximately \$175,000 decrease for this customer class based on conservation results attributable to this customer class; partially offset by an increase in the number of customers (639), although offset by lower annual consumption per customer.

Table 3-36: Comparison 2015 Actual to 2016 Actual

	2015 Actual	2016 Actual	Difference \$	Difference %
Distribution Throughput Revenue				
Residential	16,660,342	16,495,528	(164,814)	-1.00%
General Service < 50 kW	4,171,987	4,059,569	(112,418)	-2.77%
General Service > 50 to 999 kW	7,544,907	8,246,828	701,921	8.51%
General Service > 1000 to 4999 kW	1,833,026	1,896,554	63,528	3.35%
Large User	1,228,321	1,173,640	(54,681)	-4.66%
Street Lights	1,069,866	1,042,981	(26,885)	-2.58%
Sentinel Lights	28,319	16,538	(11,781)	-71.23%
Unmetered Loads	56,137	64,700	8,563	13.24%
Embedded Distributor	260,109	281,674	21,565	7.66%
Other	49,728	-	(49,728)	N/A
Total	32,902,742	33,278,012	375,270	1.13%

Table 3-37: Comparison 2015 Actual to 2016 Actual

Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0006	0.9868				
	2015 Actual	2016 Actual		2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual
Residential	55,922	56,561	kWh	486,541,296	479,944,152	486,828,639	473,614,056	8,700	8,485	8,706	8,374
General Service < 50 kW	6,149	6,241	kWh	203,100,575	212,807,519	203,220,523	210,000,750	33,029	34,100	33,049	33,650
General Service > 50 to 999 kW	808	806	kW	1,555,819	1,564,561	1,556,738	1,543,925	1,926	1,941	1,927	1,916
General Service > 1000 to 4999 kW	29	29	kW	581,153	631,904	581,496	623,570	20,040	22,172	20,052	21,880
Large User	2	2	kW	430,087	358,566	430,341	353,837	215,043	179,283	215,170	176,918
Direct Market Participant	4	4	kW	69,115	70,836	69,156	69,902	17,279	17,709	17,289	17,476
Street Lights	15,539	15,726	kW	31,873	31,300	31,892	30,887	2	2	2	2
Sentinel Lights	189	181	kW	288	417	289	411	2	2	2	2
Unmetered Loads	534	523	kWh	2,413,614	2,346,838	2,415,039	2,315,885	4,520	4,487	4,523	4,428
Embedded Distributor - Hydro One, CND	2	2	kW	28,843	27,466	28,860	27,103	14,422	13,733	14,430	13,552
Embedded Distributor - Waterloo North, CND	1	1	kW	108,929	121,168	108,993	119,570	108,929	121,168	108,993	119,570
Embedded Distributor - Brantford Power, BCP	1	1	kW	95	1,313	96	1,296	95	1,313	96	1,296
Embedded Distributor - Hydro One #1, BCP	1	1	kW	30,827	29,428	30,845	29,040	30,827	29,428	30,845	29,040
Embedded Distributor - Hydro One #2, BCP	4	4	kW	139,060	99,936	139,142	98,618	34,765	24,984	34,786	24,655
Total	79,184	80,081									
	Variance			Variance		Variance		Variance		Variance	
Residential	639		kWh	(6,597,144)		(13,214,584)		(215)		(332)	
General Service < 50 kW	92		kWh	9,706,944		6,780,228		1,071		601	
General Service > 50 to 999 kW	(2)		kW	8,741		(12,813)		16		(11)	
General Service > 1000 to 4999 kW	(1)		kW	50,751		42,074		2,132		1,828	
Large User	0		kW	(71,520)		(76,504)		(35,760)		(38,252)	
Direct Market Participant	0		kW	1,721		746		430		186	
Street Lights	188		kW	(573)		(1,004)		(0)		(0)	
Sentinel Lights	(8)		kW	128		122		1		1	
Unmetered Loads	(11)		kWh	(66,776)		(99,155)		(33)		(94)	
Embedded Distributor - Hydro One, CND	0		kW	(1,378)		(1,757)		(689)		(878)	
Embedded Distributor - Waterloo North, CND	0		kW	12,239		10,577		12,239		10,577	
Embedded Distributor - Brantford Power, BCP	0		kW	1,218		1,200		1,218		1,200	
Embedded Distributor - Hydro One #1, BCP	0		kW	(1,399)		(1,805)		(1,399)		(1,805)	
Embedded Distributor - Hydro One #2, BCP	0		kW	(39,124)		(40,524)		(9,781)		(10,131)	

2016 Actual to 2017 Actual

Table 3-38 compares distribution revenues for the 2017 Actual to the 2016 Actual. Table 3-39 compares the billing determinants (customers/connections and volumes).

2017 Actual distribution revenue was \$33,278,012 or \$60,401 lower than the 2016 Actuals, principally explained by higher revenue in the Residential customer class, offset by the lower revenue in the GS >50 - 999 kW customer class. Distribution revenue in the Residential customer class was \$468,867 higher than the 2016 Actuals. As previously explained, the 2016 distribution revenue in the Residential customer class included the recognition of an LRAM adjustment related to prior years of approximately \$175,000. Excluding the LRAM adjustment from the 2016 Actuals, distribution revenue for the Residential customer increased by approximately \$294,000, principally explained by an increase in the number of customers (711), partially offset by lower annual consumption per customer. Distribution revenue in the GS > 50-999 kW customer class was \$455,796 lower than 2016 Actuals. As previously explained, the 2016 distribution revenue in the GS > 50-999 kW customer class included the recognition of an LRAM adjustment related to prior years of approximately \$532,000. Excluding the LRAM adjustment from the 2016 Actuals, distribution revenue for the GS 50-999 kW customer class actually increased by approximately \$76,000, principally explained by the IRM increase as the number of customers and volume decreased in this customer class.

Table 3-38: Comparison 2016 Actual to 2017 Actual

	2016 Actual	2017 Actual	Difference \$	Difference %
Distribution Throughput Revenue				
Residential	16,495,528	16,964,395	468,867	2.76%
General Service < 50 kW	4,059,569	4,081,599	22,031	0.54%
General Service > 50 to 999 kW	8,246,828	7,791,032	(455,796)	-5.85%
General Service > 1000 to 4999 kW	1,896,554	1,792,008	(104,546)	-5.83%
Large User	1,173,640	1,288,466	114,826	8.91%
Street Lights	1,042,981	956,389	(86,592)	-9.05%
Sentinel Lights	16,538	14,535	(2,003)	-13.78%
Unmetered Loads	64,700	64,855	155	0.24%
Embedded Distributor	281,674	264,331	(17,343)	-6.56%
Total	33,278,012	33,217,611	(60,401)	-0.18%

Table 3-39: Comparison 2016 Actual to 2017 Actual

Billing Quantities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						0.9868	1.0069				
	2016 Actual	2017 Actual		2016 Actual	2017 Actual	2016 Actual	2017 Actual	2016 Actual	2017 Actual	2016 Actual	2017 Actual
Residential	56,561	57,272	kWh	479,944,152	453,855,075	473,614,056	457,000,716	8,485	7,925	8,374	7,980
General Service < 50 kW	6,241	6,298	kWh	212,807,519	189,005,848	210,000,750	190,315,835	34,100	30,013	33,650	30,221
General Service > 50 to 999 kW	806	796	kW	1,564,561	1,518,753	1,543,925	1,529,280	1,941	1,908	1,916	1,921
General Service > 1000 to 4999 kW	29	28	kW	631,904	574,484	623,570	578,466	22,172	20,517	21,880	20,660
Large User	2	2	kW	358,566	348,189	353,837	350,602	179,283	174,095	176,918	175,301
Direct Market Participant	4	4	kW	70,836	67,942	69,902	68,413	17,709	16,985	17,476	17,103
Street Lights	15,726	16,024	kW	31,300	24,144	30,887	24,311	2	2	2	2
Sentinel Lights	181	168	kW	417	343	411	345	2	2	2	2
Unmetered Loads	523	499	kWh	2,346,838	2,273,988	2,315,885	2,289,749	4,487	4,557	4,428	4,589
Embedded Distributor - Hydro One, CND	2	2	kW	27,466	24,387	27,103	24,556	13,733	12,194	13,552	12,278
Embedded Distributor - Waterloo North, CND	1	1	kW	121,168	114,657	119,570	115,452	121,168	114,657	119,570	115,452
Embedded Distributor - Brantford Power, BCP	1	1	kW	1,313	1,075	1,296	1,082	1,313	1,075	1,296	1,082
Embedded Distributor - Hydro One #1, BCP	1	1	kW	29,428	29,011	29,040	29,212	29,428	29,011	29,040	29,212
Embedded Distributor - Hydro One #2, BCP	4	4	kW	99,936	102,973	98,618	103,687	24,984	25,743	24,655	25,922
Total	80,081	81,099									
	Variance			Variance		Variance		Variance		Variance	
Residential	711		kWh	(26,089,077)		(16,613,340)		(561)		(394)	
General Service < 50 kW	57		kWh	(23,801,671)		(19,684,915)		(4,087)		(3,429)	
General Service > 50 to 999 kW	(10)		kW	(45,807)		(14,646)		(33)		6	
General Service > 1000 to 4999 kW	(1)		kW	(57,420)		(45,104)		(1,655)		(1,220)	
Large User	0		kW	(10,377)		(3,235)		(5,189)		(1,617)	
Direct Market Participant	0		kW	(2,895)		(1,489)		(724)		(372)	
Street Lights	298		kW	(7,156)		(6,576)		(0)		(0)	
Sentinel Lights	(13)		kW	(74)		(66)		(0)		(0)	
Unmetered Loads	(24)		kWh	(72,850)		(26,136)		70		161	
Embedded Distributor - Hydro One, CND	0		kW	(3,078)		(2,547)		(1,539)		(1,273)	
Embedded Distributor - Waterloo North, CND	0		kW	(6,511)		(4,118)		(6,511)		(4,118)	
Embedded Distributor - Brantford Power, BCP	0		kW	(238)		(214)		(238)		(214)	
Embedded Distributor - Hydro One #1, BCP	0		kW	(417)		172		(417)		172	
Embedded Distributor - Hydro One #2, BCP	0		kW	3,036		5,068		759		1,267	

2017 Actual to 2018 Bridge

Table 3-40 compares distribution revenues for the 2017 Actual to the 2018 Bridge. Table 3-41 compares the billing determinants (customers/connections and volumes).

2018 Bridge Year distribution revenue is projected to be was \$33,528,781 or \$311,170 or 0.93% higher than the 2017 Actuals. The 2018 Bridge Year distribution revenue reflects a 0.9% IRM increase effective May 1, 2018.

Energy+ would note that for purposes of the 2018 Bridge Year and 2019 Test Year, the transformer allowance has been illustrated separately in the distribution revenue tables presented. The transformer allowance in the prior years' actuals is reflected in the distribution revenue for the applicable rate classes (which would be the GS>50-999 and GS 1,000 – 4,999 customer classes). Total distribution revenue for the GS > 50-999 kW, and GS 1,000- 4,999 customer classes, plus the transformer allowance is projected to be \$131,721 or 1.4% higher than 2017 Actuals principally explained by: (i) IRM rate increase of 0.9% effective May 1, 2018;

and (ii) increase in the annual usage per customer, principally in the GS 50-999 kW customer class.

Distribution revenue in the Residential customer class is projected to increase by \$400,181, explained by: (i) the IRM rate increase of 0.9% effective May 1, 2018; (ii) increase in the number of customers (698); and an increase in the annual usage per customer.

Distribution revenue for the Large User class is forecast to decrease due to lower volumes.

Table 3-40: Comparison 2018 Bridge Year to 2017 Actuals

	2017 Actual	2018 Bridge	Difference \$	Difference %
Distribution Throughput Revenue				
Residential	16,964,395	17,364,576	400,181	2.30%
General Service < 50 kW	4,081,599	4,098,914	17,315	0.42%
General Service > 50 to 999 kW	7,791,032	7,665,822	(125,210)	-1.63%
General Service > 1000 to 4999 kW	1,792,008	2,560,515	768,507	30.01%
Large User	1,288,466	1,044,401	(244,065)	-23.37%
Street Lights	956,389	826,624	(129,765)	-15.70%
Sentinel Lights	14,535	14,573	37	0.26%
Unmetered Loads	64,855	64,042	(813)	-1.27%
Embedded Distributor	264,331	400,890	136,559	34.06%
Transformer Allowance	-	(511,575)	(511,575)	100.00%
Total	33,217,611	33,528,781	311,170	0.93%

Table 3-41: Comparison 2018 Bridge Year to 2017 Actual

Billing Quantiities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0069	1.0000				
	2017 Actual	2018 Bridge		2017 Actual	2018 Bridge	2017 Actual	2018 Bridge	2017 Actual	2018 Bridge	2017 Actual	2018 Bridge
Residential	57,272	57,970	kWh	453,855,075	465,920,846	457,000,716	465,920,846	7,925	8,037	7,980	8,037
General Service < 50 kW	6,298	6,374	kWh	189,005,848	192,724,357	190,315,835	192,724,357	30,013	30,237	30,221	30,237
General Service > 50 to 999 kW	796	798	kW	1,518,753	1,559,982	1,529,280	1,559,982	1,908	1,954	1,921	1,954
General Service > 1000 to 4999 kW	28	27	kW	574,484	556,266	578,466	556,266	20,517	20,233	20,660	20,233
Large User	2	2	kW	348,189	332,575	350,602	332,575	174,095	166,287	175,301	166,287
Direct Market Participant	4	4	kW	67,942	67,942	68,413	67,942	16,985	16,985	17,103	16,985
Street Lights	16,024	16,141	kW	24,144	19,227	24,311	19,227	2	1	2	1
Sentinel Lights	168	168	kW	343	343	345	343	2	2	2	2
Unmetered Loads	499	499	kWh	2,273,988	2,273,988	2,289,749	2,273,988	4,557	4,557	4,589	4,557
Embedded Distributor - Hydro One, CND	2	2	kW	24,387	24,387	24,556	24,387	12,194	12,194	12,278	12,194
Embedded Distributor - Waterloo North, CND	1	1	kW	114,657	114,657	115,452	114,657	114,657	114,657	115,452	114,657
Embedded Distributor - Brantford Power, BCP	1	1	kW	1,075	1,075	1,082	1,075	1,075	1,075	1,082	1,075
Embedded Distributor - Hydro One #1, BCP	1	1	kW	29,011	29,995	29,212	29,995	29,011	29,995	29,212	29,995
Embedded Distributor - Hydro One #2, BCP	4	4	kW	102,973	102,973	103,687	102,973	25,743	25,743	25,922	25,743
Total	81,099	81,993									
	Variance			Variance		Variance		Variance		Variance	
Residential	699		kWh	12,065,771		8,920,130		113		58	
General Service < 50 kW	76		kWh	3,718,509		2,408,522		225		17	
General Service > 50 to 999 kW	2		kW	41,229		30,702		46		33	
General Service > 1000 to 4999 kW	(1)		kW	(18,219)		(22,201)		(285)		(427)	
Large User	0		kW	(15,614)		(18,028)		(7,807)		(9,014)	
Direct Market Participant	0		kW	0		(471)		0		(118)	
Street Lights	117		kW	(4,917)		(5,084)		(0)		(0)	
Sentinel Lights	0		kW	0		(2)		0		(0)	
Unmetered Loads	0		kWh	0		(15,761)		0		(32)	
Embedded Distributor - Hydro One, CND	0		kW	0		(169)		0		(85)	
Embedded Distributor - Waterloo North, CND	0		kW	0		(795)		0		(795)	
Embedded Distributor - Brantford Power, BCP	0		kW	0		(7)		0		(7)	
Embedded Distributor - Hydro One #1, BCP	0		kW	984		783		984		783	
Embedded Distributor - Hvdro One #2, BCP	0		kW	0		(714)		0		(178)	

2018 Bridge to 2019 Test

Table 3-42 compares distribution revenues for the 2019 Test Year at existing 2018 rates and 2018 Bridge Year. Table 3-43 compares distribution revenues for the 2019 Test Year at proposed rates and the 2018 Bridge Year. Table 3-44 compares the billing determinants (customers/connections and volumes).

Table 3-42 illustrates the impact of volume changes between the 2018 Bridge Year and 2019 Test Year, since the distribution rates are held constant. The Residential customer class is showing the largest impact from volumes of \$185,748 principally explained by an increase in the number of customers (698).

The 2019 Test Year distribution revenue reflects the proposed distribution rates in this Application.

Table 3-42: Comparison 2019 Test Year @ Existing Rates vs. 2018 Bridge Year

	2018 Bridge	2019 Test @ Existing Rates	Difference \$	Difference %
Distribution Throughput Revenue				
Residential	17,364,576	17,550,323	185,748	1.06%
General Service < 50 kW	4,098,914	4,151,920	53,006	1.28%
General Service > 50 to 999 kW	7,665,822	7,653,216	(12,606)	-0.16%
General Service > 1000 to 4999 kW	2,560,515	2,503,247	(57,268)	-2.29%
Large User	1,044,401	1,042,118	(2,283)	-0.22%
Street Lights	826,624	758,180	(68,444)	-9.03%
Sentinel Lights	14,573	14,573	-	0.00%
Unmetered Loads	64,042	64,042	-	0.00%
Embedded Distributor	400,890	400,890	-	0.00%
Transformer Allowance	(511,575)	(511,575)	-	0.00%
Total	33,528,781	33,626,933	98,152	0.29%

Table 3-43: Comparison 2019 Test Year @ Proposed Rates vs. 2018 Bridge Year

	2018 Bridge	2019 Test @ Proposed Rates	Difference \$	Difference %
Distribution Throughput Revenue				
Residential	17,364,576	19,242,381	1,877,806	10.81%
General Service < 50 kW	4,098,914	4,342,482	243,568	5.94%
General Service > 50 to 999 kW	7,665,822	7,526,897	(138,925)	-1.81%
General Service > 1000 to 4999 kW	2,560,515	2,602,122	41,607	1.62%
Large User	1,044,401	1,089,949	45,547	4.36%
Street Lights	826,624	528,827	(297,796)	-36.03%
Sentinel Lights	14,573	20,346	5,774	39.62%
Unmetered Loads	64,042	67,090	3,048	4.76%
Embedded Distributor	400,890	261,791	(139,099)	-34.70%
Transformer Allowance	(511,575)	(511,575)	-	0.00%
Total	33,528,781	35,170,311	1,641,530	4.90%

Table 3-44: Comparison 2018 Bridge to 2019 Test

Billing Quantiities	Customers / Connections		Units	Volume		Volume Weather Normal		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection Weather Normal	
Weather Normal Conversion Factor						1.0000	1.0000				
	2018 Bridge	2019 Test		2018 Bridge	2019 Test	2018 Bridge	2019 Test	2018 Bridge	2019 Test	2018 Bridge	2019 Test
Residential	57,970	58,677	kWh	465,920,846	466,068,279	465,920,846	466,068,279	8,037	7,943	8,037	7,943
General Service < 50 kW	6,374	6,451	kWh	192,724,357	195,276,256	192,724,357	195,276,256	30,237	30,272	30,237	30,272
General Service > 50 to 999 kW	798	800	kW	1,559,982	1,556,242	1,559,982	1,556,242	1,954	1,944	1,954	1,944
General Service > 1000 to 4999 kW	27	27	kW	556,266	542,178	556,266	542,178	20,233	20,084	20,233	20,084
Large User	2	2	kW	332,575	382,038	332,575	382,038	166,287	191,019	166,287	191,019
Direct Market Participant	4	4	kW	67,942	67,942	67,942	67,942	16,985	16,985	16,985	16,985
Street Lights	16,141	16,260	kW	19,227	15,467	19,227	15,467	1	1	1	1
Sentinel Lights	168	168	kW	343	343	343	343	2	2	2	2
Unmetered Loads	499	499	kWh	2,273,988	2,273,988	2,273,988	2,273,988	4,557	4,557	4,557	4,557
Embedded Distributor - Hydro One, CND	2	2	kW	24,387	24,387	24,387	24,387	12,194	12,194	12,194	12,194
Embedded Distributor - Waterloo North, CND	1	1	kW	114,657	114,657	114,657	114,657	114,657	114,657	114,657	114,657
Embedded Distributor - Brantford Power, BCP	1	1	kW	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075
Embedded Distributor - Hydro One #1, BCP	1	1	kW	29,995	29,995	29,995	29,995	29,995	29,995	29,995	29,995
Embedded Distributor - Hydro One #2, BCP	4	4	kW	102,973	102,973	102,973	102,973	25,743	25,743	25,743	25,743
Total	81,993	82,897									
	Variance			Variance		Variance		Variance		Variance	
Residential	707		kWh	147,433		147,433		(94)		(94)	
General Service < 50 kW	77		kWh	2,551,900		2,551,900		34		34	
General Service > 50 to 999 kW	2		kW	(3,740)		(3,740)		(10)		(10)	
General Service > 1000 to 4999 kW	(0)		kW	(14,087)		(14,087)		(149)		(149)	
Large User	0		kW	49,463		49,463		24,732		24,732	
Direct Market Participant	0		kW	0		0		0		0	
Street Lights	118		kW	(3,760)		(3,760)		(0)		(0)	
Sentinel Lights	0		kW	0		0		0		0	
Unmetered Loads	0		kWh	0		0		0		0	
Embedded Distributor - Hydro One, CND	0		kW	0		0		0		0	
Embedded Distributor - Waterloo North, CND	0		kW	0		0		0		0	
Embedded Distributor - Brantford Power, BCP	0		kW	0		0		0		0	
Embedded Distributor - Hydro One #1, BCP	0		kW	0		0		0		0	
Embedded Distributor - Hydro One #2, BCP	0		kW	0		0		0		0	

3.4 OTHER REVENUE

3.4.1 Other Revenue Overview

Other Distribution revenues include such items as:

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

Other revenues are deducted from Energy+'s proposed revenue requirement. Further details on the derivation of the Revenue Requirement are presented at Exhibit 6.

A detailed breakdown by USoA account is shown below in Table 3-45: OEB Appendix 2-H Other Operating Revenue. A year over year variance analysis has been provided based on Energy+'s materiality of \$175,000; the materiality calculation provided earlier in Exhibit 1 of this Application. The 2014 Board Approved Proxy other revenue amount was determined on a proxy basis as described at the beginning of this Exhibit.

Energy+ does not have any discrete customer groups that may be materially impacted by changes to other rates and charges.

Pursuant to the *Report of the Board Wireline Pole Attachment Charges* (EB-2015-0304) issued March 22, 2018, Energy+ acknowledges the change in the pole attachment charge to \$43.63 effective January 1, 2019. Energy+ intends to increase the pole rental revenue included in this Application as part of the Application process. As the OEB Report was issued late into Energy+'s rate application process, there was insufficient time to update the various models prior to the filing date. In addition, Energy+ would note that it is subject to pole attachment charges from telecommunication companies, which are included in OM&A expenditures. Energy+ expects that the telecommunication companies may in fact increase the pole attachment charges that it charges to Energy+ as a result. Energy+ would also expect to address this as part of the Application process.

Table 3-45: OEB Appendix 2-H Other Operating Revenue

USoA #	USoA Description	2014 Board Approved Proxy	2014 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Forecast	2018 Bridge Year	2019 Test Year
	Reporting Basis	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
4235	Specific Service Charges	675,814	751,308	751,308	728,545	809,688	768,275	638,145	637,145
4225	Late Payment Charges	237,000	192,312	192,312	188,882	225,148	192,353	189,000	189,000
4082	Retail Services Revenue	36,000	34,289	34,289	30,850	32,123	28,424	32,400	31,200
4084	Service Tax Requests	960	747	747	586	731	342	780	660
4086	SSS Administration Revenue	177,810	149,654	149,654	181,110	185,011	191,007	185,283	189,732
4210	Rent from Electric Property	250,226	252,210	252,210	256,020	270,751	257,615	268,896	268,896
4215	Other Utility Operating Income	-	-	-	-	-	-	-	-
4220	Other Electric Revenues	123,946	212,645	212,645	-	-	-	-	-
4245	Government Assistance Directly Credited to Income	-	-	5,213	-	146,349	189,000	203,765	234,498
4305	Regulatory Debits	-	(64,320)	(64,320)	-	-	(432,123)	(726,000)	-
4310	Regulatory Credits	-	(43,720)	(107,369)	(647,982)	133,064	465,924	300,000	-
4320	Expenses of Electric Plant Leased to Others	-	(26)	(26)	-	-	-	-	-
4325	Revenues from Merchandise, Jobbing, Etc.	24,000	36,994	36,994	26,465	23,905	24,000	33,880	33,880
4355	Gain on Disposition of Utility and Other Property	23,000	57,603	57,603	37,760	6,012	-	618,000	-
4360	Loss on Disposition of Utility and Other Property	-	-	(338,222)	(337,290)	(275,018)	(465,924)	(300,000)	(300,000)
4375	Revenues from Non-Utility Operations	26,400	497,153	497,153	1,678,127	698,393	630,871	626,780	617,780
4380	Expenses of Non-Utility Operations	-	(327,238)	(327,238)	(1,339,778)	(550,033)	(350,000)	(325,000)	(330,000)
4390	Miscellaneous Non-Operating Income	147,606	142,762	142,762	183,004	77,718	74,236	79,071	82,200
4398	Foreign Exchange Gains and Losses, Including Amortization	-	(17,308)	(17,308)	(2,646)	17,161	-	-	-
4405	Interest and Dividend Income	96,820	95,293	95,293	599,903	226,616	115,000	-	-
Specific Service Charges		\$ 675,814	\$ 751,308	\$ 751,308	\$ 728,545	\$ 809,688	\$ 768,275	\$ 638,145	\$ 637,145
Late Payment Charges		\$ 237,000	\$ 192,312	\$ 192,312	\$ 188,882	\$ 225,148	\$ 192,353	\$ 189,000	\$ 189,000
Other Operating Revenues		\$ 588,943	\$ 649,545	\$ 654,758	\$ 468,566	\$ 634,964	\$ 666,388	\$ 691,124	\$ 724,986
Other Income or Deductions		\$ 317,826	\$ 377,194	\$ (24,677)	\$ 197,564	\$ 357,818	\$ 61,984	\$ 306,731	\$ 103,860
Total		\$ 1,819,584	\$ 1,970,360	\$ 1,573,702	\$ 1,583,557	\$ 2,027,617	\$ 1,689,000	\$ 1,825,000	\$ 1,654,991

Account 4235 - Specific Service Charges		2014 Actual	2014 Actual	2015 Actual ²	2016 Actual	2017 Forecast	Bridge Year	Test Year
		2014	2014	2015	2016	2017	2018	2019
Reporting Basis		CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Change of Occupancy Charges		263,574	263,575	275,250	277,455	276,870	236,000	238,000
Document Charges		260,767	260,767	257,415	411,071	341,335	281,000	278,000
Collection/Reconnection Charges		136,690	136,690	121,631	31,265	31,240	15,555	15,555
Legal Letter Revenue		899	899	765	375	405	420	420
Meter Related Charges		29,880	29,880	31,740	2,430	390	360	360
Returned Cheques Revenue		9,738	9,738	8,130	7,887	7,359	8,400	8,400
FIT/Microfit Service Charges		5,721	5,721	-	-	110,646	96,410	96,410
Miscellaneous charges		44,038	44,037	33,615	79,205	-	-	-
Total		\$ 751,308	\$ 751,308	\$ 728,545	\$ 809,688	\$ 768,245	\$ 638,145	\$ 637,145

Other Income or Deductions		2014 Actual	2014 Actual	2015 Actual ²	2016 Actual	2017 Forecast	Bridge Year	Test Year
		2014	2014	2015	2016	2017	2018	2019
		CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
4305	Regulatory Debits	(64,320)	(64,320)	-	-	(432,123)	(726,000)	-
4310	Regulatory Credits	(43,720)	(107,369)	(647,982)	133,064	465,924	300,000	-
4320	Expenses of Electric Plant Leased to Others	(26)	(26)	-	-	-	-	-
4325	Revenues from Merchandise, Jobbing, Etc.	36,994	36,994	26,465	23,905	24,000	23,880	33,880
4355	Gain on Disposition of Utility and Other Property	57,603	57,603	37,760	6,012	-	618,000	-
4360	Loss on Disposition of Utility and Other Property	-	(338,222)	(337,290)	(275,018)	(465,924)	(300,000)	(300,000)
4375	Revenues from Non-Utility Operations	497,153	497,153	1,678,127	698,393	630,871	626,780	617,780
4380	Expenses of Non-Utility Operations	(327,238)	(327,238)	(1,339,778)	(550,033)	(350,000)	(325,000)	(330,000)
4390	Miscellaneous Non-Operating Income	142,762	142,762	183,004	77,718	74,236	79,071	82,200
4398	Foreign Exchange Gains and Losses, Including Amortization	(17,308)	(17,308)	(2,646)	17,161	-	-	-
4405	Interest and Dividend Income	95,293	95,293	599,903	226,616	115,000	-	-
Total		\$ 377,194	\$ 24,677	\$ 197,564	\$ 357,818	\$ 61,984	\$ 296,731	\$ 103,860

Table 3-45: OEB Appendix 2-H Other Operating Revenue (Continued)

Account 4210 - Rent from Electric Property							
	2014 Actual	2014 Actual	2015 Actual ²	2016 Actual	2017 Forecast	Bridge Year	Test Year
	2014	2014	2015	2016	2017	2018	2019
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Pole and Ducts Rental	239,710	239,710	243,020	257,751	244,615	255,900	255,900
Rental Income	12,500	12,500	13,000	13,000	13,000	12,996	12,996
Total	\$ 252,210	\$ 252,210	\$ 256,020	\$ 270,751	\$ 257,615	\$ 268,896	\$ 268,896
Account 4375 - Revenues from Non-Utility Operations							
	2014 Actual	2015 Actual	2015 Actual ²	2016 Actual	2017 Forecast	Bridge Year	Test Year
	2014	2014	2015	2016	2017	2018	2019
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Streetlighting Service Billings	437,951	437,951	380,012	262,526	350,000	325,000	330,000
Water and Sewer Billing Admin Fees	-	-	226,492	247,789	276,000	278,400	283,200
CDM Program Revenue	3,227	3,227	1,033,145	171,822	-	-	-
Connection Impact Assessment	24,720	24,720	-	-	-	20,800	2,000
Miscellaneous	31,255	31,255	38,478	16,256	4,871	2,580	2,580
Total	\$ 497,153	\$ 497,153	\$ 1,678,127	\$ 698,393	\$ 630,871	\$ 626,780	\$ 617,780
Account 4380 - Expenses from Non-Utility Operations							
	2014 Actual	2014 Actual	2015 Actual ²	2016 Actual	2017 Forecast	Bridge Year	Test Year
	2014	2014	2015	2016	2017	2018	2019
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Streetlighting Service Billings	(437,951)	(437,951)	(380,012)	(262,526)	(350,000)	(325,000)	(330,000)
Water and Sewer Billing Admin Fees	-	-	(226,492)	(247,789)	-	-	-
CDM Program Revenue and (Expenses)	110,713	110,713	(733,145)	-	-	-	-
Miscellaneous	-	-	(129)	(39,718)	-	-	-
Total	\$ (327,238)	\$ (327,238)	\$ (1,339,778)	\$ (550,033)	\$ (350,000)	\$ (325,000)	\$ (330,000)
Account 4390 - Miscellaneous Non-Operating Income							
	2014 Actual	2014 Actual	2015 Actual ²	2016 Actual	2017 Forecast	Bridge Year	Test Year
	2014	2014	2015	2016	2017	2018	2019
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Discounts Taken	21,260	21,260	55,127	14,867	13,236	9,600	10,200
Sale of Scrap Material	55,050	55,050	84,086	62,530	60,000	66,800	70,000
Other	66,452	66,452	43,791	321	1,000	2,671	2,000
Total	\$ 142,762	\$ 142,762	\$ 183,004	\$ 77,718	\$ 74,236	\$ 79,071	\$ 82,200
Account 4405 - Interest and Dividend Income							
	2014 Actual	2015 Actual	2015 Actual ²	2016 Actual	2017 Forecast	Bridge Year	Test Year
	2014	2014	2015	2016	2017	2018	2019
Reporting Basis	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Investment Income	137,303	137,303	135,614	97,374	115,000	-	-
Intercompany interest (Loan to former Brant County Power Inc.)	-	-	389,351	-	-	-	-
OEB Carrying Charges CR	43,179	43,179	69,119	129,242	-	-	-
OEB Carrying Charges DR	(84,025)	(84,025)	-	-	-	-	-
Miscellaneous	(1,164)	(1,164)	5,819	-	-	-	-
Total	\$ 95,293	\$ 95,293	\$ 599,903	\$ 226,616	\$ 115,000	\$ -	\$ -

3.4.2 Variance Analysis of Other Revenue

Table 3-46 below provides the variances on Other Revenue included in Energy+'s Operating Revenue. Each variance above the materiality threshold of \$175,000 as calculated is highlighted in grey and an explanation of the variance is provided below.

Table 3:46: Year over Year Variance in Other Revenue

USoA #	USoA Description	Year over Year Variance						
		2014 vs BA 2014	2014 MIFRS vs CGAAP 2014	2015 vs 2014	2016 vs 2015	2017 vs 2016	2018 vs 2017	2019 vs 2018
	<i>Reporting Basis</i>	<i>CGAAP</i>		<i>MIFRS</i>	<i>MIFRS</i>	<i>MIFRS</i>	<i>MIFRS</i>	<i>MIFRS</i>
4235	Specific Service Charges	75,494	-	(22,763)	81,143	(41,413)	(130,130)	(1,000)
4225	Late Payment Charges	(44,688)	-	(3,430)	36,266	(32,795)	(3,353)	-
4082	Retail Services Revenue	(1,711)	-	(3,439)	1,273	(3,699)	3,976	(1,200)
4084	Service Tax Requests	(213)	-	(161)	145	(389)	438	(120)
4086	SSS Administration Revenue	(28,156)	-	31,456	3,901	5,996	(5,724)	4,449
4210	Rent from Electric Property	1,983	-	3,810	14,731	(13,136)	11,281	-
4215	Other Utility Operating Income	-	-	-	-	-	-	-
4220	Other Electric Revenues	88,699	-	(212,645)	-	-	-	-
4245	Government Assistance Directly Credited to Income	-	5,213	(5,213)	146,349	42,651	14,765	30,733
4305	Regulatory Debits	(64,320)	-	64,320	-	(432,123)	(293,877)	726,000
4310	Regulatory Credits	(43,720)	(63,649)	(540,613)	781,046	332,860	(165,924)	(300,000)
4320	Expenses of Electric Plant Leased to Others	(26)	-	26	-	-	-	-
4325	Revenues from Merchandise, Jobbing, Etc.	12,994	-	(10,529)	(2,561)	95	9,880	-
4355	Gain on Disposition of Utility and Other Property	34,603	-	(19,844)	(31,747)	(6,012)	618,000	(618,000)
4360	Loss on Disposition of Utility and Other Property	-	(338,222)	932	62,271	(190,906)	165,924	-
4375	Revenues from Non-Utility Operations	470,753	-	1,180,974	(979,734)	(67,522)	(4,091)	(9,000)
4380	Expenses of Non-Utility Operations	(327,238)	-	(1,012,540)	789,745	200,033	25,000	(5,000)
4390	Miscellaneous Non-Operating Income	(4,844)	-	40,242	(105,286)	(3,482)	4,835	3,129
4398	Foreign Exchange Gains and Losses, Including Amortization	(17,308)	-	14,662	19,806	(17,161)	-	-
4405	Interest and Dividend Income	(1,527)	-	504,610	(373,287)	(111,616)	(115,000)	-
	Specific Service Charges	\$ 75,494	\$ -	\$ (22,763)	\$ 81,143	\$ (41,413)	\$ (130,130)	\$ (1,000)
	Late Payment Charges	\$ (44,688)	\$ -	\$ (3,430)	\$ 36,266	\$ (32,795)	\$ (3,353)	\$ -
	Other Operating Revenues	\$ 60,602	\$ 5,213	\$ (186,192)	\$ 166,399	\$ 31,423	\$ 24,736	\$ 33,862
	Other Income or Deductions	\$ 59,368	\$ (401,871)	\$ 222,241	\$ 160,253	\$ (295,834)	\$ 244,747	\$ (202,871)
	Total	\$ 150,776	\$ (396,658)	\$ 9,855	\$ 444,061	\$ (338,618)	\$ 136,000	\$ (170,009)

2014 Board Approved Proxy Comparison to 2014 Actual – Other Operating Revenue

Table 3-47 below summarizes the variance in Other Operating Revenue between the 2014 Board Approved Proxy and 2014 Actual.

Table 3-47: Other Operating Revenue – 2014 Board Approved and 2014 Actual (CGAAP)

Other Distribution Revenue	2014 Board Approved Proxy	2014 Actual	Difference \$	Difference %
Specific Service Charges	\$ 675,814	\$ 751,308	\$ 75,494	11%
Late Payment Charges	\$ 237,000	\$ 192,312	\$ (44,688)	-19%
Other Operating Revenues	\$ 588,943	\$ 649,545	\$ 60,602	10%
Other Income or Deductions	\$ 317,826	\$ 377,194	\$ 59,368	19%
Total	\$ 1,819,584	\$ 1,970,360	\$ 150,776	8%

2014 Actual Other Operating Revenue was \$1,970,360 or \$150,776 higher than the 2014 Board Approved Proxy of \$1,819,584. Overall this was not a material variance. The largest variance in the 2014 Actual was with respect to Accounts 4375 Revenues from Non-Utility Operations and Account 4380 Expenses of Non-Utility Operations. The net of these two accounts, which are related, was \$143,515. The variance is principally attributable to: (i) Streetlight Services provided by the former CND. The 2014 Board Approved amount for the former CND was recorded as a net amount for Streetlight Services, whereas the actuals were reported as Revenues and Expenses.; and (ii) Conservation and Demand management expenditures recorded by the former BCP in 2014 prior to the acquisition by the former CND; the revenue offset was recorded by the former BCP in 2013.

2014 Actual CGAAP vs. 2014 Actual MIFRS

For comparative purposes, and as a result of the restatement of 2014 Actuals to MIFRS as at the transition date, Energy+ has compared the 2014 Actual Other Operating Revenue under CGAAP to the 2014 Actual Other Operating Revenue under MIFRS in Table 3-48 below.

Table 3-48: Other Operating Revenue – 2014 Actual (CGAAP) vs. 2014 Actual (MIFRS)

Operating Revenue	2014 Actual (CGAAP)	2014 Actual (MIFRS)	Difference
Specific Service Charges	\$ 751,308	\$ 751,308	\$ -
Late Payment Charges	\$ 192,312	\$ 192,312	\$ -
Other Operating Revenues	\$ 649,545	\$ 654,758	\$ 5,213
Other Income or Deductions	\$ 377,194	\$ (24,677)	\$ (401,871)
Total	\$ 1,970,360	\$ 1,573,702	\$ (396,658)

The difference between CGAAP and MIFRS was principally explained by a MIFRS adjustment to Account 4360 Loss on Disposition of Utility property of \$338,222 as a result of the de-recognition of assets removed from service before the end of their useful life, resulting in a loss. The offsetting regulatory credit for this adjustment was not recorded until 2016. Please refer to Exhibit 9 for further information with respect to Account 1575 IFRS-CGAAP Transitional PP&E Amounts.

2015 Actual Comparison to 2014 Actual – Other Operating Revenue

Table 3-49 below summarizes the variance in Other Operating Revenue between the 2015 Actuals and 2014 Actuals on a MIFRS basis.

Table 3-49: Other Operating Revenue – 2015 Actual and 2014 Actual (MIFRS)

Other Distribution Revenue	2014 Actual	2015 Actual	Difference \$	Difference %
Specific Service Charges	\$ 751,308	\$ 728,545	\$ (22,763)	-3%
Late Payment Charges	\$ 192,312	\$ 188,882	\$ (3,430)	-2%
Other Operating Revenues	\$ 654,758	\$ 468,566	\$ (186,192)	-28%
Other Income or Deductions	\$ (24,677)	\$ 197,564	\$ 222,241	901%
Total	\$ 1,573,702	\$ 1,583,557	\$ 9,855	1%

2015 Actual Other Operating Revenue was \$1,583,557 or \$9,855 higher than the 2014 Actual of \$1,573,702.

The material variances between 2015 Actuals and 2014 Actuals for Other Operating Revenues were:

- Reduction in Other Electric Revenues of \$212,645: Prior to 2015 the former BCP included the revenue from providing water billing services to the County of Brant in Account 4220 Other Electric Revenues. In 2015 and onward, the revenue is included in Account 4375.
- Regulatory Credits variance of \$540,513 is principally explained by an adjustment to Account 1576 Accounting Changes under CGAAP for the former BCP. Subsequent to the acquisition of the former BCP, the former CND reviewed the computation with respect to Account 1576 and identified that a further adjustment to the account was required, resulting in an increased regulatory liability. Please refer to Exhibit 9 for further details with respect to Account 1576.
- Accounts 4375 Revenues from Non-Utility Operations and Account 4380 Expenses of Non-Utility Operations. The net change of these two accounts, which are related, was \$168,434 higher.

Account 4375 Revenues increased by \$1,180,974 principally explained by: (i) \$733,145 in CDM revenue for the former BCP (with a corresponding expense of \$733,145, resulting in an overall net impact of nil; (ii) \$300,000 in incentive revenue recognized by the former CND based on the results of its performance under the 2011-2014 Conservation and Demand Management programs. This revenue should not have been excluded for purposes of regulated other income in 2015; and (iii) \$226,492 in water billing services revenue from services provided to the County of Brant (with a corresponding expense of \$226,492, resulting in an overall net impact of nil), which were included in Account 4220 in prior years, as noted above.

Account 4380 Expenses increased by \$1,012,540 principally explained by: (i) CDM expenses of \$733,145; and (ii) \$226,492 in allocated expenses for water billing services, as described above.

- Account 4405 Interest and Dividend income was \$504,610 higher as a result of: (i) intercompany interest earned by the former CND of \$389,351 from intercompany debt provided to the former BCP. Interest expense for the former BCP as a result was also higher; and (ii) OEB carrying charges.

2016 Actual Comparison to 2015 Actual – Other Operating Revenue

Table 3-50 below summarizes the variance in Other Operating Revenue between the 2016 Actuals and 2015 Actuals.

Table 3-50: Other Operating Revenue – 2016 Actual and 2015 Actual

Other Distribution Revenue	2015 Actual	2016 Actual	Difference \$	Difference %
Specific Service Charges	\$ 728,545	\$ 809,688	\$ 81,143	11%
Late Payment Charges	\$ 188,882	\$ 225,148	\$ 36,266	19%
Other Operating Revenues	\$ 468,566	\$ 634,964	\$ 166,399	36%
Other Income or Deductions	\$ 197,564	\$ 357,818	\$ 160,253	81%
Total	\$ 1,583,557	\$ 2,027,617	\$ 444,061	28%

2016 Actual Other Operating Revenue was \$2,027,617 or \$444,061 higher than the 2015 Actual of \$1,583,557.

The material variances between 2016 Actuals and 2015 Actuals for Other Operating Revenues were:

- Regulatory Credits decreased from (\$647,982) to \$133,064 for a variance of \$781,046. Included in the Regulatory Credit account of \$133,064 for the year were two amounts:
 - Recognition of the annual Account 1576 Accounting Changes under CGAAP amount for the former BCP, representing a debit of \$223,379 (increased regulatory liability); and
 - Recognition of the Account 1575 Transition to Account 1575 IFRS-CGAAP Transitional PP&E amounts for losses on de-recognition of utility property as a result of assets removed from service before the end of their useful life, resulting in a loss on disposition, with a corresponding credit of \$356,444 for the year (recognition of a regulatory debit). Please refer to Exhibit 9 for further details with respect to Account 1575.

As noted previously, the 2015 Actuals included a larger adjustment for Account 1576 than in the 2016 Actuals.
- Accounts 4375 Revenues from Non-Utility Operations and Account 4380 Expenses of Non-Utility Operations. The net change of these two accounts, which are related, was a decrease of \$189,989. As noted previously, the prior year included \$300,000 in incentive revenue

recognized by the former CND based on the results of its performance under the 2011-2014 Conservation and Demand Management programs. This revenue should have been excluded for purposes of regulated other income in 2015.

- Account 4405 Interest and Dividend income was \$373,287 lower in 2016. As noted previously, the 2015 Actuals included intercompany interest earned by the former CND of \$389,351 from intercompany debt provided to the former BCP. As the utilities were amalgamated in 2016, there was no intercompany interest income.

2017 Forecast Comparison to 2016 Actual – Other Operating Revenue

Table 3-51 below summarizes the variance in Other Operating Revenue between the 2017 Forecast and 2016 Actuals.

Table 3-51: Other Operating Revenue – 2017 Forecast and 2016 Actual

Other Distribution Revenue	2016 Actual	2017 Forecast	Difference \$	Difference %
Specific Service Charges	\$ 809,688	\$ 768,275	\$ (41,413)	-5%
Late Payment Charges	\$ 225,148	\$ 192,353	\$ (32,795)	-15%
Other Operating Revenues	\$ 634,964	\$ 666,388	\$ 31,423	5%
Other Income or Deductions	\$ 357,818	\$ 61,984	\$ (295,834)	-83%
Total	\$ 2,027,617	\$ 1,689,000	\$ (338,618)	-17%

2017 Forecast Other Operating Revenue was \$1,689,000 or \$338,618 lower than the 2016 Actual of \$2,027,617.

The material variances between 2017 Forecast and 2016 Actuals for Other Operating Revenues are:

- Regulatory Debits of (\$432,123), representing a reduction to Other Operating Revenues, as a result of the recognition of the annual Account 1576 Accounting Changes under CGAAP amount for the former BCP, representing an increased regulatory liability. The annual adjustment for 2016 was included in Account 4310 Regulatory Credits.

- Regulatory Credits increase of \$332,860, principally explained by an increase in Account 1575 related to the loss on de-recognition of assets in 2017 compared to 2016 (\$465,924) compared to the \$356,444 recorded in 2016, but which was reflected in the Regulatory Debit account.

Please refer to Exhibit 9 for further information with respect to Accounts 1575 and 1576.

- Loss on Disposition of Utility and Other Property increased by \$190,906 from 2016 Actuals to 2017 Actuals as a result of an increase in the amount of loss on de-recognition as a result of removing assets from service before the end of their useful life, as identified above. This is principally attributable to the System Access projects undertaken in the year, which are more fully described in Exhibit 2.

- Account 4380 Expenses of Non-Utility Operations for 2017 were \$200,033 lower than 2016 Actuals. For purposes of 2017 Forecast, operating costs were not directly allocated to the performance of water billing services. Operating costs have been included in OM&A, with the revenue included in Account 4375.

2018 Bridge Comparison to 2017 Forecast – Other Operating Revenue

Table 3-52 below summarizes the variance in Other Operating Revenue between the 2018 Bridge Year and 2017 Forecast.

Table 3-52: Other Operating Revenue – 2018 Bridge Year and 2017 Forecast

Other Distribution Revenue	2017	Forecast	2018 Bridge Year	Difference \$	Difference %
Specific Service Charges	\$	768,275	\$ 638,145	\$ (130,130)	-17%
Late Payment Charges	\$	192,353	\$ 189,000	\$ (3,353)	-2%
Other Operating Revenues	\$	666,388	\$ 691,124	\$ 24,736	4%
Other Income or Deductions	\$	61,984	\$ 306,731	\$ 244,747	395%
Total	\$	1,689,000	\$ 1,825,000	\$ 136,000	8%

2018 Bridge Year Other Operating Revenue is projected to be \$1,825,000 or \$136,000 lower than the 2017 Forecast. Overall this was not a material variance. The material variances by account are further explained below.

- Regulatory Debits of (\$293,877), representing an increase in the reduction to Other Operating Revenues, as a result of the recognition of the annual Account 1576 Accounting Changes under CGAAP amount for the former BCP, representing an increased regulatory liability. As a result of increased capital expenditures in the Brant service territory, the variance derived between the former CGAAP and IFRS increases.
- Regulatory Credits decrease of \$165,924, principally explained by an expected decrease in the amount to be recorded in Account 1575 related to the loss on de-recognition of assets. The loss on de-recognition for 2018 is projected to be \$300,000 in 2018 compared to \$465,924 forecast for 2017.

Please refer to Exhibit 9 for further information with respect to Accounts 1575 and 1576.

- Loss on Disposition of Utility and Other Property is expected to decrease by \$165,924. This loss arises from the calculation of the loss on de-recognition as a result of removing assets from service before the end of their useful life amount. This is principally attributable to the System Access projects undertaken in the year, which are more fully described in Exhibit 2.
- Gain on disposition of utility and other property of \$618,000 represents the computed estimated gain on the sale of the land and building at 65 Dundas Street East, Paris, Ontario. This transaction is further explained in Exhibit 2, Section 2.7.3. and Exhibit 9, Section 9.3.4.

2019 Test Comparison to 2018 Bridge – Other Operating Revenue

Table 3-53 below summarizes the variance in Other Operating Revenue between the 2019 Test Year and the 2018 Bridge Year.

Table 3-53: Other Operating Revenue – 2019 Test Year and 2018 Bridge Year

Other Distribution Revenue	2018 Bridge Year	2019 Test Year	Difference \$	Difference %
Specific Service Charges	\$ 638,145	\$ 637,145	\$ (1,000)	0%
Late Payment Charges	\$ 189,000	\$ 189,000	\$ -	0%
Other Operating Revenues	\$ 691,124	\$ 724,986	\$ 33,862	5%
Other Income or Deductions	\$ 306,731	\$ 103,860	\$ (202,871)	-66%
Total	\$ 1,825,000	\$ 1,654,991	\$ (170,009)	-9%

2019 Test Year Other Operating Revenue is projected to be \$1,654,991 or \$170,009 lower than the 2018 Bridge Year. Overall this is not a material variance. The material variances by account are further explained below.

- Regulatory Debits and Regulatory Credits – The variances in these accounts are directly due to Energy+ rebasing in 2019. The net impact in 2019 is an increase in Other Revenue of \$426,000.

As the 2019 rate base will reflect MIFRS, there will no longer be Regulatory Debits and Credits associated with CGAAP and MIFRS differences reported in Accounts 1575 and 1576 and therefore no corresponding need for Regulatory Debit and Regulatory Credit entries.

1 Losses on de-recognition related to assets removed from service will continue to be recorded in
2 Account 4360, however, there will be no corresponding offset in Account 4310 Regulatory Credits.
3 The entry to record the CGAAP differences in Account 1576 for the former BCP will not be required
4 in 2019 as a result of rebasing, and therefore there will be no corresponding offset in Account 4305
5 Regulatory Debits.

- 6
7 • Gain on Disposition of Utility and Other Property decreases in 2019, as there is no planned
8 disposition of property. As noted previously, 2018 included a \$618,000 gain on sale associated
9 with the sale of land and building in Paris, Ontario.

10 11 **3.4.3 Specific Service Charges**

12 Energy+ proposes to harmonize the Specific Service Charges ("SSC"). Energy+ provides
13 consistent service across both of its service territories. Please refer to Exhibit 8, Section 8.2.4 for
14 further details with respect to the Energy+ proposed SSC effective January 1, 2019.

15 The majority of the SCC rates are in fact already consistent in both service territories. The only
16 proposed changes are as follows:

- 17 • The former CND was approved for an "Install/Remove load control device – during regular
18 hours" and an "Install/Remove load control device – after regular hours". Energy+ proposes
19 that this SCC continues across the Energy+ service territory.
20
- 21 • Specific charge for access to power poles - \$/Pole/Year to be updated to \$43.63 in accordance
22 with the Board's Decision "Updated Pole Attachment Charge for Wireline Pole Attachments"
23 (EB-2015-0304) issued March 22, 2018.
24
25

- Removal of the “Temporary Service” rates from the Tariff Sheet. Energy+’s Conditions of Service (Section 3.2.10) currently provides for the provision of Temporary Service to customers based on actual costs incurred, including labour and material for the installation and the removal of equipment required for the Temporary Service. Energy+ proposes to continue to use the time and materials approach as the temporary service may be customized based on the customer’s specific requirements.
- Removal of the rural system expansion/line connection fee.

3.4.4 Revenues from Affiliates, Shared Services and Corporate Cost Allocations

Table 3-54 below summarizes Energy+’s revenue related to affiliate transactions and shared services. For a complete description of the nature of the service provided to affiliated entities, please refer to Exhibit 4, Section 4.5 Shared Services/Corporate Cost Allocation.

Table 3-54: Revenues from Affiliates, Shared Services and Corporate Cost Allocations

Revenues from Affiliates, Shared Services	2014	2015	2016	2017	2018	2019
Streetlight Maintenance	334,225	283,335	219,000	212,978	213,000	213,000
Business Development Fees		93,500	23,000	-	-	-
Management Fees		93,000	48,914	26,487	-	-
Accounting Services	18,000	18,360	18,360	18,360	28,360	28,360
Total	352,225	488,195	309,274	257,825	241,360	241,360

APPENDIX 3-1: MONTHLY DATA USED IN REGRESSION MODEL

	Energy+ Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Peak Hours	Co-generation Facility Flag	Unemployment Kitchener- Waterloo-Barrie (000's)	CDM Activity	Predicted Purchases
Jan-08	163,730,634	676.8	0	31	0	352	0	34.6	632,983	159,978,162
Feb-08	155,246,569	651.2	0	28	0	320	0	36.2	649,951	148,910,071
Mar-08	156,114,880	686.1	0	31	1	304	0	37.4	666,919	151,652,148
Apr-08	141,609,575	297.9	0	30	1	352	0	35.5	683,887	145,246,416
May-08	139,952,059	243.1	0.7	31	1	336	0	38.5	700,855	144,318,303
Jun-08	150,506,910	40.6	53	30	0	336	0	39.2	717,823	156,271,854
Jul-08	162,083,910	7.6	75.8	31	0	352	0	42.5	734,791	165,252,381
Aug-08	153,571,210	36.2	29.5	31	0	320	0	40.9	751,759	149,584,572
Sep-08	146,967,275	93.2	12	30	1	336	0	40.3	768,727	141,382,284
Oct-08	145,817,180	325.7	0	31	1	352	0	38.1	785,695	147,505,482
Nov-08	146,020,855	499.7	0	30	1	304	0	39.1	802,663	144,499,492
Dec-08	151,789,266	694	0	31	0	336	0	42.3	819,631	156,713,056
Jan-09	157,514,739	891.8	0	31	0	336	0	48.1	873,817	159,564,151
Feb-09	138,163,314	649.6	0	29	0	304	0	56.2	928,002	144,112,008
Mar-09	146,052,965	562.6	0	31	1	352	0	64.9	982,188	145,283,967
Apr-09	131,712,116	341.5	3.2	30	1	320	0	70.3	1,036,374	134,424,043
May-09	128,073,706	192.8	2.3	31	1	320	0	71.1	1,090,560	132,916,994
Jun-09	136,864,560	75.7	26.2	30	0	352	0	67.4	1,144,745	142,374,419
Jul-09	137,175,551	37.6	14.5	31	0	352	0	67.6	1,198,931	140,310,554
Aug-09	151,715,212	34.4	57.3	31	0	320	0	69.2	1,253,117	149,764,233
Sep-09	137,213,000	88.8	5.5	30	1	336	0	66.3	1,307,302	131,838,954
Oct-09	139,303,225	329.1	0	31	1	336	0	61.0	1,361,488	139,524,545
Nov-09	138,754,087	396.5	0	30	1	320	0	55.2	1,415,674	138,857,739
Dec-09	151,145,269	669.5	0	31	0	352	0	56.0	1,469,860	153,528,079
Jan-10	157,482,472	727.1	0	31	0	320	0	59.6	1,495,425	150,956,771
Feb-10	140,270,018	644.7	0	28	0	304	0	64.7	1,520,990	139,036,504
Mar-10	145,685,554	470.9	0	31	1	368	0	68.2	1,546,555	143,526,898
Apr-10	129,920,689	255.7	0	30	1	320	0	66.8	1,572,120	132,335,803
May-10	141,343,928	144.7	21	31	1	320	0	64.3	1,597,686	139,202,778
Jun-10	147,324,468	37.7	26.8	30	0	352	0	58.3	1,623,251	144,111,258
Jul-10	163,679,584	6.7	100.6	31	0	336	0	57.5	1,648,816	166,746,973
Aug-10	163,052,338	9.7	79.2	31	0	336	0	56.4	1,674,381	160,690,809
Sep-10	139,539,295	122.7	16.7	30	1	336	0	58.1	1,699,946	138,167,873
Oct-10	136,568,534	279.6	0	31	1	320	0	56.2	1,725,512	138,211,680
Nov-10	143,076,146	337.9	0	30	1	336	0	52.4	1,751,077	139,642,435
Dec-10	153,978,824	719.4	0	31	0	368	0	50.5	1,776,642	157,552,204
Jan-11	160,532,811	770	0	31	0	336	0	51.4	1,894,821	155,554,881
Feb-11	143,648,676	640.8	0	28	0	304	0	54.0	2,012,999	141,816,330
Mar-11	152,850,166	605.3	0	31	1	368	0	58.6	2,131,178	149,116,852
Apr-11	133,264,120	298.7	0	30	1	320	0	58.1	2,249,357	135,563,768
May-11	132,480,697	148.7	13.2	31	1	336	0	57.1	2,367,535	140,179,806
Jun-11	143,414,133	48.5	21.6	30	0	352	0	52.1	2,485,714	144,284,246
Jul-11	167,728,493	0.8	128.2	31	0	320	0	50.0	2,603,893	175,299,064
Aug-11	159,977,946	6.9	54.3	31	0	352	0	50.6	2,722,071	155,899,488
Sep-11	141,769,544	88.9	17.2	30	1	336	0	51.2	2,840,250	139,151,399
Oct-11	139,373,425	279.9	0	31	1	320	0	50.0	2,958,429	139,596,104
Nov-11	143,096,384	382.4	0	30	1	352	0	48.2	3,076,607	142,871,297
Dec-11	148,895,705	574.8	0	31	0	336	0	47.2	3,194,786	151,905,348

1

	Energy+ Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Peak Hours	Co-generation Facility Flag	Unemployment Kitchener- Waterloo-Barrie (000's)	CDM Activity	Predicted Purchases
Jan-12	155,486,673	657.3	0	31	0	336	0	49.2	3,244,256	153,204,585
Feb-12	145,133,896	573	0	29	0	320	0	47.6	3,293,726	145,512,398
Mar-12	144,404,871	370.1	0	31	1	352	0	49.7	3,343,196	144,478,209
Apr-12	136,393,488	365.3	0	30	1	320	0	49.2	3,392,665	139,245,364
May-12	142,263,126	103.8	18.2	31	1	352	0	50.6	3,442,135	143,599,034
Jun-12	151,229,861	42.1	61.2	30	0	336	0	47.3	3,491,605	155,652,419
Jul-12	169,494,395	0	116.4	31	0	336	0	49.4	3,541,075	173,054,772
Aug-12	159,364,348	19.4	58.1	31	0	352	0	50.6	3,590,545	157,064,478
Sep-12	139,245,313	125.4	16.4	30	1	304	0	50.8	3,640,015	136,754,695
Oct-12	141,909,461	279.2	0	31	1	352	0	46.2	3,689,485	143,291,792
Nov-12	145,265,831	483.6	0	30	1	352	0	41.6	3,738,955	146,836,508
Dec-12	144,966,202	565.5	0	31	0	304	0	43.2	3,788,425	149,783,115
Jan-13	157,567,335	681.3	0.0	31	0	352	0	44.9	3,883,154	156,201,170
Feb-13	142,891,117	697.9	0.0	28	0	304	0	48.0	3,977,884	144,217,499
Mar-13	149,596,120	612.0	0.0	31	1	320	0	49.0	4,072,614	147,102,827
Apr-13	139,465,850	368.7	0.0	30	1	352	0	50.4	4,167,343	141,611,783
May-13	140,671,486	152.1	19.6	31	1	352	0	53.1	4,262,073	144,167,968
Jun-13	146,044,314	46.4	31.3	30	0	320	0	52.3	4,356,802	143,671,484
Jul-13	163,523,830	15.1	85.9	31	0	352	0	54.6	4,451,532	163,929,410
Aug-13	156,301,473	32.7	42.1	31	0	336	0	52.7	4,546,262	150,253,192
Sep-13	141,808,921	128.1	20.5	30	1	320	0	50.4	4,640,991	139,289,638
Oct-13	142,318,918	255.5	0.0	31	1	352	0	43.5	4,735,721	143,199,324
Nov-13	146,933,624	517.7	0.0	30	1	336	0	38.6	4,830,450	146,700,729
Dec-13	153,551,135	727.3	0.0	31	0	320	0	38.9	4,925,180	155,766,863
Jan-14	164,681,770	827.9	0.0	31	0	352	0	42.2	5,042,472	159,951,167
Feb-14	146,005,300	775.2	0.0	28	0	304	0	43.2	5,159,763	146,975,284
Mar-14	156,569,300	757.0	0.0	31	1	336	0	44.9	5,277,055	152,627,466
Apr-14	137,956,494	375.9	0.0	30	1	320	0	46.0	5,394,346	139,787,721
May-14	138,596,960	135.7	5.7	31	1	336	0	48.0	5,511,638	139,252,764
Jun-14	149,469,168	37.3	44.3	30	0	336	0	45.4	5,628,929	150,361,620
Jul-14	152,904,627	36.8	31.5	31	0	352	0	45.9	5,746,221	150,149,698
Aug-14	152,572,601	31.1	24.5	31	0	320	0	45.7	5,863,513	145,078,968
Sep-14	144,202,859	114.0	11.4	30	1	336	0	46.7	5,980,804	138,306,474
Oct-14	141,784,861	244.6	0.0	31	1	352	0	39.9	6,098,096	143,557,002
Nov-14	147,002,028	521.9	0.0	30	1	304	0	36.6	6,215,387	144,084,402
Dec-14	150,673,727	597.6	0.0	31	0	336	0	36.1	6,332,679	154,611,265
Jan-15	162,109,040	800.8	0.0	31	0	336	0	37.5	6,825,043	158,694,071
Feb-15	151,053,649	917.5	0.0	28	0	304	0	40.0	7,317,406	150,468,607
Mar-15	153,760,946	538.0	0.0	31	1	352	0	42.5	7,809,770	148,988,592
Apr-15	136,246,376	359.0	0.0	30	1	336	0	46.6	8,302,134	139,790,792
May-15	142,082,914	116.2	29.8	31	1	320	0	46.7	8,794,498	143,997,475
Jun-15	144,315,928	54.7	15.0	30	0	352	0	40.4	9,286,861	143,699,446
Jul-15	159,308,531	19.3	57.7	31	0	352	0	38.7	9,779,225	158,438,536
Aug-15	154,960,648	29.5	47.9	31	0	320	0	42.0	10,271,589	151,789,566
Sep-15	151,336,949	58.2	45.3	30	1	336	0	42.8	10,763,953	146,880,488
Oct-15	138,743,001	290.1	0.0	31	1	336	0	39.7	11,256,316	141,670,368
Nov-15	140,077,609	391.1	0.0	30	1	320	0	33.6	11,748,680	141,721,383
Dec-15	143,383,809	453.0	0.0	31	0	352	0	36.1	12,241,044	150,975,813

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	Energy+ Purchased	Heating Degree Days	Cooling Degree Days	Number of Days in Month	Spring Fall Flag	Number of Peak Hours	Co-generation Facility Flag	Unemployment Kitchener- Waterloo-Barrie (000's)	CDM Activity	Predicted Purchases
Jan-16	151,479,468	717.8	0.0	31	0	320	1	39.5	12,393,080	145,803,035
Feb-16	139,037,353	627.4	0.0	29	0	320	1	41.9	12,545,116	138,243,556
Mar-16	139,556,842	492.6	0.0	31	1	352	1	45.0	12,697,153	138,446,785
Apr-16	130,739,501	431.8	0.0	30	1	336	1	45.1	12,849,189	133,169,268
May-16	134,794,588	174.6	18.4	31	1	336	1	44.6	13,001,225	135,325,791
Jun-16	142,952,798	51.2	34.3	30	0	352	1	41.0	13,153,261	140,749,726
Jul-16	159,029,857	4.8	101.2	31	0	320	1	41.2	13,305,297	159,212,865
Aug-16	169,034,513	2.1	105.0	31	0	352	1	42.5	13,457,334	162,740,411
Sep-16	143,657,708	68.6	26.6	30	1	336	1	41.2	13,609,370	133,761,702
Oct-16	133,990,818	242.1	1.9	31	1	320	1	38.9	13,761,406	131,855,584
Nov-16	134,263,989	388.2	0.0	30	1	336	1	34.2	13,913,442	134,929,995
Dec-16	143,649,821	647.8	0.0	31	0	336	1	35.3	14,065,479	146,321,468
Jan-17	148,240,474	635.1	0	31	0	336	1	37.9	14,083,036	145,294,177
Feb-17	128,458,708	537.9	0	28	0	304	1	41.3	14,100,594	132,088,710
Mar-17	142,735,167	597.6	0	31	1	368	1	44.4	14,118,151	142,009,263
Apr-17	123,292,782	281.6	0	30	1	304	1	42.7	14,135,709	127,180,753
May-17	129,397,353	214.4	2.7	31	1	352	1	44.2	14,153,267	132,713,506
Jun-17	136,595,537	45.2	43	30	0	352	1	41.2	14,170,824	142,864,042
Jul-17	145,295,605	3.2	58.5	31	0	320	1	43.5	14,188,382	145,439,235
Aug-17	144,530,231	34.5	28.6	31	0	352	1	40.4	14,205,939	140,900,623
Sep-17	137,290,329	81.1	36.3	30	1	320	1	39.3	14,223,497	135,880,609
Oct-17	130,392,690	208.9	3.2	31	1	336	1	34.3	14,241,054	134,072,968
Nov-17	135,442,901	480	0	30	1	352	1	30.3	14,258,612	139,445,295
Dec-17	141,910,569	755.7	0	31	0	304	1	30.1	14,276,170	147,320,234
Jan-18		738.6	0.0	31	0	352	1	39.1	14,320,872	148,660,712
Feb-18		671.5	0.0	28	0	304	1	39.1	14,365,575	135,661,429
Mar-18		569.2	0.0	31	1	336	1	39.1	14,410,277	139,900,327
Apr-18		337.6	0.3	30	1	336	1	39.1	14,454,980	132,321,254
May-18		162.6	13.2	31	1	352	1	39.1	14,499,682	136,000,282
Jun-18		47.9	35.7	30	0	336	1	39.1	14,544,385	139,765,539
Jul-18		13.2	77.0	31	0	336	1	39.1	14,589,088	153,772,175
Aug-18		23.7	52.7	31	0	352	1	39.1	14,633,790	148,104,978
Sep-18		96.9	20.8	30	1	304	1	39.1	14,678,493	130,062,698
Oct-18		273.5	0.5	31	1	352	1	39.1	14,723,195	134,657,542
Nov-18		439.9	0.0	30	1	336	1	39.1	14,767,898	134,459,553
Dec-18		640.5	0.0	31	0	304	1	39.1	14,812,601	141,989,554
Jan-19		738.6	0.0	31	0	352	1	39.1	14,693,805	148,548,740
Feb-19		671.5	0.0	28	0	304	1	39.1	14,575,009	135,598,547
Mar-19		569.2	0.0	31	1	336	1	39.1	14,456,213	139,886,535
Apr-19		337.6	0.3	30	1	336	1	39.1	14,337,418	132,356,552
May-19		162.6	13.2	31	1	352	1	39.1	14,218,622	136,084,670
Jun-19		47.9	35.7	30	0	320	1	39.1	14,099,826	138,469,066
Jul-19		13.2	77.0	31	0	352	1	39.1	13,981,031	155,384,695
Aug-19		23.7	52.7	31	0	336	1	39.1	13,862,235	146,906,685
Sep-19		96.9	20.8	30	1	320	1	39.1	13,743,439	131,773,398
Oct-19		273.5	0.5	31	1	352	1	39.1	13,624,644	134,987,380
Nov-19		439.9	0.0	30	1	320	1	39.1	13,505,848	133,408,530
Dec-19		640.5	0.0	31	0	320	1	39.1	13,387,052	143,847,524

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APPENDIX 3-2: OEB APPPENDIX 2-IB ACTUAL AND FORECAST ANALYSIS

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

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

Color coding for Cells:

Data input

Drop-down List

No data entry required

Blank or calculated value

Distribution System (Total)

	Calendar Year (for 2019 Cost of Service)		Consumption (kWh) ⁽³⁾			
				Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013		Actual	1,745,480,851	1,740,780,780	Board-approved 1,725,698,663
Historical	2014		Actual	1,730,430,155	1,744,973,269	
Historical	2015		Actual	1,750,185,363	1,751,218,993	
Historical	2016		Actual	1,676,617,027	1,654,503,730	
Historical	2017		Actual	1,596,674,910	1,607,741,362	
Bridge Year	2018		Forecast		1,613,358,743	
Test Year	2019		Forecast		1,607,164,117	

Variance Analysis	Year	Year-over-year		Versus Board- approved
	2013			
	2014	(0.9%)	0.2%	
	2015	1.1%	0.4%	
	2016	(4.2%)	(5.5%)	
	2017	(4.8%)	(2.8%)	
	2018		0.3%	
	2019		(0.4%)	(6.9%)
	Geometric Mean	(2.9%)	(1.6%)	

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

1 Customer Class: Residential Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	55,070	Board-approved	56,426	Actual	464,848,343	463,596,642	Board-approved	483,440,220	Actual	8,441	8,418
Historical	2014	Actual	55,463			Actual	477,025,968	481,035,054			Actual	8,601	8,673
Historical	2015	Actual	55,922			Actual	486,541,296	486,828,639			Actual	8,700	8,706
Historical	2016	Actual	56,561			Actual	479,944,152	473,614,056			Actual	8,485	8,374
Historical	2017	Actual	57,272			Actual	453,855,075	457,000,716			Actual	7,925	7,980
Bridge Year	2018	Forecast	57,970			Forecast		465,920,846			Forecast	-	8,037
Test Year	2019	Forecast	58,677			Forecast		466,068,279			Forecast	-	7,943

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013		(3.6%)	2013		(7.3%)
	2014	0.7%		2014	2.6% 3.8%		2014	1.9% 3.0%	
	2015	0.8%		2015	2.0% 1.2%		2015	1.2% 0.4%	
	2016	1.1%		2016	(1.4%) (2.7%)		2016	(2.5%) (3.8%)	
	2017	1.3%		2017	(5.4%) (3.5%)		2017	(6.6%) (4.7%)	
	2018	1.2%		2018	2.0%		2018	0.7%	
	2019	1.2%		2019	0.0%		2019	(1.2%)	
	Geometric Mean	1.3%	4.0%	Geometric Mean	(0.8%) 0.1%		Geometric Mean	(2.1%) (1.2%)	

	Calendar Year (for 2019 Cost of Service)	Revenues			
Historical	2013	Actual		Board-approved	
Historical	2014	Actual			
Historical	2015	Actual			
Historical	2016	Actual			
Historical	2017	Actual			
Bridge Year (Forecast)	2018	Forecast	\$ 17,364,576		
Test Year (Forecast)	2019	Forecast	\$ 19,326,717		

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved
	2013		
	2014		
	2015		
	2016		
	2017		
	2018		
	2019	11.3%	
	Geometric Mean		

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

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	6,004	Board-approved	6,078	Actual	193,717,267	193,195,643	Board-approved	196,006,542	Actual	32,263	32,176
Historical	2014	Actual	6,057			Actual	198,149,245	199,814,557			Actual	32,715	32,990
Historical	2015	Actual	6,149			Actual	203,100,575	203,220,523			Actual	33,029	33,049
Historical	2016	Actual	6,241			Actual	212,807,519	210,000,750			Actual	34,100	33,650
Historical	2017	Actual	6,298			Actual	189,005,848	190,315,835			Actual	30,013	30,221
Bridge Year	2018	Forecast	6,374			Forecast		192,724,357			Forecast	-	30,237
Test Year	2019	Forecast	6,451			Forecast		195,276,256			Forecast	-	30,272

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013		(0.4%)	2013		(6.1%)
	2014	0.9%		2014	2.3% 3.4%		2014	1.4% 2.5%	
	2015	1.5%		2015	2.5% 1.7%		2015	1.0% 0.2%	
	2016	1.5%		2016	4.8% 3.3%		2016	3.2% 1.8%	
	2017	0.9%		2017	(11.2%) (9.4%)		2017	(12.0%) (10.2%)	
	2018	1.2%		2018	1.3%		2018	0.1%	
	2019	1.2%		2019	1.3%		2019	0.1%	
	Geometric Mean	1.4%		Geometric Mean	(0.8%) 0.2%		Geometric Mean	(2.4%) (1.2%)	

	Calendar Year (for 2019 Cost of Service)	Revenues			
Historical	2013	Actual		Board-approved	
Historical	2014	Actual			
Historical	2015	Actual			
Historical	2016	Actual			
Historical	2017	Actual			
Bridge Year (Forecast)	2018	Forecast	\$ 4,098,914		
Test Year (Forecast)	2019	Forecast	\$ 4,367,146		

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved
	2013		
	2014		
	2015		
	2016		
	2017		
	2018		
	2019	6.5%	
	Geometric Mean		

3 Customer Class: General Service > 50 to 999 kW Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	840	Board-approved	874	Actual	518,348,767	516,953,005	Board-approved	497,383,819	Actual	617,082	615,420
Historical	2014	Actual	825			Actual	494,277,242	498,431,313			Actual	599,124	604,159
Historical	2015	Actual	808			Actual	485,904,146	486,191,112			Actual	601,413	601,769
Historical	2016	Actual	806			Actual	484,199,963	477,813,736			Actual	600,791	592,867
Historical	2017	Actual	796			Actual	487,037,522	490,413,148			Actual	611,856	616,097
Bridge Year	2018	Forecast	798			Forecast		494,297,087			Forecast	-	619,267
Test Year	2019	Forecast	800			Forecast		493,112,062			Forecast	-	616,082

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		8.3%
	2014	(1.8%)		2014	(4.6%) (3.6%)		2014	(2.9%) (1.8%)	
	2015	(2.1%)		2015	(1.7%) (2.5%)		2015	0.4% (0.4%)	
	2016	(0.2%)		2016	(0.4%) (1.7%)		2016	(0.1%) (1.5%)	
	2017	(1.2%)		2017	0.6% 2.6%		2017	1.8% 3.9%	
	2018	0.3%		2018	0.8%		2018	0.5%	
	2019	0.3%		2019	(0.2%) (0.9%)		2019	(0.5%)	
	Geometric Mean	(1.0%)		Geometric Mean	(2.1%) (0.9%)		Geometric Mean	(0.3%) 0.0%	

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual		Board-approved		Actual	1,568,193	1,563,970	Board-approved	1,403,590	Actual	1,867	1,862
Historical	2014	Actual				Actual	1,605,303	1,618,795			Actual	1,946	1,962
Historical	2015	Actual				Actual	1,555,819	1,556,738			Actual	1,926	1,927
Historical	2016	Actual				Actual	1,564,561	1,543,925			Actual	1,941	1,916
Historical	2017	Actual				Actual	1,518,753	1,529,280			Actual	1,908	1,921
Bridge Year (Forecast)	2018	Forecast	\$ 7,665,822			Forecast		1,559,982			Forecast	-	1,954
Test Year (Forecast)	2019	Forecast	\$ 7,598,262			Forecast		1,556,242			Forecast	-	1,944

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		21.1%
	2014			2014	2.4% 3.5%		2014	4.2% 5.4%	
	2015			2015	(3.1%) (3.8%)		2015	(1.0%) (1.8%)	
	2016			2016	0.6% (0.8%)		2016	0.8% (0.6%)	
	2017			2017	(2.9%) (0.9%)		2017	(1.7%) 0.3%	
	2018			2018	2.0%		2018	1.7%	
	2019	(0.9%)		2019	(0.2%) (0.2%)		2019	(0.5%)	
	Geometric Mean			Geometric Mean	(1.1%) (0.1%)	10.9%	Geometric Mean	0.7% 0.9%	

4 Customer Class: General Service > 1000 to 4999 kW Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	30	Board-approved	32	Actual	270,280,543	269,552,756	Board-approved	Actual	9,162,052	9,137,382	Board-approved 7,819,632
Historical	2014	Actual	29			Actual	263,042,176	265,252,870		Actual	9,070,420	9,146,651	
Historical	2015	Actual	29			Actual	263,255,330	263,410,804		Actual	9,077,770	9,083,131	
Historical	2016	Actual	29			Actual	261,804,628	258,351,626		Actual	9,186,127	9,064,969	
Historical	2017	Actual	28			Actual	241,351,905	243,024,700		Actual	8,619,711	8,679,454	
Bridge Year	2018	Forecast	27			Forecast		237,019,612		Forecast	-	8,620,941	
Test Year	2019	Forecast	27			Forecast		231,017,192		Forecast	-	8,557,426	

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013		(7.7%)	2013		9.4%
	2014	(1.7%)		2014	(2.7%) (1.6%)		2014	(1.0%) 0.1%	
	2015	0.0%		2015	0.1% (0.7%)		2015	0.1% (0.7%)	
	2016	(1.7%)		2016	(0.6%) (1.9%)		2016	1.2% (0.2%)	
	2017	(1.8%)		2017	(7.8%) (5.9%)		2017	(6.2%) (4.3%)	
	2018	(1.8%)		2018	(2.5%)		2018	(0.7%)	
	2019	(1.8%)		2019	(2.5%)		2019	(0.7%)	
	Geometric Mean	(1.8%)	(15.6%)	Geometric Mean	(3.7%) (3.0%)		Geometric Mean	(2.0%) (1.3%)	

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual		Board-approved		Actual	586,435	584,856	Board-approved	Actual	19,879	19,826	Board-approved 22,560
Historical	2014	Actual				Actual	581,849	586,739		Actual	20,064	20,232	
Historical	2015	Actual				Actual	581,153	581,496		Actual	20,040	20,052	
Historical	2016	Actual				Actual	631,904	623,570		Actual	22,172	21,880	
Historical	2017	Actual				Actual	574,484	578,466		Actual	20,517	20,660	
Bridge Year (Forecast)	2018	Forecast	\$ 2,560,515			Forecast		556,266		Forecast	-	20,233	
Test Year (Forecast)	2019	Forecast	\$ 2,614,919			Forecast		542,178		Forecast	-	20,084	

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013		(24.9%)	2013		(11.0%)
	2014			2014	(0.8%) 0.3%		2014	0.9% 2.1%	
	2015			2015	(0.1%) (0.9%)		2015	(0.1%) (0.9%)	
	2016			2016	8.7% 7.2%		2016	10.6% 9.1%	
	2017			2017	(9.1%) (7.2%)		2017	(7.5%) (5.6%)	
	2018			2018	(3.8%)		2018	(2.1%)	
	2019	2.1%		2019	(2.5%)		2019	(0.7%)	
	Geometric Mean			Geometric Mean	(0.7%) (1.5%)		Geometric Mean	1.1% 0.3%	

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

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	3				Actual	204,906,257	204,354,504	Board-approved	Actual	81,962,503	81,741,802
Historical	2014	Actual	3			2	Actual	205,265,395	206,990,514		Actual	82,106,158	82,796,205
Historical	2015	Actual	2				Actual	207,374,362	207,496,833		Actual	103,687,181	103,748,417
Historical	2016	Actual	2				Actual	151,250,312	149,255,436		Actual	75,625,156	74,627,718
Historical	2017	Actual	2				Actual	146,226,388	147,239,874		Actual	73,113,194	73,619,937
Bridge Year	2018	Forecast	2				Forecast	145,904,992			Forecast	-	72,952,496
Test Year	2019	Forecast	2				Forecast	145,503,126			Forecast	-	72,751,563

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		
	2014	0.0%		2014	0.2%	1.3%	2014	0.2%	1.3%
	2015	(20.0%)		2015	1.0%	0.2%	2015	26.3%	25.3%
	2016	0.0%		2016	(27.1%)	(28.1%)	2016	(27.1%)	(28.1%)
	2017	0.0%		2017	(3.3%)	(1.4%)	2017	(3.3%)	(1.4%)
	2018	0.0%		2018		(0.9%)	2018		(0.9%)
	2019	0.0%	0.0%	2019		(0.3%)	2019		(0.3%)
	Geometric Mean	(4.4%)		Geometric Mean	(10.6%)	(6.6%)	Geometric Mean	(3.7%)	(2.3%)

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual					Actual	425,912	424,765	Board-approved	Actual	170,365	169,906
Historical	2014	Actual					Actual	457,867	461,715		Actual	183,147	184,686
Historical	2015	Actual					Actual	430,087	430,341		Actual	215,043	215,170
Historical	2016	Actual					Actual	358,566	353,837		Actual	179,283	176,918
Historical	2017	Actual					Actual	348,189	350,602		Actual	174,095	175,301
Bridge Year (Forecast)	2018	Forecast	\$ 1,044,401				Forecast	332,575			Forecast	-	166,287
Test Year (Forecast)	2019	Forecast	\$ 1,096,139				Forecast	382,038			Forecast	-	191,019

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		
	2014			2014	7.5%	8.7%	2014	7.5%	8.7%
	2015			2015	(6.1%)	(6.8%)	2015	17.4%	16.5%
	2016			2016	(16.6%)	(17.8%)	2016	(16.6%)	(17.8%)
	2017			2017	(2.9%)	(0.9%)	2017	(2.9%)	(0.9%)
	2018			2018		(5.1%)	2018		(5.1%)
	2019	5.0%		2019		14.9%	2019		14.9%
	Geometric Mean			Geometric Mean	(6.5%)	(2.1%)	Geometric Mean	0.7%	2.4%

6 Customer Class: Direct Market Participant Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	4				Actual			Board-approved	Actual	-	-
Historical	2014	Actual	4			1	Actual				Actual	-	-
Historical	2015	Actual	4				Actual				Actual	-	-
Historical	2016	Actual	4				Actual				Actual	-	-
Historical	2017	Actual	4				Actual				Actual	-	-
Bridge Year	2018	Forecast	4				Forecast				Forecast	-	-

Test Year	2019	Forecast	4		Forecast			Forecast	-	-
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Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014	0.0%		2014			2014		
	2015	0.0%		2015			2015		
	2016	0.0%		2016			2016		
	2017	0.0%		2017			2017		
	2018	0.0%		2018			2018		
	2019	0.0%	300.0%	2019			2019		
	Geometric Mean	0.0%		Geometric Mean			Geometric Mean		

	Calendar Year	Revenues				Demand (kW)				Demand (kW) per Customer			
	(for 2019 Cost of Service)					Actual (Weather actual)	Weather-normalized		Weather-normalized	Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2013	Actual		Board-approved		Actual	73,573	73,375		Actual	18,393	18,344	
Historical	2014	Actual				Actual	69,661	70,246	Board-approved	Actual	17,415	17,562	Board-approved 79,211
Historical	2015	Actual				Actual	69,115	69,156		Actual	17,279	17,289	
Historical	2016	Actual				Actual	70,836	69,902		Actual	17,709	17,476	
Historical	2017	Actual				Actual	67,942	68,413		Actual	16,985	17,103	
Bridge Year (Forecast)	2018	Forecast				Forecast		67,942		Forecast	-	16,985	
Test Year (Forecast)	2019	Forecast				Forecast		67,942		Forecast	-	16,985	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014			2014	(5.3%)	(4.3%)	2014	(5.3%)	(4.3%)
	2015			2015	(0.8%)	(1.6%)	2015	(0.8%)	(1.6%)
	2016			2016	2.5%	1.1%	2016	2.5%	1.1%
	2017			2017	(4.1%)	(2.1%)	2017	(4.1%)	(2.1%)
	2018			2018		(0.7%)	2018		(0.7%)
	2019			2019		0.0%	2019		0.0%
	Geometric Mean			Geometric	(2.6%)	(1.5%)	Geometric	(2.6%)	(1.5%)

7 Customer Class: Street Lights Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year	Connections				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Connection			
	(for 2019 Cost of Service)					Actual (Weather actual)	Weather-normalized		Weather-normalized	Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2013	Actual	15,453	Board-approved		Actual	11,262,943	11,232,615		Actual	729	727	
Historical	2014	Actual	15,512		15,627	Actual	11,406,116	11,501,976	Board-approved 11,394,439	Actual	735	741	Board-approved 729
Historical	2015	Actual	15,539			Actual	11,394,266	11,400,995		Actual	733	734	
Historical	2016	Actual	15,726			Actual	11,108,606	10,962,092		Actual	706	697	
Historical	2017	Actual	16,024			Actual	8,378,434	8,436,505		Actual	523	526	
Bridge Year	2018	Forecast	16,141			Forecast		6,672,112		Forecast	-	413	
Test Year	2019	Forecast	16,260			Forecast		5,367,464		Forecast	-	330	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014	0.4%		2014	1.3%	2.4%	2014	0.9%	2.0%
	2015	0.2%		2015	(0.1%)	(0.9%)	2015	(0.3%)	(1.0%)
	2016	1.2%		2016	(2.5%)	(3.8%)	2016	(3.7%)	(5.0%)
	2017	1.9%		2017	(24.6%)	(23.0%)	2017	(26.0%)	(24.5%)
	2018	0.7%		2018		(20.9%)	2018		(21.5%)
	2019	0.7%	4.0%	2019		(19.6%)	2019		(20.1%)
	Geometric Mean	1.0%		Geometric Mean	(9.4%)	(13.7%)	Geometric Mean	(10.5%)	(14.6%)

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Connection			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual		Board-approved		Actual	31,772	31,686		Actual	2	2	
Historical	2014	Actual				Actual	31,886	32,154	Board-approved	Actual	2	2	Board-approved 2
Historical	2015	Actual				Actual	31,873	31,892		Actual	2	2	
Historical	2016	Actual				Actual	31,300	30,887		Actual	2	2	
Historical	2017	Actual				Actual	24,144	24,311		Actual	2	2	
Bridge Year (Forecast)	2018	Forecast	\$ 826,624			Forecast		19,227		Forecast	-	1	
Test Year (Forecast)	2019	Forecast	\$ 529,738			Forecast		15,467		Forecast	-	1	

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		
	2014			2014	0.4%	1.5%	2014	(0.0%)	1.1%
	2015			2015	(0.0%)	(0.8%)	2015	(0.2%)	(1.0%)
	2016			2016	(1.8%)	(3.1%)	2016	(3.0%)	(4.3%)
	2017			2017	(22.9%)	(21.3%)	2017	(24.3%)	(22.8%)
	2018			2018		(20.9%)	2018		(21.5%)
	2019	(35.9%)		2019		(19.6%)	2019		(20.1%)
	Geometric Mean			Geometric Mean	(8.7%)	(13.4%)	Geometric Mean	(9.8%)	(14.2%)
						(49.3%)			(51.3%)

8 Customer Class: Sentinel Lights Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Connections				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Connection			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	191	Board-approved		Actual	152,803	152,392		Actual	802	800	
Historical	2014	Actual	189		218	Actual	146,515	147,747	Board-approved	Actual	777	784	Board-approved 917
Historical	2015	Actual	189			Actual	142,708	142,793		Actual	756	756	
Historical	2016	Actual	181			Actual	136,701	134,898		Actual	755	745	
Historical	2017	Actual	168			Actual	126,989	127,869		Actual	756	761	
Bridge Year	2018	Forecast	168			Forecast		126,989		Forecast	-	756	
Test Year	2019	Forecast	168			Forecast		126,989		Forecast	-	756	

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		
	2014	(1.1%)		2014	(4.1%)	(3.0%)	2014	(3.1%)	(2.0%)
	2015	0.1%		2015	(2.6%)	(3.4%)	2015	(2.7%)	(3.5%)
	2016	(4.1%)		2016	(4.2%)	(5.5%)	2016	(0.1%)	(1.5%)
	2017	(7.2%)		2017	(7.1%)	(5.2%)	2017	0.1%	2.1%
	2018	0.0%		2018		(0.7%)	2018		(0.7%)
	2019	0.0%	(22.9%)	2019		0.0%	2019		0.0%
	Geometric Mean	(2.5%)		Geometric Mean	(6.0%)	(3.6%)	Geometric Mean	(1.9%)	(1.1%)
						(36.5%)			(17.6%)

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Connection			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual		Board-approved		Actual	307	306		Actual	2	2	
Historical	2014	Actual				Actual	293	295	Board-approved	Actual	2	2	Board-approved 3
Historical	2015	Actual				Actual	288	289		Actual	2	2	
Historical	2016	Actual				Actual	417	411		Actual	2	2	
Historical	2017	Actual				Actual	343	345		Actual	2	2	
Bridge Year (Forecast)	2018	Forecast	\$ 14,573			Forecast		343		Forecast	-	2	
Test Year (Forecast)	2019	Forecast	\$ 20,389			Forecast		343		Forecast	-	2	

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Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014			2014	(4.6%) (3.6%)		2014	(3.6%) (2.5%)	
	2015			2015	(1.5%) (2.2%)		2015	(1.6%) (2.4%)	
	2016			2016	44.4% 42.4%		2016	50.6% 48.5%	
	2017			2017	(17.7%) (16.0%)		2017	(11.3%) (9.5%)	
	2018			2018	(0.7%)		2018	(0.7%)	
	2019	39.9%		2019	0.0%	(40.3%)	2019	0.0%	(22.5%)
	Geometric Mean			Geometric Mean	3.8% 2.3%		Geometric Mean	8.2% 4.9%	

9 Customer Class: Unmetered Loads Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2019 Cost of Service)	Connections				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Connection			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	534	Board-approved		Actual	2,430,645	2,424,100		Actual	4,552	4,540	
Historical	2014	Actual	531		533	Actual	2,451,442	2,472,045	Board-approved	1,842,943	Actual	4,617	4,655
Historical	2015	Actual	534			Actual	2,413,614	2,415,039			Actual	4,520	4,523
Historical	2016	Actual	523			Actual	2,346,838	2,315,885			Actual	4,487	4,428
Historical	2017	Actual	499			Actual	2,273,988	2,289,749			Actual	4,557	4,589
Bridge Year	2018	Forecast	499		Forecast		2,273,988			Forecast	-	4,557	
Test Year	2019	Forecast	499		Forecast		2,273,988			Forecast	-	4,557	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014	(0.6%)		2014	0.9% 2.0%		2014	1.4% 2.6%	
	2015	0.6%		2015	(1.5%) (2.3%)		2015	(2.1%) (2.9%)	
	2016	(2.1%)		2016	(2.8%) (4.1%)		2016	(0.7%) (2.1%)	
	2017	(4.6%)		2017	(3.1%) (1.1%)		2017	1.6% 3.6%	
	2018	0.0%		2018	(0.7%)		2018	(0.7%)	
	2019	0.0%	(6.4%)	2019	0.0%	23.4%	2019	0.0%	31.8%
	Geometric Mean	(1.3%)		Geometric Mean	(2.2%) (1.3%)		Geometric Mean	0.0% 0.1%	

	Calendar Year (for 2019 Cost of Service)	Revenues			
Historical	2013	Actual		Board-approved	
Historical	2014	Actual			
Historical	2015	Actual			
Historical	2016	Actual			
Historical	2017	Actual			
Bridge Year (Forecast)	2018	Forecast	\$ 64,042		
Test Year (Forecast)	2019	Forecast	\$ 67,378		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2013		
	2014		
	2015		
	2016		
	2017		
	2018		
	2019	5.2%	
	Geometric Mean		

10 Customer Class: Embedded Distributor - Hydro One, CND Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	2				Actual	13,176,711	13,141,230	Board-approved	Actual	6,588,356	6,570,615
Historical	2014	Actual	2			1	Actual	13,845,907	13,962,273		Actual	6,922,954	6,981,136
Historical	2015	Actual	2				Actual	13,548,203	13,556,204		Actual	6,774,101	6,778,102
Historical	2016	Actual	2				Actual	13,027,612	12,855,788		Actual	6,513,806	6,427,894
Historical	2017	Actual	2				Actual	12,605,162	12,692,528		Actual	6,302,581	6,346,264
Bridge Year	2018	Forecast	2				Forecast		12,605,162		Forecast	-	6,302,581
Test Year	2019	Forecast	2				Forecast		12,605,162		Forecast	-	6,302,581

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013				2013			2013	
	2014	0.0%			2014	5.1% 6.2%		2014	5.1% 6.2%
	2015	0.0%			2015	(2.2%) (2.9%)		2015	(2.2%) (2.9%)
	2016	0.0%			2016	(3.8%) (5.2%)		2016	(3.8%) (5.2%)
	2017	0.0%			2017	(3.2%) (1.3%)		2017	(3.2%) (1.3%)
	2018	0.0%			2018	(0.7%)		2018	(0.7%)
	2019	0.0%	100.0%		2019	0.0%	(0.1%)	2019	0.0%
	Geometric Mean	0.0%			Geometric Mean	(1.5%) (0.8%)		Geometric Mean	(1.5%) (0.8%)

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual					Actual	27,809	27,734	Board-approved	Actual	13,904	13,867
Historical	2014	Actual					Actual	28,706	28,948		Actual	14,353	14,474
Historical	2015	Actual					Actual	28,843	28,860		Actual	14,422	14,430
Historical	2016	Actual					Actual	27,466	27,103		Actual	13,733	13,552
Historical	2017	Actual					Actual	24,387	24,556		Actual	12,194	12,278
Bridge Year (Forecast)	2018	Forecast	\$ 50,527				Forecast		24,387		Forecast	-	12,194
Test Year (Forecast)	2019	Forecast	\$ 46,546				Forecast		24,387		Forecast	-	12,194

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013				2013			2013	
	2014				2014	3.2% 4.4%		2014	3.2% 4.4%
	2015				2015	0.5% (0.3%)		2015	0.5% (0.3%)
	2016				2016	(4.8%) (6.1%)		2016	(4.8%) (6.1%)
	2017				2017	(11.2%) (9.4%)		2017	(11.2%) (9.4%)
	2018				2018	(0.7%)		2018	(0.7%)
	2019	(7.9%)			2019	0.0%	(18.4%)	2019	0.0%
	Geometric Mean				Geometric Mean	(4.3%) (2.5%)		Geometric Mean	(4.3%) (2.5%)

Note: If there are more than ten (10) customer classes, please contact OEB Staff to add tables for additional customer classes.

1 Customer Class: Embedded Distributor - Waterloo North, CND Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	1				Actual			Board-approved	Actual	-	-
Historical	2014	Actual	1			1	Actual				Actual	-	-
Historical	2015	Actual	1				Actual				Actual	-	-
Historical	2016	Actual	1				Actual				Actual	-	-

Historical	2017	Actual	1		Actual		Actual	-	-
Bridge Year	2018	Forecast	1		Forecast		Forecast	-	-
Test Year	2019	Forecast	1		Forecast		Forecast	-	-

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014	0.0%		2014			2014		
	2015	0.0%		2015			2015		
	2016	0.0%		2016			2016		
	2017	0.0%		2017			2017		
	2018	0.0%		2018			2018		
	2019	0.0%	0.0%	2019			2019		
	Geometric Mean	0.0%		Geometric Mean			Geometric Mean		

	Calendar Year		Revenues				Demand (kW)					Demand (kW) per Customer				
	(for 2019 Cost of Service)							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2013		Actual					Actual	92,130	91,882			Actual	92,130	91,882	
Historical	2014		Actual		Board-approved			Actual	106,790	107,687	Board-approved	72,975	Actual	106,790	107,687	Board-approved 72,975
Historical	2015		Actual					Actual	108,929	108,993			Actual	108,929	108,993	
Historical	2016		Actual					Actual	121,168	119,570			Actual	121,168	119,570	
Historical	2017		Actual					Actual	114,657	115,452			Actual	114,657	115,452	
Bridge Year (Forecast)	2018		Forecast	\$	221,287			Forecast		114,657			Forecast	-	114,657	
Test Year (Forecast)	2019		Forecast	\$	162,497			Forecast		114,657			Forecast	-	114,657	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014			2014	15.9%	17.2%	2014	15.9%	17.2%
	2015			2015	2.0%	1.2%	2015	2.0%	1.2%
	2016			2016	11.2%	9.7%	2016	11.2%	9.7%
	2017			2017	(5.4%)	(3.4%)	2017	(5.4%)	(3.4%)
	2018			2018		(0.7%)	2018		(0.7%)
	2019	(26.6%)		2019		0.0%	2019		0.0%
	Geometric Mean			Geometric Mean	7.6%	4.5%	Geometric Mean	7.6%	4.5%

2 Customer Class: Embedded Distributor - Brantford Power, BCP Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized	
Historical	2013	Actual	1	Board-approved		Actual	356,273	355,314		Actual	356,273	355,314		
Historical	2014	Actual	1		1	Actual	338,022	340,863	Board-approved	370,434	Actual	338,022	340,863	Board-approved 370,434
Historical	2015	Actual	1			Actual	352,068	352,276			Actual	352,068	352,276	
Historical	2016	Actual	1			Actual	380,114	375,101			Actual	380,114	375,101	
Historical	2017	Actual	1			Actual	347,757	350,167			Actual	347,757	350,167	
Bridge Year	2018	Forecast	1		Forecast		347,757			Forecast	-	347,757		
Test Year	2019	Forecast	1		Forecast		347,757			Forecast	-	347,757		

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board-approved
	2013			2013			2013		
	2014	0.0%		2014	(5.1%)	(4.1%)	2014	(5.1%)	(4.1%)
	2015	0.0%		2015	4.2%	3.3%	2015	4.2%	3.3%
	2016	0.0%		2016	8.0%	6.5%	2016	8.0%	6.5%
	2017	0.0%		2017	(8.5%)	(6.6%)	2017	(8.5%)	(6.6%)
	2018	0.0%		2018		(0.7%)	2018		(0.7%)

	2019	0.0%	0.0%	2019	0.0%	(6.1%)	2019	0.0%	
	Geometric Mean	0.0%		Geometric Mean	(0.8%)	(0.4%)	Geometric Mean	(0.8%)	(0.4%)

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual		Board-approved		Actual	31	31		Actual	31		
Historical	2014	Actual				Actual	95	95	Board-approved	Actual	95	95	Board-approved 38
Historical	2015	Actual				Actual	95	96		Actual	95	96	
Historical	2016	Actual				Actual	1,313	1,296		Actual	1,313	1,296	
Historical	2017	Actual				Actual	1,075	1,082		Actual	1,075	1,082	
Bridge Year (Forecast)	2018	Forecast	\$ 5,388			Forecast		1,075		Forecast	-	1,075	
Test Year (Forecast)	2019	Forecast	\$ 14,945			Forecast		1,075		Forecast	-	1,075	

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		
	2014			2014	204.9%	208.3%	2014	204.9%	208.3%
	2015			2015	0.8%	0.1%	2015	0.8%	0.1%
	2016			2016	1275.7%	1256.8%	2016	1275.7%	1256.8%
	2017			2017	(18.1%)	(16.5%)	2017	(18.1%)	(16.5%)
	2018			2018		(0.7%)	2018		(0.7%)
	2019	177.4%		2019		0.0%	2019		0.0%
	Geometric Mean			Geometric Mean	225.9%	103.3%	Geometric Mean	225.9%	103.3%

3 Customer Class: Embedded Distributor - Hydro One #1, BCP Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual	1	Board-approved		Actual	13,883,197	13,845,814		Actual	13,883,197	13,845,814	
Historical	2014	Actual	1			Actual	12,996,387	13,105,613	Board-approved	Actual	12,996,387	13,105,613	Board-approved 13,588,775
Historical	2015	Actual	1			Actual	13,819,342	13,827,503		Actual	13,819,342	13,827,503	
Historical	2016	Actual	1			Actual	13,560,292	13,381,442		Actual	13,560,292	13,381,442	
Historical	2017	Actual	1			Actual	12,191,720	12,276,220		Actual	12,191,720	12,276,220	
Bridge Year	2018	Forecast	1			Forecast		12,191,720		Forecast	-	12,191,720	
Test Year	2019	Forecast	1			Forecast		12,191,720		Forecast	-	12,191,720	

Variance Analysis	Year	Year-over-year	Test Year Versus Board- approved	Year	Year-over-year	Test Year Versus Board-approved	Year	Year-over-year	Test Year Versus Board- approved
	2013			2013			2013		
	2014	0.0%		2014	(6.4%)	(5.3%)	2014	(6.4%)	(5.3%)
	2015	0.0%		2015	6.3%	5.5%	2015	6.3%	5.5%
	2016	0.0%		2016	(1.9%)	(3.2%)	2016	(1.9%)	(3.2%)
	2017	0.0%		2017	(10.1%)	(8.3%)	2017	(10.1%)	(8.3%)
	2018	0.0%		2018		(0.7%)	2018		(0.7%)
	2019	0.0%	0.0%	2019		0.0%	2019		0.0%
	Geometric Mean	0.0%		Geometric Mean	(4.2%)	(2.5%)	Geometric Mean	(4.2%)	(2.5%)

	Calendar Year (for 2019 Cost of Service)	Revenues				Demand (kW)				Demand (kW) per Customer			
							Actual (Weather actual)	Weather- normalized	Weather- normalized		Actual (Weather actual)	Weather- normalized	Weather- normalized
Historical	2013	Actual		Board-approved		Actual	31,865	31,779		Actual	31,865	31,779	
Historical	2014	Actual				Actual	31,822	32,090	Board-approved	Actual	31,822	32,090	Board-approved 26,712
Historical	2015	Actual				Actual	30,827	30,845		Actual	30,827	30,845	
Historical	2016	Actual				Actual	29,428	29,040		Actual	29,428	29,040	

Historical	2017	Actual		
Bridge Year (Forecast)	2018	Forecast	\$ 119,034	
Test Year (Forecast)	2019	Forecast	\$ 34,138	

Actual	29,011	29,212	
Forecast		29,995	
Forecast		29,995	

Actual	29,011	29,212	
Forecast	-	29,995	
Forecast	-	29,995	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2013		
	2014		
	2015		
	2016		
	2017		
	2018		
	2019	(71.3%)	
	Geometric Mean		

Year	Year-over-year	Test Year Versus Board-approved
2013		
2014	(0.1%) 1.0%	
2015	(3.1%) (3.9%)	
2016	(4.5%) (5.9%)	
2017	(1.4%) 0.6%	
2018	2.7%	
2019	0.0%	12.3%
Geometric Mean	(3.1%) (1.1%)	

Year	Year-over-year	Test Year Versus Board-approved
2013		
2014	(0.1%) 1.0%	
2015	(3.1%) (3.9%)	
2016	(4.5%) (5.9%)	
2017	(1.4%) 0.6%	
2018	2.7%	
2019	0.0%	12.3%
Geometric Mean	(3.1%) (1.1%)	

4 Customer Class: Embedded Distributor - Hydro One #2, BCP Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2019 Cost of Service)	Customers				Consumption (kWh) ⁽³⁾				Consumption (kWh) per Customer			
							Actual (Weather actual)	Weather-normalized	Weather-normalized		Actual (Weather actual)	Weather-normalized	Weather-normalized
Historical	2013	Actual	4	Board-approved		Actual	52,117,102	51,976,766		Actual	13,029,275	12,994,191	
Historical	2014	Actual	4		4	Actual	51,485,741	51,918,445	Board-approved	51,976,766	Actual	12,871,435	12,979,611 Board-approved 12,994,191
Historical	2015	Actual	4			Actual	62,339,455	62,376,272			Actual	15,584,864	15,594,068
Historical	2016	Actual	4			Actual	46,050,289	45,442,921			Actual	11,512,572	11,360,730
Historical	2017	Actual	4			Actual	43,274,122	43,574,052			Actual	10,818,530	10,893,513
Bridge Year	2018	Forecast	4			Forecast		43,274,122			Forecast	-	10,818,530
Test Year	2019	Forecast	4			Forecast		43,274,122			Forecast	-	10,818,530

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2013		
	2014	0.0%	
	2015	0.0%	
	2016	0.0%	
	2017	0.0%	
	2018	0.0%	
	2019	0.0%	0.0%
	Geometric Mean	0.0%	

Year	Year-over-year	Test Year Versus Board-approved
2013		
2014	(1.2%) (0.1%)	
2015	21.1% 20.1%	
2016	(26.1%) (27.1%)	
2017	(6.0%) (4.1%)	
2018	(0.7%)	
2019	0.0%	(16.7%)
Geometric Mean	(6.0%) (3.6%)	

Year	Year-over-year	Test Year Versus Board-approved
2013		
2014	(1.2%) (0.1%)	
2015	21.1% 20.1%	
2016	(26.1%) (27.1%)	
2017	(6.0%) (4.1%)	
2018	(0.7%)	
2019	0.0%	(16.7%)
Geometric Mean	(6.0%) (3.6%)	

	Calendar Year (for 2019 Cost of Service)	Revenues			
Historical	2013	Actual		Board-approved	
Historical	2014	Actual			
Historical	2015	Actual			
Historical	2016	Actual			
Historical	2017	Actual			
Bridge Year (Forecast)	2018	Forecast	\$ 4,655		
Test Year (Forecast)	2019	Forecast	\$ 2,838		

Demand (kW)			
	Actual (Weather actual)	Weather-normalized	Weather-normalized
Actual	119,621	119,299	
Actual	126,065	127,124	Board-approved 100,541
Actual	139,060	139,142	
Actual	99,936	98,618	
Actual	102,973	103,687	
Forecast		102,973	
Forecast		102,973	

Demand (kW) per Customer			
	Actual (Weather actual)	Weather-normalized	Weather-normalized
Actual	29,905	29,825	
Actual	31,516	31,781	Board-approved 25,135
Actual	34,765	34,786	
Actual	24,984	24,655	
Actual	25,743	25,922	
Forecast	-	25,743	
Forecast	-	25,743	

Variance Analysis	Year	Year-over-year	Test Year Versus Board-approved
	2013		
	2014		
	2015		
	2016		
	2017		
	2018		

Year	Year-over-year	Test Year Versus Board-approved
2013		
2014	5.4% 6.6%	
2015	10.3% 9.5%	
2016	(28.1%) (29.1%)	
2017	3.0% 5.1%	
2018	(0.7%)	

Year	Year-over-year	Test Year Versus Board-approved
2013		
2014	5.4% 6.6%	
2015	10.3% 9.5%	
2016	(28.1%) (29.1%)	
2017	3.0% 5.1%	
2018	(0.7%)	

	2019 Geometric Mean	(39.0%)		2019 Geometric Mean	(4.9%)	0.0% (2.9%)	2.4%		2019 Geometric Mean	(4.9%)	0.0% (2.9%)	
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2 **APPENDIX 3-3: OEB APPENDIX 2-I LOAD FORECAST CDM ADJUSTMENT WORKFORM**

3

2021

File Number:

EB-2018-0028

Exhibit:

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Tab:

Schedule:

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Date:

27-Apr-18

Appendix 2-I
Load Forecast CDM Adjustment Work Form (2019)

Appendix 2-I was initially developed to help determine what would be the amount of CDM savings needed in each year to cumulatively achieve the four year 2011-2014 CDM target. This then determined the amount of kWh (and with translation, kW of demand) savings that were converted into dollar balances for the LRAMVA, and also to determine the related adjustment to the load forecast to account for OPA-reported savings. Beginning in the 2015 year, it has been adjusted because the persistence of 2011-2014 CDM programs will be an adjustment to the load forecast in addition to the estimated savings for the first year (2015) for the new 2015-2020 CDM plan.

2019 is the fifth year of the six-year (2015-2020) Conservation First program. Final results for the 2011-14 program were issued in the fall of 2015, and the program is completed, although in some instances disposition of the amounts has been deferred. For the purposes of the 2015-2020 LRAMVA, and the impact of CDM on the load forecast, CDM programs in 2014 and earlier are implicit in the historical data on which the base load forecast is developed. Only actual and forecasted impacts of 2015 to 2019 CDM programs need to be reflected in the manual load forecast adjustment and for the LRAMVA threshold amount in 2019 and carrying forward, although the full year impact of 2015 CDM programs and half-year impact of 2016 CDM programs on 2016 historical data is also assumed to be reflected in the base load forecast.

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

2015-2020 CDM Program - 2019 fifth year of the current CDM plan

For the first year of the new 2015-2020 CDM plan, it is assumed that each year's program will achieve an equal amount of new CDM savings. This results in each year's program being about 1/6 (16.67%) of the cumulative 2015-2020 CDM target for kWh savings. A distributor may propose an alternative approach but would be expected to document in its application why it believes that its proposal is more reasonable. In its proposal, the distributor should ensure that the sum of the results for each year's CDM program from 2015 to 2020 add up to its 2015-2020 CDM target as established by the IESO.

6 Year (2015-2020) kWh Target:							
171,927,829							
	2015	2016	2017	2018	2019	2020	Total
%							
2015 CDM Programs						49.64%	45.43%
2016 CDM Programs						9.16%	8.39%
2017 CDM Programs						10.84%	10.84%
2018 CDM Programs						9.81%	18.69%
2019 CDM Programs						8.42%	8.42%
2020 CDM Programs						8.22%	8.22%
Total in Year	96.10%						100.00%
kWh							
2015 CDM Programs	78,104,690	78,044,009	77,653,661	77,386,461	77,374,944	77,271,224	78,104,690

2016 CDM Programs		14,426,704	14,252,795	14,252,795	14,252,795	14,252,795	14,426,704
2017 CDM Programs			18,641,598	18,641,598	18,641,598	18,641,598	18,641,598
2018 CDM Programs				32,139,659	16,869,659	16,869,659	32,139,659
2019 CDM Programs					14,478,178	14,478,178	14,478,178
2020 CDM Programs						14,137,000	14,137,000
Total in Year	78,104,690	92,470,713	110,548,054	142,420,513	141,617,174	155,650,454	171,927,829

Note: The default formula in the above table assume that the 2015-2020 kWh CDM target is achieved through persistence of CDM savings to the end of 2020. The distributor should enter measured CDM savings for 2015, and persistence of 2015 programs for 2016-2020 in row 34. When available, (preliminary/final) CDM savings for 2016 can be entered into row 35. The distributor can also input estimates or forecasts of the 2017 CDM programs if it believes that these are more realistic and can be supported; such information would typically be derived from the CDM plans that the distributor has filed with the IESO. Similarly, CDM savings and persistence into future years can be estimated for 2018, 2019 and 2020 CDM programs. However, the distributor will have to support its proposals for estimated or forecasted savings, particularly beyond the 2018 bridge year. The sum of persistent savings to the end of 2020, should equal the target entered into cell A23.

Determination of 2018 Load Forecast Adjustment

The Board determined that the "net" number should be used in its Decision and Order with respect to Centre Wellington Hydro Ltd.'s 2013 Cost of Service rates (EB-2012-0113). This approach has also been used in Settlement Agreements accepted by the Board in other 2013 and 2014 applications. The distributor should select whether the adjustment is done on a "net" or "gross" basis, but must support a proposal for the adjustment being done on a "gross" basis. Sheet 2-I defaults to the adjustment being done on a "net" basis consistent with Board policy and practice.

From each of the 2006-2010 CDM Final Report, and the 2011 to 2016 CDM Final Reports, issued by the OPA/IESO for the distributor, the distributor should input the "gross" and "net" results of the cumulative CDM savings for 2018 into cells C57 to C63 and D57 to D63. The model will calculate the cumulative savings for all programs from 2006 to 2016 and determine the "net" to "gross" factor "g".

Net-to-Gross Conversion				
Is CDM adjustment being done on a "net" or "gross" basis?				net
	"Gross" kWh	"Net" kWh	Difference kWh	"Net-to-Gross" Conversion Factor ('g')
Persistence of Historical CDM programs to 2015				
2006-2010 CDM programs				
2011 CDM program				
2012 CDM program				
2013 CDM program				
2014 CDM program				
2015 CDM program				
2016 CDM program				
2006 to 2016 OPA CDM programs: Persistence to 2018.	0	0	0	1.00

The default values below represent the factor used for how each year's CDM program is factored into the manual CDM adjustment. Distributors can choose alternative weights of "0", "0.5" or "1" from the drop-down menu for each cell, but must support its alternatives.

These factors do not mean that CDM programs are excluded, but the assumption that impacts of previous year CDM programs are already implicitly reflected in the actual data for historical years that are used to derive the load forecast prior to any manual CDM adjustment for the 2019 test year.

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

2015-2020 LRAMVA and 2018 CDM adjustment to Load Forecast

One manual adjustment for CDM impacts to the 2018 load forecast is made. There is a different but related threshold amount that is used for the 2019 LRAMVA amount for Account 1568.

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

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

The Manual Adjustment for the 2019 Load Forecast is the amount manually subtracted from the system-wide load forecast (either based on a purchased or billed basis) derived from the base forecast from historical data. If the distributor has developed their load forecast on a system purchased basis, then the manual adjustment should be on a system purchased basis, including the adjustment for losses. If the load forecast has been developed on a billed basis, either on a system basis or on a class-specific basis, the manual adjustment should be on a billed basis, excluding losses.

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

	2015	2016	2017	2018	2019	2020	Total for 2019

Amount used for CDM threshold for LRAMVA (2019)	16,869,659			14,478,178		31,347,837
Manual Adjustment for 2019 Load Forecast (billed basis)	-	-	-	16,869,659	7,239,089	24,108,748
Manual Adjustment for 2019 LDC-only CDM programs (billed basis)						
Total Manual Forecast to Load Forecast (Billed)	-	-	-	16,869,659	7,239,089	24,108,748

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

APPENDIX 3-4: 2019 ENERGY+ LOAD FORECAST MODEL_V3

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	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Bridge	2019 Forecast
Actual kWh Purchases	1,761,921,851	1,767,032,101	1,775,157,464	1,780,674,124	1,782,419,695	1,777,379,399	1,722,187,256	1,643,582,347	1,675,356,044	1,677,252,320
Predicted kWh Purchases	1,750,181,987	1,771,238,583	1,788,477,370	1,776,111,888	1,764,743,832	1,777,115,136	1,700,560,186	1,665,209,417		
% Difference	-0.7%	0.2%	0.8%	-0.3%	-1.0%	0.0%	-1.3%	1.3%		
CDM Purchase Adjustment									(16,522,777)	(24,788,283)
Predicted kWh Purchases after CDM									1,658,833,266	1,652,464,037
Billed kWh	1,700,869,074	1,705,485,901	1,721,439,858	1,745,480,851	1,730,430,155	1,750,185,363	1,676,617,027	1,596,674,910	1,613,358,743	1,607,164,117
Waterloo North	0	0	0	45,983,610	58,781,039	60,363,736	61,404,044	58,104,381	58,104,381	58,104,381
Total	1,700,869,074	1,705,485,901	1,721,439,858	1,791,464,461	1,789,211,194	1,810,549,098	1,738,021,070	1,654,779,291	1,671,463,124	1,665,268,498
By Class										
Residential										
Customers	53,054	54,019	54,633	55,070	55,463	55,922	56,561	57,272	57,970	58,677
kWh	476,486,462	478,456,723	479,247,118	464,848,343	477,025,968	486,541,296	479,944,152	453,855,075	465,920,846	466,068,279
General Service < 50 kW										
Customers	5,893	5,932	5,980	6,004	6,057	6,149	6,241	6,298	6,374	6,451
kWh	199,237,830	194,492,494	194,297,829	193,717,267	198,149,245	203,100,575	212,807,519	189,005,848	192,724,357	195,276,256
General Service > 50 to 999 kW										
Customers	803	822	839	840	825	808	806	796	798	800
kWh	486,523,861	500,487,578	501,135,345	518,348,767	494,277,242	485,904,146	484,199,963	487,037,522	494,297,087	493,112,062
kW	1,535,992	1,559,458	1,578,630	1,568,193	1,605,303	1,555,819	1,564,561	1,518,753	1,559,982	1,556,242
General Service > 1000 to 4999 kW										
Customers	31	33	32	30	29	29	29	28	27	27
kWh	250,459,340	269,851,932	256,008,219	270,280,543	263,042,176	263,255,330	261,804,628	241,351,905	237,019,612	231,017,192
kW	646,504	659,131	606,302	586,435	581,849	581,153	631,904	574,484	556,266	542,178
Large User										
Customers	2	2	2	3	3	2	2	2	2	2
kWh	196,557,281	169,195,800	201,189,505	204,906,257	205,265,395	207,374,362	151,250,312	146,226,388	145,904,992	145,503,126
kW	421,436	431,699	483,777	425,912	457,867	430,087	358,566	348,189	332,575	382,038
Direct Market Participant										
Customers	4	4	4	4	4	4	4	4	4	4
kW	75,928	81,848	81,651	73,573	69,661	69,115	70,836	67,942	67,942	67,942
Street Lights										
Connections	15,199	15,264	15,362	15,453	15,512	15,539	15,726	16,024	16,141	16,260
kWh	11,228,686	11,229,393	11,359,959	11,262,943	11,406,116	11,394,266	11,108,606	8,378,434	6,672,112	5,367,464
kW	31,415	31,403	31,677	31,772	31,886	31,873	31,300	24,144	19,227	15,467
Sentinel Lights										
Connections	219	189	177	191	189	189	181	168	168	168
kWh	175,284	164,006	178,406	152,803	146,515	142,708	136,701	126,989	126,989	126,989
kW	487	228	311	307	293	288	417	343	343	343
Unmetered Loads										
Connections	589	565	538	534	531	534	523	499	499	499
kWh	2,609,945	2,512,919	2,457,458	2,430,645	2,451,442	2,413,614	2,346,838	2,273,988	2,273,988	2,273,988
Embedded Distributor - Hydro One, CND										
Customers	2	2	2	2	2	2	2	2	2	2

kWh	13,614,985	13,478,594	13,008,529	13,176,711	13,845,907	13,548,203	13,027,612	12,605,162	12,605,162	12,605,162
kW	27,708	28,171	29,053	27,809	28,706	28,843	27,466	24,387	24,387	24,387
Embedded Distributor - Waterloo North, CND										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	0	0	0	45,983,610	58,781,039	60,363,736	61,404,044	58,104,381	58,104,381	58,104,381
kW	73,663	78,980	70,982	92,130	106,790	108,929	121,168	114,657	114,657	114,657
Embedded Distributor - Brantford Power, BCP										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	373,339	373,339	374,823	356,273	338,022	352,068	380,114	347,757	347,757	347,757
kW	10	44	88	31	95	95	1,313	1,075	1,075	1,075
Embedded Distributor - Hydro One #1, BCP										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	13,348,829	13,695,350	9,863,707	13,883,197	12,996,387	13,819,342	13,560,292	12,191,720	12,191,720	12,191,720
kW	29,200	31,128	24,429	31,865	31,822	30,827	29,428	29,011	29,995	29,995
Embedded Distributor - Hydro One #2, BCP										
Customers	4	4	4	4	4	4	4	4	4	4
kWh	50,253,230	51,547,773	52,318,962	52,117,102	51,485,741	62,339,455	46,050,289	43,274,122	43,274,122	43,274,122
kW - Estimated	109,926	117,161	129,577	119,621	126,065	139,060	99,936	102,973	102,973	102,973
Total										
Customer/Connections	75,802	76,839	77,577	78,137	78,621	79,184	80,081	81,099	81,993	82,897
kWh	1,700,869,074	1,705,485,901	1,721,439,858	1,791,464,461	1,789,211,194	1,810,549,098	1,738,021,070	1,654,779,291	1,671,463,124	1,665,268,498
kW from applicable classes	2,952,269	3,019,251	3,036,478	2,957,647	3,040,337	2,976,090	2,936,895	2,805,958	2,809,421	2,837,297

Energy+, BCP Component Weather Normal Load Forecast for 2019 Rate Application

	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Bridge	2019 Test
Actual kWh Purchases	291,433,060	293,737,263	293,429,507	301,042,483	303,815,429	293,516,037	298,126,493	286,507,172		
Billed kWh	271,869,208	278,419,410	273,767,432	282,638,929	284,646,659	285,243,240	288,991,554	270,576,406		
By Class										
Residential										
Customers	8,133	8,239	8,350	8,432	8,520	8,600	8,731	8,896	9,004	9,114
kWh	80,219,627	81,900,003	79,659,540	79,931,655	81,545,698	85,209,274	83,373,122	79,607,417	72,367,563	72,390,462
General Service < 50 kW										
Customers	1,289	1,303	1,319	1,308	1,298	1,298	1,320	1,339	1,355	1,372
kWh	35,757,938	36,170,425	35,702,794	37,126,640	37,605,274	35,949,071	42,681,652	36,754,537	40,977,835	41,520,430
General Service > 50 to 999 kW										
Customers	95	99	102	104	106	112	113	108	108	108
kWh	60,010,106	63,328,541	63,734,065	65,991,245	67,781,851	49,488,193	68,085,065	62,964,842	66,754,946	66,594,908
kW	241,129	227,627	227,979	232,198	241,040	223,090	237,320	223,544	210,676	210,171
General Service > 1000 to 4999 kW										
Customers	5	5	5	5	5	6	6	6	6	6
kWh	29,541,672	29,084,757	29,778,280	30,941,353	30,595,621	35,805,421	38,677,613	34,140,289	50,789,917	49,503,684
kW	76,444	76,749	78,355	83,762	82,927	95,927	102,692	107,785	119,200	116,181
Street Lights										
Connections	2,640	2,640	2,640	2,640	2,640	2,640	2,784	2,930	2,951	2,973
kWh	1,709,481	1,709,907	1,714,788	1,696,593	1,709,481	1,697,632	1,461,959	750,582	597,721	480,844
kW	4,801	4,799	4,800	4,801	4,801	4,776	4,411	2,314	1,843	1,483
Sentinel Lights										
Connections	219	189	177	191	189	189	181	168	168	168
kWh	175,284	164,006	178,406	152,803	146,515	142,708	136,701	126,989	126,989	126,989
kW	487	228	311	307	293	288	417	343	343	343
Unmetered Loads										
Connections	51	50	48	48	49	49	48	47	47	47
kWh	479,703	445,308	442,068	442,068	442,068	440,075	420,658	418,152	214,183	214,183
Embedded Distributor - Brantford Power, BCP										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	373,339	373,339	374,823	356,273	338,022	352,068	380,114	347,757	347,757	347,757
kW	10	44	88	31	95	95	1,313	1,075	1,075	1,075
Embedded Distributor - Hydro One #1, BCP										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	13,348,829	13,695,350	9,863,707	13,883,197	12,996,387	13,819,342	13,560,292	12,191,720	12,191,720	12,191,720
kW	29,200	31,128	24,429	31,865	31,822	30,827	29,428	29,011	29,995	29,995
Embedded Distributor - Hydro One #2, BCP										
Customers	4	4	4	4	4	4	4	4	4	4
kWh	50,253,230	51,547,773	52,318,962	52,117,102	51,485,741	62,339,455	46,050,289	43,274,122	43,274,122	43,274,122
kW - Estimated	109,926	117,161	129,577	119,621	126,065	139,060	99,936	102,973	102,973	102,973
Total										
Customer/Connections	12,439	12,531	12,648	12,733	12,812	12,899	13,188	13,499	13,645	13,793
kWh	271,869,208	278,419,410	273,767,432	282,638,929	284,646,659	285,243,240	294,827,466	270,576,406	287,642,752	286,645,099
kW from applicable classes	461,997	457,735	465,540	472,585	487,042	494,063	475,518	467,045	466,104	462,220

Energy+: CND Component Weather Normal Load Forecast for 2019 Rate Application

	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Bridge	2019 Test
Actual kWh Purchases	1,470,488,791	1,473,294,838	1,481,727,957	1,479,631,641	1,478,604,266	1,483,863,362	1,424,060,763	1,357,075,175		
Billed kWh	1,428,999,866	1,427,066,491	1,447,672,426	1,462,841,921	1,445,783,497	1,464,942,122	1,381,250,256	1,326,098,504		
Est for Waterloo	36,195,843	37,787,891	31,782,231	43,655,944	51,508,550	51,165,900	56,963,024	58,104,381		
Billed kWh incl Est for Waterloo	1,465,195,709	1,464,854,382	1,479,454,658	1,506,497,865	1,497,292,046	1,516,108,022	1,438,213,280	1,384,202,885		
By Class										
Residential										
Customers	44,921	45,781	46,284	46,638	46,944	47,322	47,830	48,376	48,966	49,563
kWh	396,266,835	396,556,720	399,587,578	384,916,688	395,480,270	401,332,022	396,571,030	374,247,658	393,553,283	393,677,816
General Service < 50 kW										
Customers	4,604	4,630	4,661	4,696	4,759	4,852	4,921	4,959	5,018	5,079
kWh	163,479,893	158,322,069	158,595,034	156,590,626	160,543,971	167,151,504	170,125,867	152,251,310	151,746,522	153,755,826
General Service > 50 to 999 kW										
Customers	708	724	737	736	719	696	693	689	690	692
kWh	426,513,756	437,159,036	437,401,279	452,357,522	426,495,391	436,415,952	416,114,898	424,072,680	427,542,141	426,517,154
kW	1,294,863	1,331,831	1,350,651	1,335,995	1,364,263	1,332,730	1,327,240	1,295,209	1,349,306	1,346,071
General Service > 1000 to 4999 kW										
Customers	26	28	27	25	24	24	23	22	22	21
kWh	220,917,668	240,767,175	226,229,939	239,339,190	232,446,555	227,449,908	223,127,015	207,211,616	186,229,695	181,513,508
kW	570,060	582,383	527,947	502,673	498,923	485,226	529,212	466,699	437,066	425,997
Large User										
Customers	2	2	2	3	3	2	2	2	2	2
kWh	196,557,281	169,195,800	201,189,505	204,906,257	205,265,395	207,374,362	151,250,312	146,226,388	145,904,992	145,503,126
kW	421,436	431,699	483,777	425,912	457,867	430,087	358,566	348,189	332,575	382,038
Direct Market Participant										
Customers	4	4	4	4	4	4	4	4	4	4
kW	75,928	81,848	81,651	73,573	69,661	69,115	70,836	67,942	67,942	67,942
Street Lights										
Connections	12,559	12,624	12,722	12,813	12,872	12,899	12,943	13,095	13,190	13,287
kWh	9,519,206	9,519,486	9,645,171	9,566,350	9,696,634	9,696,633	9,646,647	7,627,852	6,074,391	4,886,620
kW	26,614	26,604	26,876	26,970	27,085	27,097	26,889	21,830	17,384	13,985
Unmetered Loads										
Connections	538	515	491	487	482	485	475	452	452	452
kWh	2,130,242	2,067,611	2,015,390	1,988,577	2,009,374	1,973,539	1,926,180	1,855,836	2,059,805	2,059,805
Embedded Distributor - Hydro One, CND										
Customers	2	2	2	2	2	2	2	2	2	2
kWh	13,614,985	13,478,594	13,008,529	13,176,711	13,845,907	13,548,203	13,027,612	12,605,162	12,605,162	12,605,162
kW	27,708	28,171	29,053	27,809	28,706	28,843	27,466	24,387	24,387	24,387
Embedded Distributor - Waterloo North, CND										
Customers	1	1	1	1	1	1	1	1	1	1
kWh	0	0	0	45,983,610	58,781,039	60,363,736	61,404,044	58,104,381	58,104,381	58,104,381
kW	73,663	78,980	70,982	92,130	106,790	108,929	121,168	114,657	114,657	114,657
Total										
Customer/Connections	63,364	64,309	64,930	65,404	65,809	66,285	66,892	67,601	68,348	69,104
kWh	1,428,999,866	1,427,066,491	1,447,672,426	1,508,825,531	1,504,564,536	1,525,305,858	1,443,193,604	1,384,202,885	1,383,820,372	1,378,623,399
kW from applicable classes	2,490,272	2,561,516	2,570,938	2,485,062	2,553,295	2,482,027	2,461,377	2,338,913	2,343,317	2,375,077

\\Hydro\\Data\\Reef\\Finance\\OEB Rate Applications\\2019 COS Rate Releasing\\Exhibit 3 Operating Revenue\\EXHIBIT 3 FRAL\\Exhibit 3 Attachments\\2019 Energy Load Forecast Model V3.xls

[illegible]

	36%	23%	16%	12%	2%	11%	0%	0%	0%	0%	0%	0%	0%
	41%	12%	17%	14%	3%	13%	0%	0%	0%	0%	0%	0%	0%
16,069,829	5,785,139	3,696,061	2,571,173	1,928,380	321,397	1,767,681	0	0	0	0	0	0	16,069,829
24,108,748	9,884,587	2,893,050	4,098,487	3,375,225	723,262	3,134,137	0	0	0	0	0	0	24,108,748

		<u>General Service</u>	<u>General Service > 50</u>	<u>General Service ></u>			<u>Sentinel</u>	<u>Unmetered</u>	<u>Embedded</u>	<u>Embedded</u>	<u>Embedded</u>	<u>Embedded</u>	
	<u>Residential</u>	<u>< 50 kW</u>	<u>to 999 kW</u>	<u>1000 to 4999 kW</u>	<u>Large User</u>	<u>Street Lights</u>	<u>Lights</u>	<u>Loads</u>	<u>Distributors -</u>	<u>Distributors -</u>	<u>Distributors -</u>	<u>Distributors -</u>	
									<u>BPI - BCP</u>	<u>#1. BCP</u>	<u>BCP</u>	<u>Hydro One.</u>	<u>Total</u>
2008	51,351	5,652	777	33	2	15,006	139	512	1	1	4	2	73,478
2009	51,970	5,789	786	32	2	15,100	179	550	1	1	4	2	74,415
2010	53,054	5,893	803	31	2	15,199	219	589	1	1	4	2	75,797
2011	54,019	5,932	822	33	2	15,264	189	565	1	1	4	2	76,834
2012	54,633	5,980	839	32	2	15,362	177	538	1	1	4	2	77,572
2013	55,070	6,004	840	30	3	15,453	191	534	1	1	4	2	78,132
2014	55,463	6,057	825	29	3	15,512	189	531	1	1	4	2	78,616
2015	55,922	6,149	808	29	2	15,539	189	534	1	1	4	2	79,179
2016	56,561	6,241	806	29	2	15,726	181	523	1	1	4	2	80,076
2017	57,272	6,298	796	28	2	16,024	168	499	1	1	4	2	81,094
2018	57,970	6,374	798	27	2	16,141	168	499	1	1	4	2	81,988
2019	58,677	6,451	800	27	2	16,260	168	499	1	1	4	2	82,892

Growth Rate in Customer Numbers

2009	1.0120	1.0243	1.0118	0.9545	1.0000	1.0063	1.2933	1.0760	1.0000	1.0000		
2010	1.0209	1.0180	1.0216	0.9841	1.0000	1.0066	1.2237	1.0700	1.0000	1.0000	1.0000	1.0000
2011	1.0182	1.0066	1.0247	1.0645	1.0000	1.0043	0.8628	0.9594	1.0000	1.0000	1.0000	1.0000
2012	1.0114	1.0081	1.0201	0.9697	1.0000	1.0065	0.9354	0.9531	1.0000	1.0000	1.0000	1.0000
2013	1.0080	1.0040	1.0012	0.9219	1.2500	1.0059	1.0775	0.9917	1.0000	1.0000	1.0000	1.0000
2014	1.0071	1.0087	0.9821	0.9831	1.0000	1.0038	0.9891	0.9944	1.0000	1.0000	1.0000	1.0000
2015	1.0083	1.0152	0.9793	1.0000	0.8000	1.0017	1.0014	1.0056	1.0000	1.0000	1.0000	1.0000
2016	1.0114	1.0149	0.9975	0.9828	1.0000	1.0121	0.9589	0.9794	1.0000	1.0000	1.0000	1.0000
2017	1.0126	1.0091	0.9877	0.9825	1.0000	1.0189	0.9281	0.9541	1.0000	1.0000	1.0000	1.0000
Used	1.0122	1.0121	1.0028	0.9819	1.0000	1.0073	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Geomean	1.0122	1.0121	1.0028	0.9819	1.0000	1.0073	1.0217	0.9973	1.0000	1.0000	1.0000	1.0000

	General Service > 50 to 999 kW	General Service > 1000 to 4999 kW	Large User	Street Lights	Sentinel Lights	Embedded Distributors - BPI - BCP	Embedded Distributors - Hydro One #1, BCP	Embedded Distributors - Hydro One #2, BCP	Embedded Distributors - Hydro One & Waterloo, CND	Total
2010	1,535,992	646,504	421,436	31,415	487	10	29,200	109,926	101,371	2,876,341
2011	1,559,458	659,131	431,699	31,403	228	44	31,128	117,161	107,151	2,937,403
2012	1,578,630	606,302	483,777	31,677	311	88	24,429	129,577	100,035	2,954,827
2013	1,568,193	586,435	425,912	31,772	307	31	31,865	119,621	119,938	2,884,073
2014	1,605,303	581,849	457,867	31,886	293	95	31,822	126,065	135,496	2,970,676
2015	1,555,819	581,153	430,087	31,873	288	95	30,827	139,060	137,772	2,906,975
2016	1,564,561	631,904	358,566	31,300	417	1,313	29,428	99,936	148,634	2,866,059
2017	1,518,753	574,484	348,189	24,144	343	1,075	29,011	102,973	139,044	2,738,017
2018	1,559,982	556,266	332,575	19,227	343	1,075	29,995	102,973	139,044	2,741,479
2019	1,556,242	542,178	382,038	15,467	343	1,075	29,995	102,973	139,044	2,769,356

CND

2010	1,294,863	570,060	421,436	26,614					101,371
2011	1,331,831	582,383	431,699	26,604					107,151
2012	1,350,651	527,947	483,777	26,876					100,035
2013	1,335,995	502,673	425,912	26,970					119,938
2014	1,364,263	498,923	457,867	27,085					135,496
2015	1,332,730	485,226	430,087	27,097					137,772
2016	1,327,240	529,212	358,566	26,889					148,634
2017	1,295,209	466,699	348,189	21,830					139,044

BCP

2010	241,129	76,444		4,801	487	10	29,200		
2011	227,627	76,749		4,799	228	44	31,128		
2012	227,979	78,355		4,800	311	88	24,429		
2013	232,198	83,762		4,801	307	31	31,865		
2014	241,040	82,927		4,801	293	95	31,822		
2015	223,090	95,927		4,776	288	95	30,827		
2016	237,320	102,692		4,411	417	1,313	29,428		
2017	223,544	107,785		2,314	343	1,075	29,011		

kW/kWh

2010	0.3157%	0.2581%	0.2144%	0.2798%	0.2778%	0.0028%	0.2187%		
2011	0.3116%	0.2443%	0.2551%	0.2796%	0.1392%	0.0119%	0.2273%		
2012	0.3150%	0.2368%	0.2405%	0.2788%	0.1744%	0.0233%	0.2477%		
2013	0.3025%	0.2170%	0.2079%	0.2821%	0.2009%	0.0087%	0.2295%		0.2027%
2014	0.3248%	0.2212%	0.2231%	0.2796%	0.1998%	0.0280%	0.2449%		0.1866%
2015	0.3202%	0.2208%	0.2074%	0.2797%	0.2021%	0.0271%	0.2231%		0.1864%
2016	0.3231%	0.2414%	0.2371%	0.2818%	0.3048%	0.3455%	0.2170%		0.1997%
2017	0.3118%	0.2380%	0.2381%	0.2882%	0.2700%	0.3091%	0.2380%		0.1966%
Used	0.3156%	0.2347%	0.2279%	0.2882%	0.2700%	0.3091%	0.2380%	0.2380%	0.1966%
Average	0.3156%	0.2347%	0.2279%	0.2812%	0.2211%	0.0946%	0.2308%		0.1944%

	Total OPA Annual CDM Results 2006 to 2010 programs	Total IESO/OPA Annual CDM Results 2011 to 2014 programs	Total IESO Annual CDM Results 2015 programs	Total IESO Annual CDM Results 2016 programs	2017 Programs	Total Annual CDM Results	Increase over previous year			
								Check		
2006	2,199,695	-	-			2,199,695	2,199,695	28,201	2,199,695	-
2007	5,865,381	-	-			5,865,381	1,804,405	23,133	5,865,381	-
2008	8,715,686	-	-			8,715,686	1,323,501	16,968	8,715,686	-
2009	14,062,057	-	-			14,062,057	4,226,485	54,186	14,062,057	-
2010	19,632,401	-	-			19,632,401	1,994,087	25,565	19,632,401	-
2011	23,543,736	6,993,904	-			30,537,640	9,217,935	118,179	30,537,640	-
2012	23,185,906	19,010,177	-			42,196,083	3,858,652	49,470	42,196,083	-
2013	23,093,273	29,756,733	-			52,850,006	7,388,910	94,730	52,850,006	-
2014	22,519,904	45,730,999	-			68,250,903	9,148,743	117,292	68,250,903	-
2015	20,225,485	55,118,689	39,052,345			114,396,518	38,404,372	492,364	114,396,518	-
2016	19,336,761	54,157,230	78,044,009	7,213,352		158,751,352	11,858,827	152,036	158,751,352	-
2017	16,614,719	52,313,262	77,653,661	14,252,795	9,320,799	170,155,235	1,369,491	17,558	170,155,235	-
2018	13,279,279	51,465,422	77,386,461	14,252,795	18,416,880	174,800,836	3,486,801	44,703	174,800,836	-
2019	7,609,615	50,830,908	77,374,944	14,252,795	18,416,880	168,485,142	9,266,064	-	168,485,142	-
Total	219,883,899	365,377,323	349,511,420	49,971,737	46,154,559	1,030,898,938				
					18,641,598					

Jan	1
Feb	2
Mar	3
Apr	4
May	5
Jun	6
Jul	7
Aug	8
Sep	9
Oct	10
Nov	11
Dec	12
Total	78

2018 Programs 32,139,658
2019 Programs

CND

2006	1,826,896		
2007	4,932,238		
2008	7,199,424		
2009	11,355,458		
2010	16,129,897		
2011	19,795,633	6,778,816	
2012	19,505,272	17,888,165	
2013	19,444,650	27,622,905	
2014	19,030,184	42,192,523	
2015	17,119,012	50,661,734	8,187,688
2016	16,413,895	49,887,126	16,312,404
2017	14,306,341	48,449,983	15,941,956
2018	11,654,541	47,806,271	15,674,985
2019	6,354,427	47,182,509	15,529,899
Total	185,067,868	338,470,032	71,646,932

BCP

2006	372,800		
2007	933,143		
2008	1,516,262		
2009	2,706,599		
2010	3,502,504		
2011	3,748,103	215,088	
2012	3,680,633	1,122,013	
2013	3,648,624	2,133,828	
2014	3,489,720	3,538,476	
2015	3,106,473	4,456,955	933,743
2016	2,922,866	4,270,105	1,854,781
2017	2,308,378	3,863,278	1,831,572
2018	1,624,738	3,659,150	1,828,033
2019	1,255,188	3,648,399	1,819,062
Total	34,816,031	26,907,291	8,267,191

CDM Activity Variable

Jan-06	28,201
Feb-06	56,402
Mar-06	84,604
Apr-06	112,805
May-06	141,006
Jun-06	169,207

Jul-06	197,409		
Aug-06	225,610		
Sep-06	253,811		
Oct-06	282,012		
Nov-06	310,213	Check	
Dec-06	338,415	2,199,695	4,060,976
Jan-07	361,548		
Feb-07	384,681		
Mar-07	407,815		
Apr-07	430,948		
May-07	454,082		
Jun-07	477,215		
Jul-07	500,348		
Aug-07	523,482		
Sep-07	546,615		

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	Heating Degree Days	Cooling Degree Days		
Jan-91	750.4	0		
Feb-91	589.1	0		
Mar-91	532.2	0		
Apr-91	297.6	0.5		
May-91	0	0		
Jun-91	21.4	61.8		
Jul-91	5.4	95.7		
Aug-91	2.7	85.5		
Sep-91	130.3	21.3		
Oct-91	241.8	0		
Nov-91	467.6	0		
Dec-91	600.1	0		
Jan-92	688.8	0		
Feb-92	625.4	0		
Mar-92	578.7	0		
Apr-92	379.4	0		
May-92	160.9	4		
Jun-92	69.1	15.8		
Jul-92	25.9	23.4		
Aug-92	40.1	20.5		
Sep-92	113.3	13		
Oct-92	339.1	0		
Nov-92	455.2	0		
Dec-92	627.7	0		
Jan-93	687.2	0		
Feb-93	738.1	0		
Mar-93	632	0		
Apr-93	343.4	0		
May-93	176.6	1.5		
Jun-93	47.3	26.2		
Jul-93	2.9	97.1		
Aug-93	7.5	93.8		
Sep-93	156.4	4		
Oct-93	335.9	1		
Nov-93	463.5	0		
Dec-93	649.6	0	4240.4	223.6
Jan-94	968.6	0		
Feb-94	774.2	0		
Mar-94	619.9	0		
Apr-94	343.8	0		
May-94	226.7	6.9		
Jun-94	38.4	61.6		
Jul-94	6.3	77.7		
Aug-94	39.2	27.3		
Sep-94	105.4	7.5		
Oct-94	263.7	0		
Nov-94	405.3	0		
Dec-94	591.1	0	4382.6	181
Jan-95	667.5	0		
Feb-95	735.3	0		
Mar-95	523.7	0		
Apr-95	434.4	0		

May-95	171.9	1.7		
Jun-95	25.9	70.8		
Jul-95	17.3	105.9		
Aug-95	4.3	101.9		
Sep-95	143.6	10.8		
Oct-95	245.5	0		
Nov-95	539.2	0		
Dec-95	741.3	0	4249.9	291.1
Jan-96	789.4	0		
Feb-96	712.6	0		
Mar-96	670.4	0		
Apr-96	421.9	0		
May-96	216.1	10		
Jun-96	29.4	38.6		
Jul-96	18.9	41.9		
Aug-96	6.2	55.2		
Sep-96	102.2	12.6		
Oct-96	301.4	0		
Nov-96	548.1	0		
Dec-96	596.5	0	4413.1	158.3
Jan-97	777.9	0		
Feb-97	615	0		
Mar-97	619.1	0		
Apr-97	391.9	0		
May-97	289	0		
Jun-97	30.4	50.4		
Jul-97	22.1	59.8		
Aug-97	49.4	21.9		
Sep-97	115.2	5.4		
Oct-97	288.9	1.6		
Nov-97	471.4	0		
Dec-97	630.7	0	4301	139.1
Jan-98	652.8	0		
Feb-98	547.1	0		
Mar-98	505.1	0		
Apr-98	312	0		
May-98	77.1	16.8		
Jun-98	66.7	63.7		
Jul-98	6.9	64.8		
Aug-98	12.1	83.1		
Sep-98	63	26		
Oct-98	257.6	0		
Nov-98	440.1	0		
Dec-98	572.1	0	3512.6	254.4
Jan-99	789.6	0		
Feb-99	578.4	0		
Mar-99	592.5	0		
Apr-99	332.6	0		
May-99	126.7	10.5		
Jun-99	44.4	76.5		
Jul-99	3.2	138.9		
Aug-99	28.8	30.9		
Sep-99	88.9	27.7		
Oct-99	319	0		
Nov-99	405.1	0		

Dec-99	623.7	0	3932.9	284.5
Jan-00	773	0		
Feb-00	643.8	0		
Mar-00	446.9	0		
Apr-00	358.3	0		
May-00	152.4	18.7		
Jun-00	41.1	35.4		
Jul-00	18.6	44.8		
Aug-00	29.7	46.3		
Sep-00	134	23.8		
Oct-00	251.6	0		
Nov-00	470.9	0		
Dec-00	826.5	0	4146.8	169
Jan-01	715	0		
Feb-01	620.2	0		
Mar-01	618.7	0		
Apr-01	324.6	0		
May-01	140.3	7.7		
Jun-01	47	62.4		
Jul-01	22.3	65.7		
Aug-01	2.3	94.2		
Sep-01	118.8	19.2		
Oct-01	276.7	0		
Nov-01	370.8	0		
Dec-01	563.3	0	3820	249.2
Jan-02	625.7	0		
Feb-02	592	0		
Mar-02	581.2	0		
Apr-02	356.2	6.6		
May-02	266.8	5.3		
Jun-02	53.1	54.5		
Jul-02	4.7	129		
Aug-02	11	72.3		
Sep-02	50.2	47		
Oct-02	345.6	6.3		
Nov-02	486.4	0		
Dec-02	675.6	0	4048.5	321
Jan-03	868.4	0		
Feb-03	755.9	0		
Mar-03	638.7	0		
Apr-03	397.4	0.7		
May-03	217	0		
Jun-03	65.3	25.5		
Jul-03	12.5	50.1		
Aug-03	18.9	72.4		
Sep-03	104.1	6		
Oct-03	331.9	0		
Nov-03	434.4	0		
Dec-03	610	0	4454.5	154.7
Jan-04	879.2	0		
Feb-04	699.2	0		
Mar-04	540.9	0		
Apr-04	354.1	0		
May-04	196.2	6.7		
Jun-04	92.5	16.3		

Jul-04	21.3	49.3		
Aug-04	55	30.6		
Sep-04	71.3	13.7		
Oct-04	287.5	0		
Nov-04	432.9	0		
Dec-04	700.1	0	4330.2	116.6
Jan-05	814.7	0		
Feb-05	683.5	0		
Mar-05	680.5	0		
Apr-05	354.6	0		
May-05	244.9	0		
Jun-05	27.3	104.8		
Jul-05	6.8	105.4		
Aug-05	11.9	67.9		
Sep-05	63.4	13.7		
Oct-05	259.9	2.6		
Nov-05	433.1	0		
Dec-05	721.6	0	4302.2	294.4
Jan-06	590.6	0		
Feb-06	651.2	0		
Mar-06	562.4	0		
Apr-06	322.5	0		
May-06	177.8	17.7		
Jun-06	44.1	32.2		
Jul-06	6.5	117.2		
Aug-06	27.5	45.5		
Sep-06	130.3	2.3		
Oct-06	335.1	0		
Nov-06	415.9	0		
Dec-06	545.2	0	3809.1	214.9
Jan-07	698.3	0		
Feb-07	785.1	0		
Mar-07	582	0		
Apr-07	403	0		
May-07	166.4	11.2		
Jun-07	35.5	51.2		
Jul-07	28	53.8		
Aug-07	19.7	65.1		
Sep-07	74.7	28		
Oct-07	184.7	10.9		
Nov-07	511.8	0		
Dec-07	686.6	0	4175.8	220.2
Jan-08	676.8	0		
Feb-08	651.2	0		
Mar-08	686.1	0		
Apr-08	297.9	0		
May-08	243.1	0.7		
Jun-08	40.6	53		
Jul-08	7.6	75.8		
Aug-08	36.2	29.5		
Sep-08	93.2	12		
Oct-08	325.7	0		
Nov-08	499.7	0		
Dec-08	694	0	4252.1	171
Jan-09	891.8	0		

Feb-09	649.6	0		
Mar-09	562.6	0		
Apr-09	341.5	3.2		
May-09	192.8	2.3		
Jun-09	75.7	26.2		
Jul-09	37.6	14.5		
Aug-09	34.4	57.3		
Sep-09	88.8	5.5		
Oct-09	329.1	0		
Nov-09	396.5	0		
Dec-09	669.5	0	4269.9	109
Jan-10	727.1	0		
Feb-10	644.7	0		
Mar-10	470.9	0		
Apr-10	255.7	0		
May-10	144.7	21		
Jun-10	37.7	26.8		
Jul-10	6.7	100.6		
Aug-10	9.7	79.2		
Sep-10	122.7	16.7		
Oct-10	279.6	0		
Nov-10	337.9	0		
Dec-10	719.4	0	3756.8	244.3
Jan-11	770	0		
Feb-11	640.8	0		
Mar-11	605.3	0		
Apr-11	298.7	0		
May-11	148.7	13.2		
Jun-11	48.5	21.6		
Jul-11	0.8	128.2		
Aug-11	6.9	54.3		
Sep-11	88.9	17.2		
Oct-11	279.9	0		
Nov-11	382.4	0		
Dec-11	574.8	0	3845.7	234.5
Jan-12	657.3	0		
Feb-12	573	0		
Mar-12	370.1	0		
Apr-12	365.3	0		
May-12	103.8	18.2		
Jun-12	42.1	61.2		
Jul-12	0	116.4		
Aug-12	19.4	58.1		
Sep-12	125.4	16.4		
Oct-12	279.2	0		
Nov-12	483.6	0		
Dec-12	565.5	0	3584.7	270.3
Jan-13	681.3	0		
Feb-13	697.9	0		
Mar-13	612	0		
Apr-13	368.7	0		
May-13	152.1	19.6		
Jun-13	46.4	31.3		
Jul-13	15.1	85.9		
Aug-13	32.7	42.1		

Sep-13	128.1	20.5		
Oct-13	255.5	0		
Nov-13	517.7	0		
Dec-13	727.3	0	4234.8	199.4
Jan-14	827.9	0		
Feb-14	775.2	0		
Mar-14	757	0		
Apr-14	375.9	0		
May-14	135.7	5.7		
Jun-14	37.3	44.3		
Jul-14	36.8	31.5		
Aug-14	31.1	24.5		
Sep-14	114	11.4		
Oct-14	244.6	0		
Nov-14	521.9	0		
Dec-14	597.6	0	4455	117.4
Jan-15	800.8	0		
Feb-15	917.5	0		
Mar-15	538	0		
Apr-15	359	0		
May-15	116.2	29.8		
Jun-15	54.7	15		
Jul-15	19.3	57.7		
Aug-15	29.5	47.9		
Sep-15	58.2	45.3		
Oct-15	290.1	0		
Nov-15	391.1	0		
Dec-15	453	0	4027.4	195.7
Jan-16	717.8	0		
Feb-16	627.4	0		
Mar-16	492.6	0		
Apr-16	431.8	0		
May-16	174.6	18.4		
Jun-16	51.2	34.3		
Jul-16	4.8	101.2		
Aug-16	2.1	105		
Sep-16	68.6	26.6		
Oct-16	242.1	1.9		
Nov-16	388.2	0		
Dec-16	647.8	0	3849	287.4
Jan-17	635.1	0		
Feb-17	537.9	0		
Mar-17	597.6	0		
Apr-17	281.6	0		
May-17	214.4	2.7		
Jun-17	45.2	43		
Jul-17	3.2	58.5		
Aug-17	34.5	28.6		
Sep-17	81.1	36.3		
Oct-17	208.9	3.2		
Nov-17	480	0		
Dec-17	755.7	0	3875.2	172.3

Summary of Degree Day Inform

Summary of All Heating Degree Days

Month	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	20 Year Trend
January	687.20	968.60	667.50	789.40	777.90	652.80	789.60	773.00	715.00	625.70	868.40	879.20	814.70	590.60	698.30	676.80	891.80	727.10	770.00	657.30	681.30	827.90	800.80	717.80	635.10	728.59
February	738.10	774.20	735.30	712.60	615.00	547.10	578.40	643.80	620.20	592.00	755.90	699.20	683.50	651.20	785.10	651.20	649.60	644.70	640.80	573.00	697.90	775.20	917.50	627.40	537.90	711.62
March	632.00	619.90	523.70	670.40	619.10	505.10	592.50	446.90	618.70	581.20	638.70	540.90	680.50	562.40	582.00	686.10	562.60	470.90	605.30	370.10	612.00	757.00	538.00	492.60	597.60	577.70
April	343.40	343.80	434.40	421.90	391.90	312.00	332.60	358.30	324.60	356.20	397.40	354.10	354.60	322.50	403.00	297.90	341.50	255.70	298.70	365.30	368.70	375.90	359.00	431.80	281.60	350.66
May	176.60	226.70	171.90	216.10	289.00	77.10	126.70	152.40	140.30	266.80	217.00	196.20	244.90	177.80	166.40	243.10	192.80	144.70	148.70	103.80	152.10	135.70	116.20	174.60	214.40	168.10
June	47.30	38.40	25.90	29.40	30.40	66.70	44.40	41.10	47.00	53.10	65.30	92.50	27.30	44.10	35.50	40.60	75.70	37.70	48.50	42.10	46.40	37.30	54.70	51.20	45.20	44.17
July	2.90	6.30	17.30	18.90	22.10	6.90	3.20	18.60	22.30	4.70	12.50	21.30	6.80	6.50	28.00	7.60	37.60	6.70	0.80	-	15.10	36.80	19.30	4.80	3.20	13.88
August	7.50	39.20	4.30	6.20	49.40	12.10	28.80	29.70	2.30	11.00	18.90	55.00	11.90	27.50	19.70	36.20	34.40	9.70	6.90	19.40	32.70	31.10	29.50	2.10	34.50	25.05
September	156.40	105.40	143.60	102.20	115.20	63.00	88.90	134.00	118.80	50.20	104.10	71.30	63.40	130.30	74.70	93.20	88.80	122.70	88.90	125.40	128.10	114.00	58.20	68.60	81.10	94.78
October	335.90	263.70	245.50	301.40	288.90	257.60	319.00	251.60	276.70	345.60	331.90	287.50	259.90	335.10	184.70	325.70	329.10	279.60	279.90	279.20	255.50	244.60	290.10	242.10	208.90	250.08
November	463.50	405.30	539.20	548.10	471.40	440.10	405.10	470.90	370.80	486.40	434.40	432.90	433.10	415.90	511.80	499.70	396.50	337.90	382.40	483.60	517.70	521.90	391.10	388.20	480.00	449.75
December	649.60	591.10	741.30	596.50	630.70	572.10	623.70	826.50	563.30	675.60	610.00	700.10	721.60	545.20	686.60	694.00	669.50	719.40	574.80	565.50	727.30	597.60	453.00	647.80	755.70	632.65
Total	4,240.40	4,382.60	4,249.90	4,413.10	4,301.00	3,512.60	3,932.90	4,146.80	3,820.00	4,048.50	4,454.50	4,330.20	4,302.20	3,809.10	4,175.80	4,252.10	4,269.90	3,756.80	3,845.70	3,584.70	4,234.80	4,455.00	4,027.40	3,849.00	3,875.20	

Summary of All Cooling Degree Days

Month	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	20 Year Trend
January	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
February	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
March	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
April	-	-	-	-	-	-	-	-	-	6.60	0.70	-	-	-	-	-	3.20	-	-	-	-	-	-	-	-	-0.02
May	1.50	6.90	1.70	10.00	-	16.80	10.50	18.70	7.70	5.30	-	6.70	-	17.70	11.20	0.70	2.30	21.00	13.20	18.20	19.60	5.70	29.80	18.40	2.70	14.64
June	26.20	61.60	70.80	38.60	50.40	63.70	76.50	35.40	62.40	54.50	25.50	16.30	104.80	32.20	51.20	53.00	26.20	26.80	21.60	61.20	31.30	44.30	15.00	34.30	43.00	28.53
July	97.10	77.70	105.90	41.90	59.80	64.80	138.90	44.80	65.70	129.00	50.10	49.30	105.40	117.20	53.80	75.80	14.50	100.60	128.20	116.40	85.90	31.50	57.70	101.20	58.50	74.36
August	93.80	27.30	101.90	55.20	21.90	83.10	30.90	46.30	94.20	72.30	72.40	30.60	67.90	45.50	65.10	29.50	57.30	79.20	54.30	58.10	42.10	24.50	47.90	105.00	28.60	49.66
September	4.00	7.50	10.80	12.60	5.40	26.00	27.70	23.80	19.20	47.00	6.00	13.70	13.70	2.30	28.00	12.00	5.50	16.70	17.20	16.40	20.50	11.40	45.30	26.60	36.30	22.61
October	1.00	-	-	-	1.60	-	-	-	-	6.30	-	-	2.60	-	10.90	-	-	-	-	-	-	-	-	1.90	3.20	1.24
November	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
December	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
Total	223.60	181.00	291.10	158.30	139.10	254.40	284.50	169.00	249.20	321.00	154.70	116.60	294.40	214.90	220.20	171.00	109.00	244.30	234.50	270.30	199.40	117.40	195.70	287.40	172.30	

APPENDIX 3-5: OEB APPENDIX 2-H OTHER REVENUE

1
2

File Number: EB-2018-0028
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Tab:
Schedule:
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Date: 27-Apr-18

Appendix 2-H
Other Operating Revenue
Energy+ Inc. (Consolidated)

USDA #	USDA Description	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	Reporting Basis	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
4235	Specific Service Charges	751,308	751,308	728,545	809,688	768,275	638,145	637,145
4225	Late Payment Charges	192,312	192,312	188,882	225,148	192,353	189,000	189,000
4082	Retail Services Revenue	34,289	34,289	30,850	32,123	28,424	32,400	31,200
4084	Service Tax Requests	747	747	586	731	342	789	660
4086	SSS Administration Revenue	149,654	149,654	181,110	185,011	191,007	185,283	189,732
4210	Rent from Electric Property	252,210	252,210	256,020	270,751	257,615	268,896	268,896
4220	Other Electric Revenues	212,645	212,645	-	-	-	-	-
4245	Government Assistance Directly Credited to Income	-	5,213	-	146,349	189,000	203,765	234,498
4305	Regulatory Details	(64,320)	(64,320)	-	-	(432,123)	(728,000)	-
4310	Regulatory Credits	(43,720)	(107,369)	(647,982)	133,064	465,924	300,000	-
4320	Expenses of Electric Plant Leased to Others	(26)	(26)	-	-	-	-	-
4325	Revenues from Merchandise, Jobbing, Etc.	36,984	36,984	26,465	23,905	24,000	23,880	23,880
4355	Gain on Disposition of Utility and Other Property	57,603	57,603	37,760	6,012	-	618,000	-
4360	Loss on Disposition of Utility and Other Property	-	(336,222)	(237,290)	(275,018)	(465,924)	(300,000)	(300,000)
4375	Revenues from Non-Utility Operations	497,153	497,153	1,678,127	698,393	630,871	626,780	617,780
4380	Expenses of Non-Utility Operations	(327,238)	(327,238)	(1,339,778)	(650,033)	(350,000)	(325,000)	(330,000)
4390	Miscellaneous Non-Operating Income	142,762	142,762	183,004	77,718	74,236	79,071	82,200
4398	Foreign Exchange Gains and Losses, Including Amortization	(17,398)	(17,398)	(2,648)	17,181	-	-	-
4405	Interest and Dividend Income	95,293	95,293	599,903	226,616	115,000	-	-
4415	Equity in Earnings of Subsidiary Companies	-	-	-	-	-	-	-
	Specific Service Charges	\$ 751,308	\$ 751,308	\$ 728,545	\$ 809,688	\$ 768,275	\$ 638,145	\$ 637,145
	Late Payment Charges	\$ 192,312	\$ 192,312	\$ 188,882	\$ 225,148	\$ 192,353	\$ 189,000	\$ 189,000
	Other Operating Revenues	\$ 649,545	\$ 654,758	\$ 468,566	\$ 634,964	\$ 666,388	\$ 691,124	\$ 724,986
	Other Income or Deductions	\$ 377,184	\$ (24,677)	\$ 197,564	\$ 357,818	\$ 61,884	\$ 298,721	\$ 103,860
	Total	\$ 1,870,360	\$ 1,573,702	\$ 1,363,557	\$ 2,227,617	\$ 1,669,000	\$ 1,815,000	\$ 1,654,991

Description: 4235 Specific Service Charges;
4225 Late Payment Charges;
4082 Other Distribution Revenues;
4084 Other Income and Expenses;
4086 4390, 4391, 4392, 4393, 4394, 4395, 4396, 4397, 4398, 4399, 4405, 4415
4310 4390, 4395, 4396, 4405, 4415
4325 4390, 4395, 4396, 4405, 4415
4355 4390, 4395, 4396, 4405, 4415
4360 4390, 4395, 4396, 4405, 4415
4375 4390, 4395, 4396, 4405, 4415
4380 4390, 4395, 4396, 4405, 4415
4390 4390, 4395, 4396, 4405, 4415
4398 4390, 4395, 4396, 4405, 4415
4405 4390, 4395, 4396, 4405, 4415
4415 4390, 4395, 4396, 4405, 4415

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

Account Breakdown Details

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

Account 4235 - Specific Service Charges

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
Reporting Basis	751,308	751,308	728,545	809,688	768,275	638,145	637,145
Change of Occupancy Charges	260,767	260,767	257,415	411,071	341,335	281,000	278,000
Document Charges	136,690	136,690	121,631	31,295	31,240	15,555	15,555
Legal Letter Revenue	899	899	765	375	435	420	360
Meter Related Charges	23,880	23,880	31,740	2,430	390	360	360
Returned Cheques Revenue	9,738	9,738	8,130	7,887	7,359	8,400	8,400
FTI/Miscellaneous Charges	5,721	5,721	-	-	-	96,410	96,410
Miscellaneous charges	44,008	44,008	33,615	79,205	110,646	-	-
Total	\$ 751,308	\$ 751,308	\$ 728,545	\$ 809,688	\$ 768,275	\$ 638,145	\$ 637,145

Other Operating Revenues

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
4082 Retail Services Revenue	34,289	34,289	30,850	32,123	28,424	32,400	31,200
4084 Service Tax Requests	747	747	586	731	342	789	660
4086 SSS Administration Revenue	149,654	149,654	181,110	185,011	191,007	185,283	189,732
4210 Rent from Electric Property	252,210	252,210	256,020	270,751	257,615	268,896	268,896
4220 Other Electric Revenues	212,645	212,645	-	-	-	-	-
4245 Government Assistance Directly Credited to Income	-	5,213	-	146,349	189,000	203,765	234,498
Total	\$ 649,545	\$ 654,758	\$ 468,566	\$ 634,964	\$ 666,388	\$ 691,124	\$ 724,986

Other Income or Deductions

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
4305 Regulatory Details	(64,320)	(64,320)	-	-	(432,123)	(728,000)	-
4310 Regulatory Credits	(43,720)	(107,369)	(647,982)	133,064	465,924	300,000	-
4320 Expenses of Electric Plant Leased to Others	(26)	(26)	-	-	-	-	-
4325 Revenues from Merchandise, Jobbing, Etc.	36,984	36,984	26,465	23,905	24,000	23,880	23,880
4355 Gain on Disposition of Utility and Other Property	57,603	57,603	37,760	6,012	-	618,000	-
4360 Loss on Disposition of Utility and Other Property	-	(336,222)	(237,290)	(275,018)	(465,924)	(300,000)	(300,000)
4375 Revenues from Non-Utility Operations	497,153	497,153	1,678,127	698,393	630,871	626,780	617,780
4380 Expenses of Non-Utility Operations	(327,238)	(327,238)	(1,339,778)	(650,033)	(350,000)	(325,000)	(330,000)
4390 Miscellaneous Non-Operating Income	142,762	142,762	183,004	77,718	74,236	79,071	82,200
4398 Foreign Exchange Gains and Losses, Including Amortization	(17,398)	(17,398)	(2,648)	17,181	-	-	-
4405 Interest and Dividend Income	95,293	95,293	599,903	226,616	115,000	-	-
Total	\$ 377,184	\$ (24,677)	\$ 197,564	\$ 357,818	\$ 61,884	\$ 298,721	\$ 103,860

Account 4210 - Rent from Electric Property

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
Reporting Basis	252,210	252,210	256,020	270,751	257,615	268,896	268,896
Prime and Ducts Rental	12,500	12,500	13,000	13,000	13,000	12,996	12,996
Rental Income	252,210	252,210	256,020	270,751	257,615	268,896	268,896
Total	\$ 252,210	\$ 252,210	\$ 256,020	\$ 270,751	\$ 257,615	\$ 268,896	\$ 268,896

Account 4375 - Revenues from Non-Utility Operations

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
Reporting Basis	497,153	497,153	1,678,127	698,393	630,871	626,780	617,780
Stratification Service Billings	497,153	497,153	1,678,127	698,393	630,871	626,780	617,780
Water and Sewer Billing Admin Fees	-	-	226,492	247,789	276,000	278,400	283,200
CDM Program Revenue	3,227	3,227	1,033,145	171,822	-	-	-
Connection Impact Assessment	24,720	24,720	-	-	-	20,800	2,000
Miscellaneous	31,255	31,255	38,478	16,296	4,871	2,580	2,580
Total	\$ 497,153	\$ 497,153	\$ 1,678,127	\$ 698,393	\$ 630,871	\$ 626,780	\$ 617,780

Account 4380 - Expenses from Non-Utility Operations

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
Reporting Basis	(327,238)	(327,238)	(1,339,778)	(650,033)	(350,000)	(325,000)	(330,000)
Stratification Service Billings	(497,153)	(497,153)	(1,678,127)	(698,393)	(630,871)	(626,780)	(617,780)
Water and Sewer Billing Admin Fees	-	-	226,492	247,789	276,000	278,400	283,200
CDM Program Revenue and Expenses	110,713	110,713	(733,145)	-	-	-	-
Miscellaneous	(24,720)	(24,720)	-	-	-	20,800	2,000
Total	\$ (327,238)	\$ (327,238)	\$ (1,339,778)	\$ (650,033)	\$ (350,000)	\$ (325,000)	\$ (330,000)

Account 4390 - Miscellaneous Non-Operating Income

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
Reporting Basis	142,762	142,762	183,004	77,718	74,236	79,071	82,200
Discounts Taken	21,280	21,280	55,127	14,867	13,236	9,600	10,200
Rate of Scrap Material	65,000	65,000	84,086	62,330	60,000	66,800	70,000
Other	66,482	66,482	43,791	321	1,000	2,671	2,000
Total	\$ 142,762	\$ 142,762	\$ 183,004	\$ 77,718	\$ 74,236	\$ 79,071	\$ 82,200

Account 4405 - Interest and Dividend Income

	2014 Actual ¹ 2014	2014 Actual ¹ 2014	2015 Actual ¹ 2015	2016 Actual ¹ 2016	2017 Forecast 2017	Bridge Year 2018	Test Year 2019
	CGAAP	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS	MFIRS
Reporting Basis	95,293	95,293	599,903	226,616	115,000	-	-
Investment Income	137,303	137,303	135,614	97,374	115,000	-	-
Intercompany Interest (Loan to former Brant County Power Inc.)	-	-	386,351	-	-	-	-
CEB Carrying Charges CR	43,179	43,179	69,119	129,842	-	-	-
CEB Carrying Charges DR	(43,179)	(43,179)	-	-	-	-	-
Miscellaneous	(11,168)	(11,168)	5,815	-	-	-	-
Total	\$ 95,293	\$ 95,293	\$ 599,903	\$ 226,616	\$ 115,000	\$ -	\$ -

Notes:

- List and specify any other interest revenue.
- In the transition year to IFRS, the applicant is to present information in both MFIRS and CGAAP. For the typical applicant that adopted IFRS on January 1, 2015, 2014 must be presented in both a CGAAP and MFIRS basis.