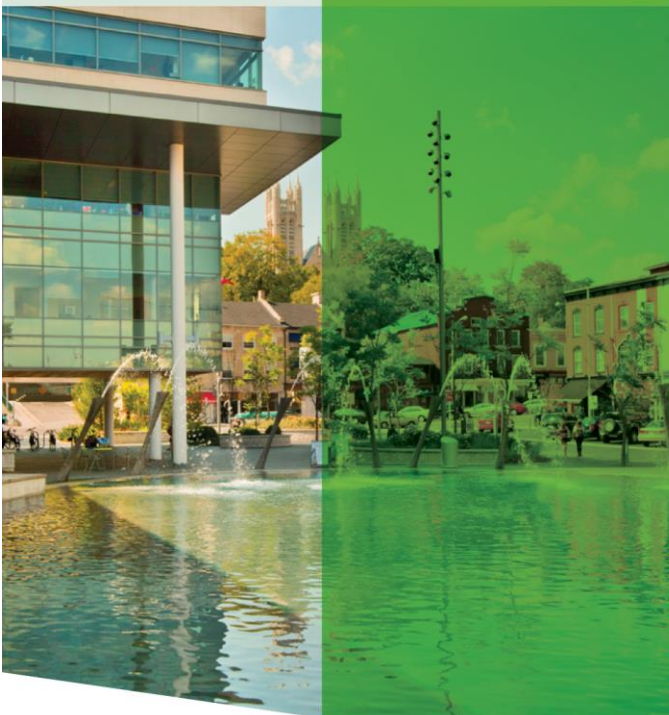


Conservation Progress Report

THIRD QUARTER 2017



Overview

The Independent Electricity System Operator (IESO) oversees a portfolio of electricity conservation and demand management (CDM) programs that offer savings for all Ontarians. The IESO supports local distribution companies' (LDCs) delivery of energy efficiency and demand response programs to their residential, business, and industrial customers, and offers an energy efficiency program directly to transmission system-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 energy efficiency savings persisting to the year 2020, through programs and initiatives offered to all customer segments. An additional 1.7 TWh of electricity energy efficiency savings is to be achieved through the 2015-2020 Industrial Accelerator Program (IAP).

This report highlights the achievements of Save on Energy programs and other conservation programs in the third quarter of 2017 (2017 Q3), as well as progress towards the 2020 targets. Total preliminary energy efficiency program savings results indicate 106 gigawatt-hours (GWh) and 15 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 3.441 TWh (49%) of the 7 TWh CFF 2020 target as of 2017 Q3. Under the IAP, 282 GWh (17%) of the 1.7 TWh 2020 IAP target has been achieved (in-service) as of 2017 Q3. In addition, 606 GWh (36%) of the 1.7 TWh target is currently under contract.

Key highlights for the quarter include:

- Launch of changes to the Residential New Construction Program based on marketplace feedback and evaluation results to improve overall cost effectiveness and customer experience including:
 - Alignment of LED incentives with marketplace pricing; and,
 - Streamlined application process.
- Launch of changes to the Heating and Cooling Program to provide an enhanced offering for customers, and more cost effective energy savings for the province including:
 - Addition of incentives for Air Source Heat Pumps and Smart Thermostats for electrically heated homes;
 - Addition of incentives for SEER 18 and above Central Air Conditioners (CAC);
 - Addition of incentives for Electric Commutated Motors Circulator Pumps; and,

- Removal of incentives for the 14.5 and 15 SEER CACs.
- Continued progress of the Conservation Framework Mid-term Review, with two public webinars hosted by the IESO to seek feedback on key items within the review including the definition of conservation and demand management (CDM), planning integration, and climate change. The Mid-term Review will continue to seek feedback from interested stakeholders until Q1 2018, prior to the IESO finalizing recommendations on the 2015-2020 Conservation First Framework and Industrial Accelerator Program to the Minister of Energy by Spring 2018.

All Conservation activity and savings results in this report are savings persisting to 2020 unless stated otherwise, at the end-user level, based on projects reported and invoiced to the IESO, are preliminary, unverified and subject to evaluation, measurement and verification prior to be reported as final. Any projects that have been completed, but not yet reported and invoiced to the IESO are excluded. Where a value of zero is shown, this indicates that no event, project, or activity associated with savings occurred the reported period. For more information on the IESO's conservation and demand management programs, please visit www.saveonenergy.ca.

Conservation Portfolio Results

Table 1 summarizes 2017 Q3 conservation portfolio results for the 2017 Q3 quarter as well as framework to date, and progress towards respective targets. For the purposes of this report the IESO's conservation portfolio includes CFF programs, which are delivered by LDCs, LDC agents, retailers, the IESO or the IESO's contractors, including the LDC delivered residential and small commercial focused peaksaver PLUS demand response program; and IAP.

Table 1: Conservation Portfolio Results

Framework	2017 Q3		2015-2017 Q3		Target – Energy Savings (GWh)	2015-2017 Q3 Progress towards Target (%)
	Energy Savings (GWh)	Peak Demand Savings (MW)	Energy Savings (GWh)	Peak Demand Savings (MW)		
Conservation First Framework Programs	26	5	3,441	458	7,000	49
Industrial Accelerator Program	80	11	282	105	1,700	17

Table 2 provides for CFF and IAP, the 2017 Q3 and Framework-to-date, net, energy and peak demand, first year and 2020 annual savings as of 2017 Q3.

Table 2: Program Savings Results

	2017 Q3				2015-2017 Q3			
	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)
Conservation First Framework Programs								
Residential Programs								
Coupon Program	9	0.6	9	0.6	849	56	844	55
Heating & Cooling Program	2	0.9	2	0.9	175	69	175	69
New Home Construction Program	0.08	0.01	0.08	0.01	15	2	15	2
Home Assistance Program	1	0.2	1	0.2	34	5	29	5

	2017 Q3				2015-2017 Q3			
	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)
Fridge and Freezer Pick-up Program ¹	0	0	0	0	6	1	0	0
Aboriginal Conservation Program ¹	0	0	0	0	4	0.6	3	0.6
peaksaver and peaksaver PLUS Program ²	0.3	149	0	0	0.2	127	0	0
Residential Programs Total	13	151	12	2	1,083	260	1,067	132
Business Programs								
Audit Funding Program	0.5	0.1	0.5	0.1	62	13	55	12
Retrofit Program	7	1	7	1	1,703	236	1,683	232
Small Business Lighting Program	7	2	4	1	88	20	59	13
High Performance New Construction Program	0.4	0.1	0.4	0.09	73	19	73	19
Existing Building Commissioning Program	0	0	0	0	2	1	0.3	0.1
Business Refrigeration Incentive Program	0	0	0	0	17	2	17	2
Process & Systems Upgrades Program	0.004	0.0003	0.004	0.0003	395	33	393	32
Energy Manager Program	0	0	0	0	67	12	53	9
Monitoring & Targeting Program	0.02	0	0.02	0	2	0	0.3	0
Business Programs Total	15	3	13	2	2,425	337	2,339	321
Local / Regional / Pilot Programs and Program Enabled Savings								

¹ Delivered under the 2011 - 2014 + 2015 Extension Legacy Green Energy Act Framework only

² peaksaver and peaksaver PLUS was delivered under CFF predecessor frameworks and results are based on availability as of September 30, 2017 since program inception and is not indicative of incremental installations in 2017 Q3

	2017 Q3				2015-2017 Q3			
	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)
Adaptive Thermostat Local Program	0.0002	0	0.0002	0	0.4	0	0.4	0
Business Refrigeration Incentive Local Program	0	0	0	0	1	0.2	0.9	0.1
First Nation Conservation Local Program	1	0.6	1	0.6	4	2	4	2
Instant Savings Local Program	0.2	0.2	0.2	0.2	1	1	1	1
OPSAver Local Program	0	0	0	0	0	0	0	0
PUMPSaver Local Program	0	0	0	0	4	0.3	4	0.3
Social Benchmarking Local Program	0.02	0.001	0	0	0.02	0.002	0.005	0.0005
Swimming Pool Efficiency Local Program	0.02	0.007	0.02	0.007	0.6	0.2	0.6	0.2
Building Optimization Pilot Program	0	0	0	0	2	0.8	2	0.8
Direct Install - Hydronic Pilot Program	0	0	0	0	0.7	0.07	0.7	0.07
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

	2017 Q3				2015-2017 Q3			
	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)
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	0.009	0.06	0.009
Loblaws Pay-for-Performance Pilot Program	0	0	0	0	8	0.7	8	0.7
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
Program Enabled Savings ³	0	0	0	0	16	1	7	0.1
Local / Regional / Pilot Programs and Program Enabled Savings Total	1	0.7	1	0.7	64	9	34	6
Conservation First Framework Programs Total	29	154	26	5	3,572	606	3,441	458
Industrial Accelerator Program								
Industrial Accelerator Program	83	11	80	11	316	110	282	105
Industrial Accelerator Program Total	83	11	80	11	316	110	282	105
Total	112	165	106	15	3,889	1,374	3,722	563

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

Program Participation

Table 3 provides for CFF and IAP, the 2017 Q3 and Framework-to-date participation results as of 2017 Q3.

Table 3: Conservation program participation results

	Delivery Agent	Incremental Participation as of 2017 Q3		
		Metric	2017 Q3	2015-2017 Q3
Conservation First Framework Programs				
Residential Programs				
Coupon Program	Retailers	Measures	626,583	42,875,061
Heating & Cooling Program	Contractors	Installations	2,889	372,138
New Construction Program	LDCs	Homes	14	4,500
Home Assistance Program	LDCs	Homes	724	28,003
Fridge and Freezer Pick-up Program ⁴	LDCs	Appliances	0	14,733
Aboriginal Conservation Program ⁴	Contractor	Homes	0	1,586
peaksaver and peaksaver PLUS Program ⁵	LDCs	Devices	283,817	283,817
Business Programs				
Audit Funding Program	LDCs	Audits	9	1,144
Retrofit Program	LDCs	Projects	327	38,196
Small Business Lighting Program	LDCs	Projects	1,379	26,524
High Performance New Construction Program	LDCs	Buildings	5	679
Existing Building Commissioning Program	LDCs	Projects	1	48
Business Refrigeration Incentive Program	LDCs	Projects	474	1,390
Process & Systems Upgrades Program	LDCs	Projects	3	88
Energy Manager Program	LDCs	Projects	0	542
Monitoring & Targeting Program	LDCs	Projects	2	11
Local / Regional / Pilot / Programs and Program Enabled Savings				
Adaptive Thermostat Local Program	LDCs	Homes	1	10
Business Refrigeration Incentive Local Program	LDCs	Projects	0	502
First Nation Conservation Local Program	LDCs	Homes	878	2,672

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

⁵ peaksaver and peaksaver PLUS was delivered under CFF predecessor frameworks and results are based on availability as of September 30, 2017 since program inception and is not indicative of incremental installations in 2017 Q3

	Delivery Agent	Incremental Participation as of 2017 Q3		
		Metric	2017 Q3	2015-2017 Q3
Instant Savings Local Program	LDCs	Participants	3,511	8,001
OPsaver Local Program	LDCs	Projects	0	1
PUMPSaver Local Program	LDCs	Projects	11	166
Social Benchmarking Local Program	LDCs	Participants	0	3
Swimming Pool Efficiency Local Program	LDCs	Homes	267	945
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
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	226,443
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
Program Enabled Savings ⁶	LDCs	Projects	0	14
Retrofit Program Enabled Savings	LDCs	Projects	0	37
Process & Systems Upgrades Program Enabled Savings	LDCs	Projects	0	1
Industrial Accelerator Program				
Industrial Accelerator Program	IESO	Projects	0	101

⁶ Delivered under the 2011 - 2014 + 2015 Extension Legacy Green Energy Act Framework only

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