Interrogatory #18

Ref: Exhibit 3, Tab 2, Schedule 1

a) Please update Tables 3,4,5,8,9,10,13,14,15,18,19,22,25,30,49,50 and 51 to reflect actual data for 2011.

Answer:

Due to the amalgamation of Erie Thames, West Perth and Clinton in 2011, the 2011 actual data were not readily available separately. Some customers were also re-classified to other rate classifications in 2012. This makes the direct comparison of the 2010, 2011 and 2012 values difficult in some customer classes.

The aggregated 2011 data is shown below.

	kW /kWh	ETPL	CPC	WPPI	Total	Customer Count
Residential	kWh	114,782,034	10,716,369	16,112,191	141,610,594	16,229
GS <50	kWh	36,094,797	4,873,274	7,995,486	48,963,557	1,877
GS>50 to 999	kW	91,682	35,230	96,671	223,583	175
GS>1000 to 2999	kW	242,683			242,683	8
GS>3000 to 4999	kW	30,319			30,319	1
Large Use	kW	159,576			159,576	1
Unmetered	kWh	496,647	45,555	16,368	558,570	121
Sentinel Light	kW		109	47	156	301
Street Light	kW	8,586	1,002	1,196	10,784	4,283
Embedded	kW	36,536			36,536	3

b) Please show how the actual kWh's have been weather adjusted. Please show all calculations and explain where all the figures used come from using 2010 residential for Erie Thames (Table 5) data as an example.

Answer:

The steps for adjusting the actual kWh are shown below.

1. Collect hourly temperature data from Environment Canada from 2006 to 2010.
2. Calculate the average temperature for each day from 2006 to 2010.
3. Calculate HDD and CDD for each day from 2006 to 2010 using the following formula:

HDD =18 ˚C minus average temperature of the day. If the value calculated is less than or equal to zero, that day has zero HDD. But if the value is positive, that number represents the number of HDD on that day.

CDD= Average temperature of the day minus 18 ˚C. If the value calculated is less than or equal to zero, that day has zero CDD. But if the value is positive, that number represents the number of CDD on that day.

4. Calculate the annual HDD from 2006 to 2010. The HDD for the year is calculated by summing the daily HDD from January to May and from October to December.

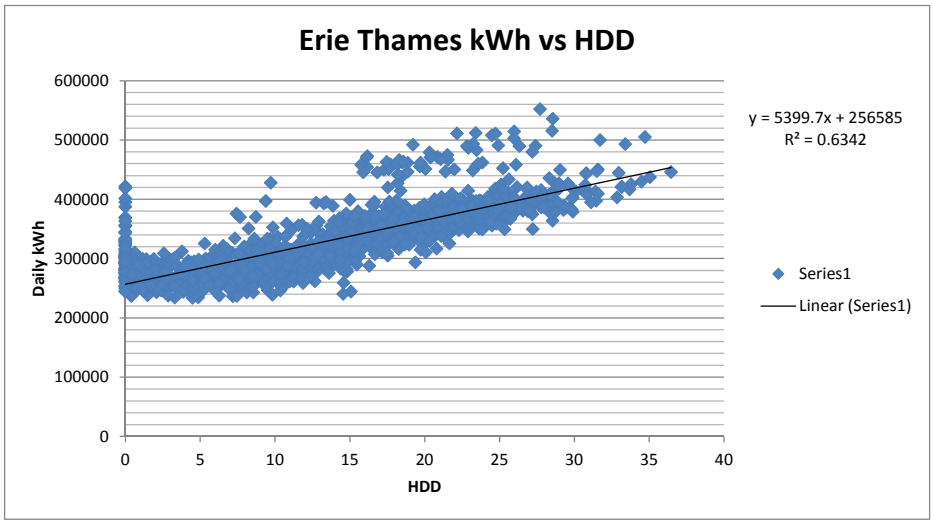
5. Calculate the annual CDD from 2006 to 2010. The HDD for the year is calculated by summing the daily HDD from January to May and from October to December.

For easy reference, the Annual HDD and CDD from 2006 to 2010 are shown below.

	2006	2007	2008	2009	2010	5 yr average
HDD	3,445	3,709	3,877	3,782	3,614	3,686
CDD	256	256	222	137	309	236

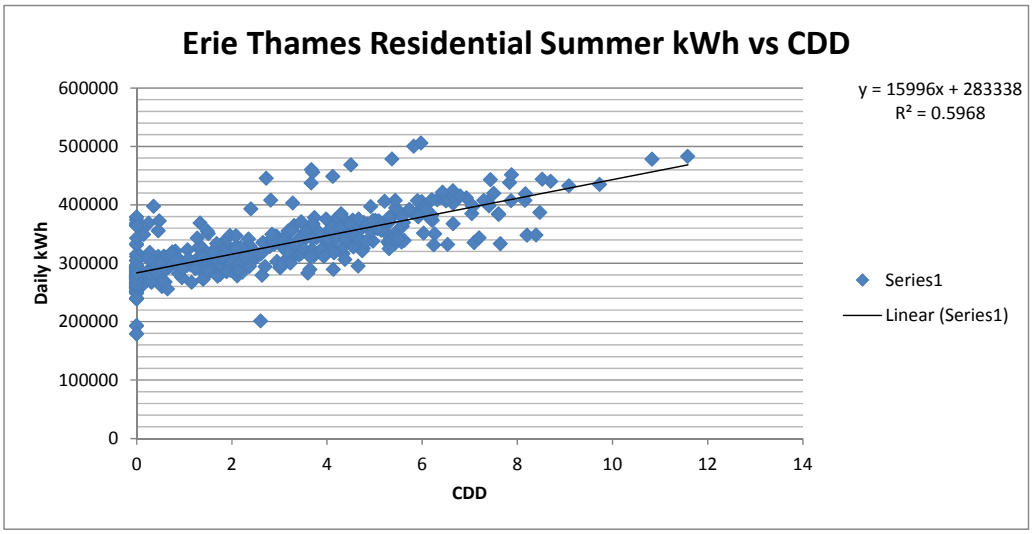
6. Collect Daily KWh of the NSLS of Erie Thames from 2006 to 2010.

7. Plot the daily kWh of the NSLS against the daily HDD for the months from January to May and from October to December for the years from 2006 to 2010. Insert a trend line. The plot is shown below. The slope is 5399.7 kWh/HDD. The 5 year average daily kWh is 329,429. The relationship between the daily kWh and HDD is 1.6% daily kWh demand per HDD.



5 yr kWh average (excluding summer months)	329,429
kWh/HDD	5399.7
% kWh/HDD	1.6%

8. Plot the daily kWh of the NSLS against the daily CDD for the summer months from June to September for the years from 2006 to 2010. Insert a trend line. The plot is shown below. The slope is 15,996 kWh/CDD. The 5 year average summer daily kWh is 324,405 kWh. The relationship between the daily kWh and CDD is 4.9% daily kWh demand per CDD.



5 yr average summer daily kWh	324,405
kWh/CDD	15,996
% kWh/CDD	4.9%

9. Collect the actual monthly kWh for the residential class from 2006 to 2010

Residential Customers	2006	2007	2008	2009	2010
	kWh	kWh	kWh	kWh	kWh
Jan	11,597,960	11,592,864	12,062,217	12,380,756	11,733,046
Feb	10,871,132	11,541,527	10,602,451	10,315,492	10,249,751
Mar	10,997,609	11,134,695	10,517,547	10,344,694	9,735,406
Apr	9,110,716	9,473,254	8,168,236	8,727,873	8,147,653
May	9,113,633	8,683,169	7,914,760	8,200,571	8,829,244
Jun	9,297,137	9,641,876	8,839,602	10,439,778	9,236,403
Jul	10,888,662	9,719,133	10,010,525	9,540,594	11,194,585
Aug	10,165,089	10,144,840	9,182,227	10,086,461	10,839,433
Sep	8,473,561	8,602,965	8,291,328	8,429,170	8,333,102
Oct	9,443,048	8,896,070	8,393,477	9,080,708	8,847,040
Nov	9,885,456	9,816,326	11,489,912	9,322,298	9,759,265
Dec	11,309,507	11,479,788	13,240,837	11,517,021	13,342,622
Annual	121,153,509	120,726,508	118,713,119	118,385,417	120,247,549

10. Calculate the HDD variation from the 5 year average.

	2006	2007	2008	2009	2010
Heating Degree Days (Excluding Summer)	3,445	3,709	3,877	3,782	3,614
Five Year Average HDD	3,686	3,686	3,686	3,686	3,686
Average minus Actual HDD	240	(23)	(192)	(96)	71

11. Calculate the daily average kWh of the residential class excluding summer months (June to September) from 2006 to 2010 for the residential class by adding the actual monthly kWh averages of the non-summer months and divide the total by the total number of days of the non-summer months.

	2006	2007	2008	2009	2010
Average Daily kWh (excluding Summer months)	332,610	334,142	330,952	323,511	325,924

12. Calculate the kWh adjustment for the residential class due to HDD by multiplying the average daily kWh (excluding the summer months) with the "Average minus Actual HDD" with the "% kWh/HDD" calculated in step 7.

	2006	2007	2008	2009	2010
Heating Degree Days (Excluding Summer)	3,445	3,709	3,877	3,782	3,614
Five Year Average HDD	3,686	3,686	3,686	3,686	3,686
Average minus Actual HDD	240	(23)	(192)	(96)	71
Average Daily kWh (excluding Summer months)	332,610	334,142	330,952	323,511	325,924
% daily kWh/HDD	1.60%	1.60%	1.60%	1.60%	1.60%
kWh HDD adjustment	1,278,257	(125,602)	(1,014,773)	(499,057)	372,087

13. Calculate the CDD variation from the 5 year average.

	2006	2007	2008	2009	2010
Summer Cooling Degree Days	256	256	222	137	309
Five Year Average CDD	236	236	236	236	236
Average minus Actual CDD	(20)	(20)	14	99	(73)

14. Calculate the summer (June to September) daily kWh of the residential class from 2006 to 2010 by adding the actual monthly kWh averages of the summer months and divide the sum by the total number of days of the summer months.

	2006	2007	2008	2009	2010
Average Summer Daily kWh	329,901	320,716	304,699	326,813	339,896

15. Calculate the kWh adjustment for the residential class due to CDD by multiplying the average daily kWh of the summer months with the "Average minus Actual CDD" with the "% kWh/CDD" calculated in step 8.

	2006	2007	2008	2009	2010
Summer Cooling Degree Days	256	256	222	137	309
Five Year Average CDD	236	236	236	236	236
Average minus Actual CDD	(20)	(20)	14	99	(73)
Average Summer Daily kWh	329,901	320,716	304,699	326,813	339,896
% daily kWh/CDD	4.90%	4.90%	4.90%	4.90%	4.90%
kWh CDD adjustment	(327,196)	(312,193)	214,324	1,584,718	(1,219,263)

16. Calculate the annual weather adjusted kWh of the residential class by adding the kWh HDD adjustment (step 12) and the kWh CDD adjustment (step 15) to the actual annual kWh.

Residential Customers	2006	2007	2008	2009	2010
Annual (Actual)	121,153,509	120,726,508	118,713,119	118,385,417	120,247,549
kWh HDD adjustment	1,278,257	(125,602)	(1,014,773)	(499,057)	372,087
kWh CDD adjustment	(327,196)	(312,193)	214,324	1,584,718	(1,219,263)
Annual (Weather adjusted)	122,104,570	120,288,713	117,912,670	119,471,078	119,400,372

17. Calculate the average kWh/customer/month for both actual and weather adjusted from 2006 to 2010.

Residential Customers	2006	2007	2008	2009	2010
Annual (Actual)	121,153,509	120,726,508	118,713,119	118,385,417	120,247,549
Annual (Weather adjusted)	122,104,570	120,288,713	117,912,670	119,471,078	119,400,372
Number of customers	12206	12328	12451	12116	12847
kWh/customer/month (actual)	827	816	795	814	780
kWh/customer/month (weather adj.	834	813	789	822	775

c) Please explain why there are no forecasts for the number of customers for 2011 and 2012 included in Table 3. Please revise the table to include this data for 2011 and 2012, along with the calculation of the kWh/customer/month.

Answer:

The revised Table 3 is shown below.

Table 3 – Annual Clinton Residential Load

	2007	2008	2009	2010	2011	2012
Actual kWh	12,523,015	11,477,044	11,392,233	11,595,218		
Weather adjusted kWh	12,487,198	11,407,595	11,453,131	11,536,648	11,595,000	11,660,000
change from previous yr		-8.65%	0.40%	0.73%	0.51%	0.56%

	2007	2008	2009	2010	2011	2012
Actual kW	2,478	2,271	2,254	2,294		
Peak Demand kW weather adjusted	2,471	2,257	2,266	2,283	2,294	2,307

	2007	2008	2009	2010	2011	2012
# of Customers	1,764	1,769	1,786	1,797	1,808	1,820
kWh/customer/month	590	537	534	535	534	534

d) Please update all figures to reflect actual data for 2011.

Answer:
Please see answer in a).

e) Please explain the decrease in the number of residential customers in 2009 shown in Table 5. Please reconcile this figure (12,116) with that shown in Exhibit 3, Tab 2, Schedule 2 (12,710).

Answer:

- ***The number of customers in 2009 was input incorrectly in table 5 the actual number of customers in 2009 is 12,710.***

ERIE THAMES POWERLINES CUSTOMER COUNT TABLE					
	2006	**2007**	**2008**	**2009**	**2010**
Residential	12206	12328	12451	12710	12847
GS<50	1375	1375	1388	1382	1378
GS>50 to 999 kW	135	138	141	138	138
#REF!	8	8	8	7	7
#REF!	1	1	1	1	1
Large Use	1	1	1	2	2
Unmetered Scattered Load	95	95	95	100	105
Sentinel Lighting	256	256	256	256	256
Street Lighting	2870	2870	2956	2956	2956
Embedded Distributor	0	2	2	3	3
	16947	***17074***	***17299***	***17555.11***	***17693***

f) Please explain why the number of residential customers for 2007 through 2010 the same in Table 3 as they are in Table 4. If needed, please provide the corrected table(s).

Answer:

WEST PERTH POWER CUSTOMER COUNT	**2006**	**2007**	**2008**	**2009**	**2010**
Residential	1,747	1,764	1,769	1,786	1,797
GS<50	219	235	239	241	243
GS>50 to 499 kW	18	20	20	20	20
Unmetered Scattered Load	5	5	5	5	5
Sentinel Lighting	7	7	7	7	7
Street Lighting	618	618	618	618	618
	2,614	***2,649***	***2,658***	***2,677***	***2,690***

CLINTON POWER CUSTOMER COUNT TABLE	**2006 Actual**	**2007 Actual**	**2008 Actual**	**2009 Actual**	**2010 Actual**
Residential	1,391	1,402	1,393	1,411	1,414
GS<50	225	227	220	221	221
GS>50 to 499 kW	17	17	17	17	17
Unmetered Scattered Load	11	11	11	11	11
Sentinel Lighting	38	38	38	38	38
Street Lighting	709	709	709	709	709
	2,391	**2,404**	**2,388**	**2,407**	**2,410**

g) Table 8 does not appear to be complete in that there are no customer or kWh/customer/month figures provided. Please provide a complete Table 8.

Answer:

The completed Table 8 is shown below.

Clinton General Services < 50 kW	2007	2008	2009	2010	2011	2012
Actual kWh	6,002,124	5,219,160	5,196,841	5,392,837		
Weather adjusted kWh	5,984,939	5,189,387	5,228,685	5,365,596	5,420,000	5,500,000
Number of Customers	235	239	241	243	247	250
kWh/customer/month (weather adjusted)	2,122	1,809	1,808	1,840	1,829	1,833