

Chatham-Kent Hydro Inc.

EB-2009-0261

Responses to Second Round Vulnerable Energy Consumer Coalition Interrogatories

Question #1

**Reference:** VECC #1 a)

- a) Please provide the projected 2009 ROE.
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Answer:

- a) The projected 2009 ROE is 7.0%.

Question #2

**Reference:** VECC #4 b) and Appendix D

- a) For each of the vehicles replaced over the period 2004-2009 inclusive, please provide the revenue received upon disposal e.g., from sale/auction, trade-in, etc., and indicate how these revenues have been recognized by the utility.
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Answer:

- a) CK Hydro has an Appraiser come in to assess the bucket trucks for resale. The contractor will then advertise Canada wide in order to find a buyer, and the vehicles are also listed in the newspaper. The sale will go the highest bidder to ensure that we receive the maximum salvage value for the vehicle.

Smaller vehicles are either traded-in to the dealership or advertised to secure the highest proceeds.

The proceeds on vehicle disposals were recorded in Other Income – Account 4360 Loss on Disposition.

The chart provided below shows the revenue received from disposals:

## Responses to Second Round Vulnerable Energy Consumer Coalition IR

Description	Vehicle #	Year of Vehicle	Years In Service	Kilometers	Original Purchase Price	Revenue Received on Disposal
<b>Year 2004 :</b>						
1989 Ford F800 with Double Bucket - Altec	VEBK05	1989	16	128,168	\$ -	\$ 30,000.00
1994 International Double Bucket - RBD	VEDD06	1994	11	50,256	\$ 214,444.16	\$ 66,750.00
Purchase value of VEBK05 not available as vehicle came from Wallaceburg Hydro in 1998 amalgamation and historical data available from former utility does not provided the value						
<b>2004 Total</b>					<b>\$ 214,444.16</b>	<b>\$ 96,750.00</b>
<b>Year 2005 :</b>						
1989 Ford F700 with Double Bucket - Altec	VEBK16	1989	15	117,720	\$ 132,401.59	\$ 22,000.00
<b>2005 Total</b>					<b>\$ 132,401.59</b>	<b>\$ 22,000.00</b>
<b>Year 2006 :</b>						
1993 International Bucket Truck - Telect Boc	VEBK11	1993	14	46,209	\$ 168,469.32	\$ 42,000.00
<b>2006 Total</b>					<b>\$ 168,469.32</b>	<b>\$ 42,000.00</b>
<b>Year 2007 :</b>						
1992 Ford F450 Single Bucket	VEBK17	1992	16	112,128	\$ 58,860.00	\$ 14,200.00
1993 Ford F800 Double Bucket	VEBK06	1993	15	40,499	\$ 118,357.20	\$ 27,000.00
<b>2007 Total</b>					<b>\$ 177,217.20</b>	<b>\$ 41,200.00</b>
<b>Year 2008 :</b>						
1994 Ford F450 Single Bucket	VEBK15	1994	15	111,950	\$ 64,352.08	\$ 16,500.00
<b>2008 Total</b>					<b>\$ 64,352.08</b>	<b>\$ 16,500.00</b>
<b>Year 2009 :</b>						
1996 GMC Chassis only - Boom reinstalled on a New Chassis						
	VEDD07	1996	14	35,446	\$ 45,532.09	\$ 4,000.00
<b>2009 Total</b>					<b>\$ 45,532.09</b>	<b>\$ 4,000.00</b>
<b>Year 2010 :</b>						
1995 International Double Bucket Truck	VEBK12	1995	15	27,988	\$ 298,196.71	
1998 International Single Bucket Truck	VEBK08	1997	14	201,490	\$ 152,918.56	
1999 Chev Single Bucket	VEBK19	2000	10	151,580	\$ 168,457.19	
<b>2010 Total</b>					<b>\$ 619,572.46</b>	

Note: All the disposals were fully depreciated except VEDD06 which had a net book value of \$ 8,643.51.

Therefore all the funds received were allocated to Other Income - Account # 4360 Loss on Disposition ,with the exception of \$,8,643.51 for vehicle VEDD06 which was applied against the net book value.

Question #3

**Reference:** VECC #5

- a) The referenced response states that the expected life of a wooden pole is 30 to 40 years. The evidence states that Chatham-Kent Hydro has 13,420 wooden poles and replaces about 35 annually. Please confirm that over a 40-year period, at this rate of replacement, the utility will replace only 1,400 poles.
  - b) Please explain how the current rate of replacement of wooden poles is sustainable.
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Answer:

- a) CK Hydro replaces 35 wood poles through its Capital Pole Replacement budget. This program replaces individual poles throughout the service territory that are not part of a specific capital project. We agree that only 1,400 poles would be replaced over 40 years at a rate of 35 per year; however, a significant number of poles are replaced through various specific capital projects as described below.
- b) For each of the past two years, approximately 135 wood poles have been replaced through the various specific capital projects. At this rate, approximately 5,400 poles, in addition to the 1,400 poles above, will be replaced over a 40 year period.

CK Hydro realizes that the rate of pole replacements will need to increase in the future to maintain the reliability of the distribution system.

Question #4

**Reference:** VECC #8

- a) Please re-do the response to part (a), reducing the variable revenues where appropriate for the transformer ownership allowance. Please report both resulting fixed/variable split by customer class and each class' share of the total revenue at current rates.

Answer:

The charts below have been revised by reducing the variable revenues where appropriate for the transformer ownership allowance.

Rate Class	Fixed	Variable	Transformer Allowance	Net Variable	Total	% Revenue	% Fixed	% Variable
Residential	4,238,221	2,649,378		2,649,378	6,887,599	55.3%	61.5%	38.5%
GS<50	1,130,382	745,800		745,800	1,876,182	15.1%	60.2%	39.8%
GS>50	804,433	604,789	131,486	473,303	1,277,736	10.3%	63.0%	37.0%
Intermediate	1,557,920	739,255	211,993	527,262	2,085,182	16.8%	74.7%	25.3%
Street Light	60,637	51,418		51,418	112,055	0.9%	54.1%	45.9%
Sentinel Light	15,206	2,810		2,810	18,016	0.1%	84.4%	15.6%
Unmetered Scattered	7,696	4,980		4,980	12,676	0.1%	60.7%	39.3%
Standby	56,467	168,789	48,403	120,386	176,853	1.4%	31.9%	68.1%
Total	7,870,962	4,967,219	391,882	4,575,337	12,446,299			

Rate Class	Volume kWh	Volume kW	Annualized Customers	Annual Connections	Fixed Rate	Total Fixed	Variable Rate	Total Variable
Residential	199,501,364		343,732		12.33	4,238,221	0.0133	2,649,378
GS<50	86,923,094		36,452		31.01	1,130,382	0.0086	745,800
GS>50	183,018,503	456,548	5,048		159.37	804,433	1.3247	604,789
Intermediate	134,791,341	353,322	331		4705.58	1,557,920	2.0923	739,256
Street Light	5,547,412	16,969	0	129,016	0.47	60,637	3.0301	51,417
Sentinel Light	334,470	997		3,919	3.88	15,206	2.8193	2,811
Unmetered Scattered	1,041,782			2,332	3.3	7,696	0.0048	4,980
Standby	31,031,687	80,671	12		4705.58	56,467	2.0923	168,788
Total						7,870,961		4,967,218

Question #5

**Reference:** VECC #10

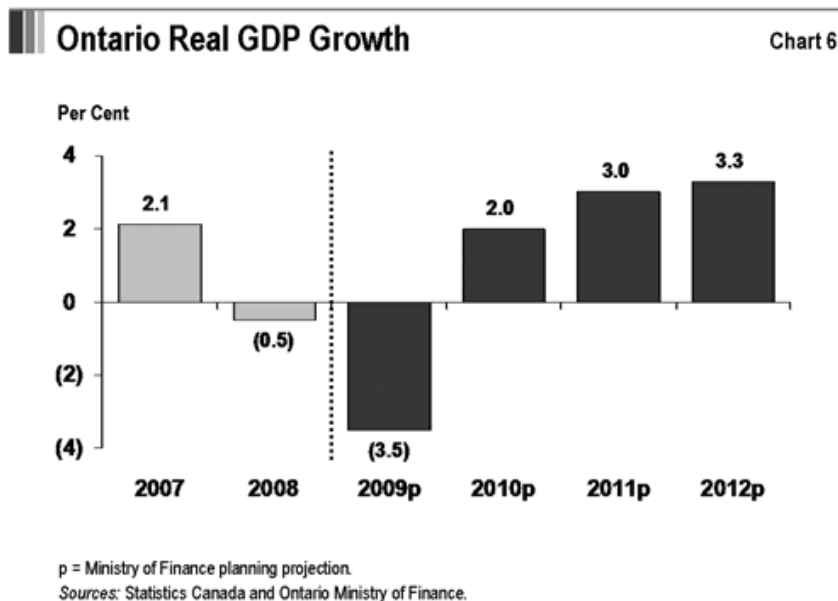
- a) Please confirm that the unemployment rates used to estimate the regression model (per Exhibit 3/Tab 2/Schedule 1, Appendix A) were based on Ontario values and not Windsor-Sarnia Regional values.
- b) The data reported in response to part (d) is based on the Province's Spring 2009 Budget and not the October 2009 Economic Outlook. Please provide the requested information.
- c) Using the results from part (b), please re-estimate the forecast purchases for 2009 and 2010, using:
  - The regression model that Chatham-Kent is proposing
  - The regression model developed in response to VECC #10 h)

Please also provide a revised version of Appendix A that reflects the updated economic and unemployment values used.

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Answer:

- a) Unemployment rates used were for Windsor-Sarnia Regional.
- b) The requested GDP and Unemployment information from the Ontario Government's (October 2009) Economic Outlook and Fiscal Review are provided below:



The following table shows details of the Ministry of Finance's economic outlook for 2009 to 2012:

The Ontario Economy, 2007 to 2012						
	Actual		Projected			
	2007	2008	2009	2010	2011	2012
Labour Market						
Unemployment Rate (per cent)	6.4	6.5	9.3	9.9	9.0	7.8

The data differs from CK Hydro's original submission as follows:

Year	Month	Chatham-Kent Hydro's Original Submission		Values based on latest Ontario Government Forecast	
		Unemployment Rate	GDP	Unemployment Rate	GDP
2009	Jan	9.8	139.5	9.3	139.4
	Feb	9.85	139.2	9.3	139.0
	Mar	9.9	138.9	9.3	138.6
	Apr	9.95	138.6	9.3	138.2
	May	10	138.3	9.3	137.8
	June	10.05	138.0	9.3	137.4
	July	10.1	137.7	9.3	136.9
	Aug	10.15	137.4	9.3	136.5
	Sep	10.2	137.2	9.3	136.1
	Oct	10.25	136.9	9.3	135.7
	Nov	10.3	136.6	9.3	135.3
	Dec	10.35	136.3	9.3	134.9
2010	Jan	10.4	136.5	9.9	135.1
	Feb	10.45	136.8	9.9	135.4
	Mar	10.5	137.1	9.9	135.6
	Apr	10.55	137.3	9.9	135.8
	May	10.6	137.6	9.9	136.0
	June	10.65	137.8	9.9	136.3
	July	10.7	138.1	9.9	136.5
	Aug	10.75	138.4	9.9	136.7
	Sep	10.8	138.6	9.9	136.9
	Oct	10.85	138.9	9.9	137.2
	Nov	10.9	139.2	9.9	137.4
	Dec	10.95	139.4	9.9	137.6

Differences are attributable to the date the data was available and the region for which the forecast was made (Ontario vs. Windsor-Sarnia). Data used by Chatham-Kent Hydro, was as current as believed available at the time the forecast was created.



c) Forecast purchases using Chatham-Kent Proposed Model:

Year	VECC Question # 6 (2 <sup>nd</sup> round IR)	Original Application
2009	809,607,839	802,584,558
2010	785,335,176	776,861,807

Forecast purchases using model from VECC #10 h) and the results from part b):

Year	Updated VECC # 6 (2 <sup>nd</sup> round IR)	VECC Question #10 h) (1 <sup>st</sup> round IR)
2009	876,662,747	864,727,906
2010	863,619,275	851,684,436

Revised Appendix A

Year	Month	No	KWH	Heating Degree Days	Cooling Degree Days	Peak Hours	Seasonal Weighting Factor	Industrial Production Factor	Population	Unemployment Rate	GDP	Median Age	Predicted KWH
2002	Jan	1	75,539,423	545.30	0.00	352	0	2	107,355	7.7	121.5	35.50	76,975,862
2002	Feb	2	68,515,032	494.80	0.00	320	-1	2	107,369	8.7	121.9	35.61	70,184,635
2002	Mar	3	73,639,815	513.90	0.00	320	0	3	107,383	9.2	122.2	35.73	75,005,529
2002	Apr	4	70,425,715	273.30	15.10	352	-0.75	4	107,397	8.2	122.6	35.84	71,329,414
2002	May	5	72,864,570	185.10	12.50	352	0	3	107,411	7.5	122.9	35.95	71,822,329
2002	Jun	6	79,716,033	16.50	118.30	320	0	3	107,425	7.2	123.3	36.07	80,456,681
2002	Jul	7	93,049,284	0.00	201.20	352	0	2	107,439	7.6	123.7	36.18	90,458,268
2002	Aug	8	91,281,708	0.00	149.20	336	1	2	107,453	7.7	124.0	36.30	87,400,422
2002	Sep	9	85,671,396	17.10	97.90	320	0.75	4	107,467	7	124.4	36.41	81,764,997
2002	Oct	10	78,002,634	255.90	12.60	352	0.25	4	107,481	6	124.8	36.53	75,904,256
2002	Nov	11	75,569,055	417.50	0.00	336	-0.25	3	107,495	6	125.1	36.64	74,402,213
2002	Dec	12	74,014,572	610.40	0.00	320	-0.25	0	107,509	6.3	125.5	36.76	75,390,328
2003	Jan	1	80,158,611	759.20	0.00	352	0	2	107,523	6.7	125.7	36.87	81,865,351
2003	Feb	2	73,538,697	656.20	0.00	320	-1	2	107,537	7.4	125.8	36.98	74,195,835
2003	Mar	3	74,987,208	524.10	0.00	336	0	3	107,551	8.1	126.0	37.10	76,334,181
2003	Apr	4	68,131,035	303.30	2.70	336	-0.75	4	107,565	8.2	126.1	37.21	69,772,327
2003	May	5	68,381,673	147.60	0.20	336	0	3	107,579	7.5	126.2	37.33	68,907,874
2003	Jun	6	73,186,791	30.30	64.20	336	0	3	107,593	6.8	126.4	37.44	74,827,019
2003	Jul	7	81,942,993	0.00	144.60	352	0	2	107,607	6.9	126.5	37.56	83,877,756
2003	Aug	8	80,915,733	0.00	143.10	320	1	2	107,621	6.8	126.7	37.67	86,658,912
2003	Sep	9	75,167,748	50.30	37.60	336	0.75	4	107,635	6.9	126.8	37.79	75,676,327
2003	Oct	10	72,475,980	225.60	1.00	352	0.25	4	107,649	6.4	127.0	37.90	73,666,528
2003	Nov	11	71,081,556	338.80	0.00	320	-0.25	3	107,663	6.5	127.1	38.02	71,988,729
2003	Dec	12	73,826,575	541.80	0.00	336	-0.25	0	107,677	6.9	127.3	38.13	74,290,160
2004	Jan	1	79,684,648	762.90	0.00	336	0	2	107,691	7.5	127.5	38.24	81,029,574
2004	Feb	2	72,900,352	579.40	0.00	320	-1	2	107,705	7.8	127.8	38.36	72,463,050
2004	Mar	3	75,667,416	429.30	0.00	368	0	3	107,719	8	128.1	38.47	75,613,290
2004	Apr	4	68,680,718	251.70	4.40	336	-0.75	4	107,733	8.2	128.3	38.59	68,981,675
2004	May	5	70,763,440	101.60	28.10	320	0	3	107,747	8	128.6	38.70	70,584,512
2004	Jun	6	76,247,526	21.40	62.00	352	0	3	107,761	8	128.9	38.82	74,210,520
2004	Jul	7	79,986,462	2.20	122.00	336	0	2	107,775	8.5	129.1	38.93	79,619,418
2004	Aug	8	80,648,262	6.10	74.20	336	1	2	107,789	8.9	129.4	39.05	77,527,877
2004	Sep	9	79,026,081	23.00	59.70	336	0.75	4	107,803	8.3	129.7	39.16	76,963,615
2004	Oct	10	72,549,672	190.90	0.50	320	0.25	4	107,817	7.8	129.9	39.27	70,884,638
2004	Nov	11	72,369,445	354.00	0.00	352	-0.25	3	107,831	7.6	130.2	39.39	72,697,152
2004	Dec	12	75,651,436	593.50	0.00	336	-0.25	0	107,845	7.8	130.5	39.50	74,750,971
2005	Jan	1	79,711,033	700.40	0.00	320	0	2	107,859	8.2	130.7	39.62	78,666,771
2005	Feb	2	72,086,002	572.00	0.00	320	-1	2	107,873	8.2	131.0	39.73	71,985,451
2005	Mar	3	78,211,488	545.30	0.00	352	0	3	107,887	8.4	131.3	39.85	77,149,956
2005	Apr	4	69,000,350	242.50	1.40	336	-0.75	4	107,901	7.9	131.6	39.96	68,532,998
2005	May	5	70,417,800	143.40	5.70	336	0	3	107,915	7.9	131.9	40.08	69,234,083
2005	Jun	6	87,906,300	4.40	166.90	352	0	3	107,929	7.7	132.2	40.19	86,941,932
2005	Jul	7	89,932,560	0.00	194.70	320	0	2	107,943	7.7	132.5	40.31	88,418,440

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2005	Aug	8	94,440,230	0.10	185.50	352	1	2	107,957	7.7	132.8	40.42	92,370,684
2005	Sep	9	81,092,320	15.20	82.20	336	0.75	4	107,971	7.5	133.1	40.53	79,990,696
2005	Oct	10	74,394,333	182.80	19.00	320	0.25	4	107,985	7.1	133.4	40.65	73,344,389
2005	Nov	11	73,123,230	346.20	0.00	352	-0.25	3	107,999	6.6	133.7	40.76	73,056,797
2005	Dec	12	76,522,590	659.70	0.00	320	-0.25	0	108,013	6.3	134.0	40.88	76,396,181
2006	Jan	1	76,765,830	494.70	0.00	336	0	2	108,027	7.5	134.3	40.99	75,276,716
2006	Feb	2	71,300,830	538.00	0.00	320	-1	2	108,041	8	134.5	41.11	71,301,242
2006	Mar	3	76,123,120	461.40	0.00	368	0	3	108,055	8.6	134.8	41.22	75,742,672
2006	Apr	4	66,029,130	219.50	1.10	304	-0.75	4	108,069	7.9	135.1	41.34	66,804,254
2006	May	5	72,285,180	105.90	40.60	352	0	3	108,083	7.9	135.4	41.45	73,214,799
2006	Jun	6	76,116,070	8.80	85.70	352	0	3	108,097	7.7	135.6	41.56	76,894,685
2006	Jul	7	87,124,080	0.00	197.40	320	0	2	108,111	8.4	135.9	41.68	88,226,972
2006	Aug	8	86,693,010	0.00	147.40	352	1	2	108,125	8.6	136.2	41.79	87,006,547
2006	Sep	9	71,803,266	52.10	22.30	320	0.75	4	108,139	8.5	136.5	41.91	72,069,764
2006	Oct	10	70,311,840	251.30	2.30	336	0.25	4	108,153	7.4	136.8	42.02	72,999,056
2006	Nov	11	72,024,057	356.80	0.00	352	-0.25	3	108,167	6.9	137.0	42.14	73,009,068
2006	Dec	12	72,529,897	460.40	0.00	304	-0.25	0	108,177	7	137.3	42.25	71,154,241
2007	Jan	1	75,943,576	602.40	0.00	352	0	2	108,151	8.6	137.6	42.37	76,922,270
2007	Feb	2	73,489,679	706.10	0.00	320	-1	2	108,125	9	137.8	42.48	73,390,594
2007	Mar	3	73,780,831	429.30	0.20	352	0	3	108,099	9.6	138.1	42.60	72,780,958
2007	Apr	4	66,320,469	285.20	0.90	320	-0.75	4	108,072	9	138.3	42.71	66,539,834
2007	May	5	68,636,519	87.20	46.00	352	0	3	108,046	9.1	138.6	42.82	70,937,138
2007	Jun	6	76,584,776	8.10	132.20	336	0	3	108,020	9.2	138.8	42.94	79,006,163
2007	Jul	7	77,111,267	1.30	148.20	336	0	2	107,994	9.2	139.1	43.05	79,745,177
2007	Aug	8	85,216,617	4.40	167.40	352	1	2	107,968	9	139.3	43.17	86,497,400
2007	Sep	9	73,536,545	25.40	76.40	304	0.75	4	107,942	8.1	139.6	43.28	74,744,527
2007	Oct	10	71,397,719	111.20	42.30	352	0.25	4	107,916	6.8	139.8	43.40	72,434,967
2007	Nov	11	69,283,467	400.30	0.00	352	-0.25	3	107,889	6.3	140.1	43.51	70,445,434
2007	Dec	12	70,507,648	595.00	0.00	304	-0.25	0	107,863	6.2	140.3	43.63	70,309,069
2008	Jan	1	75,226,388	611.20	0.00	352	0	2	107,843	7.6	140.3	43.74	73,669,879
2008	Feb	2	71,282,776	629.30	0.00	320	-1	2	107,822	7.9	140.3	43.85	68,505,090
2008	Mar	3	73,304,135	541.60	0.00	304	0	3	107,801	8.6	140.2	43.97	70,182,566
2008	Apr	4	66,441,873	223.80	1.30	352	-0.75	4	107,781	8.1	140.2	44.08	63,184,607
2008	May	5	66,716,840	143.20	11.60	336	0	3	107,760	8.3	140.1	44.20	64,087,007
2008	Jun	6	76,146,317	3.20	123.90	336	0	3	107,739	8.2	140.1	44.31	74,868,070
2008	Jul	7	83,277,874	0.30	188.60	352	0	2	107,719	8.8	140.0	44.43	81,978,144
2008	Aug	8	75,973,258	0.90	144.80	320	1	2	107,698	9	140.0	44.54	79,081,676
2008	Sep	9	68,765,247	12.20	65.00	336	0.75	4	107,677	8.7	139.9	44.66	70,434,391
2008	Oct	10	63,416,229	220.70	3.30	352	0.25	4	107,657	7.8	139.9	44.77	66,001,659
2008	Nov	11	64,406,943	413.30	0.00	304	-0.25	3	107,636	7.7	139.8	45.00	64,918,217
2008	Dec	12	67,860,200	632.0	0.0	336	-0.25	0	107,615	8.1	139.8	45	67,895,575
2009	Jan	1	70,152,781	799.1	0.0	336	0	2	107,598	9.3	139.4	45	78,169,263
2009	Feb	2	61,404,169	575.4	0.0	304	-1	2	107,581	9.3	139.0	45	68,355,446
2009	Mar	3		484.9	0.1	352	0	3	107,564	9.3	138.6	45	73,148,136
2009	Apr	4		258.2	2.7	320	-0.75	4	107,547	9.3	138.2	45	65,376,165
2009	May	5		114.8	23.0	320	0	3	107,530	9.3	137.7	45	66,767,114
2009	Jun	6		15.5	109.6	352	0	3	107,513	9.3	137.3	45	76,994,050

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2009	Jul	7		0.8	167.8	352	0	2	107,496	9.3	136.9	45	83,103,826
2009	Aug	8		2.0	138.6	320	1	2	107,479	9.3	136.5	45	81,645,861
2009	Sep	9		37.9	58.7	336	0.75	4	107,462	9.3	136.1	45	73,916,545
2009	Oct	10		202.1	8.8	336	0.25	4	107,445	9.3	135.7	45	69,271,473
2009	Nov	11		363.2	0.0	320	-0.25	3	107,428	9.3	135.3	45	68,126,943
2009	Dec	12		591.4	0.0	352	-0.25	0	107,411	9.3	134.9	45	71,787,924
2010	Jan	1		661.3	0.0	320	0	2	107,397	9.9	135.1	45	73,643,638
2010	Feb	2		582.9	0.0	304	-1	2	107,384	9.9	135.3	45	67,614,415
2010	Mar	3		481.6	0.1	368	0	3	107,370	9.9	135.6	45	72,914,970
2010	Apr	4		259.6	3.0	320	-0.75	4	107,357	9.9	135.8	45	64,546,425
2010	May	5		119.7	22.7	320	0	3	107,344	9.9	136.0	45	65,939,131
2010	Jun	6		15.1	107.4	352	0	3	107,330	9.9	136.2	45	75,817,819
2010	Jul	7		0.9	161.8	336	0	2	107,317	9.9	136.5	45	80,735,646
2010	Aug	8		2.1	142.2	336	1	2	107,303	9.9	136.7	45	81,950,265
2010	Sep	9		37.9	58.2	336	0.75	4	107,290	9.9	136.9	45	72,964,664
2010	Oct	10		200.2	9.6	320	0.25	4	107,276	9.9	137.1	45	67,719,691
2010	Nov	11		367.1	0.0	336	-0.25	3	107,263	9.9	137.4	45	68,060,905
2010	Dec	12		594.7	0.0	368	-0.25	0	107,250	9.9	137.6	45	71,711,707

Question #6

**Reference:** VECC #11

- a) With respect to the response to part c), please undertake the following:
    - Pro-rate the January-November 2009 sales for the 17 customers over 12 months to obtain a estimate for 2009 in total
    - Contrast this estimate with the sales in 2007 to determine the change
    - Increase the change for losses
    - Contrast the result with the 90,000,105 kWh in the Application (Exhibit 3/Tab 2/Schedule 1, page 16)
  - b) With respect to part d), since the additional 5% identified by Navigant was calculated over the period 2002-2007. Why wouldn't it then already be reflected in the regression analysis which generally covered the same period?
  - c) Please re-estimate the conservation adjustment assuming that for 2010 the impact of smart meters is limited only to those customers actually subject to TOU billing.
- 

Answer:

- a) The following chart contains the 12 months Average for the 17 customers compared to the 2007 Actual based on the terms set out in the question.

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<b><u>Customers Closed</u></b>								
	11 months kWh 2009	Avg	Annual Average	2007 Actual kWh	Billed Difference	Losses	Purchased Difference	Rate Application
Customer 1	44,183	4,017	48,200	365,194	316,994	1.0443	331,037	443,767
Customer 2	-	-	-	8,349,700	8,349,700	1.0443	8,719,592	8,453,204
Customer 3	523,165	47,560	570,725	1,238,559	667,834	1.0443	697,419	494,913
Customer 4 A	-	-	-	1,230,644	1,230,644	1.0443	1,285,162	1,535,927
Customer 4 B	-	-	-	2,962,591	2,962,591	1.0443	3,093,834	2,517,831
Customer 4 C	-	-	-	-	-	1.0443	-	183,032
Customer 5	49,000	4,455	53,455	-	53,455	1.0443	55,823	190,248
Customer 5	-	-	-	1,125,106	1,125,106	1.0443	1,174,948	1,308,988
Customer 6	-	-	-	103,025	103,025	1.0443	107,589	834,710
Customer 7	744,116	67,647	811,763	16,541,416	15,729,653	1.0443	16,426,477	18,166,823
Customer 8	3,149,790	286,345	3,436,135	15,999,793	12,563,658	1.0443	13,120,229	14,819,369
Customer 9	242,360	22,033	264,393	1,333,920	1,069,527	1.0443	1,116,907	847,672
Customer 10	14,511	1,319	15,830	373,151	357,321	1.0443	373,150	565,956
Customer 11	-	-	-	302,290	302,290	1.0443	315,681	324,538
Customer 12	12,467,863	1,133,442	13,601,305	35,525,700	21,924,395	1.0443	22,895,646	32,416,430
Customer 13	2,707,151	246,105	2,953,256	8,224,414	5,271,158	1.0443	5,504,671	10,326,716
	<u>19,942,139</u>		<u>21,755,061</u>	<u>93,675,503</u>	<u>71,920,442</u>		<u>75,106,518</u>	<u>93,430,124</u>

<b><u>Customers Slow down</u></b>								
	11 months kWh 2009	Avg	Annual Average	kWh 2007	Billed Difference	Losses	Purchased Difference	Rate Application
Customer 14	945,441	85,949	1,031,390	1,672,583	641,193	1.0443	669,598	347,348
Customer 15	65,333	5,939	71,272	1,260,169	1,188,897	1.0443	1,241,565	104,1066
Customer 16	3,621,782	329,253	3,951,035	4,378,973	427,938	1.0443	446,896	1139485
	<u>4,632,556</u>		<u>5,053,697</u>	<u>7,311,725</u>	<u>2,258,028</u>		<u>2,358,058</u>	<u>2,527,899</u>

<b><u>Customers Slow down</u></b>								
	11 months kWh 2009	Avg	Annual Average	kWh 2007	Billed Difference	Losses	Purchased Difference	Rate Application
Customer 17 A	477,432	43,403	520,835	1,257,656	736,821	1.0443	769,463	659,589
Customer 17 B	609,354	55,396	664,750	2,039,137	1,374,387	1.0443	1,435,273	1,044,962
Customer 17 C	332,946	30,268	363,214	1,708,076	1,344,862	1.0443	1,404,439	968,697
	<u>1,419,732</u>		<u>1,548,799</u>	<u>5,004,869</u>	<u>3,456,071</u>		<u>3,609,175</u>	<u>2,673,248</u>

<b><u>Companies purchased above closures</u></b>								
	11 months kWh 2009	Avg	Annual Average	kWh 2007	Billed Difference	Losses	Purchased Difference	Rate Application
Customer 2	4,471,314	406,483	4,877,797	0	4,877,797	1.0443	5,093,884	2,915,018
Customer 4	616,264	56,024	672,288	0	672,288	1.0443	702,070	455,120
Customer 5	1,063,543	96,686	1,160,229	0	1,160,229	1.0443	1,211,627	470,373
Customer 7	261,959	23,814	285,773	0	285,773	1.0443	298,433	49,530
Customer 9	27,640	2,513	30,153	0	30,153	1.0443	31,488	28,209
Customer 14	33,734	3,067	36,801	0	36,801	1.0443	38,431	7,577
	<u>6,474,454</u>		<u>7,063,041</u>	<u>-</u>	<u>7,063,041</u>		<u>7,375,933</u>	<u>3,925,827</u>

Final Load Adjustment			
	Purchased Difference	Rate Application	
Customers Closed - Decrease Load	75,106,518	93,430,124	
Customers Slow down - Decrease Load	2,358,058	2,527,899	
Customer Slow down Wheels - Decrease Load	3,609,175	2,673,248	
Purchased building from closures - Increase Load	7,375,933	3,925,827	
	<u>73,697,817</u>	<u>94,705,444</u>	

- b) CK Hydro believes that since the significant conservation impacts were at the end of the period used for the regression analysis, it would not capture all of the conservation impacts. By CK Hydro using a conservative number of 4% for the manual conservation adjustment the possibility of double counting is eliminated.

c) Please see below for the re-estimated conservation adjustment.

	Avg # of TOU customers	Annual Conservation (kWh)	2010 Conservation Impact
Jan - Jun	14,322	355	2,542,155
Jul - Dec	28,644	355	5,084,310
			<u>7,626,465</u>

Question #7

**Reference:** VECC #12

- a) With respect to part c), please provide the number of connections for Street Lights, Sentinel Lights and USL.
- b) Part h) indicates that the adjustment required to match the results of the regression analysis for 2009 and 2010 is considerably greater than past adjustments for weather normalization. Part l) indicates that the adjustment captures economic conditions as well. How can Chatham-Kent be assured there is no double counting in this adjustment when:
  - The projection developed using the regression model already includes a forecast of the economic outlook for 2009 and 2010
  - Subsequent to this adjustment, manual adjustment is made to reflect the load reduction for 17 large customers
- c) With respect to part o), please clarify whether the 90,000,104 is the estimate of the impact of slow/down and closures on billed energy or purchased energy – as the same value is used in Tables 3-10 and 3-23. Please revise the overall load forecast if and as required.

---

Answer:

- a) Please see the table below:

	<u># of Connections</u>
Street Lights	10,679
Sentinel Lights	344
USL	194

- b) CK Hydro does not believe that there is double counting when making the weather and economic adjustment to the load forecast.

If CK Hydro uses the Hydro One weather sensitivity allocation, the 2010 Test Year billed consumption for the Residential and General Service < 50 kW classes will be below a level that is reasonable (Exhibit 3, Tab 2, Schedule 1, Table 3-22).

CK Hydro is using the proposed allocation for the difference in purchase consumption and billed consumption for two reasons:

- The impact on the 2010 billed consumption identified above
  - In 2009 rate applications Interveners had a concern with how LDCs were allocating the differences; CK Hydro is proposing an allocation that will address this issue
- c) The estimate of the impact of the slowdown and closures, which is 90,000,104, is on the purchased energy for those customers.

Please refer to CK Hydro's response to Energy Probe Question #77 (second round of Interrogatories).



Question #8

**Reference:** VECC #15

- a) Part h) requested the derivation of the revenue split between classes as set out in Table 7-6. Please provide a schedule that sets out how the %'s were derived from (and are consistent with) the proposed revenue to cost ratios.

Answer:

- a) Please refer to CK Hydro's response to Board Staff Question 38 b) (first round of interrogatories) for the cost allocation sheet O1 showing the derivations requested.

A summary of the corresponding revenue by rate class, % revenue by rate class and the revenue to cost ratios is as follows:

	Table 8-3	Table 7-6	Table 7-7
	Revenue Requirement	Revenue Split	Rev / Cost Ratios
Residential	7,927,879	54.2%	98.1%
General Service < 50 kW	2,159,088	14.8%	105.3%
General Service > 50 to 999 kW	2,510,397	17.2%	101.9%
Intermediate	1,317,410	9.0%	133.6%
Large Use	0	0.0%	0.0%
Streetlights	292,758	2.0%	94.2%
Sentinel Lights	36,595	0.3%	85.5%
Unmetered Scattered Loads	27,812	0.2%	94.2%
Standby	365,947	2.5%	55.3%

Question #9

**Reference:** VECC #18

- a) The response includes a 2.16% increase in Connection costs. However, the Board's July 2009 Guideline (G-2008-0001, Revision 1.0) indicates that Connection charges will decrease by 2.2% effective July 2009. Please reconcile.

Answer:

- a) The change in Connection charges was mistakenly inputted as an increase of 2.2% rather than a decrease. Please see the updated Transmission Connection charge below:

Revised Transmission Connect charge

	IESO		Hydro One		Total		Rate Change		Revenue		Difference	
	Network	Connection	Network	Connection	Network	Connection	Network	Connection	Network	Connection	Network	Connection
Forecast 2010	2,265,550	2,269,587	827,982	724,957	3,093,532	2,994,544	3,201,866	2,930,006	(3,243,041)	(2,884,124)	(41,175)	45,882

	Network	Connection
<b>Hydro One</b>		
New	2.66	2.27
Pervious	2.57	2.32
	0.09	-0.05
	3.50%	-2.16%
<b>IESO Rates</b>		
New	2.66	2.27
Pervious	2.57	2.32
	0.09	-0.05
	3.50%	-2.16%
<b>CK H Rate Change</b>		
Estimated Revenue	(3,243,041)	(2,884,124)
Estimated Varaince	(41,175)	45,882
Difference %	-1.3%	1.6%

Rates for 2010	Revised 2010		
	Current	Proposed	Difference
<b>CK H Rate - Network</b>			
Residential	0.0048	0.0047	(0.0001)
GS < 50 kW	0.0043	0.0042	(0.0001)
GS kW 50 to 4,999	1.7720	1.7495	(0.0225)
GS kW 50 to 4,999 TOU	1.8882	1.8642	(0.0240)
Standby	1.8882	1.8642	(0.0240)
Unmetered Scattered	0.0043	0.0042	(0.0001)
Streetlight	1.3363	1.3193	(0.0170)
Sentinel Light	1.3460	1.3289	(0.0171)
<b>CK H Rate - Connection</b>			
Residential	0.0041	0.0042	0.0001
GS < 50 kW	0.0037	0.0038	0.0001
GS kW 50 to 4,999	1.4556	1.4788	0.0232
GS kW 50 to 4,999 TOU	1.5942	1.6196	0.0254
Standby	1.5942	1.6196	0.0254
Unmetered Scattered	0.0037	0.0038	0.0001
Streetlight	1.1244	1.1423	0.0179
Sentinel Light	1.1475	1.1658	0.0183

Question #10

**Reference:** Board Staff #13 and #15

- a) Exhibit 3/Tab 2/Schedule 1, page 14 states that the forecast for 2009 and 2010 used the average heating and cooling degree days for each month as occurred over the 2002-2008 period. This would suggest that the monthly values for 2009 and 2010 would be the same. However, the 2009 and 2010 values shown for heating degree days and cooling degree days differ for each month. Also, the response to Board Staff #15 suggests a historical average for the period 1998-2008 was used. Please respond more fully to the Board Staff IR #13 and explain these inconsistencies.
- b) If the 2009 and 2010 forecasts are not based on the average degree days in each month over the 2002-2008 period, please provide:
  - A revised version of Table 3-7 using such values
  - A revised response to VECC #10 i) using such values

Answer:

- a) The heating and cooling degree day values are different between 2009 and 2010. An explanation of the 2009 and 2010 forecasted heating and cooling degree days is provided below.

The 2009 heating and cooling degree day averages are based on 1999 to 2008 (10 year average) not 2002-2008 as was previously stated. The answer for Board Staff question #15 intended to state 10 years, January 1999 to December 2008. Please note that this does not apply to January 2009 data as the actual cooling and heating degree day data was used as it was known at the time of the original calculation.

The 2010 heating and cooling degree day averages are based on the prior 10 years averaged for the months January 2000 to December 2009 (February through December 2009 inputs were based on the forecast for 2009).

The following are the heating and cooling degree days used in the original forecast:

Year	Month	Heating Degree Days	Cooling Degree Days
2009	Jan	799.1	0.0
2009	Feb	575.4	0.0
2009	Mar	484.9	0.1
2009	Apr	258.2	2.7
2009	May	114.8	23.0
2009	Jun	15.5	109.6
2009	Jul	0.8	167.8
2009	Aug	2.0	138.6
2009	Sep	37.9	58.7
2009	Oct	202.1	8.8
2009	Nov	363.2	0.0
2009	Dec	591.4	0.0

2010	Jan	661.3	0.0
2010	Feb	582.9	0.0
2010	Mar	481.6	0.1
2010	Apr	259.6	3.0
2010	May	119.7	22.7
2010	Jun	15.1	107.4
2010	Jul	0.9	161.8
2010	Aug	2.1	142.2
2010	Sep	37.9	58.2
2010	Oct	200.2	9.6
2010	Nov	367.1	0.0
2010	Dec	594.7	0.0

b) Original Forecast Model using 6 year HDD and CDD Averages for 2009 and 2010

Revised Table 3-7			
Year	Actual	Predicted	%Difference
2002	938,289,237	931,094,934	-0.77%
2003	893,794,600	912,061,000	2.00%
2004	904,175,458	895,326,292	-0.99%
2005	946,838,236	936,088,379	-1.15%
2006	899,106,310	903,700,015	0.51%
2007	881,809,112	893,753,530	1.34%
2008	852,818,080	844,806,883	-0.95%
2009		697,662,403	
2010		675,027,889	

Forecast without GDP and Median Age and using 6 year HDD and CDD Averages for 2009 and 2010

Revised Table for 10 i)	
Year	Forecasted kWh Purchase
2009	861,968,979
2010	852,039,801

Question #11

**Reference:** VECC #10 j) and Board Staff #17 b)

- a) Based on the weather normal purchase prediction for 2008 provided in response to VECC 10 j) and Chatham Kent's weather normalization methodology, please calculate the weather normal use for each customer class for 2008 and provide the results in terms of both total sales and sales per customer.

Answer:

- a) The total consumption and average consumption by rate class, using the information provided in CK Hydro's response to VECC question #10 j) in the first round of Interrogatories is as follows:

2008 Predicted Purchases (VECC \$10 j)		846,507,369							
Loss Factor		1.0443							
2008 Billed Consumption		810,597,883							
2008 Actual Billed		815,656,982							
Difference		-5,059,099							
	Residential	General Service < 50 kW	General Service > 50 to 999 kW	Intermediate	Streetlights	Sentinel Lights	Unmetered Scattered Loads	Standby	Total
2008 Actual	232,982,274	99,914,752	234,655,904	188,724,594	6,570,411	393,539	1,060,728	51,354,780	815,656,982
Weather Allocation	28.6%	12.2%	28.8%	23.1%	0.8%	0.0%	0.1%	6.3%	100.0%
Weather Consumption	-1,445,069	-619,720	-1,455,449	-1,170,561	-40,753	-2,441	-6,579	-318,527	-5,059,099
2008 Weather Normalized Consumption	231,537,205	99,295,032	233,200,455	187,554,033	6,529,658	391,098	1,054,149	51,036,253	810,597,883
2008 Avg Normalized Consumption	8.123	32,062	570.172	8,525.183	611	1,137	5,434	51,036,253	

Note: The weather allocation is based upon the % of actual consumption in rate class of the total consumption for the 2008 year.

Question #12

**Reference:** VECC #20 a) and Exhibit 8/Tab 1/Schedule 6, Table 8-17

- a) Please confirm that the loss factor has been trending down, i.e., that the three highest loss factors are for the years 2002, 2003, and 2004 respectively.
  - b) Given this trend, please explain why data from the years 2002-2004 inclusive should be used to calculate the total loss factor.
- 

Answer:

- a) Yes.
- b) There are many factors that impact line losses and have impacted the reduction experienced by CK Hydro, such as:
  - Maintenance programs
  - Capital programs
  - Weather
  - Customer loads

The first two factors are influenced by CK Hydro and are two of the factors in planning the maintenance and capital programs. Through these efforts the line losses have decreased.

The other two factors are outside of CK Hydro's control and can fluctuate much more:

- The weather impact on losses is when the summers are hotter the transformers and other equipment heat up such that they are not as efficient and therefore losses increase. The weather in the past couple of years was not a hot therefore reducing the line losses.
- Customer loads when they are extremely high, more electricity is pushed through the system which may overload the system. This will cause line losses. Since CK Hydro has seen a reduction in load this has reduced line losses.

By using a longer historical period to forecast the line losses some of the more volatile variables, such as weather and customer load, will be normalized.