UNDERTAKING NO. JT1.1

TO EXPLAIN THE INCREASE IN DEFICIENCIES SHOWN IN THE 2016 REVENUE-REQUIREMENT WORK FORM, TRACKING FORM OF 396,764, WITH THE REVERSAL OF THE SIGNS OF THE 227,538 SHOWN IN ATTACHMENT 1 OF 3 ENERGY PROBE 15.

Response:

The first adjustment on Sheet 10. Tracking Sheet of the 2016 Revenue Requirement Work Form ("RRWF") submitted September 11, 2015 erroneously used the value of $11,443,839 which was the "2015 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES" to calculate the revised revenue deficiency. The difference between the 2015 Projected Distribution Revenue of $11,443,839 and the $11,840,603 initially reported on the original RRWF is $396,764.

The number that should have been used for the first adjustment was the "2016 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES" number of $11,385,527. The difference between the 2016 Projected Distribution Revenue of $11,385,527 and the $11,840,603 initially reported on the original RRWF is $455,076, which accounts for the reversal of the $227,538.

The correct number of $11,378,402 for "2016 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES" was then utilized in the remaining adjustments which accounted for both the reversal of the $227,538 as well as the updated load forecast.

UNDERTAKING NO. JT1.2

TO REDO ATTACHMENT 1 USING THE UPDATED FORECAST.

Response:

Attachment to IRR 1-Staff-10 updated for revised load forecast attached.

Benchmarking Calculations for LDC Forecasting

Selected LDC: Kingston Hydro Corporation

Line Reference Number	Account		2013	2014	2015	2016	2017	2018	2019	2020
		Section 1: Source Data and OM&A Calculations								
1		**OM&A Data (Detail may be hidden or expanded using the +/- buttons to the left of the row numbers)**								
2	5005	Operation Supervision and Engineering	757,739	326,733	251,562	259,109	263,513	267,993	272,549	277,182
3	5010	Load Dispatching	556,090	542,919	506,507	521,702	530,571	539,591	548,764	558,093
4	5012	Station Buildings and Fixtures	74,184	92,827	93,430	96,233	97,869	99,533	101,225	102,946
5	5014	Transformer Station Equipment - Operation Labor	-	-	-	-	-	-	-	-
6	5015	Transformer Station Equipment - Operation Supplies and Expenses	-	-	-	-	-	-	-	-
7	5016	Distribution Station Equipment - Operation Labor	57,108	28,625	32,024	32,985	33,545	34,116	34,696	35,286
8	5017	Distribution Station Equipment - Operation Supplies and Expenses	(16,838)	19,664	26,659	27,458	27,925	28,400	28,883	29,374
9	5020	Overhead Distribution Lines and Feeders - Operation Labor	316,993	152,718	137,267	141,385	143,789	146,233	148,719	151,247
10	5025	Overhead Distribution Lines and Feeders - Operation Supplies and Expenses	79,561	29,265	58,412	60,164	61,187	62,227	63,285	64,361
11	5035	Overhead Distribution Transformers - Operation	8,375	4,072	7,828	8,063	8,200	8,340	8,481	8,626
12	5040	Underground Distribution Lines and Feeders - Operation Labor	7,958	92,541	112,897	116,284	118,260	120,271	122,315	124,395
13	5045	Underground Distribution Lines and Feeders - Operation Supplies and Expenses	15,350	13,607	60,952	62,781	63,848	64,933	66,037	67,160
14	5055	Overhead Distribution Lines and Feeders	4,792	9,707	-	-	-	-	-	-
15	5065	Meter Expense	564,964	408,043	390,635	402,354	409,194	416,150	423,225	430,420
16	5070	Customer Premises - Operation Labor	332,018	135,373	119,442	123,026	125,117	127,244	129,407	131,607
17	5075	Customer Premises - Operation Materials and Supplies	23,184	16,288	23,637	24,346	24,760	25,181	25,609	26,044
18	5085	Miscellaneous Distribution Expense	121,363	113,494	140,487	144,702	148,608	152,621	156,742	160,974
19	5090	Underground Distribution Lines and Feeders - Rental Paid	-	-	-	-	-	-	-	-
20	5095	Overhead Distribution Lines and Feeders - Rental Paid	1,445	27,801	45,000	46,350	47,601	48,887	50,207	51,562
21	5096	Other Rent (Distribution)	-	-	-	-	-	-	-	-
22		**Subtotal: Operation**	**2,904,286**	**2,013,678**	**2,006,738**	**2,066,941**	**2,103,989**	**2,141,719**	**2,180,143**	**2,219,275**
23	5105	Maintenance Supervision and Engineering	3,860	40,434	84,219	86,746	88,221	89,720	91,246	92,797
24	5110	Maintenance of Buildings and Fixtures	41,360	60,735	65,242	67,199	68,342	69,504	70,685	71,887
25	5112	Maintenance of Transformer Station Equipment	-	-	-					
26	5114	Maintenance of Distribution Station Equipement	148,541	272,378	255,237	262,894	267,363	271,909	276,531	281,232
27	5120	Maintenance of Poles, Towers and Fixtures	35,810	37,999	67,259	69,277	70,455	71,653	72,871	74,110
28	5125	Maintenance of Overhead Conductors and Devices	229,581	156,430	166,161	171,146	174,055	177,014	180,023	183,084
29	5130	Maintenance of Overhead Services	24,540	37,752	71,130	73,264	74,510	75,776	77,065	78,375
30	5135	Overhead Distribution Lines and Feeders - Right of Way	242,587	192,300	286,938	295,547	300,571	305,681	310,877	316,162
31	5145	Maintenance of Underground Conduit	86,720	63,339	63,910	65,828	66,947	68,085	69,242	70,420
32	5150	Maintenance of Underground Conductors and Devices	137,382	145,482	158,078	162,820	165,588	168,403	171,266	174,177
33	5155	Maintenance of Underground Services	15,146	20,154	38,877	40,043	40,724	41,416	42,120	42,836
34	5160	Maintenance of Line Transformers	1,497	4,507	37,753	38,885	39,546	40,219	40,902	41,598
35	5175	Maintenance of Meters	16,769	6,149	30,000	30,900	31,425	31,960	32,503	33,055
36		**Subtotal: Maintenance**	**983,793**	**1,037,660**	**1,324,805**	**1,364,549**	**1,387,746**	**1,411,338**	**1,435,331**	**1,459,732**
37	5305	Supervision (Billing and Collection)	-	-	-	-	-	-	-	-
38	5310	Meter Reading Expense	189,285	180,413	192,019	197,779	201,142	204,561	208,039	211,575
39	5315	Customer Billing	484,272	356,828	411,184	423,520	430,719	438,042	445,488	453,062
40	5320	Collecting	131,757	137,871	133,094	137,087	139,417	141,787	144,198	146,649
41	5325	Collecting - Cash Over and Short	-	-	-	-	-	-	-	-
42	5330	Collection Charges	-	-	-	-	-	-	-	-
43	5340	Miscellaneous Customer Account Expenses	-	-	-	-	-	-	-	-
44		**Subtotal : Billing and Collections**	**805,314**	**675,112**	**736,297**	**758,385**	**771,278**	**784,390**	**797,724**	**811,286**
45	5405	Supervision (Community Relations)	-	-	-	-	-	-	-	-
46	5410	Community Relations - Sundry	-	-	-	-	-	-	-	-
47	5420	Community Safety Program	230	-	1,659	1,709	1,738	1,768	1,798	1,828
48	5425	Miscellaneous Customer Service and Informational Expenses	111,855	68,322	90,693	93,413	95,001	96,617	98,259	99,929
49		**Subtotal: Community Relations**	**112,085**	**68,322**	**92,352**	**95,123**	**96,740**	**98,384**	**100,057**	**101,758**
50	5605	Executive Salaries and Expenses	139,925	152,294	155,423	160,086	162,808	165,575	168,390	171,253
51	5610	Management Salaries and Expenses	79,426	85,293	87,045	89,657	91,181	92,731	94,307	95,911
52	5615	General Administrative Salaries and Expenses	284,880	718,152	494,700	509,542	518,204	527,013	535,972	545,084
53	5620	Office Supplies	142,604	171,029	243,310	250,609	254,869	259,202	263,609	268,090
54	5625	Administrative Expense Transferred - Credit	-	-	-	-	-	-	-	-
55	5630	Outside Services Employed	481,854	479,241	562,357	579,228	589,075	599,089	609,273	619,631
56	5640	Injuries and Damages	34,304	36,557	53,541	55,147	56,084	57,038	58,007	58,993
57	5645	OMERS Pensions and Benefits	54,265	52,394	57,995	59,734	60,750	61,783	62,833	63,901
58	5646	Employee Pensions and OPEB	-	-	-	-	-	-	-	-
59	5647	Employee Sick Leave	-	-	-	-	-	-	-	-
60	5650	Franchise Requirements	-	-	-	-	-	-	-	-
61	5655	Regulatory Expenses	146,662	184,176	166,753	239,858	242,648	245,493	248,396	251,356
62	5665	Miscellaneous General Expenses	4,864	31,138	4,600	4,738	4,819	4,900	4,984	5,069
63	5670	Rent (Administrative and General)	232,328	232,328	303,722	312,834	318,152	323,560	329,061	334,655
64	5672	Lease Payment Expense	-	-	-	-	-	-	-	-
65	5675	Maintenance of General Plant	-	-	-	-	-	-	-	-
66	5680	Electrical Safety Authority Fees	11,678	13,111	15,000	15,450	15,713	15,980	16,251	16,528
67		**Sutotal: A&G Expenses**	**1,612,790**	**2,155,713**	**2,144,446**	**2,276,882**	**2,314,301**	**2,352,365**	**2,391,084**	**2,430,470**
68	5635	Property Insurance	225,001	183,348	158,492	163,247	166,022	168,844	171,715	174,634
69	6210	Life Insurance	-	-	-	-	-	-	-	-
70		**Subtotal: Insurance**	**225,001**	**183,348**	**158,492**	**163,247**	**166,022**	**168,844**	**171,715**	**174,634**
71	5515	Advertising	-	-	-	-	-	-	-	-
72		**Subtotal Advertising**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
73		**Total of Above Accounts Used for Benchmarking**	**6,643,269**	**6,133,833**	**6,463,130**	**6,725,126**	**6,840,076**	**6,957,040**	**7,076,054**	**7,197,154**
74										
75		**Adjustments to OM&A for Benchmarking**								
76		5014	-	-	-	-	-	-	-	-
77		5015	-	-	-	-	-	-	-	-
78		5112	-	-	-	-	-	-	-	-
79		Subtotal: HV Adjustment (to subtract from cost)	-	-	-	-	-	-	-	-
80		LV Adjustment	-	-	-	-	-	-	-	-
81		Total Adjusted OM&A Expense	6,643,269	6,133,833	6,463,130	6,725,126	6,840,076	6,957,040	7,076,054	7,197,154
82										
83		**Gross Capital Cost Additions Data**								
84		Total Gross Capital Additions	5,035,388	3,549,151	3,499,700	8,177,593	2,899,771	4,290,000	4,149,000	4,402,550
85		HV Gross Capital Additions	-	-	-	-	-	-	-	-
86										
87		**Output and Other Business Conditions**								
88		Number of Customers	27,098	27,232	27,484	27,589	27,697	27,808	27,920	28,032
89		Delivery Volume	707,469,590	709,014,281	707,109,162	695,112,561	690,302,550	687,058,819	682,939,334	679,514,707
90		Annual Peak Demand	133,035	133,035	133,035	133,035	133,035	133,035	133,035	133,035
91		Distribution Circuit km	362	362	362	362	362	362	362	362
92										
93										
		Section 2: Actual Cost Calculations								
94		**Actual Cost**								
95										
96		OM&A	6,643,269	6,133,832.99	6,463,130.03	6,725,126.20	6,840,076.00	6,957,039.97	7,076,053.82	7,197,153.97
97										
98		Capital								
99		Rate of Return	5.96%	6.74%	6.74%	6.24%	6.28%	6.31%	6.38%	6.39%
100		Depreciation Rate	4.59%	4.59%	4.59%	4.59%	4.59%	4.59%	4.59%	4.59%
101		Construction Cost Index	160.30	165.18	170.21	175.40	180.74	186.24	191.91	197.76
102		Capital Price	16.99	18.39	18.95	18.67	19.31	19.95	20.69	21.34
103		Gross Plant Additions	5,035,388	3,549,151	3,499,700	8,177,593	2,899,771	4,290,000	4,149,000	4,402,550
104		HV Capital Additions	-	-	-	-	-	-	-	-
105		Quantity of Capital Additions	31,412	21,486	20,561	46,624	16,044	23,035	21,619	22,262
106		Quantity of Capital Removed	19,314	19,869	19,943	19,971	21,195	20,958	21,054	21,080
107		Capital Quantity	432,872	434,490	435,108	461,760	456,610	458,686	459,251	460,434
108		Capital Cost	7,354,110	7,988,523	8,243,514	8,621,913	8,817,424	9,152,140	9,502,363	9,825,806
109										
110		Total Actual Cost	13,997,379	14,122,356	14,706,644	15,347,039	15,657,500	16,109,180	16,578,417	17,022,960
		Total Cost Per Customer	**$ 516.55**	**$ 518.59**	**$ 535.10**	**$ 556.27**	**$ 565.31**	**$ 579.30**	**$ 593.78**	**$ 607.27**
		Total Cost Per km of line	**$ 38,667**	**$ 39,012**	**$ 40,626**	**$ 42,395**	**$ 43,253**	**$ 44,500**	**$ 45,797**	**$ 47,025**
		Section 3: Predicted Cost Calculations								

Predicted Cost									
	Output Quantity								
	Number of Customers	27,098	27,232	27,484	27,589	27,697	27,808	27,920	28,032
	Delivery Volume	707,469,590	709,014,281	707,109,162	695,112,561	690,302,550	687,058,819	682,939,334	679,514,707
	Annual Peak Demand	133,035	133,035	133,035	133,035	133,035	133,035	133,035	133,035
	Capacity Proxy	147,462	147,462	147,462	147,462	147,462	147,462	147,462	147,462
	Input Prices								
	GDP IPI [30% Weight]	110.9	114.3	117.8	121.3	125.0	128.8	132.8	136.8
	Average Hourly Earnings Growth [70% Weight]	920.12	948.14	977.02	1,006.77	1,037.43	1,069.03	1,101.58	1,135.13
	OM&A Price Index Growth [30% GDPIPI growth + 70% AWE Growth]	1.55%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
	OM&A Price Index Level	109.6	113.0	116.4	120.0	123.6	127.4	131.3	135.3
	Capital Price Index	16.99	18.39	18.95	18.67	19.31	19.95	20.69	21.34
	Business Conditions								
	2013 Line km	362.00	362.00	362.00	362.00	362.00	362.00	362.00	362.00
	2002-2013 Average Line km	356.40	356.87	357.29	357.69	358.05	358.38	358.68	358.95
	Customers Ten Years Ago	26,358	26,477	26,265	26,525	26,632	26,940	26,832	26,944
	Ten Year Customer Growth Percentage	2.81%	2.85%	4.64%	4.01%	4.00%	3.22%	4.05%	4.04%
(Details of the predicted cost calculations may be hidden by using the +/- button to the left of row 248)									
Company Values for Variables Used in the Prediction Equation									
	Constant	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Capital Price / OM&A Price (WK)	0.1550	0.1627	0.1627	0.1556	0.1562	0.1566	0.1576	0.1578
	Customers (Y1)	27,098	27,232	27,484	27,589	27,697	27,808	27,920	28,032
	Capacity (Y2)	147,462	147,462	147,462	147,462	147,462	147,462	147,462	147,462
	Deliveries (Y3)	707,469,590	709,014,281	707,109,162	695,112,561	690,302,550	687,058,819	682,939,334	679,514,707
	Average Line Length	356.4	356.9	357.3	357.7	358.0	358.4	358.7	359.0
	Customers Added in last 10 years	2.81%	2.85%	4.64%	4.01%	4.00%	3.22%	4.05%	4.04%
	Trend	7	8	9	10	11	12	13	14
Company-Specific Parameter Estimates*									
	Constant	12.8141	12.8141	12.8141	12.8141	12.8141	12.8141	12.8141	12.8141
	Capital Price / OM&A Price (WK)	0.6290	0.6290	0.6290	0.6290	0.6290	0.6290	0.6290	0.6290
	Customers (Y1)	0.4429	0.4429	0.4429	0.4429	0.4429	0.4429	0.4429	0.4429
	Capacity (Y2)	0.1630	0.1630	0.1630	0.1630	0.1630	0.1630	0.1630	0.1630
	Deliveries (Y3)	0.1052	0.1052	0.1052	0.1052	0.1052	0.1052	0.1052	0.1052
	WKWK	0.1331	0.1331	0.1331	0.1331	0.1331	0.1331	0.1331	0.1331
	Y1Y1	(0.3714)	(0.3714)	(0.3714)	(0.3714)	(0.3714)	(0.3714)	(0.3714)	(0.3714)
	Y2Y2	0.1888	0.1888	0.1888	0.1888	0.1888	0.1888	0.1888	0.1888
	Y3Y3	0.1666	0.1666	0.1666	0.1666	0.1666	0.1666	0.1666	0.1666
	WKY1	0.0533	0.0533	0.0533	0.0533	0.0533	0.0533	0.0533	0.0533
	WKY2	0.0101	0.0101	0.0101	0.0101	0.0101	0.0101	0.0101	0.0101
	WKY3	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
	Y1Y2	0.1402	0.1402	0.1402	0.1402	0.1402	0.1402	0.1402	0.1402
	Y1Y3	0.0629	0.0629	0.0629	0.0629	0.0629	0.0629	0.0629	0.0629
	Y2Y3	(0.1965)	(0.1965)	(0.1965)	(0.1965)	(0.1965)	(0.1965)	(0.1965)	(0.1965)
	Average Line Length	0.2846	0.2846	0.2846	0.2846	0.2846	0.2846	0.2846	0.2846
	Customers Added in last 10 years	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%
	Trend	0.0171	0.0171	0.0171	0.0171	0.0171	0.0171	0.0171	0.0171
Sample Mean Values									
	Constant	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Capital Price / OM&A Price (WK)	0.164	0.1644	0.1644	0.1644	0.1644	0.1644	0.1644	0.1644
	Customers (Y1)	63,422.312	63,422.3118	63,422.3118	63,422.3118	63,422.3118	63,422.3118	63,422.3118	63,422.3118
	Capacity (Y2)	345,129	345,129.0146	345,129.0146	345,129.0146	345,129.0146	345,129.0146	345,129.0146	345,129.0146
	Deliveries (Y3	1,630,327,994	1,630,327,994	1,630,327,994	1,630,327,994	1,630,327,994	1,630,327,994	1,630,327,994	1,630,327,994
	WKWK	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Y1Y1	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Y2Y2	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Y3Y3	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	WKY1	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	WKY2	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	WKY3	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Y1Y2	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Y1Y3	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Y2Y3	1.000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Average Line Length	2,723	2,723	2,723	2,723	2,723	2,723	2,723	2,723
	Customers Added in last 10 years	12.86%	12.86%	12.86%	12.86%	12.86%	12.86%	12.86%	12.86%
2013 Values Logged and Mean Scaled (where applicable)									
	Constant	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Capital Price / OM&A Price (WK)	(0.0592)	(0.0102)	(0.0102)	(0.0547)	(0.0511)	(0.0484)	(0.0421)	(0.0412)
	Customers (Y1)	(0.8504)	(0.8454)	(0.8362)	(0.8324)	(0.8285)	(0.8245)	(0.8205)	(0.8165)
	Capacity (Y2)	(0.8503)	(0.8503)	(0.8503)	(0.8503)	(0.8503)	(0.8503)	(0.8503)	(0.8503)
	Deliveries (Y3)	(0.8348)	(0.8327)	(0.8354)	(0.8525)	(0.8594)	(0.8641)	(0.8701)	(0.8752)
	WKWK	0.0018	0.0001	0.0001	0.0015	0.0013	0.0012	0.0009	0.0008
	Y1Y1	0.3616	0.3574	0.3496	0.3464	0.3432	0.3399	0.3366	0.3333
	Y2Y2	0.3615	0.3615	0.3615	0.3615	0.3615	0.3615	0.3615	0.3615
	Y3Y3	0.3485	0.3467	0.3489	0.3633	0.3693	0.3733	0.3786	0.3830
	WKY1	0.0503	0.0086	0.0085	0.0456	0.0423	0.0399	0.0345	0.0336
	WKY2	0.0503	0.0086	0.0086	0.0465	0.0435	0.0411	0.0358	0.0350
	WKY3	0.0494	0.0085	0.0085	0.0467	0.0439	0.0418	0.0366	0.0360
	Y1Y2	0.7231	0.7189	0.7111	0.7078	0.7045	0.7011	0.6977	0.6943
	Y1Y3	0.7099	0.7040	0.6985	0.7096	0.7120	0.7125	0.7139	0.7145
	Y2Y3	0.7099	0.7081	0.7103	0.7249	0.7308	0.7348	0.7399	0.7442
	Average Line Length	(2.0334)	(2.0321)	(2.0309)	(2.0298)	(2.0288)	(2.0278)	(2.0270)	(2.0262)
	Customers Added in last 10 years	21.83%	22.17%	36.09%	31.19%	31.10%	25.05%	31.53%	31.40%
	Trend	7	8	9	10	11	12	13	14
Product of Parameter and 2013 Values									
	Constant	12.814	12.814	12.814	12.814	12.814	12.814	12.814	12.814
	Capital Price / OM&A Price (WK)	(0.037)	(0.006)	(0.006)	(0.034)	(0.032)	(0.030)	(0.026)	(0.026)
	Customers (Y1)	(0.377)	(0.374)	(0.370)	(0.369)	(0.367)	(0.365)	(0.363)	(0.362)
	Capacity (Y2)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)
	Deliveries (Y3)	(0.088)	(0.088)	(0.088)	(0.090)	(0.090)	(0.091)	(0.092)	(0.092)
	WKWK	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Y1Y1	(0.134)	(0.133)	(0.130)	(0.129)	(0.127)	(0.126)	(0.125)	(0.124)
	Y2Y2	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068
	Y3Y3	0.058	0.058	0.058	0.061	0.062	0.062	0.063	0.064
	WKY1	0.003	0.000	0.000	0.002	0.002	0.002	0.002	0.002
	WKY2	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	WKY3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Y1Y2	0.101	0.101	0.100	0.099	0.099	0.098	0.098	0.097
	Y1Y3	0.045	0.044	0.044	0.045	0.045	0.045	0.045	0.045
	Y2Y3	(0.140)	(0.139)	(0.140)	(0.142)	(0.144)	(0.144)	(0.145)	(0.146)
	Average Line Length	(0.579)	(0.578)	(0.578)	(0.578)	(0.577)	(0.577)	(0.577)	(0.577)
	Customers Added in last 10 years	0.36%	0.37%	0.59%	0.51%	0.51%	0.41%	0.52%	0.52%
	Trend	0.120	0.137	0.154	0.171	0.188	0.205	0.223	0.240
	Log of Predicted Total Cost / OM&A Price	11.7206	11.7691	11.7941	11.7861	11.8072	11.8271	11.8510	11.8707
	Real Predicted Total Cost / OM&A Price	123,078	129,203	132,462	131,408	134,221	136,915	140,224	143,019
	OM&A Price	109.64	112.98	116.42	119.97	123.62	127.38	131.26	135.26
	Predicted Total Cost	13,494,373	14,597,378	15,421,346	15,764,568	16,592,326	17,440,848	18,406,299	19,345,005

Section 4: Benchmarking Results

	Actual Cost	13,997,379	14,122,356	14,706,644	15,347,039	15,657,500	16,109,180	16,578,417	17,022,960

238	Predicted Cost	13,494,373	14,597,378	15,421,346	15,764,568	16,592,326	17,440,848	18,406,299	19,345,005
239	Actual less Predicted Cost	503,006	(475,023)	(714,702)	(417,528)	(934,826)	(1,331,668)	(1,827,882)	(2,322,045)
240	Percentage Difference (Arithmetic for Comparison)	3.73%	-3.25%	-4.63%	-2.65%	-5.63%	-7.64%	-9.93%	-12.00%
241									
242	**Percent Difference (Logarithmic)**	**3.66%**	**-3.31%**	**-4.75%**	**-2.68%**	**-5.80%**	**-7.94%**	**-10.46%**	**-12.79%**
243									
244									
245									
246	Three Year Average								
247	Current Year	3.66%	-3.31%	-4.75%	-2.68%	-5.80%	-7.94%	-10.46%	-12.79%
248	Previous Year	2.39%	3.66%	-3.31%	-4.75%	-2.68%	-5.80%	-7.94%	-10.46%
249	Two Years Ago	2.23%	2.39%	3.66%	-3.31%	-4.75%	-2.68%	-5.80%	-7.94%
250	Three Year Average Performance	2.76%	0.91%	-1.46%	-3.58%	-4.41%	-5.48%	-8.07%	-10.40%

UNDERTAKING NO. JT1.3

TO CLARIFY MR. OAKLEY'S QUERY ABOUT WHETHER 2010 TO 2014 WAS APPROXIMATELY 4.6-MILLION, AND THEN HISTORICAL AVERAGE OF 4.4-MILLION, AND TO CLARIFY WHETHER IT JUST MAY JUST BE THE PERIOD IS DIFFERENT FOR THESE.

Response:

Reference: E2/T2/S1, Attachment 1 (DSP), Section 5.4.5 pg. 175
5.4.5.Table 1 – Capital Expenditure Summary – Historical Period
5.4.5.Table 2 – Capital Expenditure Summary – Forecast Period
IR-2 Staff-21

The average capital expenditure amount depends upon the reference period. The figures quoted in 2-Staff-21 are correct for the reference period noted and are rounded to the nearest $100,000. The following tables support this analysis

Annual Capital Expenditures

Year	Amount
2010A	$ 3,853,132
2011A	$ 6,169,853
2012A	$ 3,964,048
2013A	$ 4,643,775
2014A	$ 3,612,844
2015E	$ 3,600,000
2016E	$ 5,650,000
2017E	$ 3,049,000
2018E	$ 4,269,000
2019E	$ 4,200,000
2020E	$ 4,200,000

Notes:
Suffix "A" denotes Actual
Suffix "E" denotes Expected

Average Capital Expenditures

Period	Average
2010-2014	$4.4 Million
2011-2014	$4.6 Million
2015-2020	$4.2 Million
2016-2020	$4.3 Million

Kingston Hydro reconfirms its position with respect to IR-Staff -21 that sufficient resources exist to complete the proposed capital projects.

UNDERTAKING NO. JT1.4 (1)

TO PROVIDE A VERSION OF APPENDIX 2AB THAT REFLECTS THE ACTUAL VERSUS BUDGETED TOTAL CAPITAL EXPENDITURES FOR EACH YEAR IN 2010 THROUGH 2014.

Response:

Undertaking JT1.4(1) - Version of Appendix 2-AB

	2010	2011	2012	2013	2014
From Appendix 2-AB (actuals)	$ 3,853,132	$ 6,169,853	$ 3,964,048	$ 4,643,775	$ 3,612,844
Less Capital Contributions	$ 780,171	$ 736,353	$ 839,048	$ 643,775	$ 46,844
Net Capital Expenditures	$ 3,072,961	$ 5,762,380	$ 3,865,313	$ 3,900,720	$ 3,477,933
Net Capital Budget	$ 3,215,025	$ 5,433,500	$ 3,125,000	$ 4,000,000	$ 3,566,000

UNDERTAKING NO. JT1.4 (2)

TO PROVIDE A TIME FORECAST OF WHEN THE PLANNING AND ENGINEERING BUDGETING FOR THIS PROJECT WILL BE COMPLETE.

Response:

Reference: IR 2-Staff-25

To clarify, the budgeting for Substation #1 for this rate application covering the period from 2016 to 2020 is complete. The proposed budget of $2,791,000 (2016-2020), which does not include the $400,000 being expended in 2015, is based on the assessments and cost estimates provided by JL Richards which were further analyzed and refined by Kingston Hydro staff. No further budget allocations or changes are being proposed for this project in this rate application.

Complete engineering design for the rebuild of the 44kV East Bus will be finalized in 2019 in order to enable the ordering of transformers in 2020 and in anticipation of the installation and related electrical construction activity in the post rate application period (ie. 2021). As referenced in the response to IR 2-Staff-25, Kingston Hydro is proposing an average annual spend of $332,400 for Substation No. 1 based on total forecast expenditures of $1,662,000 over the 2015-2019 period. The engineering studies and design work for Substation No. 1 represent approximately $350,000 of the total expenditures for the 2015-2019. This engineering work will primarily focus on the seismic analysis to be completed in 2015, structural assessment and design to be completed in 2018 and electrical design required to rebuild the 44kV East Bus of Substation No. 1 by 2019. It is noted that electrical design work related to specific protection upgrades will be completed during the 2016-2019 period. It is also noted

that the completion of the “engineering design” will assist in validating the plan and budget for similar work anticipated for the subsequent rebuild of the 44kV West Bus in future years (post 2021).

UNDERTAKING NO. JT1.5

TO PROVIDE A GLOSSARY THAT RELATES THE ACRONYMS TO THE CDM PROGRAMS AS IN THE OPA REPORT.

Response:

In order to assist the parties in understanding the various Tabs in the spreadsheets the following information is provided for reference.

Tabs in the CDM Model – What each sheet is, and what they do or provide

- **Ch. 2 App 2-I 2016 COS (Provided by OEB, modified by Kingston Hydro)**
  Kingston Hydro modification to OEB Ch. 2 App 2-I template. Numerous cell reference typos were corrected, and explanation of Kingston Hydro's Load Forecast and LRAMVA CDM calculations is provided.

- **2014 IESO persistence table (provided by IESO)**
  A sample of the source data that is provided by the IESO for each CDM program year. This shows savings from each type of conservation measure installed by Kingston Hydro customers through saveONenergy programs, as verified and adjusted by the IESO in a given program year. Includes MW and MWh CDM Impacts at the net user level in both kW and kWh. The IESO does not provide a variable that assigns savings to rate classes.
- **KH MW Persistence Table**
  Displays MW savings in each implementation year since 2006 attributable to each IESO-verified CDM initiative that Kingston Hydro has participated in. Shows future persistence of MW savings at the net end-user level, and

assigns either a rate class or a rate class allocation code to each initiative in the "Rate Class" column. CDM initiatives with no rate impact use a "– No Rate Impact" suffix in this column. Translates generator level savings for each Initiative from Kingston Hydro's 2015-20 IESO-approved Conservation Plan to the end-user level.

- **KH MW Savings Pivot**

  Uses pivot tables to sum and allocate verified net-end user level MW savings that have rate impacts persisting in each program year to each of Kingston Hydro's rate classes. Translates MW to kW. Applies ½ year rule to savings in their first year of persistence to ALL savings (as per Undertaking JT 1.17)

- **KH MWh Persistence Table**

  Displays MWh savings in each implementation year since 2006 attributable to each IESO-verified CDM initiative that Kingston Hydro has participated in. Shows future persistence of MWh savings at the net end-user level, and assigns either a rate class or a rate class allocation code to each initiative in the "Rate Class" column. CDM initiatives with no rate impact use a "– No Rate Impact" suffix in this column. Translates generator level savings for each Initiative from Kingston Hydro's 2015-20 IESO-approved Conservation Plan to the end-user level.

- **KH MWh Savings Pivot**

  Uses pivot tables to sum and allocate verified net-end user level MWh savings that have rate impacts persisting in each program year to each of Kingston Hydro's rate classes. Translates MWh to kWh. Applies ½ year rule to savings in their first year of persistence to ALL savings (as per Undertaking JT 1.17)

- **Allocation to Rate Classes**

  Uses Kingston Hydro saveONenergy program records of locally verified gross savings achievements by customers in each rate class to generate factors used to allocate net IESO reported end user level savings. These factors feed into the KH MW and MWh Savings Pivot tabs.

- **CDM kWh by Rate Class 2009-20**

  Translates data from the KH MW and MWh Savings Pivot tabs to sum and display persisting net IESO-verified end user level savings by rate class for CDM initiatives implemented or projected to be implemented from 2009-2020.

- **KH 2011-2014 Rates**

  Displays Kingston Hydro OEB approved rates from 2011 through 2015 for calculation of past LRAMVA amounts.

- **2011-14 LRAMVA Summary**

  Applies Kingston Hydro OEB approved rates to net IESO-verified net end user level savings to calculate LRAMVA balances in each year.

- **KH LRAMVA Account**

  Calculates rolling LRAMVA balances requested for disposition.

- **Carrying Charges 2011 through Carrying Charges 2015**

  Calculates compound interest carrying charges to be applied to 2011-2014 LRAMVA balances requested for disposition.

- **2015-2020 LRAMVA Projections**

  Displays projected net end user level savings in either kW or kWh to be used for calculation of future projected LRAMVA balances for 2015-2020.

- **Kingston Hydro – Summary**

  Excerpted from the IESO's 2011-2014 Kingston Hydro CDM Final Results Report. Displays Kingston Hydro's verified final CDM savings target achievements by year. Note: Not all savings that count towards targets result in rate impacts. Values in this report reflect marginal annual target progress, rather than persistence adjusted net end user level savings with rate impacts.

- **Kingston Hydro - Results (Net)**

  Excerpted from the IESO's 2011-2014 Kingston Hydro CDM Final Results Report. Displays Kingston Hydro's verified final CDM savings target achievements by year, by initiative. Note: Not all savings that count towards targets result in rate impacts. Values in this report reflect marginal annual target progress, rather than persistence adjusted net end user level savings with rate impacts.

- **Kingston Hydro – NTGs**

  Displays initiative-wide Net to Gross Ratios and Realization rates by initiative by year.

- **2006-10 KH Net MW MWh**

  IESO-provided summary of source data showing verified persisting net end-user level CDM savings by initiative by year. Feeds the KH MW and MWh Persistence Table tabs.

- **KH 2015-2020 CDM Plan Milestone**

  Excerpted from Kingston Hydro's IESO-approved 2015-2020 Conservation Plan. Displays kWh savings projected to be achieved in each program year by initiative with associated budget amounts.

- **2015-20 Measure Savings Results**

  Excerpted from Kingston Hydro's IESO-approved 2015-2020 Conservation Plan. Displays net generator level projected persisting kW and kWh savings by Initiative (herein labeled "Program"). Feeds the KH MW and MWh Persistence Table tabs.

- **2015-20 Measures-CE Results**

  Excerpted from Kingston Hydro's IESO-approved 2015-2020 Conservation Plan. Displays kW and kWh savings assumptions, calculations, and source data for the 2015-20 Measure Savings results tab.

- **Comparison - Old Model to New**

  Provided in response to Undertaking JT 1.17. Shows impact of on the CDM model of the impact of 2014 final IESO persistence table received by Kingston Hydro on Sept. 22, 2015, and of application of the half-year rule to projected marginal saveONenergy program CDM savings in their first year of persistence from 2015-2020.

Glossary of Acronyms:

CDM: Conservation and Demand Management

LRAM: Lost Revenue Adjustment Mechanism

LRAMVA: Lost Revenue Adjustment Mechanism Variance Account

IESO: Independent Electricity System Operator (now including the former OPA)

OPA: Ontario Power Authority

EM&V: Evaluation, Measurement & Verification

LDC: Local Distribution Company

EUL: Effective Useful Life

kW: kilo-Watts

kWH: kilo-Watt-hours

NTG: Net to Gross Ratio

SBL: saveONenergy Small Business Lighting Program, aka “Small Commercial Direct Install Lighting” program, or “DI”

HAP: saveONenergy Home Assistance Program

HVAC: saveONenergy Heating Ventilation & Air Conditioning program, aka “Heating & Cooling Incentive” program

DI: “Direct Install”, aka SBL or Small Business Lighting Program – used to label net savings in the persistence tables so they can be allocated based to relevant rate classes.

RF: saveONenergy Retrofit Program - used to label net savings in the persistence tables so they can be allocated based to relevant rate classes.

AU: saveONenergy Audit Program - used to label net savings in the persistence tables so they can be allocated based to relevant rate classes.

HP: saveONenergy High Performance New Construction Program, aka HPNC - used to label net savings in the persistence tables so they can be allocated based to relevant rate classes.

BTG: Behind the Meter Generation

DR: saveONenergy Demand Response program

GS: General Service

UNDERTAKING NO. JT1.6

TO PROVIDE A SIMILAR LISTING OF WHAT ARE THE TOTAL IMPACT FROM CDM SAVINGS FOR PROGRAMS IMPLEMENTED IN EACH OF THOSE YEARS AS ASSUMED THAT WILL HAVE AN IMPACT ON SALES.

Response:

Please refer to the response provided by Kingston Hydro to JT 1.5 for an explanation of how the updated CDM Model provided in response to various undertakings is structured, what each tab displays and how the data in the various tabs are used, what their source is, and definitions for all relevant acronyms used in the model.

The live excel CDM Model, originally submitted in response to IR3-Staff-54 and updated in response to undertaking JT1.17 titled “150922 - IR 3-Staff-54 Attachment 1 – Undertakings.xlsx”, contains this information, summarized by rate class in each year in the “CDM kWh by Rate Class 2009-20” tab.

Please also note: The response given by Mr. Frank to Mr. Harper’s question regarding whether KW CDM savings allocated to the Large User rate class that have impact on the load forecast and past and projected LRAMVA balances are derived from kWh savings amounts is incorrect[1].

The corrected answer is: that CDM Savings calculated in the CDM Model for the Large User rate class reflect ACTUAL past and projected kW and kWh savings, calculated using final IESO-reported results and the IESO-approved 2015-20 Conservation Plan. All CDM savings used for calculation of LRAMVA balances or

[1] EB-2015-0083 Monday September 21 2015 Kingston Hydro TC, Page 130

Load Forecast adjustments are a full "Bottom Up" sum of measures installed by Kingston Hydro customers and funded by saveONenergy programs.

The chart below shows the CDM kWh savings by rate class and year that carry over to the load forecast and are used as the numbers for CDM manual adjustments. These numbers include application of the half-year rule for all savings in their first year of persistence, and these values have been separated from the load forecast trend variable as requested by interveners as part of the interrogatory process.

Kingston Hydro - CDM Net End User Level IESO Verified Rate Impact kWh Savings by Rate Class 2009-20

RESIDENTIAL	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	258,079.22	505,604.05	505,604.05	504,460.54	473,728.87	376,734.40	329,319.42	328,284.86	261,911.86	261,911.86	226,227.74	226,163.96
2010 program year savings		176,590.03	342,383.94	339,889.64	338,947.24	313,908.64	212,305.16	203,069.68	203,069.68	202,309.39	110,021.76	94,821.57
2011 program year savings			259,175.22	518,350.44	518,350.44	516,845.59	478,543.89	401,921.62	348,519.16	347,791.33	390,852.95	256,088.29
2012 program year savings				170,805.38	341,610.75	341,610.75	338,452.83	294,604.99	250,166.72	212,667.03	212,435.90	195,367.90
2013 program year savings					248,315.58	491,100.50	482,576.25	436,701.23	418,741.67	396,720.77	388,462.75	386,783.92
2014 program year savings						495,314.93	981,394.01	935,729.84	806,637.26	778,701.35	768,088.02	765,931.12
2015-2020 Projected persisting savings							181,705.72	440,692.93	549,771.68	614,196.01	680,279.90	748,023.37
Total CDM Load Forecast Impact	258,079.22	682,194.08	1,107,163.21	1,533,506.00	1,920,952.88	2,535,514.81	3,004,297.28	3,041,005.14	2,838,818.02	2,814,297.73	2,776,369.02	2,673,180.14

GS<50kW	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	341,521.76	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	384,702.67	0.00	0.00	0.00
2010 program year savings		269,706.18	539,412.37	539,412.37	539,412.37	539,412.37	539,412.37	539,412.37	364,051.28	0.00	0.00	0.00
2011 program year savings			332,629.71	665,259.41	664,680.62	608,446.44	608,446.44	608,446.44	456,298.80	454,572.27	454,572.27	351,000.35
2012 program year savings				607,739.26	1,215,478.51	1,199,008.99	938,490.48	913,314.22	402,560.47	401,953.76	401,818.89	396,974.93
2013 program year savings					216,710.89	433,421.79	428,206.77	380,678.39	306,323.52	305,753.46	305,753.46	297,321.31
2014 program year savings						419,901.87	794,193.87	763,907.53	632,366.80	567,031.95	567,031.95	563,792.78
2015-2020 Projected persisting savings							135,731.63	634,636.32	1,396,645.71	2,234,487.26	3,140,094.37	4,106,990.41
Total CDM Load Forecast Impact	341,521.76	952,749.70	1,555,085.59	2,495,454.56	3,319,325.91	3,883,234.97	4,127,525.07	4,523,438.80	3,942,949.26	3,963,798.70	4,869,270.93	5,716,079.79

GS>50kW	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	640,448.99	718,664.87	718,664.87	718,664.87	718,664.87	718,664.87	570,233.29	467,085.93	467,085.93	467,085.93	389,812.06	60,381.38
2010 program year savings		698,425.11	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	434,367.60	250,053.25	196,160.17
2011 program year savings			609,272.09	1,218,544.18	1,218,538.77	1,217,521.03	1,217,521.03	1,167,168.52	1,160,690.07	1,160,673.93	1,160,673.93	870,425.98
2012 program year savings				1,403,512.94	2,807,025.89	2,730,596.00	2,611,580.13	2,460,522.61	2,150,344.77	2,143,603.54	2,143,596.16	2,089,774.23
2013 program year savings					787,930.86	1,568,449.78	1,566,635.86	1,481,585.90	1,348,682.15	1,345,799.71	1,345,799.71	1,303,163.52
2014 program year savings						861,677.45	1,617,067.86	1,607,506.42	1,541,400.26	1,280,121.56	1,280,121.56	1,270,373.53
2015-2020 Projected persisting savings							601,192.68	2,213,426.86	4,332,683.14	6,668,578.40	9,180,607.31	11,862,293.23
Total CDM Load Forecast Impact	640,448.99	1,417,089.98	1,764,891.43	3,777,676.46	5,969,114.86	7,533,863.59	8,621,185.32	9,834,250.69	11,437,840.78	13,500,230.66	15,750,663.99	17,652,572.04

Large User	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings												
2010 program year savings												
2011 program year savings			617,444.25	1,234,888.50	1,234,888.50	1,234,679.72	1,234,679.72	1,234,679.72	1,232,534.87	1,232,534.87	1,232,534.87	1,109,829.11
2012 program year savings				306,737.13	605,058.58	596,959.27	585,723.40	585,723.40	555,454.95	554,735.62	554,735.62	548,992.51
2013 program year savings					648,214.23	1,296,428.47	1,296,428.47	1,226,040.36	1,215,624.02	1,212,866.61	1,212,866.61	1,172,079.91
2014 program year savings						53,722.56	99,363.61	99,363.61	96,073.34	96,058.72	96,058.72	95,286.28
2015-2020 Projected persisting savings							299,418.54	4,915,919.11	11,127,245.23	13,638,270.10	14,838,923.54	16,036,177.45
Total CDM Load Forecast Impact	0.00	0.00	617,444.25	1,541,625.62	2,488,161.31	3,181,790.02	3,515,613.73	8,061,726.20	14,226,932.39	16,734,465.92	17,935,119.36	18,962,365.26

Streetlighting	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings												
2010 program year savings												
2011 program year savings												
2012 program year savings				14,564.48	29,128.96	28,279.80	27,101.79	27,101.79	23,928.35	23,852.93	23,852.93	23,250.80
2013 program year savings					1,074,219.58	2,148,439.17	2,148,439.17	2,031,792.11	2,014,530.16	2,009,960.60	2,009,960.60	1,942,368.94
2014 program year savings												
2015-2020 Projected persisting savings												
Total CDM Load Forecast Impact	0.00	0.00	0.00	14,564.48	1,103,348.55	2,176,718.97	2,175,540.96	2,058,893.91	2,038,458.51	2,033,813.53	2,033,813.53	1,965,619.74

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
TOTAL LOAD FORECAST CDM ANNUAL CDM kWh IMPACTS	1,240,049.97	3,052,033.76	5,044,584.48	9,362,827.12	14,800,903.50	19,311,122.37	21,444,162.36	27,519,314.75	34,484,998.96	39,046,606.54	43,365,236.83	46,969,816.98

UNDERTAKING NO. JT1.7

TO EXPLAIN WHAT THEY DID AND WHERE THAT CALCULATION IS FOUND IN THEIR LOAD FORECAST MODEL.

Response:

Please refer to the response provided by Kingston Hydro to JT 1.5 for an explanation of how the updated CDM Model provided in response to various undertakings is structured, what each tab displays and how the data in the various tabs are used, what their source is, and definitions for all relevant acronyms used in the model.

Please then refer to the updated live excel CDM Model, originally submitted in response to IR3-Staff-54, provided in response to this undertaking and titled “150922 - IR 3-Staff-54 Attachment 1 – Undertakings.xlsx”. The tab “CDM kWh by Rate Class 2009-20” shows the IESO-verified persisting savings allocated to each rate class in each year. The live CDM Model has formulae visible that provides reconciliation of CDM kWh savings by rate class used for the load forecast manual adjustment to IESO-reported persisting savings and rate class allocations.

Kingston Hydro - CDM Net End User Level IESO Verified Rate Impact kWh Savings by Rate Class 2009-20

RESIDENTIAL	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	258,079.22	505,604.05	505,604.05	504,460.54	473,728.87	376,734.40	329,319.42	328,284.86	261,911.86	261,911.86	226,227.74	226,163.96
2010 program year savings		176,590.03	342,383.94	339,889.64	338,947.24	313,908.64	212,305.16	203,069.68	203,069.68	202,309.39	110,021.76	94,821.57
2011 program year savings			259,175.22	518,350.44	518,350.44	516,845.59	478,543.89	401,921.62	348,519.16	347,791.33	390,852.95	256,088.29
2012 program year savings				170,805.38	341,610.75	341,610.75	338,452.83	294,604.99	250,166.72	212,667.03	212,435.90	195,367.90
2013 program year savings					248,315.58	491,100.50	482,576.25	436,701.23	418,741.67	396,720.77	388,462.75	386,783.92
2014 program year savings						495,314.93	981,394.01	935,729.84	806,637.26	778,701.35	768,088.02	765,931.12
2015-2020 Projected persisting savings							181,705.72	440,692.93	549,771.68	614,196.01	680,279.90	748,023.37
Total CDM Load Forecast Impact	258,079.22	682,194.08	1,107,163.21	1,533,506.00	1,920,952.88	2,535,514.81	3,004,297.28	3,041,005.14	2,838,818.02	2,814,297.73	2,776,369.02	2,673,180.14

GS<50kW	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	341,521.76	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	384,702.67	0.00	0.00	0.00
2010 program year savings		269,706.18	539,412.37	539,412.37	539,412.37	539,412.37	539,412.37	539,412.37	364,051.28	0.00	0.00	0.00
2011 program year savings			332,629.71	665,259.41	664,680.62	608,446.44	608,446.44	608,446.44	456,298.80	454,572.27	454,572.27	351,000.35
2012 program year savings				607,739.26	1,215,478.51	1,199,008.99	938,490.48	913,314.22	402,560.47	401,953.76	401,818.89	396,974.93
2013 program year savings					216,710.89	433,421.79	428,206.77	380,678.39	306,323.52	305,753.46	305,753.46	297,321.31
2014 program year savings						419,901.87	794,193.87	763,907.53	632,366.80	567,031.95	567,031.95	563,792.78
2015-2020 Projected persisting savings							135,731.63	634,636.32	1,396,645.71	2,234,487.26	3,140,094.37	4,106,990.41
Total CDM Load Forecast Impact	341,521.76	952,749.70	1,555,085.59	2,495,454.56	3,319,325.91	3,883,234.97	4,127,525.07	4,523,438.80	3,942,949.26	3,963,798.70	4,869,270.93	5,716,079.79

GS>50kW	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	640,448.99	718,664.87	718,664.87	718,664.87	718,664.87	718,664.87	570,233.29	467,085.93	467,085.93	467,085.93	389,812.06	60,381.38
2010 program year savings		698,425.11	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	434,367.60	250,053.25	196,160.17
2011 program year savings			609,272.09	1,218,544.18	1,218,538.77	1,217,521.03	1,217,521.03	1,167,168.52	1,160,690.07	1,160,673.93	1,160,673.93	870,425.98
2012 program year savings				1,403,512.94	2,807,025.89	2,730,596.00	2,611,580.13	2,460,522.61	2,150,344.77	2,143,603.54	2,143,596.16	2,089,774.23
2013 program year savings					787,930.86	1,568,449.78	1,566,635.86	1,481,585.90	1,348,682.15	1,345,799.71	1,345,799.71	1,303,163.52
2014 program year savings						861,677.45	1,617,067.86	1,607,506.42	1,541,400.26	1,280,121.56	1,280,121.56	1,270,373.53
2015-2020 Projected persisting savings							601,192.68	2,213,426.86	4,332,683.14	6,668,578.40	9,180,607.31	11,862,293.23
Total CDM Load Forecast Impact	640,448.99	1,417,089.98	1,764,891.43	3,777,676.46	5,969,114.86	7,533,863.59	8,621,185.32	9,834,250.69	11,437,840.78	13,500,230.66	15,750,663.99	17,652,572.04

Large User	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings												
2010 program year savings												
2011 program year savings			617,444.25	1,234,888.50	1,234,888.50	1,234,679.72	1,234,679.72	1,234,679.72	1,232,534.87	1,232,534.87	1,232,534.87	1,109,829.11
2012 program year savings				306,737.13	605,058.58	596,959.27	585,723.40	585,723.40	555,454.95	554,735.62	554,735.62	548,992.51
2013 program year savings					648,214.23	1,296,428.47	1,296,428.47	1,226,040.36	1,215,624.02	1,212,866.61	1,212,866.61	1,172,079.91
2014 program year savings						53,722.56	99,363.61	99,363.61	96,073.34	96,058.72	96,058.72	95,286.28
2015-2020 Projected persisting savings							299,418.54	4,915,919.11	11,127,245.23	13,638,270.10	14,838,923.54	16,036,177.45
Total CDM Load Forecast Impact	0.00	0.00	617,444.25	1,541,625.62	2,488,161.31	3,181,790.02	3,515,613.73	8,061,726.20	14,226,932.39	16,734,465.92	17,935,119.36	18,962,365.26

Streetlighting	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings												
2010 program year savings												
2011 program year savings												
2012 program year savings				14,564.48	29,128.96	28,279.80	27,101.79	27,101.79	23,928.35	23,852.93	23,852.93	23,250.80
2013 program year savings					1,074,219.58	2,148,439.17	2,148,439.17	2,031,792.11	2,014,530.16	2,009,960.60	2,009,960.60	1,942,368.94
2014 program year savings												
2015-2020 Projected persisting savings												
Total CDM Load Forecast Impact	0.00	0.00	0.00	14,564.48	1,103,348.55	2,176,718.97	2,175,540.96	2,058,893.91	2,038,458.51	2,033,813.53	2,033,813.53	1,965,619.74

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
TOTAL LOAD FORECAST CDM ANNUAL CDM kWh IMPACTS	1,240,049.97	3,052,033.76	5,044,584.48	9,362,827.12	14,800,903.50	19,311,122.37	21,444,162.36	27,519,314.75	34,484,998.96	39,046,606.54	43,365,236.83	46,969,816.98

UNDERTAKING NO. JT1.8

TO UPDATE 3 VECC 20(c) USING SEPTEMBER 2015 NUMBERS.

Response:

Reference: 3-VECC-20 c)

The tables below provide an updated GS > 50 and Large Use forecast in response to 3-VECC-20 c) since these are the only two rate class models that include employment as an explanatory variable. These tables were developed using the same history and OLS models that were used for the updated load forecast model filed in September. The latest employment forecast from the Ontario budget has been used as requested in 3-VECC-20 c).

GS > 50 kWh

Year	GS>50 kWh Actual	Annual Change	Normalized_noCDM	Persisting 2009-2014 CDM	Normalized Historic CDM Adj Forecast	Annual Change
2009	270,117,290		272,052,125	640,449	271,411,676	
2010	273,806,098	1.4%	273,801,685	1,417,090	272,384,595	0.4%
2011	273,712,584	0.0%	278,048,545	1,764,891	276,283,654	1.4%
2012	274,473,668	0.3%	279,005,056	3,777,676	275,227,380	-0.4%
2013	279,458,000	1.8%	284,428,864	5,969,115	278,459,749	1.2%
2014	272,498,127	-2.5%	279,732,631	7,491,976	272,240,655	-2.2%
2015			281,730,261	8,042,504	273,687,757	0.5%
2016			284,692,736	7,651,052	277,041,684	1.2%
2017			288,199,063	7,120,468	281,078,595	1.5%
2018			291,346,252	6,811,348	284,534,904	1.2%
2019			294,584,784	6,547,035	288,037,748	1.2%
2020			297,915,928	5,777,005	292,138,922	1.4%

GS > 50 kW

	GS>50		
Year	kWh Actual	Ratio	kW Actual
	A	**C = B / A**	**B**
2009	270,117,290	0.002671	721,617
2010	273,806,098	0.002732	747,917
2011	273,712,584	0.002801	766,581
2012	274,473,668	0.002846	781,260
2013	279,458,000	0.002745	767,156
2014	272,498,127	0.00273	743,905

	kWh Normalized		
	D	**E**	**F = D * E**
2015	273,687,757	0.00273	747,153
2016	277,041,684	0.00273	756,309
2017	281,078,595	0.00273	767,329
2018	284,534,904	0.00273	776,765
2019	288,037,748	0.00273	786,327
2020	292,138,922	0.00273	797,523

Large Use kWh

Year	LU kWh Actual	Annual Change	Normalized_noCDM	Persisting 2009-2014 CDM	Normalized Historic CDM Adj Forecast	Annual Change
2009	148,002,869		148,687,034	0	148,687,034	
2010	149,058,790	0.7%	150,173,340	0	150,173,340	1.0%
2011	154,491,718	3.6%	154,755,834	617,444	154,138,390	2.6%
2012	155,448,435	0.6%	153,566,771	1,541,626	152,025,145	-1.4%
2013	153,943,746	-1.0%	157,451,954	2,488,161	154,963,792	1.9%
2014	151,518,193	-1.6%	156,983,301	3,178,684	153,804,618	-0.7%
2015			157,822,499	3,218,064	154,604,435	0.5%
2016			160,119,127	3,147,676	156,971,451	1.5%
2017			162,692,666	3,099,350	159,593,316	1.7%
2018			164,830,931	3,095,060	161,735,871	1.3%
2019			167,060,384	3,094,844	163,965,539	1.4%
2020			169,382,209	2,925,609	166,456,600	1.5%

Large Use kW

	Large Use		
Year	kWh Actual	Ratio	kW Actual
	A	**C = B / A**	**B**
2009	148,002,869	0.001627	240,786
2010	149,058,790	0.001943	289,659
2011	154,491,718	0.001904	294,114
2012	155,448,435	0.002079	323,212
2013	153,943,746	0.001895	291,732
2014	151,518,193	0.001891	286,452

	kWh Normalized		
	D	**E**	**F = D * E**
2015	154,604,435	0.001891	292,287
2016	156,971,451	0.001891	296,762
2017	159,593,316	0.001891	301,718
2018	161,735,871	0.001891	305,769
2019	163,965,539	0.001891	309,984
2020	166,456,600	0.001891	314,694

UNDERTAKING NO. JT1.9

TO CONFIRM WHETHER THE IMPACT OF KEEPING THIS DEBT OUTSTANDING, THE 11 MILLION AT 5.87 PERCENT, RATHER THAN EITHER BORROWING AT MARKET RATES OR OFFSETTING CASH BALANCES WITH THE CITY IS ABOUT $210,000 A YEAR OR ABOUT A 2 PERCENT RATE INCREASE.

Response:

The impact of keeping the debt at 5.87% rather than borrowing at the Infrastructure Ontario market rate of 3.61% is approximately $273,000 per year. It is Kingston Hydro's understanding that Infrastructure Ontario does not provide financing to refinance shareholder debt but only finances new capital infrastructure.

The impact of keeping the debt at 5.87% and offsetting the cash balances with the City of approximately $4,000,000 is approximately $28,000 per year. This amount is arrived by calculating interest on $6,880,619 at 5.87% reducing deemed interest expense by $76,000. This amount is offset by less interest received on the bank account of $48,000 ($4,000,000 @ 1.2%).

UNDERTAKING NO. JT1.10

TO UPDATE THE RESPONSE TO 3 ENERGY PROBE 14, ATTACHMENT 1, WHICH ASKS FOR THE WORKING CAPITAL ALLOWANCE TO BE UPDATED TO REFLECT THE MOST RECENT COST OF POWER RATES AVAILABLE, TO REFLECT THE NEW FORECAST.

Response:

The response given to this question was incorrect. The response to 3-Energy Probe-14 Attachment 1, did in fact reflect the new forecast as indicated on the top of the page in response Attachment 1 to 3-Energy Probe-14.

UNDERTAKING NO. JT1.11

TO RECONCILE THE AMOUNT IN 3 ENERGY PROBE 15, ATTACHMENT 1, PAGE 1 OF 3, REVENUE OF 11,385,527 WITH THE EXISTING RATES SHOWN IN THE REVENUE REQUIREMENT WORK FORM OF $11,378,402.

Response:

The amount of $11,385,527 in 3 Energy Probe 15 reflects the original load forecast fixed for the orginal transposition error. The amount of $11,378,402 reflects the revised load forecast.

UNDERTAKING NO. JT1.12

IF REQUIRED, TO UPDATE THE RESPONSE TO 3 ENERGY PROBE 15 TO REFLECT THE UPDATED FORECAST.

Response:

Please find attached revised response to 3-ENERGY PROBE-15 to reflect the updated forecast.

Projected Distribution Revenues for Bridge and Test Years 2016-2020 at Existing 2015 Rates

Reflects Revised Load Forecast

	2015 PROJECTED REVENUE FROM EXISTING 2015 VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	189,236,126	2,914,236	$0.00	-	0	2,914,236
General Service < 50 kW	$0.0106	kWh	89,999,498	953,995	$0.00	-	0	953,995
General Service 50 to 4999 kW	$2.0063	kW	746,118	1,496,936	($0.60)	283,505	(170,103)	1,326,833
Large Use	$1.0535	kW	292,212	307,845	($0.60)	98,829	(59,298)	248,547
Unmetered Scattered Load	$0.0141	kWh	1,221,326	17,221	$0.00	-	0	17,221
Street Lighting	$4.6750	kW	5,036	23,543	($0.60)	-	0	23,543
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,713,776**		**382,334**	**(229,401)**	**5,484,376**

	2015 PROJECTED DISTRIBUTION REVENUE AT 2015 EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,004	3,617,883	2,914,236	6,532,119	55.39%	44.61%	57.22%
General Service < 50 kW	$25.8500	3,000	930,600	953,995	1,884,595	49.38%	50.62%	16.51%
General Service 50 to 4999 kW	$280.0900	331	1,112,517	1,326,833	2,439,351	45.61%	54.39%	21.37%
Large Use	$5,164.0000	3	185,904	248,547	434,451	42.79%	57.21%	3.81%
Unmetered Scattered Load	$11.5500	145	20,097	17,221	37,318	53.85%	46.15%	0.33%
Street Lighting	$1.0200	5,337	65,325	23,543	88,868	73.51%	26.49%	0.78%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**5,932,326**	**5,484,376**	**11,416,702**	51.96%	48.04%	100.00%

	2016 PROJECTED REVENUE FROM EXISTING 2015 VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	188,042,904	2,895,861	$0.00	-	0	2,895,861
General Service < 50 kW	$0.0106	kWh	86,732,020	919,359	$0.00	-	0	919,359
General Service 50 to 4999 kW	$2.0063	kW	745,973	1,496,646	($0.60)	283,450	(170,070)	1,326,576
Large Use	$1.0535	kW	278,065	292,941	($0.60)	94,045	(56,427)	236,515
Unmetered Scattered Load	$0.0141	kWh	1,196,145	16,866	$0.00	-	0	16,866
Street Lighting	$4.6750	kW	5,046	23,590	($0.60)	-	0	23,590
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,645,263**		**377,495**	**(226,497)**	**5,418,767**

	2016 PROJECTED DISTRIBUTION REVENUE AT 2015 EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,157	3,640,943	2,895,861	6,536,804	55.70%	44.30%	57.45%
General Service < 50 kW	$25.8500	2,950	915,090	919,359	1,834,449	49.88%	50.12%	16.12%
General Service 50 to 4999 kW	$280.0900	337	1,132,684	1,326,576	2,459,260	46.06%	53.94%	21.61%
Large Use	$5,164.0000	3	185,904	236,515	422,419	44.01%	55.99%	3.71%
Unmetered Scattered Load	$11.5500	141	19,543	16,866	36,408	53.68%	46.32%	0.32%
Street Lighting	$1.0200	5,349	65,472	23,590	89,062	73.51%	26.49%	0.78%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**5,959,635**	**5,418,767**	**11,378,402**	52.38%	47.62%	100.00%

	2017 PROJECTED REVENUE FROM EXISTING 2015 VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	187,260,718	2,883,815	$0.00	-	0	2,883,815
General Service < 50 kW	$0.0106	kWh	84,778,808	898,655	$0.00	-	0	898,655
General Service 50 to 4999 kW	$2.0063	kW	747,509	1,499,728	($0.60)	284,034	(170,420)	1,329,308
Large Use	$1.0535	kW	273,079	287,689	($0.60)	92,358	(55,415)	232,274
Unmetered Scattered Load	$0.0141	kWh	1,171,483	16,518	$0.00	-	0	16,518
Street Lighting	$4.6750	kW	5,056	23,637	($0.60)	-	0	23,637
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,610,042**		**376,392**	**(225,835)**	**5,384,207**

	2017 PROJECTED DISTRIBUTION REVENUE AT 2015 EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,311	3,664,154	2,883,815	6,547,969	55.96%	44.04%	57.58%
General Service < 50 kW	$25.8500	2,901	899,890	898,655	1,798,546	50.03%	49.97%	15.82%
General Service 50 to 4999 kW	$280.0900	343	1,152,850	1,329,308	2,482,158	46.45%	53.55%	21.83%
Large Use	$5,164.0000	3	185,904	232,274	418,178	44.46%	55.54%	3.68%
Unmetered Scattered Load	$11.5500	138	19,127	16,518	35,645	53.66%	46.34%	0.31%
Street Lighting	$1.0200	5,361	65,619	23,637	89,255	73.52%	26.48%	0.78%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**5,987,544**	**5,384,207**	**11,371,751**	52.65%	47.35%	100.00%

	2018 PROJECTED REVENUE FROM EXISTING 2015 VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	186,243,142	2,868,144	$0.00	-	0	2,868,144
General Service < 50 kW	$0.0106	kWh	82,438,874	873,852	$0.00	-	0	873,852
General Service 50 to 4999 kW	$2.0063	kW	747,982	1,500,675	($0.60)	284,213	(170,528)	1,330,148
Large Use	$1.0535	kW	272,967	287,571	($0.60)	92,321	(55,392)	232,178
Unmetered Scattered Load	$0.0141	kWh	1,147,330	16,177	$0.00	-	0	16,177
Street Lighting	$4.6750	kW	5,066	23,684	($0.60)	-	0	23,684
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,570,104**		**376,534**	**(225,920)**	**5,344,183**

	2018 PROJECTED DISTRIBUTION REVENUE AT 2015 EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,466	3,687,516	2,868,144	6,555,660	56.25%	43.75%	57.69%
General Service < 50 kW	$25.8500	2,853	885,001	873,852	1,758,853	50.32%	49.68%	15.48%
General Service 50 to 4999 kW	$280.0900	350	1,176,378	1,330,148	2,506,526	46.93%	53.07%	22.06%
Large Use	$5,164.0000	3	185,904	232,178	418,082	44.47%	55.53%	3.68%
Unmetered Scattered Load	$11.5500	135	18,711	16,177	34,888	53.63%	46.37%	0.31%
Street Lighting	$1.0200	5,373	65,766	23,684	89,449	73.52%	26.48%	0.79%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**6,019,275**	**5,344,183**	**11,363,458**	52.97%	47.03%	100.00%

	2019 PROJECTED REVENUE FROM EXISTING 2015 VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	185,263,300	2,853,055	$0.00	-	0	2,853,055
General Service < 50 kW	$0.0106	kWh	79,142,304	838,908	$0.00	-	0	838,908
General Service 50 to 4999 kW	$2.0063	kW	748,217	1,501,148	($0.60)	284,303	(170,582)	1,330,567
Large Use	$1.0535	kW	273,101	287,711	($0.60)	92,366	(55,419)	232,292
Unmetered Scattered Load	$0.0141	kWh	1,123,675	15,844	$0.00	-	0	15,844
Street Lighting	$4.6750	kW	5,076	23,730	($0.60)	-	0	23,730
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,520,397**		**376,668**	**(226,001)**	**5,294,396**

	2019 PROJECTED DISTRIBUTION REVENUE AT 2015 EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,622	3,711,028	2,853,055	6,564,083	56.54%	43.46%	57.86%
General Service < 50 kW	$25.8500	2,805	870,111	838,908	1,709,019	50.91%	49.09%	15.06%
General Service 50 to 4999 kW	$280.0900	357	1,199,906	1,330,567	2,530,472	47.42%	52.58%	22.30%
Large Use	$5,164.0000	3	185,904	232,292	418,196	44.45%	55.55%	3.69%
Unmetered Scattered Load	$11.5500	132	18,295	15,844	34,139	53.59%	46.41%	0.30%
Street Lighting	$1.0200	5,385	65,912	23,730	89,643	73.53%	26.47%	0.79%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**6,051,156**	**5,294,396**	**11,345,552**	53.34%	46.66%	100.00%

	2020 PROJECTED REVENUE FROM EXISTING 2015 VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	184,359,435	2,839,135	$0.00	-	0	2,839,135
General Service < 50 kW	$0.0106	kWh	75,933,648	804,897	$0.00	-	0	804,897
General Service 50 to 4999 kW	$2.0063	kW	749,414	1,503,550	($0.60)	284,757	(170,854)	1,332,696
Large Use	$1.0535	kW	273,572	288,208	($0.60)	92,525	(55,515)	232,693
Unmetered Scattered Load	$0.0141	kWh	1,100,508	15,517	$0.00	-	0	15,517
Street Lighting	$4.6750	kW	5,086	23,777	($0.60)	-	0	23,777
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,475,085**		**377,283**	**(226,370)**	**5,248,715**

	2020 PROJECTED DISTRIBUTION REVENUE AT 2015 EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,779	3,734,691	2,839,135	6,573,826	56.81%	43.19%	58.01%
General Service < 50 kW	$25.8500	2,758	855,532	804,897	1,660,428	51.52%	48.48%	14.65%
General Service 50 to 4999 kW	$280.0900	364	1,223,433	1,332,696	2,556,129	47.86%	52.14%	22.56%
Large Use	$5,164.0000	3	185,904	232,693	418,597	44.41%	55.59%	3.69%
Unmetered Scattered Load	$11.5500	129	17,879	15,517	33,397	53.54%	46.46%	0.29%
Street Lighting	$1.0200	5,397	66,059	23,777	89,836	73.53%	26.47%	0.79%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**6,083,498**	**5,248,715**	**11,332,213**	53.68%	46.32%	100.00%

UNDERTAKING NO. JT1.13

TO PROVIDE HISTORICAL AND THE FORECAST REVENUES FOR THE MICROFIT SERVICE CHARGES, TO PROVIDE THE HISTORICAL AND FORECASTED REVENUES IN ACCOUNT 4080, TO BREAK OUT THE HISTORICAL AND FORECAST FIGURES INTO THE MAJOR COMPONENTS, AND TO ADVISE WHERE THE COSTS ASSOCIATED WITH THIS REVENUE IN ACCOUNT 4325 ARE INCLUDED AND IF THEY ARE LESS THAN GROSS REVENUES.

Response:

Revenues in account 4210-Rent from Electric Property is only revenue related to access to power poles.

The revenues recorded in account 4325-Revenues from Merchandise, Jobbing, Etc are mainly related to rubber cover up for overhead wires. The revenue approximates $4,400 per year and recovers the related costs that are included as part of the costs recorded in OEB account 5025.

Revenues for MicroFit and account 4080 are as follows. The forecasts are based on a 3-year average for 2012-2014.

	2011	2012	2013	2014
MicroFit	2,197	4,792	5,981	6,563

	2015	2016	2017	2018	2019	2020
MicroFit	5,779	5,779	5,779	5,779	5,779	5,779

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	2011	2012	2013	2014		
Account 4080	74,120	75,997	77,547	78,456		
	2015	2016	2017	2018	2019	2020
Account 4080	77,333	77,333	77,333	77,333	77,333	77,333

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UNDERTAKING NO. JT1.14

TO ADVISE, WHEN THEY SAY "CDM AJDUSTED," IF THEY MEANT TO INCLUDE THE 2016-2020 CDM ADJUSTMENT.

Response:

Reference: IR 3-Staff-53

The update to Appendix 2A as provided under 3-Staff-53 was completed in error, and included the 2015-2020 Forecast amounts instead of the 2015-2020 Forecast amounts with CDM adjustment. Please see the revised Appendix 2-IA, page 1 through page 3 (JT1.14-Attachment 1 through Attachment 3), which includes the 2015-2020 CDM adjustments.

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Appendix 2-IA
Summary and Variances of 2011 Board Approved vs. Historic Actual and Forecast Data

Replace "Rate Class #" with the appropriate rate classification.

	2011 Board Approved	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Bridge Forecast CDM Adjusted	2016 Test Forecast CDM Adjusted	2017 Test Forecast CDM Adjusted	2018 Test Forecast CDM Adjusted	2019 Test Forecast CDM Adjusted	2020 Test Forecast CDM Adjusted	2011 Board Approved vs Actual
Residential												
# of Customers	23,386	23,212	23,193	23,468	23,853	24,004	24,157	24,311	24,466	24,622	24,779	174
kWh	194,606,362	191,104,338	184,953,209	189,348,696	192,061,408	189,236,126	188,042,904	187,260,718	186,243,142	185,263,300	184,359,435	3,502,024
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-0.74%	-0.83%	0.35%	2.00%	2.64%	3.30%	3.96%	4.62%	5.28%	5.95%	
kWh		-1.80%	-4.96%	-2.70%	-1.31%	-2.76%	-3.37%	-3.77%	-4.30%	-4.80%	-5.27%	
GS<50*												
# of Customers	3,244	3,298	3,250	3,213	3,051	3,000	2,950	2,901	2,853	2,805	2,758	- 54
kWh	93,096,784	93,008,635	88,608,641	86,375,577	91,470,555	89,999,498	86,732,020	84,778,808	82,438,874	79,142,304	75,933,648	88,149
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		1.66%	0.18%	-0.96%	-5.94%	-7.51%	-9.05%	-10.57%	-12.07%	-13.54%	-14.98%	
kWh		-0.09%	-4.82%	-7.22%	-1.75%	-3.33%	-6.84%	-8.93%	-11.45%	-14.99%	-18.44%	
***NOTE: GS<50 Customer Count for 2010-2013 has been increased by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
GS>50**												
# of Customers	347	291	307	318	325	331	337	343	350	357	364	56
kWh	259,610,762	273,712,584	274,473,668	279,458,000	272,498,127	273,308,735	273,255,734	273,818,458	273,991,419	274,077,767	274,516,295	- 14,101,822
kW	701,859	766,581	781,260	767,156	743,905	746,118	745,973	747,509	747,982	748,217	749,414	- 64,722
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-16.14%	-11.65%	-8.43%	-6.48%	-4.70%	-2.87%	-1.01%	0.88%	2.81%	4.78%	
kWh		5.43%	5.73%	7.64%	4.96%	5.28%	5.26%	5.47%	5.54%	5.57%	5.74%	
kW		9.22%	11.31%	9.30%	5.99%	6.31%	6.29%	6.50%	6.57%	6.61%	6.78%	
****NOTE: GS>50 Customer Count for 2011-2013 has been reduced by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
Large User												
# of Customers	3	3	3	3	3	3	3	3	3	3	3	0
kWh	152,017,673	154,491,718	155,448,435	153,943,746	151,518,193	154,564,804	147,081,903	144,444,566	144,385,384	144,455,963	144,705,330	- 2,474,045
kW	297,737	294,114	323,212	291,732	286,452	292,212	278,065	273,079	272,967	273,101	273,572	3,623
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
kWh		1.63%	2.26%	1.27%	-0.33%	1.68%	-3.25%	-4.98%	-5.02%	-4.97%	-4.81%	
kW		-1.22%	8.56%	-2.02%	-3.79%	-1.86%	-6.61%	-8.28%	-8.32%	-8.27%	-8.12%	
Street Light												
# of Connections	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397	35
kWh	4,024,186	4,142,238	4,555,371	3,336,835	1,817,917	1,814,577	1,818,158	1,821,740	1,825,321	1,828,903	1,832,484	- 118,052
kW	11,336	11,237	10,984	8,304	5,045	4,742	4,752	4,761	4,770	4,780	4,789	99
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Connections		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%	
kWh		2.93%	13.20%	-17.08%	-54.83%	-54.91%	-54.82%	-54.73%	-54.64%	-54.55%	-54.46%	
kW		-0.88%	-3.11%	-26.75%	-55.49%	-58.17%	-58.08%	-58.00%	-57.92%	-57.84%	-57.75%	
Unmetered Scattered Load												
# of Customers	164	156	152	151	147	143	141	138	135	132	129	9
kWh	2,275,040	1,517,655	1,484,560	1,499,820	1,247,036	1,221,326	1,196,145	1,171,483	1,147,330	1,123,675	1,100,508	757,385
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-5.18%	-7.32%	-8.03%	-10.67%	-12.51%	-14.32%	-16.08%	-17.81%	-19.51%	-21.17%	
kWh		-33.29%	-34.75%	-34.08%	-45.19%	-46.32%	-47.42%	-48.51%	-49.57%	-50.61%	-51.63%	
Totals												
Customers	27,144	26,959	26,904	27,152	27,378	27,482	27,588	27,696	27,806	27,918	28,032	185
Connections	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397	35
kWh	705,630,807	717,977,169	709,523,884	713,962,674	710,613,236	710,145,065	698,126,864	693,295,774	690,031,470	685,891,912	682,447,699	- 12,346,362
kW from applicable classes	1,010,932	1,071,932	1,115,456	1,067,192	1,035,402	1,043,072	1,028,790	1,025,349	1,025,719	1,026,098	1,027,776	- 61,000
Totals - Variance												
Customers		-0.68%	-0.88%	0.03%	0.86%	1.25%	1.64%	2.03%	2.44%	2.85%	3.27%	
Connections		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%	
kWh		1.75%	0.55%	1.18%	0.71%	0.64%	-1.06%	-1.75%	-2.21%	-2.80%	-3.29%	
kW from applicable classes		6.03%	10.34%	5.57%	2.42%	3.18%	1.77%	1.43%	1.46%	1.50%	1.67%	

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Exhibit:	3
Tab:	1
Schedule:	1
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Date:	11-Sep-15

Appendix 2-IA
Summary and Variances of 2011 Board Approved vs. Weather Normalized Actual and Forecast Data

Replace "Rate Class #" with the appropriate rate classification.

	2009 Weather Normalized	2010 Weather Normalized	2011 Board Approved	2011 Weather Normalized	2012 Weather Normalized	2013 Weather Normalized	2014 Weather Normalized	2015 Bridge Forecast CDM Adjusted	2016 Test Forecast CDM Adjusted	2017 Test Forecast CDM Adjusted	2018 Test Forecast CDM Adjusted	2019 Test Forecast CDM Adjusted	2020 Test Forecast CDM Adjusted
Residential													
# of Customers	23,107	23,163	23,386	23,212	23,193	23,468	23,853	24,004	24,157	24,311	24,466	24,622	24,779
kWh	198,884,446	195,591,927	194,606,362	192,163,011	187,471,244	188,263,211	190,835,981	189,236,126	188,042,904	187,260,718	186,243,142	185,263,300	184,359,435
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	-1.19%	-0.95%		-0.74%	-0.83%	0.35%	2.00%	2.64%	3.30%	3.96%	4.62%	5.28%	5.95%
kWh	2.20%	0.51%		-1.26%	-3.67%	-3.26%	-1.94%	-2.76%	-3.37%	-3.77%	-4.30%	-4.80%	-5.27%
GS<50*													
# of Customers	3,319	3,300	3,244	3,298	3,250	3,213	3,051	3,000	2,950	2,901	2,853	2,805	2,758
kWh	96,064,962	94,490,081	93,096,784	93,776,077	90,457,595	87,793,270	92,804,877	89,999,498	86,732,020	84,778,808	82,438,874	79,142,304	75,933,648
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	2.31%	1.73%		1.66%	0.18%	-0.96%	-5.94%	-7.51%	-9.05%	-10.57%	-12.07%	-13.54%	-14.98%
kWh	3.19%	1.50%		0.73%	-2.83%	-5.70%	-0.31%	-3.33%	-6.84%	-8.93%	-11.45%	-14.99%	-18.44%
***NOTE: GS<50 Customer Count for 2010-2013 has been increased by 53 due to Reclassification of 53 customers that occurred in Jan 2014**													
GS>50**													
# of Customers	295	294	347	291	307	318	325	331	337	343	350	357	364
kWh	271,411,676	272,384,595	259,610,762	276,283,654	275,227,380	278,459,749	272,240,655	273,308,735	273,255,734	273,818,458	273,991,419	274,077,767	274,516,295
kW	725,075	744,034	701,859	773,782	783,405	764,416	743,202	746,118	745,973	747,509	747,982	748,217	749,414
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	-14.99%	-15.27%		-16.14%	-11.65%	-8.43%	-6.48%	-4.70%	-2.87%	-1.01%	0.88%	2.81%	4.78%
kWh	4.55%	4.92%		6.42%	6.02%	7.26%	4.86%	5.28%	5.26%	5.47%	5.54%	5.57%	5.74%
kW	3.31%	6.01%		10.25%	11.62%	8.91%	5.89%	6.31%	6.29%	6.50%	6.57%	6.61%	6.78%
****NOTE: GS>50 Customer Count for 2011-2013 has been reduced by 53 due to Reclassification of 53 customers that occurred in Jan 2014**													
Large User													
# of Customers	3	3	3	3	3	3	3	3	3	3	3	3	3
kWh	148,687,034	150,173,340	152,017,673	154,138,390	152,025,145	154,963,792	153,804,618	154,564,804	147,081,903	144,444,566	144,385,384	144,455,963	144,705,330
kW	241,899	291,825	297,737	293,441	316,094	293,665	290,775	292,212	278,065	273,079	272,967	273,101	273,572
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
kWh	-2.19%	-1.21%		1.40%	0.00%	1.94%	1.18%	1.68%	-3.25%	-4.98%	-5.02%	-4.97%	-4.81%
kW	-18.75%	-1.99%		-1.44%	6.17%	-1.37%	-2.34%	-1.86%	-6.61%	-8.28%	-8.32%	-8.27%	-8.12%
Street Light													
# of Connections	5,114	5,117	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	3,992,185	4,076,824	4,024,186	4,142,238	4,555,371	3,336,835	1,817,917	1,814,577	1,818,158	1,821,740	1,825,321	1,828,903	1,832,484
kW	11,246	11,251	11,336	11,237	10,984	8,304	5,045	4,742	4,752	4,761	4,770	4,780	4,789
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Connections	-0.80%	-0.74%		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%
kWh	-0.80%	1.31%		2.93%	13.20%	-17.08%	-54.83%	-54.91%	-54.82%	-54.73%	-54.64%	-54.55%	-54.46%
kW	-0.79%	-0.75%		-0.88%	-3.11%	-26.75%	-55.49%	-58.17%	-58.08%	-58.00%	-57.92%	-57.84%	-57.75%
Unmetered Scattered Load													
# of Customers	163	158	164	156	152	151	147	143	141	138	135	132	129
kWh	2,256,949	2,229,012	2,275,040	1,517,655	1,484,560	1,499,820	1,247,036	1,221,326	1,196,145	1,171,483	1,147,330	1,123,675	1,100,508
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	-0.61%	-3.66%		-5.18%	-7.32%	-8.03%	-10.67%	-12.51%	-14.32%	-16.08%	-17.81%	-19.51%	-21.17%
kWh	-0.80%	-2.02%		-33.29%	-34.75%	-34.08%	-45.19%	-46.32%	-47.42%	-48.51%	-49.57%	-50.61%	-51.63%
Totals													
Customers	26,887	26,918	27,144	26,959	26,904	27,152	27,378	27,482	27,588	27,696	27,806	27,918	28,032
Connections	5,114	5,117	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	721,297,251	718,945,778	705,630,807	722,021,025	711,221,296	714,316,678	712,751,085	710,145,065	698,126,864	693,295,774	690,031,470	685,891,912	682,447,699
kW from applicable classes	978,220	1,047,110	1,010,932	1,078,460	1,110,483	1,066,385	1,039,022	1,043,072	1,028,790	1,025,349	1,025,719	1,026,098	1,027,776
Totals - Variance													
Customers	-0.95%	-0.83%		-0.68%	-0.88%	0.03%	0.86%	1.25%	1.64%	2.03%	2.44%	2.85%	3.27%
Connections	-0.80%	-0.74%		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%
kWh	2.22%	1.89%		2.32%	0.79%	1.23%	1.01%	0.64%	-1.06%	-1.75%	-2.21%	-2.80%	-3.29%
kW from applicable classes	-3.24%	3.58%		6.68%	9.85%	5.49%	2.78%	3.18%	1.77%	1.43%	1.46%	1.50%	1.67%

Appendix 2-IA
Summary and Year Over Year Variances of Weather Normalized Actual and Forecast Data

Replace "Rate Class #" with the appropriate rate classification.

	2009 Weather Normalized	2010 Weather Normalized	2011 Weather Normalized	2012 Weather Normalized	2013 Weather Normalized	2014 Weather Normalized	2015 Bridge Forecast CDM Adjusted	2016 Test Forecast CDM Adjusted	2017 Test Forecast CDM Adjusted	2018 Test Forecast CDM Adjusted	2019 Test Forecast CDM Adjusted	2020 Test Forecast CDM Adjusted
Residential												
# of Customers	23,107	23,163	23,212	23,193	23,468	23,853	24,004	24,157	24,311	24,466	24,622	24,779
kWh	198,884,446	195,591,927	192,163,011	187,471,244	188,263,211	190,835,981	189,236,126	188,042,904	187,260,718	186,243,142	185,263,300	184,359,435
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		0.24%	0.21%	-0.08%	1.19%	1.64%	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%
kWh		-1.66%	-1.75%	-2.44%	0.42%	1.37%	-0.84%	-0.63%	-0.42%	-0.54%	-0.53%	-0.49%
GS<50*												
# of Customers	3,319	3,300	3,298	3,250	3,213	3,051	3,000	2,950	2,901	2,853	2,805	2,758
kWh	96,064,962	94,490,081	93,776,077	90,457,595	87,793,270	92,804,877	89,999,498	86,732,020	84,778,808	82,438,874	79,142,304	75,933,648
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-0.57%	-0.07%	-1.45%	-1.14%	-5.02%	-1.67%	-1.67%	-1.67%	-1.67%	-1.67%	-1.67%
kWh		-1.64%	-0.76%	-3.54%	-2.95%	5.71%	-3.02%	-3.63%	-2.25%	-2.76%	-4.00%	-4.05%
***NOTE: GS<50 Customer Count for 2010-2013 has been increased by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
GS>50**												
# of Customers	295	294	291	307	318	325	331	337	343	350	357	364
kWh	271,411,676	272,384,595	276,283,654	275,227,380	278,459,749	272,240,655	273,308,735	273,255,734	273,818,458	273,991,419	274,077,767	274,516,295
kW	725,075	744,034	773,782	783,405	764,416	743,202	746,118	745,973	747,509	747,982	748,217	749,414
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-0.34%	-1.02%	5.36%	3.64%	2.12%	1.91%	1.91%	1.91%	1.91%	1.91%	1.91%
kWh		0.36%	1.43%	-0.38%	1.17%	-2.23%	0.39%	-0.02%	0.21%	0.06%	0.03%	0.16%
kW		2.61%	4.00%	1.24%	-2.42%	-2.78%	0.39%	-0.02%	0.21%	0.06%	0.03%	0.16%
****NOTE: GS>50 Customer Count for 2011-2013 has been reduced by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
Large User												
# of Customers	3	3	3	3	3	3	3	3	3	3	3	3
kWh	148,687,034	150,173,340	154,138,390	152,025,145	154,963,792	153,804,618	154,564,804	147,081,903	144,444,566	144,385,384	144,455,963	144,705,330
kW	241,899	291,825	293,441	316,094	293,665	290,775	292,212	278,065	273,079	272,967	273,101	273,572
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
kWh		1.00%	2.64%	-1.37%	1.93%	-0.75%	0.49%	-4.84%	-1.79%	-0.04%	0.05%	0.17%
kW		20.64%	0.55%	7.72%	-7.10%	-0.98%	0.49%	-4.84%	-1.79%	-0.04%	0.05%	0.17%
Street Light												
# of Connections	5,114	5,117	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	3,992,185	4,076,824	4,142,238	4,555,371	3,336,835	1,817,917	1,814,577	1,818,158	1,821,740	1,825,321	1,828,903	1,832,484
kW	11,246	11,251	11,237	10,984	8,304	5,045	4,742	4,752	4,761	4,770	4,780	4,789
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Connections		0.06%	0.05%	0.13%	5.05%	-2.91%	2.07%	0.22%	0.22%	0.22%	0.22%	0.22%
kWh		2.12%	1.60%	9.97%	-26.75%	-45.52%	-0.18%	0.20%	0.20%	0.20%	0.20%	0.20%
kW		0.04%	-0.13%	-2.25%	-24.40%	-39.24%	-6.00%	0.20%	0.20%	0.20%	0.20%	0.20%
Unmetered Scattered Load												
# of Customers	163	158	156	152	151	147	143	141	138	135	132	129
kWh	2,256,949	2,229,012	1,517,655	1,484,560	1,499,820	1,247,036	1,221,326	1,196,145	1,171,483	1,147,330	1,123,675	1,100,508
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-3.07%	-1.58%	-2.25%	-0.77%	-2.87%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%
kWh		-1.24%	-31.91%	-2.18%	1.03%	-16.85%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%

Totals

Customers	26,887	26,918	26,959	26,904	27,152	27,378	27,482	27,588	27,696	27,806	27,918	28,032
Connections	5,114	5,117	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	721,297,251	718,945,778	722,021,025	711,221,296	714,316,678	712,751,085	710,145,065	698,126,864	693,295,774	690,031,470	685,891,912	682,447,699
kW from applicable classes	978,220	1,047,110	1,078,460	1,110,483	1,066,385	1,039,022	1,043,072	1,028,790	1,025,349	1,025,719	1,026,098	1,027,776

Totals - Variance

Customers		0.12%	0.15%	-0.20%	0.92%	0.83%	0.38%	0.39%	0.39%	0.40%	0.40%	0.41%
Connections		0.06%	0.05%	0.13%	5.05%	-2.91%	2.07%	0.22%	0.22%	0.22%	0.22%	0.22%
kWh		-0.33%	0.43%	-1.50%	0.44%	-0.22%	-0.37%	-1.69%	-0.69%	-0.47%	-0.60%	-0.50%
kW from applicable classes		7.04%	2.99%	2.97%	-3.97%	-2.57%	0.39%	-1.37%	-0.33%	0.04%	0.04%	0.16%

UNDERTAKING NO. JT1.15

TO EXPLAIN THE TREND COEFFICIENT.

Response:

Reference: IR 3-Staff-57

As stated in the response to IR 3-Staff-57, it is impossible to fully explain or determine the driver of a trend variable since it captures all changes that are happening over time, but which are not captured in other variables. In the updated load forecast, the IESO verified savings for 2009-2014 have been factored into the model but the trend coefficient still exists for some rate classes and may explain changes to demographics, household size, average unit sizes, non-incented changes to installed lighting and appliance technology, commodity price, as well as any other factors not captured in other variables.

With respect to all tables except GS < 50, the difference in the trend variable is a result of adding back IESO (formerly OPA) verified savings from programs delivered in 2009-2014. The result is that the difference in the trend variable should roughly correspond to the monthly IESO verified savings for those years. In the case of GS < 50, the same methodology was used and the coefficient of the resulting trend variable retained a negative sign but it was dropped as it was no longer statistically significant. This suggests that the coefficient for the trend variable of the GS<50 class in the original load forecast filed in June was mainly influenced by IESO verified savings from programs delivered in 2009-2014, which makes sense based on the high volume of historic CDM savings verified for this rate class.

In summary, the new methodology used in the September update to the Load Forecast was designed to remove the impact of growing IESO verified CDM savings over the 2009-2014 period from the trend variable. In doing so, the objective is to remove these persisting savings from being projected into the future. The difference in the trend variable would roughly correspond to monthly IESO verified CDM over the 2009-2014 timeframe and persisting into the 2015-2020 period. Incremental persisting savings from 2015-2020 are accounted for in the manual adjustment to the load forecast model (post regression model).

Summary of Changes in the Trend Variable

	Residential	GS < 50	GS > 50	Large Use
Trend Filed June 1	-30519	-7343	-31159	-38272
Trend Filed September 11	-27017	N/A	-24652	-33862
Reduction in Trend	3502	7343	6507	4410

Impact of Trend variable in the Residential class vs CDM realized.

	Impact of change in Trend	CDM Realized in-period
2009	273,156	258,079
2010	777,444	682,194
2011	1,281,732	1,107,163
2012	1,786,020	1,533,506
2013	2,290,308	1,920,953
2014	2,794,596	2,562,287
2015 - Half Year	1,586,406	1,487,643

Impact of Trend variable in the GS < 50 class vs CDM realized.

	Impact of change in Trend	CDM Realized in-period
2009	572,754	341,522
2010	1,630,146	952,750
2011	2,687,538	1,555,086
2012	3,744,930	2,495,455
2013	4,802,322	3,319,326
2014	5,859,714	3,869,537
2015 - Half Year	3,326,379	2,038,937

Impact of Trend variable in the GS > 50 class vs CDM realized.

	Impact of change in Trend	CDM Realized in-period
2009	507,546	640,449
2010	1,444,554	1,417,090
2011	2,381,562	1,764,891
2012	3,318,570	3,777,676
2013	4,255,578	5,969,115
2014	5,192,586	7,491,976
2015 - Half Year	2,947,671	4,171,550

Impact of Trend variable in the Large Use class vs CDM realized.

	Impact of change in Trend	CDM Realized in-period
2009	343,980	
2010	979,020	
2011	1,614,060	617,444
2012	2,249,100	1,541,626
2013	2,884,140	2,488,161
2014	3,519,180	3,178,684
2015 - Half Year	1,997,730	1,683,887

UNDERTAKING NO. JT1.16

TO FILE THE TWO PLANS, OR THE RESULTS OF THE TWO PLANS: THE IESO REPORT FOR THE FINAL 2011-2014 AND THE 2015 TO 2020 CDM PLAN.

Response:

Kingston Hydro confirms that the CDM Adjustment to the Load forecast and past and projected LRAMVA eligible savings is based on 2011-2014 IESO-reported Final CDM Results and Kingston Hydro's IESO-approved 2015-2020 Conservation Plan, and that these results have been filed.

As part of Kingston Hydro's response to 3-Staff-54, it filed a CDM model calculated with IESO-provided final data, excerpted from 2011-13 IESO Final CDM Persistence tables and Kingston Hydro's IESO-filed 2015-2020 Conservation Plan. 2014 Savings were calculated using initiative level savings from the IESO's 2011-2014 Final CDM Results report received September 1, 2015 applied to 2013 initiative level persistence profiles.

Please refer to the response provided by Kingston Hydro to JT 1.5 and JT 1.6 for an explanation of how the updated CDM Model provided in response to various undertakings is structured, what each tab displays and how the data in the various tabs are used, what their source is and definitions for all relevant acronyms used in the model.

Please then refer to the updated live excel CDM Model provided in response to undertaking JT1.6 titled "150922 - IR 3-Staff-54 Attachment 1 – Undertakings.xlsx".

Final IESO-reported results, for the purpose of assessing progress towards CDM targets, are excerpted from the IESO's 2011-2014 Final CDM Results report for Kingston Hydro in tabs "Kingston Hydro – Summary", "Kingston Hydro - Results (Net)" and "Kingston Hydro NTG". It is important to note that these results are portfolio-wide savings towards CDM targets, rather than rate impact savings, and are provided primarily for reference.

The tab "2014 IESO persistence table" provides an example of the persistence tables provided to Kingston Hydro by the IESO that break down total persisting kW and kWh savings, including prior year adjustments, by initiative, in each year from 2011-2014. The tab "2006-2010 KH Net kW kWh" tab provides the IESO-reported savings by initiative for each year in the "Third Tranche" framework.

The tabs "KH MW Persistence Table" and "KH MWh Persistence Table" display the IESO-reported persisting savings from each year's IESO-provided Kingston Hydro Persistence table by initiative for 2006-2014, along with projected savings by initiative for 2015-2020 taken from Kingston Hydro's IESO-approved Conservation Plan.

A column has been added to these tabs titled "Rate Class" that is used to allocate initiative savings either directly to a single rate class or for allocation between rate classes. These tabs represent the net end-user level IESO-reported CDM results of the Third Tranche 2006-2010 programs undertaken by Kingston Hydro and the results of the 2011-2014 Framework CDM programs.

The projected results from the 2015-2020 IESO-approved Kingston Hydro CDM Plan are included in the model as tabs "KH 2015-2020 CDM Plan Milestone", "2015-20 Measure Savings Results", and "2015-20 Measure Savings Results". These tabs feed

data into the “KH MW Persistence Table” and “KH MWh Persistence Table” tabs by initiative by year for allocation to rate class.

This updated CDM model reflects updates to account for approval by the IESO of Kingston Hydro’s 2015-2020 Conservation Plan (received September 8, 2015), and IESO-provided final persistence tables by initiative for the 2014 program year (received September 22, 2015).

Message from the Vice President:

The IESO is pleased to provide the enclosed 2011-2014 Final Results Report. This report is designed to help populate LDC Annual Reports that will be submitted to the Ontario Energy Board (OEB) in September 2015.

2011-2014 Conservation Framework Highlights:

- LDCs have made significant achievements against dual energy and peak demand savings targets. Collectively, the LDCs have achieved 109% of the energy target and 70% of the peak demand target.
- Momentum has built as we transition to the Conservation First Framework. 2014 demonstrated an achievement of over 1 TWh of net incremental energy savings, positioning us well for average net incremental energy savings of 1.2 TWh required in the new framework to meet our 2020 CDM targets.
- Throughout the past framework, program results have become more predictable year over year as noted in the increasingly smaller variance between quarterly preliminary results and verified final results.
- Customer engagement continued to increase in both the Consumer and Business Programs. Between 2011 - 2014 consumers have purchased over 10 million energy efficient products through the saveONenergy COUPONS program. Customers in RETROFIT continue to declare a positive experience participating in the program with 86% likely to recommend.
- saveONenergy has seen a steady and significant increase in unaided brand awareness by 33% from 2011-2014
- Conservation is becoming even more cost-effective as programs become more efficient and effective. 2014 proved early investments in long lead time projects will pay off with the high savings now being realized in programs like PROCESS & SYSTEMS and RETROFIT. Within 4 cents per kWh, Conservation programs continue to be a valuable and cost effective resource for customers across the province.

The 2011-2014 Final Results within this report vary from the Draft 2011-2014 Final Results Report for the following reasons:

- Savings from Time of Use pricing are included in the Final Results Report. Overall the province saved 55 MWs from Time-of-Use pricing in 2014, or 0.73% of residential summer peak demand.
- Between August 4th and August 28th, the IESO and LDCs have worked collaboratively to reconcile projects from 2011-2014 Final Results Report to ensure every eligible project was captured and accurately reported.
- Verified savings from Innovation Fund pilots are also included for participating LDCs.

All results will be considered final for the 2011-2014 Conservation Framework. Any additional program activity not captured in the 2011-2014 Final Results Report will not be included as part of a future adjustment process.

Please continue to monitor saveONenergy E-blasts for future updates and should you have any other questions or comments please contact LDC.Support@ieso.ca.

We appreciate your collaboration and cooperation throughout the reporting and evaluation process and we look forward to the success ahead in the Conservation First Framework.

Sincerely,

Terry Young

Table of Contents

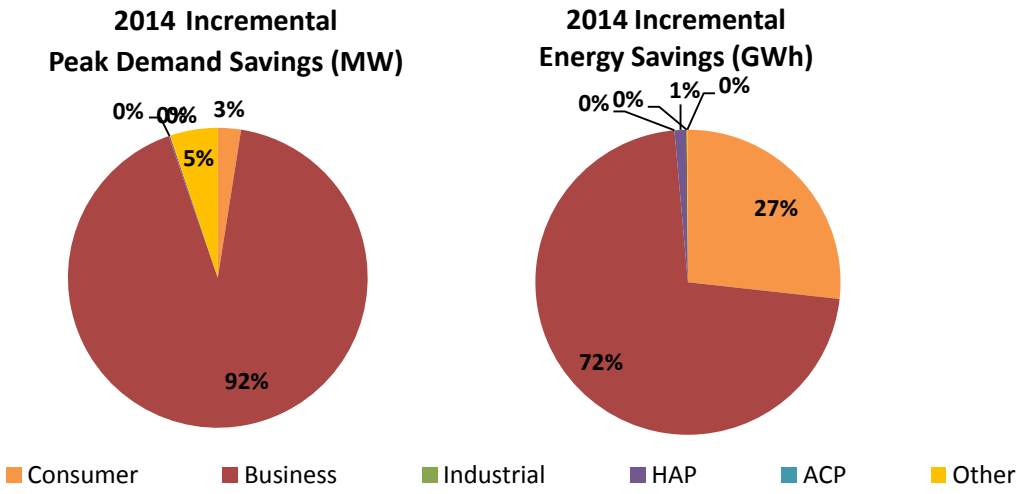
IESO-Contracted Province-Wide CDM Programs: 2011-2014 Final Results Report

LDC: Kingston Hydro Corporation

Final 2014 Achievement Against Targets	2014 Incremental	2011-2014 Achievement Against Target	% of Target Achieved
Net Annual Peak Demand Savings (MW)	5.3	7.5	**112.9%**
Net Energy Savings (GWh)	3.9	46.0	**123.7%**

Unless otherwise noted, results are presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Achievement by Sector



Comparison: LDC Achievement vs. LDC Community Achievement (Progress to Target)

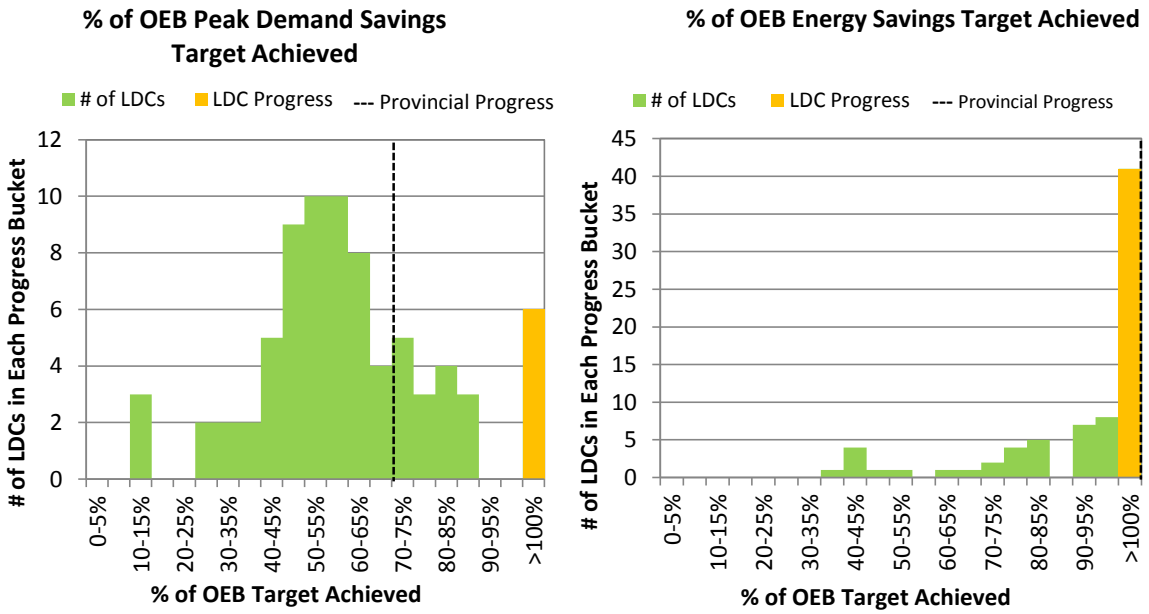


Table 1: Kingston Hydro Corporation Initiative and Program Level Net Savings by Year

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
														2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	182	91	46	56	10	5	3	4	69,602	36,436	19,133	23,017	22	448,795
Appliance Exchange	Appliances	22	67	7	41	2	9	1	8	2,646	16,002	2,586	15,147	20	77,608
HVAC Incentives	Equipment	293	225	178	293	118	53	38	65	230,820	95,798	69,936	123,220	275	1,473,764
Conservation Instant Coupon Booklet	Items	2,694	155	1,745	6,775	6	1	3	13	98,588	7,010	38,644	184,681	23	677,353
Bi-Annual Retailer Event	Items	4,774	5,319	4,737	24,190	8	7	6	40	147,342	134,277	86,136	616,205	62	1,780,675
Retailer Co-op	Items	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential Demand Response	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential New Construction	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer Program Total						**145**	**76**	**51**	**132**	**548,997**	**289,524**	**216,435**	**962,270**	**402**	**4,458,195**
Business Program															
Retrofit	Projects	40	63	76	75	360	536	240	233	1,921,835	3,121,717	5,089,596	1,834,238	1,342	28,974,239
Direct Install Lighting	Projects	108	386	62	110	105	238	64	93	264,376	942,755	222,932	338,658	477	4,602,374
Building Commissioning	Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Construction	Buildings	0	6	2	2	0	1	22	49	0	1,597	58,802	84,927	71	207,322
Energy Audit	Audits	3	7	2	5	0	26	18	67	0	125,881	96,902	326,368	110	897,815
Small Commercial Demand Response	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	3	3	2	2	4,018	4,030	3,894	4,440	156,889	58,581	52,002	0	4,440	267,472
Business Program Total						**4,484**	**4,831**	**4,238**	**4,882**	**2,343,100**	**4,250,531**	**5,520,234**	**2,584,191**	**6,441**	**34,949,222**
Industrial Program															
Process & System Upgrades	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monitoring & Targeting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy Manager	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retrofit	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand Response 3†	Facilities	0	1	1	0	0	349	326	0	0	8,416	7,412	0	0	15,828
Industrial Program Total						**0**	**349**	**326**	**0**	**0**	**8,416**	**7,412**	**0**	**0**	**15,828**
Home Assistance Program															
Home Assistance Program	Homes	0	71	349	43	0	6	27	8	0	48,513	272,016	46,220	40	730,262
Home Assistance Program Total						**0**	**6**	**27**	**8**	**0**	**48,513**	**272,016**	**46,220**	**40**	**730,262**
Aboriginal Program															
Home Assistance Program	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aboriginal Program Total						**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	3	0	0	0	12	0	0	0	79,337	0	0	0	12	317,348
High Performance New Construction	Projects	3	2	0	0	64	90	0	0	331,043	327,226	0	0	155	2,305,850
Toronto Comprehensive	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDC Custom Programs	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total						**77**	**90**	**0**	**0**	**410,380**	**327,226**	**0**	**0**	**167**	**2,623,198**
Other															
Program Enabled Savings	Projects	0	3	6	1	0	0	0	0	0	0	0	4,712	0	4,712
Time-of-Use Savings	Homes	0	0	0	n/a	0	0	0	273	0	0	0	0	273	0
LDC Pilots	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Total						**0**	**0**	**0**	**273**	**0**	**0**	**0**	**4,712**	**273**	**4,712**
Adjustments to 2011 Verified Results							**83**	**0**	**0**		**491,455**	**0**	**44,852**	**83**	**2,144,346**
Adjustments to 2012 Verified Results								**45**	**3**			**142,728**	**35,925**	**49**	**536,052**
Adjustments to 2013 Verified Results									**28**				**248,397**	**28**	**496,807**
Energy Efficiency Total						**687**	**973**	**422**	**855**	**3,145,588**	**4,857,213**	**5,956,683**	**3,597,393**	**2,883**	**42,498,118**
Demand Response Total (Scenario 1)						**4,018**	**4,379**	**4,220**	**4,440**	**156,889**	**66,996**	**59,414**	**0**	**4,440**	**283,299**
Adjustments to Previous Years' Verified Results Total						**0**	**83**	**45**	**32**	**0**	**491,455**	**142,728**	**329,175**	**160**	**3,177,206**
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						**4,705**	**5,435**	**4,687**	**5,327**	**3,302,477**	**5,415,664**	**6,158,825**	**3,926,568**	**7,483**	**45,958,623**
													Full OEB Target:	**6,630**	**37,160,000**
													% of Full OEB Target Achieved to Date (Scenario 1):	**112.9%**	**123.7%**

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).
†Results contain a DR contributor that was applied to Kingston Hydro's service territory in error in 2012 and 2013 respectively. The contributor has been removed in 2014.

*Includes adjustments after Final Reports were issued

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Table 2: Adjustments to Kingston Hydro Corporation Net Verified Results due to Variances

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
														2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	0	0	0		0	0	0		0	0	0		0	0
Appliance Exchange	Appliances	0	0	0		0	0	0		0	0	0		0	0
HVAC Incentives	Equipment	-74	9	15		-24	2	3		-46,099	3,615	5,655		-19	-162,242
Conservation Instant Coupon Booklet	Items	41	0	5		0	0	0		1,382	0	118		0	5,764
Bi-Annual Retailer Event	Items	410	0	0		1	0	0		10,947	0	0		1	43,788
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential New Construction	Homes	0	0	0		0	0	0		0	0	0		0	0
Consumer Program Total						**-23**	**2**	**3**		**-33,770**	**3,615**	**5,773**		**-18**	**-112,690**
Business Program															
Retrofit	Projects	2	3	8		3	15	21		14,398	35,104	201,407		39	564,838
Direct Install Lighting	Projects	5	16	0		5	20	0		15,858	65,451	0		25	259,787
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	0	0	1		0	0	3		0	0	6,441		3	12,881
Energy Audit	Audits	2	2	0		11	12	0		52,797	56,331	64		22	380,308
Small Commercial Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Business Program Total						**20**	**46**	**24**		**83,053**	**156,886**	**207,912**		**90**	**1,217,814**
Industrial Program															
Process & System Upgrades	Projects	0	0	0		0	0	0		0	0	0		0	0
Monitoring & Targeting	Projects	0	0	0		0	0	0		0	0	0		0	0
Energy Manager	Projects	0	0	0		0	0	0		0	0	0		0	0
Retrofit	Projects	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Industrial Program Total						**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**
Home Assistance Program															
Home Assistance Program	Homes	0	9	6		0	0	1		0	4,062	6,453		1	25,034
Home Assistance Program Total						**0**	**0**	**1**		**0**	**4,062**	**6,453**		**1**	**25,034**
Aboriginal Program															
Home Assistance Program	Homes	0	0	0		0	0	0		0	0	0		0	0
Direct Install Lighting	Projects	0	0	0		0	0	0		0	0	0		0	0
Aboriginal Program Total						**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	0	0	0		0	0	0		0	0	0		0	0
High Performance New Construction	Projects	2	0	0		87	0	0		444,616	0	0		87	1,778,464
Toronto Comprehensive	Projects	0	0	0		0	0	0		0	0	0		0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0		0	0	0		0	0
LDC Custom Programs	Projects	0	0	0		0	0	0		0	0	0		0	0
Pre-2011 Programs completed in 2011 Total						**87**	**0**	**0**		**444,616**	**0**	**0**		**87**	**1,778,464**
Other															
Program Enabled Savings	Projects	9	3	6		0	0	0		42,408	14,136	28,272		0	268,584
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
LDC Pilots	Projects	0	0	0		0	0	0		0	0	0		0	0
Other Total						**0**	**0**	**0**		**42,408**	**14,136**	**28,272**		**0**	**268,584**
Adjustments to 2011 Verified Results						**83**				**536,307**				**83**	**2,144,346**
Adjustments to 2012 Verified Results							**49**				**178,700**			**49**	**536,052**
Adjustments to 2013 Verified Results								**28**				**248,410**		**28**	**496,807**
Total Adjustments to Previous Years' Verified Results						**83**	**49**	**28**		**536,307**	**178,700**	**248,410**		**160**	**3,177,206**

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

Adjustments to previous years' results shown in this table will not align to adjustments shown in Table 1 as the information presented above is presented in the implementation year. Adjustements in Table 1 reflect persisted savings in the year in which that adjustment is verified.

Table 3: Kingston Hydro Corporation Realization Rate & NTG

Initiative	Peak Demand Savings								Energy Savings							
	Realization Rate				Net-to-Gross Ratio				Realization Rate				Net-to-Gross Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program																
Appliance Retirement	1.00	1.00	n/a	n/a	0.49	0.46	0.42	0.42	1.00	1.00	n/a	n/a	0.50	0.47	0.44	0.44
Appliance Exchange	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53
HVAC Incentives	1.00	1.00	n/a	1.00	0.60	0.49	0.48	0.51	1.00	1.00	n/a	1.00	0.60	0.49	0.48	0.51
Conservation Instant Coupon Booklet	1.00	1.00	1.00	1.00	1.14	1.00	1.11	1.60	1.00	1.00	1.00	1.00	1.11	1.05	1.13	1.61
Bi-Annual Retailer Event	1.00	1.00	1.00	1.00	1.13	0.91	1.04	1.74	1.00	1.00	1.00	1.00	1.10	0.92	1.04	1.75
Retailer Co-op	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential New Construction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Business Program																
Retrofit	0.93	0.99	0.92	0.86	0.69	0.77	0.74	0.72	1.08	1.09	0.96	1.08	0.69	0.75	0.66	0.72
Direct Install Lighting	1.08	0.68	0.81	0.78	0.93	0.94	0.94	0.94	0.90	0.85	0.84	0.83	0.93	0.94	0.94	0.94
Building Commissioning	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Construction	n/a	0.86	1.00	0.99	n/a	0.49	0.54	0.54	n/a	0.84	1.00	1.00	n/a	0.49	0.54	0.54
Energy Audit	n/a	n/a	1.02	0.96	n/a	n/a	0.66	0.68	n/a	n/a	0.97	1.00	n/a	n/a	0.66	0.67
Small Commercial Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Small Commercial Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Demand Response 3	0.76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Industrial Program																
Process & System Upgrades	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Monitoring & Targeting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Energy Manager	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Retrofit																
Demand Response 3	0.84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Home Assistance Program																
Home Assistance Program	n/a	0.16	0.55	0.19	n/a	1.00	1.00	1.00	n/a	0.98	0.89	0.81	n/a	1.00	1.00	1.00
Aboriginal Program																
Home Assistance Program	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Direct Install Lighting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pre-2011 Programs completed in 2011																
Electricity Retrofit Incentive Program	0.84	n/a	n/a	n/a	0.55	n/a	n/a	n/a	0.85	n/a	n/a	n/a	0.56	n/a	n/a	n/a
High Performance New Construction	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50
Toronto Comprehensive	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Multifamily Energy Efficiency Rebates	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Custom Programs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other																
Program Enabled Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.00	n/a	n/a	n/a	0.96	n/a	n/a	n/a	1.00
Time-of-Use Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Pilots	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Summary Achievement Against CDM Targets

Results are recognized using current IESO reporting policies. Energy efficiency resources persist for the duration of the effective useful life. Any upcoming code changes are taken into account. Demand response resources persist for 1 year (Scenario 1). Please see methodology tab for more detailed information.

Table 4: Net Peak Demand Savings at the End User Level (MW) (Scenario 1)

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	4.7	0.7	0.7	0.7
2012 - Verified†	0.1	5.4	1.1	1.0
2013 - Verified†	0.0	0.0	4.7	0.5
2014 - Verified†	0.0	0.0	0.0	5.3
Verified Net Annual Peak Demand Savings Persisting in 2014:				**7.5**
Kingston Hydro Corporation 2014 Annual CDM Capacity Target:				**6.6**
Verified Portion of Peak Demand Savings Target Achieved in 2014 (%):				**112.9%**

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

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011 - Verified	3.3	3.1	3.1	3.1	12.7
2012 - Verified†	0.5	5.4	5.3	5.2	16.5
2013 - Verified†	0.0	0.1	6.2	6.1	12.4
2014 - Verified†	0.0	0.1	0.33	3.9	4.4
Verified Net Cumulative Energy Savings 2011-2014:					**46.0**
Kingston Hydro Corporation 2011-2014 Annual CDM Energy Target:					**37.2**
Verified Portion of Cumulative Energy Target Achieved in 2014 (%):					**123.7%**

†Includes adjustments to previous years' verified results

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Table 6: Province-Wide Initiatives and Program Level Net Savings by Year (Scenario 1)

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
														2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	56,110	34,146	20,952	22,563	3,299	2,011	1,433	1,617	23,005,812	13,424,518	8,713,107	9,497,343	8,221	159,100,415
Appliance Exchange	Appliances	3,688	3,836	5,337	5,685	371	556	1,106	1,178	450,187	974,621	1,971,701	2,100,266	2,973	10,556,192
HVAC Incentives	Equipment	92,748	87,540	96,286	113,002	32,037	19,060	19,552	23,106	59,437,670	32,841,283	33,923,592	42,888,217	93,755	447,009,930
Conservation Instant Coupon Booklet	Items	567,678	30,891	347,946	1,208,108	1,344	230	517	2,440	21,211,537	1,398,202	7,707,573	32,802,537	4,531	137,258,436
Bi-Annual Retailer Event	Items	952,149	1,060,901	944,772	4,824,751	1,681	1,480	1,184	8,043	29,387,468	26,781,674	17,179,841	122,902,769	12,389	355,157,348
Retailer Co-op	Items	152	0	0	0	0	0	0	0	2,652	0	0	0	0	10,607
Residential Demand Response	Devices	19,550	98,388	171,733	241,381	10,947	49,038	93,076	117,513	24,870	359,408	390,303	8,379	117,513	782,960
Residential Demand Response (IHD)	Devices	0	49,689	133,657	188,577	0	0	0	0	0	0	0	0	0	0
Residential New Construction	Homes	27	21	279	2,367	0	2	18	369	743	17,152	163,690	2,330,865	390	2,712,676
Consumer Program Total						**49,681**	**72,377**	**116,886**	**154,267**	**133,520,941**	**75,796,859**	**70,049,807**	**212,530,376**	**239,772**	**1,112,588,565**
Business Program															
Retrofit	Projects	2,828	6,481	9,746	10,925	24,467	61,147	59,678	70,662	136,002,258	314,922,468	345,346,008	462,903,521	213,493	2,631,401,223
Direct Install Lighting	Projects	20,741	18,691	17,833	23,784	23,724	15,284	18,708	23,419	61,076,701	57,345,798	64,315,558	84,503,302	73,304	604,196,658
Building Commissioning	Buildings	0	0	0	5	0	0	0	988	0	0	0	1,513,377	988	1,513,377
New Construction	Buildings	25	98	158	226	123	764	1,584	6,432	411,717	1,814,721	4,959,266	20,381,204	8,904	37,390,767
Energy Audit	Audits	222	357	589	473	0	1,450	2,811	6,323	0	7,049,351	15,455,795	30,874,399	10,583	82,934,042
Small Commercial Demand Response	Devices	132	294	1,211	3,652	84	187	773	2,116	157	1,068	373	319	2,116	1,916
Small Commercial Demand Response (IHD)	Devices	0	0	378	820	0	0	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	145	151	175	180	16,218	19,389	23,706	23,380	633,421	281,823	346,659	0	23,380	1,261,903
Business Program Total						**64,617**	**98,221**	**107,261**	**133,319**	**198,124,253**	**381,415,230**	**430,423,659**	**600,176,121**	**332,769**	**3,358,699,887**
Industrial Program															
Process & System Upgrades	Projects	0	0	5	10	0	0	294	9,692	0	0	2,603,764	72,053,255	9,986	77,260,782
Monitoring & Targeting	Projects	0	1	3	5	0	0	0	102	0	0	0	502,517	102	502,517
Energy Manager	Projects	1	132	306	379	0	1,086	3,558	5,191	0	7,372,108	21,994,263	40,436,427	8,384	95,324,998
Retrofit	Projects	433	0	0	0	4,615	0	0	0	28,866,840	0	0	0	4,613	115,462,282
Demand Response 3	Facilities	124	185	281	336	52,484	74,056	162,543	166,082	3,080,737	1,784,712	4,309,160	0	166,082	9,174,609
Industrial Program Total						**57,098**	**75,141**	**166,395**	**181,066**	**31,947,577**	**9,156,820**	**28,907,187**	**112,992,199**	**189,168**	**297,725,188**
Home Assistance Program															
Home Assistance Program	Homes	46	5,920	29,654	25,424	2	566	2,361	2,466	39,283	5,442,232	20,987,275	19,582,658	5,370	77,532,571
Home Assistance Program Total						**2**	**566**	**2,361**	**2,466**	**39,283**	**5,442,232**	**20,987,275**	**19,582,658**	**5,370**	**77,532,571**
Aboriginal Program															
Home Assistance Program	Homes	0	0	717	1,125	0	0	267	549	0	0	1,609,393	3,101,207	816	6,319,993
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aboriginal Program Total						**0**	**0**	**267**	**549**	**0**	**0**	**1,609,393**	**3,101,207**	**816**	**6,319,993**
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	2,028	0	0	0	21,662	0	0	0	121,138,219	0	0	0	21,662	484,552,876
High Performance New Construction	Projects	182	73	19	3	5,098	3,251	772	134	26,185,591	11,901,944	3,522,240	688,738	9,255	148,181,415
Toronto Comprehensive	Projects	577	15	4	5	15,805	0	0	281	86,964,886	0	0	2,479,840	16,086	350,339,385
Multifamily Energy Efficiency Rebates	Projects	110	0	0	0	1,981	0	0	0	7,595,683	0	0	0	1,981	30,382,733
LDC Custom Programs	Projects	8	0	0	0	399	0	0	0	1,367,170	0	0	0	399	5,468,679
Pre-2011 Programs completed in 2011 Total						**44,945**	**3,251**	**772**	**415**	**243,251,550**	**11,901,944**	**3,522,240**	**3,168,578**	**49,382**	**1,018,925,088**
Other															
Program Enabled Savings	Projects	33	71	46	43	0	2,304	3,692	5,500	0	1,188,362	4,075,382	19,035,337	11,496	30,751,187
Time-of-Use Savings	Homes	0	0	0	n/a	0	0	0	54,795	0	0	0	0	54,795	0
LDC Pilots	Projects	0	0	0	1,174	0	0	0	1,170	0	0	0	5,061,522	1,170	5,061,522
Other Total						**0**	**2,304**	**3,692**	**61,466**	**0**	**1,188,362**	**4,075,382**	**24,096,859**	**67,462**	**35,812,709**
Adjustments to 2011 Verified Results							**1,406**	**641**	**1,418**		**18,689,081**	**1,736,381**	**7,319,857**	**3,215**	**110,143,550**
Adjustments to 2012 Verified Results								**6,260**	**9,221**			**41,947,840**	**37,080,215**	**15,401**	**238,780,637**
Adjustments to 2013 Verified Results									**24,391**				**150,785,808**	**24,391**	**296,465,211**
Energy Efficiency Total						**136,610**	**109,191**	**117,536**	**224,457**	**603,144,419**	**482,474,435**	**554,528,447**	**975,639,300**	**575,647**	**5,896,382,612**
Demand Response Total (Scenario 1)						**79,733**	**142,670**	**280,099**	**309,091**	**3,739,185**	**2,427,011**	**5,046,495**	**8,698**	**309,091**	**11,221,389**
Adjustments to Previous Years' Verified Results Total						**0**	**1,406**	**6,901**	**35,030**	**0**	**18,689,081**	**43,684,221**	**195,185,880**	**43,006**	**645,389,397**
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						**216,343**	**253,267**	**404,536**	**568,578**	**606,883,604**	**503,590,526**	**603,259,163**	**1,170,833,878**	**927,745**	**6,552,993,397**
													Full OEB Target:	**1,330,000**	**6,000,000,000**
													% of Full OEB Target Achieved to Date (Scenario 1):	**70%**	**109%**

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

*Includes adjustments after Final Reports were issued

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Table 7: Adjustments to Province-Wide Net Verified Results due to Variances

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
														2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	0	0	0		0	0	0		0	0	0		0	0
Appliance Exchange	Appliances	0	0	0		0	0	0		0	0	0		0	0
HVAC Incentives	Equipment	-18,839	2,319	4,705		-5,270	479	1,037		-9,707,002	955,512	1,838,408		-3,754	-32,284,656
Conservation Instant Coupon Booklet	Items	8,216	0	1,050		16	0	2		275,655	0	23,571		18	1,149,763
Bi-Annual Retailer Event	Items	81,817	0	0		108	0	0		2,183,391	0	0		108	8,733,563
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential New Construction	Homes	20	2	193		1	1	72		14,667	985	441,938		74	945,497
Consumer Program Total						**-5,145**	**480**	**1,111**		**-7,233,290**	**956,497**	**2,303,917**		**-3,555**	**-21,664,975**
Business Program															
Retrofit	Projects	312	876	961		3,208	7,233	11,961		16,266,129	42,498,052	78,146,280		22,056	347,545,386
Direct Install Lighting	Projects	444	197	51		501	204	46		1,250,388	736,541	164,667		620	7,158,143
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	15	29	72		850	1,304	2,241		3,604,553	4,825,774	8,636,179		4,401	46,187,216
Energy Audit	Audits	119	77	270		604	439	2,383		2,945,189	2,145,367	13,100,635		3,426	44,418,129
Small Commercial Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Business Program Total						**5,162**	**9,181**	**16,631**		**24,066,259**	**50,205,734**	**100,047,761**		**30,503**	**385,148,444**
Industrial Program															
Process & System Upgrades	Projects	0	0	2		0	0	324		0	0	968,659		324	1,937,318
Monitoring & Targeting	Projects	0	1	3		0	0	54		0	528,000	639,348		54	2,862,696
Energy Manager	Projects	1	93	101		27	1,067	2,395		241,515	8,266,841	25,814,853		4,345	81,853,489
Retrofit	Projects	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Industrial Program Total						**27**	**1,067**	**2,774**		**241,515**	**8,794,841**	**27,422,860**		**4,723**	**61,215,516**
Home Assistance Program															
Home Assistance Program	Homes	0	887	2,898		0	222	791		0	1,316,749	4,321,794		1,009	12,515,300
Home Assistance Program Total						**0**	**222**	**791**		**0**	**1,316,749**	**4,321,794**		**1,009**	**8,581,177**
Aboriginal Program															
Home Assistance Program	Homes	0	0	133		0	0	134		0	0	563,715		134	1,127,430
Direct Install Lighting	Projects	0	0	0		0	0	0		0	0	0		0	0
Aboriginal Program Total						**0**	**0**	**134**		**0**	**0**	**563,715**		**134**	**1,127,430**
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	12	0	0		138	0	0		545,536	0	0		138	2,182,145
High Performance New Construction	Projects	37	4	15		1,507	363	-184		2,398,941	2,832,533	-993,596		1,686	16,106,171
Toronto Comprehensive	Projects	0	15	4		0	672	185		0	4,523,517	1,324,388		857	16,219,327
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0		0	0	0		0	0
LDC Custom Programs	Projects	0	0	0		0	0	0		0	0	0		0	0
Pre-2011 Programs completed in 2011 Total						**1,645**	**1,035**	**2**		**2,944,477**	**7,356,050**	**330,792**		**2,682**	**11,104,528**
Other															
Program Enabled Savings	Projects	33	55	33		1,776	3,712	2,020		7,727,573	11,481,687	10,688,564		7,509	86,732,481
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
LDC Pilots	Projects	0	0	0		0	0	0		0	0	0		0	0
Other Total						**1,776**	**3,712**	**2,020**		**7,727,573**	**11,481,687**	**10,688,564**		**7,509**	**86,732,481**
Adjustments to 2011 Verified Results						**3,465**				**27,746,535**				**3,215**	**110,143,550**
Adjustments to 2012 Verified Results							**15,697**				**80,111,558**			**15,401**	**238,780,637**
Adjustments to 2013 Verified Results								**23,463**				**145,679,403**		**24,391**	**296,465,211**
Adjustments to Previous Years' Verified Results Total						**3,465**	**15,697**	**23,463**		**27,746,535**	**80,111,558**	**145,679,403**		**43,006**	**645,389,397**

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

Adjustments to previous years' results shown in this table will not align to adjustments shown in Table 1 as the information presented above is presented in the implementation year. Adjustements in Table 1 reflect persisted savings in the year in which that adjustment is verified.

Table 8: Province-Wide Realization Rate & NTG

Initiative	Peak Demand Savings								Energy Savings							
	Realization Rate				Net-to-Gross Ratio				Realization Rate				Net-to-Gross Ratio			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program																
Appliance Retirement	1.00	1.00	1.00	1.00	0.51	0.46	0.42	0.45	1.00	1.00	1.00	1.00	0.46	0.47	0.44	0.47
Appliance Exchange	1.00	1.00	1.00	1.00	0.51	0.52	0.53	0.53	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53
HVAC Incentives	1.00	1.00	1.00	1.00	0.60	0.50	0.48	0.48	1.00	1.00	1.00	1.00	0.50	0.49	0.48	0.48
Conservation Instant Coupon Booklet	1.00	1.00	1.00	1.00	1.14	1.00	1.11	1.69	1.00	1.00	1.00	1.00	1.00	1.05	1.13	1.73
Bi-Annual Retailer Event	1.00	1.00	1.00	1.00	1.12	0.91	1.04	1.74	1.00	1.00	1.00	1.00	0.91	0.92	1.04	1.75
Retailer Co-op	1.00	n/a	n/a	n/a	0.68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential New Construction	1.00	3.65	0.78	1.03	0.41	0.49	0.63	0.63	3.65	7.17	3.09	0.62	0.49	0.49	0.63	0.63
Business Program																
Retrofit	1.06	0.93	0.92	0.84	0.72	0.75	0.73	0.71	0.93	1.05	1.01	0.98	0.75	0.76	0.73	0.72
Direct Install Lighting	1.08	0.69	0.82	0.78	1.08	0.94	0.94	0.94	0.69	0.85	0.84	0.83	0.94	0.94	0.94	0.94
Building Commissioning	n/a	n/a	n/a	1.97	n/a	n/a	n/a	1.00	n/a	n/a	n/a	1.16	n/a	n/a	n/a	1.00
New Construction	0.50	0.98	0.68	0.71	0.50	0.49	0.54	0.54	0.98	0.99	0.76	0.79	0.49	0.49	0.54	0.54
Energy Audit	n/a	n/a	1.02	0.96	n/a	n/a	0.66	0.68	n/a	n/a	0.97	1.00	n/a	n/a	0.66	0.67
Small Commercial Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Small Commercial Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Demand Response 3	0.76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Industrial Program																
Process & System Upgrades	n/a	n/a	0.85	0.96	n/a	n/a	0.94	0.79	n/a	n/a	0.87	0.96	n/a	n/a	0.93	0.80
Monitoring & Targeting	n/a	n/a	n/a	0.59	n/a	n/a	n/a	1.00	n/a	n/a	n/a	0.36	n/a	n/a	n/a	1.00
Energy Manager	n/a	1.16	0.90	0.91	n/a	0.90	0.90	0.90	1.16	1.16	0.90	0.96	0.90	0.90	0.90	0.85
Retrofit	1.11	n/a	n/a	n/a	0.72	n/a	n/a	n/a	0.91	n/a	n/a	n/a	0.75	n/a	n/a	n/a
Demand Response 3	0.84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Home Assistance Program																
Home Assistance Program	1.00	0.32	0.26	0.49	0.70	1.00	1.00	1.00	0.32	0.99	0.88	0.78	1.00	1.00	1.00	1.00
Aboriginal Program																
Home Assistance Program	n/a	n/a	0.05	0.15	n/a	n/a	1.00	1.00	n/a	n/a	0.95	0.97	n/a	n/a	1.00	1.00
Direct Install Lighting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pre-2011 Programs completed in 2011																
Electricity Retrofit Incentive Program	0.80	n/a	n/a	n/a	0.54	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
High Performance New Construction	1.00	1.00	1.00	n/a	0.49	0.50	0.50	0.50	1.00	1.00	1.00	n/a	0.50	0.50	0.50	0.50
Toronto Comprehensive	1.13	n/a	n/a	n/a	0.50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Multifamily Energy Efficiency Rebates	0.93	n/a	n/a	n/a	0.78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Custom Programs	1.00	n/a	n/a	n/a	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other																
Program Enabled Savings	n/a	1.06	1.00	0.86	n/a	1.00	1.00	1.00	n/a	2.26	1.00	0.98	n/a	1.00	1.00	1.00
Time-of-Use Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Pilots	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Summary Provincial Progress Towards CDM Targets

Table 9: Province-Wide Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual			
	2011	2012	2013	2014
2011	216.3	136.6	135.8	129.0
2012†	1.4	253.3	109.8	108.2
2013†	0.6	7.0	404.5	122.0
2014†	1.4	10.8	34.2	568.6
Verified Net Annual Peak Demand Savings in 2014:				**927.7**
2014 Annual CDM Capacity Target:				**1,330**
Verified Portion of Peak Demand Savings Target Achieved in 2014 (%):				**69.8%**

Table 10: Province-Wide Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011	606.9	603.0	601.0	582.3	2,393.1
2012†	18.7	503.6	498.4	492.6	1,513.3
2013†	1.7	44.4	603.3	583.4	1,232.8
2014†	7.3	44.8	191.0	1,170.8	1,413.9
Verified Net Cumulative Energy Savings 2011-2014:					**6,553.0**
2011-2014 Cumulative CDM Energy Target:					**6,000**
Verified Portion of Cumulative Energy Target Achieved in 2014 (%):					**109.2%**

†Includes adjustments to previous years' verified results

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

METHODOLOGY

All results are at the end-user level (not including transmission and distribution losses)

EQUATIONS	
Prescriptive Measures and Projects	**Gross Savings = Activity * Per Unit Assumption** **Net Savings = Gross Savings * Net-to-Gross Ratio** **All savings are annualized (i.e. the savings are the same regardless of time of year a project was completed or measure installed)**
Engineered and Custom Projects	**Gross Savings = Reported Savings * Realization Rate** **Net Savings = Gross Savings * Net-to-Gross Ratio** **All savings are annualized (i.e. the savings are the same regardless of time of year a project was completed or measure installed)**
Demand Response	**Peak Demand: Gross Savings = Net Savings = contracted MW at contributor level * Provincial contracted to ex ante ratio** **Energy: Gross Savings = Net Savings = provincial ex post energy savings * LDC proportion of total provincial contracted MW** **All savings are annualized (i.e. the savings are the same regardless of the time of year a participant began offering DR)**
Adjustments to Previous Years' Verified Results	All variances from the Final Annual Results Reports from prior years will be adjusted within this report. Any variances with regards to projects counts, data lag, and calculations etc., will be made within this report. Considers the cumulative effect of energy savings.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Consumer Program			
Appliance Retirement	Includes both retail and home pickup stream. Retail stream allocated based on average of 2008 & 2009 residential throughput; Home pickup stream directly attributed by postal code or customer selection.	Savings are considered to begin in the year the appliance is picked up.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Appliance Exchange	When postal code information is provided by customer, results are directly attributed to the LDC. When postal code is not available, results allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year that the exchange event occurred.	
HVAC Incentives	Results directly attributed to LDC based on customer postal code.	Savings are considered to begin in the year that the installation occurred.	

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Conservation Instant Coupon Booklet	LDC-coded coupons directly attributed to LDC. Otherwise results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year in which the coupon was redeemed.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Bi-Annual Retailer Event	Results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year in which the event occurs.	
Retailer Co-op	When postal code information is provided by the customer, results are directly attributed. If postal code information is not available, results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year of the home visit and installation date.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Residential Demand Response	Results are directly attributed to LDC based on data provided to IESO through project completion reports and continuing participant lists.	Savings are considered to begin in the year the device was installed and/or when a customer signed a peaksaver PLUS™ participant agreement.	Peak demand savings are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. Energy savings are based on an ex post estimate which reflects the savings that occurred as a result of activations in the year and accounts for any “snapback” in energy consumption experienced after the event. Savings are assumed to persist for only 1 year, reflecting that savings will only occur if the resource is activated.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Residential New Construction	Results are directly attributed to LDC based on LDC identified in application in the iCon system. Initiative was not evaluated in 2011, reported results are presented with forecast assumptions as per the business case.	Savings are considered to begin in the year of the project completion date.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Business Program			
Efficiency: Equipment Replacement	Results are directly attributed to LDC based on LDC identified at the facility level in the iCon system. Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see page for Building type to Sector mapping.	Savings are considered to begin in the year of the actual project completion date in the iCON system.	Peak demand and energy savings are determined by the total savings for a given project as reported in the iCON system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track).
	Additional Note: project counts were derived by filtering out invalid statuses (e.g. Post-Project Submission - Payment denied by LDC) and only including projects with an "Actual Project Completion Date" in 2014)		

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Direct Installed Lighting	Results are directly attributed to LDC based on the LDC specified on the work order.	Savings are considered to begin in the year of the actual project completion date.	Peak demand and energy savings are determined using the verified measure level per unit assumptions multiplied by the uptake of each measure accounting for the realization rate for both peak demand and energy to reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings take into account net-to-gross factors such as free-ridership and spillover for both peak demand and energy savings at the program level (net).
Existing Building Commissioning Incentive	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year of the actual project completion date.	Peak demand and energy savings are determined by the total savings for a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).
New Construction and Major Renovation Incentive	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year of the actual project completion date.	
Energy Audit	Projects are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year of the audit date.	Peak demand and energy savings are determined by the total savings resulting from an audit as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Commercial Demand Response (part of the Residential program schedule)	Results are directly attributed to LDC based on data provided to IESO through project completion reports and continuing participant lists	Savings are considered to begin in the year the device was installed and/or when a customer signed a peaksaver PLUS™ participant agreement.	Peak demand savings are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. Energy savings are based on an ex post estimate which reflects the savings that occurred as a result of activations in the year. Savings are assumed to persist for only 1 year, reflecting that savings will only occur if the resource is activated.
Demand Response 3 (part of the Industrial program schedule)	Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level.	Savings are considered to begin in the year in which the contributor signed up to participate in demand response.	Peak demand savings are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. Energy savings are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource.
Industrial Program			
Process & System Upgrades	Results are directly attributed to LDC based on LDC identified in application.	Savings are considered to begin in the year in which the incentive project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Monitoring & Targeting	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the incentive project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).
Energy Manager	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the project was completed by the energy manager. If no date is specified the savings will begin the year of the Quarterly Report submitted by the energy manager.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Results are directly attributed to LDC based on LDC identified at the facility level in the saveONenergy CRM; Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see "Reference Tables" tab for Building type to Sector mapping.	Savings are considered to begin in the year of the actual project completion date on the iCON CRM system.	Peak demand and energy savings are determined by the total savings for a given project as reported in the iCON CRM system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track).
Demand Response 3	Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level.	Savings are considered to begin in the year in which the contributor signed up to participate in demand response.	Peak demand savings are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. Energy savings are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Home Assistance Program			
Home Assistance Program	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the measures were installed.	Peak demand and energy savings are determined using the measure level per unit assumption multiplied by the uptake of each measure (gross), taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Aboriginal Program			
Aboriginal Program	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the measures were installed.	Peak demand and energy savings are determined using the measure level per unit assumption multiplied by the uptake of each measure (gross), taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Pre-2011 Programs completed in 2011			
Electricity Retrofit Incentive Program	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, 2012, 2013 or 2014 assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported. A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). If energy savings are not available, an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results (http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports).
High Performance New Construction	Results are directly attributed to LDC based on customer data provided to the OPA from Enbridge; Initiative was not evaluated in 2011, 2012, 2013 or 2014, assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	
Toronto Comprehensive	Program run exclusively in Toronto Hydro-Electric System Limited service territory; Initiative was not evaluated in 2011, 2012, 2013 or 2014, assumptions as per 2010 evaluation.		

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Multifamily Energy Efficiency Rebates	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, 2012, 2013 or 2014, assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). If energy savings are not available, an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results (http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports).
Data Centre Incentive Program	Program run exclusively in PowerStream Inc. service territory; Initiative was not evaluated in 2011, assumptions as per 2009 evaluation.		
EnWin Green Suites	Program run exclusively in ENWIN Utilities Ltd. service territory; Initiative was not evaluated in 2011 or 2012, assumptions as per 2010 evaluation.		

Consumer Program Allocation Methodology

Results can be allocated based on average of 2008 & 2009 residential throughput for each LDC (below) when additional information is not available. Source: OEB Yearbook Data 2008 & 2009

Local Distribution Company	Allocation
Algoma Power Inc.	0.2%
Atikokan Hydro Inc.	0.0%
Attawapiskat Power Corporation	0.0%
Bluewater Power Distribution Corporation	0.6%
Brant County Power Inc.	0.2%
Brantford Power Inc.	0.7%
Burlington Hydro Inc.	1.4%
Cambridge and North Dumfries Hydro Inc.	1.0%
Canadian Niagara Power Inc.	0.5%
Centre Wellington Hydro Ltd.	0.1%
Chapleau Public Utilities Corporation	0.0%
COLLUS Power Corporation	0.3%
Cooperative Hydro Embrun Inc.	0.0%
E.L.K. Energy Inc.	0.2%
Enersource Hydro Mississauga Inc.	3.9%
ENTEGRUS	0.6%
ENWIN Utilities Ltd.	1.6%
Erie Thames Powerlines Corporation	0.4%
Espanola Regional Hydro Distribution Corporation	0.1%
Essex Powerlines Corporation	0.7%
Festival Hydro Inc.	0.3%
Fort Albany Power Corporation	0.0%
Fort Frances Power Corporation	0.1%
Greater Sudbury Hydro Inc.	1.0%
Grimsby Power Inc.	0.2%
Guelph Hydro Electric Systems Inc.	0.9%
Haldimand County Hydro Inc.	0.4%
Halton Hills Hydro Inc.	0.5%
Hearst Power Distribution Company Limited	0.1%
Horizon Utilities Corporation	4.0%
Hydro 2000 Inc.	0.0%
Hydro Hawkesbury Inc.	0.1%
Hydro One Brampton Networks Inc.	2.8%
Hydro One Networks Inc.	30.0%
Hydro Ottawa Limited	5.6%
Innisfil Hydro Distribution Systems Limited	0.4%
Kashechewan Power Corporation	0.0%
Kenora Hydro Electric Corporation Ltd.	0.1%
Kingston Hydro Corporation	0.5%
Kitchener-Wilmot Hydro Inc.	1.6%
Lakefront Utilities Inc.	0.2%

Lakeland Power Distribution Ltd.	0.2%
London Hydro Inc.	2.7%
Middlesex Power Distribution Corporation	0.1%
Midland Power Utility Corporation	0.1%
Milton Hydro Distribution Inc.	0.6%
Newmarket - Tay Power Distribution Ltd.	0.7%
Niagara Peninsula Energy Inc.	1.0%
Niagara-on-the-Lake Hydro Inc.	0.2%
Norfolk Power Distribution Inc.	0.3%
North Bay Hydro Distribution Limited	0.5%
Northern Ontario Wires Inc.	0.1%
Oakville Hydro Electricity Distribution Inc.	1.5%
Orangeville Hydro Limited	0.2%
Orillia Power Distribution Corporation	0.3%
Oshawa PUC Networks Inc.	1.2%
Ottawa River Power Corporation	0.2%
Parry Sound Power Corporation	0.1%
Peterborough Distribution Incorporated	0.7%
PowerStream Inc.	6.6%
PUC Distribution Inc.	0.9%
Renfrew Hydro Inc.	0.1%
Rideau St. Lawrence Distribution Inc.	0.1%
Sioux Lookout Hydro Inc.	0.1%
St. Thomas Energy Inc.	0.3%
Thunder Bay Hydro Electricity Distribution Inc.	0.9%
Tillsonburg Hydro Inc.	0.1%
Toronto Hydro-Electric System Limited	12.8%
Veridian Connections Inc.	2.4%
Wasaga Distribution Inc.	0.2%
Waterloo North Hydro Inc.	1.0%
Welland Hydro-Electric System Corp.	0.4%
Wellington North Power Inc.	0.1%
West Coast Huron Energy Inc.	0.1%
Westario Power Inc.	0.5%
Whitby Hydro Electric Corporation	0.9%
Woodstock Hydro Services Inc.	0.3%

Reporting Glossary

Annual: the peak demand or energy savings that occur in a given year (includes resource savings from new program activity and resource savings persisting from previous years).

Cumulative Energy Savings: represents the sum of the annual energy savings that accrue over a defined period (in the context of this report the defined period is 2011 - 2014). This concept does not apply to peak demand savings.

End-User Level: resource savings in this report are measured at the customer level as opposed to the generator level (the difference being line losses).

Free-ridership: the percentage of participants who would have implemented the program measure or practice in the absence of the program.

Incremental: the new resource savings attributable to activity procured in a particular reporting period based on when the savings are considered to 'start'.

Initiative: a Conservation & Demand Management offering focusing on a particular opportunity or customer end-use (i.e. Retrofit, Fridge & Freezer Pickup).

Net-to-Gross Ratio: The ratio of net savings to gross savings, which takes into account factors such as free-ridership and spillover

Net Energy Savings (MWh): energy savings attributable to conservation and demand management activities net of free-riders, etc.

Net Peak Demand Savings (MW): peak demand savings attributable to conservation and demand management activities net of free-riders, etc.

Program: a group of initiatives that target a particular market sector (e.g. Consumer, Industrial).

Realization Rate: A comparison of observed or measured (evaluated) information to original reported savings which is used to adjust the gross savings estimates.

Settlement Account: the grouping of demand response facilities (contributors) into one contractual agreement

Spillover: Reductions in energy consumption and/or demand caused by the presence of the energy efficiency program, beyond the program-related gross savings of the participants. There can be participant and/or non-participant spillover.

Unit: for a specific initiative the relevant type of activity acquired in the market place (i.e. appliances picked up, projects completed, coupons redeemed).

Table 11: Kingston Hydro Corporation Initiative and Program Level Gross Savings by Year

Initiative	Unit	Gross Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Gross Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)			
		2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program									
Appliance Retirement**	Appliances	21	5	7	10	149,910	36,436	41,013	49,380
Appliance Exchange**	Appliances	4	9	3	16	5,133	16,002	4,913	28,778
HVAC Incentives	Equipment	198	108	80	138	387,439	196,491	148,039	259,617
Conservation Instant Coupon Booklet	Items	5	1	2	8	89,538	6,648	34,305	106,712
Bi-Annual Retailer Event	Items	8	8	6	23	134,867	146,513	82,433	352,239
Retailer Co-op	Items	0	0	0	0	0	0	0	0
Residential Demand Response	Devices	0	0	0	0	0	0	0	0
Residential Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0
Residential New Construction	Homes	0	0	0	0	0	0	0	0
Consumer Program Total		**236**	**131**	**98**	**194**	**766,888**	**402,089**	**310,704**	**796,727**
Business Program									
Retrofit	Projects	525	628	325	309	2,792,968	3,762,095	7,689,168	2,514,764
Direct Install Lighting	Projects	98	319	68	99	284,722	1,133,023	236,189	358,798
Building Commissioning	Buildings	0	0	0	0	0	0	0	0
New Construction	Buildings	0	2	40	91	0	3,878	108,893	157,273
Energy Audit	Audits	0	26	27	99	0	125,881	146,621	486,390
Small Commercial Demand Response	Devices	0	0	0	0	0	0	0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	4,018	4,030	3,894	4,440	156,889	58,581	52,002	0
Business Program Total		**4,642**	**5,005**	**4,354**	**5,038**	**3,234,580**	**5,083,458**	**8,232,873**	**3,517,225**
Industrial Program									
Process & System Upgrades	Projects	0	0	0	0	0	0	0	0
Monitoring & Targeting	Projects	0	0	0	0	0	0	0	0
Energy Manager	Projects	0	0	0	0	0	0	0	0
Retrofit	Projects	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	0	349	326	0	0	8,416	7,412	0
Industrial Program Total		**0**	**349**	**326**	**0**	**0**	**8,416**	**7,412**	**0**
Home Assistance Program									
Home Assistance Program	Homes	0	36	27	8	0	49,691	272,016	46,220
Home Assistance Program Total		**0**	**36**	**27**	**8**	**0**	**49,691**	**272,016**	**46,220**
Aboriginal Program									
Home Assistance Program	Homes	0	0	0	0	0	0	0	0
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0
Aboriginal Program Total		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Pre-2011 Programs completed in 2011									
Electricity Retrofit Incentive Program	Projects	23	0	0	0	143,411	0	0	0
High Performance New Construction	Projects	129	181	0	0	662,086	654,451	0	0
Toronto Comprehensive	Projects	0	0	0	0	0	0	0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0	0	0	0	0	0
LDC Custom Programs	Projects	0	0	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total		**152**	**181**	**0**	**0**	**805,497**	**654,451**	**0**	**0**
Other									
Program Enabled Savings	Projects	0	0	0	0	0	0	0	4,712
Time-of-Use Savings	Homes	0	0	0	273	0	0	0	0
LDC Pilots	Projects	0	0	0	0	0	0	0	0
Other Total		**0**	**0**	**0**	**273**	**0**	**0**	**0**	**4,712**
Adjustments to 2011 Verified Results			**286**	**0**	**1**		**26,117**	**0**	**46,010**
Adjustments to 2012 Verified Results				**55**	**5**			**159,148**	**43,055**
Adjustments to 2013 Verified Results					**43**				**347,062**
Energy Efficiency Total		**1,011**	**1,323**	**584**	**1,073**	**4,650,075**	**6,131,109**	**8,763,591**	**4,364,883**
Demand Response Total		**4,018**	**4,379**	**4,220**	**4,440**	**156,889**	**66,996**	**59,414**	**0**
Adjustments to Previous Years' Verified Results Total		**0**	**286**	**55**	**49**	**0**	**26,117**	**159,148**	**436,127**
OPA-Contracted LDC Portfolio Total (inc. Adjustments)		**5,029**	**5,988**	**4,859**	**5,562**	**4,806,965**	**6,224,223**	**8,982,153**	**4,801,011**

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

*Includes adjustments after Final Reports were issued

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Gross results are presented for informational purposes only and are not considered official 2014 Final Verified Results

**Net results substituted for gross results due to unavailability of data

Table 12: Adjustments to Kingston Hydro Corporation Gross Verified Results due to Variances

Initiative	Unit	Gross Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Gross Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)			
		2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program									
Appliance Retirement	Appliances	0	0	0		0	0	0	
Appliance Exchange	Appliances	0	0	0		0	0	0	
HVAC Incentives	Equipment	-40	4	7		-77,308	7,423	11,878	
Conservation Instant Coupon Booklet	Items	0	0	0		1,283	0	104	
Bi-Annual Retailer Event	Items	1	0	0		11,901	0	0	
Retailer Co-op	Items	0	0	0		0	0	0	
Residential Demand Response	Devices	0	0	0		0	0	0	
Residential Demand Response (IHD)	Devices	0	0	0		0	0	0	
Residential New Construction	Homes	0	0	0		0	0	0	
Consumer Program Total		**-39**	**4**	**7**		**-64,124**	**7,423**	**11,982**	
Business Program									
Retrofit	Projects	5	20	30		18,932	47,988	288,343	
Direct Install Lighting	Projects	6	21	0		17,079	69,479	0	
Building Commissioning	Buildings	0	0	0		0	0	0	
New Construction	Buildings	2	0	6		3,878	0	11,927	
Energy Audit	Audits	10	10	0		50,353	59,162	97	
Small Commercial Demand Response	Devices	0	0	0		0	0	0	
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0	
Demand Response 3	Facilities	0	0	0		0	0	0	
Business Program Total		**23**	**51**	**36**		**90,241**	**176,629**	**300,368**	
Industrial Program									
Process & System Upgrades	Projects	0	0	0		0	0	0	
Monitoring & Targeting	Projects	0	0	0		0	0	0	
Energy Manager	Projects	0	0	0		0	0	0	
Retrofit	Projects	0	0	0		0	0	0	
Demand Response 3	Facilities	0	0	0		0	0	0	
Industrial Program Total		**0**	**0**	**0**		**0**	**0**	**0**	
Home Assistance Program									
Home Assistance Program	Homes	0	0	1		0	4,062	6,453	
Home Assistance Program Total		**0**	**0**	**1**		**0**	**4,062**	**6,453**	
Aboriginal Program									
Home Assistance Program	Homes	0	0	0		0	0	0	
Direct Install Lighting	Projects	0	0	0		0	0	0	
Aboriginal Program Total		**0**	**0**	**0**		**0**	**0**	**0**	
Pre-2011 Programs completed in 2011									
Electricity Retrofit Incentive Program	Projects	0	0	0		0	0	0	
High Performance New Construction	Projects	302	0	0		0	0	0	
Toronto Comprehensive	Projects	0	0	0		0	0	0	
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0	
LDC Custom Programs	Projects	0	0	0		0	0	0	
Pre-2011 Programs completed in 2011 Total		**302**	**0**	**0**		**0**	**0**	**0**	
Other									
Program Enabled Savings	Projects	0	0	0		0	14,136	28,272	
Time-of-Use Savings	Homes	0	0	0		0	0	0	
LDC Pilots	Projects	0	0	0		0	0	0	
Other Total		**0**	**0**	**0**		**0**	**14,136**	**28,272**	
Adjustments to 2011 Verified Results		**286**				**26,117**			
Adjustments to 2012 Verified Results			**55**				**202,250**		
Adjustments to 2013 Verified Results				**44**				**347,075**	
Total Adjustments to Previous Years' Verified Results		**286**	**55**	**44**		**26,117**	**202,250**	**347,075**	

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

Gross results are presented for informational purposes only and are not considered official 2014 Final Verified Results

Table 13: Province-Wide Initiatives and Program Level Gross Savings by Year

Initiative	Unit	Gross Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Gross Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)			
		2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program									
Appliance Retirement**	Appliances	6,750	2,011	3,151	3,579	45,971,627	13,424,518	18,616,239	20,315,770
Appliance Exchange**	Appliances	719	556	2,101	2,238	873,531	974,621	3,746,106	3,990,372
HVAC Incentives	Equipment	53,209	38,346	40,418	48,467	99,413,430	66,929,213	71,225,037	90,274,814
Conservation Instant Coupon Booklet	Items	1,184	231	464	1,442	19,192,453	1,325,898	6,842,244	19,000,254
Bi-Annual Retailer Event	Items	1,504	1,622	1,142	4,626	26,899,265	29,222,072	16,441,329	70,254,471
Retailer Co-op	Items	0	0	0	0	3,917	0	0	0
Residential Demand Response	Devices	10,390	49,038	93,076	117,513	23,597	359,408	390,303	8,379
Residential Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0
Residential New Construction	Homes	0	1	29	587	1,813	4,884	259,826	3,699,786
Consumer Program Total		**73,757**	**91,805**	**140,380**	**178,452**	**192,379,633**	**112,240,615**	**117,521,084**	**207,543,846**
Business Program									
Retrofit	Projects	34,201	78,965	82,896	98,849	184,070,265	387,817,248	478,410,896	642,515,421
Direct Install Lighting	Projects	22,155	20,469	19,807	24,794	65,777,197	68,896,046	68,140,249	89,528,509
Building Commissioning	Buildings	0	0	0	988	0	0	0	1,513,377
New Construction	Buildings	247	1,596	2,934	11,911	823,434	3,755,869	9,183,826	37,742,970
Energy Audit	Audits	0	1,450	4,283	9,367	0	7,049,351	23,386,108	46,012,517
Small Commercial Demand Response	Devices	55	187	773	2,116	131	1,068	373	319
Small Commercial Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	21,390	19,389	23,706	23,380	633,421	281,823	346,659	0
Business Program Total		**78,048**	**122,056**	**134,399**	**171,405**	**251,304,448**	**467,801,406**	**579,468,111**	**817,313,113**
Industrial Program									
Process & System Upgrades	Projects	0	0	313	12,287	0	0	2,799,746	90,463,617
Monitoring & Targeting	Projects	0	0	0	102	0	0	0	502,517
Energy Manager	Projects	0	1,034	3,953	5,767	0	7,067,535	24,438,070	44,929,364
Retrofit	Projects	6,372	0	0	0	38,412,408	0	0	0
Demand Response 3	Facilities	176,180	74,056	162,543	166,082	4,243,958	1,784,712	4,309,160	0
Industrial Program Total		**182,552**	**75,090**	**166,809**	**184,238**	**42,656,366**	**8,852,247**	**31,546,976**	**135,895,498**
Home Assistance Program									
Home Assistance Program	Homes	4	1,777	2,361	2,466	56,119	5,524,230	20,987,275	19,582,658
Home Assistance Program Total		**4**	**1,777**	**2,361**	**2,466**	**56,119**	**5,524,230**	**20,987,275**	**19,582,658**
Aboriginal Program									
Home Assistance Program	Homes	0	0	267	549	0	0	1,609,393	3,101,207
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0
Aboriginal Program Total		**0**	**0**	**267**	**549**	**0**	**0**	**1,609,393**	**3,101,207**
Pre-2011 Programs completed in 2011									
Electricity Retrofit Incentive Program	Projects	40,418	0	0	0	223,956,390	0	0	0
High Performance New Construction	Projects	10,197	6,501	772	268	52,371,183	23,803,888	3,522,240	1,377,475
Toronto Comprehensive	Projects	33,467	0	0	802	174,070,574	0	0	7,085,257
Multifamily Energy Efficiency Rebates	Projects	2,553	0	0	0	9,774,792	0	0	0
LDC Custom Programs	Projects	534	0	0	0	649,140	0	0	0
Pre-2011 Programs completed in 2011 Total		**87,169**	**6,501**	**772**	**1,070**	**460,822,079**	**23,803,888**	**3,522,240**	**8,462,733**
Other									
Program Enabled Savings	Projects	0	2,177	3,692	5,500	0	525,011	4,075,382	19,035,337
Time-of-Use Savings	Homes	0	0	0	54,795	0	0	0	0
LDC Pilots	Projects	0	0	0	1,170	0	0	0	5,061,522
Other Total		**0**	**2,177**	**3,692**	**60,296**	**0**	**525,011**	**4,075,382**	**19,035,337**
Adjustments to 2011 Verified Results			**13,266**	**645**	**1,601**		**48,705,294**	**20,581**	**6,028**
Adjustments to 2012 Verified Results				**8,632**	**13,449**			**54,301,893**	**59,098,939**
Adjustments to 2013 Verified Results					**34,727**				**206,413,158**
Energy Efficiency Total		**213,515**	**156,735**	**168,583**	**289,384**	**942,317,539**	**616,320,385**	**753,683,966**	**1,210,925,694**
Demand Response Total		**208,015**	**142,670**	**280,099**	**309,091**	**4,901,107**	**2,427,011**	**5,046,495**	**8,698**
Adjustments to Previous Years' Verified Results Total		**0**	**13,266**	**9,277**	**49,777**	**0**	**48,705,294**	**54,322,474**	**265,518,125**
OPA-Contracted LDC Portfolio Total (inc. Adjustments)		**421,530**	**312,671**	**457,958**	**648,252**	**947,218,646**	**667,452,690**	**813,052,934**	**1,476,452,516**

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

Gross results are presented for informational purposes only and are not considered official 2014 Final Verified Results

**Net results substituted for gross results due to unavailability of data

Table 14: Adjustments to Province-Wide Gross Verified Results due to Variances

Initiative	Unit	Gross Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Gross Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)			
		2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program									
Appliance Retirement	Appliances	0	0	0		0	0	0	
Appliance Exchange	Appliances	0	0	0		0	0	0	
HVAC Incentives	Equipment	-8,759	1,091	2,157		-16,241,086	1,952,473	3,873,449	
Conservation Instant Coupon Booklet	Items	15	0	1		255,975	0	20,668	
Bi-Annual Retailer Event	Items	117	0	0		2,373,616	0	0	
Retailer Co-op	Items	0	0	0		0	0	0	
Residential Demand Response	Devices	0	0	0		0	0	0	
Residential Demand Response (IHD)	Devices	0	0	0		0	0	0	
Residential New Construction	Homes	1	1	115		330,093	2,009	701,488	
Consumer Program Total		**-8,628**	**1,092**	**2,273**		**-13,281,402**	**1,954,483**	**4,595,605**	
Business Program									
Retrofit	Projects	4,511	10,114	16,584		22,046,931	58,528,789	108,677,566	
Direct Install Lighting	Projects	541	217	49		1,346,618	781,858	174,460	
Building Commissioning	Buildings	0	0	0		0	0	0	
New Construction	Buildings	3,287	2,673	4,151		11,323,593	9,884,305	15,992,924	
Energy Audit	Audits	656	488	3,631		2,391,744	2,386,374	19,822,524	
Small Commercial Demand Response	Devices	0	0	0		0	0	0	
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0	
Demand Response 3	Facilities	0	0	0		0	0	0	
Business Program Total		**8,996**	**13,491**	**24,414**		**37,108,886**	**71,581,326**	**144,667,473**	
Industrial Program									
Process & System Upgrades	Projects	0	0	426		0	0	1,232,785	
Monitoring & Targeting	Projects	0	0	54		0	528,000	639,348	
Energy Manager	Projects	29	1,071	2,687		0	8,968,007	28,893,596	
Retrofit	Projects	0	0	0		0	0	0	
Demand Response 3	Facilities	0	0	0		0	0	0	
Industrial Program Total		**29**	**1,071**	**3,168**		**0**	**9,496,007**	**30,765,729**	
Home Assistance Program									
Home Assistance Program	Homes	0	222	791		0	1,316,749	4,321,794	
Home Assistance Program Total		**0**	**222**	**791**		**0**	**1,316,749**	**4,321,794**	
Aboriginal Program									
Home Assistance Program	Homes	0	0	134		0	0	563,715	
Direct Install Lighting	Projects	0	0	0		0	0	0	
Aboriginal Program Total		**0**	**0**	**134**		**0**	**0**	**563,715**	
Pre-2011 Programs completed in 2011									
Electricity Retrofit Incentive Program	Projects	266	0	0		1,049,108	0	0	
High Performance New Construction	Projects	13,072	727	405		23,905,663	5,665,066	1,535,048	
Toronto Comprehensive	Projects	0	1,920	529		0	12,924,335	3,783,965	
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0	
LDC Custom Programs	Projects	0	0	0		0	0	0	
Pre-2011 Programs completed in 2011 Total		**13,337**	**2,647**	**934**		**24,954,771**	**18,589,400**	**5,319,013**	
Other									
Program Enabled Savings	Projects	1,776	3,712	2,020		1,673,712	11,481,687	10,688,564	
Time-of-Use Savings	Homes	0	0	0		0	0	0	
LDC Pilots	Projects	0	0	0		0	0	0	
Other Total		**1,776**	**3,712**	**2,020**		**1,673,712**	**11,481,687**	**10,688,564**	
Adjustments to 2011 Verified Results		**15,511**				**50,455,967**			
Adjustments to 2012 Verified Results			**22,235**				**114,419,652**		
Adjustments to 2013 Verified Results				**33,734**				**200,921,892**	
Adjustments to Previous Years' Verified Results Total		**15,511**	**22,235**	**33,734**		**50,455,967**	**114,419,652**	**200,921,892**	

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

*Includes adjustments after Final Reports were issued

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Gross results are presented for informational purposes only and are not considered official 2014 Final Verified Results

Independent Electricity System Operator

1600 - 120 Adelaide St. W

Toronto, ON, M5H 1T1

Attn: CDM Plans

July 14, 2015

To whom it may concern,

Please accept the following written explanations of the modifications made to Kingston Hydro's CDM Plan Template and CE Tool spreadsheets at the request of the IESO.

1. Outdated CDM Plan Template

Kingston Hydro has transferred the information originally submitted from the older CDM Plan Template to the most recent version of the CDM Plan Template. We have changed the date formats to the appropriate format where possible, and notified the IESO's team of areas in the template where the locked cell format prevents this. We have changed the programs in the Milestone tabs dropdown cells to the correct names as per the IESO's request. Kingston Hydro has requested quarterly reporting from the IESO.

2. CDM Plan Cost Effectiveness

Kingston Hydro has completed cost effectiveness, TRC and PAC modeling in the modified CE tool attached for 2015. These results are now rolled up into our CDM Plan.

3. CDM Plan vs. Cost Effectiveness Tool

The areas of mis-alignment have been addressed as follows:

- The CE tool uses the DIL archetype to represent a Direct Install Program that is packaged as part of the "Conservation Checkup" bundle of provincial and local conservation programs. In discussions with the IESO's technical team, this unique approach was outlined and modifications to the plan template and CE tool have been made to reflect their suggestions.
- Audit funding values are now congruent between the CDM Plan Template and the CE Tool.
- The CE tool uses DIL archetypes to represent components of the proposed "Conservation Checkup" program, a packaging of province wide programs. There are no custom programs in Kingston Hydro's CDM Plan.
- Kingston Hydro has obtained direction from the IESO's technical team as to the proper means of including savings from 2015 projects in the CDM Plan Template. This is reflected in the revised template.

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- There is now only one Coupon Program as per IESO direction.

4. The LDC Target is now expressed in MWh

5. Since the “Conservation Checkup” is not a custom program, but rather a delivery mechanism and approach for existing and proposed province-wide programs, a start date for the custom program is not needed. Utilities Kingston conservation assessors currently deliver more than one program in the context of a single customer visit or interaction.

6. Kingston Hydro has added the Value Added Services costs consistent with the guidelines as directed.

7. Kingston Hydro has removed any 2015 budget for programs funded through the 2011-2014 program extension framework.

8. Kingston Hydro has adjusted its PSUI projects to account for the 40% of project value incentive cap so that its CDM Plan aligns with PSUI program rules.

Should there be anything further that needs to be done to make our plan compliant and consistent with the IESO’s expectations, please let us know.

Thanks for your help and guidance in preparation of Kingston Hydro’s 2015-2020 Conservation Plan.

Thanks and Best Regards,

Stephen Sottile, HBComm, CEM, CDSM
Conservation Officer – Utilities Kingston & Kingston Hydro
613 546-1181 x2477
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CDM Portfolio Summary for Inclusion in CDM Plans

TABLE 1

SUMMARY OF CDM PORTFOLIO COST EFFECTIVENESS										
Plan Cost Effectiveness		TRC			PACT			Levelized Cost		
	Program Year	Benefits ($)	Costs ($)	Ratio	Benefits ($)	Costs ($)	Ratio	Benefits (Energy)	Costs ($)	($/kWh)
	2015	2,197,868	578,244	3.8	1,818,153	0	181815313.7	31,482,776	0	0.000
	2016	11,212,521	5,014,755	2.2	9,651,726	1,682,599	5.7	141,637,862	1,682,599	0.012
	2017	6,496,408	5,087,530	1.3	5,545,017	1,693,141	3.3	78,366,006	1,693,141	0.022
	2018	4,816,864	4,743,963	1.0	4,075,763	1,519,957	2.7	56,624,548	1,519,957	0.027
	2019	5,058,676	4,563,515	1.1	4,277,254	1,587,660	2.7	60,199,203	1,587,660	0.026
	2020	5,509,459	4,740,173	1.2	4,660,459	1,650,743	2.8	64,740,303	1,650,743	0.025
	Plan Total	**35,291,796**	**24,728,180**	**1.4**	**30,028,372**	**8,134,100**	**3.7**	**433,050,698**	**8,134,100**	**0.019**

TABLE 2

SUMMARY OF PERSISTING CDM PORTFOLIO SAVINGS			
Plan Persisting Savings (end-user level)		MW	MWh
	2015	0.56	2,740
	2016	1.83	11,466
	2017	1.33	7,035
	2018	1.12	4,894
	2019	1.16	5,281
	2020	1.25	5,768
	Plan Total	**7.25**	**37,183**

TABLE 3

PROGRAM ROLL OUT SCHEDULE (ANNUAL ANTICIPATED BUDGET & INCREMENTAL ANNUAL ENERGY SAVINGS BY PROGRAM)															
		2015		2016		2017		2018		2019		2020		Total 2015 - 2020	
Sector	Program	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 Plan Budget ($)	Total Persisting Energy Savings in 2020 (MWh)
IESO - ARCHETYPE	Retrofit	0	2,220	681,199	2,892	761,752	3,257	837,039	3,708	928,350	4,159	1,016,780	4,610	4,225,119	20,846
IESO - ARCHETYPE	Heating and Cooling	0	100	246,743	103	206,833	12	192,375	12	195,544	12	195,544	12	1,037,040	250
IESO - ARCHETYPE	Appliance Retiremer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IESO - ARCHETYPE	Coupon	0	260	72,552	9	73,617	9	68,360	9	69,512	9	69,512	9	353,552	304
IESO - ARCHETYPE	New Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IESO - ARCHETYPE	Home Assistance Pr	0	0	107,158	31	108,490	31	101,918	31	103,359	31	103,359	31	524,284	157
IESO - ARCHETYPE	Direct Install Lightin	0	0	224,697	396	241,353	432	251,685	468	268,428	504	284,018	540	1,270,180	2,341
IESO - ARCHETYPE	High Performance N	0	60	50,738	114	51,004	114	49,690	114	49,978	114	49,978	114	251,388	630
IESO - ARCHETYPE	Audit Funding	0	100	23,956	152	24,223	152	22,908	152	23,196	152	23,196	152	117,480	607
Business	Process and System	0	0	309,207	7,920	294,273	3,028	89,015	400	80,168	300	80,168	300	852,830	11,948
2015 Savings	Process and System	0	100	0	0	0	0	0	0	0	0	0	0	0	100
TOTAL		0	2,841	1,716,251	11,617	1,761,544	7,035	1,612,990	4,894	1,718,534	5,281	1,822,554	5,768	8,631,873	37,183

Kingston Hydro Conservation Plan 2015-2020 Supporting Documentation

Executive Summary

Utilities Kingston operates Kingston Hydro's electricity distribution network, municipally-owned water and wastewater services, natural gas distribution system and other services within central Kingston.

Kingston Hydro customers have achieved great conservation results from 2011 through 2014. Utilities Kingston has been honoured with a number of electricity and water industry awards for its development and delivery of cost-effective, innovative and customer-focused energy and water conservation programs. Kingston Hydro's 2015-2020 Conservation Plan builds on past success by applying the same general principles followed in pursuit of 2014 targets.

On behalf of Kingston Hydro, Utilities Kingston will offer province-wide electricity conservation programs to its customers as part of its multi-utility conservation programming. Increases in program uptake, per-project savings, and more cost-effective use of administrative funds will be achieved by bundling and integrating currently separate electricity, water, and gas conservation programs, thereby maximizing incentive dollars available to our customers.

Kingston Hydro's 2015-2020 conservation plan will:

- Support comprehensive programming for less cost-effective residential, low-income and small commercial programs through targeted incentive investment towards a few, large, high-cost effectiveness energy efficiency or behind the meter generation projects.
- Achieve significant increases in commercial & institutional program uptake and savings per customer.
- Continue provision of the level of customer service and expert help our customers have come to expect from our award-winning conservation team.

Utilities Kingston's "Conservation Checkup" program will package local direct install incentives with pre and post-project RETROFIT program inspections for commercial & institutional customers. Should on-bill financing be introduced by the province, Utilities Kingston may offer a similarly branded program to residential customers.

In order to meet its target of 34.5 GWh of energy savings by Dec. 31, 2020, Kingston Hydro will invest $8.67M in province-wide and local conservation programs and financial incentives to customers. This funding needs to be leveraged by our customers to create at least $23M of local investment in energy efficiency projects over the 2015-2020 period. Conservation programs will be cost effective on a portfolio-wide basis in each year of the 2015-2020 period.

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Background & Historical Comparison

Kingston Hydro's 2020 Conservation First target is 34.5 GWh. Its Conservation First framework budget is $8.67M.

Kingston Hydro will need to achieve average savings of 5.75 GWh per year to meet this target. From 2011-2014, Kingston Hydro achieved an average of 4.22 GWh per year of verified savings. Meeting 2020 targets will require a 36% increase in annual savings achievements.

Kingston Hydro will begin Conservation First programming on Jan 1, 2016, offering legacy framework funded programs through 2015. Taking this into account, Kingston Hydro's average conservation budget is $1.73M per year, a 30% increase over 2011-2014 average annual expenditures of $1.33M.

Kingston Hydro achieved success in the 2011-2014 framework thanks to the willingness of its customers to invest in energy conservation, and consistent application of a few key principles:

1. Driving cost effectiveness through Utilities Kingston's unique multi-utility model - Kingston Hydro exceeded its energy conservation target spending less than 85% of its 2011-2014 project administration budget.

2. Focusing investment and time on large conservation projects at Kingston Hydro's three Class A customers and other larger electricity users to accomplish very large kW and kWh savings with a few key projects.

3. Offering free, on-site energy and water efficiency walkthroughs for all commercial customers, building trust and long-term relationships, providing one-on-one assistance with applications, and helping customers develop a long-term conservation plan. Kingston Hydro performs pre and post project inspections for 100% of RETROFIT program projects.

4. Ensuring that all residential customers, regardless of means, have access to conservation programs and incentives, have immediate access to free, one-on-one help understanding their energy costs and identifying conservation opportunities, and are provided with targeted and meaningful communications.

Kingston Hydro believes that its 2020 Conservation First target is achievable with the budget provided by the IESO if it sticks to these principles. The strategies, marginal investments, and program offerings outlined in this plan are not revolutionary or particularly innovative. They represent continuous improvement of program delivery by qualified professionals who care about Utilities Kingston's customers and the Kingston community.

Achievable Potential Tool Analysis

In order to determine where to best focus investment in pursuit of its targets, the IESO requires each LDC to use a standard "Achievable Potential Tool" that uses local demographics and customer information in a "top down" model to determine if a target is achievable and where savings can be found. In Kingston Hydro's case, the overwhelming majority of savings will come from commercial & institutional projects, especially in the areas of HVAC, motors, and behind the meter generation. According to the achievable potential tool, Kingston Hydro's achievable potential is between 32 and 50 GWh. Utilities Kingston's conservation team estimates that 80% of potential

achievable savings are in the commercial & institutional sector, and 20% of potential savings are residential.

Furthermore, given Kingston's residential demographic profile, Utilities Kingston's conservation team believes that the 75% of total residential achievable potential related to big ticket items like HVAC systems or appliances can only be realistically be accessed if a province-wide on-bill financing program or significant new residential province-wide programs are offered.

Cost Effectiveness Tool Analysis

The IESO requires Kingston Hydro to model its proposed program offerings using a standardized "Cost Effectiveness Tool". This tool is a "bottom-up" analysis that asks Kingston Hydro to predict the conservation measures that will be implemented for each program in each year of the target period and the related administrative and incentive costs.

The cost effectiveness tool implies that investment of $5.6M in direct incentives (funds co-invested with customers through province-wide programs towards projects that create savings) and $3.1M in other program costs (marketing, administration, customer care, evaluation & verification, engineering & technical services, etc.) over the 2015-20 period is necessary in order to meet its targets.

Kingston Hydro will need to leverage these expenditures to create at least $23M of total conservation investment in its territory in order to meet targets.

Results of the cost effectiveness tool suggest that significant increases in RETROFIT program participation and verified savings per customer must be achieved in order to meet Kingston Hydro's 2020 conservation target using IESO province wide program archetypes. This will be accomplished through implementation of the "Conservation Checkup" packaging for province wide and local conservation programs, doubling of Utilities Kingston's conservation assessment capacity over the 2015-2020 period, and a more targeted sales approach.

Our conservative, "bottom-up" analysis through the cost effectiveness tool suggests that 34.7 GWh can be achieved - just above the low end predicted by the achievable potential tool. Accessing achievable potential over and above that predicted by the Cost Effectiveness Tool can be accessed if on-bill financing options are introduced for residential and small commercial customers, or if there are additional large-scale projects undertaken in the 2015-2020 period that Kingston Hydro is not currently aware of.

Key Residential Cost Effectiveness Tool Assumptions

The volume of Home Assistance Program visits is projected to remain small, as all major social housing providers took part in the 2011-2014 framework.

Heating and Cooling incentive program projections include a single, 200-home project proposed by a large social housing provider in 2016, and then return to historical averages an ongoing basis unless an province-wide on-bill financing program is released.

Coupon uptake is assumed to be identical to 2014, a year in which changes to province wide programs and local delivery served to vastly increase uptake.

Key Commercial & Institutional Cost Effectiveness Tool Assumptions

50 proposed building audits and a long term conservation focused capital program at Queen's University, along with an increased focus on energy efficiency at CFB Kingston, The City of Kingston the Correctional Services Canada and Kingston General Hospital should lead to a larger number of chiller upgrades, HVAC upgrades, and other non-lighting projects compared to 2011-2014. Some of these may fall in the "Key Initiatives" category (PSUI, Audit, HPNC), while others will be RETROFIT projects.

The Queen's University – Kingston General Hospital steam and electricity co-generation facility is slated to engage in 2 large Process and Systems program projects. The first is a behind the meter generation project that will allow a 7.5MW generator to deliver more power and heat reliably and safely. The second is installation of a steam pressure letdown generator within the campus steam distribution network. Projected savings and investments are based on current incentive levels and the most up-to-date project plans available from this customer.

For IESO archetypes, total savings over 2011-2014 were divided by program type to determine how many projects equivalent to each archetype were completed. The number of prescriptive lighting and non-lighting applications is projected to double compared to 2011-2014 averages based on our doubling of conservation staff responsible for that portfolio, along with our plan to offer direct install and RETROFIT program site visits simultaneously as part of the Conservation Checkup. Engineered lighting applications should also increase as more projects are identified by site visits that are not effectively captured by direct install options.

Residential Program Strategy

Historically, residential electricity conservation programs have been less cost effective and achieved significantly lower kWh savings than Commercial & Institutional programs. Kingston Hydro believes that a province-wide "On-Bill Financing" program will open up significant achievable potential in the residential sector. While development of such a program is in progress, firm details on the proposed program were not available as of the date this plan was prepared.

As such, Kingston Hydro's 2015-2020 Conservation Plan carries forward 2011-2014 historical residential program participation and savings achievement rates for province wide programs it can cost-effectively offer. Using IESO archetypes and historical Kingston Hydro participation rates, residential savings achievements are projected to be a small fraction of Kingston Hydro's 2015-2020 kWh achievements.

The Environics demographic profile provided by the IESO for Kingston Hydro's territory implies that achieving residential savings will be difficult. Incomes and home ownership are significantly below provincial averages. Home tenure is significantly below provincial averages. The building stock is incredibly old compared to other Ontario communities. Multi-residential properties are much smaller, much more dispersed, and much more widely held, making it difficult to build economies of scale for conservation projects in the sector. There is limited new home construction, as Kingston Hydro territory is almost completely built out. Non family households and households led by the extremely young or extremely old are also much more prevalent. The following table shows how Kingston Hydro customers compare to provincial averages for relevant statistics based on the "Residential Profile" provided by the IESO:

Kingston Hydro Territory Demographics	Index to Provincial Average
2011 Average Household Income ($)	66
Type of Residence	
Apartment, Building that has fewer than Five Storeys	254
Age of Residence	
Built Before 1946	140.0
Built Between 1946 and 1960	148.0
Built Between 1961 and 1970	137.0
Built Between 1971 and 1980	103.0
Built Between 1981 and 1985	126.0
Home Ownership	
Owned	58
Rented	208
Home Tenure	
Less than 1	137
1 to 3	122
Number of Residents per Home	
1 Person	164
2 Persons	109
3 Persons	76
4 to 5 Persons	45
6 or More Persons	23
Average Number of Persons In Private Households	76
Resident Family Status	
One-Family Households	72
Multiple-Family Households	31
Non-Family Households	169
Age of Head of Household	
Under 25 Years	303
25 to 34 Years	140
35 to 44 Years	80
45 to 54 Years	74
55 to 64 Years	85
65 to 74 Years	92
75 Years or Over	130

Taken together, these statistics imply a challenging scenario for residential sector conservation program uptake. Kingston Hydro customers have less disposable income to invest in owner-occupied homes and little to no incentive to invest in homes that are occupied for a short-term and/or rented and/or shared accommodation with non-family members. The age of the building stock limits the low-cost measures that can achieve large savings – old buildings often require more investment to become efficient. Low vacancy rates reduce the incentive for landlords to make investments in energy effciency. The prevalence of widely held and very small multi-residential apartments means that economic

scale for HVAC and other investments is limited - it is harder to reach smaller, less sophisticated landlords with conservation program offers. Access to financing from a third party that does not encumber owned assets or credit limits for landlords and residents is a major limiting factor given Kingston Hydro's demographic profile. Our customers aren't as likely as those in the rest of the province to be able to invest in big ticket HVAC and appliance measures.

Kingston Hydro will continue providing one-on-one conservation advice and assistance over the phone or email to all residential customers, and invest in ways to help customers utilize their smart meter data. More than 24,000 Kingston Hydro residential customers look to Utilities Kingston's conservation team to help them make sense of their bills and make a plan to save. Creating a culture of conservation at home is vital to creating customer and societal pressure for local businesses and employers to conserve. In the absence of big-ticket item financing, the best thing we can provide our residential customers with is one-on-one, customized help identifying low cost opportunities that can make a difference in their homes.

Kingston Hydro's plan allocates significant administrative funding to ensure that it can continue to provide industry leading levels of customer service, sound advice, and province-wide programs to residential and low income customers.

Allocation of administrative resources towards residential programs is sufficient to allow full implementation of a province-wide residential on-bill financing program should one become available. This ensures that Kingston Hydro will not need to re-allocate resources away from commercial & institutional program budgets should an on-bill financing option be introduced in 2016. If introduced, on-bill financing programs will be coordinated and branded under the residential "Utilities Kingston Conservation Checkup" brand, integrating local water and gas conservation programs with province-wide electricity conservation programs in a single offering.

Kingston Hydro's conservation plan ensures that residential customers can rely on their LDC for conservation help. Should an on-bill financing offering be officially introduced, Kingston Hydro will revise its savings projections in subsequent annual filings or Conservation Plan updates. Depending on the details of the on-bill financing program, Kingston Hydro may offer an opportunity for customers to have an in-home, in-person energy and water conservation assessment and direct installation opportunity, subject to terms and conditions, for a reasonable fee or free to low income customers.

Kingston Hydro will continue to invest in community events and initiatives that build a culture of conservation and generate kWh results, including continued attendance at public events, sponsoring of educational workshops, and recognition of conservation leaders in the community.

While Kingston Hydro is prepared to significantly enhance Residential programming as new province-wide programs become available, this plan accounts for savings generated from the following province wide programs from 2015-2020:

1. Heating & Cooling Incentive
2. Coupon & Bi Annual Retailer Event
3. The Home Assistance Program

The performance of each of these programs in each program year has been modeled in the attached cost effectiveness Tool.

Due to the higher cost per kWh of offering residential programs, and the fact that Kingston Hydro has 24,000 residential customers compared to only approximately 3300 commercial and institutional customers, it is estimated that administrative costs will be split relatively evenly between the residential and commercial & institutional sectors despite most kWh savings achievements coming from the commercial & institutional sector.

Commercial & Institutional Program Strategy

Key Initiative Management – PSUI, Monitoring & Targeting, Audit, Etc.

Kingston Hydro has long been a partner with our largest customers on identifying and executing conservation projects that have high dollar values and high potential for large energy savings. Queen's University, Kingston General Hospital, CFB Kingston, St. Lawrence College, the Ontario government, Correctional Services Canada and other large institutional customers possess a large portion of Kingston Hydro's conservation opportunities. As Kingston Hydro's primary employers and largest energy users, these institutions must be provided technical support, incentive dollars, and help to identify and implement large and ambitious conservation or behind the meter generation projects.

Kingston Hydro's Key Initiative Managers are Certified Energy Managers (CEMs) employed full-time by Utilities Kingston. They provide technical support, incentive application assistance, and funding towards large-scale, long-term, technically complex conservation projects.

These projects often require third party technical review. Administrative budget has been allocated to ensure that such assistance can be procured by Kingston Hydro to provide third party verification and EM&V when required.

Key Initiatives will generate large, cost-effective kWh savings that will subsidize the cost effectiveness of residential and direct install program offerings.

Key Initiative managers will also deliver local water and gas conservation programs, bundled in a single offering to larger customers.

A number of potential key initiatives have been identified by Kingston Hydro CEMs in collaboration with large customers. The IESO archetypes in Kingston Hydro's Achievable Potential tool only contain projects which Kingston Hydro is reasonably certain will take place in the next two to three years, including:

- Significant new investments to allow a 7.5 MW CHP facility to begin operating behind the meter, generating large quantities of heat and electricity. This includes relocation of the generator connection protection, communication and transfer trip upgrades, installation of transfer trip to allow the generator to operate under all grid configurations, operational and process investments, and other upgrades.

- Potential installation of a behind the meter steam letdown generator at a large institutional customer that will utilize a large pressure drop to generate clean power.

- A comprehensive, institution-wide, multi-year energy efficiency retrofit performance contract at a local Class A customer. (Starting 2015).

- Continued support of Class A customers' long-term conservation strategies.

Other projects may develop later in the timeframe and will serve to further increase Kingston Hydro's achievable potential.

High Performance New Construction

The High Performance New Construction program will be operated as it is currently, with program intake provided as part of Utilities Kingston's participation in the City of Kingston's development and planning processes. Kingston Hydro can only expect an average of one such project per year. Third party experts will be relied upon to provide modeling assistance and EM&V for Kingston Hydro HPNC applications.

Conservation Checkup – Direct Install & RETROFIT Program

Utilities Kingston's "Conservation Checkup" will offer commercial customers:

- An on-site assessment for direct install energy and water conservation measures

- An electricity, water, and gas conservation walkthrough and one-page report identifying all relevant utility programs and conservation incentives.

- Pre-project inspection, application support, and pre-qualified local contractor list for identified RETROFIT program opportunities.

- An introduction to their designated Utilities Kingston "Conservation Coach" - their single point of contact for assistance with conservation projects and incentives.

- A follow up on-site assessment scheduled to conduct on-site post-project quality assurance and quality control, post-project inspection for all direct install and RETROFIT measures, and assistance with post-project submissions, no more than 2.5 years after the initial visit.

The "Conservation Checkup" is a branding and packaging initiative for province wide electricity conservation and local gas and water conservation incentive programs. It increases cost effectiveness by combining functions that employ multiple assessors each making multiple site visits into a convenient, one assessor, two-visit program. This

improves leverage of shared program administration across programs and utilities, and maintains Kingston Hydro's policy of 100% pre and post project inspection of RETROFIT projects.

The "Conservation Checkup" model will use direct install offerings or "down-payment" contributions towards cost-effective RETROFIT projects as a "loss-leader" to get us in the door with commercial customers. An increase in RETROFIT program enrollment compared to historical averages will be created by the "Conservation Checkup" program, as will full-time engagement of another Conservation Assessor, doubling assessment capacity. High-potential customers, such as hotels, restaurants, care facilities, and others will be actively targeted by assessors.

Savings from the "Conservation Checkup" are reflected in two separate program archetypes. RETROFIT program total participation and average savings per participant are expected to increase from historical averages due to the "Conservation Checkup" approach. To capture projected savings from the Direct Install component of the "Conservation Checkup", Kingston Hydro has used the "Direct Install Lighting" province wide IESO program archetype adjusted for past local results as a proxy for savings to be achieved by the direct install component of the "Conservation Checkup".

Industrial Program Strategy

Kingston Hydro currently has no customers of prescribed NAICS codes required for Industrial Program participation. As such, there is no plan to allocate funding or programming towards customers in this category.

Legacy Framework Programs & "Conservation First" Framework Program Start Date

2015 will be a transitional year for Kingston Hydro and Utilities Kingston's conservation programs. Legacy programs will continue to be offered until Dec. 31, 2015. New "Conservation First" programs will begin on Jan. 1, 2016. As the terms, conditions, and other characteristics of modified and new province wide programs will be released throughout 2015, this also gives Kingston Hydro time to react to proposed program changes, adjust its offerings, and perform sub-contractor procurement.

Joint & Regional Plan Strategy

Kingston Hydro is not committing to joint programming with other LDCs at this time. Once all LDC plans are released and Kingston Hydro's Conservation Plan is approved, efforts will be made to reach out to other LDCs to see if there is merit in formal collaboration. It is possible that significant economies of scale could be realized through joint investments or program development, but Kingston Hydro does not wish to rely on such initiatives taking place in order to meet its 2020 conservation target.

Since all Kingston Hydro customers get their water and gas services from Utilities Kingston, all local electricity, water, and gas conservation programs are fully coordinated.

Selection of Cost Recovery Mechanism

Kingston Hydro believes that in the early years of the framework, the “Full Cost Recovery” option is the lowest risk and provides more reliable and even cash flow. Kingston Hydro may switch to the “Pay for Performance” model for any of its programs should it wish to do so at a later date.

Key Marginal Investments

The following investments will need to be made to implement Kingston Hydro’s conservation plan.

- Addition of one full-time Utilities Kingston conservation assessor to increase the number of assessments, improve the customer experience, and maximize the savings achieved per project over 2011-2014 verified results.

- A mobile, tablet based front end work order system that will:
  - Collect pre and post project evidence,
  - Dispatch contractors for direct install measures,
  - Allow customers to execute legal documents on-site,
  - Schedule quotes or installation for non-direct install Residential or Small Business opportunities,
  - Receive incentive funding or financing commitments from Utilities Kingston,
  - Approve and sign off on required documentation during an initial site visit, and,
  - Provide real-time budget control and allocation information.
  - Integrate fully with Utilities Kingston’s customer information system to allow updates to account information and access to other offers

- Employment of external engineering expertise to assist in design, implementation, and third-party verification of complex, large-customer conservation projects.

Achieving Cost-Effectiveness & Taking Advantage of the Multi-Utility Model

Kingston Hydro and Utilities Kingston will fully integrate delivery of electricity, water, and gas conservation programs for all Kingston Hydro customers. This will satisfy gas utility collaboration requirements while improving cost effectiveness.

While province-wide programs will form the bulk of Kingston Hydro's offerings, these will be packaged with Utilities Kingston water and gas programming. Under the old framework, Kingston Hydro offered 13 separate province-wide electricity conservation programs. Under the new framework, Utilities Kingston will deliver all energy and water programming to residential and small commercial customers under a single brand - "Utilities Kingston Conservation Checkup".

The Commercial & Institutional Conservation Checkup will bundle province-wide electricity incentives, local water and gas incentives, and potential on-bill financing options along with the opportunity for a free energy and water efficiency walkthrough or consultation from a Utilities Kingston expert conservation assessor. It will also include a follow up visit to inspect multiple projects and assist with post project submissions, QA/QC, and EM&V.

Programs for larger commercial and institutional customers have been very successful, and our strategy of assigning each larger customer a designated Utilities Kingston contact from the conservation team for help identifying and funding larger projects will continue.

By integrating programs in this way, fixed costs are shared across utilities and programs, customers will benefit from one-on-one help and a less confusing slate of program offerings. Assessors will no longer need to do multiple visits to collect evidence before and after each conservation investment for each program and can approve all aspects of a long-term investment strategy in a single customer visit. On-bill financing, direct install options and access to a pre-qualified list of HVAC, electrical and/or plumbing contractors to provide competitive quotations on conservation opportunities will help improve uptake of measures identified during site visits.

Utilities Kingston will bring all customer facing intake and assessment tasks in-house to maximize efficiency and improve the customer experience. This is a shift from the 2011-14 strategy and is necessary in order to ensure that conservation programs are permanently staffed by qualified professionals

Target Exchange

Kingston Hydro has sufficient achievable potential in its territory, and will focus on multi utility integration and "Conservation Checkup" development, rather than looking to shed or acquire target and budget from other LDCs. This decision will be reviewed mid-term.

Marketing Plan

Kingston Hydro will rely on Utilities Kingston to market and deliver its electricity conservation programs to all customer types as part of a bundled electricity, water, and gas conservation offering.

Traditional mass marketing for conservation programs has proven to be non-cost effective. Efforts undertaken from 2011-2014 suggest that much higher conversion rates of marketing expenditures to verified kWh savings are possible through "close" or "targeted" marketing. This leverages Utilities Kingston's unique multi-utility relationship with its customers, tie-ins

with other utility and municipal government initiatives and communications, and community engagement. It also frees up funds to focus on one-on-one conservation service. Application of expert staff time to individual customer questions and concerns has proven to be the most cost-effective way to drive program participation.

Kingston Hydro's marketing budget is $160,000 per year, or 9% of its total 2015-2020 program budget. The following components make up Kingston Hydro's marketing plan:

- Referrals from the City of Kingston and Utilities Kingston's combined customer call centre.
- Utilizing existing relationships and typical customer interactions with Utilities Kingston staff to drive referrals to the conservation group. For example:
    - Utilities Kingston billing staff refers high-bill complaints to the Conservation group, giving us access to motivated customers looking to conserve.
    - Utilities Kingston staff at municipal development or building permit meetings with customers refer all major renovation or new building proponents to the Conservation group for information on available incentives and assistance with energy efficient design.
    - Field staff that are required to enter customer premises to change out electricity, water, or gas meters are provided outreach materials to provide to customers during their visits.
- Low cost, high impact mass marketing including bill stuffers, pay-and-display parking slips, media releases, and development of customer case-studies
- Direct sponsorship and support of local organizations in pursuit of energy savings and participation in targeted public and industry events, averaging 50-60 such events per year.
- Increased leverage of MyUtilities, Twitter, Facebook and other Utilities Kingston and City of Kingston platforms.
- Cold calls to targeted Commercial & Institutional customers.

Further leverage of Utilities Kingston's "Energy Insights" peer benchmarking and load disaggregation "one-pager" mail outs to targeted residential and commercial customers, identifying the best conservation opportunities based on an customized analysis of their smart meter data.

Continued sponsorship of the largest local energy efficiency conference (SWITCH's annual "Managing Energy" event) and the annual "Kingston Hydro Conservation Award" recognizing nominees who achieved cost effective savings or overcame barriers to conservation.

G. Additional Documentation for CDM Plan (If applicable)

ADDITIONAL INFORMATION AND DOCUMENTATION	
Programs *Opportunity to provide any additional information on assumptions used for budgets and/or savings for approved 2015-2020 province-wide programs*	Please refer to the attached document "Kingston Hydro 2015-2020 Conservation Plan - Inputs, Assumptions & Rationale"
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*	Kingston Hydro currently has no approved local and/or regional programs or pilot programs.
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*	Utilities Kingston's "Enhanced Direct Install" will offer commercial customers: 1. An on-site assessment for direct install energy and water conservation measures 2. An electricity, water, and gas conservation walkthrough and one-page report identifying all relevant utility programs and conservation incentives. 3. Pre-project inspection, application support, and pre-qualified local contractor list for identified RETROFIT program opportunities. 4. An introduction to their designated Utilities Kingston "Conservation Coach" - their single point of contact for assistance with conservation projects and incentives. 5. A follow up on-site assessment scheduled to conduct on-site post-project QA/QC, post-project inspection for all Direct Install and RETROFIT measures, and assist with post-project submissions, no more than 2.5 years after the initial visit. The "Enhanced Direct Install" is a branding and packaging initiative (likely to be branded "Conservation Checkup" for province wide electricity conservation and local gas and water conservation incentive programs. It increases cost effectiveness by combining functions that employed multiple assessors each making multiple site visits into a convenient, one assessor, two-visit program. This leverages shared program administration across programs and utilities, and maintains Kingston Hydro's policy of 100% pre and post project inspection of RETROFIT projects.
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*	Savings projected from delivery of legacy programs using 2011-2014/15 framework incentive and PAB funds are based on 4-year historical averages, adjusted for known large project projected completion dates, and adjusted downward to reflect the limited persistence of some prescriptive or demand-based measures still eligible for funding through province-wide 2011-2014 saveONenergy programs.
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*	Kingston Hydro is not prepared to engage in Pay-for-Performance programs at this time. This decision will be reviewed in the context of future joint or regional CDM plan coordination and/or actual program results under the 2015-2020 framework.
Other *Additional assumptions used in the CDM Plan*	Please refer to the attached document "Kingston Hydro 2015-2020 Conservation Plan - Inputs, Assumptions & Rationale". ***NOTE*** The Commercial "Conservation Checkup" program described in the document has been named "Enhanced Direct Install" at the request of the IESO within the CDM Plan Template and CE Tool.

UNDERTAKING NO. JT1.17

TO PREPARE A SCENARIO AS DESCRIBED BY MS. SCOTT.

Response:

Background

The requested undertaking asked that the trend variable be removed for all classes, that data back to 2003 be utilized, that updated/current employment data be included, that the model be updated for the 2015 actuals to date and make manual CDM adjustments going forward based on the half year rule for the first year and full years after that.

The attached documentation includes these requested load forecast model revisions.

Analysis of Model

Kingston Hydro has reviewed the regression statistics of the revised load forecast model in response to this undertaking (JT1.17 model) and compared them to the revised load forecast submitted in response to IR 3-Staff-57b (IR 3-Staff-57b model). Note that in all four rate classes where a regression was used, the R-squared, Adjusted R-squared, Durbin-Watson and Theil's U regression statistics for the IR 3-Staff-57b model are stronger than the regression statistics for the JT1.17 model. In fact, the lower Durbin-Watson value calculated for the JT1.17 model supports the idea that a trend exists in the historic data. As a further measure of model accuracy, the Annual Mean Absolute Percentage Error (MAPE) of the JT1.17 model is more than double that of the IR 3-Staff-57b model. In conclusion, Kingston Hydro recommends using the model developed in response to IR 3-Staff-57b.

Attachments

A live EXCEL load forecast model scenario as requested by Ms. Scott has been prepared for this undertaking and is titled "JT1.17-Attachment 1.xlsx".

The live EXCEL CDM Model, originally submitted in response to IR3-Staff-54 and updated in response to this undertaking titled “150922 - IR 3-Staff-54 Attachment 1 – Undertakings.xlsx”, provides updated CDM calculations using Kingston Hydro’s recently IESO-approved 2015-20 Conservation Plan, Final 2006-14 IESO persistence tables, and application of the half year rule to incremental savings achieved in each year during their first year of persistence from 2015 through 2020. The total annual CDM savings for 2015-2020 found under the tab “2009-20 CDM kWh by Rate Class” represent the kWh amounts to be applied by manual adjustment to the load forecast for each rate class and have been copied over to the tab “Annual CDM” found in the load forecast model titled “JT1.17-Attachment 1.xlsx”.

Residential Forecast

Ordinary Least Squares Model

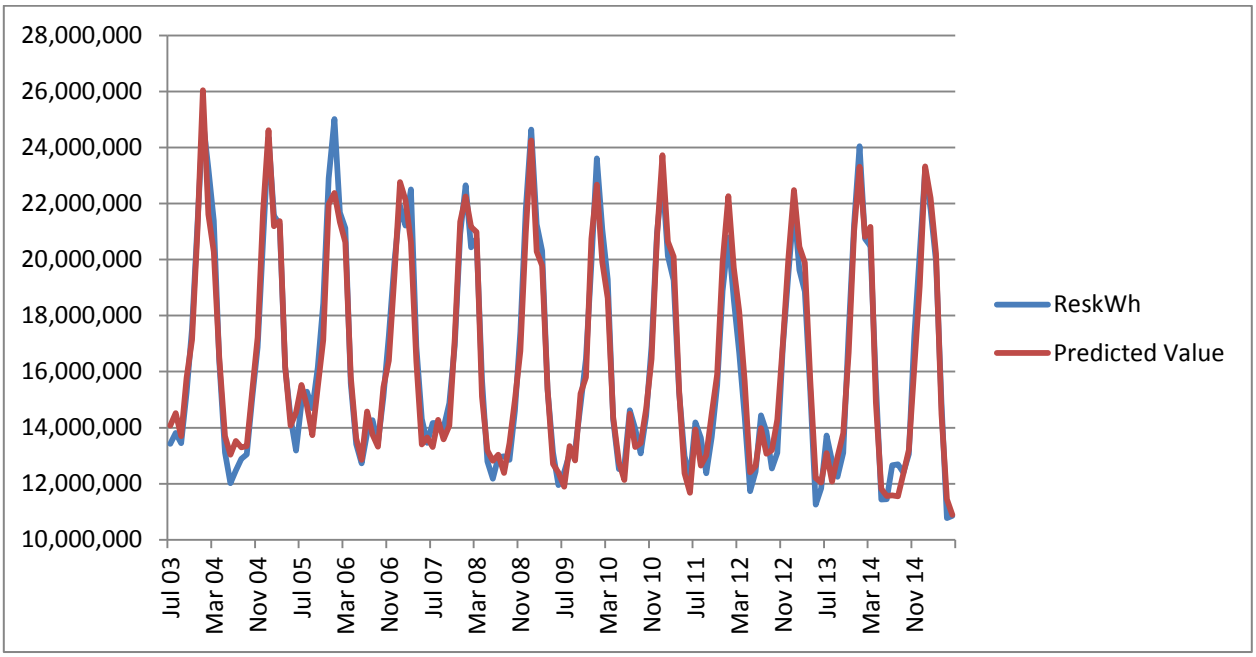
Model 6: OLS, using observations 2003:07-2015:06 (T = 144)

Dependent variable: ReskWh

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	3.62859e+07	2.8345e+06	12.8015	<0.00001	***
HDD	11204.2	717.778	15.6096	<0.00001	***
CDD	26942.3	2949.9	9.1333	<0.00001	***
Res_Cust	-1005.29	121.715	-8.2594	<0.00001	***
Fall	-1.47252e+06	355620	-4.1407	0.00006	***
DAPR	-1.37803e+06	369056	-3.7339	0.00028	***
PostSecondarySu	-2.36073e+06	458453	-5.1493	<0.00001	***
DJAN	1.34129e+06	275264	4.8727	<0.00001	***
DMAR	623336	276680	2.2529	0.02588	**

Mean dependent var	16450573	S.D. dependent var	3834186
Sum squared resid	7.56e+13	S.E. of regression	748433.6
R-squared	0.964029	Adjusted R-squared	0.961897
F(8, 135)	452.2471	P-value(F)	1.69e-93
Log-likelihood	-2147.387	Akaike criterion	4312.773
Schwarz criterion	4339.502	Hannan-Quinn	4323.634
rho	0.323237	Durbin-Watson	1.347781
Theil’s U	0.31102		

44 **Predicted vs. Actual kWh (Monthly)**



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47 **Predicted vs Actual kWh (Annual Summary):**

Year		Res kWh Actual	Predicted	Absolute Error (%)
2003	*	94,752,825	96,254,837	1.6%
2004		202,169,320	205,598,903	1.7%
2005		213,231,097	210,588,818	1.2%
2006		203,419,312	199,664,223	1.8%
2007		205,361,403	202,730,154	1.3%
2008		197,176,338	197,059,964	0.1%
2009		196,461,750	194,648,093	0.9%
2010		197,410,764	193,685,417	1.9%
2011		191,104,338	193,799,192	1.4%
2012		184,953,209	192,421,290	4.0%
2013		189,348,696	192,388,312	1.6%
2014		192,061,408	187,485,159	2.4%
2015	*	101,431,986	102,558,087	1.1%

Mean Absolute Percentage Error (Annual)	1.6%
Mean Absolute Percentage Error (Monthly)	3.7%

* Half Year of data

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49

50 **Predicted vs Actual kWh**

51 **Annual kWh Forecast**

Year		Res kWh Actual	Annual Change	Normalized	Annual Change
2003	*	94,752,825		96,031,697	
2004		202,169,320		204,706,280	
2005		213,231,097	5.5%	204,643,952	0.0%
2006		203,419,312	-4.6%	202,918,872	-0.8%
2007		205,361,403	1.0%	201,595,909	-0.7%
2008		197,176,338	-4.0%	197,410,883	-2.1%
2009		196,461,750	-0.4%	195,361,095	-1.0%
2010		197,410,764	0.5%	194,685,539	-0.3%
2011		191,104,338	-3.2%	194,098,449	-0.3%
2012		184,953,209	-3.2%	194,334,693	0.1%
2013		189,348,696	2.4%	191,017,232	-1.7%
2014		192,061,408	1.4%	186,371,783	-2.4%
2015				184,514,151	-1.0%
2016				182,695,407	-1.0%
2017				180,839,642	-1.0%
2018				178,972,059	-1.0%
2019				177,092,584	-1.1%
2020				175,201,141	-1.1%

* Half Year

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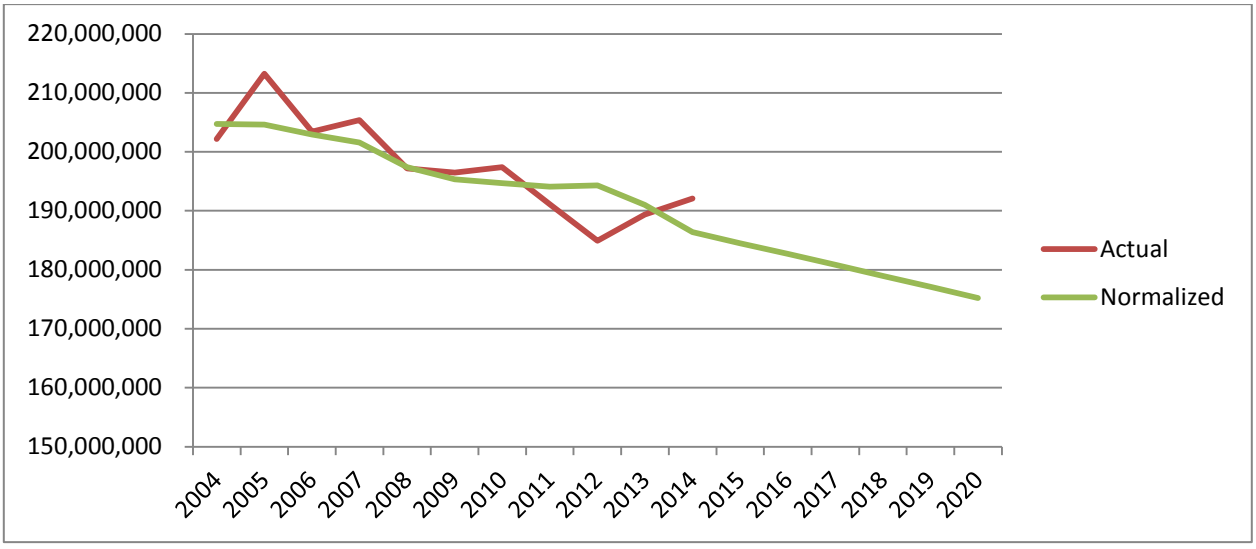

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54 **Annual kWh Forecast**

GS < 50 Forecast

Ordinary Least Squares Model

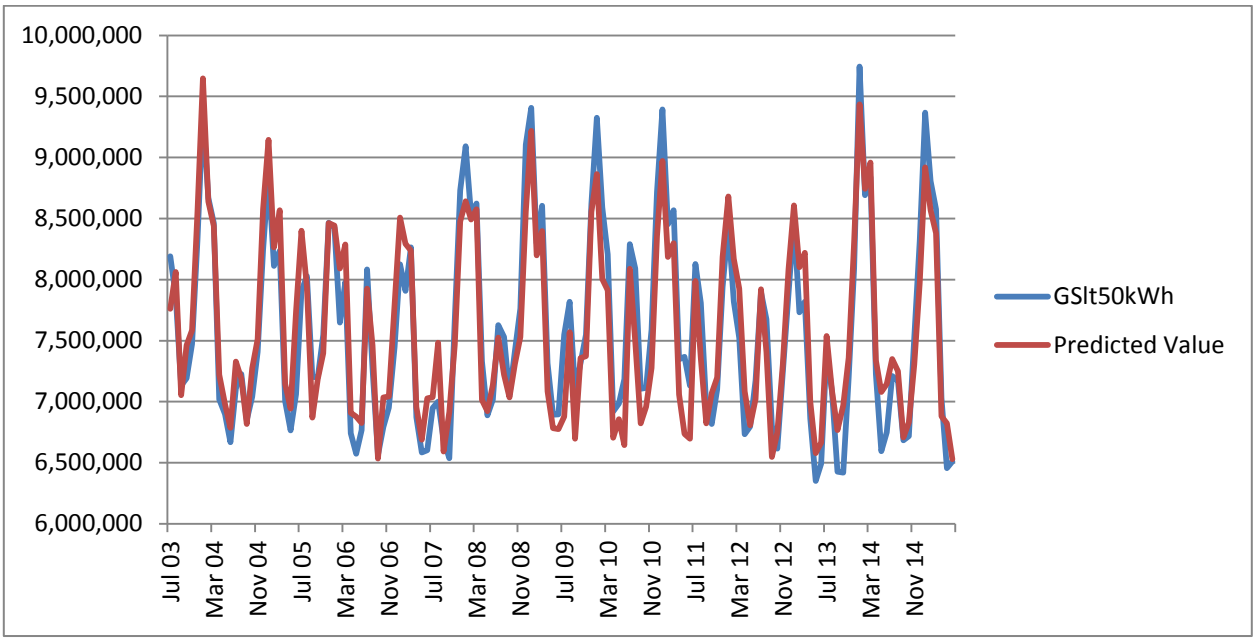
Model 12: OLS, using observations 2003:07-2015:06 (T = 144)

Dependent variable: GSlt50kWh

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	-1.23672e+07	2.92356e+06	-4.2302	0.00004	***
HDD	2548.35	248.114	10.2709	<0.00001	***
CDD	13141.3	1117.39	11.7607	<0.00001	***
MonthDays	135062	32278.9	4.1842	0.00005	***
KingstonFTE	47976	13165.1	3.6442	0.00038	***
GS_50_Cust	3471.02	575.488	6.0314	<0.00001	***
Reclassificatio	670309	125963	5.3215	<0.00001	***
Fall	-458368	123113	-3.7232	0.00029	***
DAPR	-562461	131273	-4.2847	0.00003	***
DDEC	-234182	101004	-2.3185	0.02195	**
PostSecondarySu	-544913	161135	-3.3817	0.00095	***

Mean dependent var	7586023	S.D. dependent var	791479.7
Sum squared resid	1.10e+13	S.E. of regression	287918.1
R-squared	0.876924	Adjusted R-squared	0.867670
F(10, 133)	94.76312	P-value(F)	1.77e-55
Log-likelihood	-2008.748	Akaike criterion	4039.496
Schwarz criterion	4072.164	Hannan-Quinn	4052.770
rho	0.568559	Durbin-Watson	0.846182
Theil's U	0.42071		

60 **Predicted vs. Actual kWh (Monthly)**



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62 **Predicted vs Actual kWh (Annual Summary):**

		GS<50 kWh Actual	Predicted	Absolute Error (%)
2003	*	46,181,453	46,482,314	0.7%
2004		90,968,331	92,410,350	1.6%
2005		92,393,785	94,059,502	1.8%
2006		87,257,190	89,233,182	2.3%
2007		87,931,681	89,676,592	2.0%
2008		93,970,050	91,963,605	2.1%
2009		93,350,687	90,887,115	2.6%
2010		94,126,083	89,986,807	4.4%
2011		93,008,635	90,564,943	2.6%
2012		88,608,641	89,700,721	1.2%
2013		86,375,577	89,206,982	3.3%
2014		91,470,555	92,118,367	0.7%
2015	*	46,744,633	46,096,821	1.4%

Mean Absolute Percentage Error (Annual)	2.5%
Mean Absolute Percentage Error (Monthly)	4.8%

* Half Year of data

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67 **Predicted vs Actual kWh**

68 **Annual kWh Forecast**

Year		GS<50 kWh Actual	Annual Change	Normalized	Annual Change
2003	*	46,181,453		46,317,594	
2004		90,968,331		92,889,868	
2005		92,393,785	1.6%	91,758,597	-1.2%
2006		87,257,190	-5.6%	89,953,240	-2.0%
2007		87,931,681	0.8%	89,190,117	-0.8%
2008		93,970,050	6.9%	92,347,941	3.5%
2009		93,350,687	-0.7%	91,679,927	-0.7%
2010		94,126,083	0.8%	89,710,159	-2.1%
2011		93,008,635	-1.2%	90,710,295	1.1%
2012		88,608,641	-4.7%	89,770,660	-1.0%
2013		86,375,577	-2.5%	89,151,264	-0.7%
2014		91,470,555	5.9%	92,242,594	3.5%
2015				89,635,418	-2.8%
2016				87,683,311	-2.2%
2017				85,495,940	-2.5%
2018				83,477,905	-2.4%
2019				81,493,574	-2.4%
2020				79,677,445	-2.2%

* Half Year

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72 **Annual kWh Forecast**

GS > 50 Forecast

Ordinary Least Squares Model

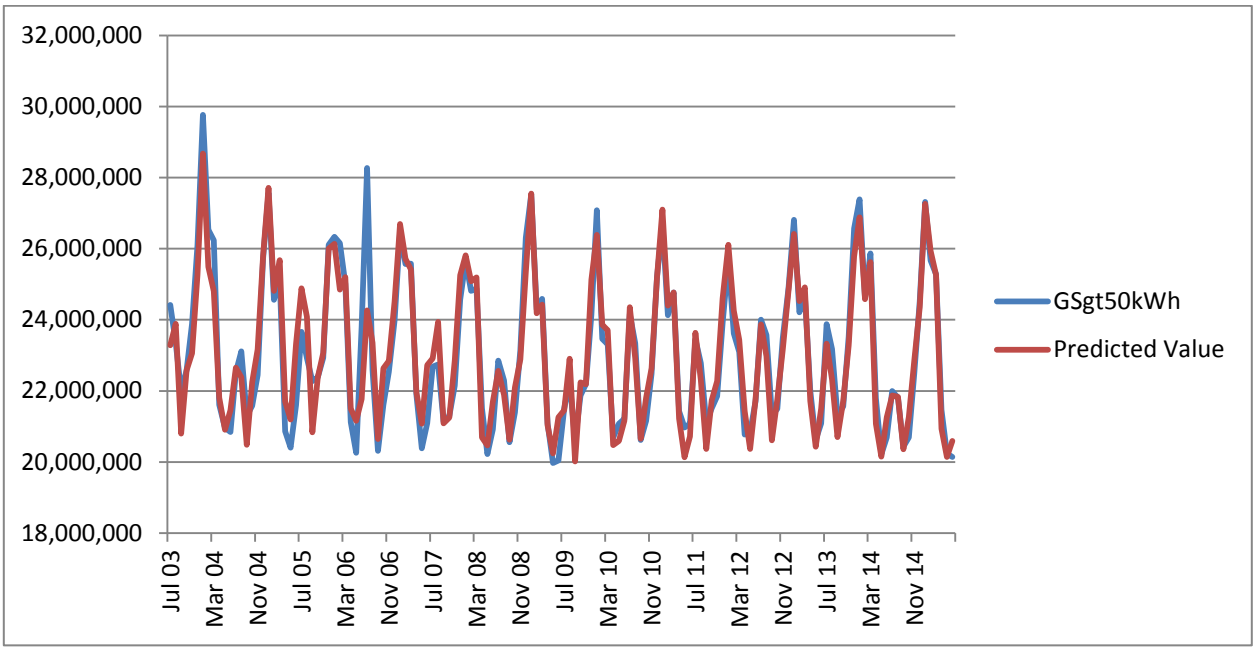
Model 20: OLS, using observations 2003:07-2015:06 (T = 144)

Dependent variable: GSgt50kWh

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	2.37239e+06	2.70018e+06	0.8786	0.38118	
HDD	7917.45	393.453	20.1230	<0.00001	***
CDD	27989	3548.56	7.8874	<0.00001	***
MonthDays	496602	86971.4	5.7099	<0.00001	***
GSgt50Cust	7554.96	1634.88	4.6211	<0.00001	***
Spring	-1.42198e+06	236750	-6.0063	<0.00001	***
Fall	-784112	207398	-3.7807	0.00023	***
DDEC	-802277	270019	-2.9712	0.00351	***
DMAR	1.12444e+06	287352	3.9131	0.00014	***

Mean dependent var	23067121	S.D. dependent var	2139957
Sum squared resid	7.00e+13	S.E. of regression	720084.9
R-squared	0.893106	Adjusted R-squared	0.886771
F(8, 135)	140.9910	P-value(F)	1.14e-61
Log-likelihood	-2141.826	Akaike criterion	4301.653
Schwarz criterion	4328.381	Hannan-Quinn	4312.513
rho	0.243832	Durbin-Watson	1.492239
Theil’s U	0.37276		

79 **Predicted vs. Actual kWh (Monthly)**



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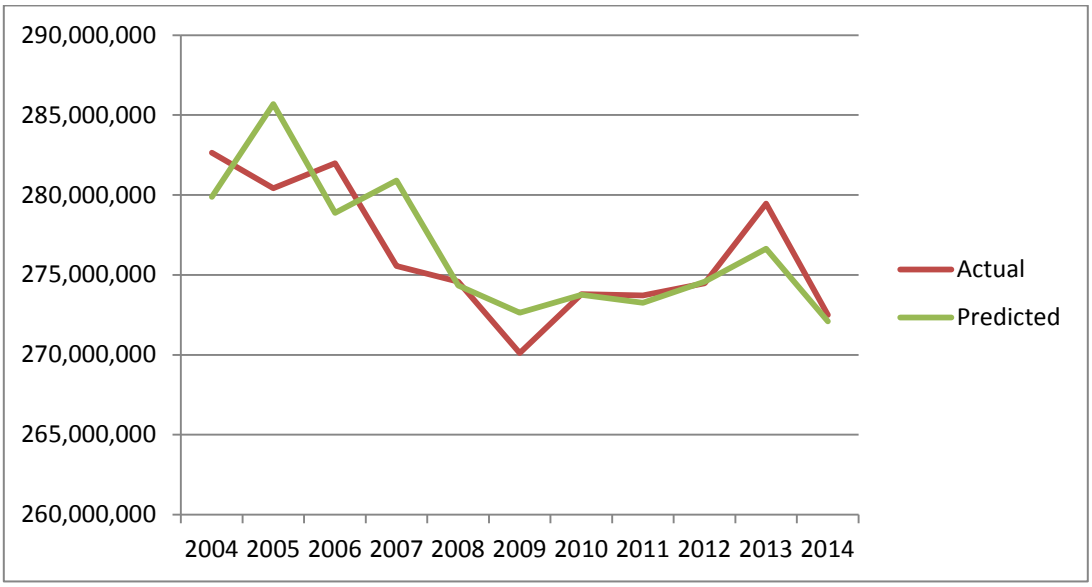
82 **Predicted vs Actual kWh (Annual Summary):**

		GS>50 kWh Actual	Predicted	Absolute Error (%)
2003	*	142,304,674	138,871,040	2.4%
2004		282,637,528	279,886,032	1.0%
2005		280,428,685	285,691,146	1.9%
2006		281,992,976	278,874,122	1.1%
2007		275,557,420	280,904,126	1.9%
2008		274,569,665	274,337,221	0.1%
2009		270,117,290	272,632,165	0.9%
2010		273,806,098	273,756,541	0.0%
2011		273,712,584	273,260,519	0.2%
2012		274,473,668	274,586,468	0.0%
2013		279,458,000	276,630,216	1.0%
2014		272,498,127	272,100,270	0.1%
2015	*	140,108,657	140,135,506	0.0%

Mean Absolute Percentage Error (Annual)	0.8%
Mean Absolute Percentage Error (Monthly)	2.1%

* Half Year of data

83



84

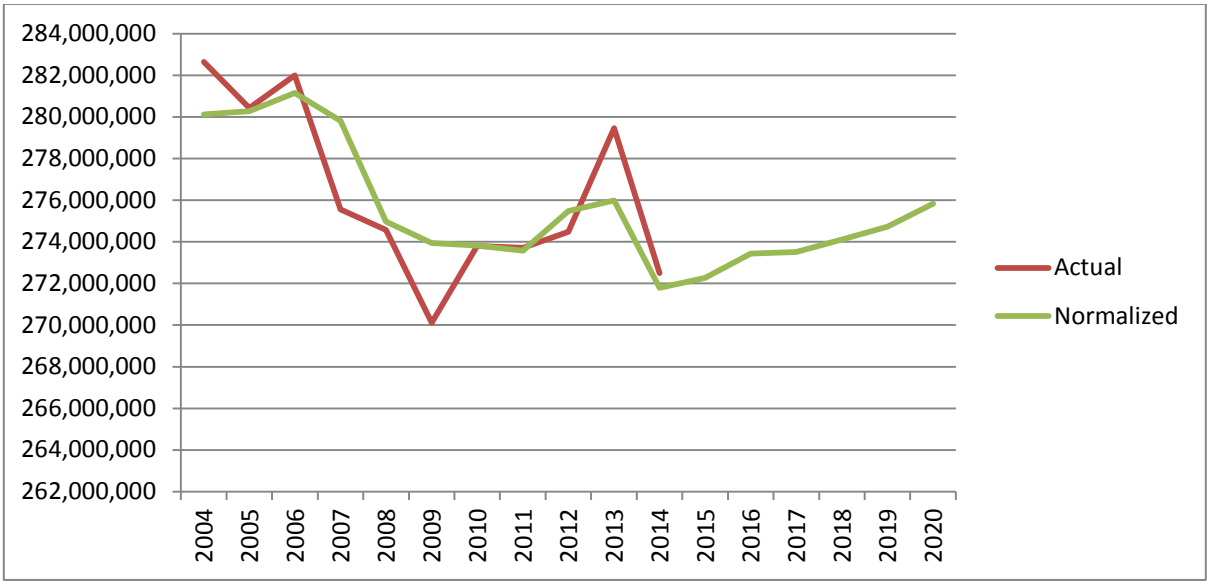
85 **Predicted vs Actual kWh**

86 **Annual kWh Forecast**

Year		GS>50 kWh Actual	Annual Change	Normalized	Annual Change
2003	*	142,304,674		138,567,917	
2004		282,637,528		280,126,297	
2005		280,428,685	-0.8%	280,279,422	0.1%
2006		281,992,976	0.6%	281,148,242	0.3%
2007		275,557,420	-2.3%	279,811,014	-0.5%
2008		274,569,665	-0.4%	274,973,817	-1.7%
2009		270,117,290	-1.6%	273,940,813	-0.4%
2010		273,806,098	1.4%	273,819,934	0.0%
2011		273,712,584	0.0%	273,570,620	-0.1%
2012		274,473,668	0.3%	275,472,444	0.7%
2013		279,458,000	1.8%	275,988,206	0.2%
2014		272,498,127	-2.5%	271,795,205	-1.5%
2015				272,265,468	0.2%
2016				273,428,129	0.4%
2017				273,516,043	0.0%
2018				274,111,740	0.2%
2019				274,718,833	0.2%
2020				275,834,141	0.4%

* Half Year

87



88

89 **Annual kWh Forecast**

Annual kW Forecast

	kWh Normalized		
	D	**E**	**F = D * E**
2015	272,265,468	0.00273	743,270
2016	273,428,129	0.00273	746,444
2017	273,516,043	0.00273	746,684
2018	274,111,740	0.00273	748,310
2019	274,718,833	0.00273	749,967
2020	275,834,141	0.00273	753,012

Large Use Forecast

Ordinary Least Squares Model

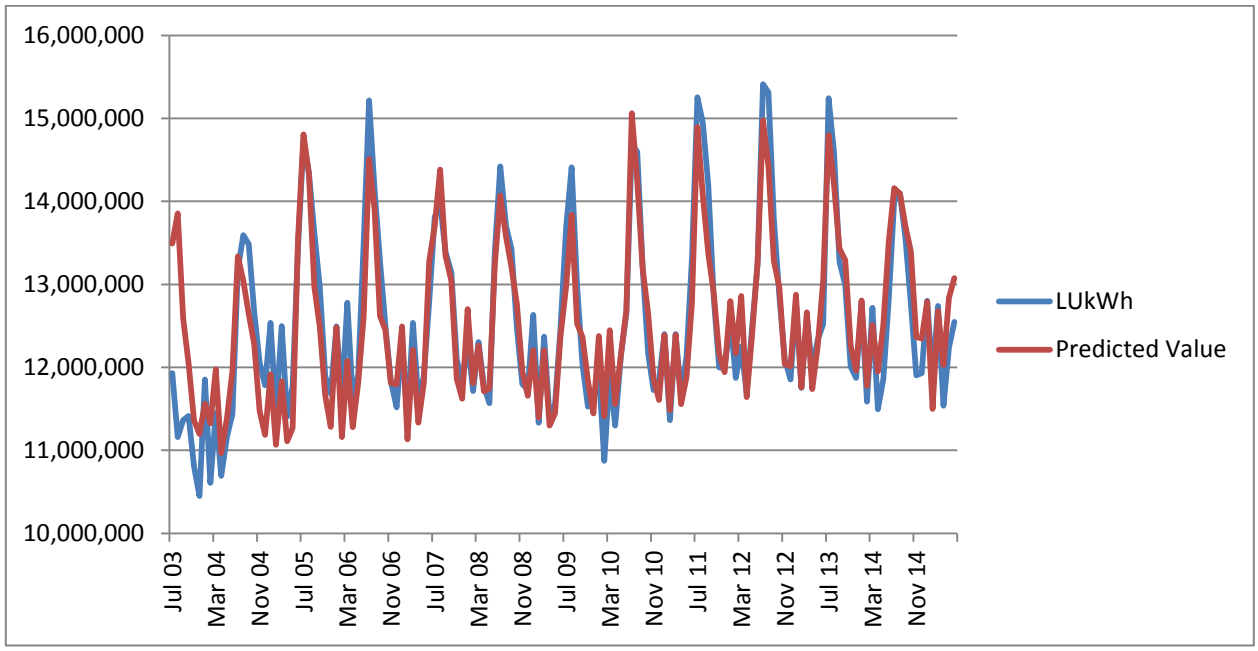
Model 24: OLS, using observations 2003:07-2015:06 (T = 144)

Dependent variable: LUkWh

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	-9.21419e+06	2.27192e+06	-4.0557	0.00008	***
HDD	-2129.11	440.972	-4.8282	<0.00001	***
CDD	16939.1	2336.99	7.2483	<0.00001	***
MonthDays	397460	62177.1	6.3924	<0.00001	***
OntFTE	1688.99	214.076	7.8897	<0.00001	***
Spring	-467492	160049	-2.9209	0.00410	***
Fall	-973363	236010	-4.1242	0.00006	***
DAPR	-1.00269e+06	231523	-4.3308	0.00003	***
DDEC	-1.10105e+06	190169	-5.7898	<0.00001	***
PostSecondarySu	-1.62436e+06	278275	-5.8373	<0.00001	***

Mean dependent var	12523882	S.D. dependent var	1077320
Sum squared resid	3.24e+13	S.E. of regression	491715.7
R-squared	0.804788	Adjusted R-squared	0.791676
F(9, 134)	61.38128	P-value(F)	3.27e-43
Log-likelihood	-2086.360	Akaike criterion	4192.719
Schwarz criterion	4222.417	Hannan-Quinn	4204.787
rho	0.609437	Durbin-Watson	0.707656
Theil's U	0.50581		

97 **Predicted vs. Actual kWh (Monthly)**



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99

100 **Predicted vs Actual kWh (Annual Summary):**

		LU kWh Actual	Predicted	Absolute Error (%)
2003	*	67,125,134	74,540,621	11.0%
2004		143,975,782	143,133,278	0.6%
2005		152,356,156	148,267,473	2.7%
2006		152,420,284	148,501,965	2.6%
2007		150,723,902	150,212,916	0.3%
2008		150,640,722	150,682,503	0.0%
2009		148,002,869	145,914,997	1.4%
2010		149,058,790	151,244,907	1.5%
2011		154,491,718	151,819,567	1.7%
2012		155,448,435	154,812,191	0.4%
2013		153,943,746	154,277,945	0.2%
2014		151,518,193	155,127,253	2.4%
2015	*	73,733,243	74,903,358	1.6%

Mean Absolute Percentage Error (Annual)	2.0%
Mean Absolute Percentage Error (Monthly)	2.7%

* Half Year of data

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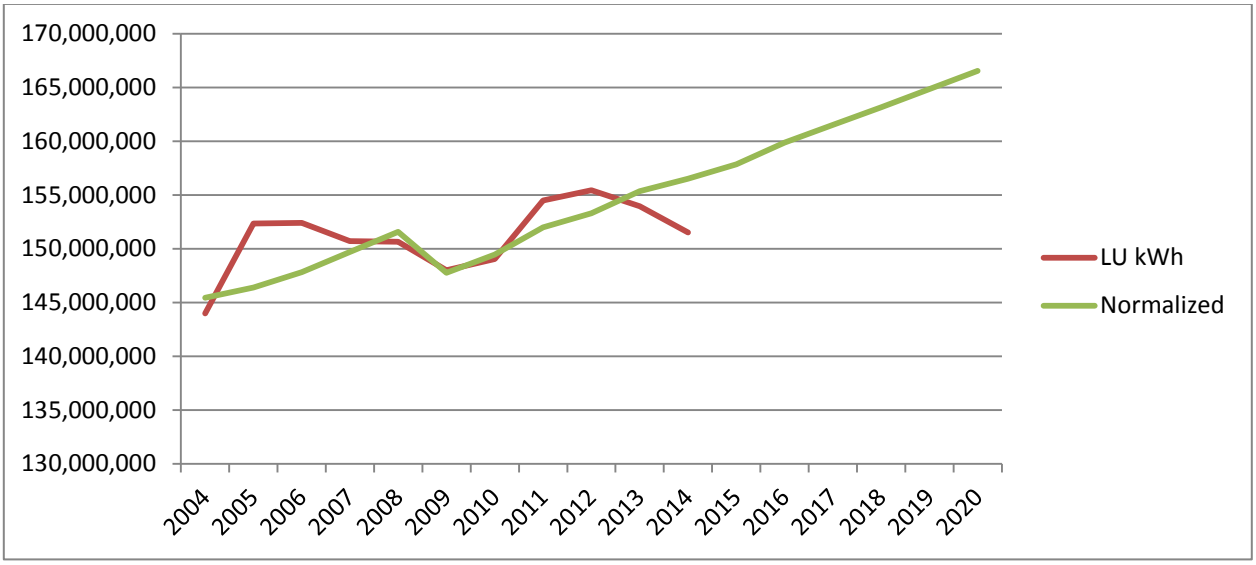
103 **Predicted vs Actual kWh**

104 **Annual kWh Forecast**

Year		LU kWh Actual	Annual Change	Normalized	Annual Change
2003	*	67,125,134		74,224,567	
2004		143,975,782		145,449,673	
2005		152,356,156	5.8%	146,413,033	0.7%
2006		152,420,284	0.0%	147,819,963	1.0%
2007		150,723,902	-1.1%	149,709,774	1.3%
2008		150,640,722	-0.1%	151,573,616	1.2%
2009		148,002,869	-1.8%	147,763,044	-2.5%
2010		149,058,790	0.7%	149,469,262	1.2%
2011		154,491,718	3.6%	152,005,789	1.7%
2012		155,448,435	0.6%	153,299,764	0.9%
2013		153,943,746	-1.0%	155,344,079	1.3%
2014		151,518,193	-1.6%	156,526,035	0.8%
2015				157,849,715	0.8%
2016				159,864,748	1.3%
2017				161,500,922	1.0%
2018				163,155,913	1.0%
2019				164,829,936	1.0%
2020				166,523,211	1.0%

* Half Year

105



106

107 **Annual kWh Forecast**

Annual kW Forecast

kWh Normalized

	D	E	F = D * E
2015	157,849,715	0.001891	298,422
2016	159,864,748	0.001891	302,232
2017	161,500,922	0.001891	305,325
2018	163,155,913	0.001891	308,454
2019	164,829,936	0.001891	311,618
2020	166,523,211	0.001891	314,820

111 **CDM Adjusted Forecast**

112 **kWh Forecast**

Retail kWh	Weather Normalized 2015	CDM Load	2015 CDM Adjusted	
Residential	184,514,151	181,706	184,332,445	
GS < 50	89,635,418	135,732	89,499,686	
GS > 50	272,265,468	601,193	271,664,276	
Large Use	157,849,715	299,419	157,550,297	
Total	704,264,752	1,218,049	703,046,704	-0.2%
Retail kWh	Weather Normalized 2016	CDM Load	2016 CDM Adjusted	
Residential	182,695,407	440,693	182,254,714	
GS < 50	87,683,311	634,636	87,048,675	
GS > 50	273,428,129	2,213,427	271,214,702	
Large Use	159,864,748	4,915,919	154,948,828	
Total	703,671,594	8,204,675	695,466,919	-1.2%

Retail kWh	Weather Normalized 2017	CDM Load	2017 CDM Adjusted	
Residential	180,839,642	549,772	180,289,870	
GS < 50	85,495,940	1,396,646	84,099,294	
GS > 50	273,516,043	4,332,683	269,183,360	
Large Use	161,500,922	11,127,245	150,373,677	
Total	701,352,546	17,406,346	683,946,201	-2.5%

Retail kWh	Weather Normalized 2018	CDM Load	2018 CDM Adjusted	
Residential	178,972,059	614,196	178,357,863	
GS < 50	83,477,905	2,234,487	81,243,418	
GS > 50	274,111,740	6,668,578	267,443,162	
Large Use	163,155,913	13,638,270	149,517,643	
Total	699,717,617	23,155,532	676,562,086	-3.3%

Retail kWh	Weather Normalized 2019	CDM Load	2019 CDM Adjusted	
Residential	177,092,584	680,280	176,412,304	
GS < 50	81,493,574	3,140,094	78,353,480	
GS > 50	274,718,833	9,180,607	265,538,225	
Large Use	164,829,936	14,838,924	149,991,013	
Total	698,134,927	27,839,905	670,295,022	-4.0%

Retail kWh	Weather Normalized 2020	CDM Load	2020 CDM Adjusted	
Residential	175,201,141	748,023	174,453,117	
GS < 50	79,677,445	4,106,990	75,570,454	
GS > 50	275,834,141	11,862,293	263,971,848	
Large Use	166,523,211	16,036,177	150,487,033	
Total	697,235,937	32,753,484	664,482,452	-4.7%

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kW Forecast

kW	Weather Normalized 2015		CDM Load	2015 CDM	
GS > 50	743,270	71%	1,641	741,629	
Large Use	298,422	29%	566	297,856	
Total	1,041,692	100%	2,207	1,039,485	-0.2%

kW	Weather Normalized 2016		CDM Load	2016 CDM	
GS > 50	746,444	71%	6,043	740,401	
Large Use	302,232	29%	9,294	292,938	
Total	1,048,675	100%	15,336	1,033,339	-1.5%

kW	Weather Normalized 2017		CDM Load	2017 CDM	
GS > 50	746,684	71%	11,828	734,856	
Large Use	305,325	29%	21,037	284,288	
Total	1,052,009	100%	32,865	1,019,144	-3.1%

kW	Weather Normalized 2018		CDM Load	2018 CDM	
GS > 50	748,310	71%	18,205	730,105	
Large Use	308,454	29%	25,784	282,670	
Total	1,056,764	100%	43,989	1,012,775	-4.2%

kW	Weather Normalized 2019		CDM Load	2019 CDM	
GS > 50	749,967	71%	25,063	724,905	
Large Use	311,618	29%	28,054	283,565	
Total	1,061,586	100%	53,116	1,008,470	-5.0%

kW	Weather Normalized 2020		CDM Load	2020 CDM	
GS > 50	753,012	71%	32,383	720,629	
Large Use	314,820	29%	30,317	284,503	
Total	1,067,832	100%	62,701	1,005,131	-5.9%

UNDERTAKING NO. JT1.18

TO DO A RECONCILIATION TO THE UPDATED LOAD FORECAST MODEL BETWEEN THE RESPONSE GIVEN TO MR. HARPER WITH THE FORECAST YOU HAVE HERE.

Response:

The 2015-2020 kW forecast for Street Lights that appears in the load forecast is incorrect and was calculated using the ratio of kWh to kW from 2014. The correct 2015-2020 kW forecast for Street Lights should be taken to be 394.835 kW for the month of January 2015, increasing by 1 fixture at 65W per month. The 2015-2020 kWh forecast for Street Lights that appears in the load forecast is correct and was calculated by multiplying the correct kW forecast by the total hours of illumination. The difference between the correct and incorrect kW forecast is summarized below.

Street Light Fixtures, Demand, and Energy

	Fixtures	kW (correct)	kWh	kW (from Load Forecast)
2015	5,337	4,742	1,814,577	5,036
2016	5,349	4,752	1,818,158	5,046
2017	5,361	4,761	1,821,740	5,056
2018	5,373	4,770	1,825,321	5,066
2019	5,385	4,780	1,828,903	5,076
2020	5,397	4,789	1,832,484	5,086

UNDERTAKING NO. JT1.19

TO ADVISE HOW MUCH IS THE INCREMENTAL CHARGE.

Response:

Below is a table showing total cashiering services provided by the City of Kingston to Utilities Kingston and the portion that was allocated by Utilities Kingston to Kingston Hydro in 2011 and 2012. The allocated percentage was based on customer numbers.

	2011 Total Cost Charge to Utilities Kingston	2011 Total Cost Charge from Utilities Kingston to Kingston Hydro	2012 Cost Charged to Utilities Kingston	2012 Total Cost Charge from Utilities Kingston to Kingston Hydro
Cashiering	$ 129,492	$ -	$ 132,082	$ 30,379

UNDERTAKING NO. JT1.20

TO PROVIDE THE OTHER HALF OF APPENDIX 2-L.

Response:

See attachment.

Appendix 2-L
Recoverable OM&A Cost per Customer and per FTE

	2011 Board Approved	Last Rebasing Year - 2011-Actual	2012 Actuals	2013 Actuals	2014 Actuals	2015 Bridge Year	2016 Test Year	2017	2018	2019	2020
Reporting Basis											
Number of Customers	27,145	26,961	26,906	27,154	27,380	27,484	27,588	27,696	27,808	27,920	28,034
Total Recoverable OM&A from Appendix 2-JB	$ 6,357,503	$ 6,160,391	$ 6,282,743	$ 7,015,345	$ 6,468,160	$ 6,858,652	$ 7,130,810	$7,253,351	$7,378,017	$7,504,848	$7,633,881
OM&A cost per customer	234.21	228.49	233.51	258.35	236.24	249.55	258.48	261.89	265.32	268.80	272.31
Number of FTEs	N/A	44.65	48.45	49.11	47.32	50.34	50.34	50.34	50.34	50.34	50.34
Customers/FTEs	N/A	603.89	555.33	552.92	578.57	545.96	548.02	550.17	552.39	554.62	556.88
OM&A Cost per FTE	N/A	137,985.11	129,674.40	142,849.25	136,678.57	136,243.53	141,649.81	144,084.03	146,560.45	149,079.89	151,643.06

Notes:

1 If it has been more than three years since the applicant last filed a cost of service application, additional years of historical actuals should be incorporated into the table, as necessary, to go back to the last cost of service application. If the applicant last filed a cost of service application less than three years ago, a minimum of three years of actual information is required.

2 The method of calculating the number of customers must be identified.

3 The method of calculating the number of FTEs must be identified. See also Appendix 2-K

4 The number of customers and the number of FTEs should correspond to mid-year or average of January 1 and December 31 figures.

UNDERTAKING NO. JT1.21

TO DESCRIBE THE FACTORS OR DRIVERS THAT CHANGED THE ALLOCATION FOR INFORMATION SERVICES BETWEEN 2011 AND 2012.

Response:

In preparing this response to the undertaking, it was determined that Kingston Hydro was allocated 18% of the charges for Information Services in 2011. This allocation was incorrect and should have been 23% or $ 256,842.

The allocation for Information Systems services was changed in 2012 in response to a recommendation that was contained in the BDR *Study of Affiliate Service Costs and Costs Allocation in respect of Kingston Hydro* that was filed during the applicant's last cost of service application (EB-2010-0136 Board Staff #28).

In the second round of interrogatories in EB-2010-0136, Board Staff asked Kingston Hydro:

> 7 (b) What is Kingston Hydro's response to the recommendations that were made by BDR as summarized on pages 4-6 of this document? Please provide specific response to each major area listed.

In reply Kingston Hydro indicated that the recommendation was to change the allocation from one based on customer numbers to one based on allocation of employees who use computers (25%).

For 2012 the amount was correctly allocated at 25%.

UNDERTAKING NO. JT2.1

RE: 2011 TO 2014 CDM IMPACTS THAT WERE INCLUDED IN THE LOAD FORECAST IN THE LRAM MODELS, ABOUT PAGE 127 OF THE TRANSCRIPT, AND SPECIFICALLY THE TOTAL ANNUAL IMPACTS OF CDM PROGRAMS THAT WERE INCLUDED BOTH BY CALENDAR YEAR AND BY PROGRAM YEAR IN THOSE TWO ITEMS AND HOW THEY RECONCILED WITH THE OPA FORECAST.

Response:

Please refer to Kingston Hydro's response to undertakings JT1.5, JT1.6, JT1.7 and JT 1.17, specifically, refer to the updated CDM Model filed titled "150922 - IR 3-Staff-54 Attachment 1 – Undertakings.xlsx" for a full, live excel model that shows all calculations.

The numbers that carry through to the load forecast are excerpted below, and are in the CDM Model under tab "CDM kWh By Rate Class". Visible formulae in the CDM Model along with the model tab descriptions and glossary provided in response to undertaking JT 1.5 can be used to reconcile the numbers below to IESO-reported CDM measure persistence tables and rate class allocations.

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Kingston Hydro - CDM Net End User Level IESO Verified Rate Impact kWh Savings by Rate Class 2009-20

RESIDENTIAL	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	258,079.22	505,604.05	505,604.05	504,460.54	473,728.87	376,734.40	329,319.42	328,284.86	261,911.86	261,911.86	226,227.74	226,163.96
2010 program year savings		176,590.03	342,383.94	339,889.64	338,947.24	313,908.64	212,305.16	203,069.68	203,069.68	202,309.39	110,021.76	94,821.57
2011 program year savings			259,175.22	518,350.44	518,350.44	516,845.59	478,543.89	401,921.62	348,519.16	347,791.33	390,852.95	256,088.29
2012 program year savings				170,805.38	341,610.75	341,610.75	338,452.83	294,604.99	250,166.72	212,667.03	212,435.90	195,367.90
2013 program year savings					248,315.58	491,100.50	482,576.25	436,701.23	418,741.67	396,720.77	388,462.75	386,783.92
2014 program year savings						495,314.93	981,394.01	935,729.84	806,637.26	778,701.35	768,088.02	765,931.12
2015-2020 Projected persisting savings							181,705.72	440,692.93	549,771.68	614,196.01	680,279.90	748,023.37
Total CDM Load Forecast Impact	258,079.22	682,194.08	1,107,163.21	1,533,506.00	1,920,952.88	2,535,514.81	3,004,297.28	3,041,005.14	2,838,818.02	2,814,297.73	2,776,369.02	2,673,180.14

GS<50kW	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	341,521.76	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	683,043.52	384,702.67	0.00	0.00	0.00
2010 program year savings		269,706.18	539,412.37	539,412.37	539,412.37	539,412.37	539,412.37	539,412.37	364,051.28	0.00	0.00	0.00
2011 program year savings			332,629.71	665,259.41	664,680.62	608,446.44	608,446.44	608,446.44	456,298.80	454,572.27	454,572.27	351,000.35
2012 program year savings				607,739.26	1,215,478.51	1,199,008.99	938,490.48	913,314.22	402,560.47	401,953.76	401,818.89	396,974.93
2013 program year savings					216,710.89	433,421.79	428,206.77	380,678.39	306,323.52	305,753.46	305,753.46	297,321.31
2014 program year savings						419,901.87	794,193.87	763,907.53	632,366.80	567,031.95	567,031.95	563,792.78
2015-2020 Projected persisting savings							135,731.63	634,636.32	1,396,645.71	2,234,487.26	3,140,094.37	4,106,990.41
Total CDM Load Forecast Impact	341,521.76	952,749.70	1,555,085.59	2,495,454.56	3,319,325.91	3,883,234.97	4,127,525.07	4,523,438.80	3,942,949.26	3,963,798.70	4,869,270.93	5,716,079.79

GS>50kW	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings	640,448.99	718,664.87	718,664.87	718,664.87	718,664.87	718,664.87	570,233.29	467,085.93	467,085.93	467,085.93	389,812.06	60,381.38
2010 program year savings		698,425.11	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	436,954.47	434,367.60	250,053.25	196,160.17
2011 program year savings			609,272.09	1,218,544.18	1,218,538.77	1,217,521.03	1,217,521.03	1,167,168.52	1,160,690.07	1,160,673.93	1,160,673.93	870,425.98
2012 program year savings				1,403,512.94	2,807,025.89	2,730,596.00	2,611,580.13	2,460,522.61	2,150,344.77	2,143,603.54	2,143,596.16	2,089,774.23
2013 program year savings					787,930.86	1,568,449.78	1,566,635.86	1,481,585.90	1,348,682.15	1,345,799.71	1,345,799.71	1,303,163.52
2014 program year savings						861,677.45	1,617,067.86	1,607,506.42	1,541,400.26	1,280,121.56	1,280,121.56	1,270,373.53
2015-2020 Projected persisting savings							601,192.68	2,213,426.86	4,332,683.14	6,668,578.40	9,180,607.31	11,862,293.23
Total CDM Load Forecast Impact	640,448.99	1,417,089.98	1,764,891.43	3,777,676.46	5,969,114.86	7,533,863.59	8,621,185.32	9,834,250.69	11,437,840.78	13,500,230.66	15,750,663.99	17,652,572.04

Large User	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings												
2010 program year savings												
2011 program year savings			617,444.25	1,234,888.50	1,234,888.50	1,234,679.72	1,234,679.72	1,234,679.72	1,232,534.87	1,232,534.87	1,232,534.87	1,109,829.11
2012 program year savings				306,737.13	605,058.58	596,959.27	585,723.40	585,723.40	555,454.95	554,735.62	554,735.62	548,992.51
2013 program year savings					648,214.23	1,296,428.47	1,296,428.47	1,226,040.36	1,215,624.02	1,212,866.61	1,212,866.61	1,172,079.91
2014 program year savings						53,722.56	99,363.61	99,363.61	96,073.34	96,058.72	96,058.72	95,286.28
2015-2020 Projected persisting savings							299,418.54	4,915,919.11	11,127,245.23	13,638,270.10	14,838,923.54	16,036,177.45
Total CDM Load Forecast Impact	0.00	0.00	617,444.25	1,541,625.62	2,488,161.31	3,181,790.02	3,515,613.73	8,061,726.20	14,226,932.39	16,734,465.92	17,935,119.36	18,962,365.26

Streetlighting	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2009 program year savings												
2010 program year savings												
2011 program year savings												
2012 program year savings				14,564.48	29,128.96	28,279.80	27,101.79	27,101.79	23,928.35	23,852.93	23,852.93	23,250.80
2013 program year savings					1,074,219.58	2,148,439.17	2,148,439.17	2,031,792.11	2,014,530.16	2,009,960.60	2,009,960.60	1,942,368.94
2014 program year savings												
2015-2020 Projected persisting savings												
Total CDM Load Forecast Impact	0.00	0.00	0.00	14,564.48	1,103,348.55	2,176,718.97	2,175,540.96	2,058,893.91	2,038,458.51	2,033,813.53	2,033,813.53	1,965,619.74

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
TOTAL LOAD FORECAST CDM ANNUAL CDM kWh IMPACTS	1,240,049.97	3,052,033.76	5,044,584.48	9,362,827.12	14,800,903.50	19,311,122.37	21,444,162.36	27,519,314.75	34,484,998.96	39,046,606.54	43,365,236.83	46,969,816.98

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UNDERTAKING NO. JT2.2

TO CONFIRM IF THERE IS NOTHING IN THE UTILITIES KINGSTON AGREEMENT THAT RELATES DIRECTLY OR INDIRECTLY TO KINGSTON HYDRO.

Response:

The only reference in the Utilities Kingston shareholder agreement that pertains to Kingston Hydro is as follows:

"2.1 The Shareholder hereby declares that the Corporation shall carry on the following businesses...the provision of management services to Kingston Hydro Corporation respecting the distribution and sale of electricity"

UNDERTAKING NO. JT2.3

TO EXPLAIN THE REDUCTION FROM THE $1 MILLION-PLUS BUDGET IN 2011 TO A SUBSTANTIALLY LOWER BUDGET ALL THE REMAINING YEARS.

Response:

The 2011 Budget included 10 additional staff, all of whom had budgeted time allocated towards the $1,064,654. These employees were not hired in 2011 and thus accounts for most of the $286,590 difference between the budget and the 2011 actuals, with a smaller remaining portion being due to the actual staff time allocations during that year.

In 2013, some of the new staff had been hired, and that combined with decreased time allocations to capital and recoverable work including the impact of the SOP development and training, resulted in the actuals rising to $905,164.

During the transition to IFRS accounting, a review of employee's allocations resulted in changes going forward to reflect the individuals time spent on capital projects particularly.

So notwithstanding that some of those 10 additional staff have since been hired, the allocations of their time, as well as that of all the other staff involved with capital and recoverable work, have been budgeted to reflect more appropriately the time that they are expected to spend on the capital work outlined in the Distribution System Plan and customer-recoverable work.

There is also an adjustment made for 2015 going forward, to reflect some staff time to be budgeted to the Supervision line on Appendix 2-JC from the Engineering line; this is simply due to an interpretation correction of the OEB description for account 5105.

UNDERTAKING NO. JT2.4

TO PROVIDE THE ORIGINAL AMOUNT FOR OPEBS.

Response:

The original amount for OPEBS expense was $39,000.

UNDERTAKING NO. JT2.5

TO PROVIDE THE IMPACT ON PILS FOR THE AFFECTED YEARS OF ALLOCATING THOSE THREE PIECES OF SOFTWARE TO CLASS 12 INSTEAD OF CLASS 50.

Response:

		Per updated Filing	Per Undertaking
Grossed Up PILS	2016	140,714	121,617
Grossed Up PILS	2017	175,049	140,287
Grossed Up PILS	2018	239,766	231,459
Grossed Up PILS	2019	293,765	315,626
Grossed Up PILS	2020	330,486	351,518

UNDERTAKING NO. JT2.6

RE: THE CHART FILED IN EVIDENCE, TO PROVIDE THE TWO ADDITIONAL COLUMNS REQUESTED.

Response:

The information requested has been provided for the years 2011 to 2016 in Attachment 1.

2011	City of Kingston Budget	City of Kingston Cost Allocated to Utilities Kingston	% of City of Kingston Allocated to Utilities Kingston	Allocation to Kingston Hydro	% of Utilities Kingston Charges Allocated to Kingston Hydro	Allocation to Utilities Kingston-Fibre Business	% of Utilities Kingston Charges Allocated to Fibre	Utilities Kingston - Gas Business	% of Utilities Kingston Charges Allocated to Gas	Utilities Kingston-Wastewater Business	% of Utilities Kingston Charges Allocated to Wastewater	Utilities Kingston-Water Business	% of Utilities Kingston Charges Allocated to Water
CAO	451,800	21,000	5%	-	0%	-	0%	4,200	20%	8,400	40%	8,400	40%
IS	6,632,988	1,116,703	17%	201,631	18%	-	0%	200,762	18%	357,837	32%	356,472	32%
Legal	1,444,949	79,000	5%	17,681	22%	-	0%	12,264	16%	24,528	31%	24,528	31%
Clerk's Department	1,785,640	15,735	1%	-	0%	-	0%	3,147	20%	6,294	40%	6,294	40%
Communications	1,344,625	97,500	7%	16,262	17%	-	0%	16,248	17%	32,495	33%	32,495	33%
Client Services	1,182,085	696,250	59%	152,946	22%	-	0%	179,290	26%	184,723	27%	179,290	26%
HR	2,955,331	181,867	6%	39,960	22%	8,730	5%	26,635	15%	53,271	29%	53,271	29%
Social Services Program	32,500	32,500	100%		0%		0%	6,500	20%	13,000	40%	13,000	40%
Finance	2,744,473	373,300	14%	36,129	10%	18,720	5%	63,690	17%	127,380	34%	127,380	34%
Total 2011	**18,574,390**	**2,613,855**	14%	**464,609**	18%	**27,450**	1%	**512,737**	20%	**807,929**	31%	**801,131**	31%

2012	City of Kingston Budget	City of Kingston Cost Allocated to Utilities Kingston	% of City of Kingston Allocated to Utilities Kingston	Allocation to Kingston Hydro	% of Utilities Kingston Charges Allocated to Kingston Hydro	Allocation to Utilities Kingston-Fibre Business	% of Utilities Kingston Charges Allocated to Fibre	Utilities Kingston - Gas Business	% of Utilities Kingston Charges Allocated to Gas	Utilities Kingston-Wastewater Business	% of Utilities Kingston Charges Allocated to Wastewater	Utilities Kingston-Water Business	% of Utilities Kingston Charges Allocated to Water
CAO	471,500	21,420	5%	-	0%	-	0%	4,284	20%	8,568	40%	8,568	40%
IS	6,916,528	1,139,037	16%	284,759	25%	-	0%	284,759	25%	284,759	25%	284,759	25%
Legal	1,520,075	80,580	5%	18,533	23%	-	0%	13,699	17%	24,174	30%	24,174	30%
Clerk's Department	1,830,935	16,050	1%	-	0%	-	0%	3,210	20%	6,420	40%	6,420	40%
Communications	1,463,668	99,450	7%	16,587	17%	-	0%	16,573	17%	33,145	33%	33,145	33%
Client Services	1,250,859	710,175	57%	163,340	23%	-	0%	120,730	17%	213,053	30%	213,053	30%
HR	3,144,169	185,504	6%	48,788	26%	14,284	8%	24,487	13%	48,973	26%	48,973	26%
Social Services Program	33,150	33,150	100%		0%		0%	6,630		13,260	40%	13,260	40%
Finance	2,889,120	380,766	13%	67,420	18%	12,281	3%	77,143	20%	111,961	29%	111,961	29%
Total 2012	**19,520,004**	**2,666,132**	14%	**599,428**	22%	**26,565**	1%	**551,514**	21%	**744,313**	28%	**744,313**	28%

2013	City of Kingston Budget	City of Kingston Cost Allocated to Utilities Kingston	% of City of Kingston Allocated to Utilities Kingston	Allocation to Kingston Hydro	% of Utilities Kingston Charges Allocated to Kingston Hydro	Allocation to Utilities Kingston-Fibre Business	% of Utilities Kingston Charges Allocated to Fibre	Utilities Kingston - Gas Business	% of Utilities Kingston Charges Allocated to Gas	Utilities Kingston-Wastewater Business	% of Utilities Kingston Charges Allocated to Wastewater	Utilities Kingston-Water Business	% of Utilities Kingston Charges Allocated to Water
CAO	477,546	21,848	5%	-	0%	-	0%	4,370	20%	8,739	40%	8,739	40%
IS	7,073,385	1,210,778	17%	301,715	25%	-	0%	298,778	25%	305,143	25%	305,143	25%
Legal	1,583,000	82,192	5%	18,904	23%	-	0%	13,973	17%	24,658	30%	24,658	30%
Clerk's Department	1,837,172	16,371	1%	-	0%	-	0%	3,274	20%	6,548	40%	6,548	40%
Communications	1,349,383	101,439	8%	16,919	17%	-	0%	16,904	17%	33,808	33%	33,808	33%
Client Services	1,300,723	724,378	56%	83,303	12%	-	0%	150,960	21%	245,057	34%	245,057	34%
HR	3,244,383	189,214	6%	49,763	26%	14,570	8%	24,976	13%	49,953	26%	49,953	26%
Social Services Program	32,500	32,500	100%					6,500	20%	13,000	40%	13,000	40%
Finance	2,995,625	388,381	13%	68,769	18%	12,526	3%	78,686	20%	114,200	29%	114,200	29%
Total 2013	**19,893,718**	**2,767,103**	14%	**539,374**	19%	**27,096**	1%	**598,421**	22%	**801,106**	29%	**801,106**	29%

2014	City of Kingston Budget	City of Kingston Cost Allocated to Utilities Kingston	% of City of Kingston Allocated to Utilities Kingston	Allocation to Kingston Hydro	% of Utilities Kingston Charges Allocated to Kingston Hydro	Allocation to Utilities Kingston-Fibre Business	% of Utilities Kingston Charges Allocated to Fibre	Utilities Kingston - Gas Business	% of Utilities Kingston Charges Allocated to Gas	Utilities Kingston-Wastewater Business	% of Utilities Kingston Charges Allocated to Wastewater	Utilities Kingston-Water Business	% of Utilities Kingston Charges Allocated to Water
CAO	479,714	22,285	5%	-	0%	-	0%	4,457	20%	8,914	40%	8,914	40%
IS	7,147,861	1,234,994	17%	307,750	25%	-	0%	304,753	25%	311,246	25%	311,246	25%
Legal	1,719,651	83,835	5%	19,282	23%	-	0%	14,252	17%	25,151	30%	25,151	30%
Clerk's Department	1,924,092	16,698	1%	-	0%	-	0%	3,340	20%	6,679	40%	6,679	40%
Communications	1,334,869	103,468	8%	17,257	17%	-	0%	17,242	17%	34,484	33%	34,484	33%
Client Services	1,296,731	738,866	57%	84,970	12%	-	0%	153,980	21%	249,958	34%	249,958	34%
HR	3,217,918	192,999	6%	50,759	26%	14,861	8%	25,476	13%	50,952	26%	50,952	26%
Social Services Program	34,489	34,489	100%		0%		0%	6,898	20%	13,796	40%	13,796	40%
Finance	3,048,868	396,149	13%	70,144	18%	12,777	3%	80,259	20%	116,484	29%	116,484	29%
Total 2014	**20,204,193**	**2,823,784**	14%	**550,161**	19%	**27,638**	1%	**610,657**	22%	**817,664**	29%	**817,664**	29%

2015	City of Kingston Budget	City of Kingston Cost Allocated to Utilities Kingston	% of City of Kingston Allocated to Utilities Kingston	Allocation to Kingston Hydro	% of Utilities Kingston Charges Allocated to Kingston Hydro	Allocation to Utilities Kingston-Fibre Business	% of Utilities Kingston Charges Allocated to Fibre	Utilities Kingston - Gas Business	% of Utilities Kingston Charges Allocated to Gas	Utilities Kingston-Wastewater Business	% of Utilities Kingston Charges Allocated to Wastewater	Utilities Kingston-Water Business	% of Utilities Kingston Charges Allocated to Water
CAO	489,077	22,750	5%	-	0%	-	0%	4,550	20%	9,100	40%	9,100	40%
IS	7,668,972	1,259,693	16%	310,459	25%	-	0%	288,136	23%	330,549	26%	330,549	26%
Legal	1,664,281	85,512	5%	19,668	23%	-	0%	11,117	13%	27,364	32%	27,364	32%
Clerk's Department	1,959,550	50,000	3%	-	0%	-	0%	10,000	20%	20,000	40%	20,000	40%
Communications	1,250,028	75,000	6%	12,509	17%	-	0%	12,498	17%	24,996	33%	24,996	33%
Client Services	1,300,457	753,643	58%	86,669	12%	-	0%	157,059	21%	254,957	34%	254,957	34%
HR	3,260,528	196,859	6%	51,538	26%	16,182	8%	25,828	13%	51,656	26%	51,656	26%
Social Services Program	34,490	34,490	100%		0%		0%	6,898	20%	13,796	40%	13,796	40%
Finance	3,153,573	405,171	13%	71,800	18%	13,032	3%	76,401	19%	121,969	30%	121,969	30%
Total 2015	**20,780,956**	**2,883,118**	14%	**552,642**	19%	**29,214**	1%	**592,486**	21%	**854,388**	30%	**854,388**	30%

2016	City of Kingston Budget (Forecast)	City of Kingston Cost Allocated to Utilities Kingston	% of City of Kingston Allocated to Utilities Kingston	Allocation to Kingston Hydro	% of Utilities Kingston Charges Allocated to Kingston Hydro	Allocation to Utilities Kingston-Fibre Business	% of Utilities Kingston Charges Allocated to Fibre	Utilities Kingston - Gas Business	% of Utilities Kingston Charges Allocated to Gas	Utilities Kingston-Wastewater Business	% of Utilities Kingston Charges Allocated to Wastewater	Utilities Kingston-Water Business	% of Utilities Kingston Charges Allocated to Water
CAO	468,650	23,433	5%	-	0%	-	0%	4,687	20%	9,373	40%	9,373	40%
IS	8,109,281	1,297,485	16%	319,772	25%	-	0%	296,780	23%	340,466	26%	340,466	26%
Legal	1,761,547	88,077	5%	20,258	23%	-	0%	11,450	13%	28,185	32%	28,185	32%
Clerk's Department	1,716,667	51,500	3%	-	0%	-	0%	10,300	20%	20,600	40%	20,600	40%
Communications	1,287,500	77,250	6%	12,885	17%	-	0%	12,873	17%	25,746	33%	25,746	33%
Client Services	1,338,366	776,252	58%	89,269	12%	-	0%	161,771	21%	262,606	34%	262,606	34%
HR	3,379,413	202,765	6%	53,084	26%	16,667	8%	26,603	13%	53,205	26%	53,205	26%
Social Services Program	35,525	35,525	100%		0%			7,105	20%	14,210	40%	14,210	40%
Finance	3,210,208	417,327	13%	73,954	18%	13,423	3%	78,693	19%	125,628	30%	125,628	30%
Total 2016	**21,307,156**	**2,969,614**	14%	**569,221**	19%	**30,091**	1%	**610,261**	21%	**880,019**	30%	**880,019**	30%

UNDERTAKING NO. JT2.7

TO POINT TO A SPECIFIC REFERENCE IN THE OPA REPORT THAT SUPPORTS THE REFERENCE THAT OPA-VERIFIED DEMAND SAVINGS ARE DEFINED FROM MAY THROUGH SEPTEMBER.

Response:

Kingston Hydro committed to Mr. Harper that it would provide the reference for our assertion that saveONenergy program Net Peak Demand Savings (kW) applicable to each rate class are only verified by the IESO to persist from May through September.

Reference:

4-VECC – 33
Excel Model: CDM Model_IRR 3-Staff 54 Attach 1_20150911

a) The notes in the CDM model "2011-2014 LRAM Summary" Tab state that "OPA Verified Demand Savings are defined as May-Sept, weekday savings". Please provide documentation supporting this statement.

From the definitions in the Master CDM Agreement executed between all Ontario LDCs and the IESO:

"**Peak Demand Savings**" means electricity peak demand savings determined pursuant to the OPA EM&V Protocols.

From ERII Schedule F, EM&V Protocols Section 3:

Demand Savings (kW) are the maximum reduction in electricity demand between the Base Case and the Energy Efficient Case occurring in the same hour between 11 a.m. to 5 p.m. on business days, May through October.

Kingston Hydro has not observed any Demand Response activations in October, and given weather in Kingston, the likelihood of demand impact savings (created typically by HVAC and demand response initiatives) is extremely low in the month of October. In order to be conservative, May through September is used.

UNDERTAKING NO. JT2.8

FOR MR. MURPHY TO AGREE OR NOT WHETHER THIS IS THE BOARD POLICY OR ACKNOWLEDGED THAT THIS IS BOARD POLICY.

Response:

Kingston Hydro acknowledges the following policy from the Report of the Board on the Cost of Capital for Ontario's Regulated Utilities dated December 11, 2009, "For debt that is callable on demand (within the test year period), the deemed long term debt rate will be a ceiling on the rate allowed for that debt."

UNDERTAKING NO. JT2.9

IF THERE ARE ANY FURTHER CHANGES DUE TO THE RESPONSES THROUGHOUT THE TECHNICAL CONFERENCE, THAT THE REVENUE-REQUIREMENT WORK FORMS FOR 2016 THROUGH '20 WOULD BE UPDATED TO REFLECT ANY SUCH CHANGE.

Response:

Updated live versions of the Revenue requirement work forms have been submitted for each year.

UNDERTAKING NO. JT2.10

TO PROVIDE IN A LIVE EXCEL SPREADSHEET THAT SHOWS THE CALCULATION OF THE 11,378,402.

Response:

Live Excel spreadsheet that shows the calculation of the 11,378,402 provided.

Projected Distribution Revenues for Test Year 2016 at Existing 2015 Rates

Reflects Revised Load Forecast

	2016 PROJECTED REVENUE FROM EXISTING 2015 VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	188,042,904	2,895,861	$0.00	-	0	2,895,861
General Service < 50 kW	$0.0106	kWh	86,732,020	919,359	$0.00	-	0	919,359
General Service 50 to 4999 kW	$2.0063	kW	745,973	1,496,646	($0.60)	283,450	(170,070)	1,326,576
Large Use	$1.0535	kW	278,065	292,941	($0.60)	94,045	(56,427)	236,515
Unmetered Scattered Load	$0.0141	kWh	1,196,145	16,866	$0.00	-	0	16,866
Street Lighting	$4.6750	kW	5,046	23,590	($0.60)	-	0	23,590
Standby Approved on an Interim Basis	$0.0000	kW	0	0	$0.00		0	0
TOTAL VARIABLE REVENUE				**5,645,263**		**377,495**	**(226,497)**	**5,418,767**

	2016 PROJECTED DISTRIBUTION REVENUE AT 2015 EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,157	3,640,943	2,895,861	6,536,804	55.70%	44.30%	57.45%
General Service < 50 kW	$25.8500	2,950	915,090	919,359	1,834,449	49.88%	50.12%	16.12%
General Service 50 to 4999 kW	$280.0900	337	1,132,684	1,326,576	2,459,260	46.06%	53.94%	21.61%
Large Use	$5,164.0000	3	185,904	236,515	422,419	44.01%	55.99%	3.71%
Unmetered Scattered Load	$11.5500	141	19,543	16,866	36,408	53.68%	46.32%	0.32%
Street Lighting	$1.0200	5,349	65,472	23,590	89,062	73.51%	26.49%	0.78%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**5,959,635**	**5,418,767**	**11,378,402**	52.38%	47.62%	100.00%

11,378,402

UNDERTAKING NO. JT2.11 (1)

TO PROVIDE A VERSION OF THE FIVE REVENUE REQUIREMENT WORK FORMS THAT SHOW THE DISTRIBUTION REVENUE AT CURRENT 2015 RATES, BUT REFLECT THE UPDATED FORECAST FOR EACH YEAR.

Response:

The updated RRWFs include 2015 rates with the respective load forecasts for each of the years 2016-2020.

UNDERTAKING NO. JT2.11 (2)

TO SHOW THE TOTAL 2014 BILLING COSTS THAT YOU ATTRIBUTE TO EACH CUSTOMER CLASS USING THEIR METHODOLOGY; TO PROVIDE THE ANSWER TO THE FOLLOWING QUESTION: INSTEAD OF USING 2016 CUSTOMER COUNTS, IF YOU WERE TO USE 2014 CUSTOMER COUNTS, WHAT WOULD HAVE BEEN THE TOTAL COST THAT WOULD HAVE BEEN ATTRIBUTED TO EACH CUSTOMER CLASS USING YOUR METHODOLOGY? AND TO PROVIDE THE TOTAL NUMBER OF BILLS PER CUSTOMER CLASS THAT WERE ISSUED IN 2014.

Response:

Attachment 1 provides the 2014 Billing Costs attributed to each customer class using Kingston Hydro methodology which used 2016 customer count forecast.

Attachment 2 provides the 2014 Billing Costs attributed to each customer class using Kingston Hydro methodology and using instead the 2014 customer counts.

The following table provides the total number of bills per customer class that were issued in 2014:

2014 BILLS ISSUED BY CUSTOMER CLASS

Customer Class	# of Bills
RESIDENTIAL	291,555
GS < 50 kW	36,864
GS 50 to 4999 kW	3,931
LARGE USE	36
USL	1,756
STREET LIGHTS	20
TOTAL	334,162

Billing and Collecting Weighting Factors

Billing
Credit
Cuts and Reconnects for Non Payment

Using 2016 Forecast — **KH Methodology - Rate Application Weightings**

Monthly Billing - All Customer Classes

Customers, 2016 Forecast

Vendor	Program	OEB #	Year 2014 Cost ($)	Residential	GS < 50	GS > 50	Large Use	Street Light	USL	27,590 Total Weighted Customers	Allocated Cost ($) per Customer: Residential	GS < 50	GS > 50	Large Use	Street Light	USL
				24,157	2,950	337	3	2	141							
Olameter	01402	5320	22,355	1.00	1.00	1.00	0.00	0.00	0.00	27,445	0.8145	0.8145	0.8145	0.0000	0.0000	0.0000
Internal equipment charges	74157	5320	75	0.00	0.00	1.00	0.00	0.00	0.00	337	0.0000	0.0000	0.2222	0.0000	0.0000	0.0000
Salaries and Wages	74157	5320	460	0.00	0.00	1.00	0.00	0.00	0.00	337	0.0000	0.0000	1.3661	0.0000	0.0000	0.0000
Salaries and Wages	01402	5320	62,564	1.00	1.00	1.00	0.00	0.00	0.00	27,445	2.2796	2.2796	2.2796	0.0000	0.0000	0.0000
Office Supplies	01402	5320	377	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0137	0.0137	0.0137	0.0137	0.0137	0.0137
Stores issues	01402	5320	29	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
CANADA POST - Postage & Shipping	01402	5320	16,938	1.00	1.00	1.00	1.00	0.00	0.00	27,448	0.6171	0.6171	0.6171	0.6171	0.0000	0.0000
UPPER CANADA OFFICE SYSTEMS	01402	5320	197	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071
Interest and service charges	01402	5320	3,269	1.00	1.00	1.00	0.00	0.00	0.00	27,445	0.1191	0.1191	0.1191	0.0000	0.0000	0.0000
Allocated administration	01402	5320	31,606	1.00	1.00	1.00	1.00	1.00	1.00	27,590	1.1456	1.1456	1.1456	1.1456	1.1456	1.1456
										0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total 5320		($)	**137,871**							Cost Per customer Annual #5320	**5.00**	**5.00**	**6.59**	**1.78**	**1.17**	**1.17**
										($) 137,871	120,735	14,745	2,220	5	2	164
										OK						
Salaries and Wages	01401	5315	120,432	1.00	1.00	1.00	1.00	1.00	1.00	27,590	4.3650	4.3650	4.3650	4.3650	4.3650	4.3650
Stores issues from inventory	01401	5315	261	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
CORPORATE EXPRESS	01401	5315	102	1.00	1.00	1.00	0.00	0.00	0.00	27,445	0.0037	0.0037	0.0037	0.0000	0.0000	0.0000
1420140 ONTARIO INC. (Communications & printing)	01401	5315	2,238	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0811	0.0811	0.0811	0.0811	0.0811	0.0811
ZYCOM TECHNOLOGY INC	01401	5315	387	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0140	0.0140	0.0140	0.0140	0.0140	0.0140
4 OFFICE AUTOMATION LTD.	01401	5315	433	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0157	0.0157	0.0157	0.0157	0.0157	0.0157
Dell	01401	5315	75	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027
TELUS MOBILITY	01401	5315	70	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026
CANADA POST - Postage and shipping	01401	5315	135,123	1.00	1.00	1.00	1.00	1.00	1.00	27,590	4.8975	4.8975	4.8975	4.8975	4.8975	4.8975
UTIL-ASSIST	01401	5315	7,704	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.2792	0.2792	0.2792	0.2792	0.2792	0.2792
NEPTUNE TECHNOLOGY GROUP (CANADA) LTD	01401	5315	84	1.00	1.00	1.00	1.00	0.00	0.00	27,448	0.0031	0.0031	0.0031	0.0031	0.0000	0.0000
Bell Canada	01401	5315	109	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040
STEWARDSHIP ONTARIO	01401	5315	415	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0150	0.0150	0.0150	0.0150	0.0150	0.0150
Other services	01401	5315	119	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043
Petty Cash			4	1.00	1.00	1.00	1.00	1.00	1.00	27,590	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
UTILISMART CORPORATION	01401	5315	48,000	0.00	0.00	1.00	1.00	0.00	0.00	340	0.0000	0.0000	141.1624	141.1624	0.0000	0.0000
JOMAR SOFTCORP INTERNATIONAL INC	01401	5315	980	1.00	1.00	0.00	0.00	0.00	0.00	27,108	0.0362	0.0362	0.0000	0.0000	0.0000	0.0000
										Cost Per customer Annual #5315	**9.73**	**9.73**	**150.86**	**150.86**	**9.69**	**9.69**
Total 5315		($)	**316,536**							($) 316,536	235,140	28,717	50,845	453	19	1,362
										OK						
Total Identified Cost		($)	**454,407**							($) 454,407	**355,875**	**43,462**	**53,065**	**458**	**22**	**1,526** i.
										OK						
										Annual Cost Per Customer	**14.73**	**14.73**	**157.45**	**152.64**	**10.86**	**10.86**
										Cost per Customer Bill	1.23	1.23	13.12	12.72	0.90	0.90 iii.
WEIGHTING FACTORS										Relative Per Bill Costs with Residential set to 1.0	1.00	1.00	10.69	10.36	0.74	0.74 iv.
										Default Weightings - 2011 COS Rate Application	1.0	2.0	7.0	15.0	1.0	5.0

	Residential	GS < 50	GS > 50	Large Use	Street Light	USL
2016 Custom IR Application - Billing and Collecting Weighting Factors	1.00	1.00	10.69	10.36	0.74	0.74

Billing and Collecting Weighting Factors

Using 2014 Customer# Actuals

Billing
Credit
Cuts and Reconnects for Non Payment

Monthly Billing - All Customer Classes

Customers, 2014 Actuals

Vendor	Program	OEB #	Year 2014 Cost ($)	Residential	GS < 50	GS > 50	Large Use	Street Light	USL	27,381 Total Weighted Customers	Allocated Cost ($) per Customer - Annual: Residential	GS < 50	GS > 50	Large Use	Street Light	USL
				23,853	3,051	325	3	2	147							
Olameter	01402	5320	22,355	1.00	1.00	1.00	0.00	0.00	0.00	27,229	0.8210	0.8210	0.8210	0.0000	0.0000	0.0000
Internal equipment charges	74157	5320	75	0.00	0.00	1.00	0.00	0.00	0.00	325	0.0000	0.0000	0.2304	0.0000	0.0000	0.0000
Salaries and Wages	74157	5320	460	0.00	0.00	1.00	0.00	0.00	0.00	325	0.0000	0.0000	1.4167	0.0000	0.0000	0.0000
Salaries and Wages	01402	5320	62,564	1.00	1.00	1.00	0.00	0.00	0.00	27,229	2.2977	2.2977	2.2977	0.0000	0.0000	0.0000
Office Supplies	01402	5320	377	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
Stores issues	01402	5320	29	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
CANADA POST - Postage & Shipping	01402	5320	16,938	1.00	1.00	1.00	1.00	0.00	0.00	27,232	0.6220	0.6220	0.6220	0.6220	0.0000	0.0000
UPPER CANADA OFFICE SYSTEMS	01402	5320	197	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0072	0.0072	0.0072	0.0072	0.0072	0.0072
Interest and service charges	01402	5320	3,269	1.00	1.00	1.00	0.00	0.00	0.00	27,229	0.1201	0.1201	0.1201	0.0000	0.0000	0.0000
Allocated administration	01402	5320	31,606	1.00	1.00	1.00	1.00	1.00	1.00	27,381	1.1543	1.1543	1.1543	1.1543	1.1543	1.1543
										0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total 5320		($)	**137,871**							Cost Per customer Annual #5320	**5.04**	**5.04**	**6.68**	**1.80**	**1.18**	**1.18**
										($) 137,871	120,150	15,368	2,172	5	2	173
										OK						
Salaries and Wages	01401	5315	120,432	1.00	1.00	1.00	1.00	1.00	1.00	27,381	4.3984	4.3984	4.3984	4.3984	4.3984	4.3984
Stores issues from inventory	01401	5315	261	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
CORPORATE EXPRESS	01401	5315	102	1.00	1.00	1.00	0.00	0.00	0.00	27,229	0.0038	0.0038	0.0038	0.0000	0.0000	0.0000
1420140 ONTARIO INC. (Communications & printing)	01401	5315	2,238	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0817	0.0817	0.0817	0.0817	0.0817	0.0817
ZYCOM TECHNOLOGY INC	01401	5315	387	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0141	0.0141	0.0141	0.0141	0.0141	0.0141
4 OFFICE AUTOMATION LTD.	01401	5315	433	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0158	0.0158	0.0158	0.0158	0.0158	0.0158
Dell	01401	5315	75	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027
TELUS MOBILITY	01401	5315	70	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026
CANADA POST - Postage and shipping	01401	5315	135,123	1.00	1.00	1.00	1.00	1.00	1.00	27,381	4.9349	4.9349	4.9349	4.9349	4.9349	4.9349
UTIL-ASSIST	01401	5315	7,704	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.2813	0.2813	0.2813	0.2813	0.2813	0.2813
NEPTUNE TECHNOLOGY GROUP (CANADA) LTD	01401	5315	84	1.00	1.00	1.00	1.00	0.00	0.00	27,232	0.0031	0.0031	0.0031	0.0031	0.0000	0.0000
Bell Canada	01401	5315	109	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040
STEWARDSHIP ONTARIO	01401	5315	415	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0151	0.0151	0.0151	0.0151	0.0151	0.0151
Other services	01401	5315	119	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044
Petty Cash			4	1.00	1.00	1.00	1.00	1.00	1.00	27,381	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
UTILISMART CORPORATION	01401	5315	48,000	0.00	0.00	1.00	1.00	0.00	0.00	328	0.0000	0.0000	146.3415	146.3415	0.0000	0.0000
JOMAR SOFTCORP INTERNATIONAL INC	01401	5315	980	1.00	1.00	0.00	0.00	0.00	0.00	26,904	0.0364	0.0364	0.0000	0.0000	0.0000	0.0000
										Cost Per customer Annual #5315	**9.81**	**9.81**	**156.11**	**156.11**	**9.76**	**9.76**
Total 5315		($)	**316,536**							($) 316,536	233,951	29,924	50,737	468	20	1,435
										OK						
Total Identified Cost		($)	**454,407**							($) 454,407	**354,101**	**45,293**	**52,909**	**474**	**22**	**1,608**
										OK						
										Annual Cost Per Customer	**14.85**	**14.85**	**162.80**	**157.91**	**10.94**	**10.94**
										Cost Per Customer Bill	1.24	1.24	13.57	13.16	0.91	0.91
WEIGHTING FACTORS										Relative Per Bill Costs with Residential set to 1.0	1.00	1.00	10.97	10.64	0.74	0.74

Default Weightings 2011 COS Rate Application	1.00	2.00	7.00	15.00	1.00	5.00
Using 2014 Customer Numbers - Billing and Collecting Weighting Factors	1.00	1.00	10.97	10.64	0.74	0.74

UNDERTAKING NO. JT2.12

TO CALCULATE, TYING IN THE LARGE USE AND THE RESIDENTIAL, WHAT WOULD BE THE PROPOSED REVENUE-TO-COST RATIOS THAT THE RESIDENTIAL AND LARGE USE CUSTOMERS WERE CONSTRAINED TO BE EQUAL TO ONE ANOTHER FOR 2016 ONLY.

Response:

Proposed revenue-to-cost ratios, if the residential and large use customers were constrained to be equal to one another for 2016 only are provided in the following summary table:

D) Proposed Revenue-to-Cost Ratios - Large Use and Residential constrained to be equal for 2016 only

Class	Proposed Revenue-to-Cost Ratios					Policy Range
	2016	2017	2018	2019	2020	
	%	%	%	%	%	%
Residential	**97.37**	97.40	97.57	98.13	98.83	85 - 115
GS < 50 kW	120.00	118.78	117.99	117.46	116.70	80 - 120
GS 50 to 4,999 kW	98.61	98.67	98.67	98.12	97.29	80 - 120
Large User	**97.37**	100.20	99.42	95.34	91.94	85 - 115
Street Lighting	60.50	64.86	69.83	75.07	80.00	80 - 120
Unmetered Scattered Load (USL)	120.00	118.78	117.77	117.77	117.14	80 - 120
Standby Approved on an Interim Basis						0
						0
0						

Note: The above reflects CA 3.3 version updated for working capital allowance (lead/lag study results) and PILs.

UNDERTAKING NO. JT2.13

TO CALCULATE HOW QUICKLY YOU CAN GET TO 80 PERCENT WITHOUT GOING OVER THE 10 PERCENT.

Response:

Revenue to cost ratios based on a 3-year phase in of the street light customer class to the bottom of the target range is provided in the table below.

Rebalanced Revenue-to-Cost Ratios - 3 Year Phase-In Street Lights

Class	Rebalanced Revenue-to-Cost Ratios					Policy Range
	2016	2017	2018	2019	2020	
	%	%	%	%	%	%
Residential	0.97	0.97	0.98	0.98	0.99	85 - 115
GS < 50 kW	1.20	1.19	1.17	1.17	1.17	80 - 120
GS 50 to 4,999 kW	0.99	0.99	0.99	0.98	0.97	80 - 120
Large User	0.96	0.98	0.98	0.94	0.90	85 - 115
Street Lighting	**0.64**	**0.71**	**0.80**	0.80	0.81	80 - 120
Unmetered Scattered Load (USL)	1.20	1.19	1.17	1.18	1.18	80 - 120
Standby Approved on an Interim Basis						

Attachment 1 provides the street lighting customer class bill impact based upon the above 3-year phase in.

UNDERTAKING NO. JT2.14

TO PROVIDE THAT TABLE FOR THE FULL FIVE YEARS, 2016 THROUGH 2020, RE: HAVING PREVIOUSLY ANSWERED THE QUESTION FOR 2016, CURRENT RATES AND BASED ON UPDATED RATES THAT SIA ASKED YOU FOR.

Response:

Please see updated table for 2016-2020.

	Current Rates	Updated Rates
2016	499,664	542,401
2017	506,587	549,324
2018	502,944	545,680
2019	513,036	555,773
2020	523,363	566,099
Total	**2,545,594**	**2,759,276**

UNDERTAKING NO. JT2.15

TO PROVIDE WHAT YEAR-END THAT $1,686,706 IS FOR, AND ALSO SHOW THE DEPRECIATION EXPENSE FOR EACH OF 2011 THROUGH 2015?

Response:

Kingston Hydro confirms that the entry on Appendix 2S in 9-Staff-98 reflects the stranded meter costs and accumulated depreciation as at December 31, 2010. The entry to remove these costs from account 1860 was perfomed during 2011.

The depreciation expense for each of 2011 through 2015 would have been:

2011	2012	2013	2014	2015
139,445	132,867	118,707	111,727	98,588

UNDERTAKING NO. JT2.16

TO TAKE A LOOK AT THE NUMBERS IN THE PREVIOUS AND UPDATED SCHEDULES TO MAKE SURE IT IS CORRECTED FOR.

Response:

The $45,000 difference referred to by Ms. Sabharwal in the technical conference is the difference between the amortization of the contributions and grants for 2014 under the old useful lives and the new useful lives for 2014 (Appendix 2-BA). This $44,513 difference is included in the calculation of the principal amount to be repaid to customers which totals $3,452,751.

Due to the fact the balance recoverable from customers in account 1575 is $60,312 and is below the materiality threshold, Kingston Hydro has proposed that the balance in account 1575 be offset with the balance in 1576 for the purposes of disposition and the calculation of the respective rate rider.

The $60,312 plus the $2,145, which totals $62,457, matches Appendix 2-BA that was submitted and also matches the calculation of 1575 submitted with 9-Staff-103.

UNDERTAKING NO. JT2.17

TO CONFIRM THAT THE CAPITAL COSTS AND OM&A COSTS FOR THOSE METERS ARE NOT BEING RECOVERED IN THIS APPLICATION OR WHETHER A PORTION IS RECOVERED.

Response:

The 73 smart meters that failed under warranty were accounted for once and were included in the application respecting smart meter costs (EB-2011-0178). Those meters are now in rate base but are not otherwise included in the current application.

UNDERTAKING NO. JT2.18

TO TAKE A BIT OF A CLOSER LOOK AND TRY TO GIVE A LITTLE BIT OF AN UNDERSTANDING OF WHAT IS BEING DONE WITH THIS VARIANCE ACCOUNT.

Response:

Kingston Hydro bills customers on non-RPP rates (Global Adjustment for Class B) on a monthly basis using the 1st estimate rate provided by the IESO. Class A customers are billed on a monthly basis based on the peak demand factors. Kingston Hydro records a revenue accrual related to unbilled kWh's for the Global Adjustment. These revenues are reported in accounts 4006-4055.

Global Adjustment for Class B is billed monthly to Kingston Hydro from the IESO. Global Adjustment Class A is also billed to Kingston Hydro from the IESO based on consumption reported to the IESO "Embedded Generation and Class A Load Information" for the current settlement period. These expenses are recorded in account 4707-Charges Global Adjustment.

Also as part of the settlement process with the IESO, Kingston Hydro settles the Global Adjustment amounts for RPP customers. The settlement is done by multiplying the current period's consumption billed to RPP customers by the 2nd estimate provided from the IESO. Kingston Hydro settles up the previous months billed RPP consumption by adjusting the difference using actual Global Adjustment rates provided by the IESO to settle up the previous month's consumption to the actual final global adjustment rate. Kingston Hydro also calculates an accrual for the

settlement of unbilled kWh's for RPP customers. These expenses are also recorded in account 4707-Charges Global Adjustment.

As requested subsequent to the Technical Conference, Kingston Hydro has agreed to provide the Audit Report referred to on page 83 of the transcript.

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April 16, 2014

Ms. Nancy Taylor
Corporate Secretary
Kingston Hydro Corporation
1211 John Counter Blvd.
P.O. Box 790
Kingston, Ontario
K7L 4X7

Dear Ms. Taylor:

Re: Audit of Group 1 and Group 2 Deferral and Variance Accounts

By letter dated July 29, 2013, the Audit and Performance Assessment group ("Audit") of the Ontario Energy Board (the "Board") notified Kingston Hydro Corporation ("Kingston Hydro") that Audit would audit Kingston Hydro's Group 1and Group 2[1] Deferral and Variance Accounts ("DVAs") as at December 31, 2012.

Audit focused on the review of Group 1 DVAs from January 1, 2012 to December 31, 2012 and the review of Group 2 DVAs from January 1, 2010 to December 31, 2012. The objective of this audit was to examine Kingston Hydro's DVA balances for material accuracy and determine whether accounting policies and procedures for these accounts were properly and consistently applied and reported to the Board in accordance with Accounting Procedures Handbook ("APH"), Reporting and Record-keeping Requirements ("RRR"), and related guidelines. Audit examined entries in the Group 1 and Group 2 DVA account balances since the last time these account balances were disposed.

A final report based on Audit's review (the "Report") has now been completed. The Report outlines the review's objective, scope, criteria, procedures used, findings, basis of finding, areas of non-conformity requiring action, management responses, and management action plans for Kingston Hydro.

Kingston Hydro has made the necessary adjustments to the Group 1 and Group 2 DVAs as at December 31, 2012 as a result of the audit findings.

To ensure that the audit procedural findings related to DVAs as outlined in the Report are properly and consistently addressed and the required action plans are implemented by

[1] Please refer to the July 31, 2009 *Report of the Board on Electricity Distributors' Deferral and Variance Account Review Initiative (EDDVAR)* [EB-2008-0046] for classification and descriptions of Group 1 and Group 2 accounts.

Kingston Hydro, Audit will be conducting a follow up in the future.

During this audit process, when Audit used the information provided by Kingston Hydro's management, Audit relied on Kingston Hydro's management representation, where appropriate as audit evidence in performing the audit and arriving at its conclusions and findings.

The findings and observation in the Report represent the views of Audit and are not necessarily the views of the Board as a whole. Audit provides no assurances that addressing the areas of non-conformity requiring actions alone will resolve the issues identified in the audit.

The findings and observation of the audit will be reported to the Board and may also ultimately be used as evidence in a future Kingston Hydro proceeding before the Board.

We thank the staff of Kingston Hydro for the assistance and support provided to us during this audit.

Yours truly,

Daria Babaie, *P. Eng., CMA*
Manager, Audit and Performance Assessment
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Cc : Mr. Mark Gerretsen, Chair
Mr. James Keech, President & CEO
Mr. Randy Murphy, CFO
Ms. Kate Tindal, Manager of Finance

ONTARIO ENERGY BOARD

AUDIT REPORT

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Audit of Deferral and Variance Accounts
Kingston Hydro Corporation

Audit and Performance Assessment
April 2014

Audit of Deferral and Variance Accounts
Kingston Hydro Corporation
April 2014

Executive Summary

The Ontario Energy Board (the "Board") authorized an audit of Kingston Hydro Corporation's ("Kingston Hydro") Group 1 and Group 2 Deferral and Variance Accounts ("DVAs").

The audit was conducted by the Board's Audit and Performance Assessment department ("Audit") between January and March 2014.Audit focused on the account balances in Kingston Hydro's Group 1 and Group 2 DVAs as of December 31, 2012.

Group 1 DVA audit was conducted from July, 2013 to January 2014. Group 2 DVA audit was conducted from February to April 2014.

Audit concluded that some of the balances in Kingston Hydro's Group 1and Group 2 DVAs as of December 31, 2012 were not accurately recorded in Kingston Hydro's general ledger ("GL"), and not accurately reflected in the Board's Reporting and Record Keeping Requirements ("RRR") 2.1.7 (Annual Trial Balance Filing) for 2012. In addition, Audit has noted that Kingston Hydro has not followed some of the accounting procedures as prescribed in the Accounting Procedures Handbook ("APH") and its related guidance in recording the transaction in the DVAs.

During this audit process, when Audit used the information provided by Kingston Hydro's management, Audit relied on Kingston Hydro's management representation, where appropriate as audit evidence in performing the audit and arriving at its conclusions and findings.

The audit findings are found in Sections 8 and 9 of this audit report ("Audit Report"). The observation is found in Section 10 of this Audit Report. Audit noted that as a result of the audit, Kingston Hydro has made adjustments to its Group 1 balances as of December 31, 2012 for a total debit amount of approximately $324,730. Kingston has also made adjustments to its Group 2 balances as of December 31, 2012 for a total debit amount of approximately $1,528,289.

Audit notes that Kingston Hydro filed its 2014 IRM rate application EB-2013-0146 on November 1, 2013. As disclosed in the pre-filed evidence[1], Kingston Hydro stated the following:

> In July 2013, the Ontario Energy Board ("OEB") advised Kingston that the Audit and Accounting group ("Audit") would review Kingston's DVA Group 1 balances

[1] EB-2013-0146 Tab 2 Manager's Summary Pages 10-12

as at December 31, 2012. Kingston Hydro worked closely with Audit from July 29, 2013 (August 9 first set of questions received) to November 01, 2013 regarding the review of DVA Group 1 balances….

…Per the DVA Group 1 audit work, Audit required Kingston to make adjustments in 2012 for its December 31, 2012 balances to accounts 1550, 1588, and 1589. As well an adjustment to 1595 (2012) so that the approved principal balance transfer in 2012 IRM for Account 1562 clearance to 1595 was accurately reflected. The combined impact on the Group 1 DVA balances as at December 31, 2012 is a debit of approximately $324,730….

…Table 7 below illustrates the Group 1 DVA balances originally filed as part of RRR 2.1.7 April 30, 2013 and the revised Group 1 DVA balances as a result of the Group 1 DVA audit performed by Audit.

Table7:Group1Deferral&VarianceAccountBalances

Deferral and Variance Account	Account No.	Original balances as at December 31, 2012	Adjustment asaresultofGroup1 DVA Audit	Revised Balances as at December 31, 2012
Low Voltage	1550	$ 465,637	$ (47,363)	$ 418,274
Wholesale Market Service Charge	1580	$ (2,421,542)		$ (2,421,542)
Retail Transmission Network Charge	1584	$ 779,539		$ 779,539
Retail Transmission Connection Charge	1586	$ 677,996		$ 677,996
Power	1588	$ (214,816)	$ 92,527	$ (122,289)
Power-Global Adjustment	1589	$ 5,160,084	$ 279,566	$ 5,439,650
Disposition and Recovery/Refund of Regulatory Balances(2010)	1595	$ (238,889)		$ (238,889)
Total Balance		$ 4,208,009	$ 324,730	$ 4,532,739

Audit notes that Kingston Hydro's 2014 IRM rate application reflected all adjustments that were made by Kingston Hydro in its regulatory books of accounts as a result of this audit. Audit also notes that Kingston Hydro has made all necessary adjustments for the Group 2 DVAs as a result of this audit.

Audit expects that Kingston Hydro will apply the audit findings of Group 2 DVAs to its Group 2 DVA balances as at December 31, 2013 and disclose the audit in its next Cost of Service ("CoS") rate application.

Findings Summary

Findings Impacting DVA balances

1. Kingston Hydro did not generate an accrual of unbilled kWh at any month-end or any year-end when generating the IESO Form 1598 filings. As a result, the December 31, 2012 balance in Account 1588 was overstated by a credit amount of

approximately ($93,000). The Account 1589 balance as at December 31, 2012 was understated by a debit amount of approximately $280,000.

2. Kingston Hydro did not generate an accrual of unbilled low voltage ("LV") revenue at any month-end or any year-end. As a result, the debit balance in Account 1550 as at December 31, 2012 was overstated by a debit amount of approximately $47,000.

3. Wholesale market prices were not used in the calculation of the claim for IESO Charge Type 1412, Feed in Tariff Program, rather RPP prices were used. As a result, the balance in Account 1588 was overstated by a debit amount of approximately $51,000 as at December 31, 2012.

4. Kingston Hydro transferred a principal balance of ($491,090) to Account 1595 to clear the Account 1562 balance approved in 2012 IRM EB-2011-0178. However, the approved principal balance was ($499,526) for Account 1562. As a result the balance in Account 1595 (2012) was understated by a credit amount of ($8,436). A misstatement of the balance in Account 1595 (2012) would have resulted in an immaterial amount of over-collections from the customers in excess of the Board approved amount.

5. Kingston Hydro incorrectly used Account 2405 to record a liability related to the future tax assets for its capital assets. As a result, the balance for Account 2405 was misstated by approximately $1,547,582 as at December 31, 2012.

6. Kingston Hydro incorrectly recorded the PST saving on capital expenditures in Account 1592 Sub-account HST/OVAT ITCs. In addition, Kingston Hydro did not set up a carrying charge sub-account and hence did not accrue any carrying charges for the account. As a result, the credit balance in Account 1592 Sub-account HST/OVAT ITCs may be overstated by approximately $98,360.

7. Kingston Hydro over-charged retailers with an approximately $8,780 on the fixed charge as of December 31, 2012. As a result, Account 1518 RCVA Retail was overstated by a credit balance of $8,780.

7. Kingston Hydro recorded an approximately an amount of $13,595 incremental cost related to the non rate-regulated retail business in Account 1518 RCVA Retail and an amount of $14,479 incremental cost related to the non rate-regulated retail business in Account 1548 STRfrom January 1, 2010 to December 31, 2012. As a result, the debit balance for Account 1518 was overstated by $13,595 and the debit balance for Account 1548 was overstated by $14,479.

Findings Related to DVAs' Accounting Procedures

1 Kingston Hydro incorrectly recorded the global adjustment revenue in Account 4050, Revenue Adjustment rather than allocating it to sub-accounts of the respective power revenue accounts – Account 4006 to Account 4055.

2 Kingston Hydro incorrectly grouped all power revenue related to Account 1588 together in Account 4006 in the GL rather than allocating it to the respective power revenue accounts – Account 4006 to Account 4055.

3 Kingston Hydro did not follow the APH in using separate sub-accounts of Account 1595 (2011) and Account 1595 (2012) to record the carrying charges that were approved for disposition in Board Decisions EB 2010-0136 and EB-2011-0178. Rather, Kingston Hydro incorrectly grouped these amounts with the monthly carrying charges calculated on the net principal balances in Account 1595 (2011) and Account 1595 (2012).

4 Kingston Hydro did not follow APH Article 490 in recording the variance in Account 1518 RCVA Retail and Account 1548STR. Kingston Hydro did not set up expense accounts dedicated to record the expense incurred in the provision of Retail and STR services.

Observation Summary

1 As of December 31, 2013, Kingston Hydro underspent the expenditures by approximately $418,257 for the Incremental Capital Module ("ICM") projects approved by the Board in its 2012 IRM Board Decision and Order EB-2011-0178.

1. Background

Kingston Hydro is wholly owned by the Corporation of the City of Kingston. It serves more than 26,000 customers in the City of Kingston. In addition to the City of Kingston, Kingston Hydro is also affiliated with Utilities Kingston, which is 100% owned by the City of Kingston. Utilities Kingston manages and operates water, sewer, gas, electricity and fibre optic utilities directly or through management agreements with the City of Kingston. [2]Utilities Kingston provides management and operations services to Kingston Hydro.

Kingston Hydro's approved revenue requirement was $12,662,924 in its 2011Cost of Service proceeding EB-2010-0136.

2. Authority for Audit

To the extent that this audit required Kingston Hydro to provide documents, records or information, Audit acted under its inspection powers under Part VII of the *Ontario Energy Board Act, 1998*.

During the IRM plan term, the Board decided that the revised Group 1 Account balances would be reviewed and that a pre-set disposition threshold of $0.001/kWh (debit or credit) would trigger their disposition. The Board decided that at the time of rebasing all account balances should be reviewed and disposed of unless otherwise justified by the distributor or as required by a specific Board decision or guidance. The Board also required that the distributors bring all account balances, including Group 2 DVAs at the time of rebasing. [3]

To assist the Board in discharging its responsibilities related to DVAs, Audit initiated an audit of Kingston Hydro's account balances in the Group 1and Group 2 DVAs as of December 31, 2012, to mitigate the risk associated with an incorrect disposition of these account balances.

3. Reason for Audit

The Board's audit function is a regulatory instrument of the Board to ensure that the regulated licensed entities conform to the APH and the Board's issued regulatory accounting guidelines and policies.

The Board requires electric utilities to report certain information to the Board at specific intervals. The Board relies on this information for industry monitoring, replying to

[2] Per Kingston Hydro 2011 CoS rate application evidence filed with the Board, Page 92
[3] July 31, 2009 Report of the Board on Electricity Distributors' Deferral and Variance Account Review Initiative (EDDVAR) (EB-2008-0046)

stakeholders' requests, assisting in the review of applications and many other purposes. The DVA balance information is important to the Board, as it assists the Board in ensuring that accurate amounts are cleared through rates to customers. It is important that distributors file information that is complete, accurate and on time.

4. Objectives

The objective of the audit of Kingston Hydro was to review the Group 1 and Group 2 DVA balances as at December 31, 2012. The audit was conducted to determine whether regulatory accounting policies and procedures of these accounts were properly and consistently applied in accordance with the APH, RRR, and Board Orders.

5. Scope

The scope of the audit was limited to a review of the balances in Kingston Hydro's Group 1 DVAs from January 1, 2012 to December 31, 2012 and a review of the balances in Kingston's Group 2 DVAs from January 1, 2010 to December 31, 2012. Specifically, Audit reviewed the transactions, on a sample basis, for:

- All Group 1 DVAs included Account 1550, Account 1580, Account 1584, Account 1586, Account 1588, Account 1589 and Account 1595 from January 1, 2012 to December 31, 2012; and
- Group 2 DVAs included Account 1508, Account 1518 & Account 1548, Account 1592 and Account 2405 from January 1, 2010 to December 31, 2012.

6. Criteria

Audit relied on the following documents to establish the criteria to perform the audit testing:

1) APH Article 220 and Article 490
2) APH Frequent Asked Questions ("FAQs")July 2012
3) APH FAQs December 2010
4) APH FAQs October 2009
5) Kingston's 2010 IRM Board Decision and Order EB-2009-0201
6) Kingston's 2011 CoS Board Decision and Order EB-2010-0136
7) Kingston's 2012 IRM Board Decision and Order EB-2011-0178
8) Kingston's 2013 IRM Board Decision and Order EB-2012-0142
9) RRR 2.1.7

7. Procedures Used

Audit employed the following procedures as part of the Audit: enquiry, observation, analytical procedures, review of information and materials provided by Kingston Hydro's management or available to the Board from filings made under the Board's Electricity RRR filings, and discussion with Kingston Hydro's management.

8. Findings Impacting DVA balances

8.1.1 Finding 1

Kingston Hydro did not generate an accrual of unbilled kWh at any month-end or any year-end when generating the IESO Form 1598 filings. As a result, the December 31, 2012 balance in Account 1588 was overstated by a credit amount of approximately ($93,000). The Account 1589 balance as at December 31, 2012 was understated by a debit amount of approximately $280,000.

8.1.2 Basis for Finding

Kingston Hydro did not generate an accrual of unbilled kWh at any month-end or any year-end when generating the Form 1598 filings[4]. The RPP kWh used in the calculation of RPP kWh * [RPP – (HOEP + GA)][5] as at December 31, 2012 was understated. This understatement caused the RPP-HOEP adjustments and the GA adjustments to be understated. This understatement also impacted the balances in Account 1588 and Account 1589 as at December 31, 2012.

The lack of accrual of unbilled kWh at period-end is not in conformity with the APH. As per page 19 of Article 490 of the APH, distributors must match revenue accrued in the electricity sales accounts to charges recorded in accounts 4705 and 4707:

> With respect to the RSVA Power account, a distributor will include accruals for monthly unbilled estimates in Sales of Electricity (Accounts 4006 to 4055, as applicable) and monthly accruals for amounts not yet invoiced by the IESO, host distributor or embedded generator for Power Purchased. The distributor must ensure a proper matching of the billed amounts recorded in the electricity sales accounts to those charges recorded in Account 4705.

[4] Per Kingston Hydro's September 23, 2013 Response to a Request for Information
[5] The formula of RPP kWh * [RPP – (HOEP + GA)] forms the basis of the Form 1598 filings

As a result of this audit, Kingston made adjustments to Account 1588 and Account 1589 to reflect the accrual of unbilled kWh and its impact on IESO Form 1598 as at December 31, 2012.[6]

The December 31, 2011 balances of Account 1588 and Account 1589 (formerly referred to as Account 1588 sub-account Global Adjustment) were cleared on a final basis in 2013 IRM, EB-2012-0142. However, Kingston did not make an accrual for the unbilled kWh and its impact on IESO Form 1598 as at December 31, 2011. Rather the impact on the IESO Form 1598 filing of these kWh that flowed in 2011 were incorporated into the 2012 Account 1588 and Account 1589 balances. As a result of this Audit, adjustments were made to remove the impact of these kWh that flowed in 2011 on the December 31, 2012 balances in order to avoid retroactive ratemaking. Kingston Hydro made adjustments to credit Account 1588 by approximately $1.72 million and debit Account 1589 by approximately $1.72 million.

Audit notes that Kingston Hydro has corrected the RRR 2.1.7 reporting with the Board.

8.1.3 Area of Non-Conformity Requiring Action

Kingston Hydro should have booked an accrual of unbilled kWh at each month-end and year-end when generating the IESO Form 1598 filings. Going forward, Kingston Hydro should follow Article 490 of the APH. Kingston Hydro should accrue unbilled kWh and reflect its impact on the IESO Form 1598 filings and associated Uniform System of Accounts at each month-end.

8.1.4 Management Response

Kingston Hydro agrees with Finding 1 and has made the adjustments requested by Audit.

8.1.5 Management Action Plan

Kingston Hydro will book an accrual for the unbilled kWh and its impact on IESO Form 1598 each month end and reflect its impact on the associated Uniform System of Accounts at each month-end.

8.2.1 Finding 2

Kingston Hydro did not generate an accrual of unbilled low voltage ("LV") revenue at any month-end or any year-end. As a result, the debit balance in

[6]The December 31, 2012 balance in Account 1588 was overstated by a credit amount of approximately ($93,000). The Account 1589 balance as at December 31, 2012 was understated by a debit amount of approximately $280,000.

Account 1550 as at December 31, 2012 was overstated by a debit amount of approximately $47,000.

8.2.2 Basis for Finding

Kingston Hydro did not generate an accrual of unbilled low voltage ("LV") revenue at any month-end or any year-end[7]. The lack of accrual of unbilled LV revenue understated the LV revenue reported as at December 31, 2012. The lack of accrual of unbilled LV revenue at period-end is not in conformity with the APH. As per page 24 of Article 490 of the APH, distributors are to record accruals on a monthly basis to Account 4750:

> **Account 1550, LV Variance Account**
> On a monthly basis, this account shall be used to record the net of:
> i) the amount charged by a host distributor to an embedded distributor for transmission or low voltage services, Account 4750, including accruals
> AND
> ii) the amount billed to the embedded distributor's customers based on the embedded distributor's latest approved rate(s), Account 4075, including accruals.

Furthermore, Article 220 of the APH regarding Account 4075, Billed – LV, states that accruals are to be made for monthly unbilled estimates:

> **4075 Billed - LV**
> This account shall be used by an embedded distributor to record amounts billed to its customers for transmission or low voltage charges. This account shall include accruals for monthly unbilled estimates. The embedded distributor must ensure a proper matching of the billed amounts recorded in Account 4075 to those charges recorded in Account 4750.

Audit notes that Kingston Hydro has since made the necessary audit adjustments, and has corrected the RRR 2.1.7 reporting with the Board.

8.2.3 Area of Non-Conformity Requiring Action

Kingston Hydro should have booked an accrual of unbilled LV revenue at each month-end and year-end. Going forward, Kingston Hydro should follow Article 490 of the APH. Kingston Hydro should accrue unbilled LV revenue on a monthly basis and reflect its impact on the variance recorded in Account 1550.

[7]Per conference call with Kingston Hydro on October 10, 2013 and review of Account 1550 Excel continuity schedule sent by Kingston Hydro August 23, 2013

8.2.4 Management Response

Kingston Hydro agrees with Finding 2.

8.2.5 Management Action Plan

Commencing September 2013, Kingston Hydro accrued unbilled LV revenue on a monthly basis and reflects its impact on the variance recorded in 1550 in accordance with Article 490 of the APH.

8.3.1 Finding 3

Wholesale market prices were not used in the calculation of the claim for IESO Charge Type 1412, Feed in Tariff Program, rather RPP prices were used. As a result, the balance in Account 1588 was overstated by a debit amount of approximately $51,000 as at December 31, 2012.

8.3.2 Basis for Finding

Wholesale market prices were not used in the calculation of the claim for IESO Charge Type 1412, Feed in Tariff Program, rather RPP prices were used.[8] This is contrary to the July 2012 APH FAQ #16 and the credit balance in Account 1588 was overstated by approximately $51,000 as at December 31, 2012.

As per the July 2012 APH FAQ #16, electricity distributors should record amounts attributable to Charge Type 1412 "Feed-In Tariff Program Settlement Amount" in Account 4705. Ultimately, the net result should be that the distributor pays the wholesale market prices (or spot price) on settlement for the electricity it receives from an embedded generator and/or supplier under a FIT contract. Distributors are to use wholesale market prices in the calculation of the claim for IESO Charge Type 1412.

Audit notes that Kingston Hydro has since made the necessary audit adjustments, and has corrected the RRR 2.1.7 reporting with the Board.

8.3.3 Area of Non-Conformity Requiring Action

Wholesale market prices should have been used in the calculation of the claim for IESO Charge Type 1412, Feed in Tariff Program, instead of RPP prices. Going forward, Kingston Hydro should follow the July 2012 APH FAQ # 16. Kingston Hydro should use

[8] Per Kingston Hydro's September 23, 2013 Response to a Request for Information and review of the September and December 2012 Feed-In Tariff Program filings sent by Kingston Hydro on September 12, 2013

wholesale market prices in the calculation of the claim for IESO Charge Type 1412 and not RPP prices.

8.3.4 Management Response

Kingston Hydro agrees with Finding 3.

8.3.5 Management Action Plan

Commencing August 2013, Kingston Hydro used wholesale market prices in the calculation of the claim for IESO Charge Type 1412 and not RPP prices following the July 2012 APH FAQ # 16.

8.4.1 Finding 4

Kingston Hydro transferred a principal balance of ($491,090) to Account 1595 to clear the Account 1562 balance approved in 2012 IRM EB-2011-0178. However, the approved principal balance was ($499,526) for Account 1562. As a result the balance in Account 1595 (2012) was understated by a credit amount of ($8,436).A misstatement of the balance in Account 1595 (2012) would have resulted in an immaterial amount of over-collections from customers in excess of the Board approved amount.

8.4.2 Basis for Finding

Kingston Hydro transferred a principal balance of ($491,090) to Account 1595 to clear the Account 1562 balance approved in 2012 IRMEB-2011-0178.[9] However, the approved principal balance was ($499,526) for Account 1562. As a result the principal balance in Account 1595 (2012) was understated by a credit amount of ($8,436). As a result of this Audit, Kingston Hydro made the adjustment to the December 31, 2012 balance in Account 1595 (2012). A misstatement of the balance in Account 1595 (2012) would have resulted in an immaterial amount of over-collections from customers in excess of the Board approved amount.

Audit notes that Kingston Hydro has since made the necessary audit adjustments, and has corrected the RRR 2.1.7 reporting with the Board.

[9] Per October 9, 2013 email from Kingston Hydro

8.4.3 Area of Non-Conformity Requiring Action

Kingston Hydro should have transferred the approved principal balance to Account 1595 to clear the Account 1562 balance approved in 2012 IRMEB-2011-0178.Going forward, Kingston Hydro should ensure that the correct balances are transferred to Account 1595 once approval is received from the Board to clear certain DVA balances.

8.4.4 Management Response

Kingston Hydro Agrees with Finding 4.

8.4.5 Management Action Plan

Going forward, Kingston Hydro will ensure that the correct balances are transferred to Account 1595 once approval is received from the Board to clear certain DVA balances.

8.5.1 Finding 5

Kingston Hydro incorrectly used Account 2405 to record a liability related to the future tax assets for its capital assets. As a result, the balance for Account 2405 was misstated by approximately $1,547,582 as at December 31, 2012.

8.5.2 Basis of Finding

Through the review of the General Ledger an inquiry of management, Audit noted that Kingston Hydro used Account 2405 to record a liability portion of the future tax asset related to the excess of UCC over NBV plus the gross up[10]. The use of the account is not in conformity with the APH.

APH Article 220 defines Account 2405 as below:

> This account shall include the amounts of regulatory liabilities, not included in other accounts, **imposed on the utility by the ratemaking Action of the Board. [Emphasis Added]**

APH FAQs October 2009 Q16 provides guidance on the future income taxes:

> The USoA provides accounts for the electric utility to recognize future income taxes in accordance with CICA Handbook Section 3465—Income Taxes, as follows:
>
> - 2296, Future Income Taxes – Current;
> - 2350, Future Income Taxes – Non-Current; and
> - 6115, Provision for Future Income Taxes.

[10] Per Kingston Hydro response in email dated February 21, 2014

> The Board does not prescribe financial reporting requirements for financial statement purposes. Consequently, the reporting of income taxes in financial statements, whether based on the taxes payable or the future income taxes method, is for the distributor to decide in accordance with CICA Handbook requirements.

Kingston Hydro recorded the liability portion of the future income tax in Account 2405.As a result, the balance for Account 2405 as at December 31, 2012 was overstated by approximately$1,547,582.

Audit notes that Kingston Hydro has since made the necessary audit adjustment, and has corrected the RRR 2.1.7 reporting with the Board.

8.5.3 Area of Non-conformity Requiring Action

Kingston Hydro should not have recorded the liability portion related to the future income tax assets in Account 2405Going forward, Kingston Hydro should only record the regulatory liability imposed on the utility by the rate making actions of the Board, as stated in the APH.

8.5.4 Management Response

Kingston Hydro agrees with finding 5.

8.5.5 Management Action Plan

Kingston Hydro reallocated the balance that was recorded in Account 2405 to Account 2320. In the future Kingston Hydro will only record amounts in account 2405 that meet the definition in the Accounting Procedures Handbook.

8.6.1 Finding 6

Kingston Hydro incorrectly recorded the PST saving on capital expenditures in Account 1592 Sub-account HST/OVAT ITCs. In addition, Kingston Hydro did not set up a carrying charge sub-account and hence did not accrue any carrying charges for the account. As a result, the credit balance in Account 1592 Sub-account HST/OVAT ITCs may be overstated by approximately $98,360.

8.6.2 Basis of Finding

Kingston Hydro's 2010 IRM Decision EB-2009-0201 dated March 25, 2010 stated that:

> The Board therefore directs that, beginning July 1, 2010, Kingston Hydro shall record in deferral account 1592 (PILs and Tax Variances, Sub-account HST / OVAT Input Tax Credits (ITCs)), the incremental ITC it receives on distribution

> revenue requirement items that were previously subject to PST and become subject to HST. Tracking of these amounts will continue in the deferral account until the effective date of Kingston Hydro's next cost of service rate order. 50 % of the confirmed balances in the account shall be returnable to the ratepayers.

In reviewing Kingston's 2011 CoS Board Decision and Order EB-2010-0136, Audit noted that the DVAs disposed in the Decision did not include Account 1592 Sub-account HST/OVAT ITCs. Kingston Hydro confirmed that the 2011 rates included costs with HST components.[11]

As a result, Audit is of the view that Kingston Hydro should bring the balance of the account from July 1, 2010 to May 1, 2011 to its 2015 CoS rate application and request for the refunding of 50% of the balance to the rate payers.

Audit noted, through the review of GL and supporting documents, that the credit balance of $141,277 as at December 31, 2012 in the GL included a number of errors as below:

- The PST saving on capital expenditures for the period of July 1, 2010 to May 1, 2011 was included in the account;
- The PST saving recorded on one transaction included the portion related to city of Kingston; and
- No carrying charges were recorded under sub-account in the GL and hence no carrying charges were applied to the principle balance of the account.

The APH FAQs December 2010 Q1-Q5 provides the guidance on the accounting treatment on Account 1592 Sub-account HST/OVAT ITCs. Specifically, the PST saving on capital items would be reflected in the annual depreciation of the capital items:

> For any period before the rebasing that occurs after July 1, 2010 these PST savings would be included in the annual depreciation of the capital items. These depreciation saving amounts would need to be identified, calculated and summarized.

Article 220 of the APH dated January 1, 2012 states that the carrying charges should be recorded in the account:

> Carrying charges shall apply to this account. These amounts shall be calculated using simple interest applied to the monthly opening balances in the account (exclusive of accumulated interest) and shall be recorded monthly in a separate carrying charges sub-account of this account. The interest rate shall be the rate prescribed by the Board.

[11] Per Kingston's response in email dated March 18, 2014

The total impact of the errors is approximately $98,360, i.e. the credit balance of the account is to be reduced by $98,360.

Audit notes that Kingston Hydro has since made the necessary audit adjustments, and has corrected the RRR 2.1.7 reporting with the Board.

8.6.3 Area of Non-conformity Requiring Action

Kingston Hydro should have recorded the balance related to the PST savings in accordance with the APH and related FAQs from July 1, 2010 to May 1, 2011, the effective date of Kingston's last rebased rates. Kingston Hydro should have recorded the carrying charges for the account.

In its next CoS rate application, Kingston Hydro should disclose the issue as a result of the audit, include the adjusted principle balance and the accrued carrying charges until the start of its next rebasing year in its rate application, and propose a refund to rate payers for 50% of the account balance.

8.6.4 Management Response

Kingston Hydro agrees with Finding 6.

8.6.5 Management Action Plan

Kingston Hydro has booked the correcting entries as discussed with the OEB auditors and will include the corrected balances in the 2015 CoS Rate Application and propose to refund 50% of the account balance to rate payers.

8.7.1 Finding 7

Kingston Hydro over-charged retailers $8,780 on the fixed charge as of December 31, 2012. As a result, the debit balance in Account 1518 RCVA Retail was understated by approximately $8,780.

8.7.2 Basis for Finding

Page 4 of Article 490 of the APH states that,

> Retail cost variance account for retail services (RCVA Retail) is established to record the difference between the amount billed and the incremental costs of providing retail services other than those related to a Service Transaction Request ("STR").
>
> The distributor must also report the RCVA balances as required under the Electricity RRR or as otherwise required by the Board.

Board Decisions EB-2010-0136 and EB-2011-0178 approved a $20 monthly fixed charge per retailer. However, Audit noted that Kingston Hydro overcharged four retailers for a total of $8,780 as of December 31, 2012.[12] Instead of charging a $20 per retailer per month, as approved by the Board, Kingston Hydro charged various other amounts, resulting in an overstatement of $8,780 as of December 31, 2012.

Audit notes that Kingston Hydro has since made the necessary audit adjustments, and has corrected the RRR 2.1.7 reporting with the Board.

8.7.3 Area of Non-Conformity Requiring Action

Kingston Hydro should have used the Board approved fixed charge to record its revenue in Account 1518 RCVA Retail. Going forward, Kingston Hydro should ensure that only the approved fixed charge is recorded in the revenue account and reflected in Account 1518 RCVA Retail.

8.7.4 Management Response

Kingston Hydro agrees with finding 7.

8.7.5 Management Action Plan

Kingston Hydro has made the necessary adjustment with respect to the $20 monthly fixed charge. Going forward Kingston Hydro will ensure that measures are put in place so that only the approved fixed charge is recorded in the revenue account and reflected in account 1518 RCVA Retail.

8.8.1 Finding 8

Kingston Hydro recorded an approximately an amount of$13,595 incremental cost related to the non rate-regulated retail business in Account 1518 RCVA Retail and an amount of$14,479 incremental cost related to the non rate-regulated retail business in Account 1548 STR from January 1, 2010 to December 31, 2012. As a result, the debit balance for Account 1518 was overstated by $13,595 and the debit balance for Account 1548 was overstated by $14,479.

8.8.2 Basis for Finding

Page 19 of the Article 330 of APH states that,

[12] Per March 25 and 28, 2014 email confirmation from Kingston Hydro

> The following income statement accounts should be used to record non rate-regulated revenues and expenses as provided in the USoA:
>
> Account 4380, Expenses of Non Rate-Regulated Utility Operations. This account shall include expenses applicable to operations that are **non-utility in character** but nevertheless constitute a distinct operating activity of the enterprise as a whole, such as the operation of a department where such operation not defined as a utility, or the operation of a service organization for furnishing supervision, management, engineering, and similar services to others. The expenses shall include all elements of costs incurred in such operations, and the accounts shall be subdivided so as to permit ready summarization of expenses by activity as follows: Operation, Maintenance, Rents, and Amortization. **[Emphasis added]**

Kingston Hydro recorded an equivalent of 1.12[13] full-time system analyst's salary and benefit on a combined basis in Account 1518 RCVA Retail and Account1548 STR annually from the period of 2010 to 2012. However, Kingston Hydro stated that an equivalent of 10% of the full-time system analyst's salary and benefit was related to the provision of gas retailer services, which is part of the business provided by Utilities Kingston.[14] Since the Board does not regulate the gas business of the Utilities Kingston, Kingston Hydro should have not recorded the expense incurred in conducting the gas retailer service in Account 1518 RCVA Retail and Account 1548 STR. The related expenses should have been recorded in Account 4380 per Article 330 of the APH. As a result, the debit balances in Account 1518 RCVA Retail and Account 1548 STR as at December 31, 2012 were overstated by balances of approximately $13,595 and $14,479,respectively.[15]

Audit notes that Kingston Hydro has since made the necessary audit adjustments, and has corrected the RRR 2.1.7 reporting with the Board.

8.8.3 Area of Non-Conformity Requiring Action

Kingston Hydro should have only recorded the incremental cost related to the provision of electricity retailer services in Account 1518 RCVA Retail and Account 1548 STR for the period of 2010 to 2012.

Audit expects that Kingston Hydro will apply this finding to the balances in Account 1518 RCVA Retail and Account 1548 STR as at December 31, 2013 before bringing the balances for disposition in its next CoS rate application.

[13] 1.12 Full-time system analyst is a sum of 54% of system analyst recorded in Account 1518 and 58% of system analyst recorded in Account 1548.
[14] Per March 26, 2014email confirmation from Kingston Hydro
[15] Per March 27, 2014 email confirmation from Kingston Hydro

Going forward, Kingston Hydro should ensure that only the incremental costs related to the provision of electricity retailer services are recorded in Account 1518 RCVA Retail and Account 1548 STR.

8.8.4 Management Response

Kingston Hydro agrees with finding 8.

8.8.5 Management Action Plan

Kingston Hydro has adjusted Account 1518 RCVA Retail and Account 1548 STR for the period 2010 and 2012 to include only incremental costs related to the provision of electricity retailer services. Kingston Hydro will make the necessary adjustments to 2013 to correct the balances as at December 31, 2013. Going forward Kingston Hydro will put measures in place to ensure that only incremental costs related to the provision of electricity retailer services are included in account 1518 RCVA Retail and Account 1548 STR respectively.

9. Findings related to DVAs' Accounting Procedures

9.1.1 Finding 1

Kingston Hydro incorrectly recorded global adjustment revenue in Account 4050, Revenue Adjustment rather than allocating it to sub-accounts of the respective power revenue accounts – Account 4006 to Account 4055.

9.1.2 Basis for Finding

Kingston Hydro incorrectly recorded global adjustment revenue in Account 4050, Revenue Adjustment.[16] This is not in conformity with the APH which states that global adjustment revenue should be allocated to sub-accounts of the respective power revenue accounts – Account 4006 to Account 4055.

Page 38 of Article 220 of the APH states that sub-accounts of Accounts 4006 to 4055 should be used to record the global adjustment billed to customers.

9.1.3 Area of Non-Conformity Requiring Action

Kingston Hydro should not have recorded global adjustment revenue in Account 4050, Revenue Adjustment. Going forward, Kingston Hydro should bring its accounting practice related to global adjustment revenue in line with the APH and use the proper revenue accounts for recording billings related to the global adjustment.

9.1.4 Management Response

Kingston Hydro agrees with Finding 1.

9.1.5 Management Action Plan

Commencing December 2013, Kingston Hydro will record global adjustment revenue in sub-accounts of the respective power revenue accounts – Account 4006 to Account 4055.

9.2.1 Finding 2

Kingston Hydro incorrectly grouped all power revenue related to Account 1588 together in Account 4006 in the GL rather than allocating it to the respective power revenue accounts – Account 4006 to Account 4055.

[16] Per Kingston Hydro's September 23, 2013 Response to a Request for Information

9.2.2 Basis for Finding

Kingston Hydro incorrectly grouped all power revenue related to Account 1588 together in Account 4006 in the general ledger.[17] This is not in conformity with the APH as the power revenue should be distributed to the respective power revenue accounts – Account 4006 to Account 4055.

Page 37 of Article 220 of the APH states that accounts of Accounts 4006 to 4055 should be used to record the power revenue billed to customers.

In response to Audit's inquiry[18], Kingston Hydro stated that the power revenue accounts are grouped together in Account 4006 in the general ledger because the billing system is set up this way. An adjusting entry is done at year-end to re-class the revenue balances to Account 4006 through Account 4055 for RRR 2.1.7 purposes. Although the power revenue balances may be correctly stated in the RRR 2.1.7, manual entries may increase the chance of error in making these adjustments.

9.2.3 Area of Non-Conformity Requiring Action

Kingston Hydro should not have grouped all power revenue related to Account 1588 together in Account 4006 in the GL. Kingston Hydro should explore options of making the necessary changes to its billing system in order to record the power revenue to the respective accounts in the general ledger – Account 4006 to Account 4055 as a part of addressing this issue.

9.2.4 Management Response

Kingston Hydro Agrees with Finding 2.

9.2.5 Management Action Plan

During 2014 Kingston Hydro will explore options of making the necessary changes to its billing system in order to record the power revenue to the respective accounts in the general ledger – Account 4006 to Account 4055.

9.3.1 Finding 3

Kingston Hydro did not follow the APH in using separate sub-accounts of Account 1595 (2011) and Account 1595 (2012) to record the carrying charges that

[17] Per Kingston Hydro's September 23, 2013 Response to a Request for Information

[18] Per September 23, 2013 webcast discussion

were approved for disposition in Board Decisions EB 2010-0136 and EB-2011-0178. Rather, Kingston Hydro incorrectly grouped these amounts with the monthly carrying charges calculated on the net principal balances in Account 1595 (2011) and Account 1595 (2012).

9.3.2 Basis for Finding

Kingston Hydro did not use separate sub-accounts of Account 1595 (2011) and Account 1595 (2012) to record the carrying charges that were approved for disposition in Board decisions EB 2010-0136 and EB-2011-0178.[19] Rather Kingston Hydro incorrectly grouped these amounts with the carrying charges calculated on the opening monthly net principal balances in Account 1595 (2011), and Account 1595 (2012). This practice is not in conformity with the APH.

Page 40 of Article 220 of the APH states:

> **1595 Disposition and Recovery/Refund of Regulatory Balances, Sub-account Carrying Charges Approved in "20yy"**
>
> This account shall be used to record cumulative carrying charge account balances on the transfer to Account 1595 of the Board-approved deferral or variance account balances. No additional carrying charges shall be applied or added to these carrying charge balances transferred to this account (i.e., no interest on interest is applicable).
>
> **1595 Disposition and Recovery/Refund of Regulatory Balances, Sub-account Carrying Charges for Net Principal in "20yy"**
>
> This account shall be used to record the carrying charges calculated on the opening monthly net principal balance (i.e., transferred account principal balances less recoveries) recorded in "Sub-account Principal Balances Approved in "20yy". The interest rate shall be the rate prescribed by the Board.

9.3.3 Area of Non-Conformity Requiring Action

Kingston Hydro should have used separate sub-accounts of Account 1595 (2011) and Account 1595 (2012) to record the carrying charges that were approved for disposition in Board decisions EB 2010-0136 and EB-2011-0178.

Going forward, Kingston Hydro should record carrying charges that were approved for disposition in a separate sub-account of Account 1595. This sub-account should be

[19] Per Account 1595 Excel continuity schedule sent by Kingston Hydro on August 23, 2013

separate from the sub-account used to record the carrying charges on the net principal balance in Account 1595.

9.3.4 Management Response

Kingston Hydro agrees with Finding 3.

9.3.5 Management Action Plan

Commencing December 31, 2013 Kingston Hydro reallocated carrying charges that were approved for disposition in a separate sub-account of Account 1595.

9.4.1 Finding 4

Kingston Hydro did not follow APH article 490 in recording the variance in Account 1518 RCVA Retail and Account 1548 STR. Kingston Hydro did not set up expense accounts dedicated to record the expense incurred in the provision of Retail and STR services.

9.4.2 Basis for Finding

Page 6 of Article 490 of the APH states that,

> Accounting for the revenue side will generally involve a debit to the appropriate accounts receivable account and a credit to the applicable revenue Accounts 4082, Retail Services Revenues and/ or 4084, STR Revenues as services are provided, including monthly accruals where appropriate.
>
> Costs to provide services mentioned in the account description above will generally be accumulated in one or more of Accounts 5315, Customer Billing or 5305, Supervision or 5340, Miscellaneous Customer Accounts and/ or other relevant accounts as they are incurred or accrued.
>
> On a monthly basis, the distributor will compare the balances of the revenue accounts (4082 and/or 4084) to the amounts identified in the relevant expense accounts pertaining to retail services (i.e. incremental costs to provide those services) and enter a journal entry that will reduce the higher of the revenue or expense accounts with the offsetting entry to the RCVA Retail or RCVASTR accounts. The monthly journal entry will be similar to the following:
>
> DR: Revenue Accounts 4082 and/ or 4084
> CR: Expense Accounts 5315, 5305, 5340, and/ or other relevant accounts
> DR/CR: RCVA Retail and/or RCVASTR

To record the monthly difference between the relevant expenses and revenues, decrease the higher of the revenues and expenses and enter an offsetting amount in the applicable RCVA.

At the end of the next month-end period, the entry made in the previous period will be reversed in order to preserve the integrity of the revenue and expense accounts. Then, another comparison of the balances of the revenue accounts (4082 and/ or 4084) to the amounts in the relevant expense accounts (i.e. incremental costs to provide those services) will be performed and a new journal entry similar to that above will be posted for that month-end period. In addition, note that in the last month of the fiscal period the cumulative difference between the revenue and expense accounts will be booked to the relevant RCVA and this amount will be carried forward to the next fiscal period.

Kingston Hydro has two types of expenses to record under Account 1518 RCVA Retail: Electronic Business Transaction (EBT) and system analyst salary and benefit. Kingston Hydro recorded EBT cost directly in Account 1518 RCVA Retail, and recorded the difference between the system analyst salary and benefit and incremental revenue from the provision of retail service other than those related to STR inAccount 1518 RCVA Retail.

Regarding Account 1548 STR, Kingston Hydro recorded the difference between the system analyst salary and benefit and the incremental revenue from the provision of STR service in Account 1548 STR.

Kingston Hydro does not reverse the variance entry made in the previous period in the following month and have not set up expense accounts dedicated to Account 1518 RCVA Retail and Account 1548 STR to facilitate the accumulation and tracking of incremental costs related to the provision of Retail and STR services

Kingston Hydro's current practices in recording balances inAccount 1518 RCVA Retail and Account 1548 STR arenot in conformity with the APH.

9.4.3 Area of Non-Conformity Requiring Action

Going forward, Kingston Hydro should follow the APH in setting up expense accounts and record the expenses and variances in Account 1518 RCVA Retail andAccount 1548 STR in conformity with the APH.

9.4.4 Management Response

Kingston Hydro agrees with Finding 4.

9.4.5 Management Action Plan

Effective January 1, 2014 Kingston Hydro will record the incremental costs related to RCVA Retail and RCVA STR into an appropriate expense account and ensure accurate tracking of the incremental costs, to be able to compare to the applicable revenues. The monthly journal entry will be reversed and the year to date amount booked each month end. At year end the entry will not be reversed.

10. Observation

10.1.1 Observation 1

As of December 31, 2013, Kingston Hydro underspent the expenditures by approximately $418,257 for the Incremental Capital Module ("ICM") projects approved by the Board in its 2012 IRM Board Decision and Order EB-2011-0178.

10.1.2 Basis of Observation

In its 2012 IRM rate application EB-2011-0178, Kingston Hydro requested for a total of $3,500,000 for four incremental capital projects. The in-service dates for all four projects were projected to be in 2012. In its Decision and Order EB-2011-0178 dated April 19, 2012, the Board approved and incremental capital module of $3,173,841.[20] The ICM rate rider is effective from May 1, 2012 to April 30, 2015.

Audit noted, through the review of the capital module GL and testing to the supporting documents[21], that Kingston Hydro completed 3 ICM projects in 2012 and 1 ICM project in 2013. As a result, Kingston has completed all ICM projects as of December 31, 2013.The actual ICM expenditure as of Dec 31, 2013 was $2,755,584[22]. The actual expenditure for the ICM projects of $2,755,584 was less than the Board approved amount of $3,173,841.

Audit noted that page 13 of Chapter 3 Filing Requirements for Transmission and Distribution Applications dated June 22, 2011 states that:

> **2.2.6 ICM Reporting Requirements**
>
> A distributor that receives rate relief through this module will be required to report to the Board annually on the actual amounts spent. At the time of the next

[20] Kingston Hydro's 2012 IRM Decision and Order EB-2011-0178, page 19
[21] The testing to the supporting documents is limited to 2012 capital spending for 3 ICM projects due to the audit scope.
[22] Per Kingston Hydro's 2013 ICM Schedule

rebasing, the distributor will file a calculation of the amounts to be incorporated in rate base. **At that time the Board will make a determination on the treatment of any difference between forecast and actual capital spending during the IRM plan term. Any overspending or underspending will be reviewed at the time of rebasing. [Emphasis Added]**

10.1.3 Area of Concern

Kingston Hydro underspent the expenditures by approximately $418,257 for the Incremental Capital Module ("ICM") projects approved by the Board in its 2012 IRM Board Decision and Order EB-2011-0178.

In its upcoming RRR 2.1.7 filing for 2013, Kingston Hydro should file the rate rider and actual ICM spending separately in the sub-accounts of Account 1508. In addition, Kingston Hydro is expected to disclose with the Board the under-spending amount at the time of its next CoS rate application.

10.1.4 Management Response

Kingston Hydro agrees with Observation 1.

10.1.5 Management Action Plan

Kingston Hydro will file the rate rider and actual ACM spending separately in the sub-accounts of Account 1508 in our upcoming RRR 2.1.7 filing for 2013. Kingston Hydro will disclose with the Board the under-spending amount at the time of our next cost-of-service rate application.