

Conservation Progress Report

SECOND QUARTER 2017



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 programs in the second quarter of 2017 (2017 Q2), as well as progress towards the 2020 targets. Total preliminary program savings results indicate 144 gigawatt-hours (GWh) and 14 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 3,155 TWh (45%) of the 7 TWh CFF 2020 target as of 2017 Q2. Under the Industrial Accelerator Program (IAP), 0.232 TWh (14%) of the 1.7 TWh 2020 IAP target has been achieved (in-service) as of 2017 Q2. In addition, 0.616 TWh (36%) of the 1.7 TWh target is currently under contract.

Key highlights for the quarter include:

- Increasing interest and participation in the province-wide Energy Performance Program, with an application received for five buildings owned by one of Ontario's largest school boards;
- Launch of a province-wide Whole Home Pilot program delivered by Ontario's gas utilities with funding from the Government of Ontario and Save on Energy that provides incentives for homes with any kind of heating system and to replace old electric appliances;
- Conservation First Mid-term Review work continues, with one public stakeholder engagement webinars, and three meetings with the Mid-term Review Advisory Group;

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 www.saveonenergy.ca.

Conservation Portfolio Results

Table 1 summarizes 2017 Q2 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 projects that have been completed, but not yet reported and invoiced to the IESO are excluded from the following results.

Table 1: Conservation Portfolio Results¹

	2017 Q2		2015-2017 Q2		Target (GWh)	2015-2017 Q2 Progress towards Target (%)
	Energy Savings (GWh)	Peak Demand Savings (MW)	Energy Savings (GWh)	Peak Demand Savings (MW)		
LDC-Delivered Programs	141	14	3,155	417	7,000	45
Non-LDC-Delivered Programs	0	0	232	27	1,700	14

Table 2 provides the net peak demand savings and net energy savings for the LDC delivered and non-LDC delivered programs for 2017 Q2. 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 programs²

	2017 Q2				2015-2017 Q2			
	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	101	7	100	7	741	49	738	48
Heating & Cooling Program	4	2	4	2	150	59	150	59
New Home Construction Program	1	0.1	1	0.1	14	2	14	2
Home Assistance Program	2	0.3	2	0.3	32	5	28	4
Fridge and Freezer Pick-up Program ⁴	0	0	0	0	6	1	0	0

¹ Net Reported Incremental 2020 Annual Savings at the End-User Level as of 2017Q2

² 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 free-ridership and spillover; c) incremental and d) at the end-user level

	2017 Q2				2015-2017 Q2			
	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)
Aboriginal Conservation Program ³	0	0	0	0	4	1	3	1
Total Residential	109	9	107	9	948	116	933	114
Business								
Audit Funding Program	0.5	0.1	0.5	0.1	58	12	52	11
Retrofit Program	16	2	16	2	1,566	217	1,547	213
Small Business Lighting Program	5	1	3	1	77	17	51	12
High Performance New Construction Program	0.3	0.1	0.3	0.1	70	19	70	19
Existing Building Commissioning Program	0	0	0	0	1	1	0.3	0.1
Business Refrigeration Incentive Program	2	0.2	2	0.2	15	2	15	2
Process & Systems Upgrades Program	8	1	8	1	401	33	399	33
Energy Manager Program	0	0	0	0	64	11	50	9
Monitoring & Targeting Program	0	0	0	0	1	0	0	0
Program Enabled Savings ⁴	0	0	0	0	16	1	7	0.1
Total Business	32	5	30	4	2,270	313	2,191	298
Local / Regional / Pilots								
Adaptive Thermostat Local Program	0	0	0	0	0	0	0	0
Business Refrigeration Incentive Local Program	0	0	0	0	1	0.2	1	0.1
First Nation Conservation Local Program	1	1	1	1	2	1	2	1
Instant Savings Local Program	1	1	1	1	1	1	1	1
PUMPSaver Local Program	1	0.1	1	0.1	2	0.2	2	0.2
Social Benchmarking Local Program	0.01	0.001	0.002	0.0003	0.01	0.001	0.005	0.0005
Swimming Pool Efficiency Local Program	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1
Building Optimization Pilot Program	0	0	0	0	2	1	2	1

³ Delivered under the 2011 - 2014 + 2015 Extension Legacy Framework only

⁴ Delivered under the 2011 - 2014 + 2015 Extension Legacy Framework only

	2017 Q2				2015-2017 Q2			
	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)
Direct Install - Hydronic Pilot Program	0	0	0	0	1	0.1	1	0.1
Direct Install - RTU Controls Pilot Program	0	0	0	0	0.4	0.03	0.4	0.03
Electronics Takeback Pilot Program	0	0	0	0	1	0.04	1	0.04
HONI HP Pilot Program	0	0	0	0	0.2	0.004	0.2	0.004
P4P for Class B Office Pilot Program	0	0	0	0	3	0.002	3	0.002
Residential Direct Install Pilot Program	0	0	0	0	0.4	0.03	0.4	0.03
Residential Direct Mail Pilot Program	0	0	0	0	0.3	0.02	0.3	0.02
Solar Powered Attic Ventilation Pilot Program	0	0	0	0	0.2	0.2	0.2	0.2
Truckload Event Pilot Program	0	0	0	0	7	0.4	7	0.4
EnerNOC Pilot Program	0	0	0	0	0.3	0	0	0
Home Depot Home Appliance Market Uplift Pilot Program	0	0	0	0	0.06	0.01	0.1	0.01
Loblaws Pay-for-Performance Pilot Program	0	0	0	0	8	1	8	1
Ontario Clean Water Agency P4P Pilot Program	0	0	0	0	0.2	0.02	0.2	0.02
Social Benchmarking Pilot Program	0	0	0	0	17	2	0	0
Strategic Energy Group Pilot Program	0	0	0	0	12	1	0	0
Total Local/Regional/Pilot	3	2	3	2	60	8	30	5
Total LDC-Delivered	144	15	141	14	3,278	436	3,155	417
Non-LDC-Delivered								
Industrial Accelerator Program	0	0	0	0	232	27	232	27
Total Non-LDC-Delivered	0	0	0	0	232	27	232	27
LDC-Delivered Demand Response								

	2017 Q2				2015-2017 Q2			
	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)
Residential and Small Commercial Demand Response Program ⁵	0.2	127	0	0	0.2	127	0	0
Total LDC-Delivered Demand Response	0.2	127	0	0	0.2	127	0	0
Grand Total	144	142	141	14	3,511	590	3,387	444

⁵ Residential and Small Commercial Demand Response Program was delivered under CFF predecessor frameworks and results are based on availability as of June 30, 2017 since program inception and is not indicative of incremental installations in 2017Q2

Program Participation

Table 3 provides the participation results for the LDC delivered and non-LDC delivered programs for 2017 Q2. 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 results⁶

	Delivery Agent	Incremental Participation as of 2017 Q2		
		Metric	2017 Q2	2015-2017 Q2
LDC-Delivered Programs				
Residential				
Coupon Program	Retailers	Measures	8,118,183	34,958,707
Heating & Cooling Program	Contractors	Installations	14,468	302,118
New Construction Program	LDCs	Homes	35	4,454
Home Assistance Program	LDCs	Homes	1,126	26,949
Fridge and Freezer Pick-up Program ⁷	LDCs	Appliances	0	14,733
Aboriginal Conservation Program ⁸	Contractor	Homes	0	1,586
Business				
Audit Funding Program	LDCs	Audits	4	1,057
Retrofit Program	LDCs	Projects	381	35,587
Small Business Lighting Program	LDCs	Projects	1,094	24,142
High Performance New Construction Program	LDCs	Buildings	4	633
Existing Building Commissioning Program	LDCs	Projects	0	39
Business Refrigeration Incentive Program	LDCs	Projects	315	847
Process & Systems Upgrades Program	LDCs	Projects	3	79
Energy Manager Program	LDCs	Projects	2	537
Monitoring & Targeting Program	LDCs	Projects	0	4
Program Enabled Savings ⁸	LDCs	Projects	0	52
Local / Regional / Pilots				
Adaptive Thermostat Local Program	LDCs	Homes	0	3
Business Refrigeration Incentive Local Program	LDCs	Projects	0	305
First Nation Conservation Local Program	LDCs	Homes	852	1,418
Instant Savings Local Program	LDCs	Participants	2,393	2,393
PUMPSaver Local Program	LDCs	Projects	17	69
Social Benchmarking Local Program	LDCs	Participants	0	3
Swimming Pool Efficiency Local Program	LDCs	Homes	73	73
Building Optimization Pilot Program	LDCs	Projects	0	75
Direct Install - Hydronic Pilot Program	LDCs	Projects	0	10
Direct Install - RTU Controls Pilot Program	LDCs	Projects	0	13
Electronics Takeback Pilot Program	LDCs	Projects	0	10,004

⁶ 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

⁷ Delivered under the 2011 - 2014 + 2015 Extension Legacy Framework only

	Delivery Agent	Incremental Participation as of 2017 Q2		
		Metric	2017 Q2	2015-2017 Q2
HONI HP Pilot Program	LDCs	Projects	0	112
P4P for Class B Office Pilot Program	LDCs	Projects	0	5
Residential Direct Install Pilot Program	LDCs	Projects	0	322
Residential Direct Mail Pilot Program	LDCs	Projects	0	726
Solar Powered Attic Ventilation Pilot Program	LDCs	Projects	0	1,026
Truckload Event Pilot Program	LDCs	Equipment	0	226,466
EnerNOC Pilot Program	Contractor	Projects	0	12
Home Depot Home Appliance Market Uplift Pilot Program	Contractor	Projects	0	4,638
Loblaws Pay-for-Performance Pilot Program	Contractor	Projects	0	18
Ontario Clean Water Agency P4P Pilot Program	Contractor	Projects	0	2
Social Benchmarking Pilot Program	Contractor	Participants	0	150,258
Strategic Energy Group Pilot Program	Contractor	Projects	0	10
Non-LDC-Delivered Programs				
Industrial Accelerator Program	IESO	Projects	17	91
LDC Delivered Demand Response				
Residential and Small Commercial Demand Response Program ⁸	LDCs	Devices	241,585	241,585

⁸ Residential and Small Commercial Demand Response Program was delivered under CFF predecessor frameworks and results are based on availability as of June 30, 2017 since program inception and is not indicative of incremental installations in 2017Q2

Independent Electricity System Operator

1600-120 Adelaide Street West

Toronto, Ontario M5H 1T1

Phone: 905.403.6900

Toll-free: 1.888.448.7777

E-mail: customer.relations@ieso.ca

ieso.ca

 @IESO_Tweets

 facebook.com/OntarioIESO

 linkedin.com/company/ieso

saveonenergy.ca

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