

Conservation Progress Report

FOURTH 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 offered to all customer segments by 2020. As of February 8, 2018, 0.4 TWh of electricity energy efficiency savings are to be achieved through programs centrally delivered the IESO, and an additional 1.3 TWh of savings are 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 fourth quarter of 2017 (2017 Q4), as well as progress towards the 2020 targets. Total preliminary energy efficiency program savings results indicate 150 gigawatt-hours (GWh) and 15 megawatts (MW) of net reported incremental 2020 annual energy and peak demand savings were achieved from LDC and IESO delivered programs in this quarter.

Under CFF, programs have achieved a total of 3,780 TWh (54 %) of the 7 TWh CFF 2020 target as of 2017 Q4. Under the IAP, 287 GWh (22 %) of the revised 1.3 TWh 2020 IAP target has been achieved (in-service) as of 2017 Q4. In addition, 621 GWh (48 %) of the 1.3 TWh target is currently under contract.

Key highlights for the quarter include:

- Continued progress of the Conservation Framework Mid-term Review, with a fourth public webinar hosted by the IESO to seek feedback on the areas of budgets, targets and cost effectiveness and non-energy impacts, and to provide an update on market research activities. 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 before June 1, 2018.
- Launch of new incentives for Certified Energy Auditor training and certification, further advancing Ontario's pool of close to 5,000 trained energy professionals.
- Five regional electricity forums hosted by the IESO in Vaughan, London, Ottawa, Sudbury and Thunder Bay that brought together a cross section of community and business audiences representing municipal, Indigenous communities, Local Distribution Companies, Local Advisory Committees, and associations to explore the future direction of the electricity sector.

- [Engagement of First Nations and Métis representatives](#) through in-person meetings, interviews, surveys, a public webinar and the Indigenous Community Energy Symposium with over 300 attendees. Feedback received from participants on programs, capacity building and partnerships will be used to inform a report with recommendations for improving programming for First Nations and Métis, including those served by Independent Power Authorities, as required by government Direction.
- Launch of joint smart thermostat rebate program, funded through both the Conservation First Framework and Green Ontario Fund.

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 Q4 conservation portfolio results for the 2017 Q4 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, or the IESO's contractors; IAP and, the LDC peaksaver PLUS demand response program. IESO delivered CFF Programs have not yet been launched as of 2017 Q4.

Table 1: Conservation Portfolio Results

Framework	2017 Q4		2015-2017 Q4		Target – Energy Savings (GWh)	2015-2017 Q4 Progress towards Target (%)
	Energy Savings (GWh)	Peak Demand Savings (MW)	Energy Savings (GWh)	Peak Demand Savings (MW)		
LDC Delivered CFF Programs	145	14	3,780	500	7,000	54
IESO Delivered CFF Programs	0	0	0	0	400	0
Industrial Accelerator Program	5	0.3	287	106	1,300	22
Legacy Framework peaksaver and peaksaver PLUS	0	149	0	149	-	-

Table 2 provides for CFF and IAP, the 2017 Q4 and Framework-to-date, net, energy and peak demand, first year and 2020 annual savings as of 2017 Q4.

Table 2: Program Savings Results

	2017 Q4				2015-2017 Q4			
	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	108	7	107	7	963	63	958	63
Heating & Cooling Program	6	2	6	2	181	71	181	71
New Home Construction Program	1	0.1	1	0.1	16	2	16	2
Home Assistance Program	2	0.4	2	0.3	39	6	33	5
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
Residential Programs Total	117	10	115	10	1,209	144	1,192	142
Business Programs								
Audit Funding Program	0	0	0	0	64	13	56	12
Retrofit Program	21	3	21	3	1,871	260	1,850	256
Small Business Lighting Program	6	1	4	1	98	22	65	15
High Performance New Construction Program	0.2	0.05	0.2	0.1	76	20	76	20
Existing Building Commissioning Program	0.1	0.05	0	0	3	1	0.3	0.1
Business Refrigeration Incentive Program	1	0.1	1	0.1	11	1	11	1

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

	2017 Q4				2015-2017 Q4			
	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)
Process & Systems Upgrades Program	1	0.06	1	0.1	398	34	396	33
Energy Manager Program	1	0.2	1	0.2	68	12	55	9
Monitoring & Targeting Program	0	0	0	0	2	0	0.3	0
Business Programs Total	30	5	27	4	2,590	363	2,509	346
Local / Regional / Pilot Programs and Program Enabled Savings								
Adaptive Thermostat Local Program	0.4	0	0.4	0	1	0	1	0
Business Refrigeration Incentive Local Program	0	0	0	0	1	0.2	1	0.1
Conservation on the Coast Home Assistance Program	0	0	0	0	0.4	0	0.3	0
First Nation Conservation Local Program	1	0.4	1	0.4	5	3	5	3
Instant Savings Local Program	0	0	0	0	2	2	2	2
PUMPSaver Local Program	0.4	0.04	0.4	0.04	12	1	12	1
Social Benchmarking Local Program	0	0	0	0	23	2	23	2
Swimming Pool Efficiency Local Program	0.1	0.03	0.1	0.03	4	1	4	1
Building Optimization Pilot Program	0	0	0	0	2	1	2	1
Direct Install - Hydronic Pilot Program	0	0	0	0	0.7	0.07	1	0.07
Direct Install - RTU Controls Pilot Program	0	0	0	0	0.4	0.03	0.4	0.03

	2017 Q4				2015-2017 Q4			
	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)
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	0.1	0.009	0.1	0.009
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
Program Enabled Savings ²	0	0	0	0	16	1	7	0.1

² Delivered under the 2011 - 2014 + 2015 Extension Legacy Green Energy Act Framework only

	2017 Q4				2015-2017 Q4			
	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)
Local / Regional / Pilot Programs and Program Enabled Savings Total	2	0.5	2	0.5	118	15	79	11
Conservation First Framework Programs Total	148	15	145	14	3,918	522	3,780	500
Legacy Framework Residential and Small Commercial Demand Response								
peaksaver and peaksaver PLUS	0	149	0	0	0	149	0	0
peaksaver and peaksaver PLUS	0	149	0	0	0	149	0	0
Industrial Accelerator Program								
Industrial Accelerator Program	16	0.3	5	0.3	332	110	287	105
Industrial Accelerator Program Total	16	0.3	5	0.3	332	110	287	105
Total	165	164	150	15	4,252	781	4,067	605

Program Participation

Table 3 provides for CFF and IAP, the 2017 Q4 and Framework-to-date participation results as of 2017 Q4.

Table 3: Conservation program participation results

	Delivery Agent	Incremental Participation as of 2017 Q4		
		Metric	2017 Q4	2015-2017 Q4
Conservation First Framework Programs				
Residential Programs				
Coupon Program	Retailers	Measures	9,222,297	52,625,895
Heating & Cooling Program	Contractors	Installations	7,978	492,507
New Construction Program	LDCs	Homes	44	4,636

	Delivery Agent	Incremental Participation as of 2017 Q4		
		Metric	2017 Q4	2015-2017 Q4
Home Assistance Program	LDCs	Homes	1,137	30,458
Fridge and Freezer Pick-up Program ³	LDCs	Appliances	0	14,733
Aboriginal Conservation Program ⁴	Contractor	Homes	0	1,586
Business Programs				
Audit Funding Program	LDCs	Audits	8	1,254
Retrofit Program	LDCs	Projects	435	40,483
Small Business Lighting Program	LDCs	Projects	1,181	28,640
High Performance New Construction Program	LDCs	Buildings	7	734
Existing Building Commissioning Program	LDCs	Projects	2	54
Business Refrigeration Incentive Program	LDCs	Projects	336	2,187
Process & Systems Upgrades Program	LDCs	Projects	7	118
Energy Manager Program	LDCs	Projects	22	567
Monitoring & Targeting Program	LDCs	Projects	0	11
Local / Regional / Pilot / Programs and Program Enabled Savings				
Adaptive Thermostat Local Program	LDCs	Homes	2	14
Business Refrigeration Incentive Local Program	LDCs	Projects	0	305
First Nation Conservation Local Program	LDCs	Homes	856	3,798
Instant Savings Local Program	LDCs	Participants	862	8,864
OPsaver Local Program	LDCs	Projects	0	1
PUMPSaver Local Program	LDCs	Projects	10	174
Social Benchmarking Local Program	LDCs	Participants	0	3
Swimming Pool Efficiency Local Program	LDCs	Homes	34	1,872
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

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

	Delivery Agent	Incremental Participation as of 2017 Q4		
		Metric	2017 Q4	2015-2017 Q4
Solar Powered Attic Ventilation Pilot Program	LDCs	Projects	0	1,026
Truckload Event Pilot Program	LDCs	Equipment	0	26,443
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 ⁴	LDCs	Projects	0	14
Retrofit Program Enabled Savings	LDCs	Projects	0	37
Process & Systems Upgrades Program Enabled Savings	LDCs	Projects	0	1
Legacy Framework Residential and Small Commercial Demand Response				
peaksaver and peaksaver PLUS Program ⁵	LDCs	Devices	283,817	283,817
Industrial Accelerator Program				
Industrial Accelerator Program	IESO	Projects	9	111

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 December 31, 2017 since program inception and is not indicative of incremental installations in 2017 Q4

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