

NORFOLK POWER DISTRIBUTION INC. (Norfolk)
RESPONSES TO INTERROGATORIES
FROM THE
VULNERABLE ENERGY CONSUMERS COALITION (VECC)

General

1.0 Reference Exhibit 2, Tab 3, Schedule 5 page 1

a) How did Norfolk determine the 2011 target indices for SAIDI and SAIFI?

Response:

SAIDI and SAIFI targets were set by the corporation to strive towards continuous improvement over the previous year. Goals set for 2011 were set 10% better than actual 2010 figures.

b) Does Norfolk intend to use these target indices to measure the effectiveness of its Asset Management Plan?

Response:

The target indices provide a goal to strive towards. There are additional criteria which the Asset Management Plan takes into consideration when prioritizing capital replacement projects.

Rate Base

2.0 Reference: Exhibit 2, Tab 1, Schedule 1, page 7

a) Please explain how the capital budget planning criteria set out in this exhibit (customer demand/ renewal/ security / capacity/ reliability/ regulatory requirements etc.) integrates with the Asset Management Plan.

Response:

The capital budget planning criteria integrates with the Asset Management plan through the prioritization of projects. The capital budget planning criteria are highlighted and bolded in the table below that resides on pg 46 of the Asset Management Plan. The term security is not used in the below table, however, in the Asset Management Plan it is referred to as “contingency planning”.

HIGH	Regulatory/Municipally-driven project(s); Customer demand driven projects
	Infrastructure renewal project(s) where assets present a safety or environmental risk
	System reliability, supply/capacity or contingency planning project(s)
MED-HIGH	Infrastructure renewal project(s) where assets are nearing end-of-life
	Specific or small-scale system reliability, supply/capacity or contingency planning project(s)
	Distribution Automation project(s)
	Tools/Fleet/Internal System-related project(s)
MEDIUM	Replacement of obsolete/vintage plant project(s)
	System Optimization
	System Studies
MED-LOW	Rebuild of non-standard design project(s)
LOW	Unique, ‘one-of’ project(s)

3.0 Reference: Exhibit 2, Tab 1, Schedule 2, page 2-4

a) Please explain why the 2008 Actual Rate base figures in Table 1.2 and 1.3 are different (\$46,779,070 and \$46,805,156 respectively).

Response:

The 2008 Actual Rate Base figures in Table 1.2 and 1.3 are different based on the 2007 figures used to calculate the Average NBV used in the calculation of 2008 Rate Base. In 2007, the capital expenditures relating to Smart Meters were included in Account 1860 in error. Norfolk was trying to ensure the Rate Base amounts could be tied back to audited financial statement figures, which resulted in the oversight. The amount of the Smart Meter capital included in Account 1860 in 2007 in error was \$52,173. Since 2007 Actual and 2008 Actual NBVs are added together then divided by (2) to arrive at the Average Net Book Value, the difference of \$26,086 reported for 2008 rate base in Tables 1.2 & 1.3 is equal to one half of the \$52,173 error from 2007. Due to the fact that the Smart Meter amount should have been included in Account 1555 (rather than a capital account), Norfolk has removed the \$52,173 from 2007 Gross Fixed Assets in order to calculate 2008 Average Net Book Value. This revision was reflected in Table 1.2 but not in Table 1.3. The 2008 Actual figures in Table 1.3 should be revised as follows:

TABLE 1.3 ~ REVISED

	2008 Actual	2009 Actual	Variance
Gross Fixed Assets*	76,092,228	79,544,106	3,451,878
Accumulated Depreciation	33,574,501	36,317,914	2,743,413
Net Book Value	42,517,727	43,226,192	708,465
Average Net Book Value	41,884,268	42,871,960	987,692
Working Capital Expenses	32,632,012	33,329,699	697,687
Working Capital Allowance (15%)	4,894,802	4,999,455	104,653
Rate Base	46,779,070	47,871,414	1,092,345

4.0 Reference: Exhibit 2, Tab 1, Schedule 2, page 1

a) Please explain which projects were not undertaken as part of lower capital spending of \$1,661,961 in 2008. Were these projects completed in 2009 through 2011?

Response:

In 2008, the following projects were not undertaken:

Miscellaneous Stations work (\$450,000 - replaced NP4 in 2009 plus other station upgrades)

Rebuilds Metcalfe, College, Leamon St (\$200,000 Completion 2009)

Daffron iXP Replacement (\$100,000 deferred until 2012)

Metering Projects – Partial completion 2009. PME meters budgeted were not required.

General Plant, SCADA and Building (\$400,000 spread out over 2009, 2010)

Other projects that were completed came in under budget to total the \$1.6M in lower capital spending.

5.0 Reference: Exhibit 2, Tab 3, Schedule 2

a) How many poles has Norfolk replaced in the past 5 years? What percentage does this represent of the total inventory of poles?

Response:

Norfolk Power has replaced 810 poles in the past 5 years which represents 7% of the total amount of poles in the system.

b) How many transformers does Norfolk hold in storage. What percentage does this represent of the total inventory of transformers?

Response:

Norfolk Power stocks minimum emergency levels of transformers. Current emergency stock levels include:

38 - O/H transformers of various ratings (1.2% of total O/H transformers)

23 - U/G transformers (4.0% of total U/G transformer inventory)

1 - pole trans. (0.3% of total pole trans. inventory)

c) How many transformers are anticipated to be utilized as part of capital projects in 2011 and 2012?

Response:

Norfolk Power plans to utilize the following numbers of transformers for capital projects;

➔ 93 for 2011;

➔ 100 for 2012

6.0 Reference: Exhibit 2, Tab 3, Schedule 2 pages 42, 54

a) Please provide the business case that was developed for the SCADA project.

Response:

There was no formal business case developed for SCADA implementation. It is a generally accepted industry practice that the majority of utilities use SCADA systems to detect current flow and line voltage, to monitor the operation of circuit breakers, and to remotely control sections of the power grid. SCADA increases efficiency and operational effectiveness. Manual performance of these necessary functions would increase costs due to increased truck rolls and provide slower response times during outages.

b) Does this project replace the Window-based system installed in 2004 and referred to at page 44 of the Asset Management Plan?

Response:

This project is an expansion of the SCADA system, not a replacement.

c) What is the current 2011 spending on the SCADA project?

Response:

Current YTD spending is \$218,725 (based on 3rd quarter financials).

d) Please provide a table showing the total budget (actual and forecast) for this project by year. In this table please provide rows for the appropriate related miscellaneous projects (e.g. DS upgrade project #1 in 2011).

Response:

Please see table below:

	2008A	2009A	2010A	2011F	2012F
Actual / Forecast	\$9,955	\$4,574	\$550,164	\$245,000	\$100,000
Actual YTD				\$218,725	N/A
Contributions			\$91,973	\$63,355	
Net Amounts			\$458,191	\$155,370	

The DS upgrade project mentioned above is a separate project from the SCADA project and the purpose of the project was not SCADA specific. Please see Norfolk Power's response to OEB Board Staff interrogatory #24. Ref: Exhibit 2/Tab 3/Sch 2 for further detail.

e) When will the SCADA project be completed and what is the anticipated all-in-cost?

Response:

The SCADA project is ongoing yearly due to improvements and expansions. An all-in cost has not been projected.

7.0 Reference: Exhibit 2, Tab 3, Schedule 3

a) The 2012 Distribution System Capital Expenditure Forecast in the Asset Management Plan (4,641k - see Table 3.7) is significantly different from the proposed 2012 Distribution Plant Capital Projects (3,898k see Table 3.6). Please explain the reasons for this difference.

Response:

Table 3.6 (Exhibit 2, Tab 3, Schedule 3) lists capital projects for 2012 with a subtotal of \$4,641,000 before capital contributions. Capital contributions are identified at \$652,000 and the total, net of capital contributions, of \$3,989,000 is provided.

Table 3.7, found in Exhibit 2, Tab 3, Schedule 3 provides the same list of projects with a total of \$4,641,000. Capital contributions are not identified and the net amount is not provided in this list.

**8.0 Reference: Exhibit 2, Tab 5, Schedule 3, page 2 /Excel worksheet
Norfolk_2012COS_Rev_Reqt_Work_Form_20110826**

a) Please reconcile the rate base figures in these two tables (i.e. 67,165,034 vs. 59,653,664)

Response:

The Revenue Requirement Workform contained an error and the correct rate base is \$59,653,664 as recorded in Exhibit 2, Tab 5, Schedule 3, page 2. A new revenue requirement work form has been submitted to the Board with this interrogatory response.

9.0 Reference: Exhibit 2, Appendix A, Asset Management Plan

a) Does Norfolk identify its worst performing circuits? If not are there plans to modify future Asset Plan to monitor and address issues on worst performing circuits?

Response:

Norfolk Power has tracked its worst performing feeders since 2009. Please refer to the attachments in response to Board Staff Question 32.

10.0 Reference: Exhibit 2, Appendix C and D Green Energy Plan

a) In its letter of comment the OPA states that is has received 36 FIT applications (exempt and required) and 159 microFit applications for the Norfolk service territory. It further states that 52 of the microFit applications have been dealt with (connected or terminated). How do these figures reconcile with Table 4 of Norfolk's Green Energy Plan?

Response:

See response to Board Staff Interrogatory #34. Ref: Exhibit 2/Appendix C – Green Energy Plan, p.2 & OPA Letter of Comment, a)

b) How many FIT projects has Norfolk connected to date?

Response:

To date (November 17, 2011) Norfolk Power has connected one (1) FIT project (100kW), however, 4 more are in advanced stages where the connection is dependent on other stakeholders in addition to Norfolk Power.

11.0 Reference: Exhibit 2, Tab 3, Schedule 2, Table 3.6 (pgs. 29/40/ 55)

a) Please explain the significant drop in forecasted contributions in aid of construction as between 2012 and 2011 (861K), 2010 (819K).3

Response:

The 2012 contributed capital is based on the historical contributed capital as a percentage of the expenses it was contributed for, namely conduit, UG Conductor, Transformers and Services. In reviewing actual contributions in the past, contributions averaged 40% of these expenses. In 2012 40% of the budgeted amounts expenses was used to estimate contributed capital. The table below summarizes the calculations involved.

	2008 Actual	2009 Actual	2010 Actual	Total 2008 2009 2010	2012 Budget
Contributed Capital	331,461	531,414	819,501	1,682,376	652,000
Expenses:					
Conduit	54,312	312,485	160,330	527,127	100,000
UG Conductor	176,668	515,163	255,331	947,162	203,000
Transformers	741,072	421,377	744,522	1,906,971	952,000
Services	285,341	277,123	271,076	833,540	375,000
Total Expenses	1,257,393	1,526,148	1,431,259	4,214,800	1,630,000
Contributions as a Percentage of Expense	26%	35%	57%	40%	40%

In regards to the \$819,501 of contributed capital in 2010 it is noted that approximately \$208,079 of this amount was for unusual projects that are not budgeted for in 2012. In addition the \$861,340 of contributed capital in 2011 includes \$351,340 for the connection of a RESOP generator (Identified as project 13 under the 2011 capital projects), which is not budgeted to reoccur in 2012. Excluding this amount the contributed capital for 2011 would be \$510,000.

Operating Revenues

12.0 Reference: Exhibit 3, Tab 1, Schedule 2, page 1

a) Please reconcile the total 2012 Distribution Revenue reported here (\$11,072,731) with the 2012 Revenues (\$12,209,580 – net of the TOA) as set out in Exhibit 8, Schedule 7.

Response:

The Distribution Revenue of \$11,072,731 found in Exhibit 3 is 2012 revenue based on existing rates. The \$12,209,580 is the 2012 distribution revenue based on the rates applied for in this application.

**13.0 Reference: Exhibit 3, Tab 2, Schedule 1, page 3
Exhibit 3, Tab 2, Schedule 1, page 18**

a) Please confirm that the total customer counts reported on page 3 exclude Hydro One.

Response:

The customer counts reported on page 3 exclude Hydro One Customers.

b) Please reconcile the different 2012 total customer counts reported in these two references (23,449 vs. 23,616).

Response:

The difference is a result of 167 from General Service 50 – 4,999kW which was improperly missed in the calculation. This was a spreadsheet linking error. The correct number should be 23,616 in both Exhibit 3, Tab 2, Schedule 1, page 3 and page 18.

14.0 Reference: Exhibit 3, Tab 2, Schedule 1, page 8

a) What is the source for the 2011 and 2012 projected values for local unemployment?

Response:

For 2012, the projected values for the local unemployment is the average of the local unemployment rate from 2003 to 2010. For 2011, the projected values for the local unemployment reflects a movement from the 2010 actual local unemployment rate to the average local unemployment rate used in 2012.

15.0 Reference: Exhibit 3, Tab 2, Schedule 1, page 10

Norfolk's Excel Load Forecast Model

a) The first paragraph suggests that Norfolk used a 10 year average to establish weather normal. However, the second paragraph suggests that an eight-year average was used. Please reconcile and clarify.

Response:

Norfolk Power wishes to point out that the last 2 lines in Table 2.5 should read as follows:

“2012 Weather Normal – 10 year average”

“2012 Weather Normal – 20 year trend”

“The 2012 Normalized Test Year” figure of 364.5 is based on 8 years. The “2012 Weather Normal – 10 year average” figure of 365.4 is based on 10 years average. The “2012 Weather Normal – 20 year trend” figure of 364.7 is based on 20 year trend analysis.

Norfolk Power used 8 years to establish the forecast used in the application process.

b) Please confirm that the forecast purchase values for 2011 and 2012 in Table 2.5 include the CDM adjustment.

Response:

Norfolk confirms that the forecast purchase values for 2011 and 2012 in Table 2.5 include the CDM adjustment.

c) Please confirm whether the System Purchase history/forecast presented in Table 2.5 includes or excludes purchases for delivery to Hydro One.

Response:

Norfolk confirms that the System Purchase history/forecast presented in Table 2.5 excludes purchases for delivery to Hydro One.

d) Norfolk's (Excel) Load Forecast Model excludes Hydro One purchases after November 1, 2005. Please explain why no Hydro One purchases were excluded prior to this date. Is it a data issue or were there no Hydro One purchases prior to November 1, 2005?

Response:

In December, 2005, Norfolk started billing the 5 PME points directly to Hydro One.

e) Please confirm that the forecast for 2012 (a Leap Year) used 28 – as opposed to 29 days – for February. Please revise the forecast as required.

Response:

Norfolk confirms that the forecast for 2012 (a Leap Year) used 28 – as opposed to 29 days – for February. (Also see Energy Probe Interrogatory #16).

f) Please provide a table that sets out for 2009 and 2010 the following:

- The actual purchases for each year
- The actual HDD and CDD values for each year
- The “weather normal” HDD and CDD values for each year (as defined by Norfolk)
- The HDD and CDD coefficients per Norfolk's regression model⁴
- The weather normal adjustment for each year based on the product of a) the HDD and CDD coefficients and b) the differences between the actual and “weather normal” values for HDD and CDD respectively.
- The estimated “weather normal purchases” calculated by adjusting actual purchases by the values calculated in the preceding bullet.

Response:

The requested information is provided below

	2009	2010
Actual Purchases.	355,895,069	361,293,097
Actual HDD Values.	3,934	3,661
Actual CDD Values.	151	365
"Weather Normal" HDD Values.	3,827	3,827
"Weather Normal" CDD Values.	263	263
HDD coefficient for Norfolk Power regression model.	9,579	9,579
CDD coefficient for Norfolk Power regression model.	63,505	63,505
Weather Normal Adjustment based on the product of HDD and CDD coefficients and the difference between actual and weather normalized HDD and CDD values respectively.	6,104,429	(4,836,313)
Estimated "weather normal purchases" calculated by adjusting actual purchases by the values derived in the row above.	361,999,499	356,456,784

16.0 Reference: Exhibit 3, Tab 2, Schedule 1, page 11

a) Please describe the current status of Norfolk's 2011 CDM program activity.

Response:

Norfolk Power is currently registered to deliver all Tier One OPA Province-Wide CDM initiatives under the Consumer, Commercial & Institutional, and Industrial portfolio of programs.

The OPA Q2 2011 CDM Status Report indicates that Norfolk Power has achieved a savings of 1.24GWh, which is on track to achieving 1.57 GWh for 2011, reflecting 10% of the four year target.

17.0 Reference: Exhibit 3, Tab 2, Schedule 1, page 12

a) Please provide the actual customer count, by class, as of June 30, 2011.

Response:

Please see table below.

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	TOTAL
Actual Number of Customers/Connections							
As at June 30, 2011	16,821	1,997	167	3,819	371	76	23,251
As at June 20, 2010	16,707	2,021	163	3,819	384	77	23,171

18.0 Reference: Exhibit 3, Tab 3, Schedule 1, page 1

a) Please provide the SSS Administration Charge revenues for 2009 and 2010.

Response:

The SSS Administration Charge revenues for 2009 and 2010 are shown below:

2009 \$47,476

2010 \$48,369

b) Is the \$24,000 in revenues from dark fibre leasing to Norfolk Energy Inc. included in USOA #4375? If not, where is it included?

Response:

The revenues from dark fibre leasing to Norfolk Energy Inc. are included in USOA#4375. They are shown incorrectly in Table 3.1 as being included in USOA account 4315.

c) Are the expenses associated with providing the dark fibre reflected in Account #4380?

Response:

The expenses associated with providing the dark fibre are reflected in Account #4380.

d) Are the expenses associated with providing dark fibre to Norfolk Energy assumed to equal the revenues and, if so, why?

Response:

The expenses associated with providing the dark fibre to Norfolk Energy are assumed to be less than the revenue charged. The expenses have been calculated below based on the impact on revenue requirement. This fibre project resulted in a revenue requirement of \$42,408. Norfolk Energy leases 25% of the fibre (one tube) and pays \$23,880 per year or 56% of the revenue requirement.

Total Cost of Fibre	493,323		
Less Capital Contributions	148,985		
Net	344,338		
NBV Fibre	2010	2011	2012
Opening Balance	344,338	335,730	318,513
Depreciation (20 years)	8,608	17,217	17,217
Ending Balance	335,730	318,513	301,296
2012 Ave NBV - Building	\$309,904		
4% Short term debt	\$12,396		
56% Long term debt	173,546		
40% Equity	123,962		
Short term debt @ 2.46%	\$305		
Long term debt @ 5.51%	9,562		
Equity @ 9.58%	11,876		
PILs @ 22.5%	3,448		
Depreciation	17,217		
Total Revenue Requirement	\$42,408		

e) Please explain the increase in Miscellaneous Service Revenues (#4235) in 2010 and why the increase is not sustained in 2011 and 2012.

Response:

The Miscellaneous Service Revenues anticipated in 2011(\$88,000) more accurately reflect the average Miscellaneous Revenues for the years 2006 through 2010(\$91,500).

In reviewing the Miscellaneous Service Revenues for 2011, January through September, the balance is approximately \$65,757. Extrapolating this figure over a full year would mean a total Miscellaneous Service Revenue for 2011 of \$87,677 which is very close to the expected revenue of \$88,000 as per Table 3.1. Declines in Disconnect/Reconnection at Meter (During & After Hours) revenues in 2011 have contributed to this lower Miscellaneous Services Revenues total.

19.0 Reference: Exhibit 3, Tab 3, Schedule 1, page 1

a) How many micro-fit customers does Norfolk have as of June 30, 2011?

Response:

Norfolk Power has a total of 38 micro-fit customers as of June 30, 2011

b) How many micro-fit customers does Norfolk Hydro expect to have as of year-end 2011 and year-end 2012?

Response:

Norfolk Power expects to have 54 micro-fit customers at the end of 2011. Norfolk Power expects to have a total of 104 micro-fit customers at the end of 2012.

In Norfolk Power's Green Energy Plan originally submitted, the estimated number of micro-fit customers at the end of 2011 was to be 50. Norfolk Power has since revised this estimate to be 54 connections by the end of 2011.

c) Where are the revenues from the monthly service charges to micro-fit customers reflected in the forecast of Revenue Offsets?

Response:

Revenues from the monthly services to micro-fit customers were not accurately reflected in the forecast of Revenue Offsets.

MicroFit revenues are recorded in USoA account 4235. For 2010 the actual revenues recorded were \$226.63. The revenue estimate for USoA account 4235 for 2011 and 2012 did not factor in the increased numbers of MicroFit customer connections and resulting revenue streams. USoA Account 4235 totals for 2011 and 2012 have been updated as shown below to include the MicroFit connections estimated for the remainder of 2011 and 2012. For 2011, the 20 connections that were completed in late 2010 will generate the monthly revenue stream for all of 2011. Norfolk has assumed that the 34 connections in 2011(making a total # of connections as at December 31, 2011 of 54) will be in place for 6 months of the year, thus generating the revenue stream for only half of the year. For 2012, the 54 connections completed in 2010 and 2011 will generate revenue streams for the whole year while the remaining 50 new connections estimated for 2012 will generate revenues for half of 2012.

Acct 4235	2008	2009	2010	2011F	2012F
Other Revenue	\$ 95,702.00	\$ 89,927.00	\$ 101,636.00	\$ 88,000.00	\$ 88,000.00
MicroFit Revenue	\$ -	\$ -	\$ 226.63	\$ 2,152.50	\$ 5,103.00
Total 4235	\$ 95,702.00	\$ 89,927.00	\$ 101,862.63	\$ 90,152.50	\$ 93,103.00
Total # of Connections at Year End			20	54	104
# Months Connected During Year (for new connections)			2	6	6
Monthly Charge			5.25	5.25	5.25

Total MicroFit Service Charge Revenue Calculation 2010:	
Total # of Connections at Year End(2010)	20
Average number of months connected for new connections(2010)	2.158
Monthly Service Charge	\$ 5.25
Revenues for 2010 Connected MicroFits (20 x 2.158 x 5.25)	226.63
Total MicroFit Revenue for Year	<u>\$ 226.63</u>
Total MicroFit Service Charge Revenue Calculation 2011 (Forecasted):	
Total # of Connections at Year End (2011)	54
Connections from Previous Year End (2010)	20
Total # of New Connections in 2011	34
Average number of months connected for new customers (2011)	6
Monthly Service Charge	\$ 5.25
Revenues for 2010 Connected MicroFits (20 x 12mths x 5.25/month)	\$ 1,260.00
Revenues for 2011 Connected MicroFits (34 x 6mths x 5.25/month)	\$ 892.50
Total MicroFit Revenue for Year	<u>\$ 2,152.50</u>
Total MicroFit Service Charge Revenue Calculation 2012 (Forecasted):	
Total # of Connections at Year End (2012)	104
Connections as at Previous Year End (2011)	54
Total # of New Connections in 2012	50
Average number of months connected for new customers (2012)	6
Monthly Service Charge	\$ 5.25
Revenues for 2010 and 2011 Connected MicroFits (54 x 12 x 5.25)	\$ 3,402.00
Revenues for 2012 Connected MicroFits (50 x 6 x 5.25)	\$ 1,701.00
	<u>\$ 5,103.00</u>

Operating Costs

20.0 Reference: Exhibit 4, Tab 1, Schedule 1, page 6

a) Norfolk's cost per customer has increased 19% over Board approved (see Table 1.9). What steps or programs has Norfolk implemented to align operating costs per customer with inflation?

Response:

Norfolk has taken cost control seriously and taken steps to contain costs, including reducing the number of full time equivalent employees from 50.4 to 48.6 during the four period. Norfolk is in the process of securing a long term agreement to continue water and sewer billing which provides a cost offset, exceeding incremental costs by \$209,759 (Exhibit 4, Tab 2, Schedule 5). This provides a reduction in cost per customer of \$10.86 based on the 19,303 customers projected for 2012.

While the cost pressures of running the LDC make it difficult to restrain increases to inflation, Norfolk notes its OM&A per customer is reasonable compared to its cohorts as defined by the OEB. See table below that shows how Norfolk Power compared with its cohorts for the years 2008, 2009, and 2010.

		2008	2009	2010
Norfolk Power Distribution		\$ 277	\$ 238	\$ 257
Innisfil Hydro Distribution		\$ 246	\$ 254	\$ 266
Niagara Peninsula Energy		\$ 255	\$ 257	\$ 262
Orillia Power Corporation		\$ 298	\$ 302	\$ 325
Haldimand County Hydro		\$ 338	\$ 332	\$ 325
Canadian Niagara Power		\$ 285	\$ 303	\$ 282

Also in 2011, Norfolk decided against recovering the \$55,876 in LLP class action costs that were approved for recovery in the Board decision related to EB-2010-0295.

While costs may have increased 19% compared to Board approved 2008, Norfolk notes that actual costs per customer have decreased from \$277 in 2008 to \$269 in 2012.

21.0 Reference: Exhibit 4, Tab 2, Schedule 1, page 5

a) What are the 2011 and 2012 costs associated with the contractor services for manual meter reading?

Response:

Norfolk has not included any amount for manual meter reads in 2012 costs within the application.

The 2011 costs for manual meter reads within this application were estimated at \$120,900.

However Norfolk has not been able to move to remote electronic reading as quickly as planned. Actual manual meter reading expenses for 2012 as of September 30th were \$152,645. Norfolk anticipates this amount to increase to \$191,000 by year-end. Please see Board Staff #54 for further information.

22.0 Reference: Exhibit 4, Tab 2, Schedule 2, page 4

a) Please explain the increase in General & Administration Expenses between 2009 and 2010. Specifically address the reasons why general advertising expenses increased from \$67,435 to \$163,756.

Response:

General advertising expenses decreased from 2009 to 2010 (\$2,038 to \$1,401, respectively).

Regulatory expenses (Account 5655) increased from \$67,435 to \$163,756. This increase was primarily due to one-time costs related to Norfolk's 2011 COS application, which was denied. This amount (approximately \$80,000) has not been sought for recovery in this application.

Other increases to General & Administration in 2010 include:

- The addition of one full time position (accounting supervisor), as outlined in Exhibit 4, Tab 2, Schedule 4.
- \$89,447 of expense for the Special Purpose Charge is included in General & Administration under account 5681.
- \$20,000 increase in consulting fees for Human Resource activities.

23.0 Reference Exhibit 4, Tab 2, Schedule 4, page 3, Table 2.19

a) How many employees are there currently and planned for accounts 5605?

Response:

There are two employees (current and planned) in account 5605.

b) Why did Norfolk choose to combine account 5605, yet choose not to aggregate the 1.5 non-union positions shown in this table?

Response:

The 1.5 non-union positions are actually 4 to 6 part-time positions, depending on the year, and this number of positions in the account appeared sufficient to obscure individual compensation.

c) What inflation factor has been used in projecting Management and Executive salaries and benefits?

Response:

In 2011 Management and Executive salaries increased by 2.5% and are projected to increase in 2012 by 3.0% (Exhibit 4, Tab 2, Schedule 4 pages 7 and 8).

24.0 Reference: Exhibit 4, Tab 2, Schedule 5, page 3

a) Please explain how the meter reading cost of 10 cents per read per month as shown in Table 2.22 is calculated.

Response:

Norfolk County is currently replacing all of its water meters with electronically read water meters. These meters will be read by Sensus, the same contractor Norfolk uses to read its smart meters at a cost of 10 cents per meter, per month. (See Exhibit 4, Tab 2, Schedule 3, page 11).

b) Does Norfolk provide meter reading services to its affiliate for properties at which it has a smart meter installed?

Response:

The majority of water meters read by Norfolk for its affiliate are at properties that also have a smart meter installed. (See Exhibit 4, Tab 2, Schedule 3, page 11).

Cost Allocation

25.0 Reference: Exhibit 7, Tab 1, pages 2-3

Norfolk's 2012 Cost Allocation Model, Sheet I7.1

a) Please provide a set of schedules that compare Norfolk's weighting factors for Services, Billing & Collecting, Meter Capital and Meter Reading with the values used by Norfolk in its 2008 EDR Cost Allocation.

Response:

The following outlines a schedule that compares Norfolk's weighting factors for Services, Billing & Collecting, Meter Capital and Meter Reading with the values used by Norfolk in its 2008 EDR Cost Allocation.

Weighting Factors	Residential	GS <50	GS>50- Regular	Street Light	Sentinel	Unmetered Scattered Load	Embedded Distributor			
Services										
2012 CA	1	3	10							
2008 CA	1	2	10	1	1	1	Not Applicable			
Billing and Collecting										
2012 CA	1	1	3	1	0.1	0.5	1			
2008 CA	1	2	7	1	0.1	5	Not Applicable			
Meter Capital										
	Single Phase 200 Amp - Urban	Single Phase 200 Amp - Rural	Central Meter	Network Meter (Costs to be updated)	Three-phase - No demand	Smart Meters	Demand without IT (usually three-phase)	Demand with IT	Demand with IT and Interval Capability - Secondary	Demand with IT and Interval Capability - Primary
2012 CA						200			2,300	20,000
2008 CA	50	150	250	225	210	300	500	2,100	2,300	10,000
Meter Reading										
	Smart Interval Meter	Residential - Urban - Outside	Residential - Urban - Outside with other services	Residential - Urban - Inside	Residential - Urban - Inside - with other services	Residential - Rural - Outside	GS - Walking - with other services	GS - Vehicle with other services	Interval	
2012 CA	1									
2008 CA		1	1	2	1	3	3	3	49	

b) Please confirm that the same type of smart meter was used/installed for all Residential and GS<50 customers.

Response:

b) For the majority of Residential and GS<50kW customers Norfolk installed a standard Sensus 2S type meter. This is a 200Amp, 120/240 volt meter. The remaining Residential and GS<50kW locations required Norfolk Power to install a transformer rated or a poly-phase type meter. The 480 residential customers who require this type of meter tend to be rural based with Central Metering services.

In order to reduce the amount of inventory Norfolk needs to stock to accommodate the remaining service types, including our GS>50kW customers, Norfolk made the decision to equip all our remaining meters with the capability of recording demand (kW) and vars (kVar).

c) Please explain why Demand Meters are not required/used for all GS>50 customers (146 of 167 such customers have the same meter type as Residential and GS<50).

Response:

Meters capable of recording demand (kW) and vars (kVar) are required for all customers in the GS>50kW category. These are not the same meter type Norfolk installed for the majority of Norfolk's Residential and GS<50kW customers. Any new or upgraded service with a demand of >250kVa is equipped with an interval meter, which is capable of recording usage in 5 or 15 minute intervals. Norfolk currently has 20 locations with interval meters installed.

d) Why are smart meters and interval meters assigned the same meter reading weighting factor?

Response:

Smart meters and interval meters are assigned the same meter reading weighting factor as the actual meter reading costs since these meters are not significantly different.

26.0 Reference: Exhibit 7, Tab 1, page 6

Norfolk's 2012 Cost Allocation Model, Sheets I3 and O1

a) Please confirm that Hydro One is allocated a portion of Norfolk's OM&A expense. If yes, shouldn't 15% of this also be included in the working capital attributed to Hydro One?

Response:

Norfolk Power confirms that Hydro One is allocated a portion of Norfolk's OM&A expense and this amount has been included in the working capital attributed to Hydro One.

b) Please confirm that in order to account for the \$33,639 (in PILs, deemed interest and deemed equity return) directly allocated to Hydro One, Norfolk reduced General Administration costs by an equivalent amount.

Response:

Norfolk Power confirms that in order to account for the \$33,639 (in PILs, deemed interest and deemed equity return) directly allocated to Hydro One, Norfolk reduced General Administration costs by an equivalent amount.

c) If yes, please explain why the adjustment was made to General Administration costs. Also, please re-do the Cost Allocation with the adjustment applied to Deemed Interest (Account #6005).

Response:

The adjustment was made to General Administration costs since it is Norfolk's understanding that the cost allocation model is not designed to allow the user to directly allocate PILs, deemed interest and deemed equity return associated with working capital allowance to a rate class. As a result, Norfolk Power is unable to re-do the Cost Allocation with the adjustment applied to Deemed Interest (Account #6005) since it is Norfolk Power's understanding that the cost allocation model does not allow the user to directly allocate account 6005.

27.0 Reference: Exhibit 7, Tab 1, page 7

a) Assuming the revenue to cost ratio for Hydro One was only increased to 80% and the additional revenue was used to reduce the ratio for the USL class, what would be the resulting USL revenue to cost ratio.

Response:

Assuming the revenue to cost ratio for Hydro One was only increased to 80% and the additional revenue was used to reduce the ratio for the USL class, the resulting USL revenue to cost ratio would be 154.7%

Rate Design

28.0 Reference: Exhibit 8, Schedule 1, pages 3-4

a) Please confirm that the current Residential Monthly Service Charge (\$20.77) is below the upper limit of the Board's guideline (\$22.38).

Response:

The current Residential Monthly Service Charge of \$20.77 is below the Customer Unit Cost per month – Minimum System with PLCC Adjustment of \$22.38.

b) Please confirm that the proposed 2012 Residential Monthly Service charge (\$22.99) will be above the upper limit of the Board's guideline.

Response:

The proposed 2012 Residential Monthly Service charge of \$22.99 will be above the Customer Unit Cost per month – Minimum System with PLCC Adjustment of \$22.38.

c) Given the commentary on page 3 (lines 8-10), why is Norfolk proposing a Residential Monthly Service Charge in excess of the Board's upper limit?

Response:

Please refer to response to Energy Probe Interrogatory #33.

29.0 Reference: Exhibit 8, Schedule 1, page 6

a) How were the forecast LV billing units in Table 8-8 established?

Response:

With regards to service charges there are a total of 6 billing units based on 6 different PME locations (Pole Mounted Metering locations):

Delivery Point 00990-46027 Waterford DS
Delivery Point 01637-37004 Wilsonville DS
Delivery Point 11631-98008 453 Port Rowan PME
Delivery Point 18650-94007 345 Port Rowan PME
Delivery Point 22730-53000 212 Blueline PME
Delivery Point 23151-51003 338 Delhi PME

With regards to meter charges there are two Hydro One owned meters at Delivery Point 00990-46027 Waterford DS and Delivery Point 01637-37004 Wilsonville DS

The total forecasted kW for 2012 is based on the trend in the level of total sub transmission service in kW that Hydro One provided to Norfolk Power from 2008 to 2010. This amount is split between Specific ST Lines and Low Voltage Distribution Station based on a historical split of kW service provided from these two types of facilities owned by Hydro One.

30.0 Reference: Exhibit 8, Schedule 2, page 17

a) Is the fixed/variable split for the GS>50 class based on distribution revenues net of the transformer allowance? If not, please recalculate the split and the proposed rate for GS>50 on this basis.

Response:

The fixed/variable split for the GS>50 class is based on distribution revenues net of the transformer allowance.

31.0 Reference: Exhibit 8, page 7

a) Please recalculate the 2006-2010 values for the historical Loss Factor in the Distributor's System (Row G) and the resulting average to four significant digits (i.e., 1.0xxx).

Response:

Please see revised Table 8-13 – Line Loss Calculation below.

		Historical Years					5-Year Average
		2006	2007	2008	2009	2010	
	Losses Within Distributor's System						
A(1)	"Wholesale" kWh delivered to distributor (higher value)	403,107,950	403,123,270	397,499,650	383,179,248	393,192,429	396,020,509
A(2)	"Wholesale" kWh delivered to distributor (lower value)	398,412,066	398,427,208	392,869,098	378,715,518	387,987,818	391,282,342
B	Portion of "Wholesale" kWh delivered to distributor for its						0
C	Net "Wholesale" kWh delivered to distributor = A(2) - B	398,412,066	398,427,208	392,869,098	378,715,518	387,987,818	391,282,342
D	"Retail" kWh delivered by distributor	381,214,712	382,635,352	375,248,931	366,381,706	368,752,614	374,846,663
E	Portion of "Retail" kWh delivered by distributor to its						-
F	Net "Retail" kWh delivered by distributor = D - E	381,214,712	382,635,352	375,248,931	366,381,706	368,752,614	374,846,663
G	Loss Factor in Distributor's system = C / F	1.04511	1.04127	1.04696	1.03366	1.05216	1.04385
	Losses Upstream of Distributor's System						
H	Supply Facilities Loss Factor	1.0118	1.0118	1.0118	1.0118	1.0134	1.0121
	Total Losses						
I	Total Loss Factor = G x H	1.05743	1.05354	1.05930	1.04585	1.06628	1.05649

Deferral and Variance Accounts / Smart Meters

32.0 Reference: Exhibit 9, Tab 4, Schedule 1, page 1

a) Please provide the amounts spent in respect to storm or other weather damage in each of the years 2008, 2009, 2010 and 2011.

Response:

Please see table below.

				Actual
	Acutal	Acutal	Acutal	Jan to Sept
	2008	2009	2010	2011
Non-Extraordinary Storm Damage	\$ 65,998	\$ 36,496	\$ 19,518	\$ 129,017
Extraordinary Storm Damage				\$ 232,235
Total Storm Damage	\$ 65,998	\$ 36,496	\$ 19,518	\$ 361,252

b) Please provide the portion of the above costs that were covered by insurance policies.

Response:

None of the above costs were covered by insurance policies.

c) Please explain what weather damage insurance options are available to Norfolk.

Response:

Norfolk carries property insurance, but this does not cover the transmission and distribution plant for storm damages. Anything outside of 1,000 feet from transmission and distribution stations is not covered by Norfolk's policy.

33.0 Reference: Exhibit 9, Tab 5, Schedule 3, Page 1 of 3

a) Provide a table that shows by class, the AMCD Capital invested, the revenue requirement and SM funding adder revenue collected from 2006-2010

Response:

Norfolk has provided the Board's updated Smart Meter Model, with these interrogatory responses. This updated model provides more detailed information in the format required to respond to this interrogatory question. Please see Board Staff IR #72 and #73 for additional details.

In addition to the information provided in the updated model, Norfolk has provided responses to the interrogatory questions posed by VECC, using the figures from the updated model. Total capital spending for Smart Meters is \$3,631,510 with \$2,514,267 representing the total Advanced Metering Communications Devices (AMCD). These capital expenditures are actual to date values with forecasted amounts to the end of 2011 to reflect the amount applied for in the application.

	CUSTOMER CLASS			
	Residential	Small Commercial (GS<50)	Industrial (GS>50)	TOTAL
AMCD Capital Invested	\$ 1,696,522	\$ 817,745	\$ -	\$ 2,514,267
Revenue Requirement (2010)	\$ 459,343	\$ 32,156	\$ -	\$ 491,499
SM Funding Adder Revenue Collected (2006 to 2010)	\$ 595,196	\$ 74,238	\$ 6,006	\$ 675,441

b) For the residential class provide the unit installed cost for single phase (and three phase meters and the numbers and total costs for 2006-2010

Response:

	<u>Meters</u>	<u>\$ / Meter</u>	<u>Total Costs</u>
Residential	16,831	\$ 100.80	\$ 1,696,521.90

c) Provide similar installed costs for the other classes

Response:

	<u>Meters</u>	<u>\$ / Meter</u>	<u>Total Costs</u>
GS < 50	1,965	\$ 416.16	\$ 817,744.87

34.0 Reference: Exhibit 9, Tab 5 Schedule 3, Pages 1 – 3 and Appendix C

a) Using installed class-specific capital cost as the cost driver/allocator please provide a version of Table 9.1 that shows the revenue requirements, revenue collected and net balance attributable to each rate class.(exclude all costs and identify separately costs related to stranded meters)

Response:

The requested information is provided in the table below. The information in the table excludes all costs associated with stranded meters and shows the calculation of the Smart Meter Disposition Rider by rate class for the purposes of responding to part c) and d)

Rate Class	Residential	Small Commercial GS < 50	Industrial GS > 50	Total
(A) Class-specific AMCD capital cost as per response to VECC #33	\$1,696,522	\$817,745		\$2,514,267
(B) Allocation of Revenue Requirement from updated smart meter model based on proportion of (A)	\$949,307	\$457,578		\$1,406,885
(C) SM Funding Adder Revenue Collected as per response to VECC #33	\$595,196	\$74,238	\$6,006	\$675,441
(D) Allocation of Adder Revenue from updated smart meter model based on proportion of (C)	\$864,432	\$107,820	\$8,723	\$980,975
(E) Net Balance (B) - (D)	\$84,875	\$349,758	(\$8,723)	\$425,910
(F) Allocation of Carry Charges from updated smart meter model based on proportion of (E)	\$5,761	\$23,741	(\$592)	\$28,910
(G) Smart Meter True-up (E) - (F)	\$79,114	\$326,017	(\$8,131)	\$397,000
(H) Metered Customers	16,831	1,965	507	19,303
(I) Smart Meter Disposition Rider (G)/(H) over 4 years	\$0.10	\$3.46	(\$0.33)	\$0.43

b) Compare the result to Table 9.1 and Appendix C and comment on the differences.

Response:

Based on the comparative information in the following table the differences between the results in Table 9.1 and Appendix C are only rounding differences.

	Smart Meters and related fixed assets	Customer Information System	Operating Expenses
2005	\$6,557		
2006	\$14,061	\$11,124	
2007	\$28,193	\$5,316	\$272
2008	\$19,802	\$1,240	\$3,921
2009	\$2,314,457	\$115,063	\$51,572
2010	\$671,885	\$135,511	\$149,604
2011	\$159,056	\$149,244	\$186,962
Total Appendix C	\$3,214,011	\$417,498	\$392,331
Table 9.1	\$3,214,012	\$417,497	\$392,331
Difference	-1	1	0

c) Provide a Version of Table 9.2 that allocates costs on a class basis using installed capital cost as the cost driver and allocating the Total 8 Revenue Requirement (excluding Stranded meter Costs) to each class receiving smart meters

Response:

Please see response to 34 a).

d) Assuming that the Total forecast of capital and operating costs to end of 2011 was approved for disposition and recovery; provide in tabular form similar to Table 9.4 an estimate of the Smart Meter Disposition Rate Rider per class using the allocation of Revenue Requirement based on installed Capital Cost of meters for each class, and showing separately stranded meter costs.

Response:

With regards to the Smart Meter Disposition Rate Rider the requested information is provided in response to part a). In regards to the stranded meter costs, the stranded meter cost recovery rate rider would be \$3.70 per metered customer assuming recovery over one year and \$0.93 per metered customer with recovery over four years as proposed in the application.

35.Reference: Exhibit 9, Tab 8 Schedule 1

- a. When will OPA results for 2010 Programs be available and how may this affect the LRAM and Load forecast?
- b. Please provide the results (kwh) Actual and forecast by year 2005-2012 for all OPA-funded Residential programs for 2005-2009.
- c. For each program for each year tabulate the unit and total savings by year at the program/measure level, including any “co-branded market programs” such as Every Kilowatt Counts (EKC).
- d. Please list and confirm OPAs input assumptions for EKC 2005 and 2006 including the measure life and unit kwh savings for Compact Fluorescent Lights and Seasonal Light Emitting Diodes. Confirm some of these assumptions were changed in 2007 and again in 2009 and compare the values.
- e. Confirm/ demonstrate whether the claimed savings shown in the response to part b) reflect the measure lives in place at the time the programs were run or reflect the latest OPA Measures and Assumptions list values.

Response:

- a. The final OPA-verified results of the 2010 OPA programs were received via an email to NPDI from the OPA dated November 15, 2011. Norfolk has submitted a revised Manager’s Summary and 3rd Party Review with this application to reflect the November 15th results.

The LRAM claimed by NPDC was updated to incorporate the final OPA-verified results of the 2010 OPA programs. All other assumptions and inputs remained unchanged from the claim originally filed as Exhibit 9 of NPDI’s cost of service application EB-2011-0272.

NPDI recommends that its LRAM claim be updated from the original claim of \$179,360, to a claim of \$135,137, including \$1,727 in carrying charges.

Rate class	Updated LRAM
Residential	\$82,991
GS < 50 kW	\$40,185
GS 50 to 4,999 kW	\$11,962
Total	\$135,137

The updated one-year rate riders are as follows.

Class	Updated LRAM	Updated carrying charges	Updated total	Unit	2010 forecasted billed kWh/kW	Updated one-year rate rider \$/unit
Residential	\$81,959	\$1,031	\$82,991	kWh	148,067,203	0.0006
GS<50 kW	\$39,624	\$560	\$40,185	kWh	61,517,376	0.0007
GS 50 – 4,999 kW	\$11,826	\$135	\$11,962	kW	346,440	0.0345
Total	\$133,410	\$1,727	\$135,137			

At a four-digit level of precision, the residential one-year rate rider did not change. The one-year GS < 50 kW rate rider decreased from \$0.0012/kWh to \$0.0007/kWh. The one-year GS 50-4,999 kW rate rider decreased from \$0.0605/kW to \$0.0345/kW.

- b. The table below provides the kWh results by year for 2006-2012 for all 2006-2009 OPA-funded residential programs. There were no OPA programs in 2005. Note that the requested LRAM claim is based on energy savings from 2010 until April 30 2012 only.

Program	Included in previous LRAM claim	Included in previous LRAM claim	Included in previous LRAM claim	Included in previous LRAM claim	Included in requested LRAM claim	Included in requested LRAM claim	Included in requested LRAM claim	Total
	2006	2007	2008	2009	2010	2011	Jan 1 to April 30 2012	
2006 Secondary Refrigerator Retirement Pilot	19,425	19,425	19,425	19,425	19,425	19,425	0	116,547
2006 Cool & Hot Savings Rebate	47,951	47,951	47,951	47,951	47,951	47,951	15,984	303,689
2006 Every Kilowatt Counts	1,244,213	1,244,213	1,244,213	1,244,213	160,419	160,419	53,473	5,351,163
2007 Great Refrigerator Roundup	0	75,621	75,621	75,621	75,621	75,518	25,138	403,140
2007 Cool & Hot Savings Rebate	0	75,700	75,700	75,700	75,700	75,700	24,037	402,337
2007 Every Kilowatt Counts	0	453,778	448,229	448,229	448,229	448,229	144,307	2,391,001
2007 Summer Savings	0	630,636	106,295	40,234	40,234	40,234	13,411	871,046
2007 Social Housing Pilot	0	41,243	41,243	41,243	41,243	41,243	13,748	219,961
2008 Great Refrigerator Roundup	0	0	171,096	171,096	171,096	171,096	56,914	741,298
2008 Cool Savings Rebate	0	0	80,947	80,947	80,947	80,947	26,982	350,769
2008 Every Kilowatt Counts Power Savings Event	0	0	410,906	409,118	409,118	409,118	115,749	1,754,008
2008 peaksaver®	0	0	2,391	2,391	2,391	2,391	797	10,360
2008 Summer Sweepstakes	0	0	414,633	149,622	149,622	149,622	49,874	913,373
2009 Great Refrigerator Roundup	0	0	0	139,048	139,048	139,048	46,180	463,326
2009 Cool Savings Rebate	0	0	0	101,514	101,514	101,514	33,718	338,261
2009 Every Kilowatt Counts Power Savings Event	0	0	0	176,518	169,193	169,193	56,394	571,299
2009 peaksaver®	0	0	0	1,032	1,032	1,032	344	3,440
Total	1,311,589	2,588,567	3,138,649	3,223,902	2,132,783	2,132,679	677,050	15,205,219

- c. The two tables below provide the unit gross savings and total net energy savings, respectively, at the measure level for all residential OPA programs, including “co-branded market programs” such as EKC between 2006 and April 30 2012. These savings are those provided by the OPA-verified final program evaluations.

Note that LRAM was not claimed on any savings occurring before January 1 2010.

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2006 Every Kilowatt Counts	Electric Timers	183	183	183	183	183	183	61
2006 Every Kilowatt Counts	Programmable Thermostats	216	216	216	216	216	216	72
2006 Every Kilowatt Counts	Energy Star® Ceiling Fans	141	141	141	141	141	141	47
2006 Every Kilowatt Counts	Seasonal Light Emitting Diode Light String	31	31	31	31	31	31	10
2006 Every Kilowatt Counts	Programmable Thermostats	522	522	522	522	522	522	174
2006 Every Kilowatt Counts	Dimmers	139	139	139	139	139	139	46
2006 Every Kilowatt Counts	Indoor Motion Sensors	209	209	209	209	209	209	70
2006 Every Kilowatt Counts	Programmable Basebaord Thermostats	1,466	1,466	1,466	1,466	1,466	1,466	489
2006 Cool Savings Rebate Program	Energy Star® Air Conditioner	351	351	351	351	351	351	117
2006 Cool Savings Rebate Program	Programmable Thermostats	159	159	159	159	159	159	53
2006 Cool Savings Rebate Program	Air Conditioner Tune-Up	369	369	369	369	369	369	123
2006 Secondary Fridge Retirement Pilot	Refrigerator Retirement	1,200	1,200	1,200	1,200	1,200	1,200	
2006 Secondary Fridge Retirement Pilot	Freezer Retirement	900	900	900	900	900	900	
2007 Great Refrigerator Roundup	Refrigerator		745	745	745	745	745	248
2007 Great Refrigerator Roundup	Freezer		515	515	515	515	515	172
2007 Great Refrigerator Roundup	Small Refrigerator		490	490	490	490	490	163

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2007 Great Refrigerator Roundup	Small Freezer		339	339	339	339	339	113
2007 Great Refrigerator Roundup	Window Air Conditioner		240	240	240	240	240	
2007 Cool Savings Rebate Program	ENERGY STAR® Central Air Conditioner		152	152	152	152	152	51
2007 Cool Savings Rebate Program	Programmable Thermostat		55	55	55	55	55	18
2007 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor		832	832	832	832	832	277
2007 Cool Savings Rebate Program	Central Air Conditioning Tune Up		235	235	235	235	235	
2007 Every Kilowatt Counts	15 W CFL		43	43	43	43	43	14
2007 Every Kilowatt Counts	20 W+ CFLs		62	62	62	62	62	21
2007 Every Kilowatt Counts	Project Porchlight CFLs		43	43	43	43	43	14
2007 Every Kilowatt Counts	Energy Star Ceiling Fan		90	90	90	90	90	30
2007 Every Kilowatt Counts	Solar Lights		33	33	33	33	33	
2007 Every Kilowatt Counts	Outdoor Motion Sensor		160	160	160	160	160	53
2007 Every Kilowatt Counts	Dimmer Switch		24	24	24	24	24	8
2007 Every Kilowatt Counts	Energy Star Light Fixtures		123	123	123	123	123	41
2007 Every Kilowatt Counts	SLEDs		14	14	14	14	14	
2007 Every Kilowatt Counts	T8		37	37	37	37	37	12
2007 Every Kilowatt Counts	Programmable Thermostat		75	75	75	75	75	25
2007 Every Kilowatt Counts	Power Bar with Timer		72	72	72	72	72	24
2007 Every Kilowatt Counts	Lighting Control Devices		72	72	72	72	72	24

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2007 peaksaver	Residential Programmable Thermostat		0	0	0	0	0	0
2007 Social Housing - Pilot	Custom Retrofit Projects		1,229	1,229	1,229	1,229	1,229	410
2008 Great Refrigerator Roundup	Refrigerator			775	775	775	775	258
2008 Great Refrigerator Roundup	Freezer			740	740	740	740	247
2008 Great Refrigerator Roundup	Room Air Conditioner			197	197	197	99	
2008 Cool Savings Rebate Program	2007 Efficient Furnance with Electronically Commutable Motor			837	837	837	837	279
2008 Cool Savings Rebate Program	2007 ENERGYSTAR® Central Air Conditioner			155	155	155	155	52
2008 Cool Savings Rebate Program	2007 Programable Thermostat			54	54	54	54	18
2008 Cool Savings Rebate Program	2008 Efficient Furnance with Electronically Commutable Motor			819	819	819	819	273
2008 Cool Savings Rebate Program	2008 ENERGYSTAR® Central Air Conditioner			125	125	125	125	42
2008 Cool Savings Rebate Program	2008 Programable Thermostat			54	54	54	54	18
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Compact Fluorescent Floods (Indoor & Outdoor)			88	88	88	88	29
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Light Fixtures			133	133	133	133	44
2008 Every Kilowatt Counts - PSE	Heavy Duty Timers			301	301	301	301	100
2008 Every Kilowatt Counts - PSE	T8 Fluorescent Fixtures			37	37	37	37	12
2008 Every Kilowatt Counts -	ENERGY STAR Decorative CFLs			30	30	30	30	

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
PSE								
2008 Every Kilowatt Counts - PSE	ENERGY STAR Dimmable CFLs			98	98	98	98	33
2008 Every Kilowatt Counts - PSE	Power Bars with Timers			53	53	53	53	18
2008 Every Kilowatt Counts - PSE	Programmable Thermostats - Baseboard			64	64	64	64	21
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Compact Fluorescent Light Bulbs			53	53	53	53	18
2008 Every Kilowatt Counts - PSE	Lighting Control Devices			102	102	102	102	34
2008 Every Kilowatt Counts - PSE	Pipe Wrap			38	38	38	38	13
2008 Every Kilowatt Counts - PSE	Keep Cool – Dehumidifier			500	500	500	500	167
2008 Every Kilowatt Counts - PSE	Keep Cool – Room Air Conditioner			141	141	141	141	47
2008 Every Kilowatt Counts - PSE	Rewards for Recycling – Dehumidifier			500	500	500	500	167
2008 Every Kilowatt Counts - PSE	Rewards for Recycling – Room Air Conditioner			141	141	141	141	47
2008 Every Kilowatt Counts - PSE	Rewards for Recycling - Halogen Lamp			275	275	275	275	92
2008 peaksaver	Residential Programmable Thermostat			17	17	17	17	6
2008 peaksaver	Residential Air Conditioner Switch			17	17	17	17	6
2008 peaksaver	Commercial Programmable Thermostat			74	74	74	74	25
2008 Summer Sweepstakes	Households			191,823	191,823	191,823	191,823	63,941

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running Part Time (38% of the time)				674	674	674	225
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				454	454	454	151
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)				498	498	498	166
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running All Time (100% of time time)				1,769	1,769	1,769	590
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				1,193	1,193	1,193	398
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time time)				1,308	1,308	1,308	436
2009 Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running Part Time (26% of the time)				282	282	282	94
2009 Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)				247	247	247	82
2009 Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running Part Time (26% of the time)				261	261	261	87
2009 Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running All Time (100% of time time)				1,096	1,096	1,096	365
2009 Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				959	959	959	320

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running All Time (100% of time time)				1,012	1,012	1,012	337
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running Part Time (38% of the time)				507	507	507	169
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				260	260	260	87
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running Part Time (38% of the time)				309	309	309	103
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running All Time (100% of time time)				1,331	1,331	1,331	444
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				682	682	682	227
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running All Time (100% of time time)				812	812	812	271
2009 Great Refrigerator Roundup	Single Door Fridge - Not Replaced - Running Part Time (38% of the time)				418	418	418	139
2009 Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				237	237	237	79
2009 Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)				273	273	273	91
2009 Great Refrigerator	Single Door Fridge - Not Replaced -				1,097	1,097	1,097	366

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
Roundup	Running All Time (100% of time time)							
2009 Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				623	623	623	208
2009 Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running All Time (100% of time time)				718	718	718	239
2009 Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced - Running Part Time (38% of the time)				470	470	470	157
2009 Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				252	252	252	84
2009 Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)				295	295	295	98
2009 Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced - Running All Time (100% of time time)				1,234	1,234	1,234	411
2009 Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				661	661	661	220
2009 Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time time)				776	776	776	259
2009 Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running Part Time (26% of the time)				365	365	365	122
2009 Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)				180	180	180	60
2009 Great Refrigerator	Upright Freezer - Energy Star Unit				189	189	189	63

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
Roundup	Replacement - Running Part Time (26% of the time)							
2009 Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running All Time (100% of time time)				1,416	1,416	1,416	472
2009 Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				697	697	697	232
2009 Great Refrigerator Roundup	Upright Freezer - Energy Star Unit Replacement - Running All Time (100% of time time)				736	736	736	245
2009 Great Refrigerator Roundup	Dehumidifier - Not Replaced - Running All Time (100% of time time)				960	960	960	320
2009 Great Refrigerator Roundup	Dehumidifier - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				540	540	540	180
2009 Great Refrigerator Roundup	Dehumidifier - Energy Star Unit Replacement - Running All Time (100% of time time)				463	463	463	154
2009 Great Refrigerator Roundup	Window Air Conditioner - Not Replaced - Running All Time (100% of time time)				371	371	371	
2009 Great Refrigerator Roundup	Window Air Conditioner - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				118	118	118	
2009 Great Refrigerator Roundup	Window Air Conditioner - Energy Star Unit Replacement - Running All Time (100% of time time)				141	141	141	
2009 Cool Savings Rebate Program	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC)				113	113	113	38

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Cool Savings Rebate Program	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC) with change in behaviour				317	317	317	106
2009 Cool Savings Rebate Program	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC)				177	177	177	59
2009 Cool Savings Rebate Program	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC) with change in behaviour				366	366	366	122
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change				2,773	2,773	2,773	924
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Non-continuous Fan, No change				324	324	324	108
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from non-continuous				91	91	91	30
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Continuous Fan, No change				2,823	2,823	2,823	941
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home				373	373	373	124

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	constructed before 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change							
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Continuous Fan, Change from non-continuous				140	140	140	47
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan, No change				1,535	1,535	1,535	512
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Non-continuous Fan, No change				324	324	324	108
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan, Change from non-continuous				192	192	192	64
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change				2,867	2,867	2,867	956
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Non-continuous Fan,				207	207	207	69

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	No change							
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from non-continuous				(49)	(49)	(49)	(16)
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Continuous Fan, No change				2,927	2,927	2,927	976
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change				267	267	267	89
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Continuous Fan, Change from non-continuous				11	11	11	4
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, No change				1,570	1,570	1,570	523
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Non-continuous Fan, No change				207	207	207	69

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, Change from non-continuous				76	76	76	25
2009 Cool Savings Rebate Program	Programmable Thermostat - Central Air Conditioning (CAC) & Gas heating				30	30	30	10
2009 Cool Savings Rebate Program	Programmable Thermostat - Energy Star® Central Air Conditioning (CAC) & Gas Heating				26	26	26	9
2009 Cool Savings Rebate Program	Programmable Thermostat - Gas Heating only				9	9	9	3
2009 Cool Savings Rebate Program	Participant Spillover - Lighting				40	40	40	13
2009 Cool Savings Rebate Program	Participant Spillover - Cooling or Heating				100	100	100	
2009 Cool Savings Rebate Program	Participant Spillover - Water heating				141	141	141	47
2009 Cool Savings Rebate Program	Participant Spillover - Appliances				76	76	76	25
2009 Cool Savings Rebate Program	Participant Spillover - Insulation of other weatherization				75	75	75	25
2009 Cool Savings Rebate Program	Participant Spillover - Windows				100	100	100	33
2009 Cool Savings Rebate Program	Participant Spillover - Roof products				50	50	50	17
2009 Cool Savings Rebate Program	Participant Spillover - Other products				50	50	50	17
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Spring Campaign -				23	23	23	8

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	Participant Rebated							
2009 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs - Spring Campaign - Participant Rebated				26	26	26	9
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Spring Campaign - Participant Rebated				116	116	116	39
2009 Every Kilowatt Counts - PSE	ENERGY STAR Ceiling Fans - Spring Campaign - Participant Rebated				71	71	71	24
2009 Every Kilowatt Counts - PSE	Heavy Duty Pool and Spa Timers - Spring Campaign - Participant Rebated				454	454	454	151
2009 Every Kilowatt Counts - PSE	Clotheslines - Spring Campaign - Participant Rebated				77	77	77	26
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Spring Campaign - Participant Rebated				8	8	8	3
2009 Every Kilowatt Counts - PSE	Water Blanket - Spring Campaign - Participant Rebated				52	52	52	17
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Window Air Conditioner - Spring Campaign - Participant Promoted				96	96	96	32
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Dehumidifiers - Spring Campaign - Participant Promoted				284	284	284	95
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Spring Campaign - Participant Promoted				138	138	138	46
2009 Every Kilowatt Counts - PSE	Solar Power Products - Spring Campaign - Participant Promoted				5	5	5	2
2009 Every Kilowatt Counts - PSE	Control Products - Spring Campaign - Participant Promoted				72	72	72	24
2009 Every Kilowatt Counts - PSE	Installed CFLs - Spring Campaign - Participant Spillover				101	101	101	34

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Refrigerator - Spring Campaign - Participant Spillover				65	65	65	22
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Clothes washing machine - Spring Campaign - Participant Spillover				122	122	122	41
2009 Every Kilowatt Counts - PSE	Added ceiling/attic/wall/basement insulation - Spring Campaign - Participant Spillover				394	394	394	131
2009 Every Kilowatt Counts - PSE	Installed Programmable Thermostat - Spring Campaign - Participant Spillover				308	308	308	103
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Spring Campaign - Non-Participant Rebated				22	22	22	7
2009 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs - Spring Campaign - Non-Participant Rebated				26	26	26	9
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Spring Campaign - Non-Participant Rebated				68	68	68	23
2009 Every Kilowatt Counts - PSE	ENERGY STAR Ceiling Fans - Spring Campaign - Non-Participant Rebated				71	71	71	24
2009 Every Kilowatt Counts - PSE	Heavy Duty Pool and Spa Timers - Spring Campaign - Non-Participant Rebated				454	454	454	151
2009 Every Kilowatt Counts - PSE	Clotheslines - Spring Campaign - Non-Participant Rebated				77	77	77	26
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Spring Campaign - Non-Participant Rebated				8	8	8	3

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Water Blanket - Spring Campaign - Non-Participant Rebated				52	52	52	17
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Window Air Conditioner - Spring Campaign - Non-Participant Promoted				96	96	96	32
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Dehumidifiers - Spring Campaign - Non-Participant Promoted				284	284	284	95
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Spring Campaign - Non-Participant Promoted				138	138	138	46
2009 Every Kilowatt Counts - PSE	Solar Power Products - Spring Campaign - Non-Participant Promoted				5	5	5	2
2009 Every Kilowatt Counts - PSE	Control Products - Spring Campaign - Non-Participant Promoted				72	72	72	24
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Participant Rebated				25	25	25	8
2009 Every Kilowatt Counts - PSE	ENERGY STAR Specialty CFLs - Autumn Campaign - Participant Rebated				21	21	21	7
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Autumn Campaign - Participant Rebated				119	119	119	40
2009 Every Kilowatt Counts - PSE	Weatherstripping - adhesive foam or V-strip - Autumn Campaign - Participant Rebated				15	15	15	5
2009 Every Kilowatt Counts - PSE	Weatherstripping - door frame kits - Autumn Campaign - Participant Rebated				17	17	17	6
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Autumn Campaign - Participant Rebated				32	32	32	11

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Autumn Campaign - Participant Rebated				7	7	7	2
2009 Every Kilowatt Counts - PSE	Water Blanket - Autumn Campaign - Participant Rebated				56	56	56	19
2009 Every Kilowatt Counts - PSE	Lighting/Appliance Controls - Autumn Campaign - Participant Rebated				21	21	21	7
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Participant Promoted				14	14	14	5
2009 Every Kilowatt Counts - PSE	Dimmer Switches - Autumn Campaign - Participant Promoted				24	24	24	8
2009 Every Kilowatt Counts - PSE	Solar Powered Products - Autumn Campaign - Participant Promoted				6	6	6	2
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance – Refrigerator - Autumn Campaign - Participant Spillover				65	65	65	22
2009 Every Kilowatt Counts - PSE	Added ceiling/attic/wall/basement insulation - Autumn Campaign - Participant Spillover				394	394	394	131
2009 Every Kilowatt Counts - PSE	Replaced my old furnace with a high efficiency furnace - Autumn Campaign - Participant Spillover				352	352	352	117
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Clothes washing machine - Autumn Campaign - Participant Spillover				142	142	142	47
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Non-Participant Rebated				24	24	24	8

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	ENERGY STAR Specialty CFLs - Autumn Campaign - Non-Participant Rebated				30	30	30	10
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Autumn Campaign - Non-Participant Rebated				36	36	36	12
2009 Every Kilowatt Counts - PSE	Weatherstripping - adhesive foam or V-strip - Autumn Campaign - Non-Participant Rebated				15	15	15	5
2009 Every Kilowatt Counts - PSE	Weatherstripping - door frame kits - Autumn Campaign - Non-Participant Rebated				17	17	17	6
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Autumn Campaign - Non-Participant Rebated				83	83	83	28
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Autumn Campaign - Non-Participant Rebated				6	6	6	2
2009 Every Kilowatt Counts - PSE	Water Blanket - Autumn Campaign - Non-Participant Rebated				40	40	40	13
2009 Every Kilowatt Counts - PSE	Lighting/Appliance Controls - Autumn Campaign - Non-Participant Rebated				42	42	42	14
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Non-Participant Promoted				14	14	14	5
2009 Every Kilowatt Counts - PSE	Dimmer Switches - Autumn Campaign - Non-Participant Promoted				24	24	24	8
2009 Every Kilowatt Counts - PSE	Solar Powered Products - Autumn Campaign - Non-Participant Promoted				5	5	5	2
2009 Every Kilowatt Counts - PSE	Working Room Air Conditioner Retirement - Rewards for Recycling Campaign - Incented				32	32	32	11

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Working Room Dehumidifier Retirement - Rewards for Recycling Campaign - Incented				300	300	300	100
2009 Every Kilowatt Counts - PSE	Working Halogen Torchiere Retirement - Rewards for Recycling Campaign - Incented				58	58	58	19
2009 Every Kilowatt Counts - PSE	Recycled Second Refrigerator - Rewards for Recycling Campaign - Spillover				1,238	1,238	1,238	413
2009 Every Kilowatt Counts - PSE	Recycled Additional Room Air Conditioner - Rewards for Recycling Campaign - Spillover				30	30	30	10
2009 Every Kilowatt Counts - PSE	Recycled Central Air Conditioner - Rewards for Recycling Campaign - Spillover				72	72	72	24
2009 Every Kilowatt Counts - PSE	Recyled Additional Room Dehumidifier - Rewards for Recycling Campaign - Spillover				309	309	309	103
2009 Every Kilowatt Counts - PSE	Installed Energy Star® Windows - Rewards for Recycling Campaign - Spillover				1,530	1,530	1,530	510
2009 Every Kilowatt Counts - PSE	Installed Energy Star® CFL Bulbs - Rewards for Recycling Campaign - Spillover				45	45	45	15
2009 peaksaver	Residential Air Conditioner - Switch				6	6	6	2
2009 peaksaver	Residential Air Conditioner - Thermostat				6	6	6	2
2009 peaksaver	Commercial Air Conditioner - Switch				6	6	6	2
2009 peaksaver	Commercial Air Conditioner -				6	6	6	2

Unit gross energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	Thermostat							

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2006 Every Kilowatt Counts	Electric Timers	21,480	21,480	21,480	21,480	21,480	21,480	7,160
2006 Every Kilowatt Counts	Programmable Thermostats	11,029	11,029	11,029	11,029	11,029	11,029	3,676
2006 Every Kilowatt Counts	Energy Star® Ceiling Fans	5,477	5,477	5,477	5,477	5,477	5,477	1,826
2006 Every Kilowatt Counts	Seasonal Light Emitting Diode Light String	45,948	45,948	45,948	45,948	45,948	45,948	15,316
2006 Every Kilowatt Counts	Programmable Thermostats	51,426	51,426	51,426	51,426	51,426	51,426	17,142
2006 Every Kilowatt Counts	Dimmers	10,826	10,826	10,826	10,826	10,826	10,826	3,609
2006 Every Kilowatt Counts	Indoor Motion Sensors	5,841	5,841	5,841	5,841	5,841	5,841	1,947
2006 Every Kilowatt Counts	Programmable Basebaord Thermostats	8,603	8,603	8,603	8,603	8,603	8,603	2,868
2006 Cool Savings Rebate Program	Energy Star® Air Conditioner	15,805	15,805	15,805	15,805	15,805	15,805	5,268
2006 Cool Savings Rebate Program	Programmable Thermostats	5,454	5,454	5,454	5,454	5,454	5,454	1,818
2006 Cool Savings Rebate Program	Air Conditioner Tune-Up	11,332	11,332	11,332	11,332	11,332	11,332	3,777
2006 Secondary Fridge Retirement Pilot	Refrigerator Retirement	18,839	18,839	18,839	18,839	18,839	18,839	
2006 Secondary Fridge Retirement Pilot	Freezer Retirement	611	611	611	611	611	611	

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2007 Great Refrigerator Roundup	Refrigerator		73,656	73,656	73,656	73,656	73,656	24,552
2007 Great Refrigerator Roundup	Freezer		15,740	15,740	15,740	15,740	15,740	5,247
2007 Great Refrigerator Roundup	Small Refrigerator		561	561	561	561	561	187
2007 Great Refrigerator Roundup	Small Freezer		258	258	258	258	258	86
2007 Great Refrigerator Roundup	Window Air Conditioner		207	207	207	207	207	
2007 Cool Savings Rebate Program	ENERGY STAR® Central Air Conditioner		10,018	10,018	10,018	10,018	10,018	3,339
2007 Cool Savings Rebate Program	Programmable Thermostat		2,445	2,445	2,445	2,445	2,445	815
2007 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor		88,649	88,649	88,649	88,649	88,649	29,550
2007 Cool Savings Rebate Program	Central Air Conditioning Tune Up		3,599	3,599	3,599	3,599	3,599	
2007 Every Kilowatt Counts	15 W CFL		276,400	276,400	276,400	276,400	276,400	92,133
2007 Every Kilowatt Counts	20 W+ CFLs		64,982	64,982	64,982	64,982	64,982	21,661
2007 Every Kilowatt Counts	Project Porchlight CFLs		56,672	56,672	56,672	56,672	56,672	18,891
2007 Every Kilowatt Counts	Energy Star Ceiling Fan		3,283	3,283	3,283	3,283	3,283	1,094
2007 Every Kilowatt Counts	Solar Lights		4,511	4,511	4,511	4,511	4,511	
2007 Every Kilowatt Counts	Outdoor Motion Sensor		9,302	9,302	9,302	9,302	9,302	3,101
2007 Every Kilowatt Counts	Dimmer Switch		877	877	877	877	877	292
2007 Every Kilowatt Counts	Energy Star Light Fixtures		2,164	2,164	2,164	2,164	2,164	721
2007 Every Kilowatt Counts	SLEDs		14,656	14,656	14,656	14,656	14,656	
2007 Every Kilowatt Counts	T8		1,797	1,797	1,797	1,797	1,797	599
2007 Every Kilowatt Counts	Programmable Thermostat		2,669	2,669	2,669	2,669	2,669	890
2007 Every Kilowatt Counts	Power Bar with Timer		1,632	1,632	1,632	1,632	1,632	544

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2007 Every Kilowatt Counts	Lighting Control Devices		13,462	13,462	13,462	13,462	13,462	4,487
2007 peaksaver	Residential Programmable Thermostat		0	0	0	0	0	0
2007 Social Housing - Pilot	Custom Retrofit Projects		41,273	41,273	41,273	41,273	41,273	13,758
2008 Great Refrigerator Roundup	Refrigerator			137,679	137,679	137,679	137,679	45,893
2008 Great Refrigerator Roundup	Freezer			32,708	32,708	32,708	32,708	10,903
2008 Great Refrigerator Roundup	Room Air Conditioner			709	709	709	709	
2008 Cool Savings Rebate Program	2007 Efficient Furnance with Electronically Commutable Motor			14,538	14,538	14,538	14,538	4,846
2008 Cool Savings Rebate Program	2007 ENERGYSTAR® Central Air Conditioner			1,243	1,243	1,243	1,243	414
2008 Cool Savings Rebate Program	2007 Programable Thermostat			617	617	617	617	206
2008 Cool Savings Rebate Program	2008 Efficient Furnance with Electronically Commutable Motor			50,981	50,981	50,981	50,981	16,994
2008 Cool Savings Rebate Program	2008 ENERGYSTAR® Central Air Conditioner			4,958	4,958	4,958	4,958	1,653
2008 Cool Savings Rebate Program	2008 Programable Thermostat			2,410	2,410	2,410	2,410	803
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Compact Fluorescent Floods (Indoor & Outdoor)			48,170	48,170	48,170	48,170	16,057
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Light Fixtures			101,439	101,439	101,439	101,439	33,813
2008 Every Kilowatt Counts - PSE	Heavy Duty Timers			5,165	5,165	5,165	5,165	1,722
2008 Every Kilowatt Counts - PSE	T8 Fluorescent Fixtures			5,062	5,062	5,062	5,062	1,687
2008 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs			61,918	61,918	61,918	61,918	
2008 Every Kilowatt Counts - PSE	ENERGY STAR Dimmable CFLs			12,552	12,552	12,552	12,552	4,184

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2008 Every Kilowatt Counts - PSE	Power Bars with Timers			530	530	530	530	177
2008 Every Kilowatt Counts - PSE	Programmable Thermostats - Baseboard			4,254	4,254	4,254	4,254	1,418
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Compact Fluorescent Light Bulbs			86,576	86,576	86,576	86,576	28,859
2008 Every Kilowatt Counts - PSE	Lighting Control Devices			20,654	20,654	20,654	20,654	6,885
2008 Every Kilowatt Counts - PSE	Pipe Wrap			51,925	51,925	51,925	51,925	17,308
2008 Every Kilowatt Counts - PSE	Keep Cool – Dehumidifier			159	159	159	159	53
2008 Every Kilowatt Counts - PSE	Keep Cool – Room Air Conditioner			60	60	60	60	20
2008 Every Kilowatt Counts - PSE	Rewards for Recycling – Dehumidifier			6,014	6,014	6,014	6,014	2,005
2008 Every Kilowatt Counts - PSE	Rewards for Recycling – Room Air Conditioner			1,830	1,830	1,830	1,830	610
2008 Every Kilowatt Counts - PSE	Rewards for Recycling - Halogen Lamp			3,114	3,114	3,114	3,114	1,038
2008 peaksaver	Residential Programmable Thermostat			1,105	1,105	1,105	1,105	368
2008 peaksaver	Residential Air Conditioner Switch			1,152	1,152	1,152	1,152	384
2008 peaksaver	Commercial Programmable Thermostat			133	133	133	133	44
2008 Summer Sweepstakes	Households			149,622	149,622	149,622	149,622	49,874
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running Part Time (38% of the time)				26	26	26	9
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				7	7	7	2
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of				37	37	37	12

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	the time)							
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running All Time (100% of time time)				495	495	495	165
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				124	124	124	41
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time time)				712	712	712	237
2009 Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running Part Time (26% of the time)				322	322	322	107
2009 Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)				78	78	78	26
2009 Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running Part Time (26% of the time)				375	375	375	125
2009 Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running All Time (100% of time time)				12,488	12,488	12,488	4,163
2009 Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				3,022	3,022	3,022	1,007
2009 Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running All Time (100% of time time)				14,555	14,555	14,555	4,852
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running Part Time (38% of the time)				147	147	147	49
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				28	28	28	9
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running Part Time (38% of the time)				174	174	174	58

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running All Time (100% of time time)				2,784	2,784	2,784	928
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				529	529	529	176
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running All Time (100% of time time)				3,303	3,303	3,303	1,101
2009 Great Refrigerator Roundup	Single Door Fridge - Not Replaced - Running Part Time (38% of the time)				315	315	315	105
2009 Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				66	66	66	22
2009 Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)				401	401	401	134
2009 Great Refrigerator Roundup	Single Door Fridge - Not Replaced - Running All Time (100% of time time)				5,982	5,982	5,982	1,994
2009 Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				1,258	1,258	1,258	419
2009 Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running All Time (100% of time time)				7,608	7,608	7,608	2,536
2009 Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced - Running Part Time (38% of the time)				1,625	1,625	1,625	542
2009 Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)				323	323	323	108
2009 Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)				1,987	1,987	1,987	662
2009 Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced -				30,856	30,856	30,856	10,285

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	Running All Time (100% of time time)							
2009 Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				6,127	6,127	6,127	2,042
2009 Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time time)				37,732	37,732	37,732	12,577
2009 Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running Part Time (26% of the time)				52	52	52	17
2009 Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)				7	7	7	2
2009 Great Refrigerator Roundup	Upright Freezer - Energy Star Unit Replacement - Running Part Time (26% of the time)				34	34	34	11
2009 Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running All Time (100% of time time)				2,008	2,008	2,008	669
2009 Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				274	274	274	91
2009 Great Refrigerator Roundup	Upright Freezer - Energy Star Unit Replacement - Running All Time (100% of time time)				1,317	1,317	1,317	439
2009 Great Refrigerator Roundup	Dehumidifier - Not Replaced - Running All Time (100% of time time)				646	646	646	215
2009 Great Refrigerator Roundup	Dehumidifier - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				202	202	202	67
2009 Great Refrigerator Roundup	Dehumidifier - Energy Star Unit Replacement - Running All Time (100% of time time)				519	519	519	173
2009 Great Refrigerator Roundup	Window Air Conditioner - Not Replaced - Running All Time (100% of time time)				415	415	415	

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Great Refrigerator Roundup	Window Air Conditioner - Standard Efficiency Unit Replacement - Running All Time (100% of time time)				17	17	17	
2009 Great Refrigerator Roundup	Window Air Conditioner - Energy Star Unit Replacement - Running All Time (100% of time time)				75	75	75	
2009 Cool Savings Rebate Program	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC)				2,244	2,244	2,244	748
2009 Cool Savings Rebate Program	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC) with change in behaviour				985	985	985	328
2009 Cool Savings Rebate Program	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC)				9,248	9,248	9,248	3,083
2009 Cool Savings Rebate Program	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC) with change in behaviour				2,990	2,990	2,990	997
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change				8,470	8,470	8,470	2,823
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Non-continuous Fan, No change				4,068	4,068	4,068	1,356
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from non-continuous				91	91	91	30
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Continuous Fan, No change				15,213	15,213	15,213	5,071

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change				8,266	8,266	8,266	2,755
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Continuous Fan, Change from non-continuous				246	246	246	82
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan, No change				1,356	1,356	1,356	452
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Non-continuous Fan, No change				1,176	1,176	1,176	392
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan, Change from non-continuous				55	55	55	18
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change				10,278	10,278	10,278	3,426
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Non-continuous Fan, No change				3,051	3,051	3,051	1,017
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from non-				(57)	(57)	(57)	(19)

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	continuous							
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Continuous Fan, No change				18,520	18,520	18,520	6,173
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change				6,946	6,946	6,946	2,315
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Continuous Fan, Change from non-continuous				23	23	23	8
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, No change				1,629	1,629	1,629	543
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Non-continuous Fan, No change				882	882	882	294
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, Change from non-continuous				26	26	26	9
2009 Cool Savings Rebate Program	Programmable Thermostat - Central Air Conditioning (CAC) & Gas heating				849	849	849	283
2009 Cool Savings Rebate Program	Programmable Thermostat - Energy Star® Central Air Conditioning (CAC) & Gas Heating				970	970	970	323
2009 Cool Savings Rebate Program	Programmable Thermostat - Gas Heating only				75	75	75	25

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Cool Savings Rebate Program	Participant Spillover - Lighting				399	399	399	133
2009 Cool Savings Rebate Program	Participant Spillover - Cooling or Heating				361	361	361	
2009 Cool Savings Rebate Program	Participant Spillover - Water heating				689	689	689	230
2009 Cool Savings Rebate Program	Participant Spillover - Appliances				519	519	519	173
2009 Cool Savings Rebate Program	Participant Spillover - Insulation of other weatherization				757	757	757	252
2009 Cool Savings Rebate Program	Participant Spillover - Windows				788	788	788	263
2009 Cool Savings Rebate Program	Participant Spillover - Roof products				191	191	191	64
2009 Cool Savings Rebate Program	Participant Spillover - Other products				212	212	212	71
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Spring Campaign - Participant Rebated				6,045	6,045	6,045	2,015
2009 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs - Spring Campaign - Participant Rebated				17,925	17,925	17,925	5,975
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Spring Campaign - Participant Rebated				4,504	4,504	4,504	1,501
2009 Every Kilowatt Counts - PSE	ENERGY STAR Ceiling Fans - Spring Campaign - Participant Rebated				1,723	1,723	1,723	574
2009 Every Kilowatt Counts - PSE	Heavy Duty Pool and Spa Timers - Spring Campaign - Participant Rebated				4,097	4,097	4,097	1,366
2009 Every Kilowatt Counts - PSE	Clotheslines - Spring Campaign - Participant Rebated				1,303	1,303	1,303	434
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Spring Campaign - Participant Rebated				159	159	159	53
2009 Every Kilowatt Counts - PSE	Water Blanket - Spring Campaign - Participant Rebated				140	140	140	47

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Window Air Conditioner - Spring Campaign - Participant Promoted				2,017	2,017	2,017	672
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Dehumidifiers - Spring Campaign - Participant Promoted				5,724	5,724	5,724	1,908
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Spring Campaign - Participant Promoted				4,532	4,532	4,532	1,511
2009 Every Kilowatt Counts - PSE	Solar Power Products - Spring Campaign - Participant Promoted				550	550	550	183
2009 Every Kilowatt Counts - PSE	Control Products - Spring Campaign - Participant Promoted				3,635	3,635	3,635	1,212
2009 Every Kilowatt Counts - PSE	Installed CFLs - Spring Campaign - Participant Spillover				461	461	461	154
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Refrigerator - Spring Campaign - Participant Spillover				231	231	231	77
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Clothes washing machine - Spring Campaign - Participant Spillover				215	215	215	72
2009 Every Kilowatt Counts - PSE	Added ceiling/attic/wall/basement insulation - Spring Campaign - Participant Spillover				692	692	692	231
2009 Every Kilowatt Counts - PSE	Installed Programmable Thermostat - Spring Campaign - Participant Spillover				571	571	571	190
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Spring Campaign - Non-Participant Rebated				2,252	2,252	2,252	751
2009 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs - Spring Campaign - Non-Participant Rebated				1,496	1,496	1,496	499
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Spring Campaign - Non-Participant Rebated				3,717	3,717	3,717	1,239
2009 Every Kilowatt Counts - PSE	ENERGY STAR Ceiling Fans - Spring Campaign - Non-Participant Rebated				382	382	382	127

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Heavy Duty Pool and Spa Timers - Spring Campaign - Non-Participant Rebated				1,532	1,532	1,532	511
2009 Every Kilowatt Counts - PSE	Clotheslines - Spring Campaign - Non-Participant Rebated				956	956	956	319
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Spring Campaign - Non-Participant Rebated				232	232	232	77
2009 Every Kilowatt Counts - PSE	Water Blanket - Spring Campaign - Non-Participant Rebated				221	221	221	74
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Window Air Conditioner - Spring Campaign - Non-Participant Promoted				2,169	2,169	2,169	723
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Dehumidifiers - Spring Campaign - Non-Participant Promoted				7,790	7,790	7,790	2,597
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Spring Campaign - Non-Participant Promoted				3,939	3,939	3,939	1,313
2009 Every Kilowatt Counts - PSE	Solar Power Products - Spring Campaign - Non-Participant Promoted				1,187	1,187	1,187	396
2009 Every Kilowatt Counts - PSE	Control Products - Spring Campaign - Non-Participant Promoted				5,431	5,431	5,431	1,810
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Participant Rebated				30,401	30,401	30,401	10,134
2009 Every Kilowatt Counts - PSE	ENERGY STAR Specialty CFLs - Autumn Campaign - Participant Rebated				10,335	10,335	10,335	3,445
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Autumn Campaign - Participant Rebated				6,912	6,912	6,912	2,304
2009 Every Kilowatt Counts - PSE	Weatherstripping - adhesive foam or V-strip - Autumn Campaign - Participant Rebated				675	675	675	225
2009 Every Kilowatt Counts - PSE	Weatherstripping - door frame kits - Autumn Campaign - Participant Rebated				461	461	461	154
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Autumn Campaign - Participant Rebated				723	723	723	241

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Autumn Campaign - Participant Rebated				85	85	85	28
2009 Every Kilowatt Counts - PSE	Water Blanket - Autumn Campaign - Participant Rebated				224	224	224	75
2009 Every Kilowatt Counts - PSE	Lighting/Appliance Controls - Autumn Campaign - Participant Rebated				897	897	897	299
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Participant Promoted				1,647	1,647	1,647	549
2009 Every Kilowatt Counts - PSE	Dimmer Switches - Autumn Campaign - Participant Promoted				1,014	1,014	1,014	338
2009 Every Kilowatt Counts - PSE	Solar Powered Products - Autumn Campaign - Participant Promoted				485	485	485	162
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance – Refrigerator - Autumn Campaign - Participant Spillover				555	555	555	185
2009 Every Kilowatt Counts - PSE	Added ceiling/attic/wall/basement insulation - Autumn Campaign - Participant Spillover				2,421	2,421	2,421	807
2009 Every Kilowatt Counts - PSE	Replaced my old furnace with a high efficiency furnace - Autumn Campaign - Participant Spillover				1,711	1,711	1,711	570
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Clothes washing machine - Autumn Campaign - Participant Spillover				626	626	626	209
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Non-Participant Rebated				5,082	5,082	5,082	1,694
2009 Every Kilowatt Counts - PSE	ENERGY STAR Specialty CFLs - Autumn Campaign - Non-Participant Rebated				2,244	2,244	2,244	748
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Autumn Campaign - Non-Participant Rebated				1,220	1,220	1,220	407
2009 Every Kilowatt Counts - PSE	Weatherstripping - adhesive foam or V-strip - Autumn Campaign - Non-Participant				573	573	573	191

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
	Rebated							
2009 Every Kilowatt Counts - PSE	Weatherstripping - door frame kits - Autumn Campaign - Non-Participant Rebated				455	455	455	152
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Autumn Campaign - Non-Participant Rebated				1,182	1,182	1,182	394
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Autumn Campaign - Non-Participant Rebated				249	249	249	83
2009 Every Kilowatt Counts - PSE	Water Blanket - Autumn Campaign - Non-Participant Rebated				418	418	418	139
2009 Every Kilowatt Counts - PSE	Lighting/Appliance Controls - Autumn Campaign - Non-Participant Rebated				1,744	1,744	1,744	581
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Non-Participant Promoted				3,199	3,199	3,199	1,066
2009 Every Kilowatt Counts - PSE	Dimmer Switches - Autumn Campaign - Non-Participant Promoted				1,351	1,351	1,351	450
2009 Every Kilowatt Counts - PSE	Solar Powered Products - Autumn Campaign - Non-Participant Promoted				651	651	651	217
2009 Every Kilowatt Counts - PSE	Working Room Air Conditioner Retirement - Rewards for Recycling Campaign - Incented				198	198	198	66
2009 Every Kilowatt Counts - PSE	Working Room Dehumidifier Retirement - Rewards for Recycling Campaign - Incented				2,078	2,078	2,078	693
2009 Every Kilowatt Counts - PSE	Working Halogen Torchier Retirement - Rewards for Recycling Campaign - Incented				148	148	148	49
2009 Every Kilowatt Counts - PSE	Recycled Second Refrigerator - Rewards for Recycling Campaign - Spillover				1,522	1,522	1,522	507
2009 Every Kilowatt Counts - PSE	Recycled Additional Room Air Conditioner - Rewards for Recycling Campaign - Spillover				31	31	31	10

Total net energy savings from OPA-verified final program evaluations (kWh/a)								
Program	Energy Efficient Measure	2006 - Not included in requested LRAM	2007 - Not included in requested LRAM	2008 - Not included in requested LRAM	2009 - Not included in requested LRAM	2010	2011	Jan to Apr 30 2012
2009 Every Kilowatt Counts - PSE	Recycled Central Air Conditioner - Rewards for Recycling Campaign - Spillover				69	69	69	23
2009 Every Kilowatt Counts - PSE	Recyled Additional Room Dehumidifier - Rewards for Recycling Campaign - Spillover				331	331	331	110
2009 Every Kilowatt Counts - PSE	Installed Energy Star® Windows - Rewards for Recycling Campaign - Spillover				1,320	1,320	1,320	440
2009 Every Kilowatt Counts - PSE	Installed Energy Star® CFL Bulbs - Rewards for Recycling Campaign - Spillover				129	129	129	43
2009 peaksaver	Residential Air Conditioner - Switch				331	331	331	110
2009 peaksaver	Residential Air Conditioner - Thermostat				671	671	671	224
2009 peaksaver	Commercial Air Conditioner - Switch				5	5	5	2
2009 peaksaver	Commercial Air Conditioner - Thermostat				25	25	25	8

- d. The table below compares the final OPA-verified 2006 EKC results used to calculate the LRAM claim 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. There is no 2005 EKC program.

	OPA-verified Final 2006 EKC results used for the 2006 EKC LRAM claim		OPA-verified Final 2007 EKC results		From 2009 OPA M&A list	
2006 EKC Energy Efficient Measure	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

Generic 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. However, where there is a program specific evaluation, as there is for the 2006 EKC, that information provides the most appropriate input values for the calculation of its associated LRAM claim.

The OPA-verified final inputs used to calculate an LRAM claim for January 1 2010 – April 30 2012 for the 2006 EKC program, as well as all other 2006, 2007, 2008 and 2009 OPA program are the same as those used in NPDI's previous Board-approved LRAM claim (EB-2011-0049). The decision filed on May 6 2011 for EB-2011-0049 confirms that both the Board and Board Staff support the use of finalized program results delivered by the OPA for the calculation of LRAM.

- e. The input assumptions shown in response to part b) do not reflect the latest generic OPA Measures and Assumptions list measure lives. They also do not reflect the measure lives in place at the time the programs were run.

The claimed savings shown in response to part b) reflect measure lives from the final OPA-verified program specific evaluations for all OPA-funded residential programs. OPA advises that these program results are prepared in a manner consistent with OPA current practice, and are the same values used to report progress against provincial conservation targets.

Where there are program specific evaluations, as there are for OPA-funded residential programs, that information provides more specific and appropriate input values than the generic ones in the measures and assumptions lists. The use of program-specific evaluations of OPA-funded residential programs for LRAM calculations is appropriate and has been accepted by both Board Staff in its submissions and the Board itself in several decisions, including those on NPDI (EB-2011-0049; Decision and Order, May 6, 2011), Hydro One Brampton (EB-2010-0132; Decision and Order, April 4, 2011) and Burlington Hydro (EB-2010-0067; Decision and Order, March 17, 2011). In each of these decisions, the use of program-specific evaluations of OPA-funded programs for the calculation of LRAM is explicitly addressed and approved.

36.Reference: Exhibit 9 Appendix E Appendix A Table 7 IndEco Report

- a. Please provide the equivalent Tabulation of input assumptions from the EB-2011-0049 case evidence.
- b. If not available in equivalent format, list the input assumptions including free-ridership, Kwh savings and measure life for all Third Tranche programs and sources of those assumptions used in the LRAM claim for 2005-2009 Programs.
- c. Identify Mass market measures (CFLs etc.) installed in 2005 and 2006 with measure lives of 4 years or less for which savings have been claimed in the prior claim.
- d. Please adjust the current LRAM claim as necessary to reflect the measure lives (and Unit savings) for any/all measures that have expired starting in 2010.

Response:

36.

- a. An equivalent tabulation of inputs from the EB-2011-0049 case evidence is provided in the table on the next page for the requested LRAM claim.

The inputs originating from program-specific evaluations (by the OPA or otherwise) for the 2005, 2006, 2007, 2008, and 2009 programs are the same as those used in NPDI's previous Board-approved LRAM claim found in EB-2011-0049 case evidence.

Program input assumptions in the EB-2011-0049 claim that originated from generic OPA Measures and Assumptions lists were updated to reflect the 2011 OPA Measures and Assumptions lists. For the few measures that were not found on the 2011 OPA Measures and Assumptions list, the best available input assumptions were used.

The LRAM claim for 2010 programs reflects the update to final 2010 OPA program results.

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2005 Energy Star Window Program	Energy Star Windows	185	20	30%	27	0.008	\$115	Program evaluation
2005 Water Heater Replacement Program	40 Gallon Efficient Tanks	104	13	0%	219	0.025	\$750	Program evaluation and 2011 OPA for ML
2005 Water Heater Replacement Program	60 Gallon Efficient Tanks	24	13	0%	210	0.024	\$166	Program evaluation and 2011 OPA for ML
2005 Lighten Your Electricity Bill	15W CFL	1,338	8	30%	44	0.001	\$1,369	2011 OPA M&A List
2005 Lighten Your Electricity Bill	Pstat - Space Heating	20	11	30%	2,151	0.176	\$992	2011 OPA M&A List
2005 Lighten Your Electricity Bill	Pstat - Space Cooling	52	11	30%	203	0.176	\$243	2011 OPA M&A List
2005 Lighten Your Electricity Bill	Outdoor Timer	32	10	30%	68	0.000	\$50	2011 OPA M&A List
2005 Lighten Your Electricity Bill	Indoor Timer	8	10	30%	219	0.010	\$40	2011 OPA M&A List
2005 Lighten Your Electricity Bill	Indoor Timer for AC	7	20	30%	109	0.170	\$18	2006 SeeLine
2005 Lighten Your Electricity Bill	Ceiling Fan	45	10	30%	123	0.004	\$127	2011 OPA M&A List
2006 CFL Education and Giveaway	15W CFL	918	8	30%	44	0.001	\$939	2011 OPA M&A List
2006 LED Light Exchange	Seasonal LED Lights - 5W	2,500	5	30%	14	0.000	\$228	2011 OPA M&A List
2007 Norfolk Power Facility Lighting Program	2Lamp - T8 23W	152	7	0%	80	0.030	\$291	2011 Quasi Prescriptive M&A List
2007 Norfolk Power Facility Lighting Program	4Lamp - T8 32W	108	7	0%	159	0.060	\$414	2011 Quasi Prescriptive M&A List
2007 CFL Education and	15W CFL	8,000	8	30%	44	0.001	\$8,183	2011 OPA M&A List

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
Giveaway								
2007 LED Light Exchange	Seasonal LED Lights - 5W	2,500	5	30%	14	0.000	\$680	2011 OPA M&A List
2007 Energy Star Appliance Rebate Program	Energy Star Dishwasher	1	11	30%	7	0.001	\$0	2011 OPA M&A List
2007 Energy Star Appliance Rebate Program	Energy Star Freezer	4	21	30%	46	0.006	\$4	2011 OPA M&A List
2007 Energy Star Appliance Rebate Program	Energy Star Refrigerator	2	14	30%	113	0.016	\$5	2011 OPA M&A List
2007 Energy Star Appliance Rebate Program	Energy Star Front Load Washer	6	14	30%	181	0.020	\$25	2011 OPA M&A List
2007 Res Customer Program - Education	15W CFL	50	8	30%	44	0.001	\$51	2011 OPA M&A List
2007 Water Heater Replacement Program	40 Gallon Efficient Tanks	84	13	0%	219	0.025	\$606	Program evaluation and 2011 OPA for ML
2007 Water Heater Replacement Program	60 Gallon Efficient Tanks	19	13	0%	210	0.024	\$132	Program evaluation and 2011 OPA for ML
2008 CFL Education and Giveaway	15W CFL	3,000	8	30%	44	0.001	\$3,069	2011 OPA M&A List
2008 Energy Star Appliance Rebate Program	Energy Star Dishwasher	38	13	30%	7	0.001	\$6	2011 OPA M&A List
2008 Energy Star Appliance Rebate Program	Energy Star Freezer	15	21	30%	46	0.006	\$16	2011 OPA M&A List
2008 Energy Star Appliance Rebate Program	Energy Star Refrigerator	44	19	30%	113	0.016	\$114	2011 OPA M&A List
2008 Energy Star Appliance Rebate Program	Energy Star Front Load Washer	122	14	30%	181	0.020	\$510	2011 OPA M&A List
2008 Res Customer Program - Education	15W CFL	50	8	30%	44	0.001	\$51	2011 OPA M&A List
2006 Every Kilowatt Counts	Electric Timers	130	20	10%	183	0.000	\$516	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2006 Every Kilowatt Counts	Programmable Thermostats	57	15	10%	216	0.050	\$265	Final OPA-verified results
2006 Every Kilowatt Counts	Energy Star® Ceiling Fans	43	20	10%	141	0.014	\$132	Final OPA-verified results
2006 Every Kilowatt Counts	Seasonal Light Emitting Diode Light String	1,660	30	10%	31	0.000	\$1,105	Final OPA-verified results
2006 Every Kilowatt Counts	Programmable Thermostats	109	18	10%	522	0.118	\$1,236	Final OPA-verified results
2006 Every Kilowatt Counts	Dimmers	87	10	10%	139	0.000	\$260	Final OPA-verified results
2006 Every Kilowatt Counts	Indoor Motion Sensors	31	20	10%	209	0.000	\$140	Final OPA-verified results
2006 Every Kilowatt Counts	Programmable Baseboard Thermostats	7	18	10%	1,466	0.000	\$207	Final OPA-verified results
2006 Cool Savings Rebate Program	Energy Star® Air Conditioner	50	14	10%	351	0.359	\$380	Final OPA-verified results
2006 Cool Savings Rebate Program	Programmable Thermostats	38	18	10%	159	0.163	\$131	Final OPA-verified results
2006 Cool Savings Rebate Program	Air Conditioner Tune-Up	34	8	10%	369	0.038	\$272	Final OPA-verified results
2006 Secondary Fridge Retirement Pilot	Refrigerator Retirement	17	6	10%	1,200	0.272	\$363	Final OPA-verified results
2006 Secondary Fridge Retirement Pilot	Freezer Retirement	1	6	10%	900	0.204	\$12	Final OPA-verified results
2007 Great Refrigerator Roundup	Refrigerator	205	9	52%	745	0.071	\$1,438	Final OPA-verified results
2007 Great Refrigerator Roundup	Freezer	61	8	50%	515	0.066	\$345	Final OPA-verified results
2007 Great Refrigerator Roundup	Small Refrigerator	3	9	62%	490	0.045	\$11	Final OPA-verified results
2007 Great Refrigerator	Small Freezer	2	8	62%	339	0.042	\$5	Final OPA-verified

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
Roundup								results
2007 Great Refrigerator Roundup	Window Air Conditioner	2	5	57%	240	0.562	\$4	Final OPA-verified results
2007 Cool Savings Rebate Program	ENERGY STAR® Central Air Conditioner	115	18	43%	152	0.166	\$241	Final OPA-verified results
2007 Cool Savings Rebate Program	Programmable Thermostat	163	15	73%	55	0.029	\$59	Final OPA-verified results
2007 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor	180	15	41%	832	0.493	\$2,131	Final OPA-verified results
2007 Cool Savings Rebate Program	Central Air Conditioning Tune Up	97	5	84%	235	0.257	\$69	Final OPA-verified results
2007 Every Kilowatt Counts	15 W CFL	8,241	8	22%	43	0.001	\$6,645	Final OPA-verified results
2007 Every Kilowatt Counts	20 W+ CFLs	1,342	8	22%	62	0.002	\$1,562	Final OPA-verified results
2007 Every Kilowatt Counts	Project Porchlight CFLs	1,734	8	24%	43	0.001	\$1,362	Final OPA-verified results
2007 Every Kilowatt Counts	Energy Star Ceiling Fan	66	10	45%	90	0.003	\$79	Final OPA-verified results
2007 Every Kilowatt Counts	Solar Lights	1,058	5	87%	33	0.000	\$87	Final OPA-verified results
2007 Every Kilowatt Counts	Outdoor Motion Sensor	106	10	45%	160	0.000	\$224	Final OPA-verified results
2007 Every Kilowatt Counts	Dimmer Switch	67	10	45%	24	0.001	\$21	Final OPA-verified results
2007 Every Kilowatt Counts	Energy Star Light Fixtures	32	16	45%	123	0.006	\$52	Final OPA-verified results
2007 Every Kilowatt Counts	SLEDs	2,183	5	51%	14	0.000	\$282	Final OPA-verified results
2007 Every Kilowatt Counts	T8	63	18	23%	37	0.001	\$43	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2007 Every Kilowatt Counts	Programmable Thermostat	65	15	45%	75	0.000	\$64	Final OPA-verified results
2007 Every Kilowatt Counts	Power Bar with Timer	29	10	23%	72	0.006	\$39	Final OPA-verified results
2007 Every Kilowatt Counts	Lighting Control Devices	339	10	45%	72	0.019	\$324	Final OPA-verified results
2007 peaksaver	Residential Programmable Thermostat	3	12	10%	0	0.630	\$3	Final OPA-verified results
2007 Social Housing - Pilot	Custom Retrofit Projects	34	10	0%	1,229	0.145	\$992	Final OPA-verified results
2007 ERIP	Custom Retrofit Projects	1	5	10%	76,527	27.550	\$1,070	Final OPA-verified results
2008 Great Refrigerator Roundup	Refrigerator	323	9	45%	775	0.079	\$3,310	Final OPA-verified results
2008 Great Refrigerator Roundup	Freezer	85	8	48%	740	0.085	\$786	Final OPA-verified results
2008 Great Refrigerator Roundup	Room Air Conditioner	10	5	64%	197	0.199	\$17	Final OPA-verified results
2008 Cool Savings Rebate Program	2007 Efficient Furnace with Electronically Commutable Motor	32	15	46%	837	0.496	\$349	Final OPA-verified results
2008 Cool Savings Rebate Program	2007 ENERGYSTAR® Central Air Conditioner	15	18	48%	155	0.170	\$30	Final OPA-verified results
2008 Cool Savings Rebate Program	2007 Programmable Thermostat	25	15	54%	54	0.028	\$15	Final OPA-verified results
2008 Cool Savings Rebate Program	2008 Efficient Furnace with Electronically Commutable Motor	115	18	46%	819	0.485	\$1,226	Final OPA-verified results
2008 Cool Savings Rebate Program	2008 ENERGYSTAR® Central Air Conditioner	76	18	48%	125	0.137	\$119	Final OPA-verified results
2008 Cool Savings Rebate Program	2008 Programmable Thermostat	98	18	54%	54	0.028	\$58	Final OPA-verified results
2008 Every Kilowatt Counts	Energy Star® Qualified Compact	1,467	7	63%	88	0.003	\$1,158	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
- PSE	Fluorescent Floods (Indoor & Outdoor)							results
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Light Fixtures	2,277	16	67%	133	0.004	\$2,439	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Heavy Duty Timers	52	10	67%	301	0.017	\$124	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	T8 Fluorescent Fixtures	414	16	67%	37	0.001	\$122	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs	5,285	4	61%	30	0.001	\$1,193	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	ENERGY STAR Dimmable CFLs	341	6	62%	98	0.003	\$302	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Power Bars with Timers	24	10	59%	53	0.004	\$13	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Programmable Thermostats - Baseboard	144	15	53%	64	0.000	\$102	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Energy Star® Qualified Compact Fluorescent Light Bulbs	3,128	8	48%	53	0.002	\$2,081	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Lighting Control Devices	445	10	55%	102	0.003	\$497	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Pipe Wrap	2,918	6	53%	38	0.003	\$1,248	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Keep Cool – Dehumidifier	1	12	65%	500	0.290	\$4	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Keep Cool – Room Air Conditioner	1	9	58%	141	0.142	\$1	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Rewards for Recycling – Dehumidifier	27	12	56%	500	0.290	\$145	Final OPA-verified results
2008 Every Kilowatt Counts - PSE	Rewards for Recycling – Room Air Conditioner	30	9	56%	141	0.142	\$44	Final OPA-verified results
2008 Every Kilowatt Counts	Rewards for Recycling - Halogen	24	16	52%	275	0.009	\$75	Final OPA-verified

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
- PSE	Lamp							results
2008 peaksaver	Residential Programmable Thermostat	71	13	10%	17	0.865	\$116	Final OPA-verified results
2008 peaksaver	Residential Air Conditioner Switch	74	13	10%	17	0.865	\$121	Final OPA-verified results
2008 peaksaver	Commercial Programmable Thermostat	2	13	10%	74	3.700	\$14	Final OPA-verified results
2008 ERIP	Custom Retrofit Projects	1	16	Custom	0	0.000	\$219	Final OPA-verified results
2008 High Performance New Construction	Custom New Construction Project	1	14	30%	1,177	1.394	\$14	Final OPA-verified results
2008 Summer Sweepstakes	Households	1	8	22%	191,823	77.427	\$3,597	Final OPA-verified results
2005 Energy Audits for Major Customers	Installation of PStats for HVAC rooftop units AC	1	30	50%	10,000	8.333	\$315	Program evaluation and 2009 OPA Quasi-prescr M&A list
2006 Energy Audits for Major Customers	15W CFL	6	6	0%	56	0.045	\$20	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	15W CFL	17	9	0%	42	0.045	\$58	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	15W CFL	13	9	0%	42	0.045	\$44	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	15W CFL	3	9	0%	42	0.045	\$10	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 3 Lamps	9	14	50%	102	0.070	\$23	Program evaluation and 2011 OPA M&A list

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 1 Lamp	1	5	50%	88	0.020	\$0	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 1 Lamp	3	5	50%	88	0.020	\$0	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 1 Lamp	5	5	50%	88	0.020	\$0	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 1 Lamp	40	5	50%	88	0.020	\$2	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 1 Lamp	40	5	50%	88	0.020	\$2	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 1 Lamp	13	5	50%	88	0.020	\$1	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	T5 fixture, 4' 28W – 1 Lamp	13	5	50%	88	0.020	\$1	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	2 foot, 1 tube, T16, electronic ballast	2	5	50%	31	0.007	\$0	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	2 foot, 1 tube, T16, electronic ballast (Note 1)	2	5	50%	31	0.007	\$0	Program evaluation and 2011 OPA M&A list
2006 Energy Audits for Major Customers	Replace “jackshaft” type boiler controls on the 3 boilers	1	15	50%	22,788	2.610	\$99	Program evaluation
2006 Energy Audits for Major Customers	HWH Reduced Digester Flaring	1	15	0%	91,657	42.000	\$3,171	Program evaluation

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2006 Energy Audits for Major Customers	Sewage Pump Optimization	1	15	75%	65,664	6.250	\$118	Program evaluation
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running Part Time (38% of the time)	0	5	46%	674	0.094	\$1	Final OPA-verified results
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)	0	5	46%	454	0.063	\$0	Final OPA-verified results
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)	0	5	46%	498	0.070	\$1	Final OPA-verified results
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Not Replaced - Running All Time (100% of time)	1	5	46%	1,769	0.246	\$12	Final OPA-verified results
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time)	0	5	46%	1,193	0.167	\$3	Final OPA-verified results
2009 Great Refrigerator Roundup	Bottom Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time)	1	5	46%	1,308	0.183	\$17	Final OPA-verified results
2009 Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running Part Time (26% of the time)	2	4	48%	282	0.039	\$8	Final OPA-verified results
2009 Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)	1	4	48%	247	0.034	\$2	Final OPA-verified results
2009 Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running Part Time (26% of the time)	3	4	48%	261	0.036	\$9	Final OPA-verified results
2009 Great Refrigerator Roundup	Chest Freezer - Not Replaced - Running All Time (100% of time)	22	4	48%	1,096	0.153	\$300	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2009 Great Refrigerator Roundup	Chest Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time)	6	4	48%	959	0.133	\$73	Final OPA-verified results
2009 Great Refrigerator Roundup	Chest Freezer - Energy Star Unit Replacement - Running All Time (100% of time)	28	4	48%	1,012	0.141	\$350	Final OPA-verified results
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running Part Time (38% of the time)	1	5	46%	507	0.071	\$4	Final OPA-verified results
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)	0	5	46%	260	0.036	\$1	Final OPA-verified results
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running Part Time (38% of the time)	1	5	46%	309	0.043	\$4	Final OPA-verified results
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Not Replaced - Running All Time (100% of time)	4	5	46%	1,331	0.185	\$67	Final OPA-verified results
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time)	1	5	46%	682	0.095	\$13	Final OPA-verified results
2009 Great Refrigerator Roundup	Side by Side Fridge-Freezer - Energy Star Unit Replacement - Running All Time (100% of time)	8	5	46%	812	0.113	\$79	Final OPA-verified results
2009 Great Refrigerator Roundup	Single Door Fridge - Not Replaced - Running Part Time (38% of the time)	1	5	46%	418	0.058	\$8	Final OPA-verified results
2009 Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement -	1	5	46%	237	0.033	\$2	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
	Running Part Time (38% of the time)							
2009 Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)	3	5	46%	273	0.038	\$10	Final OPA-verified results
2009 Great Refrigerator Roundup	Single Door Fridge - Not Replaced - Running All Time (100% of time)	10	5	46%	1,097	0.153	\$144	Final OPA-verified results
2009 Great Refrigerator Roundup	Single Door Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time)	4	5	46%	623	0.087	\$30	Final OPA-verified results
2009 Great Refrigerator Roundup	Single Door Fridge - Energy Star Unit Replacement - Running All Time (100% of time)	20	5	46%	718	0.100	\$183	Final OPA-verified results
2009 Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced - Running Part Time (38% of the time)	6	5	46%	470	0.065	\$39	Final OPA-verified results
2009 Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running Part Time (38% of the time)	2	5	46%	252	0.035	\$8	Final OPA-verified results
2009 Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running Part Time (38% of the time)	12	5	46%	295	0.041	\$48	Final OPA-verified results
2009 Great Refrigerator Roundup	Top Freezer Fridge - Not Replaced - Running All Time (100% of time)	46	5	46%	1,234	0.172	\$742	Final OPA-verified results
2009 Great Refrigerator Roundup	Top Freezer Fridge - Standard Efficiency Unit Replacement - Running All Time (100% of time)	17	5	46%	661	0.092	\$147	Final OPA-verified results
2009 Great Refrigerator Roundup	Top Freezer Fridge - Energy Star Unit Replacement - Running All Time (100% of time)	90	5	46%	776	0.108	\$907	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2009 Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running Part Time (26% of the time)	0	4	48%	365	0.051	\$1	Final OPA-verified results
2009 Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running Part Time (26% of the time)	0	4	48%	180	0.025	\$0	Final OPA-verified results
2009 Great Refrigerator Roundup	Upright Freezer - Energy Star Unit Replacement - Running Part Time (26% of the time)	0	4	48%	189	0.026	\$1	Final OPA-verified results
2009 Great Refrigerator Roundup	Upright Freezer - Not Replaced - Running All Time (100% of time)	3	4	48%	1,416	0.197	\$48	Final OPA-verified results
2009 Great Refrigerator Roundup	Upright Freezer - Standard Efficiency Unit Replacement - Running All Time (100% of time)	1	4	48%	697	0.097	\$7	Final OPA-verified results
2009 Great Refrigerator Roundup	Upright Freezer - Energy Star Unit Replacement - Running All Time (100% of time)	3	4	48%	736	0.102	\$32	Final OPA-verified results
2009 Great Refrigerator Roundup	Dehumidifier - Not Replaced - Running All Time (100% of time)	2	4	64%	960	0.972	\$16	Final OPA-verified results
2009 Great Refrigerator Roundup	Dehumidifier - Standard Efficiency Unit Replacement - Running All Time (100% of time)	1	4	64%	540	0.547	\$5	Final OPA-verified results
2009 Great Refrigerator Roundup	Dehumidifier - Energy Star Unit Replacement - Running All Time (100% of time)	3	4	64%	463	0.468	\$12	Final OPA-verified results
2009 Great Refrigerator Roundup	Window Air Conditioner - Not Replaced - Running All Time (100% of time)	3	3	64%	371	0.375	\$8	Final OPA-verified results
2009 Great Refrigerator Roundup	Window Air Conditioner - Standard Efficiency Unit Replacement - Running All Time (100% of time)	0	3	64%	118	0.119	\$0	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2009 Great Refrigerator Roundup	Window Air Conditioner - Energy Star Unit Replacement - Running All Time (100% of time)	2	3	64%	141	0.142	\$1	Final OPA-verified results
2009 Cool Savings Rebate Program	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC)	34	18	42%	113	0.123	\$54	Final OPA-verified results
2009 Cool Savings Rebate Program	Energy Star® 14.5 SEER (Tier 1) Central Air Conditioner (CAC) with change in behaviour	5	18	42%	317	0.346	\$24	Final OPA-verified results
2009 Cool Savings Rebate Program	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC)	91	18	42%	177	0.193	\$222	Final OPA-verified results
2009 Cool Savings Rebate Program	Energy Star® 15.0 SEER (Tier 2) Central Air Conditioner (CAC) with change in behaviour	14	18	42%	366	0.400	\$72	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change	8	19	60%	2,773	1.658	\$204	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Non-continuous Fan, No change	32	19	60%	324	0.183	\$98	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from non-continuous	3	19	60%	91	0.054	\$2	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980,	14	19	60%	2,823	1.687	\$366	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
	Unmatched CAC & Furnace, Continuous Fan, No change							
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change	56	19	60%	373	0.211	\$199	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Unmatched CAC & Furnace, Continuous Fan, Change from non-continuous	4	19	60%	140	0.084	\$6	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan, No change	2	19	60%	1,535	0.837	\$33	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Non-continuous Fan, No change	9	19	60%	324	0.177	\$28	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed before 1980, Heating only, Continuous Fan, Change from non-continuous	1	19	60%	192	0.105	\$1	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, No change	9	19	60%	2,867	1.714	\$247	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Non-continuous Fan, No change	37	19	60%	207	0.117	\$73	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, AHRI Matched CAC & Furnace, Continuous Fan, Change from non-continuous	3	19	60%	(49)	(0.029)	(\$1)	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Continuous Fan, No change	16	19	60%	2,927	1.750	\$445	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Non-continuous Fan, No change	65	19	60%	267	0.151	\$167	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Unmatched CAC & Furnace, Continuous Fan, Change from non-continuous	5	19	60%	11	0.007	\$1	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, No change	3	19	60%	1,570	0.856	\$39	Final OPA-verified results
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home	11	19	60%	207	0.113	\$21	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
	constructed after 1980, Heating only, Non-continuous Fan, No change							
2009 Cool Savings Rebate Program	Furnace with Electronically Commutated Motor (ECM), Home constructed after 1980, Heating only, Continuous Fan, Change from non-continuous	1	19	60%	76	0.041	\$1	Final OPA-verified results
2009 Cool Savings Rebate Program	Programmable Thermostat - Central Air Conditioning (CAC) & Gas heating	72	15	61%	30	0.026	\$20	Final OPA-verified results
2009 Cool Savings Rebate Program	Programmable Thermostat - Energy Star® Central Air Conditioning (CAC) & Gas Heating	96	15	61%	26	0.022	\$23	Final OPA-verified results
2009 Cool Savings Rebate Program	Programmable Thermostat - Gas Heating only	21	15	61%	9	0.000	\$2	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Lighting	10	5	0%	40	0.001	\$10	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Cooling or Heating	4	3	0%	100	0.087	\$7	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Water heating	5	10	0%	141	0.011	\$17	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Appliances	7	4	0%	76	0.008	\$12	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Insulation of other weatherization	10	10	0%	75	0.029	\$18	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Windows	8	10	0%	100	0.085	\$19	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Roof products	4	15	0%	50	0.004	\$5	Final OPA-verified results
2009 Cool Savings Rebate Program	Participant Spillover - Other	4	5	0%	50	0.004	\$5	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
Program	products							results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Spring Campaign - Participant Rebated	380	8	31%	23	0.001	\$145	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs - Spring Campaign - Participant Rebated	900	6	23%	26	0.001	\$431	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Spring Campaign - Participant Rebated	73	16	47%	116	0.004	\$108	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Ceiling Fans - Spring Campaign - Participant Rebated	32	10	24%	71	0.002	\$41	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Heavy Duty Pool and Spa Timers - Spring Campaign - Participant Rebated	12	10	24%	454	0.060	\$98	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Clotheslines - Spring Campaign - Participant Rebated	30	10	45%	77	0.009	\$31	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Spring Campaign - Participant Rebated	25	6	22%	8	0.001	\$4	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Water Blanket - Spring Campaign - Participant Rebated	3	10	20%	52	0.004	\$3	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Window Air Conditioner - Spring Campaign - Participant Promoted	31	12	33%	96	0.098	\$48	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Dehumidifiers - Spring Campaign - Participant Promoted	30	12	32%	284	0.025	\$138	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Spring Campaign - Participant Promoted	73	15	55%	138	0.050	\$109	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Solar Power Products - Spring Campaign - Participant Promoted	190	5	40%	5	0.000	\$13	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2009 Every Kilowatt Counts - PSE	Control Products - Spring Campaign - Participant Promoted	94	10	47%	72	0.001	\$87	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Installed CFLs - Spring Campaign - Participant Spillover	35	8	87%	101	0.003	\$11	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Refrigerator - Spring Campaign - Participant Spillover	25	14	86%	65	0.007	\$6	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance - Clothes washing machine - Spring Campaign - Participant Spillover	15	14	88%	122	0.014	\$5	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Added ceiling/attic/wall/basement insulation - Spring Campaign - Participant Spillover	15	20	88%	394	0.104	\$17	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Installed Programmable Thermostat - Spring Campaign - Participant Spillover	15	15	87%	308	0.022	\$14	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Spring Campaign - Non-Participant Rebated	289	8	65%	22	0.001	\$54	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Decorative CFLs - Spring Campaign - Non-Participant Rebated	144	6	60%	26	0.001	\$36	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Spring Campaign - Non-Participant Rebated	135	16	59%	68	0.002	\$89	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Ceiling Fans - Spring Campaign - Non-Participant Rebated	40	10	86%	71	0.002	\$9	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Heavy Duty Pool and Spa Timers - Spring Campaign - Non-Participant Rebated	25	10	86%	454	0.060	\$37	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2009 Every Kilowatt Counts - PSE	Clotheslines - Spring Campaign - Non-Participant Rebated	92	10	86%	77	0.009	\$23	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Spring Campaign - Non-Participant Rebated	212	6	86%	8	0.001	\$6	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Water Blanket - Spring Campaign - Non-Participant Rebated	31	10	86%	52	0.004	\$5	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Window Air Conditioner - Spring Campaign - Non-Participant Promoted	52	12	57%	96	0.098	\$52	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Dehumidifiers - Spring Campaign - Non-Participant Promoted	62	12	56%	284	0.025	\$187	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Spring Campaign - Non-Participant Promoted	98	15	71%	138	0.050	\$95	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Solar Power Products - Spring Campaign - Non-Participant Promoted	634	5	61%	5	0.000	\$29	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Control Products - Spring Campaign - Non-Participant Promoted	218	10	66%	72	0.001	\$131	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Participant Rebated	1,718	8	31%	25	0.001	\$731	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Specialty CFLs - Autumn Campaign - Participant Rebated	695	6	29%	21	0.001	\$248	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Autumn Campaign - Participant Rebated	83	16	30%	119	0.004	\$166	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Weatherstripping - adhesive foam or V-strip - Autumn Campaign -	77	15	43%	15	0.001	\$16	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
	Participant Rebated							
2009 Every Kilowatt Counts - PSE	Weatherstripping - door frame kits - Autumn Campaign - Participant Rebated	50	15	47%	17	0.001	\$11	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Autumn Campaign - Participant Rebated	33	15	33%	32	0.000	\$17	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Autumn Campaign - Participant Rebated	29	6	55%	7	0.001	\$2	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Water Blanket - Autumn Campaign - Participant Rebated	6	10	37%	56	0.004	\$5	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Lighting/Appliance Controls - Autumn Campaign - Participant Rebated	58	17	28%	21	0.001	\$22	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Participant Promoted	205	5	41%	14	0.000	\$40	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Dimmer Switches - Autumn Campaign - Participant Promoted	86	10	50%	24	0.001	\$24	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Solar Powered Products - Autumn Campaign - Participant Promoted	167	4	48%	6	0.000	\$12	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Installed a new energy efficient appliance – Refrigerator - Autumn Campaign - Participant Spillover	35	14	75%	65	0.007	\$13	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Added ceiling/attic/wall/basement insulation - Autumn Campaign - Participant Spillover	28	20	78%	394	0.000	\$58	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Replaced my old furnace with a high efficiency furnace - Autumn Campaign - Participant Spillover	25	15	80%	352	0.192	\$41	Final OPA-verified results
2009 Every Kilowatt Counts	Installed a new energy efficient	23	15	81%	142	0.049	\$15	Final OPA-verified

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
- PSE	appliance - Clothes washing machine - Autumn Campaign - Participant Spillover							results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Non-Participant Rebated	1,565	8	86%	24	0.001	\$122	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Specialty CFLs - Autumn Campaign - Non-Participant Rebated	497	6	85%	30	0.001	\$54	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	ENERGY STAR Fixtures - Autumn Campaign - Non-Participant Rebated	139	16	76%	36	0.001	\$29	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Weatherstripping - adhesive foam or V-strip - Autumn Campaign - Non-Participant Rebated	540	15	93%	15	0.001	\$14	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Weatherstripping - door frame kits - Autumn Campaign - Non-Participant Rebated	411	15	94%	17	0.001	\$11	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Programmable Thermostat - Autumn Campaign - Non-Participant Rebated	81	15	83%	83	0.000	\$28	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Pipe Wrap - Autumn Campaign - Non-Participant Rebated	382	6	89%	6	0.000	\$6	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Water Blanket - Autumn Campaign - Non-Participant Rebated	48	10	78%	40	0.003	\$10	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Lighting/Appliance Controls - Autumn Campaign - Non-Participant Rebated	408	17	90%	42	0.001	\$42	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Non-Participant Promoted	668	5	65%	14	0.000	\$77	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2009 Every Kilowatt Counts - PSE	Dimmer Switches - Autumn Campaign - Non-Participant Promoted	210	10	73%	24	0.001	\$32	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Solar Powered Products - Autumn Campaign - Non-Participant Promoted	338	4	58%	5	0.000	\$16	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Working Room Air Conditioner Retirement - Rewards for Recycling Campaign - Incented	16	6	62%	32	0.032	\$5	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Working Room Dehumidifier Retirement - Rewards for Recycling Campaign - Incented	15	8	53%	300	0.304	\$50	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Working Halogen Torchier Retirement - Rewards for Recycling Campaign - Incented	5	10	49%	58	0.002	\$4	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Recycled Second Refrigerator - Rewards for Recycling Campaign - Spillover	3	14	64%	1,238	0.127	\$37	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Recycled Additional Room Air Conditioner - Rewards for Recycling Campaign - Spillover	3	6	64%	30	0.030	\$1	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Recycled Central Air Conditioner - Rewards for Recycling Campaign - Spillover	3	18	64%	72	0.079	\$2	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Recycled Additional Room Dehumidifier - Rewards for Recycling Campaign - Spillover	3	8	64%	309	0.313	\$8	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Installed Energy Star® Windows - Rewards for Recycling Campaign - Spillover	5	20	82%	1,530	0.087	\$32	Final OPA-verified results
2009 Every Kilowatt Counts - PSE	Installed Energy Star® CFL Bulbs - Rewards for Recycling Campaign -	16	8	82%	45	0.001	\$3	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
	Spillover							
2009 peaksaver	Residential Air Conditioner - Switch	65	13	10%	6	0.659	\$71	Final OPA-verified results
2009 peaksaver	Residential Air Conditioner - Thermostat	132	13	10%	6	0.659	\$144	Final OPA-verified results
2009 peaksaver	Commercial Air Conditioner - Switch	1	13	10%	6	0.957	\$2	Final OPA-verified results
2009 peaksaver	Commercial Air Conditioner - Thermostat	5	13	10%	6	0.957	\$8	Final OPA-verified results
2009 ERIP	Custom measures	1	6	17%	1,422,890	176.969	\$10,628	Final OPA-verified results
2009 High Performance New Construction	Custom measures	1	20	30%	35,903	15.748	\$442	Final OPA-verified results
2009 Power Savings Blitz	Custom measures	1	9	5%	1,263,855	323.954	\$21,117	Final OPA-verified results
2010 Cool Savings Rebate	All measures	1	2	0%	103,533	0.000	\$4,506	Final OPA-verified results
2010 Every Kilowatt Counts - PSE	All measures	1	2	0%	66,644	0.000	\$2,900	Final OPA-verified results
2010 Great Refrigerator Roundup	All measures	1	2	0%	161,247	0.000	\$7,018	Final OPA-verified results
2010 peaksaver	All measures	160	2	9%	2	0.616	\$12	Final OPA-verified results
2010 ERIP	All projects	1	2	0%	14,432	2.558	\$296	Final OPA-verified results
2010 High Performance New Construction	Custom	1	2	30%	145,999	64.035	\$2,701	Final OPA-verified results
2010 Multifamily Energy Efficiency Rebates	Custom	0	2	26%	75,155	6.134	\$367	Final OPA-verified results
2010 Power Savings Blitz	All projects	1	2	0%	323,617	0.000	\$10,304	Final OPA-verified results

Program	Energy Efficient Measure	Units	Measure life	Free Riders	Annual energy savings (kWh/a)	Annual peak demand savings (kW/a)	LRAM	Assumption Source
2010 peaksaver	All measures	4	2	9%	7	0.704	\$1	Final OPA-verified results
Total LRAM claim							\$135,137	

- b. Please see the response to Question 36a.
- c. There are no mass market measures (CFLs etc.) installed in 2005 and 2006 with measure lives of 4 years or less for which savings have been claimed in the prior claim.
- 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 requested LRAM claim already accounts for any measures that have expired before the full span of the LRAM claim. The LRAM claim is based on lost revenue from January 1 2010 until April 30 2012, or until the end of each measure's respective measure life, whichever is shorter. For example, if a measure installed in 2006 has expired at the end of 2010, LRAM was only claimed for that measure between January 1 and December 31 2010.