Clarification Questions - VECC

Halton Hills Hydro Inc.

EB-2015-0074

February 1, 2016

3.0 OPERATING REVENUE (EXHIBIT 3)

VECC –CQ 35

Reference: Energy Probe #15 b)
Load Forecast Model, Rate Class Customer Model Tab
(Updated January 18, 2016)

a) Are 2015 year end customer/connection counts now available? If so, please update the response to Energy Probe 15 b).

b) Also, if the 2015 year-end counts are available, please update the Rate Class Customer Model Tab using the actual 2015 values and 2012-2015 geomean growth rates to forecast 2016 customer/connection counts.

Response:

a) See Table below.

Class	2015 Customers / Connections											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Residential	19,627	19,628	19,619	19,623	19,628	19,645	19,662	19,644	19,647	19,678	19,752	19,801
General Service less than 50 kW	1,687	1,690	1,707	1,695	1,708	1,724	1,768	1,824	1,870	1,935	1,914	1,912
General Service 50 to 999 kW	198	197	195	198	198	200	199	198	198	197	193	195
General Service 1,000 to 4,999 kW	13	13	13	13	13	13	13	13	13	13	13	13
Un-metered Scattered Load	147	147	147	147	145	145	146	146	144	144	144	144
Sentinel Lighting	169	169	168	170	177	175	173	173	172	172	172	172
Street Lighting	4,478	4,481	4,481	4,481	4,481	4,481	4,481	4,481	4,481	4,595	4,595	4,595
microFIT	107	108	103	106	110	110	111	112	114	117	118	120
FIT	6	6	6	6	6	8	8	8	8	8	8	8
Total Customers / Connections	**26,432**	**26,439**	**26,439**	**26,439**	**26,466**	**26,501**	**26,561**	**26,599**	**26,647**	**26,859**	**26,909**	**26,960**

b) HHHI has updated the Rate Class Customer Model Tab using the actual 2015 customer counts and using the 2012-2015 geomen growth rates to forecast the 2016 customer/connections. The results are provided in the following table.

Rate Class	Application	Clarifying Question 35 b
Residential	19,995	19,971
GS<50 kW	1,696	1,967
GS>50 kW	232	206
GS>1,000 kW	14	13
Unmetered	150	175
Street Lighting	4,538	4,649
Sentinel	176	175

VECC – CQ 36

Reference: VECC #9
VECC #27
Load Forecast Model, Power Purchases; CDM and Rate Class Energy Model Tabs, (Updated January 18, 2016)

a) VECC #9 indicates that Halton Hills has updated the CDM impact on the load forecast based on the IESO's final 2011-2014 Final Results Report. VECC #27 states that Halton Hills has updated its LRAM claim based on the 2011-2014 Final Report. Please provide a copy of the IESO's final 2011-2014 Final Results Report for Halton Hills.

b) The CDM Tab in the updated Load Forecast model does not appear to have incorporated the results from the IESO's final 2011-2014 Final Results Report. For example the 2014 savings used in the Tab from 2011-2014 programs is 7,343,522 kWh (same as in the initial model) as opposed to the value of 9,882,707 kWh which VECC #27 indicates is the appropriate value from the IESO's final report. Please reconcile and provide corrected models as required.

c) The annual loss factors used to adjust the WMP and CDM values in the Purchase Power Tab don't match those calculated in the Rate Class Energy Model Tab. Please reconcile and provide corrected models as needed.

Response:

a) See attached.

b) In its response to 3-Staff-22, and referenced in 3-VECC-9, HHHI updated the CDM impact on the 2016 load forecast based on the IESO's 2011-2014 Final Results Report. HHHI did not update the load forecast model and rerun the regression model to reflect the IESO's 2011-2014 Final Results Report.

HHHI has incorporated the IESO's 2011-2014 Final Results into the load forecast model. The Revised 2016 Load Forecast is provided in the table below.

Halton Hills Hydro Inc. Weather Normal Load Forecast for 2016 Rate Application - Including Impact of CDM		
	2015 Weather Normal	2016 Weather Normal
Actual kWh Purchases		
Predicted kWh Purchases	539,315,068	546,431,631
% Difference		
Billed kWh	509,482,774	516,203,452
By Class		
Residential		
Customers	19,801	19,971
kWh	205,941,723	205,578,737
GS<50		
Customers	1,912	1,967
kWh	58,070,229	58,991,538
GS>50 to 999		
Customers	195	206
kWh	129,181,093	136,566,740
kW	342,452	362,031
GS> 1000 to 4999		
Customers	13	13
kWh	112,755,095	112,173,675
kW	304,213	302,644
Sentinels		
Connections	172	175
kWh	453,553	461,109
kW	618	628
Streetlights		
Connections	4,595	4,649
kWh	2,182,423	1,535,681
kW	6,085	4,282
USL		
Connections	144	144
kWh	898,658	895,971
Total of Above		
Customer/Connections	26,832	27,124
kWh	509,482,774	516,203,452
kW from applicable classes	653,368	669,585

c) In response to 3-VECC-9, HHHI updated the loss factor used to adjust the WMP and CDM values in the Purchased Power Tab. As discussed in the response, the use of the loss factors in the Rate Class Energy Model tab results in a circular calculation. When the loss factors are updated in the Power Purchase Model the loss factors in the Rate Class Energy Model Tab will change slightly. However, as shown in the following table, the difference between the loss factors in the Power Purchase Model and the Rate Class Energy Model are not materially different.

Year	Power Purchase Tab	Rate Class Energy Model	% Difference
2006	1.06332	1.06332	0.00%
2007	1.05940	1.05940	0.00%
2008	1.05619	1.05664	0.04%
2009	1.05521	1.05517	0.00%
2010	1.05815	1.05815	0.00%
2011	1.05966	1.05958	-0.01%
2012	1.04656	1.04610	-0.04%
2013	1.04565	1.04516	-0.05%
2014	1.05356	1.05070	-0.27%

VECC – CQ 37

Reference: VECC 10 a)
VECC #15

Preamble: VECC #15 (a)(ii) states that for purposes of the load forecast it has assumed that the 2014 CDM savings will persist to 2016. However, Table IRR-43 filed with the response shows a loss of persistence over time between 2011 and 2014 which suggests that persistence may continue to decline after 2014.

a) Has the IESO provided a forecast of the persistence of Halton Hills 2011-2014 CDM programs results through to 2016 similar to what was provided for the 2006-2010 programs in response to VECC 10 a)? If yes, please provide. If not, can Halton Hills confirm if one is available?

Response:

a) To the best of HHHI's knowledge, the IESO has not provided a forecast of the persistence of HHHI's 2011-2014 CDM program results through to 2016 as was provided for the 2006-2010 programs.

As discussed in response to VECC 15 (a) (ii), page 7 of the 2011 – 2014 Final Results Report, the IESO states that, "Energy efficiency resources persist for the duration of the effective useful life. Demand response resources persist for 1 year." HHHI did not achieve any savings from demand response activities in 2014 (these savings would only have persisted into 2015) and the useful life of the energy efficiency resources installed in 2014 will extend well beyond 2016. Therefore, HHHI believes that it is reasonable to expect that 2014 savings will persist into 2016 for the purposes of forecasting load.

VECC – CQ 38

Reference: Energy Probe #18

a) With respect to Table IRR-37, it is noted that the column for 2015 is labeled "Forecast". Please confirm whether the 2015 values are based entirely on actuals or whether it is based on actuals for part of the year and a forecast for the balance of the year.

b) If based only partially on actuals, please provide the year-to-date actuals, the period they cover and the corresponding actuals for 2014 (as originally requested).

c) The response to Energy Probe #18 a) indicates that the values reported for Account 4405 include interest income associated with deferral and variance accounts. Please confirm that this is the case and that, as also indicated in the response, the entire $100,000 shown for 2016 is associated with deferral and variance accounts.

Response:

a) The values for 2015 forecast are YTD actual to November and December forecasted.

b) The YTD actual for November 2014 is not available. HHHI converted to its new ERP system in November of 2014 and year-over-year comparison is not available for November.

c) Confirmed.

4.0 OPERATING COSTS (EXHIBIT 4)

VECC – CQ 39

Reference: VECC #27

a) Based on the IESO's final 2011-2014 Final Report (per VECC CQ #36), please provide an updated version of Table 4-48 from the initial Application that sets out the assignment of the reported savings to customer classes.

b) Please confirm that the reported total savings for each year as shown in Table IRR-67 reconcile with the annual kWh and kW savings as set out in Tables #4 and #5 of the IESO's Final Report.

c) Please explain how, for the demand billed classes, the 2012, 2013 and 2014 kW values used in Table IRR-68 were derived from the Net Peak Demand savings reported in Table IRR-67.

Response:

a) Based on the IESO's final 2011-2014 Final Report (per VECC CQ #36), please provide an updated version of Table 4-48 from the initial Application that sets out the assignment of the reported savings to customer classes. An updated version of Table 4-48 is provided below.

CDM Savings by Progam - IESO Final Report				
Residential CDM Savings	**2011**	**2012**	**2013**	**2014**
Program	**kWh**	**kWh**	**kWh**	**kWh**
Appliance Retirement	94,294	44,553	25,479	34,352
Appliance Exchange	1,192	4,504	7,758	13,300
HVAC Incentives	319,154	152,190	164,883	186,909
Conservation Instant Coupon Booklet	104,256	7,655	42,197	154,153
Bi-Annual Retailer Event	160,889	146,623	94,055	672,862
Residential Demand Response	257	2,046	962	-
Residential New Construction	-	-	-	149,950
Home Assistance Program	-	-	127,118	26,376
Time-of-Use CDM Savings	-	-	-	-
Total Residential Savings	**680,042**	**357,571**	**462,452**	**1,237,902**
GS < 50 kWh CDM Savings	**2011**	**2012**	**2013**	**2014**
Program	**kWh**	**kWh**	**kWh**	**kWh**
Direct Install Lighting	97,298	35,757	31,355	76,510
Total GS < 50 kWh CDM Savings	**$ 97,298**	**$ 35,757**	**$ 31,355**	**$ 76,510**
GS 50-999 kWh CDM Savings	**2011**	**2012**	**2013**	**2014**
Program	**kWh**	**kWh**	**kWh**	**kWh**
Retrofit	377,208	1,766,601	647,285	1,553,508
New Construction	-	-	-	126,132
Energy Audit	-	-	-	70,080
Demand Response 3	3,050	1,139	1,061	-
Electricity Retrofit Incentive Program	214,036	-	-	-
High Performance New Construction	417	330	-	-
Adjustments to 2011 Verified Results	-	(31,613)	-	234,778
Adjustments to 2012 Verified Results	-	-	40,076	361
Adjustments to 2013 Verified Results	-	-	-	585,130
Total GS 50-999 kWh CDM Savings	**594,711**	**1,736,457**	**688,422**	**2,569,989**
GS 50-999 kW CDM Savings	**2011**	**2012**	**2013**	**2014**
Program	**kW**	**kW**	**kW**	**kW**
Retrofit	48	264	131	274
New Construction	-	-	-	24
Energy Audit	-	-	-	16
Demand Response 3	78	78	79	54
Electricity Retrofit Incentive Program	40	-	-	-
High Performance New Construction	-	1	-	-
Adjustments to 2011 Verified Results	-	(21)	-	51
Adjustments to 2012 Verified Results	-	-	8	-
Adjustments to 2013 Verified Results	-	-	-	111
Total GS 50-999 kW CDM Savings	**166**	**322**	**218**	**530**

GS 1,000-5,999 kWk CDM Savings	2011	2012	2013	2014
Program	**kWh**	**kWh**	**kWh**	**kWh**
Energy Audit	-	-	-	60,467
Demand Response 3	-	-	-	-
Retrofit	103,574	-	-	-
Demand Response 3	24,735	6,964	18,771	
Electricity Retrofit Incentive Program	392,250	-	-	-
High Performance New Construction	765	269	-	-
Adjustments to 2011 Verified Results	-	(25,736)	-	202,573
Adjustments to 2012 Verified Results	-	-	34,579	311
Adjustments to 2013 Verified Results	-	-	-	504,867
Total GS 1,000-4,999 kWh CDM Savings	**521,324**	**(18,503)**	**53,350**	**768,218**
GS 1,000-4,999 kW CDM Savings	**2011**	**2012**	**2013**	**2014**
Program	**kW**	**kW**	**kW**	**kW**
Energy Audit	-	-	-	11
Demand Response 3	-	-	-	-
Retrofit	16	-	-	-
Demand Response 3	421	289	824	370
Electricity Retrofit Incentive Program	73	-	-	-
High Performance New Construction	-	0	-	-
Adjustments to 2011 Verified Results	-	(17)	-	37
Adjustments to 2012 Verified Results	-	-	7	-
Adjustments to 2013 Verified Results	-	-	-	79
Total GS 1,000-4,999 kW CDM Savings	**510**	**272**	**831**	**497**
Total (kWh)	**1,893,375**	**2,111,282**	**1,235,579**	**4,652,619**
Total (kW)	**676**	**594**	**1,049**	**1,027**

b) In preparing its response to this clarifying question, HHHI found that it had not included the persistent demand savings in 2014. Total Net Peak Demand Savings for 2014 are 2,825 kW rather than 1,825 kW as provided in Table IRR-67. HHHI has updated Table IRR-67 to include the persistent demand savings in 2014 in the table below.

Rate Class	2011	2012	2013	2014
Net Energy Savings - kWh				
Residential	820,118	1,103,664	2,057,529	2,727,819
GS < 50 kW	117,340	139,660	202,207	240,920
GS> 50 kW	717,211	2,621,440	3,823,715	5,563,844
GS > 1,000 kW	628,707	529,893	646,217	1,350,124
Total Net Energy Savings - kWh	**2,283,375**	**4,394,657**	**6,729,668**	**9,882,707**
Net Peak Demand Savings - kW				
Residential	333	573	594	1,203
GS < 50 kW	46	14	15	33
GS> 50 kW	182	485	373	820
GS > 1,000 kW	560	411	1,422	770
Total Net Peak Demand Savings - kW	**1,121**	**1,483**	**2,405**	**2,825**

A comparison of the Revised Table IRR-67 and IESO Tables #4 and #5 is provided below. HHHI notes that there are minor difference due to rounding as Table IRR-67 is based on kW and kWh savings while Tables #4 and #5 are rounded to MW and GWh.

Table 4: Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual			
	2011	2012	2013	2014
2011	1.0	0.4	0.4	0.4
2012	-	1.0	0.3	0.3
2013	-	-	1.4	0.3
2014	0.1	0.1	0.3	1.8
Total	**1.100**	**1.500**	**2.400**	**2.800**
IRR -67	**1.121**	**1.483**	**2.405**	**1.825**

Table 5: Net Energy Savings at the End User Level (GWh)

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011	1.9	1.9	1.9	1.8	7.5
2012	(0.1)	2.1	2.1	2.1	6.2
2013	-	0.1	1.2	1.2	2.5
2014	0.4	0.4	1.5	4.7	7.0
Total	**2.200**	**4.500**	**6.730**	**9.800**	**23.23**
IRR -67	**2.283**	**4.395**	**6.730**	**9.883**	**23.29**

c) As discussed in response to part (b), HHHI did not allocated the persistent demand savings in 2014 in Table IRR-67. HHHI has updated Table IRR-68 and Table IRR-69 to reflect the Net Peak Demand in the revised Table IRR-67. HHHI's revised LRAM claim is a credit balance of $18,852, a difference of $1,253 from the credit balance of $20,105 calculated in response to interrogatory 4-VECC-27.

Revised Table IRR-68

2011 Lost Revenue						
Rate Class	**Units**	**CDM Savings in Load Forecast**	**Actual CDM Savings**	**Variance**	**Variable Rates**	**Distribution Revenue**
Residential	kWh	-	820,118	820,118	$ 0.0119	$ 9,759
General Service < 50 kW	kWh	-	117,340	117,340	$ 0.0088	$ 1,029
General Service > 50 kW	kW	-	182	182	$ 3.3885	$ 617
General Service > 1,000 kW	kW	-	560	560	$ 3.6066	$ 2,020
2011 Total Lost Revenue						**$ 13,425**
2012 Lost Revenue						
Rate Class	**Units**	**CDM Savings in Load Forecast**	**Actual CDM Savings**	**Variance**	**Variable Rates**	**Distribution Revenue**
Residential	kWh	2,396,997	1,103,664	(1,293,333)	$ 0.0116	$ (14,938)
General Service < 50 kW	kWh	619,006	139,660	(479,346)	$ 0.0084	$ (4,019)
General Service > 50 kW	kW	485	485	-	$ 3.3298	$ -
General Service > 1,000 kW	kW	411	411	-	$ 3.1671	$ -
2012 Total Lost Revenue						**$ (18,957)**
2013 Lost Revenue						
Rate Class	**Units**	**CDM Savings in Load Forecast**	**Actual CDM Savings**	**Variance**	**Variable Rates**	**Distribution Revenue**
Residential	kWh	2,396,997	2,057,529	(339,468)	$ 0.0115	$ (3,915)
General Service < 50 kW	kWh	619,006	202,207	(416,799)	$ 0.0083	$ (3,446)
General Service > 50 kW	kW	373	373	-	$ 3.3350	$ -
General Service > 1,000 kW	kW	1,422	1,422	-	$ 3.0245	$ -
2013 Total Lost Revenue						**$ (7,361)**
2014 Lost Revenue						
Rate Class	**Units**	**CDM Savings in Load Forecast**	**Actual CDM Savings**	**Variance**	**Variable Rates**	**Distribution Revenue**
Residential	kWh	2,396,997	2,727,819	330,822	$ 0.0117	$ 3,882
General Service < 50 kW	kWh	619,006	240,920	(378,086)	$ 0.0084	$ (3,163)
General Service > 50 kW	kW	2,770	820	(1,950)	$ 3.3826	$ (6,597)
General Service > 1,000 kW	kW	607	770	163	$ 3.1010	$ 505
2014 Total Lost Revenue						**$ (5,373)**
Total Lost Revenue						**$ (18,265)**

Revised Table IRR-69

Rate Class	2011	2012	2013	2014	Sub-Total	Carrying Charges	Total
Residential	$ 9,759	$ (14,938)	$ (3,915)	$ 3,882	$ (5,212)	$ (167)	$ (5,380)
General Service < 50 kW	$ 1,029	$ (4,019)	$ (3,446)	$ (3,163)	$ (9,599)	$ (308)	$ (9,907)
General Service > 50 kW	$ 617	$ -	$ -	$ (6,597)	$ (5,980)	$ (192)	$ (6,172)
General Service > 1,000 kW	$ 2,020	$ -	$ -	$ 505	$ 2,525	$ 81	$ 2,607
Total	**$ 13,425**	**$ (18,957)**	**$ (7,361)**	**$ (5,373)**	**$ (18,265)**	**$ (587)**	**$ (18,852)**

7.0 COST ALLOCATION (EXHIBIT 7)

VECC – CQ 40

Reference: Energy Probe #40 b)
VECC #29 a)

a) Please re-calculate the Billing and Collecting weighting factor by:
- Rebasing the Collecting weightings such that Residential equals 1.0 per the Board's requirements.
- Calculating the overall weighting for each class as the sum of: i) its Billing weight multiplied by the percentage of total Billing and Collecting costs accounted for by Billing (estimated to be 62.4% from the trial balance in the CA Model) and ii) its Collecting weight, as determined in preceding step, multiplied by the percentage of total Billing and Collecting costs accounted for by Collecting (estimated to be 37.6%).

Response:

a) Hold

i. HHHI has adjusted the Collections weightings such that Residential equals 1.0. The revised Table is shown below. HHHI would like all parties to note that the revision did not result in any change to original weightings.

	Residential	General Service less than 50 kW	General Service 50 to 999 kW	General Service 1,000 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load
Billing							
Rankings from VECC IRR#39 EB-2011-0271	1	1	10	10	10	2	3
Effort - Billing Ratio	0.50	0.50	0.85	0.75	0.75	0.75	0.75
Billing weighting with effort	0.5	0.5	8.5	7.5	7.5	1.5	2.6
Collecting							
Rankings from VECC IRR#39 EB-2011-0271	1	0.7	0.4	0.1	0.1	0.2	0
Effort - Collecting Ratio	0.50	0.50	0.15	0.25	0.25	0.25	0.25
Collecting weighting with effort	0.5	0.4	0.1	0.0	0.0	0.1	0.1
Total Billing and Collecting Weighting							
Total Rankings with effort	**1.0**	**4.0**	**9.1**	**7.8**	**7.8**	**2.0**	**3.2**
Final weighting with Residential as baseline (1.00)	**1.0**	**4.0**	**9.1**	**7.8**	**7.8**	**2.0**	**3.2**
Weighting Factor for Billing and Collecting from I5.2	**1.0**	**0.7**	**1.7**	**1.4**	**1.4**	**0.4**	**0.6**

ii. HHI does not agree with the approach of weighting of billing and collections as a percentage of total cost. By using a percentage of total cost, the LDC specific weighting factors no longer become a LDC specific measure, but instead, a factor of total cost alone, thus negating the individual LDC determinations by class.

The methodology used by HHHI in this application is consistent with that used and approved in HHHI's 2012 Cost of Service Application (EB-2011-0271).

8.0 RATE DESIGN (EXHIBIT 8)

VECC – CQ 41

Reference: RTSR Model

a) Please provide an update version of the RTSR model that incorporates the 2016 approved UTRs (EB-2015-0311) and HON's 2016 approved rates per EB-2015-0079.

Response:

a) See RTSR Model.

VECC – CQ 42

Reference: VECC #31

a) Please update the 2016 forecasted LV costs and the resulting LV rates based on HON's 2016 approved rates per EB-2015-0079.

Response:

a) The updated costs are shown in the Table below. Please note that the costs were updated based on EB-2015-0079 and the demand was updated with final 2015 kWs.

Forecasted LV						
Charge Description	**Unit of Measure**	**Charge (2016 Rates)**	**HONI Feeder Location #1**	**HONI Feeder Location #2**	**HONI Feeder Location #3**	**Total**
# of feeders billed for:			**1**	**1**	**3**	**5**
2015 kW:			**113,759**	**133,544**	**656,523**	**903,827**
Service Charge	monthly / feeder	$481.41	$ 5,777	$ 5,777	$ 17,331	$ 28,885
Fixed DVA Rate Rider	monthly / feeder	$ 11.62	$ 139	$ 139	$ 418	$ 697
Fixed Foregone Revenue Rate Rider	monthly / feeder	$ 47.56	$ 571	$ 571	$ 1,712	$ 2,854
Facilities Charge	kW	$1.1740	$133,554	$156,781	$770,758	$1,061,092
Variable DVA Rate Rider (General)	kW	$0.3151	$ 35,846	$ 42,080	$206,870	$ 284,796
Total						**$ 1,378,323**