



An Exelon Company



Sept. EE SAG Meeting

ComEd's Plan Year 8 Fourth Quarter Report & Plan Year 9 Forecast

September 27, 2016

The data presented in this document is based on preliminary results and is subject to revision and evaluation adjustments.



Smart Ideas is funded by ComEd customers in compliance with Illinois Public Act 95-0481.

PY8 Program Highlights

EEPS and ComEd-managed IPA programs are expected to exceed PY8 goals by ~12% and ~2%, respectively

Smart Ideas for Your Business

- BILD/Midstream offerings sold approximately 1.6 million discounted ENERGY STAR® certified lamps consisting of more than 1.1 million LEDs and nearly 500,000 reduced wattage linear fluorescent lamps
- Standard/Custom Program experienced high demand and had ~\$8M in project applications on waitlist in the 4th quarter; the majority of these projects were completed with excess funding from other programs

Smart Ideas for Your Home

- Appliance Rebates launched in PY8; over 35,000 customers received ENERGY STAR® appliance rebates
- Fridge & Freezer Recycling was temporarily shut down beginning 11/12/15 due to the vendor (JACO Environmental) going out of business; the program re-launched in April 4th with Reclaim as the new vendor
- Smart thermostats launched in Heating & Cooling Rebates and Home Energy Assessment
- Expanded Heating & Cooling Rebates offerings to include a variety of heat pump technologies

IPA Programs

- Small Business Energy Saving program introduced comprehensive offerings and Smart Thermostats
- IPA program savings increased significantly in PY8 as Residential Lighting Discounts program moved into IPA

EEPS Programs – PY8 Q4 Ex Ante Results

EEPS Program	Net MWh Actual	Net MWh Goal	Net MWh Forecast	Percent of Goal	Percent of Forecast	Program Costs YTD (\$1,000)	Rate Filing Screen (\$1,000)	Percent of Annual Spend	First Year Cost/kWh
Incentives Total (includes large C&I pilot)	196,112	196,742	192,374	100%	102%	\$ 37,173	\$ 36,165	103%	\$ 0.19
Standard	162,883		153,123		106%				
Custom	22,393		18,841		119%				
Data Center	10,836		20,409		53%				
BILD/Midstream Incentives	199,152	116,269	164,327	171%	121%	\$ 11,268	\$ 6,976	162%	\$ 0.06
Optimization Total	51,694	95,781	68,020	54%	76%	\$ 10,722	\$ 13,185	81%	\$ 0.21
Retro-Commissioning	22,885		39,424		58%				
Industrial Systems	26,292		26,076		101%				
AirCare Plus (>100 kW)	2,518		2,520		100%				
Strategic Energy Management Pilot	5,080								
New Construction	38,532	15,665	26,000	246%	148%	\$ 7,818	\$ 9,477	82%	\$ 0.20
Multi-Family Common Area	4,478	4,000	5,000	112%	90%	\$ 83			
C&I General						\$ 90	\$ -		
C&I Subtotal	495,048	428,457	455,721	116%	109%	\$ 67,154	\$ 65,803	102%	\$ 0.14
Fridge & Freezer Recycling	14,131	29,450	21,931	48%	64%	\$ 5,615	\$ 7,943	71%	\$ 0.40
Appliance Rebates	4,392	9,103	7,407	48%	59%	\$ 4,110	\$ 7,805	53%	\$ 0.94
Home Energy Assessment	7,478	7,592	6,280	98%	119%	\$ 4,493	\$ 4,419	102%	\$ 0.60
Heating & Cooling & Weatherization	17,717	7,528	8,400	235%	211%	\$ 8,416	\$ 9,359	90%	\$ 0.48
Multi-Family	3,092	5,014	2,340	62%	132%	\$ 1,308	\$ 1,393	94%	\$ 0.42
Elementary Energy Education	1,461	624	624	234%	234%	\$ 219	\$ 397	55%	\$ 0.15
New Construction	496	19	400	2610%	124%	\$ 252	\$ 346	73%	\$ 0.51
Direct to Consumer Kit		6,996	0				\$ 3,354		
Residential General						\$ 1,671	\$ -		
Residential Subtotal	48,765	66,326	47,381	74%	103%	\$ 26,084	\$ 35,017	74%	\$ 0.53
R&D/Emerging Tech	286	0	0			\$ 1,429	\$ 3,571	40%	\$ 5.00
Lighting Carryover	73,959	47,200	47,200	157%	157%				
EEPS Program Total	618,058	541,983	550,302	114%	112%	\$ 93,238	\$ 100,820	92%	\$ 0.15

*General costs include IT Infrastructure, Call Center, and General charges.

IPA Programs - PY8 Q4 Ex Ante Results

IPA Program	Net MWh Actual	Net MWh Goal	Net MWh Forecast	Percent of Goal	Percent of Forecast	Program Costs YTD (\$1,000)	Rate Filing Screen (\$1,000)	Percent of Annual Spend	First Year Cost/kWh
Lighting Discounts	216,107	205,529	205,529	105%	105%	\$ 34,854	\$ 40,147	87%	\$ 0.16
Home Energy Report	263,194	279,520	279,520	94%	94%	\$ 8,811	\$ 13,851	64%	\$ 0.03
Small Business Energy Savings	146,218	133,000	134,872	110%	108%	\$ 34,196	\$ 36,580	93%	\$ 0.23
LED Streetlighting	5,474	5,474	5,474	100%	100%	\$ 3,801	\$ 4,425	86%	\$ 0.69
Lighting Carryover	4,234	0	0						
IPA ComEd Subtotal	635,227	623,523	625,395	102%	102%	\$ 81,662	\$ 95,003	86%	\$ 0.13
Accelerate CUB Energy Saver	1,578	13,133	13,133	12%	12%	\$ 150	\$ 600	25%	\$ 0.10
Elevate Retrofit Chicago Residential	1,857	1,711	1,711	109%	109%	\$ 683	\$ 548	125%	\$ 0.37
Shelton Solutions Great Energy Stewards	0	850	850	0%	0%	\$ -	\$ 139	0%	\$ -
National Theatre for Children	1,266	1,220	1,220	104%	104%	\$ 696	\$ 679	102%	\$ 0.55
AirCare Plus (<100 kW)	6,883	9,309	7,000	74%	98%	\$ 2,002	\$ 2,672	75%	\$ 0.29
CLEAResult School Direct Install	740	3,892	3,892	19%	19%	\$ 208	\$ 1,076	19%	\$ 0.28
Matrix School Direct Install	0	5,545	5,545	0%	0%	\$ -	\$ 989	0%	\$ -
Matrix Demand Control Ventilation	8	5,193	5,193	0.2%	0.2%	\$ 2	\$ 1,291	0%	\$ 0.26
Sodexo Demand Control Ventilation*	0	5,096	5,096	0%	0%	\$ -	\$ 882	0%	\$ -
Weidt Group New Construction	46	2,107	2,107	2%	2%	\$ 434	\$ 675	64%	\$ 9.53
IPA Third Party Subtotal	12,377	48,056	45,747	26%	27%	\$ 4,176	\$ 9,549	44%	\$ 0.34
IPA Program Total	647,605	671,579	671,142	96%	96%	\$ 85,838	\$ 104,553	82%	\$ 0.13
EEPS Program Total	618,058	541,983	550,302	114%	112%	\$ 93,238	\$ 100,820	92%	\$ 0.15
EEPS and IPA Program Total	1,265,662	1,213,562	1,221,444	104%	104%	\$ 179,075	\$ 205,372	87%	\$ 0.14

Portfolio Results

Performance Metrics (Equivalents)	PY8	PY7	PY6	PY5	PY4	PY3	PY2	PY1
Net MWh*	1,265,662	1,122,657	1,118,649	949,392	944,142	626,715	472,132	163,717
Carbon reduction (tons)	795,906	705,978	703,457	597,021	593,719	394,107	296,898	102,953
Cars removed from the road	167,558	148,626	148,096	125,688	124,993	82,969	62,505	21,674
Acres of trees planted	652,382	578,670	576,604	489,362	486,655	323,038	243,359	84,387
Number of homes powered for 1 year**	137,872	122,294	121,857	103,420	102,848	68,270	51,431	17,834
Portfolio jobs***	267	260	234	196	179	154	84	66



* Net savings are changes in energy use attributable to ComEd's energy efficiency portfolio. It is calculated as gross adjusted for free ridership and spillover.

** Assumes average ComEd single-family residential home with no electric space heat consumes 765 kWh monthly or 9,180 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. This number is updated once per quarter.

PY9

PY9 EEPS Plan and Projection

PY9 will focus on customer participation and comprehensive solutions

Programs	PY9 Filed Plan		
	Cost	Net MWhs	¢/kWh
C&I - EE Programs			
Incentives Program	\$ 35,953,141	195,831	\$ 0.18
Large C/I Pilot	\$ 5,150,000	-	\$ -
Optimization	\$ 12,360,062	97,831	\$ 0.13
Retro-commissioning	\$ 7,416,037	58,699	\$ 0.13
Industrial Systems	\$ 4,944,025	39,132	\$ 0.13
AirCare Plus (>100kW)	Not in Filed Plan		
Operational Savings	Not in Filed Plan		
Strategic Energy Management	Not in Filed Plan		
C&I New Construction	\$ 6,965,252	16,535	\$ 0.42
BILD/Midstream Incentives	\$ 7,431,110	123,170	\$ 0.06
Multi-Family Common Area	Not in Filed Plan as Standalone Program		
C&I TOTAL	\$ 67,859,565	433,367	\$ 0.16
RESIDENTIAL - EE Programs			
Residential Lighting	Residential Lighting in IPA since PY8		
Appliance Rebates	\$ 6,651,550	9,103	\$ 0.73
Fridge & Freezer Recycling	\$ 8,604,554	29,450	\$ 0.29
Home Energy Rebates (AKA Heating & Cooling)	\$ 4,263,220	7,407	\$ 0.58
Weatherization	Not in Filed Plan as Standalone Program		
Multi-Family Direct Install	\$ 3,773,691	8,838	\$ 0.43
Energy Education Kits	\$ 383,636	567	\$ 0.68
Direct to Consumer Kits	\$ 4,364,632	4,930	\$ 0.68
Home Energy Assessment	\$ 4,612,061	7,590	\$ 0.61
Residential New Construction	\$ 31,639	15	\$ 2.11
RESIDENTIAL TOTAL	\$ 32,684,982	67,900	\$ 0.48
CFL Carryover		16,102	
Total ComEd EE	\$ 100,544,547	517,369	\$ 0.19

PY9 IPA Plan

PY9 consists of a variety of new and existing IPA Programs

Programs	PY9		
	Cost	Net MWHs	¢/kWh
IPA - ComEd Programs			
Home Energy Report	\$ 13,856,237	351,498	\$ 0.04
Residential Lighting	\$ 37,123,438	217,565	\$ 0.17
Small Business Direct Install	\$ 45,890,752	167,000	\$ 0.27
LED Streetlighting	\$ 8,207,962	10,949	\$ 0.75
IPA - Third Party Programs			
Accelerate - CUB Energy Saver	\$ 775,000	17,910	\$ 0.04
PECI/CLEAResult - AirCare Plus	\$ 3,146,094	10,962	\$ 0.29
CNT - Retrofit Chicago Residential	\$ 577,289	1,828	\$ 0.32
Shelton Solutions - Energy Stewards	\$ 138,500	850	\$ 0.16
OneChange	\$ 1,076,700	1,130	\$ 0.95
National Theatre for Children - Kits	\$ 625,029	1,220	\$ 0.51
CLEAResult - DI Schools	\$ 1,072,353	4,310	\$ 0.25
Matrix Energy Services - DI Schools	\$ 989,175	5,545	\$ 0.18
Matrix Energy Services - DCV	\$ 1,240,536	5,517	\$ 0.22
Sodexo Inc - DCV	\$ 831,520	5,096	\$ 0.16
Weidt Group - New Construction	\$ 1,074,851	4,213	\$ 0.26
CLEAResult - Luminaire Level Lighting Control	\$ 5,101,484	17,216	\$ 0.30
CLEAResult - Community Based CFL Distribution	\$ 1,329,900	14,721	\$ 0.09
Elevate Energy - Assisted & Sr. Living	\$ 625,928	1,188	\$ 0.53
Franklin - Rural Small Biz EE Kits	\$ 582,970	903	\$ 0.65
GDS - Agricultural EE	\$ 366,613	1,220	\$ 0.30
GDS - Lit Signage	\$ 3,700,000	14,624	\$ 0.25
MEEA - Efficient Products (STEP)	\$ 778,179	3,343	\$ 0.23
Power TakeOff - Monitoring Based Commissioning	\$ 1,553,800	2,709	\$ 0.57
SEDAC - Enhanced Building Optimization	\$ 2,500,000	11,056	\$ 0.23
UIC-ERC - Low-Income Kits	\$ 1,439,246	4,103	\$ 0.35
UIC-ERC - Low-Income Multi-Family	\$ 2,167,622	6,520	\$ 0.33
IPA TOTAL	\$ 136,771,179	883,196	\$ 0.15

Yellow highlighting indicates programs new to IPA in PY9

EEPS PY9 Programs

Smart Ideas for Your Home

Assessments

- Removed co-pay for specialty LEDs and added Tier 2 advanced power strips to single family direct install
- Added specialty LEDs and Tier 1 advanced power strips to multi-family tenant direct install

Recycling

- Program will continue with previous offering to regain awareness and participation at previously filed levels
- Implemented improvements to the check funding process to reduce processing time. This resulted in reducing average check processing time from 28 days to 10 days

Rebates – Appliances (Launched in PY8)

- Expanded eligible products to include ENERGY STAR pool pumps (launch April to leverage 'pool season'), ENERGY STAR dispensers, ENERGY STAR room ACs, ENERGY STAR ventilation fans, advanced power strips (launching this fall)
- Expanded in-store instant discount offering to include air purifiers at more locations (THD, Meijer's, Lowe's Sears) and advanced power strips (THD)
- Expanded eligible smart thermostats from 3 to 8 products
- Implemented improved rebate funding process to reduce average processing time for customer rebate checks from 17 days to 8 days

EEPS PY9 Programs

Smart Ideas for Your Home (continued)

Rebates – Heating & Cooling and Weatherization

- Increased central AC requirements to 15 SEER minimum
- Implemented improved rebate funding process to reduce average processing time for customer rebate checks from 28 days to 8 days
- Expanded eligible smart thermostats from 3 products to 8 products
- Further develop and expand Trade Ally network to develop additional contractor and customer benefits

Lighting Discounts (IPA in PY8+)

- Continues to lead market transformation to ENERGY STAR LEDs as a preferred lighting technology by increasing the percentage of LEDs within the program as compared to CFLs
- Continues to monitor and adjust incentive levels and product mix based on changes in the market
- Anticipation of phase out of CFL incentive by early 2017 in response to ENERGY STAR 2.0 specification which eliminates current CFLs from meeting ENERGY STAR label specifications

Home Energy Reports (IPA in PY7+)

- The preference center on ComEd.com allows customers to more easily sign up for notifications (weekly usage reports and high usage alerts) and communications from ComEd
- Expanding enrollment in paper reports to 1.7M (late Summer) and emailed reports to 800k (throughout summer)
- Updating format of paper report for improved customer experience (launch August)

EEPS PY9 Programs

Smart Ideas for Your Business

Assessments

- Assessments identify energy efficiency opportunities for business customers and vary by scope (how detailed the assessment is) and cost to customer (from free to partial cost)
- More detailed technical assessments are available for Laboratory, Healthcare, Data Centers, Combined Heat & Power and Process Efficiency opportunities
- New for PY9 is an enhanced focus on identifying operational savings (no cost/short payback) from Facility Assessments

Incentives – Standard Program

- Provides incentives for common measures C&I lighting, HVAC, Refrigeration, and other systems
- Implemented options to extend program year: Lowered incentive levels on certain lighting measures and began accepting PY9 applications June 1, instead of March 1
- New Comprehensive offers with two year project reservations are now available; these offers provide higher incentives for completing a diverse combination of measures

Incentives – Custom Program

- Continues to provide incentives for more complex projects not covered by the Standard program, e.g. process or system improvement, process automation, or new technologies (e.g. geothermal)

Incentives – Data Centers Program

- Provides technical assistance and incentives for installing energy efficient equipment and systems in new or existing data centers; Sample projects include Airflow Management, Cooling and IT optimization

EEPS PY9 Programs

Smart Ideas for Your Business (continued)

Incentives – Small Business Energy Savings (SBES) / (IPA)

- Focused on raising awareness and driving participation in more comprehensive measures
- Added comprehensive measures: HVAC, compressed air, refrigeration, and Smart Thermostats.
- Weatherization was added as a new direct install measure
- Business Energy Analyzer will be made available to Small Business customers with a smart meter

Incentives – New Construction Services

- Eligible to new construction or major renovation projects w/ a minimum of 5000 sq. ft, and requires implementation of at least 2 significantly beyond-code energy conservation measures from 4 primary building systems: Envelope, Primary HVAC, Lighting, or Qualified Refrigeration
- Providing higher incentives for earlier engagement via performance-based procurement, and also accepting projects later in design but w/ lower incentives

Discounts – Building Instant Lighting Discounts /Building Product Discounts (BILD)

- Energy efficient lamps, battery chargers, and distribution transformers are available to businesses at a reduced price from participating electrical distributors
- PY9 Changes implemented to extend duration of program:
 - Lower incentive levels on certain lamps
 - Requirements: Customers have to pay a minimum of 50% of incentive amount for lamps

EEPS PY9 Programs

Smart Ideas for Your Business (continued)

Multifamily Common Area – A joint program with Peoples/NS that leverages the in-progress tenant DI and common area gas programs.

- Planned building stock includes an average size of 14 units
- Trade Ally network and implementation staff install no cost comprehensive efficiency measures
- On-going customer engagement through Business Energy Analyzer

Optimization Programs

- **Industrial Systems** - Offers system assessments and financial incentives to reduce electricity used by compressed air, industrial refrigeration, and process cooling systems
- **Retro-commissioning** - Provides expert analysis of building systems to identify low cost operational improvements to optimize electricity and gas usage
 - New for PY9: Program changes were put in place to give service providers more flexibility to pursue deep energy savings in small and medium buildings (under 400k sq. ft)
- **Rooftop Unit Optimization** - Offers low cost comprehensive tune up of HVAC packaged rooftop units and split systems; includes programmable thermostat modification or replacement, tune up, or economizer repair
- **Strategic Energy Management** – Provides tools, coaching, and technical resources to support the customer's energy efficiency campaign
 - Pilot cohort continued for a 2nd year
 - Second cohort started for PY9
 - Both cohorts are joint efforts with Nicor Gas

EEPS PY9 Programs

Smart Ideas for Your Business (continued)

Incentives - LED Street Lighting (IPA)

- Replace existing ComEd-owned municipal streetlights with Smart-Ready LED streetlights and incent the installations through the IPA
- Provides savings to municipal customers through reduced fixture and energy charges
- Offered to eligible non-competitive municipalities in the ComEd service territory
- Typical municipal cost savings on their street lighting account is 20%

Low Income Opportunities Development

- Discussing ways to assist low income customers with DCEO and Gas Companies
- Investigating effective low income outreach strategies and pilots
- PY9 Planned Activities
 - Community Based Outreach – Targeting communities through working with local leaders and organizations to reach residents and small business.
 - Single Family – Initial discussions with Peoples Gas to develop a low income pilot that would leverage existing identified projects from the Historic Chicago Bungalow Association to complete weatherization projects within qualifying low income single family housing.
 - Multi-Family – Initial discussions with Peoples Gas to develop a low income pilot that would leverage existing identified projects from Elevate within qualifying multi-family low income properties with increased incentives for existing portfolio measures.