

**BRANTFORD POWER INC.**

**LRAM & LRAMVA SUPPORT**

**APRIL 30, 2013**

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## 1. LRAM

### LRAM History

From 2005 to the end of 2010, distributors delivered CDM programs either through approved distribution rate funding by way of the third installment of their incremental market adjusted revenue requirement (“MARR”), or through contracts with the OPA. Some distributors received incremental distribution rate funding separate from MARR. To promote the participation in and the delivery of CDM programs by distributors, the Board made available an LRAM regardless of whether the CDM programs were funded by the OPA or through distribution rates.

In preparation of this document, Burman Energy performed this analysis in compliance with **Guidelines for Electricity Distributor Conservation and Demand Management EB-2012-0003** with specific reference to the following:

#### **13.6 LRAM & Shared Savings Mechanism for Pre-CDM Code Activities**

*The Board notes that the Filing Requirements for Transmission and Distribution Applications state the following:*

*Distributors intending to file an LRAM or SSM application for CDM Programs funded through distribution rates, or an LRAM application for CDM Programs funded by the OPA between 2005 and 2010, shall do so as part of their 2012 rate application filings, either cost-of-service or IRM. If a distributor does not file for the recovery of LRAM or SSM amounts in its 2012 rate application, it will forego the opportunity to recover LRAM or SSM for this legacy period of CDM activity.*

*The 2008 CDM Guidelines state as follows: “lost revenues are only accruable until new rates (based on a new revenue requirement and load forecast) are set by the Board, as the CDM savings would be assumed to be incorporated in the load forecast at that time”. The intent of the LRAM in the 2008 CDM Guidelines was to keep electricity distributors revenue neutral for CDM activities implemented by the distributor during the years in which its rates were set using the incentive regulation mechanism, and that future LRAM claims should be unnecessary once a distributor rebases and updates its load forecast.*

*The Board therefore expects that LRAM for pre-2011 CDM activities should be completed with the 2012 rate applications, outside of persisting historical CDM impacts realized after 2010 for those distributors whose load forecast has not been updated as part of a cost of service application.*

In compliance with the last paragraph above, since Brantford Power has not updated their load forecast since 2008, Burman Energy recommends an LRAM claim of \$118,455.70. This is consistent with Brantford Powers OEB decision EB-2011-0147 dated April 19, 2012. Specifically,

*Persisting impacts of 2005-2008 programs and 2008 lost revenues*

*Board staff noted that Brantford's rates were last rebased in 2008. Board staff also noted that the CDM Guidelines state the following with respect to LRAM claims:*

*Lost revenues are only accruable until new rates (based on a new revenue requirement and load forecast) are set by the Board, as the savings would be assumed to be incorporated in the load forecast at that time.*

*In cases in which it was clear in the application or settlement agreement that an adjustment for CDM was not being incorporated into the load forecast specifically because of an expectation that an LRAM application would address the issue, and if this approach was accepted by the Board, then Board staff would agree that an LRAM application is appropriate. Board staff submitted that Brantford may want to highlight in its reply whether the issue of an LRAM application was addressed in its cost of service application.*

Initiative Name	Net Summer Peak Demand Savings (kW)	Net Energy Savings (kWh)	Gross Summer Peak Demand Savings (kW)	Gross Energy Savings (kWh)	2011 LRAM
<b>TOTAL 2005 - 2010 PROGRAM PERSISTENCE</b>	<b>3,395.64</b>	<b>13,147,196</b>	<b>5,113.27</b>	<b>21,419,144</b>	<b>\$ 118,455.70</b>

The above table represents LRAM calculations for persistence of 2006-2010 programs in 2011 only.

Brantford Power should also be eligible for the 2006 – 2010 program persistence into 2012 and 2013 as well. However, the Board also notes that claims for persistence into future years or for years where claims are deemed premature should be excluded. As such, Burman Energy recommends including only the amounts identified above with the latitude to submit for additional LRAM claims for 2006 – 2010 program persistence into 2012 and 2013 in future submissions.

## 2. LRAMVA

With specific reference to the following:

### **13.2 LRAM Mechanism for 2011- 2014**

*The Board will adopt an approach for LRAM for the 2011-2014 CDM period that is similar to that adopted in relation to natural gas distributor DSM activities. The Board will authorize the establishment of an LRAM variance account ("LRAMVA") to capture, at the customer rate-class level, the difference between the following:*

- i. The results of actual, verified impacts of authorized CDM activities undertaken by electricity distributors between 2011-2014 for both Board-Approved CDM programs and OPA-Contracted Province-Wide CDM programs in relation to activities undertaken by the distributor and/or delivered for the distributor by a third party under contract (in the distributor's franchise area); and*
- ii. The level of CDM program activities included in the distributor's load forecast (i.e. the level embedded into rates).*

*Distributors will generally be expected to include a CDM component in their load forecast in cost of service proceedings to ensure that its customers are realizing the true effects of conservation at the earliest date possible date and to mitigate the variance between forecasted revenue losses and actual revenue losses. If the distributor has included a CDM load reduction in its distribution rates, the amount of the forecast that was adjusted for CDM at the rate class level would be compared to the actual DCM results verified by an independent third part for each year of the CDM program (i.e., 2011 to 2014) in accordance with the OPA's EM&V Protocols as set out in Section 6.1 of the CDM Code. The variance calculated from this comparison result in a credit or a debit to the ratepayers at the customer rate class level in the LRAMVA. The variance calculated from this comparison results in a credit or debit to the ratepayers at the customer rate class level in the LRAMVA. The LRAM amount is determined by applying, by customer class, the distributor's Board-approved variable distribution charge applicable to the class to the volumetric variance (positive or negative) described in the paragraph above. The calculated lost revenues will be recorded in the LRAMVA. Distributors will be expected to report the balance in the LRAMVA as part of the reporting and record-keeping requirements on an annual basis.*

Burman Energy has prepared the following LRAMVA tables, representing the variance amount to be recorded in the LRAM Variance Account. The amount is the calculated result of the lost revenues by customer class based on the volumetric impact of the load reductions arising from the CDM measures implemented, multiplied by

Brantford Power's Board-approved variable distribution changes applicable to the customer rate class in which the volumetric variance occurred. The calculations provided by Burman Energy do not include carrying charges.

	Net Summer Peak Demand Savings (kW)	Net Energy Savings (kWh)	Gross Summer Peak Demand Savings (kW)	Gross Energy Savings (kWh)	LRAMVA
<b>TOTAL LRAMVA - PRE-2011 PROGRAMS COMPLETED IN 2011</b>	<b>188.00</b>	<b>1,084,690</b>	<b>360.00</b>	<b>2,060,588</b>	<b>\$ 5,912.90</b>
<b>TOTAL LRAMVA - 2011 OPA PROGRAM RESULTS</b>	<b>1,040.00</b>	<b>3,430,790</b>	<b>1,432.00</b>	<b>4,636,268</b>	<b>\$ 29,934.01</b>
	<b>1,228.00</b>	<b>4,515,480</b>	<b>1,792.00</b>	<b>6,696,856</b>	<b>\$ 35,846.91</b>

## SUPPORTING ATTACHMENTS

**Brantford Power. LRAM & LRAMVA CALCULATIONS**  
**OPA Conservation & Demand Management Programs**  
**Initiative Results at End-User Level**

Initiative Name	Program Year	Results Status	2011				2010 Rate (effective May 1)	2011 Rate (effective May 1)	2011 LRAM
			Net Summer Peak Demand Savings (kW)	Net Energy Savings (kWh)	Gross Summer Peak Demand Savings (kW)	Gross Energy Savings (kWh)			
2005 - 2010 PROGRAM PERSISTENCE									
Residential							kWh	kWh	
Secondary Fridge Retirement Pilot	2006	Final	8.95	39,485	9.94	43,872	0.0137	0.0137	\$ 540.94
Cool & Hot Savings Rebate	2006	Final	90.33	97,471	109.84	123,478	0.0137	0.0137	\$ 1,335.36
	2007	Final	105.78	158,539	222.04	311,387	0.0137	0.0137	\$ 2,171.99
Every Kilowatt Counts							0.0137	0.0137	
	2006	Final	29.83	326,087	33.14	362,319	0.0137	0.0137	\$ 4,467.40
	2007	Final	33.35	938,731	47.00	1,275,402	0.0137	0.0137	\$ 12,860.62
Great Refrigerator Roundup									
	2007	Final	20.14	176,265	49.35	434,764	0.0137	0.0137	\$ 2,414.83
	2008	Final	44.84	406,678	84.88	749,990	0.0137	0.0137	\$ 5,571.49
	2009	Final	59.50	404,978	114.51	760,183	0.0137	0.0137	\$ 5,548.20
	2010	Final	79.27	488,312	159.96	924,174	0.0137	0.0137	\$ 6,689.88
Social Housing – Pilot	2007	Final	10.16	86,375	10.16	86,375	0.0137	0.0137	\$ 1,183.34
Cool Savings Rebate Program									
	2008	Final	106.45	168,039	184.80	292,528	0.0137	0.0137	\$ 2,302.14
	2009	Final	138.77	210,706	317.47	493,155	0.0137	0.0137	\$ 2,886.68
	2010	Final	208.41	317,555	471.75	740,519	0.0137	0.0137	\$ 4,350.50
Every Kilowatt Counts Power Savings Event							0.0137	0.0137	\$ -
	2008	Final	44.45	849,299	105.52	2,105,022	0.0137	0.0137	\$ 11,635.39
	2009	Final	36.49	351,183	97.21	903,101	0.0137	0.0137	\$ 4,811.21
	2010	Final	11.53	119,678	28.31	293,451	0.0137	0.0137	\$ 1,639.59
peaksaver®									
	2007	Final	5.87	0	6.52	0	0.0137	0.0137	\$ -
	2008	Final	223.17	4,463	247.97	4,959	0.0137	0.0137	\$ 61.15
	2009	Final	242.50	443	269.44	493	0.0137	0.0137	\$ 6.07
	2010	Final	147.36	669	163.73	743	0.0137	0.0137	\$ 9.16
Summer Sweepstakes	2008	Final	138.39	344,217	178.37	443,658	0.0137	0.0137	\$ 4,715.77
TOTAL Residential			1,785.54	5,489,175	2,911.92	10,349,573			\$ 75,201.69
General Service <50kW							kWh	kWh	
High Performance New Construction									
	2008	Final	3.02	2,551	4.32	3,645	0.0064	0.0064	\$ 16.33
	2009	Final	32.86	74,908	46.94	107,011	0.0064	0.0064	\$ 479.41
	2010	Final	103.87	236,826	148.39	338,324	0.0064	0.0064	\$ 1,515.69
Power Savings Blitz									
	2008	Final	0.00	0	0.00	0	0.0064	0.0064	\$ -
	2009	Final	704.42	2,748,183	741.49	2,892,824	0.0064	0.0064	\$ 17,588.37
	2010	Final	65.57	201,231	66.24	203,263	0.0064	0.0064	\$ 1,287.88
Multifamily Energy Efficiency Rebates	2010	Final	15.31	180,733	20.03	245,353	0.0064	0.0064	\$ 1,156.69
TOTAL General Service < 50kW			925.06	3,444,433	1,027.40	3,790,420			\$ 22,044.37
General Service >50kW to 4,999kW							kW	kW	
Electricity Retrofit Incentive Program									
	2007	Final	5.28	14,654	5.86	16,282	2.5770	2.5816	\$ 163.33
	2008	Final	60.62	308,271	104.52	531,502	2.5770	2.5816	\$ 1,876.90
	2009	Final	362.05	2,440,227	572.73	3,872,045	2.5770	2.5816	\$ 11,209.22
	2010	Final	257.11	1,450,436	490.84	2,859,320	2.5770	2.5816	\$ 7,960.18
TOTAL General Service > 50kW to 4,000kW			685.05	4,213,589	1,173.95	7,279,150			\$ 21,209.63
TOTAL LRAM 2005 - 2010 PROGRAM PERSISTENCE			3,395.64	13,147,196	5,113.27	21,419,144			\$ 118,455.70

Initiative Name	Program Year	Results Status	Net Summer Peak Demand Savings (kW)	Net Energy Savings (kWh)	Gross Summer Peak Demand Savings (kW)	Gross Energy Savings (kWh)	2010 Rate (effective May 1)	2011 Rate (effective May 1)	2011 LRAMVA
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#### Pre-2011 PROGRAMS COMPLETED IN 2011

<b>General Service &lt;50kW</b>							<b>kWh</b>	<b>kWh</b>	
High Performance New Construction		Final	47.00	241,785	94.00	483,571	0.0064	0.0064	\$ 1,547.42
<b>GENERAL SERVICE &lt;50kW TOTAL</b>			<b>47.00</b>	<b>241,785</b>	<b>94.00</b>	<b>483,571</b>			<b>\$ 1,547.42</b>
<b>General Service &gt;50kW to 4,999kW</b>							<b>kW</b>	<b>kW</b>	
Electricity Retrofit Incentive		Final	141.00	842,905	266.00	1,577,017	2.5770	2.5816	\$ 4,365.47
<b>GENERAL SERVICE &gt;50kW to 4,999kW TOTAL</b>			<b>141.00</b>	<b>842,905</b>	<b>266.00</b>	<b>1,577,017</b>			<b>\$ 4,365.47</b>
<b>TOTAL LRAMVA - PRE-2011 PROGRAMS COMPLETED IN 2011</b>			<b>188.00</b>	<b>1,084,690</b>	<b>360.00</b>	<b>2,060,588</b>			<b>\$ 5,912.90</b>

#### 2011 OPA PROGRAM RESULTS

<b>Residential Service</b>							<b>kWh</b>	<b>kWh</b>	
Appliance Retirement	2011	Final	35.00	250,242	70.00	500,087	0.0137	0.0137	\$ 3,428.32
Appliance Exchange	2011	Final	9.00	12,869	18.00	24,971	0.0137	0.0137	\$ 176.31
HVAC Incentives	2011	Final	310.00	571,421	514.00	955,277	0.0137	0.0137	\$ 7,828.47
Conservation Instant Coupon Booklet	2011	Final	9.00	149,983	8.00	134,486	0.0137	0.0137	\$ 2,054.77
Bi-Annual Retailer Event	2011	Final	12.00	213,214	11.00	195,161	0.0137	0.0137	\$ 2,921.03
Residential Demand Response	2011	Final	0.00	0	0.00	0	0.0137	0.0137	\$ -
<b>RESIDENTIAL TOTAL</b>			<b>375.00</b>	<b>1,197,729</b>	<b>621.00</b>	<b>1,809,982</b>			<b>\$ 16,408.89</b>
<b>General Service &lt;50kW</b>							<b>kWh</b>	<b>kWh</b>	
Efficiency: Equipment Replacement	2011	Final	179.00	1,194,344	247.00	1,559,892	0.0064	0.0064	\$ 7,643.80
Direct Install Lighting	2011	Final	159.00	412,361	149.00	444,096	0.0064	0.0064	\$ 2,639.11
Commercial Demand Response	2011	Final	0.00	0	0.00	0	0.0064	0.0064	\$ -
Demand Response 3	2011	Final	67.00	2,636	89.00	2,636	0.0064	0.0064	\$ 16.87
<b>GENERAL SERVICE &lt;50kW TOTAL</b>			<b>405.00</b>	<b>1,609,341</b>	<b>485.00</b>	<b>2,006,624</b>			<b>\$ 10,299.78</b>
<b>General Service 50 to 4,999 kW</b>							<b>kW</b>	<b>kW</b>	
Efficiency: Equipment Replacement (Industrial)	2011	Final	90.00	613,727	124.00	809,669	2.5770	2.5816	\$ 2,786.47
Demand Response 3	2011	Final	170.00	9,993	202.00	9,993	2.5770	2.5816	\$ 438.87
<b>GENERAL SERVICE 50 to 4,999 kW</b>			<b>260.00</b>	<b>623,720</b>	<b>326.00</b>	<b>819,662</b>			<b>\$ 3,225.34</b>
<b>TOTAL LRAMVA - 2011 OPA PROGRAM RESULTS</b>			<b>1,040.00</b>	<b>3,430,790</b>	<b>1,432.00</b>	<b>4,636,268</b>			<b>\$ 29,934.01</b>
<b>TOTAL LRAM 2005 - 2010 PROGRAM PERSISTENCE</b>			<b>3,395.64</b>	<b>13,147,196</b>	<b>5,113.27</b>	<b>21,419,144</b>			<b>\$ 118,455.70</b>
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			<b>1,228.00</b>	<b>4,515,480</b>	<b>1,792.00</b>	<b>6,696,856</b>			<b>\$ 35,846.91</b>



**Table 1: Participation<sup>1</sup>**

#	Initiative	Unit	Uptake/ Participation Units
<b>Consumer Program</b>			
1	Appliance Retirement	Appliances	607
2	Appliance Exchange	Appliances	81
3	HVAC Incentives	Equipment	1,092
4	Conservation Instant Coupon Booklet	Products	3,702
5	Bi-Annual Retailer Event	Products	6,314
6	Retailer Co-op	Products	0
7	Residential Demand Response	Devices	0
8	Residential New Construction	Houses	0
<b>Business Program</b>			
9	Efficiency: Equipment Replacement	Projects	20
10	Direct Install Lighting	Projects	102
11	Existing Building Commissioning Incentive	Buildings	0
12	New Construction and Major Renovation Incentive	Buildings	0
13	Energy Audit	Audits	0
14	Commercial Demand Response (part of the Residential program schedule)	Devices	0
15	Demand Response 3 (part of the Industrial program schedule)	Facilities	2
<b>Industrial Program</b>			
16	Process & System Upgrades	Projects <sup>2</sup>	0
17	Monitoring & Targeting	Projects <sup>3</sup>	0
18	Energy Manager	Managers <sup>2,3</sup>	0
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	12
20	Demand Response 3	Facilities	2
<b>Home Assistance Program</b>			
21	Home Assistance Program	Homes	0
<b>Pre 2011 Programs Completed in 2011</b>			
22	Electricity Retrofit Incentive Program	Projects	29
23	High Performance New Construction	Projects	1
24	Toronto Comprehensive	Projects	0
25	Multifamily Energy Efficiency Rebates	Projects	0
26	Data Centre Incentive Program	Projects	0
27	EnWin Green Suites	Projects	0

<sup>1</sup> Please see "Methodology" tab for more information regarding attributing savings to LDCs

<sup>2</sup> Results are based on completed incentive projects (see "Methodology" tab for more information)

<sup>3</sup> Includes: Roving Energy Managers, Key Account Managers and Embedded Energy Managers if projects are completed in 2011

Table 5: Summarized Program Results												
Program			Gross Savings				Net Savings		Contribution to Targets			
			Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)			Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)		
Consumer Program Total			621	1,809,983			375	1,197,730	371	4,786,860		
Business Program Total			485	2,006,624			406	1,609,340	302	6,320,656		
Industrial Program Total			326	819,662			261	623,720	90	2,464,900		
Home Assistance Program Total			0	0			0	0	0	0		
Pre-2011 Programs completed in 2011 Total			360	2,060,587			188	1,084,690	188	4,338,760		
Total OPA Contracted Province-Wide CDM Programs			1,792	6,696,856			1,230	4,515,479	952	17,911,176		
#	Initiative		Realization Rate		Gross Savings		Net-to-Gross Ratio		Net Savings		Contribution to Targets	
			Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program												
	1	Appliance Retirement	100%	100%	70	500,087	51%	51%	35	250,242	34	1,000,362
	2	Appliance Exchange	100%	100%	18	24,971	52%	52%	9	12,869	5	48,026
	3	HVAC Incentives	100%	100%	514	955,277	60%	60%	310	571,421	310	2,285,684
	4	Conservation Instant Coupon Booklet	100%	100%	8	134,486	115%	113%	9	149,983	9	599,933
	5	Bi-Annual Retailer Event	100%	100%	11	195,161	113%	110%	12	213,214	12	852,855
	6	Retailer Co-op	-	-	0	0	-	-	0	0	0	0
	7	Residential Demand Response	0%	0%	0	0	-	-	0	0	0	0
	8	Residential New Construction	-	-	0	0	-	-	0	0	0	0
Business Program												
	9	Efficiency: Equipment Replacement	91%	108%	247	1,559,892	72%	77%	179	1,194,344	179	4,777,375
	10	Direct Install Lighting	108%	90%	149	444,096	93%	93%	159	412,361	123	1,540,646
	11	Existing Building Commissioning Incentive	-	-	0	0	-	-	0	0	0	0
	12	New Construction and Major Renovation Incentive	-	-	0	0	-	-	0	0	0	0
	13	Energy Audit	-	-	0	0	-	-	0	0	0	0
	14	Commercial Demand Response (part of the Residential program schedule)	0%	0%	0	0	-	-	0	0	0	0
	15	Demand Response 3 (part of the Industrial program schedule)	76%	100%	89	2,636	n/a	n/a	67	2,636	0	2,636
Industrial Program												
	16	Process & System Upgrades	-	-	0	0	-	-	0	0	0	0
	17	Monitoring & Targeting	-	-	0	0	-	-	0	0	0	0
	18	Energy Manager	-	-	0	0	-	-	0	0	0	0
	19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	93%	129%	124	809,669	73%	76%	90	613,727	90	2,454,907
	20	Demand Response 3	84%	100%	202	9,993	n/a	n/a	170	9,993	0	9,993
Home Assistance Program												
	21	Home Assistance Program	-	-	0	0	-	-	0	0	0	0
Pre-2011 Programs completed in 2011												
	22	Electricity Retrofit Incentive Program	80%	81%	266	1,577,017	53%	54%	141	842,905	141	3,371,618
	23	High Performance New Construction	100%	100%	94	483,571	50%	50%	47	241,785	47	967,141
	24	Toronto Comprehensive	-	-	0	0	-	-	0	0	0	0
	25	Multifamily Energy Efficiency Rebates	-	-	0	0	-	-	0	0	0	0
	26	Data Centre Incentive Program	-	-	0	0	-	-	0	0	0	0
	27	EnWin Green Suites	-	-	0	0	-	-	0	0	0	0
Assumes 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/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/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)

#	Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
<b>Consumer Program</b>				
1	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.	<b>Peak demand and energy savings</b> 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.
2	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	
3	HVAC Incentives	Results directly attributed to LDC based on customer postal code	Savings are considered to begin in the year that the installation occurred	
4	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.	<b>Peak demand and energy savings</b> 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. Initiative was not evaluated in 2011, reported results are presented with verified per unit assumptions and net-to-gross ratio from Bi-Annual Retailer Event and Conservation Instant Coupon Booklet initiatives.
5	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.	
6	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.	<b>Peak demand and energy savings</b> 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. Initiative was not evaluated in 2011, reported results are presented with verified per unit assumptions and net-to-gross ratio from Bi-Annual Retailer Event and Conservation Instant Coupon Booklet initiatives.
7	Residential Demand Response	Results are directly attributed to LDC based on data provided to OPA 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 <b>peaksaver PLUS™</b> participant agreement.	<b>Peak demand savings</b> are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. <b>Energy savings</b> 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 <b>persist</b> for only 1 year, reflecting that savings will only occur if the resource is activated.
8	Residential New Construction	Results are directly attributed to LDC based on LDC identified in application in the saveONenergy CRM 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.	<b>Peak demand and energy savings</b> are determined using a 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.

#	Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
<b>Business Program</b>				
9	Efficiency: Equipment Replacement	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.	<p><b>Peak demand and energy savings</b> 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&amp;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).</p> <p><b>Additional Note:</b> project counts were derived by filtering out "Application Status" = "Post-Project Submission - Payment denied by LDC" and only including projects with an "Actual Project Completion Date" in 2011 and pulling both the "Application Name" field followed by the "Building Address 1" field from the Post Stage Retrofit Report and finally performing a count of the Building Addresses.</p>
10	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.	<b>Peak demand and energy savings</b> 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).
11	Existing Building Commissioning Incentive	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated, no completed projects in 2011.	Savings are considered to begin in the year of the actual project completion date.	<p><b>Peak demand and energy savings</b> 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&amp;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).</p>
12	New Construction and Major Renovation Incentive	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated, reported results are presented with reported assumptions (as per evaluated results in 2010 and consultation with OPA-LDC Work Groups)	Savings are considered to begin in the year of the actual project completion date.	
13	Energy Audit	No resource savings results determined in 2011; 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.	<b>Peak demand and energy savings</b> 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).
14	Commercial Demand Response (part of the Residential program schedule)	Results are directly attributed to LDC based on data provided to OPA 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 <b>peaksaver</b> PLUS™ participant agreement.	<b>Peak demand savings</b> are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. <b>Energy savings</b> 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 <b>persist</b> for only 1 year, reflecting that savings will only occur if the resource is activated.
15	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.	<b>Peak demand savings</b> 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. <b>Energy savings</b> 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
<b>Industrial Program</b>				
16	Process & System Upgrades	Results are directly attributed to LDC based on LDC identified in application in the saveONenergy CRM system; Initiative was not evaluated, no completed projects in 2011.	Savings are considered to begin in the year in which the incentive project was completed.	<b>Peak demand and energy savings</b> 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).
17	Monitoring & Targeting	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated, no completed projects in 2011.	Savings are considered to begin in the year in which the incentive project was completed.	<b>Peak demand and energy savings</b> 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).
18	Energy Manager	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated, no completed projects in 2011.	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.	<b>Peak demand and energy savings</b> 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).
19	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.	<b>Peak demand and energy savings</b> 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).
20	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.	<b>Peak demand savings</b> 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. <b>Energy savings</b> 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.
<b>Home Assistance Program</b>				
21	Home Assistance Program	Results are directly attributed to LDC based on LDC identified in the application; 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 in which the measures were installed.	<b>Peak demand and energy savings</b> 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				
22	Electricity Retrofit Incentive Program	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, assumptions as per 2010 evaluation	Savings are considered to begin in the year in which a project was completed.	<b>Peak demand and energy savings</b> 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). <b>If energy savings are not available</b> , an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results ( <a href="http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports">http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports</a> ).
23	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, assumptions as per 2010 evaluation	Savings are considered to begin in the year in which a project was completed.	
24	Toronto Comprehensive	Program run exclusively in Toronto Hydro-Electric System Limited service territory; Initiative was not evaluated in 2011, assumptions as per 2010 evaluation		
25	Multifamily Energy Efficiency Rebates	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, assumptions as per 2010 evaluation	Savings are considered to begin in the year in which a project was completed.	<b>Peak demand and energy savings</b> 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). <b>If energy savings are not available</b> , an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results ( <a href="http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports">http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports</a> ).
26	Data Centre Incentive Program	Program run exclusively in PowerStream Inc. service territory; Initiative was not evaluated in 2011, assumptions as per 2009 evaluation		
27	EnWin Green Suites	Program run exclusively in ENWIN Utilities Ltd. service territory; Initiative was not evaluated in 2011, assumptions as per 2010 evaluation		

**Final 2011 Results**  
Brantford Power Inc.

**Net Annual Peak Demand Savings (MW)**

Program	Initiative	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Consumer	Appliance Exchange	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Consumer	Appliance Retirement	0.03	0.03	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Consumer	Bi-Annual Retailer Event	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Consumer	Conservation Instant Coupon Booklet	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Consumer	HVAC Incentives	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Consumer	Residential Demand Response	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer	Retailer Co-op	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C&I	Demand Response 3 (part of the Industrial program scheduled for 2012)	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C&I	Direct Install Lighting	0.16	0.16	0.16	0.12	0.12	0.12	0.05	0.05	0.05	0.05
C&I	Efficiency: Equipment Replacement	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.11
C&I	Commercial Demand Response (part of the Residential program scheduled for 2012)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	Demand Response 3	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	Efficiency: Equipment Replacement Incentive (part of the Commercial program scheduled for 2012)	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Pre-2011 Programs Completed in 2011	Electricity Retrofit Incentive Program	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Pre-2011 Programs Completed in 2011	High Performance New Construction	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Grand Total		1.34	0.99	0.99	0.95	0.93	0.91	0.83	0.83	0.76	0.76

**Net Annual Energy Savings (MWh)**

Program	Initiative	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Consumer	Appliance Exchange	13	13	13	9	0	0	0	0	0	0
Consumer	Appliance Retirement	250	250	250	250	169	0	0	0	0	0
Consumer	Bi-Annual Retailer Event	213	213	213	213	195	175	132	131	170	54
Consumer	Conservation Instant Coupon Booklet	150	150	150	150	139	127	103	102	125	57
Consumer	HVAC Incentives	571	571	571	571	571	571	571	571	571	571
Consumer	Residential Demand Response	0	0	0	0	0	0	0	0	0	0
Consumer	Retailer Co-op	0	0	0	0	0	0	0	0	0	0
C&I	Demand Response 3 (part of the Industrial program scheduled for 2012)	3	0	0	0	0	0	0	0	0	0
C&I	Direct Install Lighting	412	412	408	308	308	308	126	124	124	124
C&I	Efficiency: Equipment Replacement	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194	711	711
C&I	Commercial Demand Response (part of the Residential program scheduled for 2012)	0	0	0	0	0	0	0	0	0	0
Industrial	Demand Response 3	10	0	0	0	0	0	0	0	0	0
Industrial	Efficiency: Equipment Replacement Incentive (part of the Commercial program scheduled for 2012)	614	614	614	614	614	614	614	614	574	574
Pre-2011 Programs Completed in 2011	Electricity Retrofit Incentive Program	843	843	843	843	843	843	843	843	843	843
Pre-2011 Programs Completed in 2012	High Performance New Construction	242	242	242	242	242	242	242	242	242	242
Grand Total		4,516	4,503	4,499	4,394	4,274	4,074	3,824	3,821	3,359	3,176