



Ontario Power Authority Q4 2011 Conservation & Demand Management Status Report

January 1, 2011 to December 31, 2011

Welland Hydro-Electric System Corp.

2011 At a Glance

The following tables show progress to OEB targets first: following the OPA reporting practice of 1 year persistence for demand response and second: assuming demand response remains in your territory until 2014 .

| | |
|---|-------|
| Unverified 2014 Peak Demand Savings Target Achieved (%): | 5.6% |
| Unverified 2011-2014 Cumulative Energy Target Achieved (%): | 26.1% |

| Assuming Demand Response resources remain in your territory until 2014: | Standing: |
|---|----------------|
| Unverified 2014 Peak Demand Savings Target Achieved (%): | 6.5% 40 of 77 |
| Unverified 2011-2014 Cumulative Energy Target Achieved (%): | 26.1% 10 of 77 |

Message from the Vice President

The OPA Conservation team is pleased to provide the Q4 2011 CDM Status Report. Province-Wide programs are showing success and we are well positioned to meet our 2011-14 targets, thanks to the efforts of the OPA and you, the LDCs. A "Standing" column has been included in this report (in the table above) which reflects your position based on the percent of target achieved. This is based on preliminary results and is intended to provide you with a snapshot of how your LDC is performing relative to the others in the province.

We have achieved 80% of our 2011 Province-Wide programs peak demand savings forecast - more data will be available as projects progress through the final stages of approval. We will continue to update preliminary 2011 data (which will be reflected in the "Program-to-Date" columns) until the results are verified later this year.

We invite you to continue to look for opportunities to improve this report to meet your needs and welcome your suggestions. Additionally, if you are having any concerns with roll-out or have a particular success to share, please contact the OPA Conservation Business Development team at ldc.support@powerauthority.on.ca.

- Andrew Pride
Vice President, Conservation
Ontario Power Authority



About this Report:

This report contains:

- Peak demand and energy savings for OPA-Contracted Province-Wide programs (does not incl. Ontario Energy Board (OEB) approved CDM programs or other conservation efforts undertaken by an LDC).
- Unverified quarterly results discounted using forecasted net-to-gross ratios. Once full Evaluation, Measurement & Verification (EM&V) occurs in the following year, results will be identified as final (verified).
- Data presented in this report represents program activity (i.e. projects completed, appliances picked up) completed on or before December 31, 2011 and received and entered into the OPA processing systems as per the dates specified in table 5.
- Updates to the previous quarter's participation due to more data availability.

Future reports will contain:

- More data for the Home Assistance Program
- **peaksaver** PLUS preliminary results representing all participants that are enrolled in **peaksaver** PLUS.
- Full, bar-code specific 2011 Coupon and Bi-Annual Retailer Event data (Retailers have until March 31, 2012 to submit coupons redeemed in 2011 to the OPA). Results are currently provincially allocated; once bar-code specific data is gathered, results can be attributed to a particular LDC. Data will be available to LDCs once retailers have submitted the coupons and QA/QC by the OPA is undertaken.

New this quarter based on LDC feedback:

- Demand response is now reported only in the "YTD Incremental" column. This value represents the total demand response under contract in your LDC territory as of the end of the current reporting period.
- The allocation methodology used to attribute non-bar code specific coupon redemptions from the Instant Coupon Booklet and Bi-Annual Retailer Event to each LDC was updated to reflect each LDC's proportion of the average 2008 and 2009 residential throughput as per the OEB yearbook.
- Table 5 on the final page of this report is intended to assist the LDC in reconciling internal data sources with the data contained in this report by communicating: **1.** The date in which the OPA considers savings to 'start'; **2.** At what point the data becomes available to the OPA; **3.** The date in which the data was collected for reporting purposes; **4.** The expected probability and magnitude of updates to the data as more information becomes available.

Reporting Methodology (Quarterly, Unverified results):

The OPA's policy on reporting preliminary results for prescriptive measures (i.e. standard technologies and items) is to determine the activity (i.e. appliances collected, projects completed, coupons redeemed, etc.) in the most detail possible and multiply these values by Prescriptive Input Assumptions (PIAs) and net-to-gross (NTG) ratios that were used to forecast the programs if available.

$$\text{Preliminary Net Savings} = \text{Activity} * \text{Gross per unit PIA} * \text{Net-to-gross ratio}$$

For engineered or custom projects, the calculated savings from each participant worksheet are summed and then multiplied by the forecasted net-to-gross ratio used for program planning purposes.



2011-2014 Summary

2011 Quarter 4

January 1, 2011 to December 31, 2011

This section provides a portfolio level view of net peak demand savings and net energy savings procured through Tier 1 programs to date.

Table 1 presents preliminary net peak demand savings results from 2011 to date by implementation period. This table also presents the net annual peak demand savings that are expected to persist through to 2014 from program activity completed to date. Please note that demand response 1 and 3 have a persistence of 1 year.

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

| # | Implementation Period | Annual | | | |
|--|-----------------------------|--------|------|------|------|
| | | 2011 | 2012 | 2013 | 2014 |
| 1 | 2011 - Reported - Quarter 1 | 0.09 | 0.09 | 0.09 | 0.09 |
| 2 | 2011 - Reported - Quarter 2 | 0.12 | 0.12 | 0.12 | 0.12 |
| 3 | 2011 - Reported - Quarter 3 | 0.14 | 0.08 | 0.08 | 0.08 |
| 4 | 2011 - Reported - Quarter 4 | 0.08 | 0.02 | 0.02 | 0.02 |
| 5 | 2012 | | | | |
| 6 | 2013 | | | | |
| 7 | 2014 | | | | |
| Annual Reported (Unverified) | | 0.36 | | | |
| Annual Final (Verified) | | n/a | | | |
| Unverified Net Annual Peak Demand Savings in 2014: | | | | | 0.31 |
| 2014 Annual CDM Capacity Target: | | | | | 5.56 |
| Unverified 2014 Peak Demand Savings Target Achieved (%): | | | | | 5.6% |

Table 2 presents preliminary net annual energy savings results from 2011 to date by implementation period. This table also presents 2011-2014 net cumulative energy savings expected in 2014 from program activity completed to date.

Table 2: Net Energy Savings at the End-User Level (GWh)

| # | Implementation Period | Annual | | | | Cumulative |
|---|-----------------------------|--------|------|------|------|------------|
| | | 2011 | 2012 | 2013 | 2014 | |
| 1 | 2011 - Reported - Quarter 1 | 0.41 | 0.41 | 0.41 | 0.41 | 1.66 |
| 2 | 2011 - Reported - Quarter 2 | 0.40 | 0.40 | 0.40 | 0.40 | 1.60 |
| 3 | 2011 - Reported - Quarter 3 | 0.35 | 0.35 | 0.35 | 0.35 | 1.39 |
| 4 | 2011 - Reported - Quarter 4 | 0.18 | 0.18 | 0.18 | 0.18 | 0.72 |
| 5 | 2012 | | | | | |
| 6 | 2013 | | | | | |
| 7 | 2014 | | | | | |
| Annual Reported (Unverified) | | 1.34 | | | | |
| Annual Final (Verified) | | n/a | | | | |
| Unverified Net Cumulative Energy Savings 2011-2014: | | | | | | 5.37 |
| 2011-2014 Cumulative CDM Energy Target: | | | | | | 20.60 |
| Unverified 2011-2014 Cumulative Energy Target Achieved (%): | | | | | | 26.1% |



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2011-2014 Summary

2011 Quarter 4

January 1, 2011 to December 31, 2011

Figure 1 presents unverified net annual peak demand savings achieved and expected persistence through to 2014 for program activity completed to date. The 2014 annual peak demand savings target as per OEB is also presented.

Figure 1: Net Peak Demand Savings (MW)

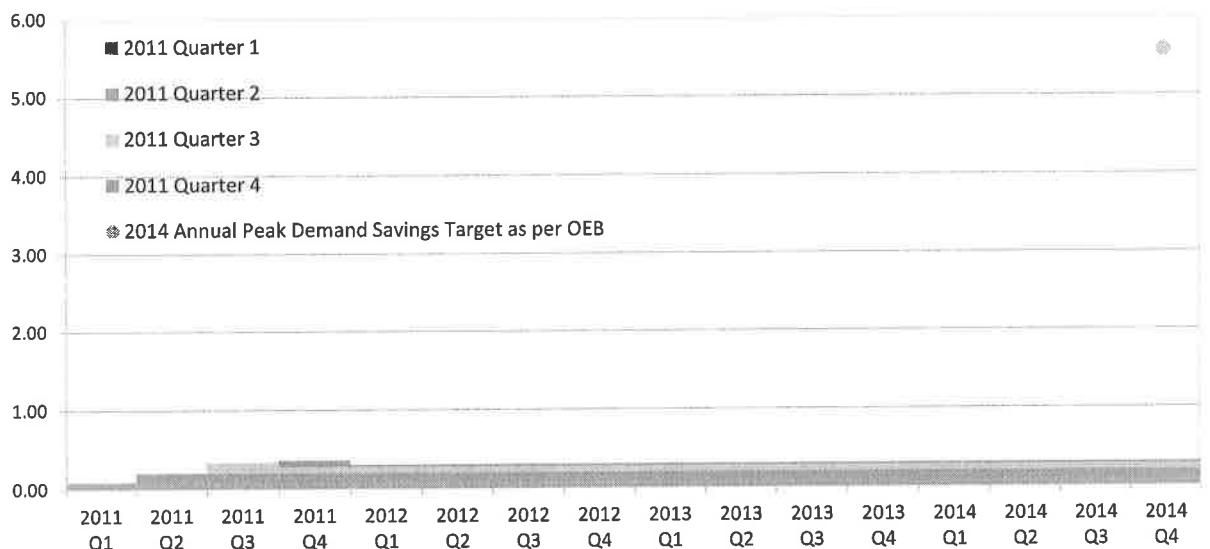


Figure 2 presents unverified net cumulative energy savings achieved including expected persistence to 2014 from program activity completed to date. The 2011-2014 cumulative energy savings target as per OEB is also presented.

Figure 2: Net Cumulative Energy Savings (GWh)

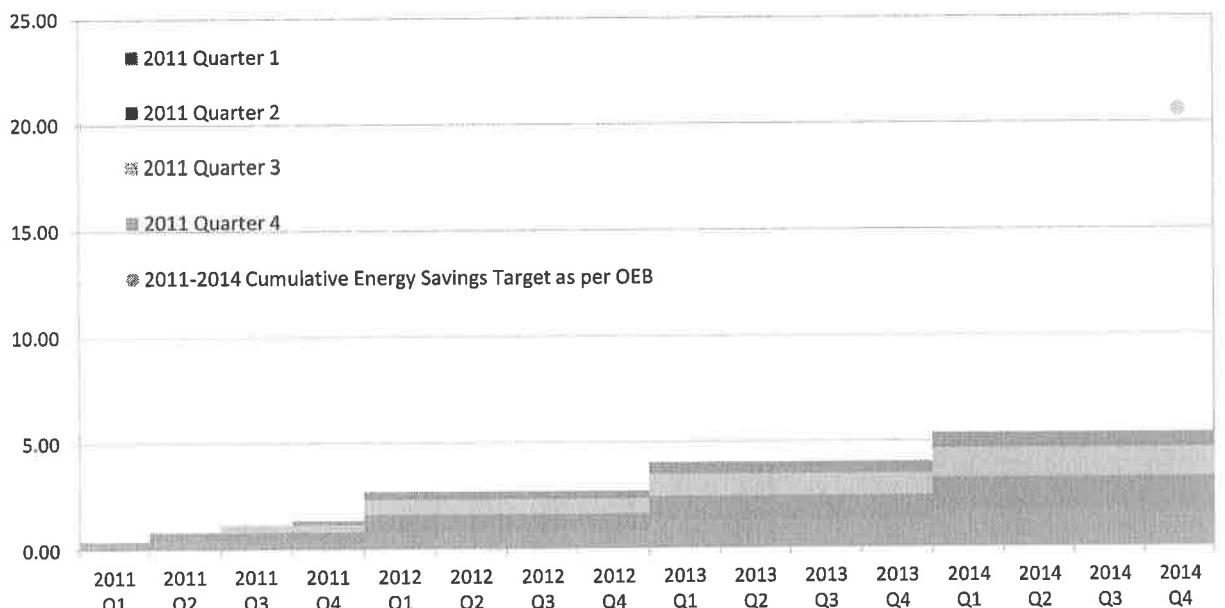


Table 3: Welland Hydro-Electric System Corp. Initiative and Program Level Savings
 Shaded areas indicate data is not yet available

| # | Initiative | Unit | Incremental (Current Quarter) | Program-to-Date (2011-to-Date): | Net Peak Demand Savings (kW) | | | Net Energy Savings (kWh) | | |
|---|------------|------|-------------------------------|---------------------------------|-------------------------------|--------------------------------|--|-------------------------------|--------------------------------|--|
| | | | | | Incremental (Current Quarter) | YTD Incremental (2011-to-Date) | Program-to-Date: unverified annual savings in 2014 | Incremental (Current Quarter) | YTD Incremental (2011-to-Date) | Program-to-Date: unverified cumulative savings in 2014 |
| Consumer Program | | | | | | | | | | |
| 1 Appliance Retirement | Appliances | 61 | 231 | 5 | 18 | 18 | 31,061 | 119,972 | 479,888 | 4,116 |
| 2 Appliance Exchange | Appliances | 0 | 7 | 0 | 1 | 1 | 0 | 1,029 | 333,301 | 333,301 |
| 3 HVAC Incentives | Equipment | 37 | 303 | 8 | 63 | 63 | 2,283 | 83,325 | 176,234 | 176,234 |
| 4 Conservation Instant Coupon Booklet | Coupons | 350 | 560 | 1 | 2 | 2 | 27,596 | 44,058 | 336,465 | 336,465 |
| 5 Bi-Annual Retailer Event | Coupons | 758 | 1,309 | 1 | 3 | 3 | 46,732 | 84,116 | 0 | 0 |
| 6 Retailer Co-op | Items | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,230 | 4,920 |
| 7 <i>peakSaver</i> extension | Devices | 0 | 79 | 0 | 62 | 62 | 0 | 0 | 0 | 0 |
| 8 Midstream Electronics | Items | | | | | | | | | |
| 9 Midstream Pool Equipment | Items | | | | | | | | | |
| 10 Residential New Construction | Houses | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | 0 |
| Consumer Program Total | | | | 16 | 148 | 148 | 107,672 | 333,731 | 1,334,923 | |
| Business Program | | | | | | | | | | |
| 11 Equipment Replacement Incentive | Projects | 3 | 11 | 3 | 20 | 20 | 16,765 | 109,975 | 439,899 | |
| 12 Direct Installed Lighting | Projects | 6 | 90 | 3 | 56 | 56 | 22,764 | 418,276 | 1,673,106 | |
| 13 Direct Service Space Cooling | Equipment | | | | | | | | | |
| 14 Building Commissioning | Buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 New Construction | Buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 <i>peakSaver</i> extension | Devices | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 Demand Response 1 | Facilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 Demand Response 3 | Facilities | 1 | 54 | 0 | 0 | 0 | 1,685 | 1,685 | 1,685 | |
| Business Program Total | | 6 | 130 | 76 | 39,529 | 39,529 | 529,936 | 529,936 | 2,114,689 | |
| Industrial Program | | | | | | | | | | |
| 19 Process & System Upgrades | Projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Monitoring & Targeting | Projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 Energy Manager | Managers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 Equipment Replacement Incentive | Projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 Demand Response 1 | Facilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Demand Response 3 | Facilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Industrial Program Total | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Home Assistance Program | | | | | | | | | | |
| 25 Home Assistance Program | Units | 494 | 494 | 1 | 1 | 1 | 18,047 | 18,047 | 72,188 | 72,188 |
| Home Assistance Program Total | | | | 1 | 1 | 1 | 18,047 | 18,047 | 72,188 | |
| Pre-2011 Programs completed in 2011 | | | | | | | | | | |
| 25 Electricity Retrofit Incentive Program | Projects | 0 | 2 | 0 | 70 | 70 | 0 | 351,333 | 1,405,331 | |
| 26 High Performance New Construction | Projects | 0 | 1 | 2 | 16 | 16 | 14,285 | 110,345 | 441,380 | |
| 27 Toronto Comprehensive | Projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 Multi-family Energy Efficiency Rebates | Projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pre-2011 Programs completed in 2011 Total | | 2 | 85 | 85 | 14,285 | 461,678 | 461,678 | 1,846,711 | 1,846,711 | |
| OPA-Contracted Province-Wide Portfolio Total | | | | | | | | | | |
| 25 | 364 | 310 | 179,533 | 1,343,391 | 5,368,511 | | | | | |

Table 4: Initiative and Program Level Savings
Shaded areas indicate data is not yet available

| # | Initiative | Activity | | Net Peak Demand Savings (kW) | | | Net Energy Savings (kWh) | | |
|---|------------|------------|-------------------------------|--------------------------------|-------------------------------|--------------------------------|--|-------------------------------|--------------------------------|
| | | Unit | Incremental (Current Quarter) | Program-to-Date (2011-to-Date) | Incremental (Current Quarter) | YTD Incremental (2011-to-Date) | Program-to-Date: unverified annual savings in 2014 | Incremental (Current Quarter) | YTD Incremental (2011-to-Date) |
| Consumer Program | | | | | | | | | |
| 1 Appliance Retirement | | Appliances | 15,019 | 56,035 | 1,194 | 4,333 | 7,716,329 | 28,872,984 | 115,491,936 |
| 2 Appliance Exchange | | Appliances | 0 | 4,715 | 0 | 479 | 0 | 60,709 | 2,418,836 |
| 3 HVAC Incentives | | Equipment | 7,397 | 56,127 | 1,717 | 12,512 | 1,134,038 | 17,784,401 | 71,137,602 |
| 4 Conservation Instant Coupon Booklet | | Coupons | 90,106 | 144,467 | 269 | 468 | 7,114,454 | 11,358,484 | 45,433,938 |
| 5 Bi-Annual Retailer Event | | Coupons | 195,529 | 337,358 | 374 | 791 | 12,047,863 | 21,685,594 | 86,742,376 |
| 6 Retailer Co-op | | Items | 0 | 152 | 0 | 0 | 0 | 41 | 162 |
| 7 <i>peak saver</i> extension | | Devices | 10 | 18,435 | 8 | 14,352 | 14,352 | 156 | 287,033 |
| 8 Midstream Electronics | | Items | | | | | | | 1,148,132 |
| 9 Midstream Pool Equipment | | Items | | | | | | | 2,227 |
| 10 Residential New Construction | | Houses | 5 | 5 | 0.04 | 0.04 | 0.04 | 557 | 557 |
| Consumer Program Total | | | | 3,561 | 32,934 | 32,934 | 28,013,397 | 80,593,802 | 322,375,209 |
| Business Program | | | | | | | | | |
| 11 Equipment Replacement Incentive | | Projects | 243 | 944 | 1,845 | 8,223 | 8,223 | 7,170,097 | 37,650,286 |
| 12 Direct Installed Lighting | | Projects | 2,422 | 18,667 | 1,546 | 10,407 | 10,407 | 11,414,663 | 150,601,145 |
| 13 Direct Service Space Cooling | | Equipment | | | | | | 77,311,193 | 309,244,770 |
| 14 Building Commissioning | | Buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 New Construction | | Buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 <i>peak saver</i> extension | | Devices | 0 | 121 | 0 | 201 | 201 | 4,029 | 16,117 |
| 17 Demand Response 1 | | Facilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 Demand Response 3 | | Facilities | 145 | 145 | 21,390 | 0 | 21,390 | 667,368 | 667,368 |
| Business Program Total | | | | 3,391 | 40,222 | 18,832 | 18,524,750 | 215,632,876 | 460,529,401 |
| Industrial Program | | | | | | | | | |
| 19 Process & System Upgrades | | Projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Monitoring & Targeting | | Projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 Energy Manager | | Managers | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 Equipment Replacement Incentive | | Projects | 35 | 179 | 439 | 1,636 | 1,636 | 2,056,245 | 7,800,798 |
| 23 Demand Response 1 | | Facilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Demand Response 3 | | Facilities | 125 | 125 | 67,276 | 0 | 67,276 | 699,670 | 699,670 |
| Industrial Program Total | | | | 439 | 68,912 | 1,636 | 2,056,245 | 8,500,468 | 31,902,862 |
| Home Assistance Program | | | | | | | | | |
| 25 Home Assistance Program | | Units | 494 | 494 | 1 | 1 | 1 | 18,047 | 18,047 |
| Home Assistance Program Total | | | | 1 | 1 | 1 | 18,047 | 18,047 | 72,188 |
| Pre-2011 Programs completed in 2011 | | | | | | | | | |
| 25 Electricity Retrofit Incentive Program | | Projects | 29 | 483 | 397 | 5,079 | 5,079 | 1,441,254 | 19,451,459 |
| 26 High Performance New Construction | | Projects | 28 | 220 | 650 | 4,723 | 4,723 | 4,306,415 | 33,266,180 |
| 27 Toronto Comprehensive | | Projects | 27 | 576 | 1,559 | 13,774 | 13,774 | 13,405,628 | 83,570,866 |
| 28 Multi-Family Energy Efficiency Rebates | | Projects | 0 | 110 | 0 | 1,886 | 1,886 | 0 | 7,218,883 |
| Pre-2011 Programs completed in 2011 Total | | | | 2,606 | 25,461 | 25,461 | 19,153,297 | 143,507,388 | 574,029,551 |
| OPA-Contracted Province-Wide Portfolio Total | | | | 9,998 | 167,529 | 78,863 | 67,825,747 | 348,252,582 | 1,388,909,212 |



Glossary

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

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

Current Reporting Period: the calendar quarter specified on page 1 of this report.

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

Final Savings: savings achieved that have undergone annual Evaluation, Measurement & Verification (EM&V) and thus have had activity audited and savings assumptions measured and verified.

Implementation Period: the particular calendar quarter or calendar year that conservation activity is achieved based on when the savings are considered to 'start' (please see table 5).

Incremental: the new resource savings attributable to activity procured in a particular reporting period based on when the savings are considered to 'start' (please see table 5).

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

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

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

Program-to-Date: the reporting period from January 1, 2011 until the end of the Current Reporting Period.

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

Reported Savings: savings achieved that are based on reported activity and forecasted savings assumptions. These savings are not verified, i.e. have not undergone the Evaluation, Measurement & Verification processes.

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

Table 5: Data Qualifiers for Initiatives currently in market

For Example: Preliminary results for Retrofit are reported in this quarter if a project is completed on or before Dec. 31, 2011 and had the iCON status "Approved for payment by LDC" or "Released for Payment" as of Jan. 20, 2012. There is a high probability that there are more results coming in for this initiative.

| Initiative | Savings 'start' Date | Data Available | As of: | Updates: |
|--|--|--|---------------|----------|
| Conservation Instant Coupon Booklet | Invoice date from coupon clearinghouse | Once data is submitted to the OPA by retailers | Dec. 21, 2011 | High |
| Bi-Annual Retailer Event | Event date | | Dec. 16, 2011 | Low |
| Appliance exchange initiative | Will vary by specific project | Varies by specific project | Dec. 31, 2011 | Low |
| Retailer co-op activities | Pick-up date | When database is queried | Jan. 11, 2012 | Moderate |
| Appliance Retirement | Installation date | Customers submit rebate and invoices are processed | Oct. 31, 2011 | High |
| HVAC Incentives | Device installation date | Upon payment to LDC | Jan. 26, 2012 | Moderate |
| peakSaver extension | Project completion | Preliminary Billing Report issued to LDC | Jan. 2, 2012 | Low |
| New construction | | | | |
| Home Assistance Program | Project Completion Date | TBD | Jan. 23, 2012 | High |
| Direct Installed Lighting | | Work-order: invoiced, approved and paid to LDC | Dec. 1, 2011 | High |
| Equipment Replacement Incentive | | "Approved for Payment by LDC" or "Released for Payment" status on iCON | Jan. 20, 2012 | High |
| Process & Systems Upgrades | Project Completion Date | Upon payment to LDC | Jan. 20, 2012 | Low |
| Building Commissioning | | Upon payment to LDC | Jan. 20, 2012 | Moderate |
| New Construction | | Upon payment to LDC | Jan. 20, 2012 | Low |
| peakSaver extension | Device installation Date | Upon payment to LDC | Jan. 26, 2012 | Moderate |
| Demand Response (DR1, DR3) | Facility is available under contract | Facility under contract with aggregator | Dec. 31, 2011 | Low |
| High Performance New Construction | | | | |
| Electricity Retrofit Incentive Program | Project Completion Date | Upon payment to LDC | Jan. 16, 2012 | High |
| Multifamily Energy Efficiency Rebates | | | Jan. 13, 2012 | High |
| Toronto Comprehensive | | | Nov. 2011 | Low |
| | | | Jan. 11, 2012 | High |
| Equipment Replacement Incentive | Project Completion Date | "Approved for Payment by LDC" or "Released for Payment" status on iCON | Jan. 20, 2012 | High |
| Process & System Upgrades | In Service Date | Report submitted | Jan. 20, 2012 | Low |
| Monitoring & Targeting | 2nd year Report | Facility available under contract | Jan. 20, 2012 | Low |
| Demand Response (DR1, DR3) | Facility is available under contract | Report submitted quarterly | Dec. 31, 2011 | Low |
| Energy Manager | Quarterly Report Date | | Jan. 20, 2012 | Low |