Independent Electricity System Operator Board of Directors Audit Committee August 2017 Update

2016 – 2017Q2 Conservation Results

Tuesday August 29, 2017

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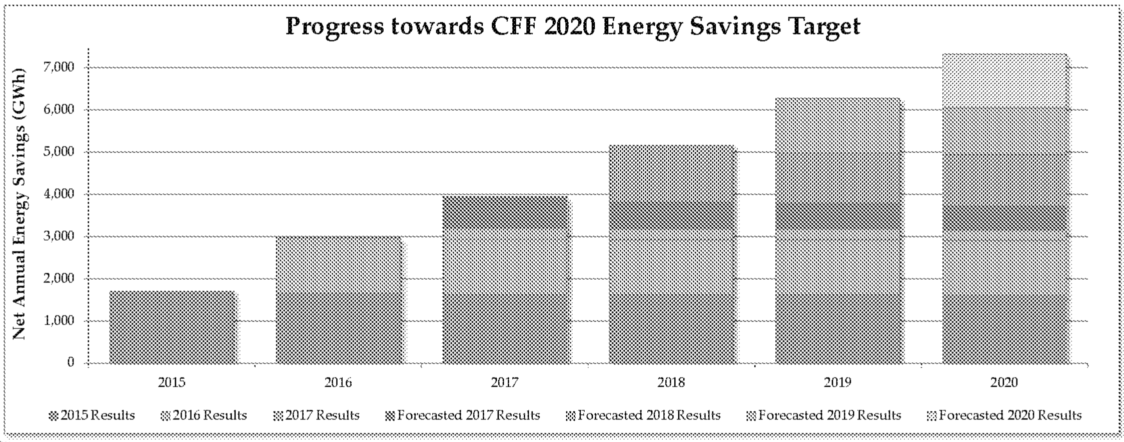
Overview

- Per the Conservation governance framework adopted by IESO Board in March 2016, Management is required to report to the Audit Committee and Board of Directors on a semi-annual and annual basis on the following for Conservation programs:
  - expenditures
  - target achievement
  - cost-effectiveness
  - LDC/framework performance
  - material contract changes
  - opportunities and risks
- This presentation addresses the reporting requirements outlined above and provides an update on progress made to deliver on the IESO's Conservation mandate

Conservation First Framework Savings Progress

- Savings results to date (2017 Q2) are on track to exceed 2020 CFF Target
  - 3,157 GWh net 2020 annual energy savings achieved to date, or 45% of CFF target
    - 118% of 2015 - 2017 Q2 LDC CDM plan forecast (2,677 GWh);
    - Actuals ahead of both LDC CDM plan forecast and proportional timelines (42%);
  - Including 2015 – 2017 Q2 Actuals, LDC CDM Plans forecast 7,340 GWh by 2020 (105% of target);



* All savings reported are preliminary, net, persisting to 2020 and at the end-user level.
** LDC CDM Plan Forecasts as of August 1, 2017.

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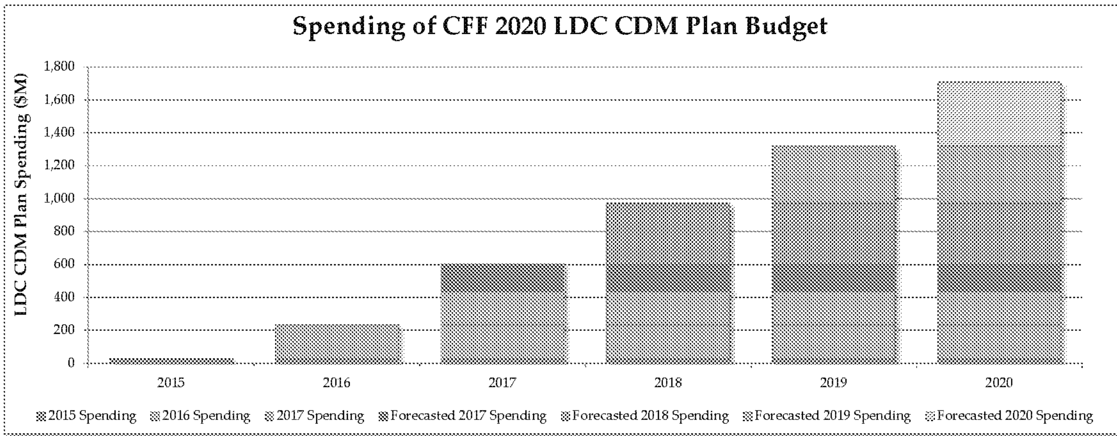
Conservation First Framework Spending Progress

- Spending to date (2017 Q2) is tracking towards a 2020 CFF Budget surplus:
  - 2015 - 2017 Q2 Actuals: $435 M spent, or 24% of 2015 - 2020 CFF Budget ($1.835 B)
    - 79% of 2015 - 2017 Q2 LDC CDM plan forecast ($ 551 M);
    - Actuals less than both LDC CDM plan forecast and proportional timelines (42%);
  - Including 2015 – 2017 Q2 Actuals, LDC CDM Plan Budget spending forecasts $ 1.709 B (93% of budget);



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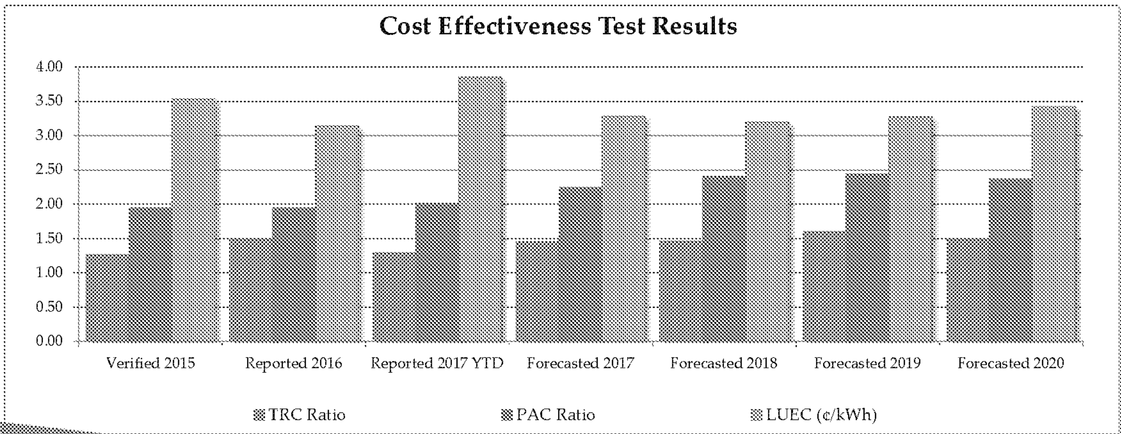
Conservation First Framework Cost Effectiveness

- CFF Portfolio remains cost effective:
  - 2016 Reported: TRC ratio = 1.48; PAC ratio = 1.94; LUEC = 3.1 ¢/kWh;
  - 2017 YTD Reported: TRC ratio = 1.29; PAC ratio = 2.01; LUEC = 3.9 ¢/kWh;
  - Inline with 2015 verified results: TRC ratio = 1.27; PAC ratio = 1.95; LUEC = 3.5 ¢/kWh;

- Total 2015- 2020 CFF forecast : TRC ratio = 1.69; PAC ratio = 2.86; LUEC = 2.586 ¢/kWh;



- Verified 2016 and 2015 Adjustment Cost Effectiveness Test Results expected in September 2017

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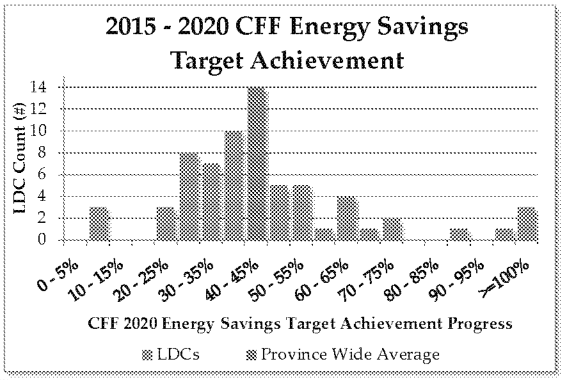
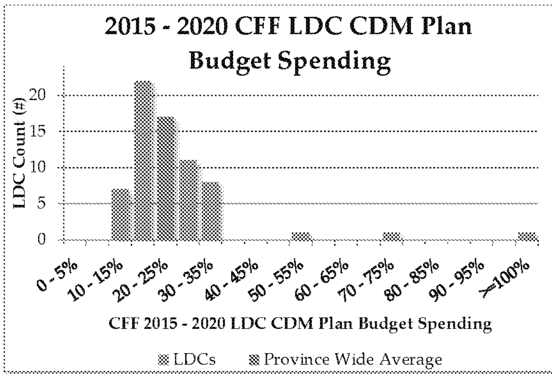
LDCs Performance On Track

- Some LDCs are on track to exceed their target very early:
  - Three LDCs have achieved their 2020 Target: Hearst (Street Lighting); Entegrus & North Bay (CHP projects);
  - Two LDCs have achieved >= 85% of their 2020 Target: Energy+ & Thunder Bay (CHP projects as well);
- Provincial average: Energy Savings: 42%; Spending: 24%;
- Spending results distributed tightly around province wide average
  - Sixty five LDCs spending +/-11% from province wide average;
- 54 of 68 LDCs (79%), with an aggregated allocated target of 6,344 of the total 7,000 GWh target (91%) are estimated to meet or exceed their mid-term incentive threshold, leading to a mid-term incentive of $ 53.1 M.





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Industrial Accelerator Program Progress

Reported Savings							
		2017 Reported Results	2016 Reported Results	2015 Reported Adjustment	2015 Verified Results	Framework To Date
IAP 2.0	In-Service Projects (#)	30	45	1	15	91
	Net Energy Savings (GWh)	36	114	33	49	232
	Net Peak Demand Savings (MW)	5	12	4	6	27

Reported Spending					
Delivery Cost Type		2017 YTD	2016	2015	2015 – 2017 YTD
IAP 1.0	Incentive Cost ($ million)	3	17	14	34
	Program Cost ($ million)	0	2	4	6
IAP 2.0	Incentive Cost ($ million)	9	2	0	11
	Program Cost ($ million)	1	2	0	3
Total Delivery Cost ($ million)		13	23	18	54

Industrial Accelerator Program Achievements

- Progress to date:
  - o 232 GWh (14%) of 1.7 TWh 2020 target achieved (i.e. in service) from 2015 - 2017 Q2;
  - o 616 GWh (36%) of target currently under contract in 2015 - 2017 Q2;
  - o $54M (11%) of total $500M 2015-2020 budget spent since 2015;
  - o 2015 - 2020 IAP 2.0 continues to be cost-effective (TRC: 1.25, PAC: 1.84, LUEC: 3.34 ¢/kWh);

2016 Industrial Accelerator Program Verified Results expected September 1, 2017.

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Comprehensive Report

- A comprehensive report is attached for further details regarding the 2015 – 2017 Q2 progress of:
  - Conservation First Framework
  - Industrial Accelerator Program

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Key Conservation Directives

- The IESO received a Direction from the Minister of Energy on August 4 requiring the IESO to centrally design, fund and deliver the Home Assistance Program (HAP) across the province beginning January, 2018
  - This will further improve the availability of and access to CDM programs targeted to the low-income customer segment
- The August 4 direction also requires the IESO to enter into agreements with the Ministry of Environment and Climate Change, or the Green Ontario Fund, to continue to support the establishment of this new agency
- As per the June, 2016 Direction from the Minister of Energy, the IESO has launched the province-wide Whole Home Pilot and Pay for Performance Program
  - A total of four applications representing over 120 facilities have been received for the Pay for Performance
- Most LDCs resubmitted CDM Plans by the May 1 due date to indicate which province-wide programs they would deliver, in response to the December, 2016 Direction
  - IESO will now be required to deliver some of the province-wide programs in 14 areas of the province starting in January 2018

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August 4 Directive:

LDCs' allocated CFF budgets will not be impacted, however, reductions in electricity consumption achieved through IESO's delivery of the program will count toward the provincial CDM target only. The IESO may continue to allow LDCs to deliver HAP if a commitment to serve the sector is demonstrated by the LDC, as determined by the IESO.

The IESO is also required to enter into agreements with the Ministry of Environment and Climate Change (MOECC) or the Green Ontario Fund for a new phase of work, expanded from the early activities related to website development, program design and provision of call centre services, where the IESO will begin delivering programs

Key Conservation Updates

- Changes to four province-wide programs have been approved, including the introduction of the Instant Discount Program in October 2017 that transitions from physical coupons for energy efficient products to instant discounts during biannual events with participating retailers.
- All LDCs but two opted-in to the amended Energy Conservation Agreement, which came into effect July 1
- CDM-IS Business Case Exception Report *approved* based on revised strategy [ntd: pending Peter's review]
- Peaksaver PLUS program on track to close out by the end of 2017
  - Residential DR now eligible through DR Auction
- Save on Energy brand and customer satisfaction remains strong, with preparations underway to relaunch the Save on Energy website within six months

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Changes to the Heating and Cooling Program, Residential New Construction Program, and High Performance New Construction Program have also been approved.

Conservation First Mid-term Review

- The IESO has initiated the mid-term review of CFF and IAP, including a formal engagement process with the establishment of the Conservation Mid-Term Review Advisory Group
  - Multiple opportunities for all interested parties to provide input to review
  - IESO planning to complete Q1 '18
- IESO is implementing a Mid-Term Review Work Plan that includes an in-depth analysis of eight policy elements:

  1) Customer and market engagement; 2) definition of CDM; 3) collaboration; 4) governance and operations; 5) planning integration; 6) climate change; 7) budgets, targets and cost-effectiveness; 8) non-energy benefits

- As an outcome of the review, IESO will provide recommendations to the Minister of Energy to address any identified challenges or opportunities

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