

Conservation Progress Report

FOURTH QUARTER

2016



Overview

The Independent Electricity System Operator (IESO) oversees a portfolio of electricity conservation and demand management programs that offer savings for all Ontarians. The IESO supports local distribution companies' (LDCs) delivery of programs to their residential, business, and industrial customers, and offers programs directly to transmission-connected customers. The IESO's conservation and demand management efforts are guided by the Conservation First Framework (CFF), which spans over 2015-2020 and aims to achieve 7 terawatt-hours (TWh) of electricity savings through programs and initiatives offered to all customer segments. An additional 1.7 TWh of energy savings is to be achieved through the Industrial Accelerator program (IAP).

This report highlights the achievements of Save on Energy programs and other conservation initiatives in the fourth quarter (Q4) of 2016, as well as progress towards the 2020 targets. Preliminary program savings results indicate 97 gigawatt-hours (GWh) and 12 megawatts (MW) of net reported incremental 2020 annual energy and peak demand savings were achieved from LDC delivered and Non-LDC delivered programs.

Under CFF, programs have achieved a total of 1.92 TWh (27%) of the 7 TWh CFF 2020 target reported in 2015-2016. This is lower than the LDCs original forecast of achieving 34% of 2020 targeted by the end of 2016, however LDCs have until April 2017 to report on all 2016 savings for inclusion in the 2016 Verified Results Report and therefore, more savings are expected to be reported prior to finalizing the 2016 results by July 1, 2017.

Under IAP, 0.2 TWh (12%) of the 1.7 TWh 2020 IAP 2.0 target has been achieved (in-service) in 2015-2016. In addition, 0.6 TWh (35%) of the 1.7 TWh target is currently under contract.

Key highlights for the quarter include the formation of the Mid-term Review Advisory Group membership and Terms of Reference to supplement broader engagement efforts, by tackling more detailed discussions on the Mid-Term Review. The IESO has also initiated four new initiatives to support the December 16, 2016 Ministry Directive, which include (1) to support and fund pilot projects for new pricing models and non-price tools specified by the Ontario Energy Board through the Conservation Fund; (2) ensure all customers have access to province-wide programs through funding and delivering approved programs in service areas where programs are not currently available; (3) undertaking a pay-for-performance pilot program for IAP eligible customers; and (4) allowing transmission connected customers to have their distribution connected facilities eligible to participate in IAP.

All Conservation results in this report are preliminary, unverified and subject to evaluation, measurement and verification prior to be reported as final. For more information on the IESO's conservation and demand management programs, please visit saveonenergy.ca.

Conservation Portfolio Results

Table 1 summarizes Q4 2016 conservation portfolio results and progress towards target. For the purposes of this report, LDC-delivered programs include those delivered by LDCs (directly or through contractors, retailers and aggregators). Non-LDC delivered program savings are attributed to the **INDUSTRIAL ACCELERATOR PROGRAM**. All reported LDC activity and savings included in this report are based on projects reported and invoiced to the IESO. Any project that has an installation date in 2015 or 2016 but not yet reported and invoiced to the IESO are excluded from above.

Table 1: Conservation Portfolio Results*

	2016 Quarter 4		2015-to-Date		Target (GWh)	2015-to-Date Progress towards Target (%)
	Energy Savings (GWh)	Peak Demand Savings (MW)	Energy Savings (GWh)	Peak Demand Savings (MW)		
LDC-Delivered Programs	97	12	1,923	277	7,000	27
Non-LDC-Delivered Programs	26	3	196	24	1,700	12

**Net Reported Incremental 2020 Annual Savings at the End-User Level as of 2016 Quarter 4*

Table 2 provides the net peak demand savings and net energy savings for the residential, business and industrial programs for the fourth quarter. Where a value of zero is shown, this indicates that no event, project, or activity associated with savings occurred the reported period.

Table 2: Net peak demand and net energy savings for residential and business programs*

	2016 Quarter 4				2015-to-Date			
	First Year Savings		2020 Annual Savings		First Year Savings		2020 Annual Savings	
	Energy (GWh)	Peak Demand (MW)	Energy (GWh)	Peak Demand (MW)	Energy (GWh)	Peak Demand (MW)	Energy (GWh)	Peak Demand (MW)
LDC-Delivered Programs								
Residential								
Coupon Program	55	4	55	4	329	22	327	22
Heating & Cooling Program	6	2	6	2	92	40	92	40
New Home Construction Program	1	0	1	0	8	1	8	1
Home Assistance Program	2	1	2	1	25	6	21	6
Fridge and Freezer Pick-up Program ²	0	0	0	0	6	1	0	0
Aboriginal Conservation Program ²	0	0	0	0	4	1	3	1
Total Residential	64	6	64	6	464	71	451	69
Business								
Audit Funding Program	0	0	0	0	33	7	0	0
Retrofit Program	28	5	27	4	1,073	152	1,066	150
Small Business Lighting Program	5	1	3	1	61	14	39	9
High Performance New Construction Program	2	0	2	0	28	6	27	6
Existing Building Commissioning Program	0	0	0	0	1	1	0	0
Process & Systems Upgrades Program	0	0	0	0	297	37	297	37
Energy Manager Program	0	0	0	0	37	8	27	5
Monitoring & Targeting Program	0	0	0	0	1	0	0	0
Program Enabled Savings ²	0	0	0	0	16	1	7	0
Total Business	35	6	33	5	1,548	225	1,463	207
Local / Regional / Pilots								
Business Refrigeration Incentives Local Program	0	0	0	0	1	0	1	0
Social Benchmarking Local Program	0	0	0	0	6	0	0	0
EnerNOC Pilot Program	0	0	0	0	0	0	0	0
Loblaws Pay-for-Performance Pilot Program	0	0	0	0	8	1	8	1

Strategic Energy Group Pilot Program	0	0	0	0	12	1	0	0
Social Benchmarking Pilot	0	0	0	0	17	2	0	0
Total Local/Regional/Pilot	0	0	0	0	44	3	9	1
Total LDC-Delivered	99	12	97	12	2,057	300	1,923	277
Non-LDC-Delivered								
Industrial Accelerator Program	26	3	26	3	196	24	196	24
Total Non-LDC-Delivered	26	3	26	3	196	24	196	24
LDC-Delivered Demand Response								
Residential and Small Commercial Demand Response Program ³	0	168	n/a	n/a	0	168	n/a	n/a
Total LDC-Delivered Demand Response	0	168	n/a	n/a	0	168	n/a	n/a
Grand Total	125	184	122	15	2,253	492	2,119	301

- 1 CDM program savings results are: a) "reported", that is preliminary, unverified and subject to evaluation, measurement and verification (EM&V) prior to being reported as "verified" and final; b) net, accounting for expected realization, free-ridership and spillover; c) incremental and d) at the end-user level;
- 2 Delivered under the 2011 - 2014 + 2015 Extension Legacy Framework only
- 3 Residential and Small Commercial Demand Response Program was delivered under CFF predecessor frameworks and results are based on availability as of December 31, 2016 since program inception and is not indicative of incremental installations in 2016 Quarter 4

Program Participation

Table 3 provides the participation results for the residential, business and industrial programs for the fourth quarter and progress towards target. Where a value of zero is shown, this indicates that no event, project, or activity associated with savings occurred the reported period.

Table 3: Conservation program participation results

	Delivery Agent	Incremental Participation as of 2016 Quarter 4 ¹		
		Metric	2016 Quarter 4	2015-to-Date
LDC-Delivered Programs				
Residential				
Coupon Program	Retailers	Measures	4,319,008	17,812,279
Heating & Cooling Program	Contractors	Installations	13,285	226,730
New Construction Program	LDCs	Homes	19	4,103
Home Assistance Program	LDCs	Homes	886	19,957
Fridge and Freezer Pick-up Program ²	LDCs	Appliances	0	14,733
Aboriginal Conservation Program ²	Contractor	Homes	0	1,586
Business				
Audit Funding Program	LDCs	Audits	11	509
Retrofit Program	LDCs	Projects	537	22,228
Small Business Lighting Program	LDCs	Projects	832	20,587
High Performance New Construction Program	LDCs	Buildings	4	243
Existing Building Commissioning Program	LDCs	Projects	0	28
Process & Systems Upgrades Program	LDCs	Projects	7	58
Energy Manager Program	LDCs	Projects	20	450
Monitoring & Targeting Program	LDCs	Projects	0	2
Program Enabled Savings ²	LDCs	Projects	0	14
Local / Regional / Pilots				
Business Refrigeration Incentives Local Program	LDCs	Projects	89	121
Social Benchmarking Local Program	LDCs	Participants	0	49,125
EnerNOC Pilot Program	Contractor	Projects	0	12
Loblaws Pay-for-Performance Pilot Program	Contractor	Projects	0	18
Strategic Energy Group Pilot Program	Contractor	Projects	0	10
Social Benchmarking Pilot Program	Contractor	Participants	0	150,258
Non-LDC-Delivered Programs				
Industrial Accelerator Program	IESO	Projects	6	48
LDC Delivered Demand Response				
Residential and Small Commercial Demand Response Program ³	LDCs	Devices	320,158	320,158

- ¹ CDM program participation results are "reported", that is preliminary, unverified and subject to evaluation, measurement and verification prior to being reported as "verified" and final;
- ² Delivered under the 2011 - 2014 + 2015 Extension Legacy Framework only;
- ³ Residential and Small Commercial Demand Response Program was delivered under CFF predecessor frameworks and results are based on availability as of December 31, 2016 since program inception and is not indicative of incremental installations in 2016 Quarter 4;

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