

ComEd[®]

Energy Efficiency Program

Plan Year 9 Fourth Quarter Report



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Data presented in this document is based on preliminary results and is subject to revision and evaluation adjustments. ComEd Energy Efficiency is funded by ComEd customers in compliance with Illinois Public Act 95-0481.

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Customers have saved
\$2.6 billion
on their electric bills



103.3 million
efficient bulbs sold



Enough MWh to power
2.6 million
homes for one year

32.9 billion
pounds of CO₂ reduced

23.7 million
net MWh saved



More than
\$520 million
in incentives provided



Based on lifetime MWh savings through PY9 Q4



Introduction

This was a Quarter of transition associated with the new Future Energy Jobs Act (FEJA) legislation. A component of the FEJA legislation extends Program Year 9 (PY9) through December 31, 2017 to shift the program schedule to a calendar year. In addition, with the Illinois Department of Commerce and Economic Opportunity's (DCEO) decision to sunset its energy efficiency incentive programs earlier than expected, programs serving Public Sector and Income Qualified customers transitioned to the Illinois utilities beginning June. ComEd made the decision to maintain the integrity and providers of the DCEO programs through the transition period for the betterment of participating customers.

In preparation of the June 1st through end of year transition period, ComEd reviewed and developed an understanding of the DCEO programs, established contracts and extensions associated with EEPS and IPA PY9+ and the DCEO transition consisting of 12 requests for proposal (RFP), 67 contract extensions and 35 DCEO provider agreements all in-flight simultaneously. New co-branded collaterals and customer facing materials were developed for the transition period to balance new enhanced program requirements with DCEO program familiarity. Many of the jointly funded programs required a collaborative effort with customer facing collateral and contract language revisions between the gas utilities, DCEO legacy suppliers and ComEd implementation contractors.

To facilitate a smooth transition, ComEd has held webinars for Public Sector customers and Trade Allies with over 500 customers and Trade Allies participating to explain the transition of the DCEO programs and new requirements such as pre-applications. Pre-applications are new to the current DCEO programs, but necessary to have a line of sight for forecasting and incentive continuity for the applicants. In addition, ComEd has been meeting directly with outreach providers, nonprofit entities, state government agencies, municipalities and waste treatment plants to help socialize and ease the transition period and ensure the success of any in-flight Public Sector energy efficiency projects and the continuation of programs aimed at Income Qualified customers.



Quarterly Program Highlights

Portfolio

- Coordinated scopes of work, budgets and resources necessary to continue 5 low income, 11 public, and 7 market transformation DCEO programs through the bridge period of June to December 2017.

EEPS Business Programs

- Through Q4, EEPS business programs have achieved 55% of their combined PY9+ forecast of 633,819 MWh.
- Over 1,000 EEPS business projects were completed in Q4.
- The C&I New Construction program accepted 24 new projects in Q4, of which 2 were Expedited Assistance, and 2 were Accelerated Performance projects.
- A joint pilot program was launched with North Shore Gas and Peoples Gas to provide common area assessments and free energy efficiency improvements using a closed network of installing Trade Allies. Approximately 100 projects were completed in Q4. Savings data will be available in Q5.

EEPS Residential Programs

- Through Q4, EEPS residential programs have achieved 60% of their combined PY9+ forecast of 125,309 MWh.
- Customers received over 32,000 rebates, recycled over 11,500 appliances, and received over 3,600 assessments in Q4.
- ComEd has collected and responsibly recycled more than 338,000 refrigerators and freezers since we began to offer this service to our customers in June 2008.
- A single-family low-income pilot with Peoples Gas was launched consisting of weatherization and direct-install measures in bungalow style homes.

IPA Programs

- IPA programs achieved 64% of their combined PY9+ forecast of 1,151,313 MWh.
- The Small Business Energy Savings program provided energy-saving products to over 1,400 customers in Q4.
- The Lighting Discounts program phased out CFL incentives in all participating retail stores. As of March 1st, the program is an all LED program.
- Online energy management tools for the Home Energy Report received an updated look and feel and were optimized for mobile.

Ex-Ante Results

Column Descriptions

- **Net MWh Actual:** Actual net MWh savings estimated to be achieved through the most recent quarter based on preliminary results and available data, subject to revision and evaluation
- **Original Net MWh Goal:** Net MWh savings goal for the original PY9 program year schedule, June 2016 to May 2017, filed with the Illinois Commerce Commission (ICC) as part of the 2014 – 2016 Energy Efficiency and Demand Response Plan (Plan 3)
- **PY9+ Net MWh Goal:** Net MWh savings goal filed with the ICC for the extended PY9 program year schedule, June 2016 to December 2017, as a result of the Future Energy Jobs Act
- **PY9+ Net MWh Forecast:** Net MWh savings forecast provided by ComEd program managers for the extended PY9 program year schedule, June 2016 to December 2017
- **Percent of PY9+ Goal:** Column 'Net MWh Actual' as a percentage of column 'PY9+ Net MWh Goal'
- **Percent of PY9+ Forecast:** Column 'Net MWh Actual' as a percentage of column 'PY9+ Net MWh Forecast'
- **Program Costs YTD (\$1,000):** Actual program expenditures through the most recent quarter
- **Rate Filing Screen (\$1,000):** Adjusted budget for the original PY9 program year schedule, June 2016 to May 2017, filed with the Illinois Commerce Commission (ICC) as part of the Informational Filing from May 2016
- **PY9+ Filed Budget:** Budget filed with the ICC for the extended PY9 program year schedule, June 2016 to December 2017, as a result of the Future Energy Jobs Act
- **PY9+ Spend Forecast:** Spend forecast provided by ComEd program managers for the extended PY9 program year schedule, June 2016 to December 2017
- **Percent of Spend Forecast:** Column 'Program Costs YTD (\$1,000)' as a percentage of column 'PY9+ Spend Forecast'

EEPS Ex-Ante Results

EEPS Program	Net MWh Actual	Original Net MWh Goal	PY9+ Net MWh Goal	PY9+ Net MWh Forecast	Percent of PY9+ Goal	Percent of PY9+ Forecast	Program Costs YTD (\$1,000)	Rate Filing Screen (\$1,000)	PY9+ Filed Budget	PY9+ Spend Forecast	Percent of Spend Forecast
Incentives Total (includes large C&I pilot)	162,473	195,831		327,843		50%	\$ 30,564	\$ 32,900		\$ 54,278	56%
Standard	145,006			276,326		52%					
Custom	9,468			29,556		32%					
Data Center	7,999			21,961		36%					
Optimization Total (includes BEA)	34,343	97,831		79,257		43%	\$ 11,747	\$ 16,500		\$ 19,815	59%
Retro-Commissioning	16,353			29,806		55%	\$ 5,040	\$ 7,500		\$ 8,000	63%
AirCare Plus (>100 kW)	6,215			16,073		39%	\$ 1,129	\$ -		\$ 2,590	44%
Industrial Systems	9,926			31,393		32%	\$ 4,455	\$ 9,000		\$ 7,428	60%
Operational Savings	1,850			1,985		93%	\$ 1,119	\$ -		\$ 1,793	62%
Strategic Energy Management Pilot	5,431			2,500		217%	\$ 301	\$ -		\$ 836	36%
BILD/Midstream Incentives	103,046	123,170		159,365		65%	\$ 6,115	\$ 8,056		\$ 10,919	56%
New Construction	38,508	16,535		55,875		69%	\$ 8,806	\$ 10,000		\$ 13,170	67%
Multi-Family Common Area	2,976	4,000		8,979		33%	\$ 1,095	\$ 1,000		\$ 2,823	39%
C&I General							\$ 2,183	\$ -		\$ 5,751	38%
C&I Subtotal	346,777	437,367	659,746	633,819	53%	55%	\$ 60,811	\$ 68,456	\$ 103,308	\$ 107,591	57%
Fridge & Freezer Recycling	23,087	29,450		33,375		69%	\$ 7,738	\$ 8,701		\$ 12,172	64%
Appliance Rebates	19,518	9,103		35,227		55%	\$ 10,116	\$ 6,686		\$ 21,387	47%
Home Energy Assessment	12,967	7,407		24,498		53%	\$ 6,035	\$ 5,745		\$ 10,145	59%
Heating & Cooling	11,186	7,590		18,881		59%	\$ 5,086	\$ 9,638		\$ 9,694	52%
Weatherization	820	N/A		1,226		67%	\$ 995	\$ -		\$ 2,786	36%
Multi-Family	3,649	4,838		5,033		73%	\$ 1,929	\$ 1,925		\$ 3,020	64%
Elementary Energy Education	3,722	567		5,769		65%	\$ 535	\$ 233		\$ 892	60%
New Construction	536	15		1,300		41%	\$ 313	\$ 265		\$ 511	61%
Direct to Consumer Kit		4,930		0				\$ -		\$ -	
Residential General							\$ 1,358	\$ -		\$ 2,697	
Residential Subtotal	75,485	63,900	103,369	125,309	73%	60%	\$ 34,106	\$ 33,193	\$ 49,759	\$ 63,305	54%
R&D/Emerging Tech	101	0	0	0				\$ 3,587		\$ 3,626	0%
Lighting Carryover	41,714	16,102	24,514	41,714	170%	100%					
EEPS Program Total	464,078	517,369	787,629	800,843	59%	58%	\$ 94,916	\$ 105,235	\$ 153,066	\$ 174,522	54%
IPA Program Total	733,413	883,527	1,320,183	1,151,313	56%	64%	\$ 92,688	\$ 134,863	\$ 196,096	\$ 149,176	62%
EEPS and IPA Program Total	1,197,490	1,400,896	2,107,812	1,952,155	57%	61%	\$ 187,604	\$ 240,098	\$ 349,162	\$ 323,698	58%

Ex-Ante Results

IPA Ex-Ante Results

IPA Program	Net MWh Actual	Original Net MWh Goal	PY9+ Net MWh Goal	PY9+ Net MWh Forecast	Percent of PY9+ Goal	Percent of PY9+ Forecast	Program Costs YTD (\$1,000)	Rate Filing Screen (\$1,000)	PY9+ Filed Budget	PY9+ Spend Forecast	Percent of Spend Forecast
Lighting Discounts	239,219	217,565	344,478	369,660	69%	65%	\$ 32,345	\$ 37,123		\$ 54,244	60%
Home Energy Report	284,785	351,498	556,539	465,930	51%	61%	\$ 8,024	\$ 13,856		\$ 11,698	69%
Small Business Energy Savings	153,178	167,000	264,417	233,145	58%	66%	\$ 42,494	\$ 45,891		\$ 65,633	65%
LED Streetlighting	960	10,949	10,949	5,450	9%	18%	\$ 1,067	\$ 8,208		\$ 8,025	13%
Lighting Carryover	20,756	0	0	20,756							
IPA General							\$ -	\$ -		\$ 4,000	0%
IPA ComEd Subtotal	698,897	747,012	1,176,382	1,094,941	59%	64%	\$ 83,930	\$ 105,078	\$ 161,586	\$ 135,574	62%
Accelerate Group - CUB Energy Saver	0	17,910	17,910	0	0%	N/A	\$ -	\$ 775		\$ -	N/A
Elevate Energy - Chicago MF Retrofit	1,612	1,828	1,591	1,275	101%	126%	\$ 513	\$ 577		\$ 513	100%
Shelton Solutions - Energy Stewards	0	850	850	0	0%	N/A	\$ -	\$ 139		\$ (60)	0%
National Theatre for Children - Kits	1,690	1,220	1,946	1,947	87%	87%	\$ 674	\$ 625		\$ 1,102	61%
CLEARresult - CFL Distribution	12,713	14,721	20,129	17,789	63%	71%	\$ 1,310	\$ 1,330		\$ 1,590	82%
ERC - Low-Income Kits	3,997	4,103	6,327	5,815	63%	69%	\$ 1,295	\$ 1,439		\$ 1,950	66%
ERC - Low-Income Multi-Family	0	6,520	6,518	0	0%	N/A	\$ -	\$ 2,168		\$ -	N/A
CLEARresult - School Energy Savings	423	4,310	3,850	490	11%	86%	\$ 134	\$ 1,072		\$ 164	82%
Matrix - Private Schools	622	5,545	7,437	788	8%	79%	\$ 106	\$ 989		\$ 126	84%
Matrix - DBVFC	0	5,517	6,864	0	0%	N/A	\$ -	\$ 1,241		\$ -	N/A
CLEARresult - LLLC	1,784	17,216	13,457	2,409	13%	74%	\$ 648	\$ 5,101		\$ 935	69%
Elevate Energy - Assisted & Sr. Housing	324	1,188	1,188	654	27%	50%	\$ 171	\$ 626		\$ 353	48%
Franklin - Rural Small Business EE Kits	1,207	1,234	1,954	1,286	62%	94%	\$ 561	\$ 583		\$ 792	71%
GDS Associates - Agricultural EE	513	1,220	1,299	141	39%	363%	\$ 73	\$ 367		\$ 52	140%
GDS Associates - Lit Signage	2,412	14,624	14,453	4,265	17%	57%	\$ 1,220	\$ 3,700		\$ 1,182	103%
MEEA - STEP Efficient Products	0	3,343	1,948	0	0%	N/A	\$ -	\$ 778		\$ -	N/A
SEDAC - Building Optimization	348	11,056	11,801	3,317	3%	10%	\$ 147	\$ 2,500		\$ 750	20%
Power TakeOff - MBCx	0	2,709	2,709	464	0%	0%	\$ 116	\$ 1,554		\$ 266	44%
CLEARresult - AirCare Plus (<100 kW)	6,262	10,962	17,357	14,647	36%	43%	\$ 1,857	\$ 3,146		\$ 3,881	48%
Weidt Group - New Construction SBO	608	4,213	4,213	1,085	14%	56%	\$ (68)	\$ 1,075		\$ 7	-1033%
Sodexo - DBCFV	0	5,096	0	0	N/A	N/A	\$ -	\$ -		\$ -	N/A
One Change	0	1,130	0	0	N/A	N/A	\$ -	\$ -		\$ -	N/A
IPA Third Party Subtotal	34,515	136,515	143,801	56,372	24%	61%	\$ 8,758	\$ 29,785	\$ 34,510	\$ 13,602	64%
IPA Program Total	733,413	883,527	1,320,183	1,151,313	56%	64%	\$ 92,688	\$ 134,863	\$ 196,096	\$ 149,176	62%
EEPS Program Total	464,078	517,369	787,629	800,843	59%	58%	\$ 94,916	\$ 105,235	\$ 153,066	\$ 174,522	54%
EEPS and IPA Program Total	1,197,490	1,400,896	2,107,812	1,952,155	57%	61%	\$ 187,604	\$ 240,098	\$ 349,162	\$ 323,698	58%



EEPS Programs – Business

Standard

Overview: The Standard element of the C&I Incentives Program provides monetary incentives to customers on a “Standard” per-unit or per-fixture basis. Offered measures include LEDs, T-8 and T-5 lighting and controls, building automation systems, air- and water-cooled chillers and variable speed drives, as well as equipment with niche or targeted market applications, such as laboratory, farm and commercial food service equipment, and grocery refrigeration measures.

- **145,006 MWh savings achieved (52% of forecast) based on 2,379 projects**
- Pre-application inflow continues to be strong, and the program is on track to achieve the PY9 savings goal.
- The program showed an increase in project payments again in Q4; the program is expected to continue this strong performance throughout the remainder of 2017.
- The comprehensive savings measures are gaining traction in the market place, with 16 projects currently, and will continue to be an emphasis for the program going forward.
- There are over 1,200 projects in the PY9 pipeline for potential savings of over 95,000 MWh.

Custom

Overview: The Custom element of the C&I Incentives Program identifies and implements site-specific and unique cost-effective energy efficiency opportunities that are not available via the Standard element. Customized incentives based on calculated savings for specific customer projects are offered. Measures include process efficiency improvements, system upgrades, and those measures not covered by the Standard element of the program.

- **9,468 MWh savings achieved (32% of forecast) based on 55 projects**
- There currently are over 60 projects in the PY9 pipeline for potential savings of over 37,000 MWh.

Data Centers

Overview: The Data Center element of the C&I Incentives Program follows the basic tenets of the Custom Program such that all energy-saving measures that can be measured and verified via industry accepted measurement and verification techniques are eligible for incentives. Incentives are based on actual energy saved from pre-project conditions to post-project conditions. The targeted segment for this program includes data centers as a business, data centers that support businesses and subsequent systems that support those data centers.

- **7,999 MWh savings achieved (36% of forecast) based on 6 projects**
- The program remains strong across a large band of customers, with substantial short and long term pipelines. There currently are potential savings of over 27,000 MWh in the PY9 pipeline.
- Additional potential savings of 12,000 MWh will close in the fall from over 10 data center projects.

Midstream Incentives / Business Instant Lighting Discounts (BILD) & Business Product Discounts (BPD)

Overview: The BILD program provides instant discounts on qualifying LED screw-in products, LED exit signs, tubular LED (TLED) lamps, and reduced wattage T8 and T5 linear fluorescent lamps (LFLs). Discounts are provided through an open network of BILD distributors who have signed program agreements. The BPD program provides incentives for electronic industrial battery charges and high-efficiency transformers.

- **103,046 MWh savings achieved (65% of forecast) based on 1,048,645 products sold**
 - 863,751 LEDs sold
 - 184,788 LFLs sold
 - 106 battery chargers sold
- The program saw a significant increase in activity due to TLED sales.
- The addition of TLEDs this past November

increased distributor interest in the program. Since November, distributors have honed their marketing and sale efforts to produce a growing pipeline of TLED sales.

- TLED sales have also increased sales of screw-in products to a lesser extent.

Retro-Commissioning (RCx)

Overview: The RCx Optimization Program provides detailed engineering analysis of building systems designed to identify energy-saving operational improvements with a bundled simple payback of 18 months or less. Incentives are provided to customers who commit to implementing agreed-upon energy-saving equipment scheduling, optimization of economizer operations, and adjustment of heating, ventilation, and air conditioning (HVAC) setpoints.

- **16,353 MWh savings achieved (55% of forecast) based on 49 projects**
 - 3 monitoring-based commissioning (MBCx) project completed
 - 30 RCx Building Tune-Up (buildings less than 150,000 square feet) projects completed
 - 8 RCxpress (buildings between 150,000 and 400,000 square feet) project completed
 - 8 RCx (buildings over 400,000 square feet) projects completed
- The program is currently investigating strategies for driving additional project volume through the end of 2017.
- A marketing campaign is being developed to re-engage past participants in RCx who are eligible for the program.
- PY9 program changes include moving to a pay-per-performance model in the RCx
- Building Tune-Up program to allow customers and service providers more flexibility to seek deeper energy savings than the original design and to limit costs when projects yield low savings.

Retro-Commissioning (RCx) (continued)

- Incentives are now being offered to service providers for completing projects within an aggressive timeline and to customers for implementing additional measures once the savings target and minimum spending commitments have been met.
- Segmented outreach, mainly Commercial Real Estate, continues to provide leads for new projects.
- There are over 150 active projects in the PY9 pipeline for potential savings of 28,000 MWh.

AirCare Plus (>100 kW)

Overview: The AirCare Plus program is an enhanced HVAC maintenance service program designed to optimize the performance of all major energy-using components of packaged HVAC Roof Top Units (RTUs) and split systems. The program integrates a package of energy saving hardware retrofits and mechanical adjustments into the standard commercial HVAC service and maintenance model to provide a cost-effective energy saving solution for 3 to 60 ton units. Savings from commercial participants with a peak demand of greater than 100 kW are attributed to the EEPS portfolio. Small commercial participants with a peak demand of 100 kW or less are attributed to IPA.

- **6,215 MWh savings achieved (39% of forecast) based on 534 projects**
- Earlier in PY9, the program became a member of the Department of Energy's Advanced RTU Campaign. The program is using a paper and email based direct-to-customer outreach strategy to build customer interest.
- Northern Illinois experienced heavy and frequent precipitation in the spring of 2017. This impacted the program by delaying the start of spring tune-up training and contractor tune-up completion. Some April and May projects will be pushed back to June and July,

and some tune-ups will be completed outside of the program.

- The program has struggled to get uptake in advanced control technology from participating contractors. This is due to high cost, requisite skill set, limited electric savings, low incentives, and limited technology availability.

Industrial Systems

Overview: The Industrial Systems Optimization program performs studies of compressed air, industrial refrigeration, and/or process cooling systems to locate energy efficiency opportunities. Cost of assessments is covered by the program if customer obligations are met, and financial incentives are offered for implementing measures recommended by the study.

- **9,926 MWh savings achieved (32% of forecast) based on 46 compressed air projects**
- The positive uptake of the program offering has created a healthy pipeline for PY9. There are over 100 projects in the PY9 pipeline for potential savings of over 31,000 MWh.
- The majority of 10MW+ customers were only able to implement a portion of their planned Energy Conservation Measures before the May 31st deadline imposed by the Future Energy Jobs Act.

Operational Savings

Overview: The Operational Savings program identifies no-cost/low-cost opportunities that do not qualify for incentives. These opportunities are identified by engineers during the course of various types of ComEd Energy Efficiency Program studies and assessments. Examples of such opportunities include shutting off idle equipment, optimizing the efficiency of existing systems and changes in the operating habits of occupants.

- **1,850 MWh savings achieved (93% of**

Operational Savings (continued)

forecast)

- Since inception in PY7, over 1,600 operational measures have been identified for potential savings of over 34,600 MWh.
- On average, the program is identifying 2.23 operational measures per facility assessment, 40% higher than the PY8 average.
- Operational savings per facility assessment has increased by 59% when compared to PY8.
- Over 167 operational measures have been implemented through Q4, 271% more than the PY8 total of 45.

Strategic Energy Management (SEM)

Overview: Strategic Energy Management provides tools, coaching and technical resources to support your energy goals through a year-long series of workshops and one-on-one coaching. It draws on principles of continuous improvement and organizational change and integrates Lean, Six Sigma and other cost savings and operational excellence initiatives. SEM will help implement organizational structures, behavior changes, and systematic practices that can lead to reducing energy costs 5-25% for both electricity and natural gas.

- **5,431 MWh savings achieved (217% of forecast)**
- The pilot cohort completed its second year on December 31st with savings of 5,431 MWh.
- The second cohort, including 3 hospitals, 4 universities, and 2 industrial manufacturers, completed its first year on May 31st. Savings data is not yet available.

C&I New Construction

Overview: The New Construction Program provides technical assistance, support for the Leadership in Energy and Environmental Design (LEED) rating system, and incentives for efficient designs and measure implementation in order to

influence building design practices during the design and construction of new buildings, major renovations of existing buildings, and tenant build-outs in the C&I market.

- **38,508 MWh savings achieved (69% of forecast) based on 64 projects**
- The program accepted 24 new projects in Q4, of which 2 were Expedited Assistance, and 2 were Accelerated Performance projects.
- The PY9 pipeline remains strong with approximately 58,000 MWh expected to be captured in PY9, factoring in normal program attrition.
- The pipeline for 2018 is looking strong with 83 enrolled projects for potential savings of 34,500 MWh.

Multi-Family Common Area

Overview: The Multi-Family Common Area Program provides free energy assessments and installation of energy-saving products within common area spaces in multi-family properties. Installed measures may include LEDs, HVAC optimization, vending misers, occupancy controls, and programmable thermostats.

- **2,976 MWh savings achieved (33% of forecast)**
 - Savings from the pilot portion of the program are not included in the above estimate. Savings data will be available in Q5.
- Energy-saving products have been installed in the common areas of 97 multi-family buildings.
 - A joint pilot program was launched with North Shore Gas and Peoples Gas to provide common area assessments and free energy efficiency improvements using a closed network of installing Trade Allies and implementer direct installers. Initial customer feedback of leveraging the tenant program visit to address

Multi-Family Common Area (continued)

common area efficiency within this hard to reach market has been very positive.

- Approximately 100 projects were completed in Q4. Savings data will be available in Q5.

Low Income Multi-Family Pilot

Overview: The Low Income Multi-Family Pilot is a joint program with Peoples Gas that provides free in-unit and common area energy assessments and installation of energy-saving products that may include LEDs, T8 retrofits, vending misers, occupancy controls, and programmable thermostats. The pilot provides project management and application assistance for measures outside of the direct install scope.

- **0 MWh savings achieved (0% of forecast)**
 - Savings data will be available in Q5.
- A joint multi-family low income program was launched in coordination with DCEO and Peoples Gas to reach additional low-income buildings within the City of Chicago.
- A total of 35 properties are being targeted for this effort based on previous engagements and probability of participation; property contacts have been established, the properties have been assessed, and energy efficiency opportunities have been identified. Work for this pilot is progressing and will be reported once data is compiled in Q5.



EEPS Programs – Residential

Fridge and Freezer Recycling

Overview: The Fridge and Freezer Recycling Program promotes the retirement and recycling of inefficient, working refrigerators and freezers, as well as room air conditioners, from households by offering \$50 and free pick up of the equipment.

- **23,087 MWh savings achieved (69% of forecast) based on 48,357 pickups**
- ComEd has collected and responsibly recycled more than 338,000 refrigerators and freezers since we began to offer this service to our customers in June 2008.
- Customer participation through Q4 exceeded the program's original 12-month goal to collect 45,000 refrigerators, freezers, and room air conditioners.
- The overall customer satisfaction score through the end of Q4 is expected to average 9.5 on a 10.0 point scale when the final results are compiled.
- The percentage of customers selecting a prepaid Visa card increased from 27% to 32% in Q4, with the balance opting to receive a check.

Appliance Rebates

Overview: The Appliance Rebate Program provides rebates for qualifying ENERGY STAR® appliances sold through retail channels to ComEd residential customers. Eligible measures include select ENERGY STAR® certified clothes washers, electric clothes dryers, refrigerators, freezers, air purifiers, pool pumps, water dispensers, room AC units, advanced power strips, ventilation fans, smart thermostats, and heat pump water heaters.

- **19,518 MWh savings achieved (55% of forecast) based on 119,897 appliance rebates issued**
- The marketing campaign "Celebrate Rebates" was in market in Q4. Special emphasis was given to the campaign during holidays such as Easter and Memorial Day to align with big retail sales on appliances.

Appliance Rebates (continued)

- Due to price changes in the market, product rebate amounts for variable speed pool pumps and water dispensers were reduced.
- Earth Day promotions sponsored by two of the leading smart thermostat manufacturers resulted in increased smart thermostat sales during the months of April and early May.
- The number of smart thermostats eligible for the ComEd rebate was increased from 8 to 20 in Q4 with the introduction of new products from several manufacturers.

Home Energy Assessment

Overview: In partnership with Nicor Gas, North Shore Gas, and Peoples Gas, the Home Energy Assessment is a free walkthrough assessment with an energy advisor that determines the ways energy is used in the home. Customers receive personalized energy-efficiency recommendations, and the following energy-saving products are installed for free: ENERGY STAR® certified standard CFLs, specialty LEDs, advanced power strips, programmable thermostats, WaterSense® certified showerheads, faucet aerators, and hot water pipe insulation. Ecobee3 smart thermostats and ENERGY STAR® certified standard LEDs are also available for purchase at a discount and include free installation.

- **12,967 MWh savings achieved (53% of forecast) based on 13,883 assessments**
- Over 3,600 customers received assessments in Q4.
- Program savings per home are higher than originally forecasted due to the popularity of free specialty indoor LEDs and advanced power strips. Program popularity has also seen an increase over the last nine months.
- Due to the strong support of the program through word-of-mouth, the program has reduced marketing tactics and is relying primarily on customer referrals to drive participation.

Heating & Cooling & Weatherization

Overview: The Heating & Cooling & Weatherization Program promotes investment in long-term savings by providing rebates for the purchase and installation of high efficiency central air conditioners and air source heat pumps (≥ 14.5 SEER and ≥ 16 SEER), ductless mini-split heat pumps (≥ 17 SEER and ≥ 9.5 HSPF), ECM motors, heat pump water heaters, and smart thermostats. Weatherization measures, including air sealing, duct sealing, and attic and wall insulation, are also incented. The weatherization portion of the program is offered jointly with Nicor Gas, North Shore Gas and Peoples Gas.

- **12,006 MWh savings achieved (60% of forecast) based on 15,149 products and projects**
- Over 1,700 customers received rebates for energy efficient heating and cooling equipment, including contractor-installed smart thermostats, in Q4.
- The program continued to build participation in the ComEd Residential Trade Ally Network, resulting in over 230 heating and cooling contractors enrolled to date.
- Over 200 customers received rebates for completing weatherization projects in Q4. Weatherization rebates in the Peoples and North Gas territory continued to perform strongly and trend ahead of forecast.
- Total number of Approved Weatherization Contractors remained static as the program continues to have territory wide coverage for weatherization rebates.
- A single-family low-income pilot with Peoples Gas was launched consisting of weatherization and direct-install measures in bungalow style homes through the Chicago Bungalow Association.

EEPS Programs – Residential

Multi-Family

Overview: In partnership with Nicor Gas, North Shore Gas, and Peoples Gas, the Multi-Family Program provides multi-family properties with free energy assessments and installation of energy-saving products in tenant spaces. Installed measures include ENERGY STAR® certified CFLs and specialty LEDs, advanced power strips, faucet aerators, showerheads, programmable thermostats, and pipe insulation.

- **3,649 MWh savings achieved (73% of forecast) based on 20,191 units**
- Steady progress to goal continued with more than 4,400 residential tenant spaces at multi-family properties visited in Q4.
- Free installation of free energy-saving products, anchored by a selection of different wattage ENERGY STAR® certified CFLs and specialty LEDs, was performed wherever appropriate to help improve the energy efficiency within these spaces and reduce energy costs for customers.

Residential New Construction

Overview: In partnership with Nicor Gas, the Residential New Construction Program increases awareness and understanding among Home Energy Rating System (HERS) rating companies and home builders of the benefits of energy-efficient building practices with a focus on capturing energy efficiency opportunities available during the design and construction of new single-family homes. Incentives are provided to HERS-certified consultants that certify homes and builders who construct homes that are at least 20 percent more energy-efficient than what currently is required by the State of Illinois Energy Code.

- **536 MWh savings achieved (41% of forecast) based on 701 homes**
- A total of 141 homes served jointly by ComEd and Nicor Gas were completed and verified

in Q4. These homes achieved an average savings of over 715 kWh.

- The program continued to identify and recruit additional builders to help support increased participation and savings goals during PY9.
- Builder training events were well attended and received positive feedback. The program hosted a builder training co-sponsored by the Southwest Suburban Homebuilder Association, who helped drive the attendance of 24 member builders which included some non-participants. Training was also held at a participant builder's office, for the builder's sales staff.
- These training events aim to help builders become more adept at selling the benefits of energy efficiency to their potential home-buying customers and reiterating the value of participating in the program.

Elementary Energy Education (Super Savers)

Overview: ComEd, Nicor Gas, North Shore Gas, and Peoples Gas have partnered to offer schools the opportunity to teach 5th grade students and their families how to use less energy at home. Students learn about valuable ways to save energy and money through in-class education. They also receive free take-home kits containing ENERGY STAR®-certified CFLs and LEDs, faucet aerators, and other energy-saving products to install at home with their families.

- **3,722 MWh savings achieved (65% of forecast) based on 25,844 kits**
- In Q1, ComEd and partnering natural gas utilities secured additional funding to expand the PY9 kit goal from approximately 11,500 to 25,750 kits. Although the program goal more than doubled, it was surpassed by distributing 25,844 kits.
- New in PY9, two of the three ENERGY STAR® CFLs included in the kit are replaced with ENERGY STAR® LEDs.



IPA Programs – ComEd

Small Business Energy Savings (SBES)

Overview: The SBES program implements energy efficiency projects for customers under 100 kW peak demand. The program provides comprehensive energy savings solutions for customers including advanced lighting, refrigeration, HVAC, and compressed air.

- **153,178 MWh savings achieved (66% of forecast) based on 5,993 projects**
- Over 1,400 customers were provided with energy-saving products in Q4.
- Incentives for fluorescent retrofits and outdoors LEDs were increased.
- The program is in the process of testing two digital assessment tools to streamline paperwork and improve data quality.
- A TA mentorship program launched at the end of May.

Lighting Discounts

Overview: The Lighting Discounts program provides instant in-store discounts to ComEd residential customers at participating retail stores on select ENERGY STAR® certified lighting: CFLs, LEDs and LED trim kits.

- **239,219 MWh savings achieved (65% of forecast) based on 11,455,732 units sold**
 - 2,586,731 CFL bulbs sold
 - 8,528,872 LED bulbs sold
 - 340,129 LED trim kits sold
- ComEd has phased out CFL incentives in all participating retail stores. As of March 1st, the program is an all LED program.
- LEDs were introduced into all the Dollar format stores including Dollar Tree and Dollar General for the first time.
- The Lighting Field Rep team conducted over 350 in-store lighting demonstrations and trained more than 11,000 store associates, including appliance retailers.

Home Energy Reports

Overview: The Home Energy Report provides select residential customers with information on how they use energy within their households. Reports and the online portal include usage comparison to that of similar, nearby household, personalized energy efficiency advice, program promotions, and application of behavioral principles and social norm to drive adoption of energy efficient behaviors.

- **284,785 MWh savings achieved (61% of forecast)**
- The program is reaching 1.7 million participants with a low opt-out rate and high customer satisfaction through customer inquiries; 800,000 of these customers also receive email Home Energy Reports.
- There continues to be a steady volume of approximately 200 customer inquiries per month. Each customer inquiry is responded to personally and promptly. A portion of customer inquiries also require technical support and coordination with our engineering group.
- Online energy management tools, including the What Uses Most online questionnaire and Tips, received an updated look and feel and were optimized for mobile.

signed up 34 municipalities to install approximately 5,580 fixtures for potential savings of 3,385 MWh.

- The program is reaching out to 12 additional municipalities with approximately 2,500 fixtures and potential savings of 1,450 MWh.
- Municipalities are excited by the savings on their bills as well as the improvement in light quality. In several of the economically challenged communities that signed up, they also viewed LEDs as a great way to show their constituents that infrastructure improvements were being made in the community.

LED Street Lighting

Overview: The program is to replace existing ComEd owned mercury vapor (MV) or high pressure sodium (HPS) fixtures with LED street lights. These street lights are installed and maintained by ComEd and the municipality pays a rental charge for the fixture and an energy charge. LED street lights provide energy efficient lighting which reduces operating costs and increases the life of street lighting.

- **960 MWh savings achieved (18% of forecast) based on approximately 1,630 fixtures installed in 6 municipalities**
- Excluding the 6 municipalities with fixtures currently being installed, the program has



IPA Programs – Third Party

The Accelerate Group – CUB Energy Saver

Overview: The CUB Energy Saver Program is a free online service that motivates ComEd customers to save energy through a pioneering combination of practical, money-saving guidance, financial rewards, and partnerships with community groups and government agencies. Participants receive monthly emails regarding: 1) their energy usage based on billing data, 2) their reward points earned from savings, 3) recommendations for additional savings, and 4) reward redemption opportunities. It leverages behavioral and marketing best practices by encouraging opt-in web engagement and rewarding customers that save energy.

- **0 MWh savings achieved (0% of forecast)**
 - PY9 savings will not be reported until the PY9 evaluation has been completed to allow for accurate savings.
- The program began PY9 with 9,870 previously linked accounts and the goal of adding 10,000 new accounts.

Elevate Energy – Chicago Multi-Family Retrofit

Overview: In partnership with the City of Chicago, the Chicago Multi-Family Retrofit Program provides electrically heated multi-family buildings with free energy assessments and comprehensive retrofits including direct installation of low cost measures, equipment tune-ups, and comprehensive lighting and building shell retrofits. Incentives are available for those who choose to implement more in-depth efficiency measures.

- **1,612 MWh savings achieved (126% of forecast)**
- The program is currently on track to achieve the PY9 savings goal.

Shelton Solutions – Great Energy Stewards

Overview: The Great Energy Stewards Program is a behavioral program which invites opt-in ComEd residential customers, via churches and the Community and Economic Development Association

IPA Programs – Third Party

Shelton Solutions – Great Energy Stewards (continued)

(CEDA), to participate in an energy use reduction competition against themselves. Participants are provided with a record of their energy use and energy-saving tips through email and postal mail.

- **0 MWh savings achieved (0% of forecast)**
 - PY9 savings will not be reported until the PY9 evaluation has been completed to allow for accurate savings. The final PY8 evaluation report indicated that the program achieved minimal success in PY8, with savings not statistically different than zero.
- There are currently 1,641 confirmed participants including those carried over from PY8.
- More outreach to faith-based organizations is the current method of encouraging energy savings. The implementer is focusing on engagement rather than recruitment.

National Theatre for Children (NTC) – Gas and Electric Water Heater Kits Program

Overview: The National Theatre for Children provides kits for homes with gas or electric water heaters to middle school students to encourage students and their families to develop good energy habits.

- **1,690 MWh savings achieved (87% of forecast) based on 7,591 kits**
- A total of 7,591 energy-saving kits, consisting of 5,694 natural gas kits and 1,897 electric kits, have been shipped to households in the ComEd service territory.
- The program has been extended to December 2017.
- The PY9 pipeline is full, and the program is on track to achieve the extended PY9 savings goal.

CLEAResult – School Energy Savings (SES) Program

Overview: The School Energy Savings (SES) Program provides private education establishments with a peak annual electric demand of 100kW or below with an assessment of operational efficiency, free direct installation of energy and cost saving measures, and optimization of existing systems' operational procedures and controls.

- **423 MWh savings achieved (6% of forecast) based on 66 projects**
- The program was well received within the community.
- The program stopped production in December 2016 but will be extended through December 2017. CLEAResult is working closely with Navigant and ComEd to determine if changes can be made to the program structure and measures.

Matrix – Private Schools Program

Overview: Matrix provides private education establishments with implementation of capital intensive measures and emerging technologies to create short- and long-term energy savings. The program will involve all energy end-uses that can be found in an educational environment, including but not limited to lighting and controls.

- **622 MWh savings achieved (79% of forecast) based on 18 projects**
- Matrix is focused on increasing the pipeline and promoting the program to ensure enough interest to achieve the PY9 savings goals.

Matrix – Demand Based Ventilation Fan Controller (DBVFC) Program

Overview: Matrix optimizes the operating time of HVAC systems for small business customers including restaurants and fitness centers. The Demand-Based

Matrix – Demand Based Ventilation Fan Controller (DBVFC) Program (continued)

Ventilation Fan Controller (DBVFC or DCV) optimizes the operating time of an HVAC system to reduce the amount of outside air required to a space during partial occupancy and energy use.

- **0 MWh savings achieved (0% of forecast)**
 - PY9 savings will not be reported until the PY9 evaluation has been completed to allow for accurate savings.
- Matrix is developing relationships with installing contractors to help them reach customers for participation.

CLEAResult – AirCare Plus (<100 kW)

Overview: The AirCare Plus program is an enhanced HVAC maintenance service program designed to optimize the performance of all major energy-using components of packaged HVAC Roof Top Units (RTUs) and split systems. The program integrates a package of energy saving hardware retrofits and mechanical adjustments into the standard commercial HVAC service and maintenance model to provide a cost-effective energy saving solution for 3 to 60 ton units. The program primes customers with thermostats during the colder months and re-engage customers with an HVAC tune-up in the spring. Savings from commercial participants with a peak demand of greater than 100 kW are attributed to the EEPs portfolio. Small commercial participants with a peak demand of 100 kW or less are attributed to IPA.

- **6,262 MWh savings achieved (43% of forecast) based on 833 projects**
- Earlier in PY9, the program became a member of the Department of Energy's Advanced RTU Campaign.
- The program is using a paper and email based direct-to-customer outreach strategy to build customer interest.
- Northern Illinois experienced heavy and frequent precipitation in the spring of 2017.

- This impacted the program by delaying the start of spring tune-up training and contractor tune-up completion. Some April and May projects will be pushed back to June and July, and some tune-ups will be completed outside of the program.
- The program has struggled to get uptake in advanced control technology from participating contractors. This is due to high cost, requisite skill set, limited electric savings, low incentives, and limited technology availability.

The Weidt Group – New Construction Small Business Offering (Net Energy Optimizer)

Overview: The Weidt Group provides energy saving calculations through a web-based modeling tool for commercial and multi-family buildings ineligible for the SIFYB New Construction Program. The Small Business Offering (SBO) expands on the New Construction market to provide technical analysis to commercial buildings between 5,000 and 20,000 square feet and multifamily buildings between 5,000 and 100,000 square feet through the use of an online energy modeling tool called the Net Energy Optimizer (NEO).

- **608 MWh savings achieved (56% of forecast)**
- In April 2017, the program successfully completed the verification site visit for the Wicker Parks Loft project. This is the second verification site visit for the Small Buildings Offering, which means the offering has met its required verification rate of 10%.
- The path to a more successful program requires a longer timeframe than two years; a longer timeframe would allow the program to mature to a more "steady state" with incoming projects that are early in design and outgoing projects that entered the program 1.5 to 2.5 years earlier.
- There currently are 7 buildings in the PY9 pipeline for potential savings of 440 MWh.

IPA Programs – Third Party

360 Energy Group – SEDAC Enhanced Building Optimization

Overview: The public sector Enhanced Building Optimization Program provides a free comprehensive tune-up including adding high efficiency low pressure drop filters for all rooftop units/split systems that have not had preventative maintenance done for the last three years, as well as continuous monitoring of HVAC units.

- **348 MWh savings achieved (10% of forecast)**
- The program has received applications for approximately 300 projects with one to five measures for every application.
- The program was initially marketed to the Trade Allies with the anticipation that they would work with their clients to generate applications. It was found that marketing directly to the clients was more effective and has generated over 90% of the current applications.

CLEAResult – Community-based CFL Distribution Program

Overview: The Community-based CFL Distribution Program provides ENERGY STAR® CFLs to food banks affiliated with Feeding America. The food banks then use their network of local food pantries to distribute the bulbs to utility customers in need may elect to receive a free 4-bulb pack.

- **12,713 MWh savings achieved (71% of forecast) based on 800,000 bulbs distributed**
- The program successfully executed participation agreements with 3 food banks, which have collectively signed up 616 participating food pantries.
- The program is trending positively with respect to the PY9 savings goal.
- The local food banks were visited to establish a rapport with program directors and explain the overall goal of the program. Food banks are excited that the program will continue through December 2017, as participants have expressed their appreciation for this program.

- CLEAResult has submitted a proposal to request that the program be continued with LEDs as opposed to CFLs due to limited availability of CFLs moving forward.

CLEAResult – Luminaire Level Lighting Control (LLLC) Program

Overview: The Luminaire Level Lighting Control Program provides Comprehensive lighting assessments and installation assistance targeting advanced LED lighting technologies including highbay, lowbay, troffers, and downlight fixtures and controls, delivered through a network of lighting Trade Allies.

- **1,784 MWh savings achieved (74% of forecast) based on 35 projects**
- There are currently 16 projects in the PY9 pipeline for potential savings of over 1,100 MWh.
- The program added several new eligible building types in Q4. The program anticipates this change will help to expand the pipeline and increase contractor participation.
- The program expanded its TA network and initiated changes to the program that will allow savings to be captured more accurately.

Elevate Energy – Assisted Living and Senior Housing Program

Overview: Elevate Energy will provide a full-service energy efficiency program focused on identifying and implementing electric measures that support peak load reductions in senior housing and assisted living facilities.

- **324 MWh savings achieved (50% of forecast) based on 12 projects**
- The program has completed 29 assessments and has 29 buildings enrolled. Twelve of those have completed projects.
- The program is close to maxing out savings in the lighting retrofit category.

IPA Programs – Third Party

Energy Resources Center – Low Income Kit Energy (LIKE) Program

Overview: The Low Income Kit Energy program partners with Community Actions Agencies to provide income-qualified customers throughout the ComEd service territory with a kit containing energy-saving devices and educational information on additional energy-saving actions they can take to reduce their energy bills.

- **3,997 MWh savings achieved (69% of forecast) based on 16,300 kits**
- The program is on track to meet the PY9 savings goal and still has 335 kits to deliver for estimated savings of 81 MWh.
- This program is receiving positive feedback on the ease of receiving a kit, as customers can pick them up when applying for utility assistance programs.

Energy Resources Center – Low Income Multi-family Energy Program

Overview: The Low Income Multi-Family Program provides comprehensive energy assessments and project management assistance for upgrades in privately-owned, federally-assisted public housing administered under HUD Section 8 (low-income), 811 (disabled), and 202 (elderly) and USDA Section 515 (rural single-family low-income). The program is delivered in partnership with the Building Research Council at the University of Illinois Urbana-Champaign. ERC engineers perform building energy audits and work with building owners to facilitate the selection of contractors performing building retrofits.

- **0 MWh savings achieved (0% of forecast)**
- The program was an extension of an existing DCEO program, and it did not switch over to IPA TPEP funding before ending May 31st.

Franklin Energy Services – Rural Small Business Energy Efficiency Kits Program

Overview: The Rural Small Business Energy Efficiency Kits Program aims to cost effectively capture electric energy savings in small business facilities located in ComEd's rural counties. The program achieves savings through a mail-order kit of self-install energy efficiency measures including low cost lighting, power strip, and water efficiency measures delivered directly to customer facilities. The program is delivered in partnership with Resource Action Program, a Franklin subsidiary.

- **1,207 MWh savings achieved (94% of forecast) based on approximately 3,450 kits**
- The program will be extended to December 2017.
- The retail kit continues to be a challenge due to the unique MR-16 bulb in each kit. Customers either don't have MR-16's, or they don't know if they have MR-16's.
- Participants have provided positive feedback.
 - "Love the power strip!"
 - "We installed everything and are loving every second of it!"

GDS Associates – Agricultural Energy Efficiency Program (CoAg)

Overview: The Agricultural Energy Efficiency Program provides comprehensive energy assessments and installation assistance targeting measures for agricultural businesses. The program is delivered through local Trade Allies.

- **513 MWh savings achieved (363% of forecast) based on 404 measures**
- The success of this program is directly correlated with the success of the agricultural market. Low commodity pricing in the dairy and grain industry is causing producers to wait to implement energy efficiency measures.
- Equipment dealers and producers are very excited that there is a program just for

IPA Programs – Third Party

GDS Associates – Agricultural Energy Efficiency Program (CoAg) (continued)

agricultural customers as they feel there has not been one in the past, and they are spreading the word to friends and neighbors.

GDS Associates – Lit Signage

Overview: The Lit Signage Program provides lighting assessments and installation assistance targeting lit signage, including outdoor signs and billboards. The program is delivered through network of local Trade Allies.

- **2,412 MWh savings achieved (57% of forecast) based on 16,662 measures**
- Incentives were increased, which generated substantial interest in the program. The increase was funded solely by GDS. Controls were also added so incentives would be comparable with the SBES program. These changes have had a positive impact on program participation.
- An iPad version of the SnapShot tool was launched and received high reviews.
- The program is establishing a network of TAs that is broad reaching and continuing to expand this network. Six new TAs were added in Q4. There are currently 63 TAs in network with 24 of them actively doing assessments and completing projects.
- There are currently 81 projects in the PY9 pipeline for potential savings of over 4,400 MWh.

Commerce and Economic Development STEP program. The IPA Third Party version of the program was approved as an additional source of funding in the event that the Department of Commerce budget is depleted by MEEA prior to end of program year.

- **0 MWh savings achieved (0% of forecast)**
- The program was an extension of an existing DCEO program, and it did not switch over to IPA TPEP funding before ending May 31st.

Midwest Energy Efficiency Alliance (MEEA) – Savings Through Efficient Products (STEP)

Overview: Delivered in partnership with the Energy Resources Center at the University of Illinois Chicago and Green Home Experts, the STEP program provides walk through assessments to identify low cost measures which are shipped to facilities for self-installation. This program is an extension of MEEA's existing Department of



Marketing Education & Awareness

PY9 Q4 General Outreach

- Participated in **161** energy efficiency events
- Interacted with approximately **12,537** customers
- Collected approximately **1,273** emails
- Drove **11,998** unique page visits to ComEd.com/HomeSavings

PY9 Appliance Rebates – Celebrate with Rebates

Overview: The campaign was to promote awareness of rebates on select ENERGY STAR® appliances with a call to action of ComEd.com/Rebates.

- 2nd Wave In-market March 28th – April 23rd
- Included Cable TV, Out of Home and Digital
- Has generated 16,917,274 impressions so far

PY9 Lighting Discounts – Light This Way

Overview: The campaign was to promote awareness of instant in-store lighting discounts available at a retailer near you with a call to action to learn more at ComEd.com/LightingDiscounts.

- Ran from January 1st – March 26th
- Included Out of Home, Radio and Digital
- Generated 64,162,154 impressions

PY9 Fridge & Freezer Recycling – Overstayed Welcome

Overview: The campaign was to drive participation in fridge & freezer recycling, which had a PY9 goal of 45,000 pickups, with a call to action of ComEd.com/FridgeRecycling.

- Ran from January 23rd – April 23rd
- Included Bill Inserts, Digital and Radio
- Generated 29,494,000 impressions

PY9 Spring E&A – Energy Routine

Overview: The campaign was to increase awareness of the ComEd Energy Efficiency Program with a call

PY9 Spring E&A – Energy Routine (continued)

to action to learn more at
ComEd.com/Marketplace.

- Ran from March 13th – May 29th
- Included TV, Out of Home, Radio and Digital
- Generated 95,890,999 impressions

PY9 Small Business Campaign – Focus on Business

Overview: The campaign is to promote awareness of the ComEd Energy Efficiency Program for Small Business owners with a call to action of ComEd.com/Business.

- Running from January – November 2017
- Includes Bill Inserts, Digital and Radio
- Has generated 79,276,533 impressions so far



Emerging Technology Activities

Mission: Introduce, assess and accelerate demonstration and commercialization into the ComEd service territory emerging cost-effective energy efficient technologies and services that have been verified to offer sustainable kWh and kW savings

Smart Meter Connected Devices Service (SMCD)

Overview: Customers are able to purchase smart devices directly from manufacturers and have their smart device connected or joined to their smart meter to receive near real-time energy data. Primary customer benefits include increased cost awareness of electric energy consumption, potentially reduced electric energy use due to behavioral changes, and the flexibility to choose a desired smart meter connected device.

- Service Launch: December 2014
- Target Customer: ComEd residential customers with smart meters
- 545 customers have been successfully commissioned into the SMCD service.

Bidgely

Overview: Residential Smart Meter data disaggregation tool to assist residential customers in understanding where their energy use is occurring and how they can take control of it.

- Type of Test: In field testing to 5,000 homes using Bidgely Gateway or SilverLink network
- Completion Date: 2016

Root3

Overview: Root3 is a cloud based energy data model that works with existing energy management systems and evaluates variables such as thermal and electric loads, energy prices, equipment efficiencies, and energy storage capacity for understanding site performance and making recommendations that will optimize performance. ComEd along with the Root3 Technologies vendor will engage the ComEd Industrial Outreach Team to enlist four industrial

Emerging Technology Activities

Root3 (continued)

central plant customers for participation in this one year pilot and will then will then evaluate the technology's ability to deliver energy savings for the portfolio and determine the appropriate channel.

- **101 MWh savings achieved based on 1 site**
- Completion Date: Q4 2016
- Root3 software was successfully installed in two locations.

Variable Refrigerant Flow (VRF)

Overview: Evaluation of HVAC technology that uses refrigerant as both the heating and cooling medium

- Type of Test: Demonstration of technology was the original intention, but focus has changed to a market evaluation and technical review.

Portfolio Results

EEPS Energy Saved (MWh)

Program Year	Evaluation Status	Net MWh Achieved	Net MWh Goal	% of Goal Achieved
PY1	Ex Post	163,717	148,842	110%
PY2	Ex Post	472,132	312,339	151%
PY3	Ex Post	626,715	458,919	137%
PY4	Ex Post	944,142	610,804	155%
PY5	Ex Post	949,392	827,575	115%
PY6	Ex Post	986,314	787,432	125%
PY7	Ex Post	809,878	648,029	125%
PY8	Ex Post	671,027	541,983	124%
PY9+	Ex Ante	464,078	787,629	59%

IPA – ComEd Energy Saved (MWh)

Program Year	Evaluation Status	Net MWh Achieved	Net MWh Goal	% of Goal Achieved
PY6	Ex Post	127,938	98,188	130%
PY7	Ex Post	310,647	371,825	84%
PY8	Ex Post	668,860	623,523	107%
PY9+	Ex Ante	698,897	1,176,382	59%

IPA – Third Party Energy Saved (MWh)

Program Year	Evaluation Status	Net MWh Achieved	Net MWh Goal	% of Goal Achieved
PY6	Ex Post	4,397	11,229	39%
PY7	Ex Post	2,132	16,041	13%
PY8	Ex Post	13,114	48,056	27%
PY9+	Ex Ante	34,515	143,801	24%

DCEO Energy Saved (MWh)

DCEO	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9+
ComEd Goal	39,887	81,352	125,158	109,198	114,634	115,258	97,625	98,810	162,915
Net MWh	17,714	34,075	54,130	106,475	99,583	80,782	85,124	N/A	N/A

ComEd Environmental and Economic Impact

Performance Metrics (Equivalents)	PY9 Q4 YTD	PY8	PY7	PY6	PY5	PY4	PY3	PY2	PY1
Net MWh	1,197,490	1,353,001	1,122,657	1,118,649	949,392	944,142	626,715	472,132	163,717
Carbon reduction (tons)	755,499	853,612	708,287	705,758	598,974	595,661	395,396	297,869	103,289
Cars removed from the road	159,726	180,469	149,744	149,210	126,634	125,933	83,594	62,975	21,837
Acres of trees planted	712,734	805,293	668,194	665,809	565,069	561,944	373,015	281,008	97,443
Number of homes powered for 1 year*	133,351	150,668	125,017	124,571	105,723	105,138	69,790	52,576	18,231
Portfolio jobs**	342	267	260	234	196	179	154	84	66

* Assumes average ComEd single-family residential home with no electric space heat consumes 750 kWh monthly or 8,980 kWh annually per the filing.

** Portfolio Jobs reflect actual positions by ComEd and its contractors that are part of the Rider EDA and does not attempt to capture indirect jobs in the energy efficiency industry that may result from the ComEd portfolio.

Budget v. Actual

Expenditures

Expenditures	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9
EEPS*	\$ 27,356,150	\$ 52,071,861	\$ 75,691,133	\$ 106,673,405	\$ 107,354,964	\$ 124,096,016	\$ 128,249,370	\$ 108,811,809	\$ 112,346,972
IPA	\$ -	\$ -	\$ -	\$ -	\$ 31,329	\$ 29,469,183	\$ 39,150,327	\$ 86,823,029	\$ 94,610,340
DCEO	\$ 6,949,809	\$ 11,471,616	\$ 28,659,011	\$ 35,049,987	\$ 33,565,649	\$ 31,563,417	\$ 33,728,435	\$ 22,464,619	\$ 42,506,951
Total	\$ 34,305,960	\$ 63,543,477	\$ 104,350,144	\$ 141,723,392	\$ 140,951,943	\$ 185,128,616	\$ 201,128,132	\$ 218,099,457	\$ 249,464,263

EEPS*	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9
Plan Budget	\$ 29,900,000	\$ 61,778,000	\$ 95,911,000	\$ 120,943,446	\$ 121,570,242	\$ 122,075,407	\$ 117,750,001	\$ 119,175,004	\$ 119,699,999
Spending Screen	\$ 29,900,000	\$ 60,056,000	\$ 91,811,022	\$ 120,312,967	\$ 119,271,119	\$ 116,765,205	\$ 117,900,001	\$ 119,151,480	\$ 119,739,377
PY9+ Budget									\$ 182,075,954
Actual YTD	\$ 27,356,150	\$ 52,071,861	\$ 75,691,133	\$ 106,673,405	\$ 107,354,964	\$ 124,096,016	\$ 128,249,370	\$ 108,811,809	\$ 112,346,972

IPA ComEd	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9
Plan Budget						\$ 29,100,998	\$ 41,388,847	\$ 95,003,275	\$ 105,078,389
Spending Screen						\$ 29,100,998	\$ 41,388,847	\$ 95,003,275	\$ 105,078,389
PY9+ Budget									\$ 161,586,137
Actual YTD						\$ 28,071,420	\$ 38,070,511	\$ 82,440,854	\$ 85,729,533

IPA Third Party	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9
Plan Budget					\$ -	\$ 2,311,495	\$ 3,433,444	\$ 10,625,929	\$ 31,692,790
Spending Screen					\$ -	\$ 2,311,495	\$ 3,433,444	\$ 9,549,229	\$ 29,784,570
PY9+ Budget									\$ 34,509,535
Actual YTD					\$ 31,329	\$ 1,397,763	\$ 1,079,816	\$ 4,382,175	\$ 8,880,807

DCEO	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9
Plan Budget	\$ 9,500,000	\$ 19,783,000	\$ 30,724,000	\$ 40,039,149	\$ 40,523,414	\$ 40,691,802	\$ 39,250,000	\$ 39,675,000	\$ 39,850,000
Spending Screen	\$ 9,500,000	\$ 19,200,000	\$ 29,270,150	\$ 39,522,619	\$ 39,703,706	\$ 38,871,735	\$ 39,250,000	\$ 39,675,000	\$ 39,850,000
PY9+ Budget									\$ 60,742,730
Actual YTD	\$ 6,949,809	\$ 11,471,616	\$ 28,659,011	\$ 35,049,987	\$ 33,565,649	\$ 31,563,417	\$ 33,728,435	\$ 22,464,619	\$ 42,506,951

*EEPS Expenditures

EEPS Expenditures	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9 Q4 YTD
C&I Programs	\$ 12,093,550	\$ 23,957,908	\$ 35,764,723	\$ 54,033,210	\$ 55,573,971	\$ 74,531,783	\$ 78,936,840	\$ 67,153,692	\$ 60,810,603
Residential Programs	\$ 8,808,641	\$ 19,881,908	\$ 27,853,019	\$ 36,334,199	\$ 34,792,236	\$ 34,302,783	\$ 33,139,184	\$ 26,083,922	\$ 34,105,633
Third Party Programs	\$ -	\$ -	\$ -	\$ 1,039,262	\$ -	\$ 372,642	\$ -	\$ -	\$ -
Demand Response	\$ 476,028	\$ 819,145	\$ 1,083,329	\$ 1,310,922	\$ 1,253,218	\$ 1,197,008	\$ 1,120,771	\$ 1,071,037	\$ 1,023,849
Education/Marketing	\$ 1,685,307	\$ 1,649,418	\$ 2,957,998	\$ 4,498,945	\$ 4,409,895	\$ 4,133,504	\$ 4,447,934	\$ 4,385,309	\$ 4,435,500
R&D/Emerging Tech	\$ 628,267	\$ 1,026,174	\$ 1,387,102	\$ 974,156	\$ 1,142,049	\$ 1,849,544	\$ 1,613,561	\$ 1,428,572	\$ 1,422,032
Portfolio Admin	\$ 2,464,359	\$ 2,359,629	\$ 2,959,915	\$ 2,002,949	\$ 3,478,203	\$ 1,576,545	\$ 976,472	\$ 1,239,040	\$ 1,721,692
Labor	\$ -	\$ -	\$ -	\$ 2,749,232	\$ 3,214,657	\$ 1,927,888	\$ 4,682,625	\$ 3,299,894	\$ 4,628,073
M&V	\$ 1,200,000	\$ 2,377,679	\$ 3,621,029	\$ 3,557,036	\$ 3,262,259	\$ 4,071,757	\$ 3,221,247	\$ 4,051,362	\$ 4,107,248
On-Bill Financing	\$ -	\$ -	\$ 64,018	\$ 173,494	\$ 228,477	\$ 132,562	\$ 110,736	\$ 98,979	\$ 92,341
Total	\$ 27,356,150	\$ 52,071,861	\$ 75,691,133	\$ 106,673,405	\$ 107,354,964	\$ 124,096,016	\$ 128,249,370	\$ 108,811,809	\$ 112,346,972

Total Resource Cost (TRC)

New Measure TRC

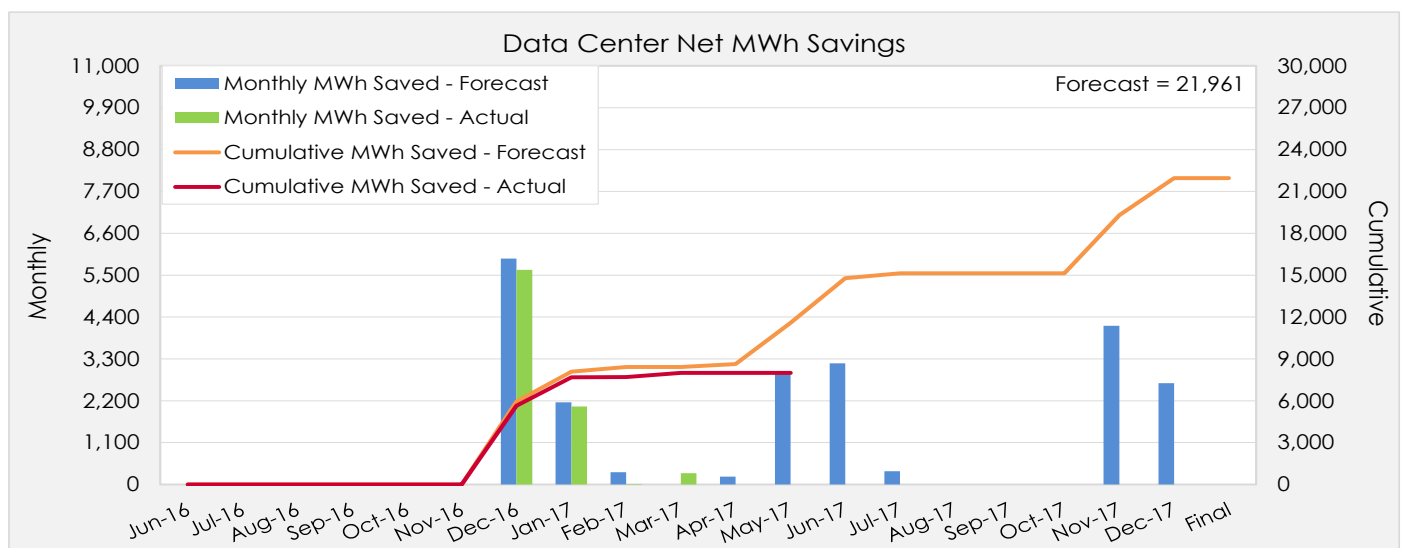
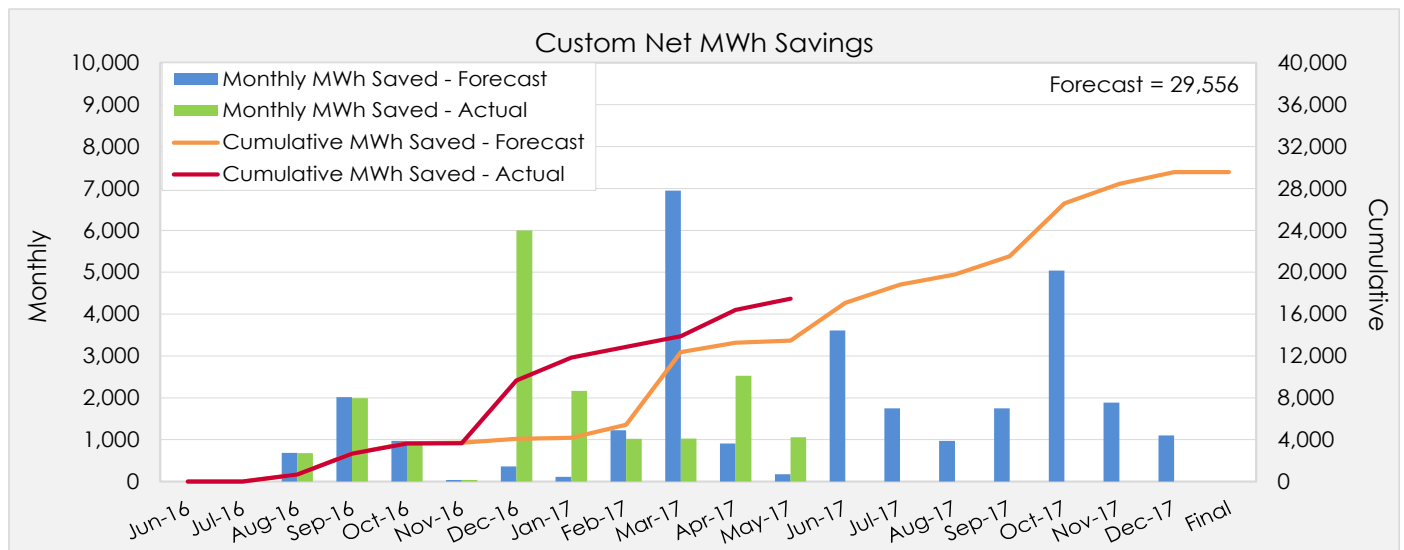
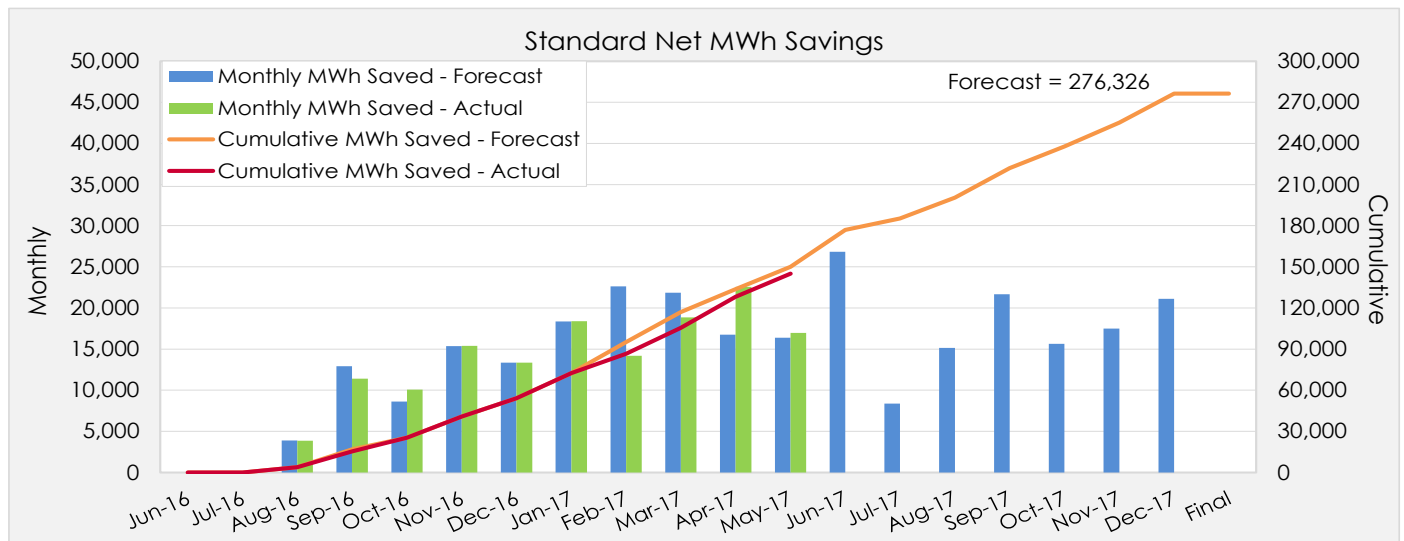
Measure	TRC
C&I	
Heat of Compression Desiccant Air Dryers	0.83
Heated Desiccant Dryer w-VSD Compressor	3.23
Heated Desiccant Dryer w-Load-No-load Compressor	1.22
Heated Desiccant Dryer w-Variable Displacement Compressor	1.87
Blower Purge Desiccant Dryer w-VSD Compressor	3.36
Blower Purge Desiccant Dryer w-Load-No-load Compressor	1.72
Blower Purge Desiccant Dryer w-Variable Displacement Dryer	2.24
Variable Displacement Screw Air Compressors	1.63
Compressed Air Pressure Flow Controllers	3.04
Conversion of DC Drives in Plastic Extruders to AC Drives	5.19
Fiber Laser Cutting Machines	7.52
All Electric Injection Molding Machine	4.59
Hybrid Injection Molding Machine	9.66
Automatic High-Speed Doors for Freezer-Cooler	6.82
Automatic High-Speed Doors for Freezer-Dock	13.85
Automatic High-Speed Doors for Cooler-Dock	1.47
Storage Water Heater	0.67
ENERGY STAR® Dishwasher - Under Counter	3.75
ENERGY STAR® Dishwasher - Single Tank	Infinity
ENERGY STAR® Dishwasher - Multi Tank	13.68
Small Business-Smart Thermostat - Continuous Fan Mode During Occupied Period-Commercial	1.07
Small Business-Smart Thermostat - Intermittent Fan Mode During Occupied Period-Commercial	0.08
Residential	
ENERGY STAR® Bathroom Exhaust Fan	1.61
ECM Furnace Motor*	7.35
ENERGY STAR® Pool Pumps - Variable**	4.71
ENERGY STAR® Room Window AC***	0.44
Advanced Power Strip - Tier 2	2.05
ENERGY STAR® Water Coolers	3.16

* This measure was added in PY8.

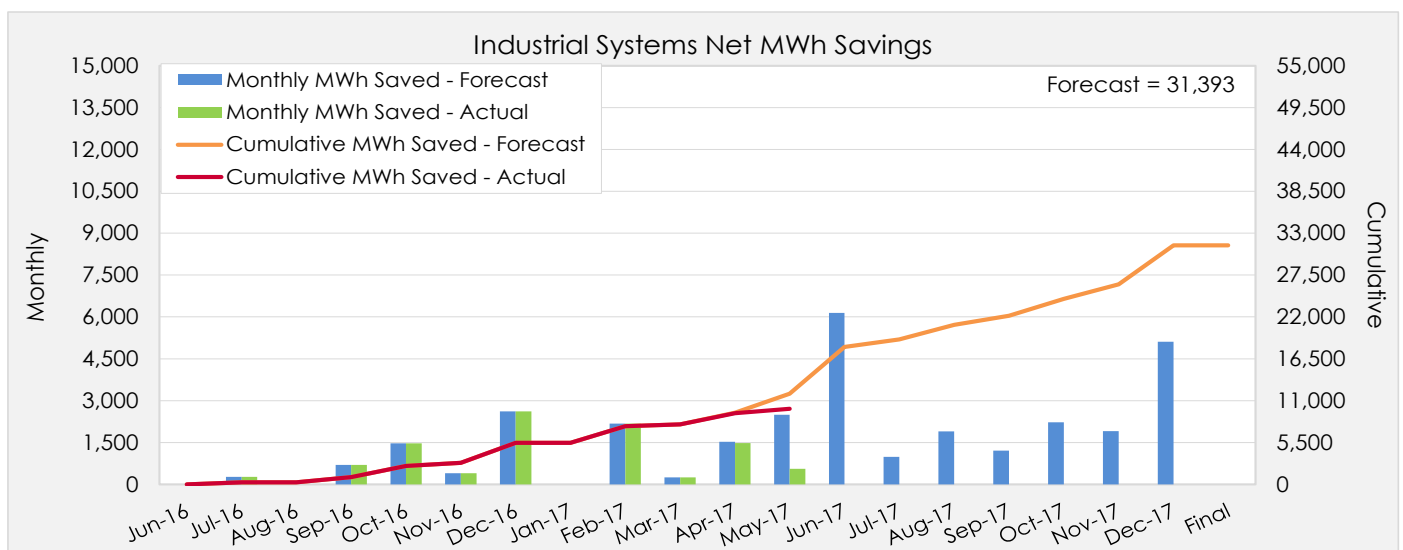
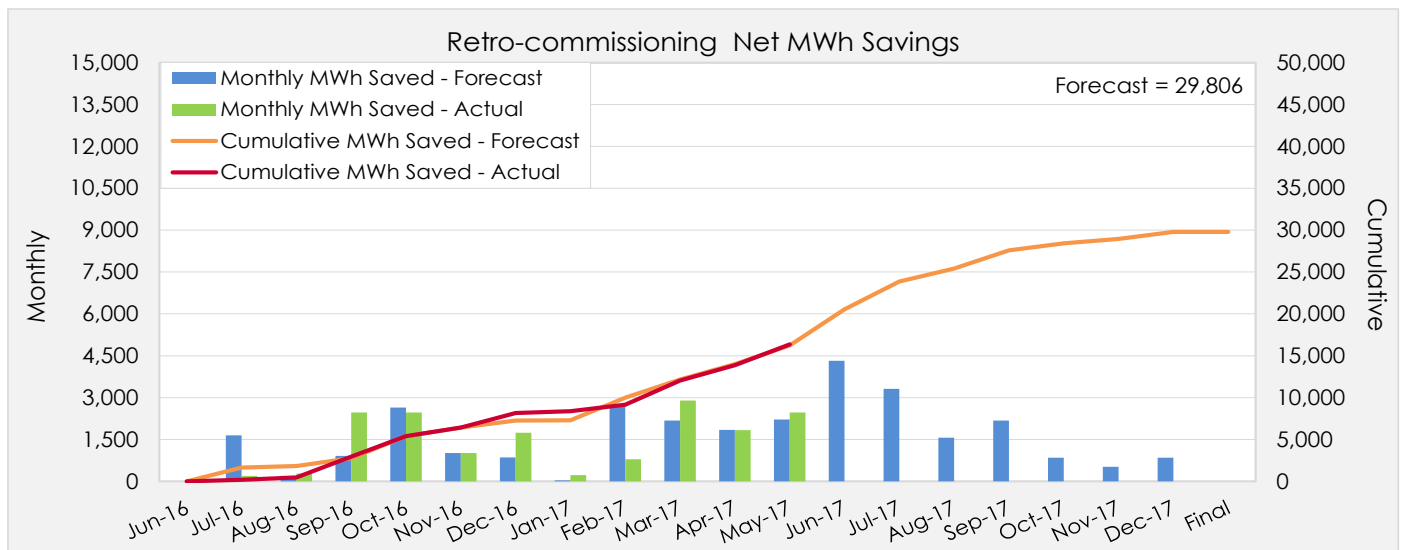
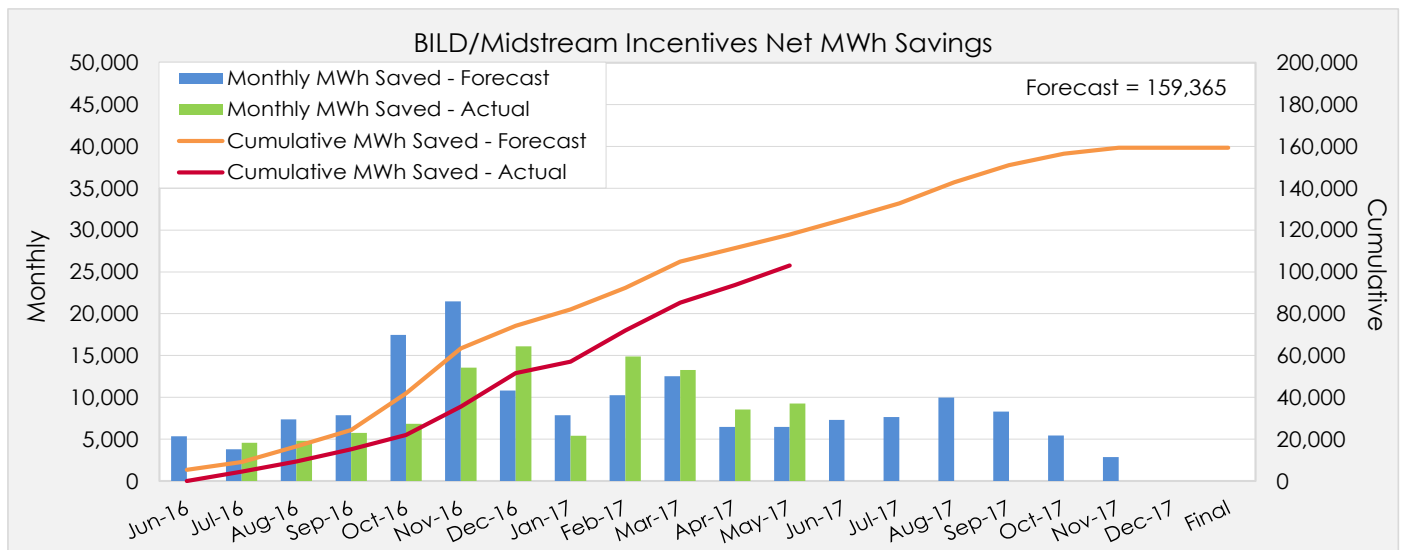
** This is a PY9 addition that was implemented at the end of PY8 for seasonal reasons.

*** Even though this measure has a TRC of less than 1, It was added to portfolio at the request of SAG so parties otherwise unable to participate in a program can participate (i.e., low income participants).

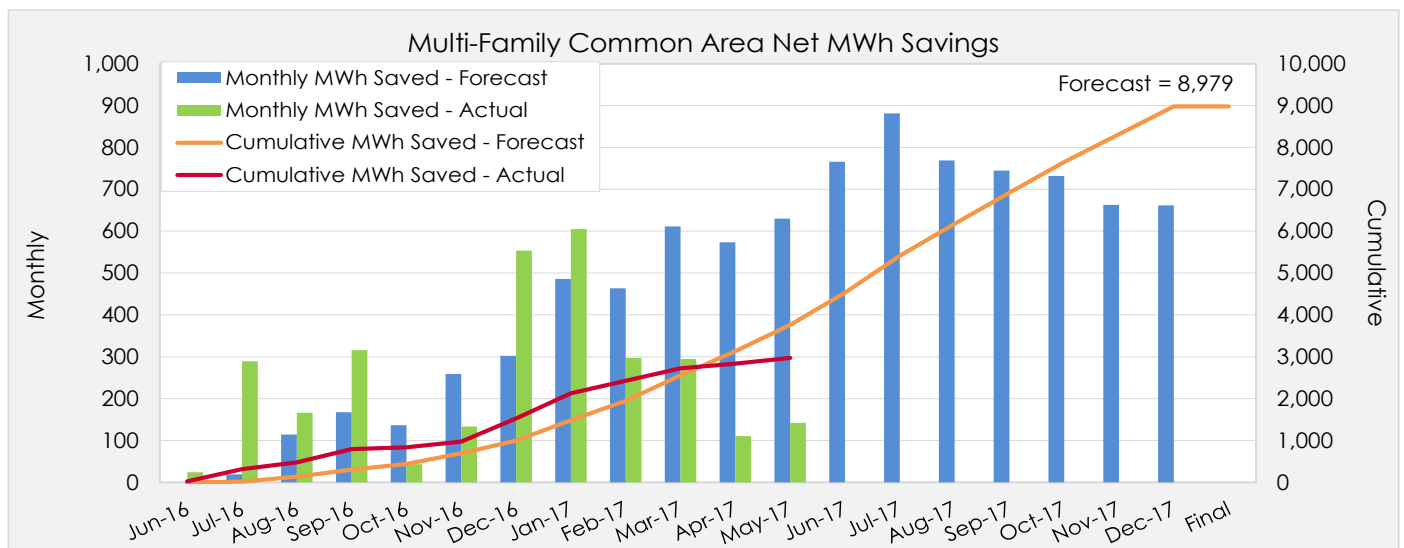
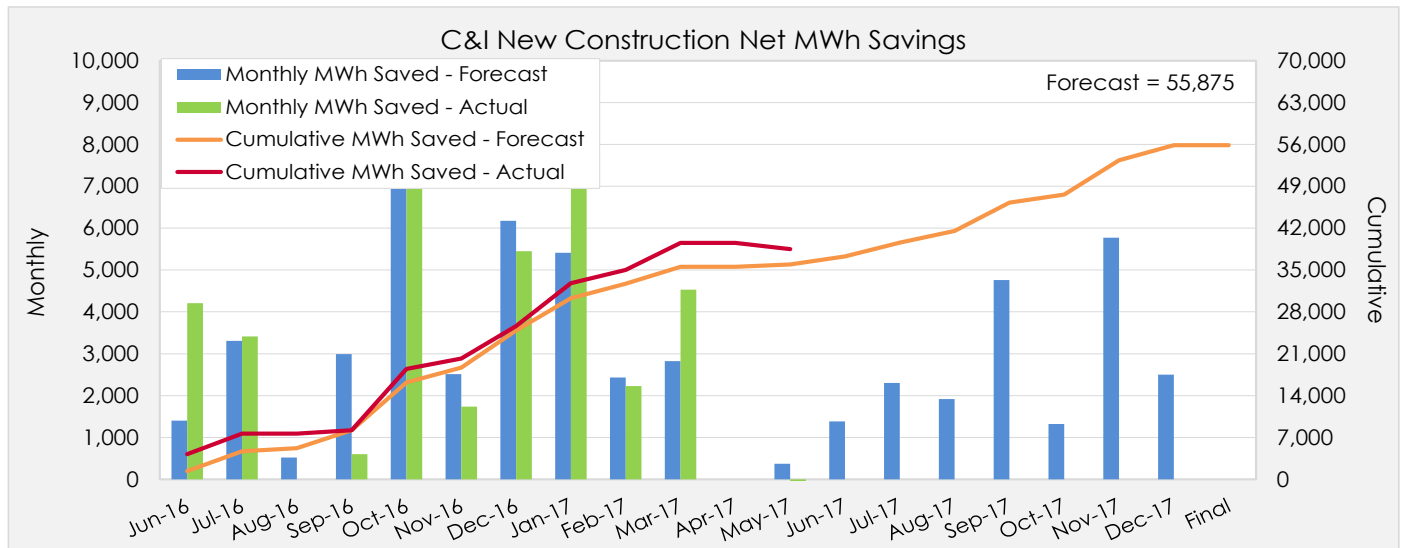
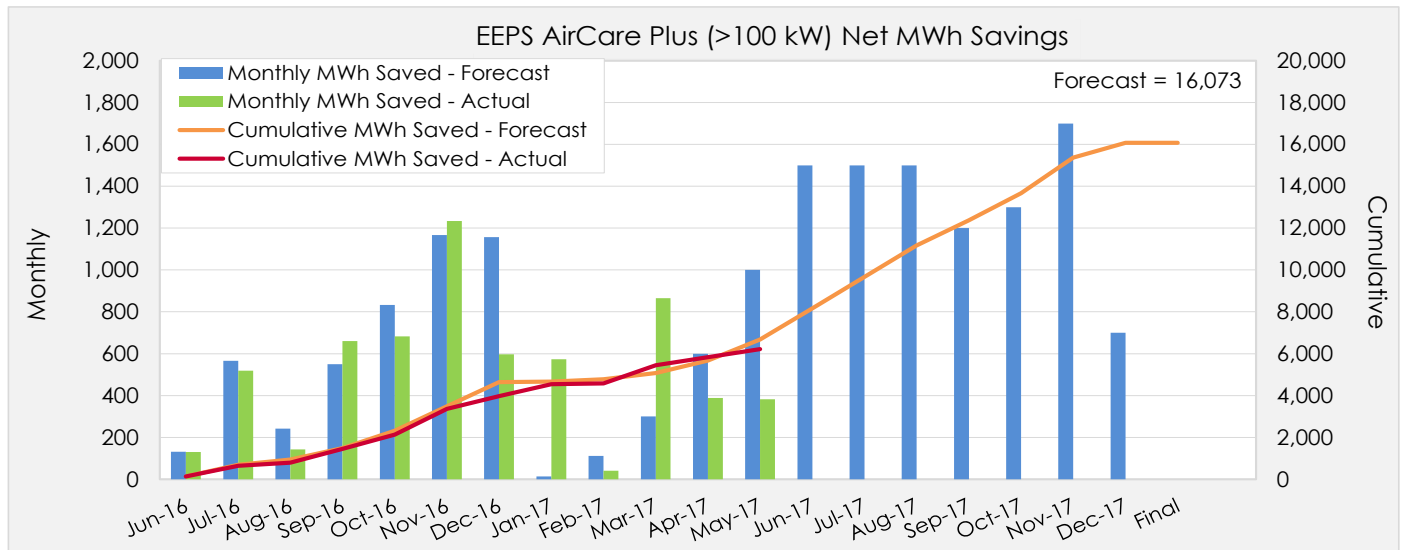
EEPS Programs – Business – Monthly



EEPS Programs – Business – Monthly

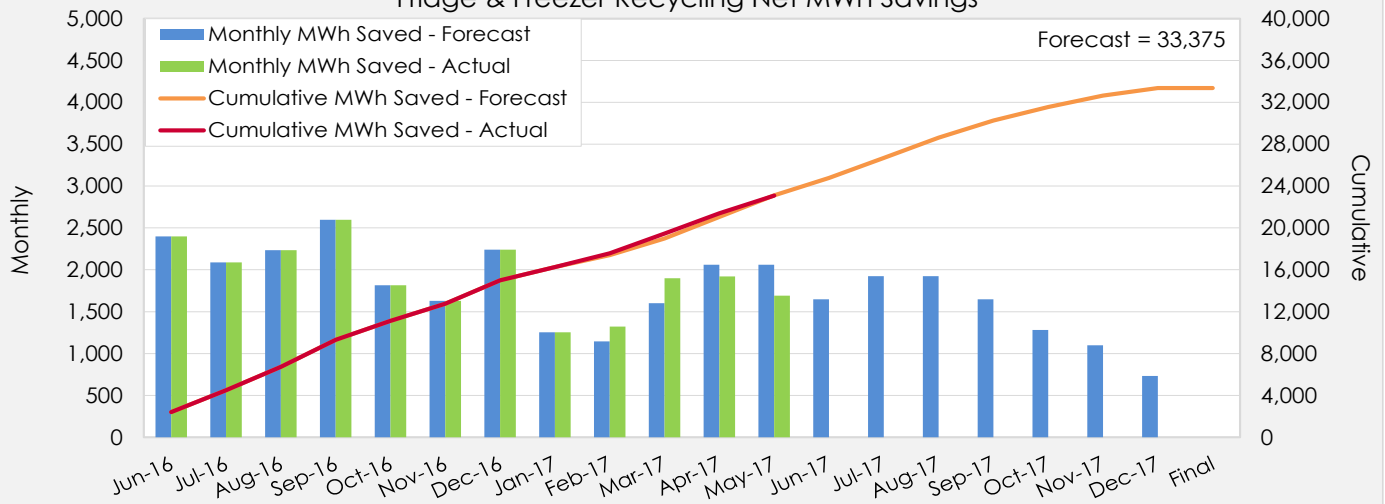


EEPS Programs – Business – Monthly

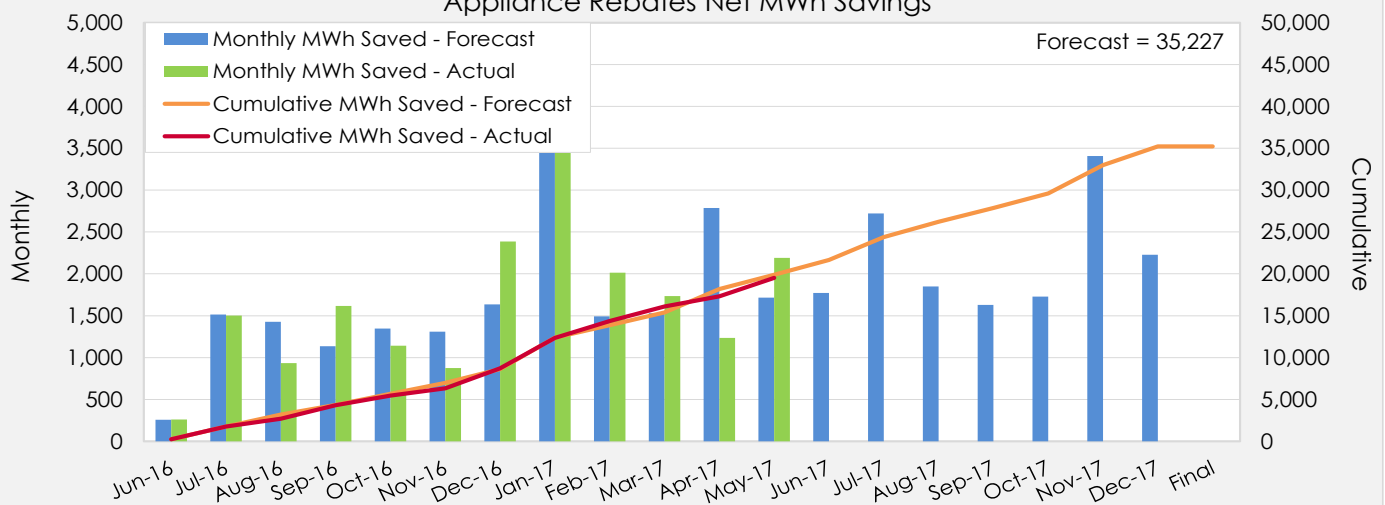


EEPS Programs – Residential – Monthly

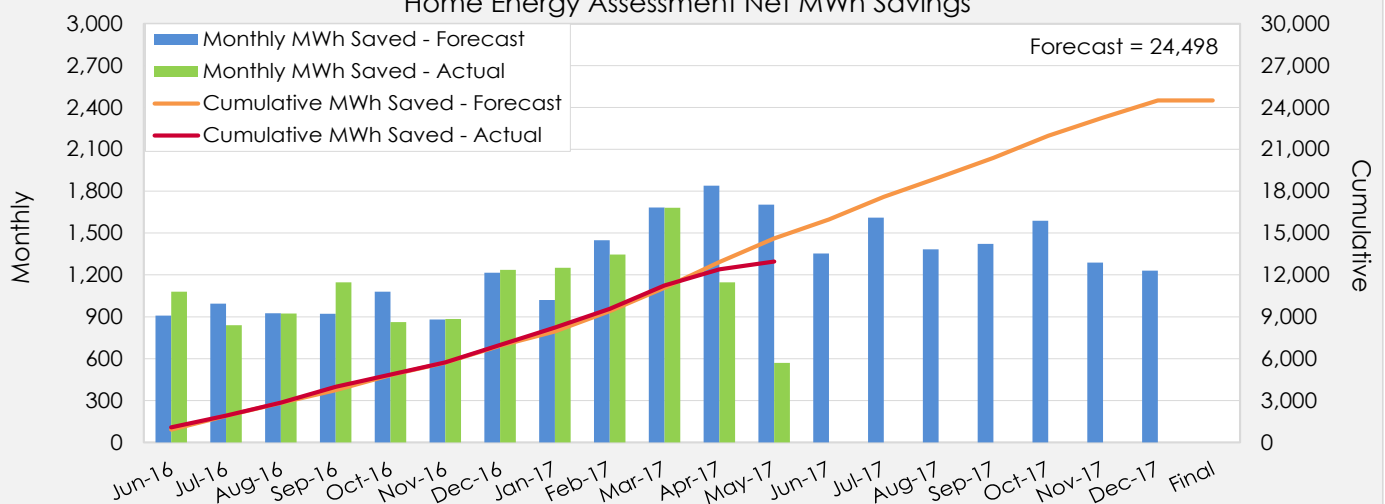
Fridge & Freezer Recycling Net MWh Savings



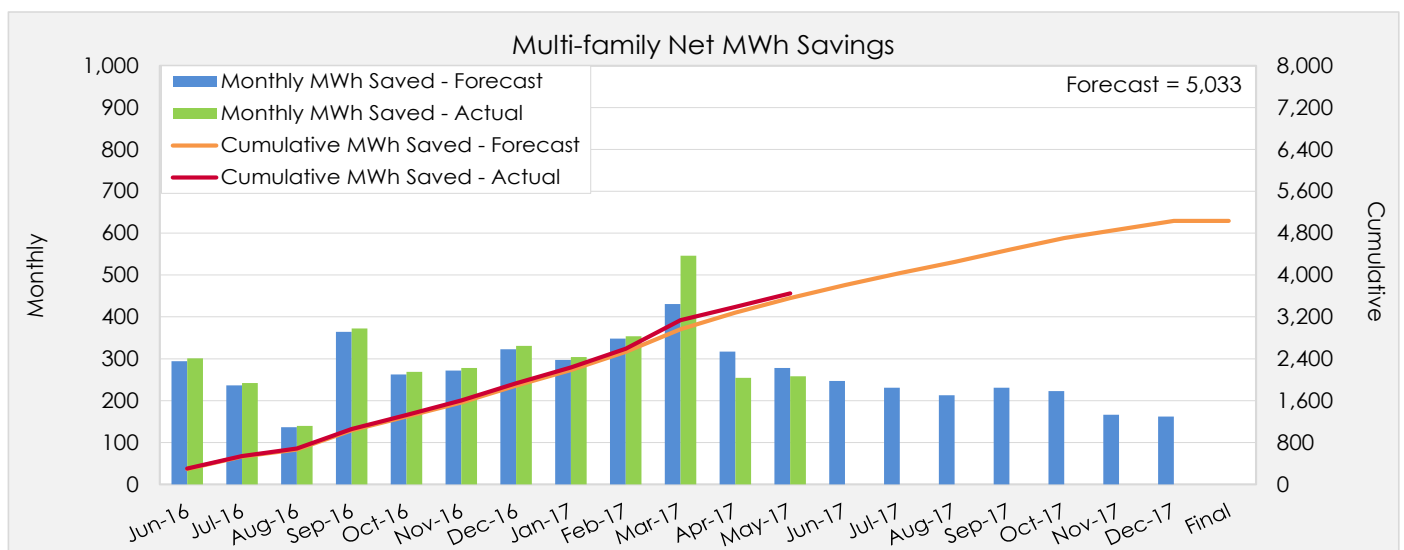
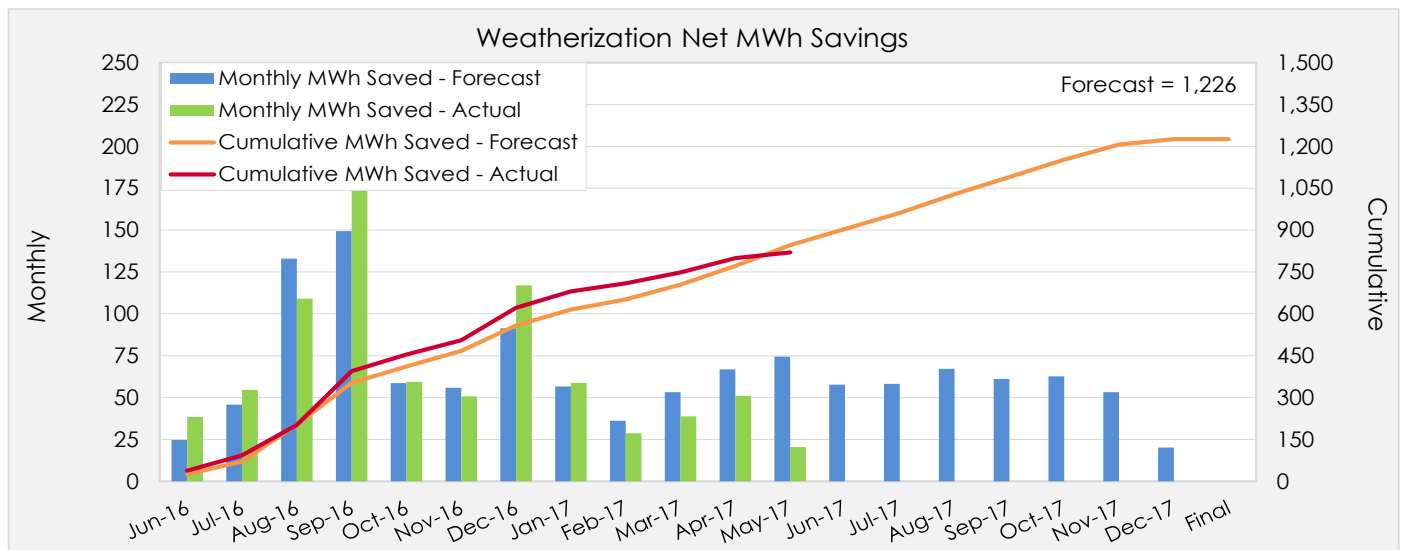
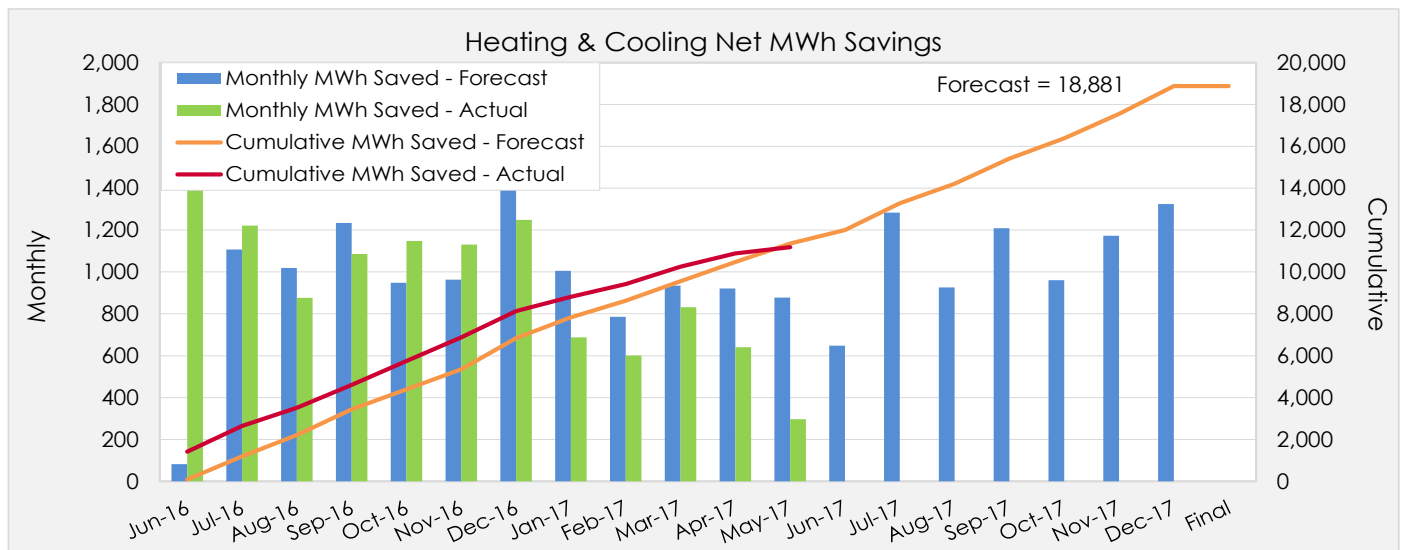
Appliance Rebates Net MWh Savings



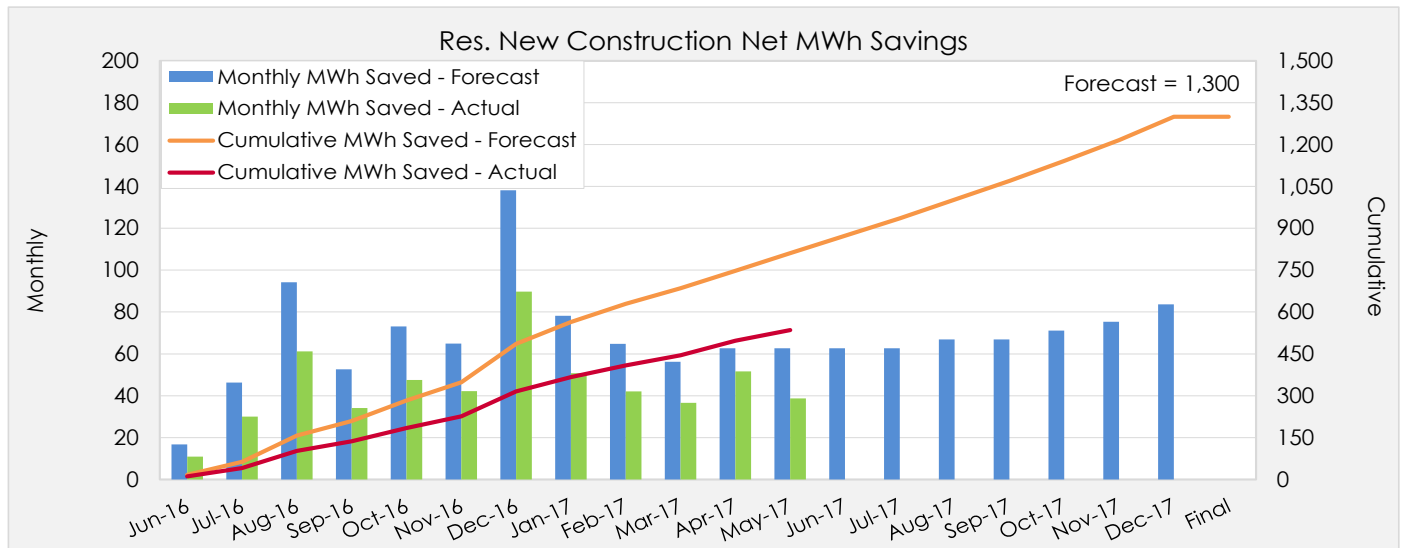
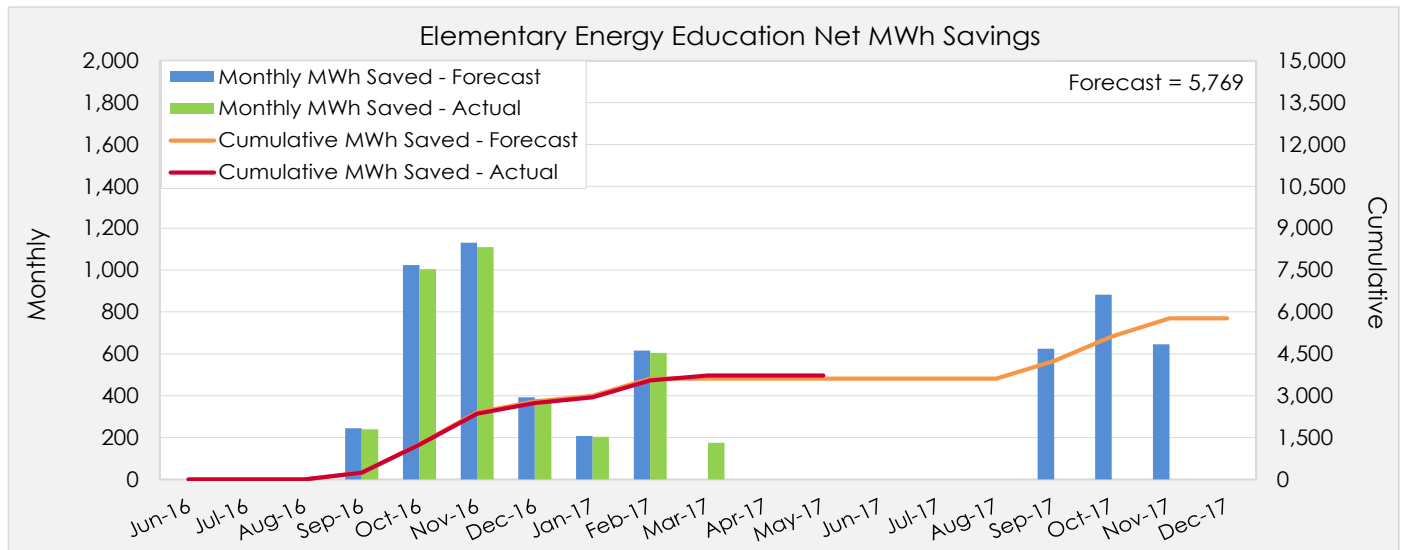
Home Energy Assessment Net MWh Savings



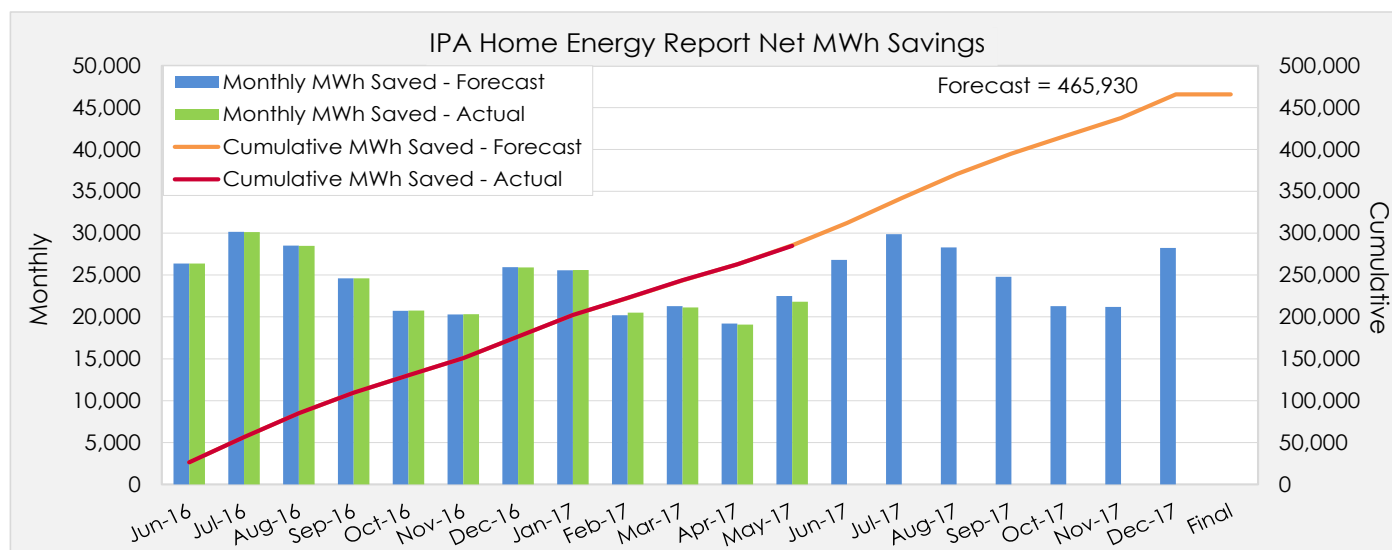
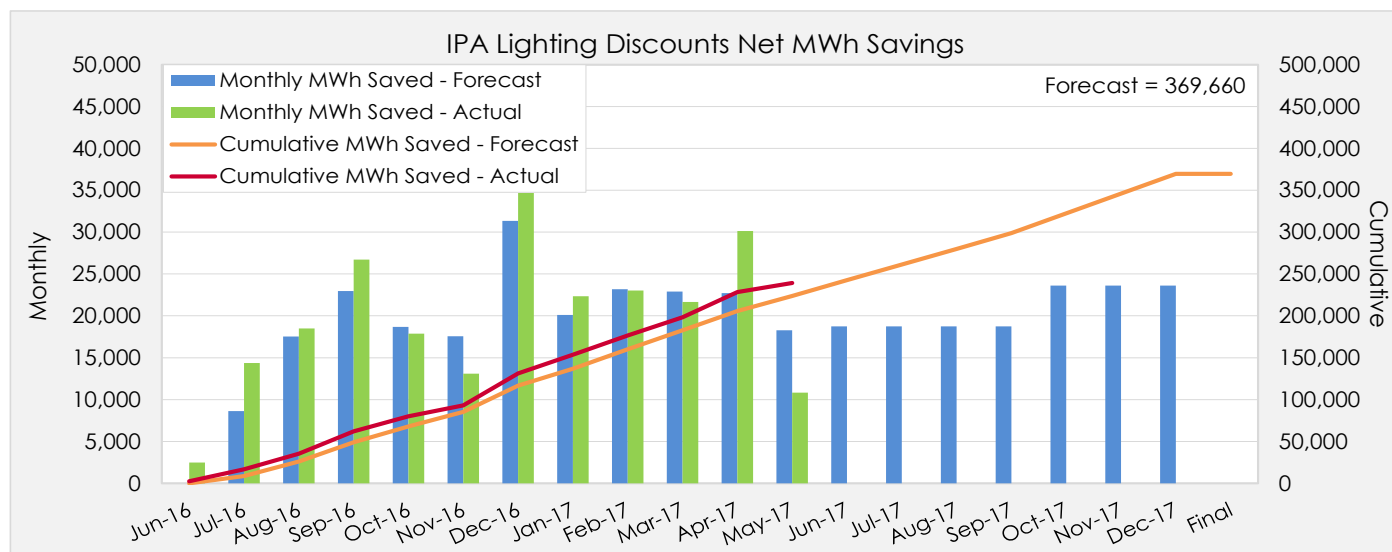
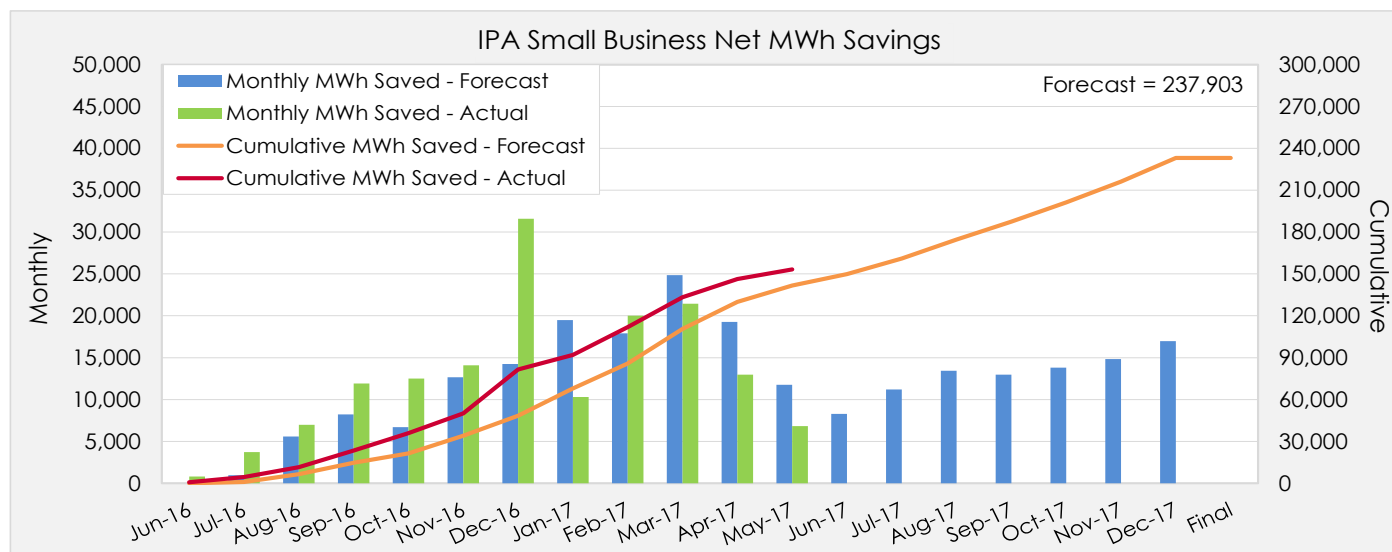
EEPS Programs – Residential – Monthly



EEPS – Residential – Monthly



IPA Programs – ComEd – Monthly



IPA Programs – ComEd – Monthly

