

**Burlington Hydro Inc. – EB-2011-0155**

**Response to Vulnerable Energy Consumers Coalition (VECC) Interrogatories**

**VECC Question # 1**

Reference: Tab1, Schedule 2, Manager's Summary

Preamble: Burlington Hydro's Manager's Summary indicates that the LRAM rate riders are based on the most recent reported load, i.e. 2010 RRR.

Please provide the rationale for using 2010 RRR reported load.

Response to VECC interrogatory #1

Burlington Hydro used 2010 RRR reported load for the calculation of the LRAM rate riders since 2010 was the latest full year for which actual results were available. Consideration was given to using the 2011 year-to-date actual results together with a forecast for the remainder of the year but this approach was rejected due to lack of certainty with the forecast.

**VECC Question # 2 a)**

Reference: Tab 5, IndEco Report, LRAM

Appendix A, Table 7: For each program for each year, at the program/measure level, please tabulate the number of units, measure life, LRAM free ridership, annual energy savings (kWh/a), annual peak demand savings (kW/a) and contribution to LRAM.

Response to VECC interrogatory #2 a)

The table on the following pages reports the number of units, measure life, LRAM free ridership, annual energy savings (kWh/a), annual peak demand savings (kW/a) and contribution to LRAM for each program at the program or measure level. The values reflect the updated LRAM claim “Re-file of LRAM Claim”, October 26, 2011, which includes final 2010 OPA program results.

Inputs for 2009 programs were retrieved from the ‘2006-2009 Final OPA CDM results Burlington Hydro Inc.’. These results report information sufficient to calculate LRAM for 2009 programs on a measure level for the following programs:

- 2009 Great Refrigerator Roundup
- 2009 Cool Savings Rebate program
- 2009 EKC – Power Savings Event
- 2009 peaksaver®

For all other 2009 programs (2009 ERIP, 2009 High Performance New Construction and 2009 Power Savings Blitz), sufficient information is available to calculate LRAM on a program level only.

Inputs for 2010 programs were retrieved from the ‘2010 CDM Results Summary Burlington Hydro Inc.’. These results report information sufficient to calculate LRAM for 2010 programs on a program level only.

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 The Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running Part Time (38% of the time)	0.21	5	46%	674	0.09	\$2	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)	0.08	5	46%	454	0.06	\$0	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)	0.42	5	46%	498	0.07	\$2	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running All Time (100% of time)	2	5	46%	1,769	0.25	\$31	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time)	1	5	46%	1,193	0.17	\$8	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time)	3	5	46%	1,308	0.18	\$45	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running Part Time (26% of the time)	8	4	48%	282	0.04	\$25	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)	2	4	48%	247	0.03	\$6	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running Part Time (26% of the time)	10	4	48%	261	0.04	\$29	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 The Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running All Time (100% of time)	81	4	48%	1,096	0.15	\$961	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time)	22	4	48%	959	0.13	\$233	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running All Time (100% of time)	102	4	48%	1,012	0.14	\$1,121	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running Part Time (38% of the time)	3	5	46%	507	0.07	\$17	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)	1	5	46%	260	0.04	\$3	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running Part Time (38% of the time)	6	5	46%	309	0.04	\$21	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running All Time (100% of time)	22	5	46%	1,331	0.19	\$329	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time)	8	5	46%	682	0.10	\$63	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running All Time (100% of time)	43	5	46%	812	0.11	\$391	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Single Door Fridge - Not Replaced - Running Part Time (38% of the time)	3	5	46%	418	0.06	\$13	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 The Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)	1	5	46%	237	0.03	\$3	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)	5	5	46%	273	0.04	\$16	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Single Door Fridge - Not Replaced - Running All Time (100% of time)	20	5	46%	1,097	0.15	\$243	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time)	7	5	46%	623	0.09	\$51	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running All Time (100% of time)	38	5	46%	718	0.10	\$310	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced - Running Part Time (38% of the time)	22	5	46%	470	0.07	\$116	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)	8	5	46%	252	0.04	\$23	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)	42	5	46%	295	0.04	\$142	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced - Running All Time (100% of time)	158	5	46%	1,234	0.17	\$2,204	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time)	58	5	46%	661	0.09	\$438	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 The Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time)	307	5	46%	776	0.11	\$2,696	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running Part Time (26% of the time)	2	4	48%	365	0.05	\$7	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)	1	4	48%	180	0.02	\$1	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Upright Freezer - Energy Star Unit Replacement - Running Part Time (26% of the time)	2	4	48%	189	0.03	\$5	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running All Time (100% of time)	18	4	48%	1,416	0.20	\$278	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time)	5	4	48%	697	0.10	\$38	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Upright Freezer - Energy Star Unit Replacement - Running All Time (100% of time)	23	4	48%	736	0.10	\$182	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Dehumidifier - Not Replaced - Running All Time (100% of time)	3	4	64%	960	0.97	\$20	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Dehumidifier - Standard Efficiency Unit Replacement - Running All Time (100% of time)	2	4	64%	540	0.55	\$6	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Dehumidifier - Energy Star Unit Replacement - Running All Time (100% of time)	5	4	64%	463	0.47	\$16	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Window Air Conditioner - Not Replaced - Running All Time (100% of time)	3	3	64%	371	0.38	\$7	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 The Great Refrigerator Roundup	Window Air Conditioner - Standard Efficiency Unit Replacement - Running All Time (100% of time)	0.41	3	64%	118	0.12	\$0	Final 2009 OPA-verified program results
2009 The Great Refrigerator Roundup	Window Air Conditioner - Energy Star Unit Replacement - Running All Time (100% of time)	2	3	64%	141	0.14	\$1	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC)	135	18	42%	113	0.12	\$183	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC) with change in behaviour	21	18	42%	317	0.35	\$80	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC)	354	18	42%	177	0.19	\$754	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC) with change in behaviour	55	18	42%	366	0.40	\$244	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change	30	19	60%	2,773	1.66	\$691	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Non-continuous Fan, No change	123	19	60%	324	0.18	\$332	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from	10	19	60%	91	0.05	\$7	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
	non-continuous							
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Continuous Fan, No change	53	19	60%	2,823	1.69	\$1,241	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change	218	19	60%	373	0.21	\$674	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Continuous Fan, Change from non-continuous	17	19	60%	140	0.08	\$20	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan, No change	9	19	60%	1,535	0.84	\$111	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Non-continuous Fan, No change	36	19	60%	324	0.18	\$96	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan,	3	19	60%	192	0.10	\$5	Final 2009 OPA-verified program results



<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
	Change from non-continuous							
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change	35	19	60%	2,867	1.71	\$838	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Non-continuous Fan, No change	145	19	60%	207	0.12	\$249	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from non-continuous	12	19	60%	(49)	(0.03)	(\$5)	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Continuous Fan, No change	62	19	60%	2,927	1.75	\$1,510	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change	256	19	60%	267	0.15	\$566	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace,	20	19	60%	11	0.01	\$2	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
	Continuous Fan, Change from non-continuous							
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, No change	10	19	60%	1,570	0.86	\$133	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Non-continuous Fan, No change	42	19	60%	207	0.11	\$72	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, Change from non-continuous	3	19	60%	76	0.04	\$2	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Programmable Thermostat - Central Air Conditioning (CAC) & Gas heating	281	15	61%	30	0.03	\$69	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Programmable Thermostat - Energy Star® Central Air Conditioning (CAC) & Gas Heating	377	15	61%	26	0.02	\$79	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Programmable Thermostat - Gas Heating only	80	15	61%	9	0.00	\$6	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Participant Spillover - Lighting	39	5	0%	40	0.00	\$33	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Participant Spillover - Cooling or Heating	14	3	0%	100	0.09	\$24	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Participant Spillover - Water heating	19	10	0%	141	0.01	\$56	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 Cool Savings Rebate	Participant Spillover - Appliances	27	4	0%	76	0.01	\$42	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Participant Spillover - Insulation of other weatherization	39	10	0%	75	0.03	\$62	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Participant Spillover - Windows	31	10	0%	100	0.09	\$64	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Participant Spillover - Roof products	15	15	0%	50	0.00	\$16	Final 2009 OPA-verified program results
2009 Cool Savings Rebate	Participant Spillover - Other products	17	5	0%	50	0.00	\$17	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Compact Fluorescent - Spring Campaign - Participant Rebated	1,483	8	31%	23	0.00	\$493	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Decorative CFLs - Spring Campaign - Participant Rebated	3,517	6	23%	26	0.00	\$1,462	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Fixtures - Spring Campaign - Participant Rebated	286	16	47%	116	0.00	\$367	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Ceiling Fans - Spring Campaign - Participant Rebated	123	10	24%	71	0.00	\$141	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Heavy Duty Pool and Spa Timers - Spring Campaign - Participant Rebated	47	10	24%	454	0.06	\$334	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Clotheslines - Spring Campaign - Participant Rebated	119	10	45%	77	0.01	\$106	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Pipe Wrap - Spring Campaign - Participant Rebated	98	6	22%	8	0.00	\$13	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Water Blanket - Spring Campaign - Participant Rebated	13	10	20%	52	0.00	\$11	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 EKC - Power Savings Event	Energy Star Qualified Window Air Conditioner - Spring Campaign - Participant Promoted	122	12	33%	96	0.10	\$165	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Dehumidifiers - Spring Campaign - Participant Promoted	116	12	32%	284	0.02	\$467	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Programmable Thermostat - Spring Campaign - Participant Promoted	284	15	55%	138	0.05	\$370	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Solar Power Products - Spring Campaign - Participant Promoted	741	5	40%	5	0.00	\$45	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Control Products - Spring Campaign - Participant Promoted	369	10	47%	72	0.00	\$296	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed CFLs - Spring Campaign - Participant Spillover	135	8	87%	101	0.00	\$38	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed a new energy efficient appliance - Refrigerator - Spring Campaign - Participant Spillover	98	14	86%	65	0.01	\$19	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed a new energy efficient appliance - Clothes washing machine - Spring Campaign - Participant Spillover	59	14	88%	122	0.01	\$18	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Added ceiling/attic/wall/basement insulation - Spring Campaign - Participant Spillover	59	20	88%	394	0.10	\$56	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed Programmable Thermostat - Spring Campaign - Participant Spillover	58	15	87%	308	0.02	\$47	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Compact Fluorescent - Spring Campaign - Non-Participant Rebated	1,129	8	65%	22	0.00	\$184	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 EKC - Power Savings Event	ENERGY STAR Decorative CFLs - Spring Campaign - Non-Participant Rebated	560	6	60%	26	0.00	\$122	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Fixtures - Spring Campaign - Non-Participant Rebated	528	16	59%	68	0.00	\$303	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Ceiling Fans - Spring Campaign - Non-Participant Rebated	154	10	86%	71	0.00	\$31	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Heavy Duty Pool and Spa Timers - Spring Campaign - Non-Participant Rebated	97	10	86%	454	0.06	\$125	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Clotheslines - Spring Campaign - Non-Participant Rebated	357	10	86%	77	0.01	\$78	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Pipe Wrap - Spring Campaign - Non-Participant Rebated	829	6	86%	8	0.00	\$19	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Water Blanket - Spring Campaign - Non-Participant Rebated	122	10	86%	52	0.00	\$18	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Window Air Conditioner - Spring Campaign - Non-Participant Promoted	203	12	57%	96	0.10	\$177	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Dehumidifiers - Spring Campaign - Non-Participant Promoted	244	12	56%	284	0.02	\$635	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Programmable Thermostat - Spring Campaign - Non-Participant Promoted	382	15	71%	138	0.05	\$321	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Solar Power Products - Spring Campaign - Non-Participant Promoted	2,478	5	61%	5	0.00	\$97	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 EKC - Power Savings Event	Control Products - Spring Campaign - Non-Participant Promoted	853	10	66%	72	0.00	\$443	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Participant Rebated	6,711	8	31%	25	0.00	\$2,479	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Specialty CFLs - Autumn Campaign - Participant Rebated	2,714	6	29%	21	0.00	\$843	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Fixtures - Autumn Campaign - Participant Rebated	324	16	30%	119	0.00	\$564	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Weatherstripping - adhesive foam or V-strip - Autumn Campaign - Participant Rebated	300	15	43%	15	0.00	\$55	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Weatherstripping - door frame kits - Autumn Campaign - Participant Rebated	196	15	47%	17	0.00	\$38	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Programmable Thermostat - Autumn Campaign - Participant Rebated	130	15	33%	32	0.00	\$59	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Pipe Wrap - Autumn Campaign - Participant Rebated	112	6	55%	7	0.00	\$7	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Water Blanket - Autumn Campaign - Participant Rebated	25	10	37%	56	0.00	\$18	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Lighting/Appliance Controls - Autumn Campaign - Participant Rebated	228	17	28%	21	0.00	\$73	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Participant Promoted	799	5	41%	14	0.00	\$134	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 EKC - Power Savings Event	Dimmer Switches - Autumn Campaign - Participant Promoted	337	10	50%	24	0.00	\$83	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Solar Powered Products - Autumn Campaign - Participant Promoted	653	4	48%	6	0.00	\$40	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed a new energy efficient appliance – Refrigerator - Autumn Campaign - Participant Spillover	136	14	75%	65	0.01	\$45	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Added ceiling/attic/wall/basement insulation - Autumn Campaign - Participant Spillover	109	20	78%	394	0.00	\$197	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Replaced my old furnace with a high efficiency furnace - Autumn Campaign - Participant Spillover	97	15	80%	352	0.19	\$140	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed a new energy efficient appliance - Clothes washing machine - Autumn Campaign - Participant Spillover	89	15	81%	142	0.05	\$51	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Non-Participant Rebated	6,113	8	86%	24	0.00	\$414	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Specialty CFLs - Autumn Campaign - Non-Participant Rebated	1,942	6	85%	30	0.00	\$183	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	ENERGY STAR Fixtures - Autumn Campaign - Non-Participant Rebated	541	16	76%	36	0.00	\$100	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Weatherstripping - adhesive foam or V-strip - Autumn Campaign - Non-Participant Rebated	2,107	15	93%	15	0.00	\$47	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Weatherstripping - door frame kits - Autumn Campaign - Non-Participant Rebated	1,607	15	94%	17	0.00	\$37	Final 2009 OPA-verified program results

<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 EKC - Power Savings Event	Programmable Thermostat - Autumn Campaign - Non-Participant Rebated	318	15	83%	83	0.00	\$96	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Pipe Wrap - Autumn Campaign - Non-Participant Rebated	1,492	6	89%	6	0.00	\$20	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Water Blanket - Autumn Campaign - Non-Participant Rebated	186	10	78%	40	0.00	\$34	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Lighting/Appliance Controls - Autumn Campaign - Non-Participant Rebated	1,593	17	90%	42	0.00	\$142	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Non-Participant Promoted	2,608	5	65%	14	0.00	\$261	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Dimmer Switches - Autumn Campaign - Non-Participant Promoted	822	10	73%	24	0.00	\$110	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Solar Powered Products - Autumn Campaign - Non-Participant Promoted	1,319	4	58%	5	0.00	\$53	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Working Room Air Conditioner Retirement - Rewards for Recycling Campaign - Incented	64	6	62%	32	0.03	\$16	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Working Room Dehumidifier Retirement - Rewards for Recycling Campaign - Incented	58	8	53%	300	0.30	\$169	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Working Halogen Torchiers Retirement - Rewards for Recycling Campaign - Incented	19	10	49%	58	0.00	\$12	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Recycled Second Refrigerator - Rewards for Recycling Campaign - Spillover	13	14	64%	1,238	0.13	\$124	Final 2009 OPA-verified program results



<b>Program</b>	<b>Energy Efficient Measure</b>	<b>Units</b>	<b>Measure life</b>	<b>Free riders</b>	<b>Gross annual energy savings (kWh/a)</b>	<b>Gross annual peak demand savings (kW/a)</b>	<b>Contribution to LRAM (2012\$)</b>	<b>Assumption Source</b>
2009 EKC - Power Savings Event	Recycled Additional Room Air Conditioner - Rewards for Recycling Campaign - Spillover	11	6	64%	30	0.03	\$3	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Recycled Central Air Conditioner - Rewards for Recycling Campaign - Spillover	10	18	64%	72	0.08	\$6	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Recycled Additional Room Dehumidifier - Rewards for Recycling Campaign - Spillover	12	8	64%	309	0.31	\$27	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed Energy Star® Windows - Rewards for Recycling Campaign - Spillover	18	20	82%	1,530	0.09	\$108	Final 2009 OPA-verified program results
2009 EKC - Power Savings Event	Installed Energy Star® CFL Bulbs - Rewards for Recycling Campaign - Spillover	61	8	82%	45	0.00	\$11	Final 2009 OPA-verified program results
2009 peaksaver®	Residential Air Conditioner - Thermostat	1,386	13	10%	6	0.66	\$147	Final 2009 OPA-verified program results
2009 Electricity Retrofit Incentive Program (ERIP)	All projects	1	6	27%	2,148,145	260.49	\$10,042	Final 2009 OPA-verified program results
2009 High performance new construction	Custom	1	20	30%	179,074	78.55	\$2,141	Final 2009 OPA-verified program results
2009 Power Savings Blitz	All projects	1	9	5%	3,988,165	1,022.25	\$64,718	Final 2009 OPA-verified program results
2010 Cool Savings Rebate	All measures	4,014	5	57%	505	0.33	\$33,288	Final 2010 OPA-verified program results
2010 EKC - Power Savings Event	All measures	8,736	5	54%	67	0.01	\$10,312	Final 2010 OPA-verified program results
2010 The Great Refrigerator Roundup	All measures	1,129	5	47%	1,096	0.16	\$25,003	Final 2010 OPA-verified program results

Program	Energy Efficient Measure	Units	Measure life	Free riders	Gross annual energy savings (kWh/a)	Gross annual peak demand savings (kW/a)	Contribution to LRAM (2012\$)	Assumption Source
2010 peaksaver®	All measures	621	5	9%	2	0.62	\$52	Final 2010 OPA-verified program results
2010 Electricity Retrofit Incentive Program (ERIP)	All projects	14	5	49%	143,753	24.69	\$15,217	Final 2010 OPA-verified program results
2010 High performance new construction	Custom	4	5	30%	145,999	64.03	\$13,264	Final 2010 OPA-verified program results
2010 Multifamily Energy Efficiency Rebates	Custom	24	5	26%	75,155	6.13	\$41,473	Final 2010 OPA-verified program results
2010 Power Savings Blitz	All projects	303	5	0%	2,683	0.88	\$25,191	Final 2010 OPA-verified program results
Total LRAM claim							<b>\$273,165</b>	

**VECC Question # 2 b)**

Reference: Tab 5, IndEco Report, LRAM

List and confirm OPA's input assumptions for Every Kilowatt Counts (EKC) 2006 including the measure life, unit kWh savings and free ridership for Compact Fluorescent Lights (CFLs) and Seasonal Light Emitting Diodes (LED). Confirm some of these assumptions were changed in 2007 and again in 2009 and compare the values.

Response to VECC interrogatory #2 b)

Burlington Hydro is not claiming any LRAM related to the 2006 EKC program, including CFLs and SLEDs. LRAM is being claimed for programs delivered in 2009 and 2010 only.

In response to VECC's question, the table below compares final OPA-verified 2006 EKC results for 2006 EKC CFLs and seasonal light emitting diodes (SLEDs) to the final OPA-verified 2007 EKC results and the 2009 OPA Measures and Assumptions list. Input assumptions for CFLs and SLEDs have changed periodically, including most recently in 2009, as reflected in updates to the generic OPA Measures and Assumptions list.

2006 EKC Energy Efficient Measure	OPA-verified Final 2006 EKC results		OPA-verified Final 2007 EKC results		From 2009 OPA M&A list	
	Measure life	Gross savings (kWh/a)	Measure life	Gross savings (kWh/a)	Measure life	Gross savings (kWh/a)
Energy Star® CFL	4	104	8	43	8	43
SLEDs	30	31	5	14	5	14

**VECC Question # 2 c)**

Reference: Tab 5, IndEco Report, LRAM

Demonstrate that savings for EKC 2006 Mass Market measures 13-15 W Energy Star CFLs have been removed from the LRAM claim in 2010.

Response to VECC interrogatory #2 c)

Burlington Hydro's current LRAM claim does not include any energy saved or revenue lost in any year arising from the 2006 EKC program. Neither the 2006 EKC program nor any other program launched prior to 2009 was included in Burlington Hydro's current LRAM claim. See the IndEco LRAM report filed as Tab 5 of Burlington Hydro's IRM3 application EB-2011-0155.

The requested current LRAM claim is based on programs delivered in 2009 and 2010 only, as detailed in the table below. Note that no programs from 2006-2008 are included. This table reflects the LRAM claim updated with final 2010 OPA program results.

Program	LRAM claim
2009 Cool Savings Rebate	\$8,272
2009 EKC - Power Savings Event	\$13,797
2009 Electricity Retrofit Incentive Program (ERIP)	\$10,042
2009 High performance new construction	\$2,141
2009 peaksaver®	\$147
2009 Power Savings Blitz	\$64,718
2009 The Great Refrigerator Roundup	\$10,245
2010 Cool Savings Rebate	\$33,288
2010 EKC - Power Savings Event	\$10,312
2010 Electricity Retrofit Incentive Program (ERIP)	\$15,217
2010 High performance new construction	\$13,264
2010 Multifamily Energy Efficiency Rebates	\$41,473
2010 peaksaver®	\$52
2010 Power Savings Blitz	\$25,191
2010 The Great Refrigerator Roundup	\$25,003
<b>Total LRAM claimed</b>	<b>\$273,165</b>

**VECC Question # 2 d)**

Reference: Tab 5, IndEco Report, LRAM

Adjust the LRAM claim as necessary to reflect the measure lives and unit savings for any/all measures that have expired starting in 2010.

Response to VECC interrogatory #2 d

No adjustments to the current LRAM claim are needed in order to reflect measure lives (and unit savings) for measures that have expired starting in 2010.

The current LRAM claim already accounts for any measures that have expired before the full span of the LRAM claim. LRAM is calculated over the individual measures lives of each measure. For example, if a measure installed in 2010 had a measure life of only 1 year, LRAM was only claimed for that measure for 2010.

**VECC Question # 2 e)**

Reference: Tab 5, IndEco Report, LRAM

Table 4 on Page 7 of IndEco's Report provides the Distribution rates per rate class effective May 1 for 2010 and 2011. Please explain how these rates are applied to calculate the LRAM claim for each year.

Response to VECC interrogatory #2 e)

The OEB approved distribution rates for Burlington Hydro's service territory are provided in the table below.

Rate Class	Units	May 1 2009 to April 30 2010	May 1 2010 to April 30 2011	May 1 2011 to April 30 2012
Residential	\$/kWh	0.0159	0.0166	0.0165
GS < 50 kW	\$/kWh	0.0147	0.0136	0.0135
GS 50 to 4,999 kW	\$/kW	2.5994	2.8286	2.8337

To calculate an LRAM claim, electricity distribution rates are applied to the energy savings reported for each program. The OPA reports energy savings for its programs over the calendar year (i.e. from January 1 to December 31 of each year), whereas Burlington Hydro's distribution rates are put into effect on May 1 of a year until April 30 of the following year. In order to align distribution rates with the program energy savings reported by the OPA, rates that are effective May 1 of a year were considered to be in place on January 1 of that year. For example, the distribution rates in place from May 1 2010 until April 30 2011 were considered to be in place between January 1 2010 and December 31 2010. These distribution rates were then applied to the program energy savings reported between January 1 2010 and December 31 2010.

An alternative to this approach could have been to blend distribution rates in order to align them with OPA-verified CDM program results. The following table shows how blended distribution rates that coincide with a January to December year for 2010, 2011 and 2012 could have been calculated.

Rate used	Calculation of rate used
Blended 2010 rate (could have been used for January to December 2010)	1/3 of the May 1 2009 to April 30 2010 rate + 2/3 the May 1 2010 to April 30 2011 rate
Blended 2011 rate (could have been used for January to December 2011)	1/3 of the May 1 2010 to April 30 2011 rate + 2/3 the May 1 2011 to April 30 2012 rate
2012 rate (used for January to April 30 2012)	100% of the May 1 2011 to April 30 2012 rate

Blended rates are provided in the table below.

Rate Class	Units	2010 Blended rate	2011 Blended rate	2012 rate (January to April 30 2012 only)
Residential	\$/kWh	0.0164	0.0165	0.0165
GS < 50 kW	\$/kWh	0.0140	0.0135	0.0135
GS 50 to 4,999 kW	\$/kW	2.7522	2.8320	2.8337

A comparison between the proposed LRAM claim calculated without blended rates and the LRAM claim calculated with blended rates is found in the table below. Both LRAM values reflect the update to final 2010 OPA program results.

<b>Rate class</b>	<b>Proposed LRAM claim without blended rates</b>	<b>LRAM claim using blended rates</b>	<b>Difference</b>
Residential	\$101,117	\$100,797	\$320
GS < 50kW	\$152,587	\$153,822	(\$1,234)
GS 50-4,999kW	\$19,461	\$19,308	\$153
Total	\$273,165	\$273,927	(\$762)

Burlington Hydro submits that the difference between the LRAM as claimed and an LRAM using blended rates is immaterial and that the proposed LRAM claim should stand as is.