

Centre Wellington Hydro Ltd.
EB-2017-0032
Response to OEB Staff, VECC & SEC Interrogatories

Contents

Exhibit 3	2
3-Staff-40	2
3-Staff-41	4
3-Staff-42	5
3-Staff-43	7
3-Staff-44	8
3-Staff-45	12
3-Staff-46	14
3-Staff-47	15
3-Staff-48	16
3-Staff-49	17
3-Staff-50	19
3-Staff-51	20
3.0 –VECC -9.....	22
3.0 –VECC -10.....	23
3.0 –VECC -11.....	24
3.0 –VECC -12.....	25
3.0 –VECC -13.....	28
3.0 –VECC -14.....	29
3.0 –VECC -15.....	30
3.0 –VECC -16.....	31
3.0 –VECC -17.....	32
3-SEC-14.....	33
3-SEC-15.....	34

Exhibit 3

3-Staff-40

Ref: Exhibit 3, pages 21 and 22 of 78

Preamble:

Centre Wellington Hydro has noted that during the process of testing the regression analysis, many different variables and time periods are tested to arrive to, what the utility seems as the best R-squared. Centre Wellington Hydro's rationale behind selecting or dropping certain variables involved a "no worst" rationale.

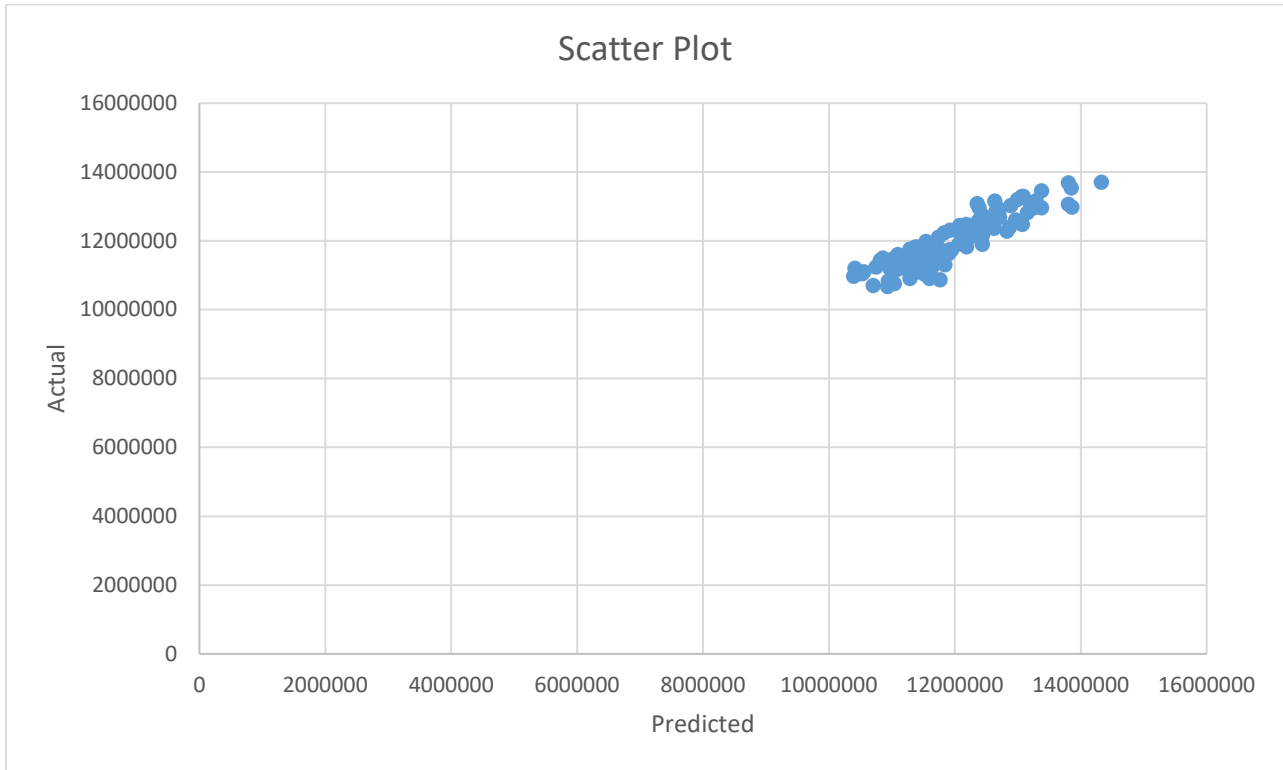
Question(s):

- a) What other independent variables were considered in the regression analysis and why were they dropped?
- b) Please explain why customer count and/or number of holidays in a month were not included in the model.
- c) The variable "Employment Stats" has a high P value suggesting that changes in prediction are not associated with changes in the response. Why was "Employment Stats" included in the regression equation considering the high P value and the associated low R squared?
- d) Please provide the residual plot for the regression model provided in the pre-filed evidence.

Response(s):

- a) As part of its exercise to arrive to the best possible R-Square, the utility goes through the process of trying many different variables for example Customer count, CPI & Employment variables, wind, rain, temperature to name a few.
- b) As explained at Exhibit 3, pages 21 and 22, the utility picks and chooses the best possible variables and discards variables that did not produce favorable results. If the number of holidays or number of customers were not included in the final regression analysis, it is because they did not improve results.
- c) The inclusion of "Employment Stat" as a variable did not worsen the results, nor did it produce counter-intuitive results therefore in accordance with the statement at Exhibit 3, pages 21 and 22, the utility opted to keep the variable.

d) The only information available at this time is a Scatter plot. See table below.



3-Staff-41

Ref: Exhibit 3, pages 17-19 of 78

Preamble:

Centre Wellington Hydro has used data for the period 2008 to 2016 in the regression analysis. The regression result has been used to prepare the load forecast.

Question(s):

- a) Please confirm whether Centre Wellington Hydro tested the accuracy of its forecast and if yes, please explain how the accuracy was tested.
- b) Please use the same independent variables as that in the evidence for the years 2006 to 2014 and prepare a load forecast for 2015 and 2016. Please compare the forecasted consumption with the actuals for 2015 and 2016.

Response(s):

- a) The load forecasting information filed in its application is accurate to the best of the utility's knowledge. CWH also notes that it used the OEB approved method of determining its Load Forecast and has followed the Chapter 3 Filing Requirements in filing its Load Forecast study.
- b) This specific request is time consuming and produces results that go against the OEB's policies which dictate that the regression should be run on a 10-year average. For this reason, the information requested will not be submitted.

3-Staff-42

Ref: Exhibit 3, page 22 of 78

Preamble:

Centre Wellington Hydro has provided the regression results used to determine the load forecast. Please re-run the regression results using the following independent variables.

Question(s):

- The variables included in the evidence with the exception of “Employment Stats”.
- The variable included in the evidence excluding “Employment Stats” and including customer count and number of holidays in a month.
- The variable included in the evidence excluding “Employment Stats” and including customer count.
- The variable included in the evidence excluding “Employment Stats” and including number of holidays in a month.
- If any of the results under the above scenarios show an improved R squared compared to that provided in the evidence, please provide a revised load forecast on that basis.
- Please provide the output and model in Excel and PDF formats.

Response(s):

- The variables included in the evidence with the exception of “Employment Stats”.

Equation Parameters		80.36% of the change in WS can be explained by the change in the 4 independent variables to +/- on result of Regression Equation Therefore analysis IS Significant			95% Confidence/Autocorrelation			
R Squared	0.8109				1.682	Durbin-Watson Statistic		
Adjusted R Squared	0.8036				1.62 - 1.74	Positive autocorrelation maybe present		
Standard Error	381079.0938				2.457	Critical F-Statistic - 95% Confidence		
F - Statistic	110.4291				86.12%	Confidence to which analysis holds		

Multiple Regression Equation					Independent Analysis			Auto Correlation	Multicollinearity	
	Coefficients	Standard Error	t Stat	p Value	R Squared	Coefficient	Intercept	DI=1.66 Du=1.70	Adjusted R-Squared against other Indep	Variables With RSQ at > 90%
Intercept	4,921,386.956	1,576,422.395	3.122	0.23%						
HDD	3,258.037	252.471	12.905	0.00%	46.66%	2159.46	11229064.00	0.34	70.39%	
CDD	20,948.736	1,713.290	12.227	0.00%	0.19%	-1272.87	11983291.00	0.87	45.76%	
Number of Days in Month	212,372.031	47,983.545	4.426	0.00%	1.15%	115227.06	8453274.00	2.99	5.50%	
Daylight hours	-74,531.501	28,225.979	-2.641	0.96%	32.30%	-205233.73	14418459.00	0.28	69.08%	

- The variable included in the evidence excluding “Employment Stats” and including customer count and number of holidays in a month.

Equation Parameters		95% Confidence/Autocorrelation	
R Squared	0.8344	1.528	Durbin-Watson Statistic
Adjusted R Squared	0.8245	1.58 - 1.78	Positive autocorrelation detected
Standard Error	360169.8750	2.184	Critical F-Statistic - 95% Confidence
F - Statistic	84.7996	91.86%	Confidence to which analysis holds

82.45% of the change in WS can be explained by the change in the 6 independent variables to +/- on result of Regression Equation Therefore analysis IS Significant

Multiple Regression Equation					Independent Analysis			Auto Correlation	Multicollinearity	
	Coefficients	Standard Error	t Stat	p Value	R Squared	Coefficient	Intercept	DI=1.66 Du=1.70 DW-Stat	Adjusted R-Squared against other Indep	Variables With RSQ at > 90%
Intercept	3,525,118.277	1,989,090.520	1.772	7.94%						
HDD	3,320.008	239.407	13.868	0.00%	46.66%	2159.46	11229064.00	0.34	70.01%	
CDD	20,968.437	1,620.733	12.938	0.00%	0.19%	-1272.87	11983291.00	0.87	44.80%	
Number of Days in Month	228,667.390	45,561.650	5.019	0.00%	1.15%	115227.06	8453274.00	2.99	4.53%	
Daylight hours	-76,473.320	26,780.167	-2.856	0.52%	32.30%	-205233.73	14418459.00	0.28	68.72%	
Cust Count	165.974	195.401	0.849	39.77%	0.16%	189.60	10718278.00	0.09	-4.11%	
Holidays in month	-202,968.870	54,934.318	-3.695	0.04%	0.07%	-35686.03	11994010.00	2.83	-1.91%	

c) The variable included in the evidence excluding "Employment Stats" and including customer count.

Equation Parameters		95% Confidence/Autocorrelation	
R Squared	0.8120	1.703	Durbin-Watson Statistic
Adjusted R Squared	0.8028	1.60 - 1.76	No autocorrelation detected
Standard Error	381853.4063	2.299	Critical F-Statistic - 95% Confidence
F - Statistic	88.1019	89.62%	Confidence to which analysis holds

80.28% of the change in WS can be explained by the change in the 5 independent variables to +/- on result of Regression Equation Therefore analysis IS Significant

Multiple Regression Equation					Independent Analysis			Auto Correlation	Multicollinearity	
	Coefficients	Standard Error	t Stat	p Value	R Squared	Coefficient	Intercept	DI=1.66 Du=1.70 DW-Stat	Adjusted R-Squared against other Indep	Variables With RSQ at > 90%
Intercept	3,857,358.743	2,106,684.755	1.831	7.00%						
HDD	3,269.102	253.399	12.901	0.00%	46.66%	2159.46	11229064.00	0.34	70.20%	
CDD	20,895.647	1,718.180	12.162	0.00%	0.19%	-1272.87	11983291.00	0.87	45.33%	
Number of Days in Month	212,500.082	48,081.333	4.420	0.00%	1.15%	115227.06	8453274.00	2.99	4.58%	
Daylight hours	-72,811.163	28,372.975	-2.566	1.17%	32.30%	-205233.73	14418459.00	0.28	68.98%	
Cust Count	158.131	207.152	0.763	44.70%	0.16%	189.60	10718278.00	0.09	-3.11%	

d) The variable included in the evidence excluding "Employment Stats" and including number of holidays in a month.

Equation Parameters		95% Confidence/Autocorrelation	
R Squared	0.8332	1.505	Durbin-Watson Statistic
Adjusted R Squared	0.8250	1.60 - 1.76	Positive autocorrelation detected
Standard Error	359677.8125	2.299	Critical F-Statistic - 95% Confidence
F - Statistic	101.8935	89.62%	Confidence to which analysis holds

82.50% of the change in WS can be explained by the change in the 5 independent variables to +/- on result of Regression Equation Therefore analysis IS Significant

Multiple Regression Equation					Independent Analysis			Auto Correlation	Multicollinearity	
	Coefficients	Standard Error	t Stat	p Value	R Squared	Coefficient	Intercept	DI=1.66 Du=1.70 DW-Stat	Adjusted R-Squared against other Indep	Variables With RSQ at > 90%
Intercept	4,642,516.336	1,489,806.940	3.116	0.24%						
HDD	3,308.269	238.681	13.861	0.00%	46.66%	2159.46	11229064.00	0.34	70.20%	
CDD	21,023.971	1,617.201	13.000	0.00%	0.19%	-1272.87	11983291.00	0.87	45.24%	
Number of Days in Month	228,492.628	45,498.939	5.022	0.00%	1.15%	115227.06	8453274.00	2.99	5.46%	
Daylight hours	-78,269.622	26,660.063	-2.936	0.41%	32.30%	-205233.73	14418459.00	0.28	68.83%	
Holidays in month	-202,461.982	54,856.029	-3.691	0.04%	0.07%	-35686.03	11994010.00	2.83	-0.93%	

e) CWH will not update its Load Forecast based on the above results even if the R-Square is improved. The reason being that even if the R-Square is higher, in many of the cases, the coefficient show counter-intuitive results which indicate that the variable suggested should be removed. CWH maintains that its proposed results are statistically better than the ones suggested by Board Staff and therefore, proposes to keep the R-Square as presented in its May 1 application.

f) N/A

3-Staff-43

Ref: Exhibit 3, page 23 of 78

Preamble:

Table 7 in the evidence shows wholesale versus adjusted purchases.

Question(s):

- a) Please identify what known changes in load were removed to arrive at adjusted purchases.

Response(s):

The loads for Zehrs (Loblaws) up to August 16, 2012 and GSW were removed to arrive at the adjusted purchases. Zehrs (Loblaws) became a Wholesale Market Participant on August 16, 2012 and its consumption is therefore no longer included in Centre Wellington Hydro's load. It is for this reason that CWH removed its load prior to August 16, 2012. GSW was a manufacturer of hot water heaters. On July 1, 2013 its business was altered to become a warehousing and storage facility only. GSW's previous load has been removed due to the significant change in load after its reorganization.

3-Staff-44

Ref: Exhibit 3, page 20 of 78

Preamble:

Centre Wellington Hydro has noted that using a combination of wholesale purchases and the selected independent variables, a multiple regression analysis was used to develop an equation describing the relationship between monthly actual wholesale kWh and the explanatory variables.

Question(s):

- a) Please update the load forecast to include the most recent data (e.g. up to July 31, 2017 or August 31, 2017) and indicate how the load and customer forecast for 2017 and 2018 may be affected.
- b) If Centre Wellington Hydro has prepared a revised load forecast as per IR 3-Staff-42, please indicate how the load and customer forecast for 2017 and 2018 will be impacted using the most recent data of wholesale purchases.

Response(s):

- a) This specific request is time consuming for this reason, the information requested will not be submitted in the manner asked for however, CWH has provided January to September data in the table below.

Wholesale				
		Wholesale Purchases	Adj (GSW)	Revised Wholesale
Year	Month			
2017	January	13,082,822.82	114,306.75	12,968,516.07
2017	February	11,560,671.07	104,368.20	11,456,302.87
2017	March	12,599,028.16	118,876.95	12,480,151.21
2017	April	10,686,576.44	96,659.55	10,589,916.89
2017	May	10,849,456.96	98,436.90	10,751,020.06
2017	June	11,503,746.84	97,231.50	11,406,515.34
2017	July	11,942,579.01	93,745.80	11,848,833.21
2017	August	11,511,480.56	95,805.00	11,415,675.56
2017	September	11,436,017.42	91,360.80	11,344,656.62
2017	October			
2017	November			
2017	December			

Retail		Residential	
		kWh	Number of Customer/ Connection
Year	Month		
2017	January	4214761	6008
2017	February	3563378	6011
2017	March	3835568	6022
2017	April	3132698	6025
2017	May	3102940	6031
2017	June	3337082	6032
2017	July	3771584	6061
2017	August	3526131	6070
2017	September	3415564	6079
2017	October		
2017	November		
2017	December		

Retail		General Service < 50 kW	
		kWh	Number of Customer/ Connection
Year	Month		
2017	January	2114903	743
2017	February	1872669	744
2017	March	2077207	747
2017	April	1732140	749
2017	May	1808141	747
2017	June	1868525	749
2017	July	1979528	749
2017	August	1936000	748
2017	September	1861325	750
2017	October		
2017	November		
2017	December		

Retail		General Service > 50 to 4999 kW		
		kWh	kW	Number of Customer/ Connection
Year	Month			
2017	January	4357308	11301	49
2017	February	3922709	11238	48
2017	March	4398492	11056	48
2017	April	3809013	11784	48
2017	May	4106239	12106	48
2017	June	4209938	12350	48
2017	July	4009827	11833	48
2017	August	4231349	12247	48
2017	September	4104931	12475	48
2017	October			
2017	November			
2017	December			

Retail		Unmetered Scattered Load	
		kWh	Number of Customer/ Connection
Year	Month		
2017	January	48234	13
2017	February	46843	13
2017	March	46843	13
2017	April	46843	13
2017	May	46843	13
2017	June	46843	13
2017	July	46843	13
2017	August	46843	13
2017	September	46843	13
2017	October		
2017	November		
2017	December		

Retail		Street Lighting		
		kWh	kW	Customer/ Connection
Year	Month			
2017	January	60245	130	1704
2017	February	54415	130	1704
2017	March	60245	130	1723
2017	April	40837	127	1723
2017	May	41774	117	1723
2017	June	40427	117	1704
2017	July	32107	117	1704
2017	August	31785	117	1704
2017	September	30536	117	1693
2017	October			
2017	November			
2017	December			

Retail		Sentinel Lighting		
		kWh	kW	Number of Customer/ Connection
Year	Month			
2017	January	3153	9	27
2017	February	2796	8	27
2017	March	3091	9	27
2017	April	2993	8	27
2017	May	3091	9	27
2017	June	2993	8	27
2017	July	3091	9	27
2017	August	3091	9	27
2017	September	2993	8	27
2017	October			
2017	November			
2017	December			

b) N/A

3-Staff-45

Ref: Exhibit 3, page 40 of 78

Preamble:

Centre Wellington Hydro has provided the 2015-2020 LRAMVA and 2015 adjustment to load forecast.

Question(s):

- a) Please confirm that the data on page 40 of the evidence has been used to calculate the CDM adjustments to load forecast for 2017 and 2018.
- b) Please provide the revised CDM adjustments to load forecast for 2017 and 2018 using the actual CDM results for 2016 if available from the IESO.

Response(s):

- a) Confirmed Load Forecast has been revised to reflect the 2016 verified results from the IESO.
- b) Please find table below.

2015-2020 CDM Program - 2015, first year of the current CDM plan							
6 Year (2015-2020) kWh Target:							
8,730,000							
	2015	2016	2017	2018	2019	2020	Total
%							
2015 CDM Programs	19.71%	19.27%	19.13%	19.12%	18.24%	18.11%	113.58%
2016 CDM Programs		18.00%	17.79%	17.79%	17.79%	17.74%	89.11%
2017 CDM Programs			16.04%	16.04%	16.04%	16.04%	64.15%
2018 CDM Programs				16.04%	16.04%	16.04%	48.11%
2019 CDM Programs					16.04%	16.04%	32.07%
2020 CDM Programs						16.04%	16.04%
Total in Year	19.71%	37.27%	52.96%	68.98%	84.14%	100.00%	363.06%
kWh							
2015 CDM Programs	1,720,706.00	1,681,875.00	1,670,334.00	1,669,417.00	1,592,423.00	1,581,028.00	1,581,028.00
2016 CDM Programs		1,571,493.00	1,552,888.00	1,552,888.00	1,552,888.00	1,548,974.00	1,548,974.00
2017 CDM Programs			1,399,999.50	1,399,999.50	1,399,999.50	1,399,999.50	1,399,999.50
2018 CDM Programs				1,399,999.50	1,399,999.50	1,399,999.50	1,399,999.50
2019 CDM Programs					1,399,999.50	1,399,999.50	1,399,999.50
2020 CDM Programs						1,399,999.50	1,399,999.50
Total in Year	1,720,706.00	3,253,368.00	4,623,221.50	6,022,304.00	7,345,309.50	8,730,000.00	8,730,000.00

Weight Factor for Inclusion in CDM Adjustment to 2014 Load Forecast

	2011	2012	2013	2014	2015	2016	2017	2018	
Weight Factor for each year's CDM program impact on 2014 load forecast <i>Default Value selection rationale.</i>	0	0	0	0	0.5	0.5	1	0.5	Distributor can select "0", "0.5", or "1" from drop-down list

2011-2014 and 2015-2020 LRAMVA and 2015 CDM adjustment to Load Forecast

	2011	2012	2013	2014	2015	2016	2017	2018	Total for 2018
kWh									
Amount used for CDM threshold for LRAMVA (2014)	-	-							-
2011 CDM adjustment (per Board Decision in 2011 Cost of Service Application)	-	-	-	-					
Amount used for CDM threshold for LRAMVA					1,720,706.00	1,571,493.00	1,399,999.50	1,399,999.50	6,092,198.00
Manual Adjustment for 2018 Load Forecast (billed basis)	-				860,353.00	785,746.50	1,399,999.50	699,999.75	3,746,098.75

3-Staff-46

Ref: Exhibit 3, pages 49 and 50 of 78

Preamble:

Centre Wellington Hydro has used a simple 9-year (2008-2016) geometric mean function to determine the forecasted number of customers for 2017 and 2018. For the GS>3,000-4,999 kW customer class, the decrease in customer count from 2016 to 2017 is 2 and the decrease from 2017 to 2018 is 1. Centre Wellington Hydro has further indicated that in 2015, one large customer underwent a major plant expansion because of shutting down one location, outside of Centre Wellington Hydro's service area, and combining the two facilities.

Question(s):

- a) Please confirm that the single location described above is in the service territory of Centre Wellington Hydro.
- b) Did Centre Wellington Hydro consider the increased consumption of this customer as a result of the combined facility in its load forecast?

Response(s):

- a) Confirmed that the single location described above is in the service territory of CWH.
- b) The above customer moved its storage facility from a location outside the territory of CWH. The addition of the storage facility is not expected to significantly impact the consumption of this customer. This customer's consumption is included in the Load forecast.

3-Staff-47

Ref: Exhibit 3, page 55 of 78

Preamble:

Centre Wellington Hydro has provided Table 35(b) which shows the variances from year to year in the number of customers between actuals/forecast and 2013 OEB approved.

Question(s):

- a) Please update the table using 2015 and 2016 actuals if actual numbers have not been used.

Response(s):

- a) CWH confirms that it has used actuals for 2015-2016.

3-Staff-48

Ref: Exhibit 3

Preamble:

It is unclear how Centre Wellington Hydro has accounted for the impact of historic CDM on its 2018 load forecast.

Question(s):

- a) How has Centre Wellington Hydro incorporated the effects of CDM program delivery over 2008-2016 period in its 2018 load forecast?
- b) What was the impact on Centre Wellington Hydro's sales of the CDM Programs implemented over the period 2008-2016? Please provide the impacts for each year 2008-2016 from programs implemented in that year as well as persisting impacts in that year from programs implemented in previous years, indicating the references for the values reported. For years 2017-2018, please provide the persisting impacts on sales that year of programs implemented

Response(s):

- a) The adjustment to the Load Forecast is determined by OEB's Appendix 2-I. CWH used the 2015 verified results to populate the tables and the OEB's calculations determine what the CDM adjustment for the Test Year will be.
- a) CWH is not clear what is meant by "sales of CDM programs" however CWH notes that the IESO verified results for 2015 were filed as part of the May 1 application and the 2016 IESO verified results are filed along with these responses. Furthermore, CWH notes that years prior to 2015 were all previously disposed of.

3-Staff-49

Ref: Exhibit 3, page 76, 77

Exhibit 8, page 25

**Centre Wellington_2018 Cost Allocation Model_CoS APPL_20170626, Tab
“O3.6 MicroFIT Charge”**

Preamble:

As per Exhibit 3, page 76 & 77 Centre Wellington Hydro stated that it:

- Is requesting an increase in MicroFit monthly service charge from \$5.40 to \$10.00 per month to cover the cost of the 3rd party meter reading and import to our CIS system. This increase in revenue will equal approximately \$2,200.”
- Incurs a \$10.00 monthly fee per microFIT meter point from CWH's vendor, Utilismart, and would like to pass this charge onto its microFIT customers. This increase in the customer charge from \$5.40 to \$10.00 was also agreed to in St. Thomas Energy Inc. (EB-2014- 0113) Cost of Service Application.

As per Exhibit 8, page 25, Centre Wellington Hydro also stated that

- This increase to \$10.00 is also consistent with Wasaga Distribution in case EB-2015-0107.
- It proposes to change its microFIT rate class to include Net Metering Accounts.

OEB staff notes that Centre Wellington Hydro's cost allocation model calculates a monthly unit cost for microFIT of \$6.01, as per the model “Centre Wellington_2018 Cost Allocation Model_CoS APPL_20170626, Tab “O3.6 MicroFIT Charge.”

OEB staff notes that Centre Wellington Hydro appears to not have included the Net Metering to the microFIT rate class, as per its tariff sheet. Also it appears that Centre Wellington has not made changes to the class description, which is standard for most distributors.

Question(s):

- a) Please describe the conditions that would warrant changing the rate class of Net Metering customers at this time.

- b) Please state if the tariff sheet should be changed to reflect the changes to the microFIT rate class to include Net Metering customers.
- c) Please provide a breakdown of the monthly unit cost of Net Metering customers, similar to Sheet O3.6 of the cost allocation model for the microFIT rate class.
- d) Please confirm that the impact of increasing the microFIT charge from \$5.40 to \$10.00 is projected to be \$2,200 per year. If this is not the case, please explain.
- e) If the impact of increasing the microFIT charge from \$5.40 to \$10.00 is greater than \$50,000, please answer the following questions:
 - i. Please estimate the dollar impact of this increase on the 2018 Test Year in Appendix 2-H. Please also indicate which USoA account number in Appendix 2-H would be impacted by this increase.
 - ii. Please describe the conditions that are similar in Centre Wellington Hydro's territory to St. Thomas Energy Inc.'s and Wasaga Distribution's territory that would warrant consideration by the OEB of a similar rate for microFIT service for these two distributors.
 - iii. Please explain why a monthly microFIT rate of \$10.00 is appropriate, when Centre Wellington Hydro's monthly cost for this service is \$6.01.

Response(s):

- a) CWH is not proposing to change net metering customers from their current class.
- b) No, the tariff sheet should not be changed to include Net Metering customers in the MircoFIT rate class.
- c) At the time of the COS application, CWH had no net metering customers.
- d) CWH confirms that the difference in revenue is \$2,200.
- e) NA

3-Staff-50

Ref: Exhibit 3, page 77

Exhibit 8, page 25

Preamble:

As per Exhibit 3, page 77, and Exhibit 8, page 25, Centre Wellington Hydro is requesting to implement the market rate for access to the power poles, once the OEB working group has come up with an updated standard rate for all distributors.

Question(s):

- a) Please confirm that Centre Wellington Hydro will wait for the outcome of the Pole Attachment Working Group (“PAWG”) EB-2015-0304 and the associated methodology to determine a new pole attachment rate, rather than a new pole attachment rate being decided in this proceeding.
- b) Please indicate if the impact on Centre Wellington Hydro’s Appendix 2-H, Other Revenue, would be material for the test year, as a result of updating the market rate. If so, please estimate the dollar impact of this increase on the 2018 Test Year in Appendix 2-H. Please also indicate which USoA account number in Appendix 2-H would be impacted by this increase.

Response(s):

- a) Confirmed.
- b) CWH cannot predict the impact until the OEB has determined a standard rate for all distributors.

3-Staff-51

Ref: Exhibit 3, Table 46: Appendix 2-H
Excel version of Appendix 2-H

Preamble:

As per the Accounting Procedures Handbook, Article 220, page 102, Account 2440 Deferred Revenues, this account is to include amounts relating to capital contributions. Amounts recognized in this account should be amortized to income over the useful life of the related property, plant and equipment by debiting this account and crediting Account 4245, Government and Other Assistance Directly Credited to Income. Upon OEB staff's review of Appendix 2-H, it appears that a balance related to Account 4245 is not included in this appendix.

OEB staff also notes that the total Other Revenue included in the 2018 Test Year Revenue Requirement is Exhibit 3, Table 46: Appendix 2-H is (\$3,613,300). However the Excel version of Appendix 2-H included in the Chapter 2 Appendices is (\$292,400). OEB staff notes that one of the differences between the two versions of Appendix 2-H is that one version (PDF Appendix 2-H) includes an Account 4080, Distribution Services Revenue, balance of (\$3,326,100) and the other version (Excel Appendix 2-H) does not include this account.

Question(s):

- a) Please state where the amortization of capital contributions is reflected in Centre Wellington Hydro's 2018 Test Year revenue requirement.
- b) Please state why no balance in Account 4245 is included in Appendix 2-H.
- c) Please update Appendix 2-H to include a balance in Account 4245.
- d) Please update the evidence to ensure that consistent amounts are recorded in both Exhibit 3, Table 46: Appendix 2-H and the Excel version of Appendix 2-H included in the Chapter 2 Appendices.

Response(s):

- a) CWH records Contributed Capital in USoA Account 1995. The amortization expense for the Contributed Capital Assets are recorded in a sub account of 5705.

- b) There is no amount in 4245 as CWH has continued to record Capital contributions to account 1995-Contributions and Grants-Credit. The entry that CWH has made on receipt of Capital Contribution is DR Assets (1609-1990) and CR 1995-Contributions and Grants-Credit. Amortization of the Capital Contribution was to DR 2105-Accumulated Depreciation of Electric Utility Plant-Property, Plant and Equipment and CR 5705-Depreciation Expense-Property, Plant & Equipment.

- c) Appendix 2-H will not be updated as Account 4245 had a balance of “zero” for historical year and “zero” projections of 2017 and 2018.

- d) No update is required.

3.0 –VECC -9

Reference: Exhibit 3, page 15, Table 3

- a) Please confirm that the monthly wholesale purchases set out in Table 3 include purchases from embedded generation as well as Hydro One and the IESO.
- b) Please explain why CWHI used only 9 years of wholesale purchase data. Why wasn't data from earlier years also included?

Response(s):

- a) It is confirmed that the monthly wholesale purchases set out in Table 3 include purchases from embedded generation as well as Hydro One and the IESO.
- b) The information for 2007 was found to be unstable causing the R-Square to be unusually low. Therefore, the utility opted to drop it from the study.

3.0 –VECC -10

Reference: Exhibit 3, page 21

- a) The Application states that “during the process of testing the regression analysis, many different variables and times periods are tested to arrive at the best R-Squared”. Please indicate what other variables were tested over and above those ultimately used for the model.

Response(s):

- a) Please see CWH’s response to 3-Staff-40

3.0 –VECC -11

Reference: Exhibit 3, pages 23-24
Load Forecast Model, Input Tab

- a) The Application suggests (page 23, lines 7-8) that the wholesale purchases were adjusted after the regression model was estimated. However, the Load Forecast Model appears to have used the Adjusted Wholesale Purchase values to estimate the regression equation. Please confirm whether the regression equation was estimated using the Actual or the Adjusted Wholesale Purchase values.
- b) There does not appear to be any explanation provided as to why the wholesale purchases were “adjusted”. Please explain.
- c) If the model was estimated using the Adjusted Wholesale purchase values, please re-do Table 8 such that it compares the Adjusted Wholesale values to the Predicted values.

Response(s):

- a) CWH confirms that the regression equation was estimated using the Adjusted Wholesale Purchase values.
- b) Please see CWH’s response to 3-Staff-43.
- c) See table below.

Year	kWh Purchased	year over year	Adjusted	year over year	Purch. VS Adj.
2008	161,716,845		147,644,590		-8.70%
2009	154,290,359	-4.59%	139,894,246	-5.25%	-9.33%
2010	155,932,074	1.06%	141,140,528	0.89%	-9.49%
2011	154,214,656	-1.10%	140,278,908	-0.61%	-9.04%
2012	156,500,644	1.48%	143,716,823	2.45%	-8.17%
2013	154,795,354	-1.09%	146,666,558	2.05%	-5.25%
2014	148,717,979	-3.93%	145,618,385	-0.71%	-2.08%
2015	144,221,924	-3.02%	142,900,770	-1.87%	-0.92%
2016	145,136,098	0.63%	143,959,401	0.74%	-0.81%

3.0 –VECC -12

Reference: Exhibit 3, pages 20
Load Forecast Excel Model, Forecast Tab

- a) The Application states that “To project the adjusted wholesale purchases for the bridge and test year, the model uses, for the most part, a simple average of the last ten years of historical data. CWH has applied this method of prediction to all variables”. However, in the Load Forecast model the HDD and CDD value used for 2018 appear not be based on the average for the years 2008-2016 as the Application states (page 15), but rather on an average of the values for 2009-2017 plus the 9 year (2008-2016) average. Please explain why.
- b) Please re-do the wholesale power purchase forecast for 2018 using the average of the HDD and CDD values for the 2007-2016 period.
- c) The 2018 employment values used in the model are “hard coded” such that it is not clear how they were determined. Please explain how the values were calculated and why the approach used is appropriate.
- d) Is CWHI aware of any independent forecasts that are prepared for employment in the Kitchener-Waterloo region? If so, please provide.

Response(s):

- a) Correct. The utility uses a 10-year historical average counting backwards from the year in question. Therefore, for 2018, CWH used 2008-2017. Using 2007-2016 would yield the same results as 2017 which in CWHs view would be incorrect as the forecast for 2018 should reflect the exponential trend.
- b) As filed.

	Predicted	HDD	CDD	Days/mon	Employ	Daylight hours
2017-January	13428476.27	759.42	0.00	31.00	718.96	9.09
2017-February	12592203.56	697.98	0.00	28.33	719.73	10.19
2017-March	12632009.81	566.49	0.00	31.00	720.50	11.51
2017-April	11604180.04	353.37	0.36	30.00	721.27	13.28
2017-May	11389899.88	161.66	14.69	31.00	722.05	14.52
2017-June	11151152.65	48.12	34.37	30.00	722.82	15.35
2017-July	12246917.85	15.91	82.11	31.00	723.59	15.15
2017-August	11818666.95	21.14	56.72	31.00	724.36	14.03
2017-September	11211044.51	100.14	18.88	30.00	725.14	12.29
2017-October	11756522.71	279.69	0.21	31.00	725.91	10.51
2017-November	12152897.16	438.30	0.00	30.00	726.68	9.28
2017-December	13048070.36	626.77	0.00	31.00	727.45	8.47
2018-January	13484534.23	768.60	0.00	31.00	728.23	9.09

2018-February	12619328.41	703.18	0.00	28.26	729.00	10.19
2018-March	12612938.33	553.20	0.00	31.00	729.77	11.51
2018-April	11650958.71	359.53	0.40	30.00	730.54	13.28
2018-May	11416834.96	152.61	16.24	31.00	731.32	14.52
2018-June	11136916.25	48.96	32.30	30.00	732.09	15.35
2018-July	12289728.43	16.83	82.81	31.00	732.86	15.15
2018-August	11900374.08	19.47	59.75	31.00	733.63	14.03
2018-September	11254636.68	100.92	19.64	30.00	734.41	12.29
2018-October	11765273.85	274.58	0.23	31.00	735.18	10.51
2018-November	12155451.03	431.48	0.00	30.00	735.95	9.28
2018-December	13048457.80	619.30	0.00	31.00	736.73	8.47

As requested

	Predicted	HDD	CDD	Days/mon	Employ	Daylight hours
2017-January	13428476.27	759.42	0.00	31.00	718.96	9.09
2017-February	12592203.56	697.98	0.00	28.33	719.73	10.19
2017-March	12632009.81	566.49	0.00	31.00	720.50	11.51
2017-April	11604180.04	353.37	0.36	30.00	721.27	13.28
2017-May	11389899.88	161.66	14.69	31.00	722.05	14.52
2017-June	11151152.65	48.12	34.37	30.00	722.82	15.35
2017-July	12246917.85	15.91	82.11	31.00	723.59	15.15
2017-August	11818666.95	21.14	56.72	31.00	724.36	14.03
2017-September	11211044.51	100.14	18.88	30.00	725.14	12.29
2017-October	11756522.71	279.69	0.21	31.00	725.91	10.51
2017-November	12152897.16	438.30	0.00	30.00	726.68	9.28
2017-December	13048070.36	626.77	0.00	31.00	727.45	8.47
2018-January	13453840.17	759.42	0.00	31.00	728.23	9.09
2018-February	12601950.53	697.98	0.00	28.26	729.00	10.19
2018-March	12657373.71	566.49	0.00	31.00	729.77	11.51
2018-April	11629543.95	353.37	0.36	30.00	730.54	13.28
2018-May	11415263.78	161.66	14.69	31.00	731.32	14.52
2018-June	11176516.55	48.12	34.37	30.00	732.09	15.35
2018-July	12272281.75	15.91	82.11	31.00	732.86	15.15
2018-August	11844030.85	21.14	56.72	31.00	733.63	14.03
2018-September	11236408.41	100.14	18.88	30.00	734.41	12.29
2018-October	11781886.61	279.69	0.21	31.00	735.18	10.51
2018-November	12178261.06	438.30	0.00	30.00	735.95	9.28
2018-December	13073434.26	626.77	0.00	31.00	736.73	8.47

Summary	As field	VECC IR	Diff.
2018-January	13,484,534	13,453,840	30,694
2018-February	12,619,328	12,601,951	17,378
2018-March	12,612,938	12,657,374	-44,435
2018-April	11,650,959	11,629,544	21,415
2018-May	11,416,835	11,415,264	1,571
2018-June	11,136,916	11,176,517	-39,600
2018-July	12,289,728	12,272,282	17,447
2018-August	11,900,374	11,844,031	56,343
2018-September	11,254,637	11,236,408	18,228
2018-October	11,765,274	11,781,887	-16,613
2018-November	12,155,451	12,178,261	-22,810
2018-December	13,048,458	13,073,434	-24,976
	145,335,433	145,320,792	14,641

- c) For all variables except “employment”, the utility used an average. For the employment, the utility uses a linear forecasting method as an average would yield incorrect projections for 2017-2018.
- d) CWH is not aware of any forecasts of employment for the Kitchener-Waterloo Region that would apply to the Fergus service area.

3.0 –VECC -13

Reference: Exhibit 3, page 30

- a) Are the customer/connection counts shown in Table 12 year-end or average annual values?
- b) Please provide the actual customer/connection count by class as of June 30, 2017.
- c) Please provide the customer/connection counts by class for the most recent month available.

Response(s):

- a) Average annual values.

- b) Please find the updated customer/connection count by rate class below, for June 30, 2017.

Class	Customer/Connection
Residential	6032
GS <50 kW	749
GS 50-2,999 kW	47
GS 3,000-4,999 kW	1
USL	13
Street Lighting	1704
Sentinel Lighting	27

- c) Please find the updated customer/connection count by rate class below, as ran on September 30, 2017.

Class	Customer/Connection
Residential	6079
GS <50 kW	750
GS 50-2,999 kW	47
GS 3,000-4,999 kW	1
USL	13
Street Lighting	1693
Sentinel Lighting	27

3.0 –VECC -14

Reference: Exhibit 3, pages 38-42

- a) At page 41, CWHI states that its approved CDM Plan has been filed with the Application. Please indicate where in the Application materials it can be found or provide a copy.
- b) Please confirm that, based on CWHI's approved CDM Plan the expected energy savings from 2016, 2017 and 2018 CDM programs are 1,185 MWh, 3,011 MWh and 1,121 MWh respectively.
- c) Please provide a copy of CWHI's verified 2016 CDM Results (the excel version).
- d) Please confirm that the verified results from 2016 CDM programs persisting in 2018 is 1,552,888 kWh.
- e) Please reconcile the preceding values with the 2018 CDM adjustment proposed in the Application.
- f) Please provide a schedule that compares the CDM adjustment for Residential (per Table 24) with the sum of 50% of 2016, 100% of 2017, and 50% of 2018 savings for Residential per CWHI's Approved CDM Plan and actual verified 2016 results persisting in 2018.

Response(s):

- a) A copy has been attached as Appendix A.
- b) CWH confirms that the expected energy savings for 2016 to 2018 as quoted in the IR are correct. However, CWH notes that it relies on the verified results from the IESO therefore the 2016 energy savings are 1,571MWh.
- c) See response to 4-VECC-30.
- d) See response to 4-VECC-30.
- e) & f) The Load Forecasting Model has been updated to reflect the LRAMVA threshold as approved in the last Cost of Service Application. (See response to 4-VECC-30).

With respect to the CDM Manual Adjustment for 2018 Load Forecast, CWH has updated the Load Forecast model to reflect the 2016 verified results (Appendix 2-I (CDM)).

3.0 –VECC -15

Reference: Exhibit 3, pages 66 and 76
Cost Allocation Model, Tab O3.6

- a) With respect to page 66, in what account are the revenues from the microFIT service charges recorded and what were the revenues for 2016?
- b) What are the incremental revenues for 2018 attributable to the proposed increase in the MicroFIT service charge per page 76?
- c) What services does Utilismart provide and do they replace all of the activities and costs set out in Tab O3.6?
- d) If there are remaining costs that CWHI occurs and that are attributable to MicroFIT customers why shouldn't they be added to the \$10.

Response(s):

- a) With respect to page 66-Table 46: Appendix 2-H, microFIT revenue is included in account 4235-Miscellaneous Service revenues-sub account. The 2016 revenues were \$2,241.
- b) The incremental revenues between 2017 Bridge Year and the 2018 Test year is \$2,200. The incremental revenues between 2016 actual revenues and the test year is \$2,241.
- c) Utilismart is CWH Wholesale Retail settlement provider. They read meters and the information is downloaded into CWH CIS system. Utilismart does not replace all the activities and costs set out in Tab O3.6.
- d) CWH cannot provide this information without a derivation of the calculations at Tab O3.6 of the Cost Allocation Model. CWH also notes that the OEB instruction tab states that "If the distributor intends to propose a microFIT charge based on its own costs, this will require sub-account information as per the Board's FAQ # 18, December 23, 2010.

3.0 –VECC -16

Reference: Exhibit 3, page 76

- a) Please outline the changes implemented by the Ministry of Energy referred to on lines 5-6 and how they impact the number of notification letters.
- b) What were the number of letters issued in 2016 and the associated revenues?

Response(s):

a) On February 16, 2017 the Ministry of Energy sent letters to all Ontario Local Distribution Companies advising of “enhanced customer protection rules” in regards to the winter residential disconnection. In this letter it was indicated that LDC’s could not charge for hand delivered letters for collection of arrears.

b) In 2016, CWH issued 3,286 letters. The revenues associated with these letters was \$49,290.

3.0 –VECC -17

Reference: Exhibit 3, page 77

- a) Please outline more clearly CWHI's proposal with respect to its Specific Charge for Access to Power Pole (i.e., when and how would the adjustment be made) and why the timing is linked to the Working Group setting a standard rate as opposed to a Board decision/directive.

Response(s):

- a) Please refer to Staff question 3-Staff-50.

3-SEC-14

[Ex.3, p.9] Please provide the most recent 2017 customer/connection count by rate class.

Response(s):

Please find the updated customer/connection count by rate class below, as ran on September 30, 2017.

Class	Customer/Connection
Residential	6079
GS <50 kW	750
GS 50-2,999 kW	47
GS 3,000-4,999 kW	1
USL	13
Street Lighting	1693
Sentinel Lighting	27

3-SEC-15

[Ex.3, p.9] The Applicant states that it has used the simple 9-year geometric mean function to determine the forecasts for 2017 and 2018 for each rate class. Please provide all other information the Applicant has about expected customer count in 2017 and 2018 that may differ from the results of its forecast methodology. For example, information from potential new customers seeking to connect, new home builds, and/or information from the towns or villages it serves.

Response(s):

The model and process used to arrive to the load forecast includes analysing or discussing whether or not the customer forecast needs to be adjusted for residential growth, movement across general service classes, anticipated shut down of customers and any other probable scenarios that could affect the load forecast. The utility did not feel that the proposed customer needed further adjustments. As of the date of these response, the utility is not aware of any changes that would affect the proposed customer count

Exhibit 3

Appendix A

OVERVIEW OF CDM PLAN	
This CDM Plan must be used by the LDC in submitting a CDM Plan to the IESO under the Energy Conservation Agreement between the LDC and the IESO. The CDM Plan will consist of the information provided in this document and any additional information and supporting documents provided by the LDC to the IESO in support of this CDM Plan. Capitalized terms not otherwise defined herein have the meaning ascribed to them in the Energy Conservation Agreement as may be applicable.	
Complete all fields within the CDM Plan that are applicable. Where additional space is required to complete a section of the CDM Plan, please append additional pages as required. The LDC should indicate that additional information has been attached in the related question field on the CDM Plan. Please refer to the CDM Plan Submission and Review Criteria Rules for further information.	

A. General Information

1. CDM Plan Submission Date: <i>(DD-Mon-YYYY)</i>	28-04-2017
CDM Plan Version	Amendment No 3.1

LDC INFORMATION										
	LDC 1	LDC 2	LDC 3	LDC 4	LDC 5	LDC 6	LDC 7	LDC 8	LDC 9	LDC 10
LDC Name:	Centre Wellington Hydro Ltd.	Lakeland Power Distribution Ltd.	Midland Power Utility Corporation	Orangeville Hydro Limited	Ottawa River Power Corporation	Rideau St. Lawrence Distribution Inc.	Wasaga Distribution Inc.			
Company Representative:										
Name:	Pat Kelly	Chris Litschko	Christine Bell	Ruth Tyrrell	Jane Donnelly	John Walsh	David Stavinga			
Title:	Conservation Officer	Chief Executive Officer	Chief Financial Officer	Chief Corporate Officer	President and CEO	Chief Executive Officer	Director of Energy Services			
Email Address:	kelly@cwhydro.ca	clitschko@lakelandpower.on.ca	cbell@midlandpuc.on.ca	rtyrrell@orangevillehydro.on.ca	jdonnelly@orpowercorp.com	jwalsh@rslu.ca	d.stavinga@wasagadist.ca			
Phone Number (XXX-XXX-XXXX):	519-843-2900 ext 222	705-789-5442 Ext. 224	705-526-9361	519-942-8000	613-732-3687 Ext 234	613-925-3851	705-429-2517			

3. Primary Contact for CDM Plan	
Name:	Mary Hellingman
LDC Name:	Ottawa River Power
Title:	Conservation and Demand Management Officer
Email Address:	mhellingman@orpowercorp.com
Phone Number (XXX-XXX-XXXX):	613-732-3687

Estimated Start Date of CDM Plan: <i>(DD-Mon-YYYY)</i>	1-Jan-2016
--	------------

LDC CONFIRMATION FOR CDM PLAN	
Each LDC to this CDM Plan has executed the Energy Conservation Agreement.	Yes
A completed Cost-Effectiveness Tool is attached and forms part of the CDM Plan.	Yes
A completed Achievable Potential Tool is attached and forms part of the CDM Plan.	Yes
All customer segments in each LDC's service area are served by the Programs set out in this CDM Plan.	Yes
The CDM Plan includes all electricity savings attributable to all Programs and pilot programs that have in-service dates between Jan 1, 2015 and December 31, 2020.	Yes
The CDM Plan Budget for each LDC includes all eligible funding under the full cost recovery and pay-for-performance mechanisms for Programs under its CDM Plan.	Yes
Frequency of LDC invoicing to IESO (subsequent changes to the frequency should be notified to us by email).	Quarterly

COMPLETE FOR CDM PLAN AMENDMENTS ONLY	
<i>Select the reason(s) for CDM Plan amendment, as per ECA.</i>	
One time each calendar year of the term	Yes
LDC wishes to request an adjustment to the CDM Plan Budget	
The amendments to a provision of the ECA or any Rules will have a material effect on the CDM Plan	
LDC's actual spending under CDM Plan has exceeded (or is reasonably expected to exceed) the portion of the CDM Plan Budget allocated to the current year of the term	
Under a joint CDM Plan, LDCs that are parties to a joint CDM Plan reallocate any portion of their respective CDM Plan Targets and CDM Plan Budgets <i>[Reallocation not subject to IESO approval]</i>	
IESO has triggered remedies under Article 5 of the ECA	
LDC seeking to change its selection of the type of funding that it wishes to receive for each Program in the CDM Plan [ECA, section 4.1]	
Other (Please specify reason)	

B. LDC Authorization

LDC DECLARATION	
Please complete the declaration for each LDC that is listed in this CDM Plan. A separate page with each LDC's signed declaration should be included as part of the CDM Plan submission.	
LDC	
<i>I represent that the information contained in this CDM Plan as it relates to the LDC is complete, true, and accurate in all respects. I acknowledge and agree to the following terms and conditions: (1) if this CDM Plan is approved by the IESO and accepted by each LDC to this CDM Plan, the CDM Plan together with any conditions to that approval is incorporated by reference into the Energy Conservation Agreement between the LDC and the IESO (2) the LDC will offer the Programs set out in Table 2 of this CDM Plan to customers in its service area; and (3) the LDC of will implement this CDM Plan in accordance with the CDM Plan Budget.</i>	
LDC's Legal Name:	
Company Representative:	
Signature	
	<i>I/We have the authority to bind the Corporation.</i>
Date (DD-Mon-YYYY)	

C. CDM Plan Summary

TABLE 1: SUMMARY OF CDM PORTFOLIO SAVINGS AND BUDGET											
	CDM PLAN TOTAL	LDC 1	LDC 2	LDC 3	LDC 4	LDC 5	LDC 6	LDC 7	LDC 8	LDC 9	LDC 10
a. Allocated LDC CDM Plan Target (MWh) <i>Indicate total CDM Plan Target allocated to LDC(s)</i>	69,540	8,730.0	15,770.0	10,830.0	14,150	8,720.0	5,020.0	6,320.0			
b. CDM Plan MWh Savings <i>Calculated as part of CDM Plan</i>	69,560	8,731	15,773	10,831	14,153	8,720	5,028	6,324	0	0	0
c. Allocated LDC CDM Plan Budget (\$) <i>Indicate total budget allocated to LDC</i>	\$18,243,667	\$2,252,724	\$4,142,391	\$2,739,690	\$3,705,603	\$2,282,373	\$1,306,239	\$1,814,647			
d. Total CDM Plan Budget (\$) <i>Calculated as part of CDM Plan</i>	\$16,911,659	\$2,190,613	4,121,314	2,489,145	3,320,991	1,989,075	1,226,830	1,573,691	0	0	0
f. CDM Plan Cost Effectiveness <i>Indicate annual portfolio-level Cost Effectiveness for CDM Plan as determined by LDC(s) using output from Cost-Effectiveness Tool</i>		Total Resource Cost (TRC)			Program Administrator Cost (PAC)			Levelized Cost			
	Program Year	Benefits (\$)	Costs (\$)	Ratio	Benefits (\$)	Costs (\$)	Ratio	(\$/kWh)			
	2015	\$11,612,751.97	\$6,309,479.16	1.8	\$10,575,366.70	\$1.00	10575366.7	\$0.000			
	2016	\$10,945,158.43	\$3,451,504.46	3.2	\$9,350,410.74	\$2,097,887.49	4.5	\$0.032			
	2017	\$10,096,623.44	\$5,581,336.44	1.8	\$8,580,151.54	\$3,042,089.38	2.8	\$0.031			
	2018	\$9,743,781.39	\$5,619,717.79	1.7	\$8,334,682.09	\$3,897,242.72	2.1	\$0.040			
	2019	\$9,214,848.11	\$4,985,490.59	1.8	\$7,868,508.47	\$3,468,228.43	2.3	\$0.040			
	2020	\$8,976,638.45	\$4,800,555.93	1.9	\$7,693,235.19	\$3,366,427.87	2.3	\$0.041			
	CDM Plan Total	\$60,589,802	\$30,748,084	2.0	\$52,402,355	\$15,871,877	3.3	\$0.026			
g. Plan Cost Effectiveness-Exceptions Rationale <i>Complete this section if proposed plan does not meet minimum Cost-Effectiveness Thresholds set out in CDM Plan Submission and Review Criteria Rules.</i>											

extension of 2011-2014 Master CDM Agreement (Not funded through 2015-2020 CDM Framework)	Heating and Cooling Initiative		50.4												50.4
	Appliance Retirement		3.5												0.0
2011-2014 CDM Framework (and 2015 extension) TOTAL		\$0	3,023.1											0.0	2,863.2
TARGET GAP TOTAL														0.0	
CDM PLAN TOTAL		\$0	3,023.1	\$354,804	1,239.6	\$507,922	1,671.9	\$563,963	1,913.9	\$536,519	1,655.0	\$525,937	1,536.4	\$2,489,145	10,830.8
MINIMUM ANNUAL SAVINGS CHECK			True		True		True		True		True		True		

EXEMPTION OF 2011-2014 Master CDM Agreement) (Not funded through 2015-2020 CDM Framework)	Heating and Cooling Initiative		113.9											113.9	
	Appliance Retirement		20.7											0.0	
2011-2014 CDM Framework (and 2015 extension) TOTAL		\$0	2,871.6										0.0	2,771.9	
TARGET GAP TOTAL													0.0		
CDM PLAN TOTAL		\$0	2,871.6	\$353,003	1,450.5	\$468,262	1,508.5	\$400,928	1,057.5	\$386,315	1,031.2	\$380,568	943.3	\$1,989,075	8,720.0
MINIMUM ANNUAL SAVINGS CHECK			True		True		True		True		True		True		

D. CDM Plan Detailed List of Programs, Election of Funding Mechanism, and Annual Milestones

NOTES	
1. CDM Plan	Complete Table 2 for all Programs for which will contribute towards the CDM Plan Target.
2. Program Name	Province-wide LDC Program names are found in the applicable Program Rules. Regional & local Program names should be consistent with those included in approved business cases (if applicable) and consistent throughout this CDM Plan.
3. Anticipated Annual Budget	Include annual budgets for each Program to be allocated against the CDM Plan Budget by funding mechanism. Note: LDC Eligible Expenses incurred in 2014 for programs delivered in 2015 (and not funded as part of the 2011-2014 Master CDM Program Agreement) should be included in 2015 Annual anticipated budget amounts.
4. Target Gap	Portion of the CDM Plan Target that the LDC reasonably expects, based on qualified independent third party analysis as accepted by the IESO, could only be achieved with funding in addition to the CDM Plan Budget.

LDC 6: Rideau St. Lawrence Distribution Inc.

TABLE 2. PROGRAM AND MILESTONE SCHEDULE

Funding Mechanism	Approved Province Wide Programs	Approved Local, Regional, or Pilot Programs	Proposed Pilots or Programs	Program Start Date (DD-Mon-YYYY)	Customer Segments Targeted by Program								Program Implementation Schedule (Annual Anticipated Budget & Incremental Annual Milestones by Program)														
					Residential	Low-Income	Small Business	Commercial (Inc. Multi-Fa)	Agricultural	Institutional	Industrial	2015		2016		2017		2018		2019		2020		Total 2015 - 2020			
												Anticipated Annual Budget (\$)	Energy Savings (MWh)	Anticipated Annual Budget (\$)	Energy Savings (MWh)	Anticipated Annual Budget (\$)	Energy Savings (MWh)	Anticipated Annual Budget (\$)	Energy Savings (MWh)	Anticipated Annual Budget (\$)	Energy Savings (MWh)	Anticipated Annual Budget (\$)	Energy Savings (MWh)	Total CDM Plan Budget (\$)	Total Persisting Energy Savings in 2020 (MWh)		
Full Cost Recovery Programs	Existing Building Process and Systems			1-Sep-2016				Yes	Yes	Yes	Yes				\$1	1.0	\$1	1.0	\$1	1.0	\$1	1.0	\$1	1.0	\$4	0.0	
	Energy Manager Program			1-Sep-2016				Yes	Yes	Yes	Yes				\$1	1.0	\$1	1.0	\$1	1.0	\$1	1.0	\$1	1.0	\$4	0.0	
	Monitoring and Targeting Program			1-Sep-2016						Yes	Yes				\$1	1.0	\$1	1.0	\$1	1.0	\$1	1.0	\$1	1.0	\$4	0.0	
	Heating and Cooling Program			1-Jan-2016	Yes									\$24,629	26.5	\$27,729	7.8	\$27,882	7.8	\$27,822	7.8	\$27,839	7.8	\$135,901	57.5		
	Coupon Program			1-Jan-2016	Yes									\$19,696	111.3	\$16,176	89.0	\$16,327	89.0	\$8,503	44.5	\$8,518	44.5	\$69,221	378.4		
	New Construction Program			1-Jan-2016	Yes									\$373	0.0	\$2,238	3.7	\$2,394	3.7	\$2,336	3.7	\$2,356	3.7	\$9,696	14.7		
	Home Assistance Program			1-Jan-2016	Yes	Yes								\$1,421	0.0	\$20,980	23.5	\$15,313	23.5	\$15,164	23.5	\$15,241	23.5	\$68,119	94.1		
			Unassigned Consumer Target	1-Jan-2018	Yes									\$0	0.0	\$0	0.0	\$34,622	92.7	\$29,357	92.7	\$29,356	92.7	\$93,334	278.0		
	Retrofit			1-Jan-2016		Yes	Yes	Yes	Yes	Yes				\$69,314	263.4	\$86,345	396.4	\$84,773	329.6	\$96,510	396.4	\$86,411	329.6	\$423,352	1,715.3		
	Small Business Lighting			1-Jan-2016		Yes								\$26,994	22.9	\$37,302	72.0	\$38,609	72.0	\$38,124	72.0	\$38,291	72.0	\$179,320	311.0		
	High Performance New Construction			1-Jan-2016				Yes	Yes	Yes	Yes			\$373	1.0	\$738	1.0	\$21,612	57.0	\$836	1.0	\$856	1.0	\$24,414	57.0		
	Audit Funding Program			1-Jan-2016				Yes	Yes	Yes	Yes			\$373	0.0	\$7,254	75.9	\$2,344	1.0	\$2,486	1.0	\$2,506	1.0	\$14,962	75.9		
	Business Refrigeration Incentive Program			1-Oct-2017		Yes	Yes							\$0	0.0	\$4,895	15.0	\$8,618	22.5	\$9,196	22.5	\$6,566	15.0	\$29,275	64.9		
			Unassigned Target Business	1-Jan-2018				Yes						\$0	0.0	\$0	0.0	\$63,730	204.8	\$59,025	215.0	\$56,465	204.8	\$179,220	624.5		
	FCR TOTAL													\$0	0.0	\$143,171	425.1	\$203,661	688.3	\$316,227	907.6	\$289,362	884.1	\$274,409	799.5	\$1,226,830	3,671.3
Pay for Performance Programs																											
P4P TOTAL													\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	
	Retrofit Initiative														1,067.5											1,066.7	
	Direct Install Lighting														113.8												69.1
	Energy Manager (PSUI)														2.8												2.8

2011-2014 CDM Framework (and 2015 extension of 2011-2014 Master CDM Agreement) (Not funded through 2015-2020 CDM Framework)	Conservation Instant Coupon Booklet	160.0													157.6
	Low Income Home Assistance Program	5.3													4.7
	Residential New Construction	13.7													13.7
	Heating and Cooling Initiative	41.7													41.7
	Appliance Retirement	28.5													0.0
2011-2014 CDM Framework (and 2015 extension) TOTAL		\$0	1,433.3											0.0	1,356.3
TARGET GAP TOTAL														0.0	
CDM PLAN TOTAL		\$0	1,433.3	\$143,171	425.1	\$203,661	688.3	\$316,227	907.6	\$289,362	884.1	\$274,409	799.5	\$1,226,830	5,027.5
MINIMUM ANNUAL SAVINGS CHECK			True		True		True		True		True		True		True

2011-2014 CDM Framework (and 2015 extension of 2011-2014 Master CDM Agreement) (Not funded through 2015-2020 CDM Framework)	Low Income Home Assistance Program													4.6	
	Heating and Cooling Initiative		6.2											115.2	
	Appliance Retirement		1.2											0.0	
2011-2014 CDM Framework (and 2015 extension) TOTAL		\$0	2,417.5										0.0	2,381.3	
TARGET GAP TOTAL													0.0		
CDM PLAN TOTAL		\$0	2,417.5	\$215,801	555.0	\$238,484	697.9	\$389,141	1,003.8	\$371,045	885.6	\$359,219	834.8	\$1,573,691	6,324.5
MINIMUM ANNUAL SAVINGS CHECK			True	True	True	True	True	True	True	True	True	True	True	True	

E. Proposed Local and Regional Pilot CDM Programs

Notes	
Complete the following Table(s) for each proposed local and regional Program or Pilot Program in the CDM Plan for which a business case has NOT previously been approved by the IESO. Please refer to the Program Development and Rule Revision Guideline and the Business Case Template for full details on requirements and submission of a business case for approval of a local or regional Program. For the process for receiving funding for a Pilot Program, refer to the LDC Program Innovation Guideline.	

TABLE 3a. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name	Whole Home LED	Use same "Program name" included in other worksheets	
b. Program Type	Proposed Pilot		
b. Estimated Business Case Submission Date (DD-Mon-YYYY)	5-May-2017		
c. Customer Segment(s) Served by Programs	Residential		
d. Participating LDCs (if applicable)	Guelph Hydro Electric Systems Inc.	Centre Wellington Hydro Ltd.	
e. Overview of Proposed Program or Pilot	During a home visit, channel partner will assess the opportunity to replace all key lighting requirements with energy efficient LED lights. An incentive will be provided to the customer. During the home visit, the channel partner will provide an immediate cost/benefit including payback and 5-year cash flow analysis to the participant. The same tool will track the base technology and efficient technology changes. Pilot being developed in collaboration with local not-for-profit organizations. Anticipate pilot to start May 2017 and full program in April 2018.		
	<i>Provide overview of key objectives and elements of proposed program or pilot.</i>		

TABLE 3b. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		Use same "Program name" included in other worksheets	
b. Program Type			
b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot			
	<i>Provide overview of key objectives and elements of proposed program or pilot.</i>		

TABLE 3c. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		Use same "Program name" included in other worksheets	
b. Program Type			
b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot			
	<i>Provide overview of key objectives and elements of proposed program or pilot.</i>		

TABLE 3d. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		Use same "Program name" included in other worksheets	
b. Program Type			
b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot			
	<i>Provide overview of key objectives and elements of proposed program or pilot.</i>		

TABLE 3e. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		Use same "Program name" included in other worksheets	
b. Program Type			
b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot			
	<i>Provide overview of key objectives and elements of proposed program or pilot.</i>		

TABLE 3f. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		Use same "Program name" included in other worksheets	
b. Program Type			
b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot			
	<i>Provide overview of key objectives and elements of proposed program or pilot.</i>		

TABLE 3g. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		Use same "Program name" included in other worksheets	
b. Program Type			

TABLE 3h. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		Use same "Program name" included in other worksheets	
b. Program Type			

E. Proposed Local and Regional Pilot CDM Programs

Notes			
Complete the following Table(s) for each proposed local and regional Program or Pilot Program in the CDM Plan for which a business case has NOT previously been approved by the IESO. Please refer to the Program Development and Rule Revision Guideline and the Business Case Template for full details on requirements and submission of a business case for approval of a local or regional Program. For the process for receiving funding for a Pilot Program, refer to the LDC Program Innovation Guideline.			

b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot <i>Provide overview of key objectives and elements of proposed program or pilot.</i>			

b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot <i>Provide overview of key objectives and elements of proposed program or pilot.</i>			

TABLE 3i. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		<i>Use same "Program name" included in other worksheets</i>	
b. Program Type			
b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot <i>Provide overview of key objectives and elements of proposed program or pilot.</i>			

TABLE 3j. PROPOSED LOCAL AND REGIONAL CDM PROGRAMS / PILOTS			
a. Program Name		<i>Use same "Program name" included in other worksheets</i>	
b. Program Type			
b. Estimated Business Case Submission Date (DD-Mon-YYYY)			
c. Customer Segment(s) Served by Programs			
d. Participating LDCs (if applicable)			
e. Overview of Proposed Program or Pilot <i>Provide overview of key objectives and elements of proposed program or pilot.</i>			

F. Detailed Information on Collaboration and Regional Planning

ADDITIONAL DETAILED INFORMATION	
<p>Regional LDC(s) Collaboration <i>Description of how the LDC(s) will collaborate with other LDCs. If collaboration will not occur, description of why it will not occur.</i></p>	<p>As Members of the CHEC Association there is plenty of experience with collaboration between utilities on the CDM Portfolio. The Plan development has been assisted by participation in CHEC and the sharing of information between Members. Activities of the past including; a shared REM resource, program design, delivery, and marketing as well as procurement of 3rd party services will continue in the collaborative spirit of CHEC. In addition, further opportunities to collaborate on the delivery of programs with CHEC Members and with neighbouring LDCs will be pursued. The diverse geographical distribution of CHEC Members will assist with the transfer of best practices from one region to another to facilitate further collaboration and knowledge transfer.</p>
<p>Gas Collaboration <i>Description of how the LDC(s) will collaborate with other gas utility programs delivered in service area (if applicable). If collaboration will not occur, description of why it will not occur.</i></p>	<p>The opportunity to collaborate with the gas company is welcomed as it can drive delivery efficiencies. With the gas company's mandate to collaborate as well, there should be opportunities moving forward. Currently there has been no discussions at the local level however, once CDM Plans are in place, the focus will be to discuss opportunities on known programs and to engage in discussions on opportunities for programs to help address the un-accounted for target. Developing collaboration into the design stage will be an important element to reduce costs, improve outcomes and provide value to the customer. Participation in the Whole Home Pilot may lead to continued future collaboration.</p>
<p>CDM Contribution to Regional Planning <i>Description of how the CDM Plan considers the electricity needs and investments identified in other plans or planned initiatives, completed or underway within the LDC(s)' service area or region. This may include Integrated Regional Resource Plans or Municipal Community Energy Plans.</i></p>	<p>Regional Planning - Expand to see full listing</p> <p>We are aware that Regional planning is conducted through the Integrated Regional Resource Planning (IRRP) process. The LDCs represented within this joint plan cover the following planning regions:-</p> <p>Greater Ottawa and Kitchener-Waterloo-Cambridge-Guelph (Group 1) Active South Georgian Bay/Muskoka (Group 2) Active St Lawrence (Group 3) Upcoming</p> <p>Group 1 - Active</p> <p>LDC. 1: Centre Wellington Hydro Limited CDM Support Pat Kelly</p>

G. Additional Documentation for CDM Plan (If applicable)

ADDITIONAL INFORMATION AND DOCUMENTATION	
<p>Programs Opportunity to provide any additional information on assumptions used for budgets and/or savings for approved 2015-2020 province-wide programs</p>	<p>A revised assumption list has not been provided with this version of the CDM Plan. The LDCs in this Joint Plan will be delivering all Provincial Programs. Programs being offered without the expectation of delivering savings have been noted on the CDM Plan as 1 MWh and \$1 as per the direction of the IESO. These are not reflected in the CE Tool. There may be programs which could result in savings, as there are eligible customers, however at this time it is unclear whether there will be participation - have been shown with costs greater than \$1 and a target 1 MWh to confirm the program is being offered. These programs are expected to incur costs associated with marketing/outreach to the customers and maintaining a familiarity with the program and there is an opportunity that there will be savings. For programs offered in 2016 and where there were no savings the costs were shown with "0" savings based on actuals.</p>
<p>Approved Local and/or Regional Programs and Pilot Programs Opportunity to provide any additional information on assumptions used for budgets and/or savings for approved 2015-2020 local or regional programs or pilot programs</p>	<p>This section does not apply at this time.</p>
<p>Proposed Local and/or Regional Programs and Pilot Programs Opportunity to provide additional information on assumptions used for forecast budgets and/or savings for proposed programs or pilot programs</p>	<p>One pilot program is being proposed in the Centre Wellington CDM Plan. The program "Whole Home LED" is being done in conjunction with Guelph Hydro as is noted in the pilot program. It should be noted that the proposed program by Midland with regard to enhanced lighting and compressed air have been removed from their CDM Plan.</p>
<p>Programs from 2011-2014/2015 CDM Framework Opportunity to provide any additional information on assumptions used for budgets and/or savings from existing 2011-2014/2015 CDM Programs</p>	<p>A working sheet for each LDC has not been provided as an attachment. To generate the current plan the 2016 unverified results were utilized to determine the costs and customer uptake in each program. The unassigned kWh were adjusted based on the 2016 performance and the proposed for 2017 to 2020.</p>
<p>Programs funded through Pay-for-Performance Opportunity to provide any additional information on assumptions used for budgets and/or savings for Pay for Performance Programs</p>	<p>Pay for Performance is not part of the plan at this time.</p>
<p>Other Additional assumptions used in the CDM Plan</p>	<p>A detailed assumption list has not been provided with this CDM Plan. As noted above the performance in 2016 has been utilized along with customer interest to estimate the continued performance of the programs.</p>

Summary of Changes to CDM Template

Version No.	Date	Tab	Change Summary
2	20-Jan-15	A. General Information	Inclusion of "Company Name" for Primary Contact
			Inclusion of frequency of invoicing (monthly vs. quarterly)
			Update date format to eliminate confusion
			Change reference to OPA
			Additional LDCs for joint plan
		B. LDC Authorization	Update date format to eliminate confusion
		D. CDM Plan Milestone LDC 1-10	Additional line items for FRC program names
			Additional LDCs for joint plan
			Update on the program names
			Update date format to eliminate confusion
			Update column headers: - "Province Wide Program Name" - "Proposed Regional or Local CDM Program or Pilot Program Name"
			Change reference to OPA
			Update Header and Footer
		E.. Proposed Program&Pilots	Additional boxes for proposed programs
			Update date format to eliminate confusion
		C. Detailed Information	Clarity if it is primary LDC or all LDCs in a joint CDM Plan.

