## Independent Electricity System Operator Conservation \& Demand Management Status Report

Q4 2014 Preliminary Results Update
Hearst Power Distribution Company Limited

| Unverified IESO-Contracted Province-Wide CDM Program Progress at a Glance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unverified Progress to Targets | $\begin{aligned} & \text { Incremental Q4- } \\ & 2014 \end{aligned}$ | Program-to-Date Progress Towards OEB Target |  |  |  | Rank (of 76) |
|  |  | Scenario 1 |  | Scenario 2 |  |  |
|  |  | Savings | \% | Savings | \% | Scenario 2 |
| Net Peak Demand Savings (MW) | 0.0 | 0.3 | 47\% | 0.3 | 47\% | 43 |
| Net Energy Savings (GWh) | 0.1 | 2.6 | 67\% | 2.6 | 67\% | 67 |

Program-to-Date Progress Towards Target: Combination of verified (2011-13) and unverified (2014) results. The 2014 Q4 report reflects the most up-to-date inputs from the 2013 program evaluations. To align with savings counted towards OEB targets, peak demand is represented by annual savings in 2014 and energy is represented by the cumulative savings from 2011-2014.

Scenario 1: Assumes that demand response resources have a persistence of 1 year. Official reporting policy for demand response resources.
Scenario 2: Assumes that demand response resources remain in the LDC territory until 2014. Used to better assess progress towards demand targets.

Rank: Sorts each LDC by \% of peak demand or energy target achieved as of the current reporting period using Scenario 2.


[^0] More Questions? Please contact LDC.Support@ieso.ca

## Message from the Vice President

As we have reached the end of the 2011-2014 Conservation Framework, I'm pleased to present to you the Q4 2014 LDC status update. This quarter, we have achieved $98 \%(5,882 \mathrm{GWh})$ of the full OEB energy savings target. Peak demand savings increased to 798 MW , representing $60 \%$ of the 1,330 MW peak demand target.

Projects completed prior to December 31, 2014 will count towards your 2011-2014 CDM Targets and we encourage LDCs to submit these projects to the IESO prior to the initiative specific cut-off date. Please refer to the 2014 Final Results Reporting LDC.Support E-blast issued on March 3rd, 2015 for additional details.

## Highlights from Q4 2014:

- LDCs achieved 334 MW peak demand and 186 GWh in incremental energy savings in Q4 2014.
- Bi-Annual COUPONS contributed over 100 GWh with $83 \%$ of energy savings coming from LEDs.
- RETROFIT participation in Q4 2014 increased by $25 \%$ over Q4 2013 contributing about 60 GWh in savings of Q4 2014
- Program enhancements, such as a new exterior lighting worksheet in RETROFIT and an increased cost cap in HOME ASSISTANCE are continuing to improve user experience.

We remain well positioned for continued success in the Conservation First Framework 2015-2020. Signed ECAs have been received from all LDCs and the IESO is in the process of reviewing and approving CDM Plans. As of March 31st, 20153 CDM Plans have been recieived and 2 have been approved. We look forward to continued successful collaboration to achieve and exceed our goals.

Please contact the IESO at LDC.Support@ieso.ca with any questions or comments regarding this report.

Sincerely,

## Terry Young

## About this Report

## This report contains:

- Peak demand and energy savings for IESO-Contracted Province-Wide programs (does not include Ontario Energy Board (OEB) approved CDM programs or other LDC conservation efforts)
- Progress as of the end of Q4 2014 using unverified quarterly results for 2014 and final verified results for 2011-2013
- Program activity data (i.e. projects completed, appliances picked up) completed on or before December 31st, 2014 and received and entered to the IESO processing systems per the dates specified in Table 5
- Updates to the previous quarters' participation with additional data received
- Information to assist the LDC in reconciling internal data sources with the data contained in this report. Table 5 contains:

1 The date in which savings are considered to 'start';
2 The point at which the data becomes available to the IESO;
3 The expected probability and magnitude of updates to the data as more information becomes available.

- iCON CRM Post Stage Retrofit Report data queried on January 6th, 2015
- Preliminary results for peaksaverPLUS ${ }^{\circledR}$ represent customers that have signed a Participant Agreement and have successfully uploaded information to the RDR settlement system
peaksaverPLUS ${ }^{\circledR}$ device counts and corresponding savings for load control (switch/thermostat) and IHD are reported separately


## 2011-2014 Summary: Net Peak Demand Savings Achieved (MW)

This section provides a portfolio level view of net peak demand savings procured to date through LDC programs Table 1 presents:

- Net peak demand savings results from 2011 to 2014 listed by implementation period, status (i.e. final or reported) and summarized by resource type (i.e. energy efficiency or demand response)
- Net annual peak demand savings that are expected to persist from program activity completed as of Q4 2014 using both Scenarios 1 and 2
- A comparison between reported, unverified results and final, verified results
- Energy efficiency resources reported with persistence according to the effective useful life of the technology Figure 1 presents:
- Net peak demand savings results from 2011 to date using Scenario 1 for demand response resources (persistence of 1 year)

Please note: Demand response resources are only presented in the final quarter of each year and the current reporting quarter (i.e. Q4 2011, Q4 2012, Q4 2013 and Q4 2014). Figures below and tables 3B and 4B present demand response in each quarter to display any changes that may have occurred quarter over quarter.

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

| \# | Implementation Period | Annual (MW) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Scenario 1 |  |  |  | $\begin{gathered} \hline \text { Scenario } 2 \\ \hline 2014 \end{gathered}$ |
|  |  | 2011 | 2012 | 2013 | 2014 |  |
| 1 | 2011 - Final | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 2012 - Final $\dagger$ | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 |
| 3 | 2013 - Final $\dagger$ | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| 4 | 2014 - Reported - Quarter 1 |  |  |  | 0.0 | 0.0 |
| 5 | 2014 - Reported - Quarter 2 |  |  |  | 0.1 | 0.1 |
| 6 | 2014 - Reported - Quarter 3 |  |  |  | 0.0 | 0.0 |
| 4 | 2014 - Reported - Quarter 4 |  |  |  | 0.0 | 0.0 |
| Energy Efficiency |  | 0.0 | 0.1 | 0.2 | 0.3 | 0.3 |
| Demand Response |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net Annual Peak Demand Savings |  | 0.0 | 0.1 | 0.2 | 0.3 | 0.3 |
| Unverified Net Annual Peak Demand Savings in 2014: |  |  |  |  | 0.3 | 0.3 |
| 2014 Annual Peak Demand Savings Target as per OEB: |  |  |  |  | 0.7 | 0.7 |
| Unverified 2014 Peak Demand Savings Target Achieved (\%): |  |  |  |  | 47\% | 47\% |
| Incremental Reported (Unverified) |  | 0.0 | 0.1 | 0.1 | 0.1 |  |
| Incremental Final (Verified) |  | 0.0 | 0.1 | 0.1 | n/a |  |

Decline in savings due to demand response persistence assumption (scenario 1) and energy efficiency persistence decline

+ Includes adjustments to previous year's verified results
Sums may not be exact due to rounding
Table 1B: Peak Demand Savings from DR3 Resources

| Reported DR3 (Ex Ante) (MW) | 0.0 |
| :---: | :--- |
| Contracted DR3 (MW) | 0.0 |

Figure 1: Net Peak Demand Savings (MW)


## 2011-2014 Summary: Net Energy Savings Achieved (GWh)

This section provides a portfolio level view of net energy savings procured to date through LDC programs.
Table 2 presents net annual energy savings results from 2011 to date listed by implementation period, status (i.e. final or reported) and summarized by resource type. This table presents 2011-2014 net cumulative energy savings expected in 2014 from program activity completed to date. At the bottom of the table a comparison is made between reported results (unverified) and final results (verified) for 2011, 2012, and 2013.

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

| \# | Implementation Period | Annual (GWh) |  |  |  | Cumulative (GWh) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2011 | 2012 | 2013 | 2014 | 2011-2014 |
| 1 | 2011-Final | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 |
| 2 | 2012 - Finalt | 0.0 | 0.2 | 0.2 | 0.2 | 0.7 |
| 3 | 2013 - Finalt | 0.0 | 0.0 | 0.4 | 0.4 | 0.7 |
| 4 | 2014 - Reported - Quarter 1 |  |  |  | 0.1 | 0.1 |
| 5 | 2014 - Reported - Quarter 2 |  |  |  | 0.4 | 0.4 |
| 6 | 2014 - Reported - Quarter 3 |  |  |  | 0.1 | 0.1 |
| 7 | 2014 - Reported - Quarter 4 |  |  |  | 0.1 | 0.1 |
| Energy Efficiency |  | 0.1 | 0.4 | 0.7 | 1.4 | 2.6 |
| Demand Response |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net Energy Savings |  | 0.1 | 0.4 | 0.7 | 1.4 | 2.6 |
| Unverified Net Cumulative Energy Savings 2011-2014: |  |  |  |  |  | 2.6 |
| 2011-2014 Cumulative Energy Savings Target as per OEB: |  |  |  |  |  | 3.9 |
| Unverified 2011-2014 Cumulative Energy Target Achieved (\%): |  |  |  |  |  | 67\% |
| Incremental Reported (Unverified) |  | 0.2 | 0.3 | 0.4 | 0.7 |  |
| Incremental Final (Verified) |  | 0.1 | 0.2 | 0.4 | n/a |  |

$\dagger$ Includes adjustments to previous year's verified results
Sums may not be exact due to rounding
Figure 2: Net Cumulative Energy Savings (GWh)



| Incremental Activity <br> (new program activity occurring within the specified reporting period) |  |  |  | Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period) |  |  |  | Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 Adj.* | 2012 Adj.* | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | 10 | 1 | 5 | 1 | 1 | 0 | 0 | 6,300 | 4,124 | 417 | 2,283 |
| 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 90 | 65 | 369 | 574 |
| 1 | 3 | 14 | 15 | 0 | 1 | 4 | 4 | 515 | 1,337 | 6,713 | 7,356 |
| 338 | 21 | 232 | 338 | 1 | 0 | 0 | 1 | 12,421 | 933 | 5,144 | 7,981 |
| 635 | 708 | 630 | 3,236 | 1 | 1 | 1 | 4 | 19,612 | 17,873 | 11,465 | 66,813 |
|  |  |  |  | - | - | - |  |  |  |  |  |
|  |  |  | - | - | . | - | - |  | . |  |  |
| - | - | - | - | - | - | - | - | - | - |  |  |
| - |  |  | . | - |  |  |  |  |  |  |  |
|  |  |  |  | 3 | 2 | 5 | 9 | 38,938 | 24,332 | 24,108 | 85,007 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 5 | 10 | - |  | 4 | 66 |  |  | 19,655 | 377,485 |
| 32 | 48 | 56 | 67 | 41 | 51 | 74 | 67 | 100,177 | 192,927 | 243,305 | 216,953 |
|  |  |  |  | - | - |  |  |  |  |  |  |
| - | . | . | - | - | - | - | - | - | - | - |  |
| - |  |  |  | - | - | - | - |  | - |  |  |
| - | - | - | - | - | - | - | - | - | - |  |  |
| - | - | . | - | - | - | - | - | - | . |  |  |
| - | - |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 41 | 51 | 78 | 133 | 100,177 | 192,927 | 262,959 | 594,439 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| - | - | - | - | - | - | - | - | - | - | - |  |
| - | - | - | - | - | - | - | - | - | - | - |  |
| - | - | - | - | - | - | - | - | - | - | - |  |
| - | - | - |  | - | - | - |  | - | - |  |  |
|  |  |  |  | - | - | - | - |  | - |  |  |
|  |  |  |  | - | - | - | - | $\cdot$ | $\cdot$ | . |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | 92 |  | - | - | 3 |  | - | - | 75,888 |  |
|  |  |  |  | $\cdot$ | - | 3 |  |  | . | 75,888 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | - | - | - |  | - | - |  |  |
|  |  |  |  | - | - | - | . | - | - | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | - | - | - | - |  |  | - | - |  |
| 0 | 0 |  | - | 0 | 0 | - | - | 229 | 73 | - |  |
|  |  |  | - | - | - | - | - | - | - | - |  |
|  |  | - | - | - | - | - |  | - | - | - |  |
|  |  |  |  | - |  |  |  |  |  |  |  |
|  |  |  |  | 0 | 0 | . |  | 229 | 73 | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| - |  |  |  | - | - | - |  | - | - | - |  |
| - | - | - |  | - | - | - |  | - | - |  |  |
| 0 1,525 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 44 | 54 | 86 | 142 | 139,344 | 217,332 | 362,956 | 679,445 |
|  |  |  |  | 44 | 54 | 86 | 142 | 139,344 | 218,857 | 362,961 | 679,446 |
| The IHD line item on the 2013 annual report has been left blank pending a results update from evaluations; results will be updated once sufficient information is made available. |  |  |  |  |  |  |  | Full OEB Target: |  |  |  |





+ACtivity and savings for Demand Response resources for each vear and quarter
represent the savings from al a active facilities or devices contracted since January 1 ,
represent the savings from all active facilities or devices contracted since January 1 ,
2011.

Table 5: Data Qualifiers for Initiatives Currently In-Market \& Likelihood of Additional Data
Data included in the Q4 2014 report includes all program activity completed (as per the savings 'start' date) on or before December 31st, 2014.

| Initiative | Savings 'start' Date | Data Available | Additional Data Likely |
| :---: | :---: | :---: | :---: |
| Consumer Program |  |  |  |
| Appliance Retirement | Pick-up date | When database is queried. Up to date information is available. | Moderate |
| Appliance Exchange | Exchange event date | Once data is submitted to the IESO by retailers and undergoes QA/QC by IESO staff. Typically 3 6 months to receive and process all data. | High |
| HVAC Incentives | Installation date | Rebate Status = Approved, Cheque Issued and Cheque Cashed; Typically 1-4 months delay. | High |
| Conservation Instant Coupon Booklet | Coupon redemption year | Once data is submitted to the IESO by retailers and undergoes QA/QC by IESO staff. Typically 3 - | High |
| Bi-Annual Retailer Event | Year and quarter of the event | 6 months to receive and process all data. | High |
| Retailer co-op activities | Will vary by specific project | Will vary by specific project | Low |
| Residential Demand Response | Device installation date | Data uploaded to RDR settlement system as of December 31, 2014 | High |
| Residential New Construction | Project completion | Preliminary Billing Report submitted to IESO | Low |
| Business (Commercial \& Institutional) Program |  |  |  |
| Retrofit | Actual project completion date | In the "Post Project Submission" Stage (excluding "Payment Denied by LDC", "Returned for Edit(s) by Participant" and "Participant Incentive Not Approved by LDC" ) within iCON CRM as of December 31st, 2014 | Low |
| Direct Installed Lighting | Retrofit date | Work-order: invoiced, approved and paid to LDC. Typically 1.5-2 months delay. Any projects that are flagged as duplicates will not appear in reports until duplicates have been resolved. | High |
| Building Commissioning | Hand off date | Preliminary Billing Report submitted to IESO and reviewed | Moderate |
| New Construction | Actual project completion date | Preliminary Billing Report submitted to IESO and reviewed | Moderate |
| Energy Audit | Audit completion date | Preliminary Billing Report submitted to IESO and reviewed | Moderate |
| Small Commercial Demand Response | Device installation date | Data uploaded to RDR settlement system as of December 31st, 2014 | Moderate |
| Demand Response 3 | Facility is available under contract | Facility available under contract with aggregator | Low |
| Industrial Program |  |  |  |
| Process \& System Upgrades | In-service date | Preliminary Billing Report submitted to IESO and reviewed | Low |
| Monitoring \& Targeting | Project completion date | Preliminary Billing Report submitted to IESO and reviewed | Low |
| Energy Manager (EEM or REM) | Project completion date | Completed, non-incented projects submitted quarterly by Energy Manager. | High |
| Retrofit | All Retrofit projects are now reported under the Business Program |  |  |
| Demand Response 3 | Facility is available under contract | Facility available under contract with aggregator. | Low |
| Home Assistance Program |  |  |  |
| Home Assistance Program | Project completion date | Preliminary Billing Report submitted to IESO and reviewed | High |
| Pre-2011 Projects Completed in 2011 |  |  |  |
| High Performance New Construction | Project completion date | Reviewed and processed from delivery agent, quarterly | Moderate |

## Reporting 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). Annual savings for Demand Response resources represent the savings from all active facilities contracted since January 1, 2011.
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.
Effective Useful Life: determines the persistence of savings for a given technology or initiative. Factors that may effect the useful life of a technology are typical use and operating hours, upcoming code changes, etc. Demand response resources are assumed to have a persistence of 1 year.

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). All savings presented in this report are at the end-user level.

Final or Verified 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). Incremental savings for Demand Response resources represent the savings from all active facilities contracted since January 1, 2011 (i.e. Incremental = Annual for demand response only).
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. Please refer to the webinars in the "Reporting Methodology" section for more information.
Net Peak Demand Savings (MW): peak demand savings attributable to conservation and demand management activities net of freeriders, etc. Please refer to the webinars in the "Reporting Methodology" section for more information.
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 or Unverified Savings: savings achieved that are based on reported activity and forecasted or best available 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).

## Reporting Methodology (Quarterly, Unverified results):

There are several resources on reporting that are available to LDCs:

- Reporting Policy \& FAQ Document found on the iCON Portal in the "Other Program Materials" under "Reporting Tools"
- LDC Consumer Program Tracking Tool found on the iCON Portal in "Other Program Materials" under "Reporting Tools"
- Webinars (available at the following link: http://www.snwebcastcenter.com/custom_events/opa-20111781/site/index.php)


[^0]:    Questions? Please check the "About this Report" Section on page 2, Table 5 on page 9 and "Reporting Methodology" on page 10.

