## ComEd. Energy Efficiency Program



# CY2021 FOURTH QUARTER REPORT



ComEd has received the ENERGY STAR Partner of the Year Award for Sustained Excellence for the 9th consecutive year. ComEd customers have saved more than \$6.4 billion on energy bills and avoided 63 billion pounds of carbon through its energy efficiency programs.

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.

### Table of Contents

Portfolio Summary	3
Residential Programs	4
Income Eligible Programs	5
Business Programs	6
Third Party Programs	8
Voltage Optimization	10
Emerging Technology and Market Transformation Programs	11
Marketing Education & Awareness	12
Stipulations	13
Total Resource Cost	15
Appendix: Program Descriptions	16

**1,838,338** Actual Net MWh YTD

**1,817,991** CY2021 MWh Forecast

**1,659,037** CY2021 MWh Filed Goal

**\$351,037,752** Actual Spend YTD



CY2021 Spending Cap

### PORTFOLIO

- Through Q4, the portfolio has achieved 101% of its 2021 forecast of 1,817,991
   MWh and 111% of its 2021 filed goal of 1,659,037 MWh.
- Since its inception in 2008, the ComEd Energy Efficiency Program has saved ComEd customers over \$6.4 billion on their electric bills.

### **RESIDENTIAL PROGRAMS**

- Through Q4, residential programs have achieved 116% of its combined 2021 forecast of 293,762 MWh.
- Customers have received over 440,832 rebates, and over 25,590 homeowners and tenants have received free direct install products from assessments through Q4.

### INCOME ELIGIBLE PROGRAMS

- Through Q4, income eligible programs have achieved 102% of their combined 2021 forecast of 76,903 MWh, not including converted therms.
- ° Over 79,722, income eligible households have participated through Q4.

### **BUSINESS PROGRAMS**

- Through Q4, private sector programs have achieved 101% of their combined 2021 forecast of 663,763 MWh; public sector programs have achieved 119% of their combined 2021 forecast of 108,719 MWh.
- Over 10,663 business private sector projects and 1,407 business public sector projects have been completed through Q4.

### THIRD PARTY PROGRAMS

 Through Q4, third party programs have achieved 99% of their combined 2021 forecast of 176,166 MWh.

### **Residential Programs**

#### **Residential Program Highlights**

- **Appliance Rebates** Exceeded yearly program savings by 18% due to the increase in smart thermostats, advanced power strips (APS), and large appliance rebates. Instant Coupon had an impressive Black Friday, with over 2,000 reservations during the promotional period, while maintaining a 50% redemption rate through year-end.
- Home Energy Assessment The program team worked with field energy advisors to share best practices and provide guidance on how to communicate the value of advanced power strips (APS) to customers. As a result, Q4 APS distribution increased by 49%, as compared to Q3 distribution. Q4 also saw the highest rates of smart thermostat installation of the year, with over 450 installs.
- **Residential Lighting Discounts** Exceeded yearly program savings target by 5%, incentivizing over 5.5 million lighting units, through 695 participating retailers throughout ComEd's service territory.

Program	Net MWh YTD	% Savings Achieved to Plan Savings Goal	Program Participation YTD	Unit Definition
<b>Residential Behavior</b>	111,065	135%	Home Energy Reports (print): 6,199,557	Reports and alerts
			Home Energy Reports (email): 9,095,481	
			High Usage Alerts (unique customers): 2,490,995	
			Weekly Usage Reports: 8,739,158	
<b>Residential Lighting Discounts</b>	154,357	105%	5,562,255	Number of bulbs and
				fixtures incentivized
Marketplace 2.0 Lighting Discounts	844	Not included in Plan 5	31,825	Number of bulbs and
				fixtures incentivized
Appliance Rebates	27,855	120%	357,015	Rebates processed
Marketplace 2.0 Appliance Rebates	18,478	Not included in Plan 5	73,572	Rebates processed
Home Energy Assessment	14,585	84%	15,369	Homes upgraded
Multi-Family Assessments	8,062	88%	10,221	Total Units upgraded
Residential HVAC	4,443	124%	10,245	Rebates processed

### **Income Eligible Programs**

#### **Income Eligible Program Highlights**

- Income Eligible Product Discounts Exceeded yearly savings target, incentivizing over 1.8 million ENERGY STAR appliances and lighting products, through 232 participating retailers located in income-eligible communities. Advanced power strip sales had a strong fourth quarter, with a 16% increase in sales over Q3. The majority of lighting incentives distributed in Q4 were to non-big box and DIY stores.
- Single Family Retrofits Under Chicago Bungalow Association/Chicagoland Vintage Home Association (CBA/CVHA) delivery channel, the program completed 1,118 projects in 2021, exceeding the yearly savings goal. The 2-flat pilot that was started in September met its original production goal, with higher than anticipated savings and a lower \$/kWh than planned. Under Illinois Home Weatherization Assistance Program (IHWAP) delivery channel, seven community action agencies completed ComEd/Nicor projects in Q4: CEDA, CCI, Lake, McHenry, Rockford, Tri-County, and WCCCC. ComEd and Nicor Gas marketing teams collaborated in Q4 to develop the McHenry email campaign eblast content and design, set to be released in early 2022.
- Multi-Family Retrofits Under Illinois Home Weatherization Assistance Program (IHWAP) delivery channel, the Dearborn Buildings, in Chicago, were completed in December. These projects were made possible by leveraging braided funds with IHWAP, ComEd and Peoples Gas, along with the Chicago Housing Authority. Additional smaller multifamily projects were completed in Lake County's 3290 7th St Building with ComEd, North Shore Gas and Will County. Under Income Eligible Multifamily Savings (IEMS), nearly 500 buildings and 10,295 residential units were upgraded in 2021.
- Affordable Housing New Construction (AHNC) Accepted three Passive Building Pathway projects into the program. Completed updates to ComEd Multi-family Standard v4, adding a Moderate Rehab path that responds to industry feedback and increases pipeline potential for 2022+. Q4 saw extensive positive coverage of Chicago's historic investment in affordable housing, including many projects and partners active with AHNC (see especially pieces from <u>WTTW, Crains</u>). The new Moderate Rehab pathway should allow AHNC to support almost all these projects.

Program	Net MWh YTD	% Savings Achieved to Plan Goal	Program Part YTD	icipation	Unit Definition
Income Eligible Product Discounts	68,339	103%		776,714	Products and bulb/fixture/nightlight packages incentivized
Single-Family Retrofits	3,853	112%	IHWAP	CBA/CVHA	Homes upgraded
(IHWAP+CBA/CVHA)			601	1118	
Multi-Family Retrofits	4,700	85%	IHWAP	IEMS	Total units upgraded
(IHWAP+IEMS)			456	10,295	
Affordable Housing New Construction (AHNC)	1,281	90%		623	Eligible tenant units

### **Business Programs**

#### **Business/Technical Program Highlights**

- **Standard** Q4 was the largest quarter of the year in terms of the number of applications processed, finalized savings, and incentives paid in 2021 (64.3 net GWh savings and \$12.9M incentives paid).
- **Custom** Public sector energy savings exceeded goal, due to strong interest in the segment during Q4. Some private sector projects forecasted to be completed in 2021 have been extended and are expected to be paid in Q1 2022.
- Small Business (Private and Public) Exceeded year-end savings goal by 103%, with 196,111 net MWh savings (private) and 28,086 net MWh savings (public). In total for 2021, the program completed 1,716 projects in distressed communities (Private =1,583 and Public = 133), equating to 64.59 net GWh savings (29% of Small Business savings) and \$15.23M incentives (27% of Small Business incentives total).
- **Streetlights** The offering's Streetlights in Distressed Communities initiative concluded with a strong finish in Q4. In total for 2021, 44 municipallyowned LED streetlight projects located in distressed areas were incentivized (9.465 net MWh).
- Business Instant Discounts December performance was the highest of the year, in part due to ENERGY STAR® screw-in SPIF promotion, and Q4 increased incentives for TLEDs and ENERGY STAR fixtures. HVAC performance finished 111% over goal. Overall performance of the program was 158 MWh over goal.
- **C&I New Construction** Completed training with 14 design firms on how to use the new on-line modeling tool (Sketchbox) and received positive feedback on the ease of use and features available with the tool.
- Strategic Energy Management 104 customers participated in SEM. 80% of SEM customers received on-site treasure hunts. The SEM Water Pilot
  was completed in conjunction with Emerging Tech, with 7 SEM alumni customers and 62,593,935 gallons of water savings verified. SEM benefits
  presented to City of Chicago Industrial outreach event with ENERGY STAR.
- **Public Housing Retrofits** In Q4, 7 unique PHA projects were completed in Winnebago County, Elgin, Jo Daviess County, Joliet, Cook County, Chicago, and Livingston County. Training session for Chicago Housing Authority (CHA) was hosted.

Program	Net MWh YTD	% Savings Achieved to Plan Goal	Program Participation YTD	Unit Definition
Standard – Private	170,310	100%	2,595	Projects completed
Standard – Public	22,189	109%	639	Projects completed
Custom – Private	12,408	96%	132	Projects completed
Custom – Public	3,006	108%	18	Projects completed
Small Business – Private	196,111	107%	6,687	Projects completed
Small Facilities – Public	28,086	216%	532	Projects completed

### **Business Programs**

Program	Net MWh YTD	% Savings Achieved to Plan Goal	Program Participation YTD	Unit Definition
<b>Business Instant Discounts – Private</b>	154,830	102%	1,830,437	Lighting, battery chargers, HVAC units
<b>Business Instant Discounts – Public</b>	21,139	92%	373,600	Lighting, battery chargers, HVAC units
New Construction – Private	12,747	98%	61	Projects completed
New Construction - Public	2,114	123%	27	Projects completed
Industrial Systems - Private	45,610	98%	320	Projects
<b>Retro-commissioning - Private</b>	33,492	108%	201	Projects
Retro-commissioning – Public	15,062	113%	81	Projects
Strategic Energy Management -	29,566	106%	77	Participating customers
Private				
Strategic Energy Management -	4,563	91%	25/86	Participating customers/accounts
Public				
LED Streetlighting - Private	15,579	65%	193	Projects completed
LED Streetlighting – Public	31,288	116%	103	Projects completed
<b>Operational Savings/Facility</b>	1,405	47%	74	Projects
Assessment – Private				
<b>Operational Savings - Public</b>	996	217%	7	Projects
Public Housing Retrofits	1,352	62%	323/6,629	Buildings served/total units impacted

### **Third-Party Programs**

#### **Third Party Program Highlights**

- Non-Profit Offering (NPO) The NPO offering finished the year within 1% of its allocated incentive budget and exceeded the savings goal by over 80 MWh. The offering served 64 nonprofit customers who provide critical services, such as youth programming, workforce development, food distribution, and community health services, including COVID-19 support to over 300,000 people annually.
- **Telecommunications** Heightened outreach in Q4 resulted in 20% more savings than projected for 2021, including several large data center projects for containment, controls, and UPS improvements.
- Small Business Kits (Private and Public) Strong Q4 activity resulted in program reaching 2021 goal of 7,290 MWh, based on orders for 8,324 total kits (7,794 Private and 530 Public customers). Top participating customer segments included restaurants, barber shops, childcare services, dental offices, and business service.
- Food Bank LED Distribution The Food Bank offering partnered with Greater Auburn Gresham Development Corporation to participate in their Thanksgiving Food Drive on November 23rd. The event was a huge success, serving over 300 customers a variety of energy saving products including weatherstrips and back up battery bulbs. The Food Bank offering also partnered with Phalanx Family Services for their Senior Food Giveaway event on November 15<sup>th</sup>. This event served over 150 ComEd seniors, a variety of energy saving products including candelabra 4-packs and night lights.
- Income Eligible Kits In partnership with CEDA, the program attended the Chicago Housing Authority's Operation Warm event and distributed 2,000 IE Kits. The IE Energy Savings Kits program achieved the year-end goal of delivering 31,500 kits to income eligible participants in Q4.
- Smart Energy Grocer In Q4, the program focused outreach in the western and southern part of the service area including Matteson, Byron, Lockport, Belvidere, Durand, and Sterling. Strong interest by customers led to very strong Q4 performance.
- Elementary Energy Education 1,618 net MWh savings achieved, based on 13,026 school kits and 474 portal orders shipped in Q4 (37% of annual goal). Increase in LED Portal redemptions during Q4 resulting in 3.6% redemption date compared to 1.18% redemption rate average for Q1 through Q3. Increase in redemptions attributed to increased portal promo code visibility on BR30 box instead of flyer within student folder.

### Third-Party Programs

Program	Net MWh YTD	% Savings Achieved to Plan Goal	Program Participation YTD	Unit Definition
Grocery Offering	6,277	125%	149	Projects
Food Bank LED Distribution	91,240	102%	1,167,060	Products distributed
Non-Profit Offering	4,269	108%	16,890	Lighting and HVAC projects
Income Eligible Kits	32,344	106%	60,000	Kits
Agriculture	7,769	88%	232	Projects
Telecom	9,999	120%	70	Projects
Small Business Kits	7,289	100%	8,324	Kits
Public Building Safety in Distressed	10,604	69%	216	Project Phases Completed
Communities				
<b>Elementary Energy Education</b>	4,385	59%	Kits – 13,026;	Kits and Unique Portal
			LED Portal Redemptions –474	Orders/Redemptions

### **Voltage Optimization Highlights**

• Savings below are equivalent to 406M pounds of carbon dioxide reduction or removing 40,000 passenger vehicles driven each year.

Program	Net MWh YTD	% Savings Achieved to Plan Goal	Program Participation YTD	Unit Definition
Voltage Optimization	266,406	101%	44/544	Substations/feeders

### **R&D Highlights**

The mission of the R&D team is to identify, test, validate, and integrate new energy-saving technologies and program delivery strategies into the ComEd Energy Efficiency Program so that it continues to meet customers' needs and its energy savings goals cost-effectively.

• Please refer to the attached PDF for a summary of active Emerging Technologies and Market Transformation projects.



Name	Partners	Project Type	Customer Segment	Start	End	Quarterly Update	Web Link
Validating New Technologies fo	r New Energy S	avings					
Commercial Interior Insulating Shades	IIT, Parata Solutions, Amatis Controls	Technology Assessment	Commercial	Sep-20	Mar-22	Final monitoring of the pilot installation is on schedule, with results and analysis expected in Q1 2022.	Link
Cooling Tower Future Opportunities	AWE, PNNL	Research	Cross Cutting	Jul-20	Mar-22	AWE and PNNL completed life cycle and market barrier analyses for three cooling tower technologies that were found to have the greatest water and energy savings potential based on the original technical and market potential analysis.	Link
Flash Gas Condensers	DNV GL	Technology Assessment	Commercial	Oct-20	Oct-21	Project concluded. The final report notes that outsomer barriers to participation in the pilot include business operations impacts due to COVID-19, alternative technologies overlapping with the savings potential of flash gas concensers, and system incompatibility. The RAD team will continue to monitor the potential of this measure for future pilot evaluation.	Link
Gear and Hydraulic Oils Efficiency Evaluation	Leidos, ExxonMobil	Technology Assessment	Industrial	Aug-21	Jun-22	Pilot installations at one site were completed and the project team is actively recruiting additional sites. Results from the first site did not demonstrate the expected assirings from this technology. The team is examining the test procedure and will conduct additional tests to verify the initial results.	Link
Industrial Energy Management Information Systems (EMIS)	Leidos, EPS Energie	Technology Assessment	Industrial	Feb-20	Jun-22	The project team has selected five siles for implementation of an EMIS plan. Facility auds have been completed and EMIS plans have been presented to all participants. Pour plans have been accepted and these siles are in the installation phase. The remaining site is expected to accept their plans and begin work in O1 2022.	Link
Innovations in Efficient Elevator Systems	360 Energy Group, SEDAC, Kone Engineering	Research	Commercial	Dec-20	Nov-21	The order team submitted that final report in October White technical potential for introffing electrates with energy efficiency measures in ComBit service territory is significant, the threnders with elevator manufactures, building managers, activiticatil engineering Wins, and contractors highlighted a number of market barriers, including a low concern for elevator energy usage and high cost of retroffs.	Link
National Laboratory Emerging Tech Partnership	NREL and various technology partners	Technology Assessment	Commercial, Industrial	Jan-19	Jun-22	Progress continues to be made on projects originally scheduled for comprision in 2020 but were delevade du to COV/OF-Interaled la docurse. The project tame published the final reports for refrogreated display cases using R-200 program errigineant and the high-performance coel climate heat pumps for residential and small commercial applications in C4. Both technologes showed promising energy water-coelder leftigerated display case retrofit lab study will be completed in early 2022.	Link
Refrigeration Thermal Energy Storage	Slipstream	Technology Assessment	Commercial	Apr-21	Jun-22	This project has entered Phase 2, which will study the on-site performance of the refrigeration thermal energy storage (TES) approaches identified as the most promising in Phase I. The project team had difficulties with recruitment in 2021 and aims to recruit and evaluate at least two demonstration sites in 2022.	Link
Secondary Glazing Systems Market Characterization	Slipstream	Technology Assessment	Commercial	Sep-21	Jan-22	This project kicked off in September and has focused on interviews with relevant market actors. The research team will focus on determining what market interventions would be most impactful and whether this measure is best suited for resource acquisition or market transformation program models. The final report will be delivered in January.	Link

### Marketing Education & Awareness

### **Advertising Q4**

- Energy Efficiency Residential: Home Full of Savings (Includes E&A, Rebates and Lighting)
  - Market Dates: August December
  - Channels: TV, Radio, Digital, Social and OOH
  - Estimated Impressions: 86.5MM
- Energy Efficiency Business: Seamless (Includes Commercial and Public Sector)
  - Market Dates: September 13 December
  - Channels: TV and Pre-Roll
  - **Estimated Impressions:** 14.9 MM Impressions
- Energy Efficiency Business: Seamless (Additional Spend for Small Biz)
  - Market Dates: November December
  - Channels: Pre-Roll, Digital and Social
  - Estimated Impressions: 48.5 MM Impressions

### Events Q1 - Q4

- In-Person and Virtual Events: 255
- Interactions: 44,740

### Stipulations

### Commitments Regarding Interactions with the Income-Qualified Advisory Committee (Settlement Stipulation § IV(D)(1))

*ComEd agrees to report on a quarterly basis to both the Income-Qualified Energy Efficiency Advisory Committee and the SAG on the development of reporting metrics on the following topics:* 

- a. Identification of budget, savings, and number of participants served through Income-Qualified Plan funding, separately tracking by singlefamily and multi-family programs:
  - For budget and savings, please refer to the Income Qualified Programs section on the "Ex Ante Results" tab of the statewide quarterly report template. Total Income Qualified homes served is captured on the "Other" tab of the statewide quarterly report template.
  - The Single-Family Retrofits program has completed projects in 1,719 income-qualified homes through Q4.
  - The Multi-Family Retrofits program has completed direct install work in 10,751 tenant units through Q4.
  - The Public Housing Retrofits program has completed direct install work in 6,629 units through Q4.
  - The Affordable Housing New Construction program has completed a total of 623 tenant units serving income eligible residents through Q4.
  - The Income Eligible Product Discounts program has provided deeper instant in-store discounts to income eligible customers for 776,714 Products and bulb/fixture/nightlight packages incentivized through Q4.
  - The Income Eligible Kits program has distributed 31,500 kits to income-qualified single-family homes through Q4.
- b. The Food Banks Distributions program has distributed 1,167,060 products through Q4. Income-Qualified R&D projects:
  - The ComEd Emerging Tech team has completed several pilot and research projects specific to income eligible and public housing customers in the past year; information can be found at <u>https://www.comedemergingtech.com</u>.

- Information on active R&D project can be found in the R&D section of this report.
- c. Identification of implementation vendors who receive funding designated for Income-Qualified programs, indicating whether each vendor is an independent third party that has demonstrated capabilities to serve such households, including not-for-profit entities and government agencies that have existing relationships with or experience serving Low-Income communities in the State:
  - Single-Family Retrofits Chicago Bungalow Association (not-forprofit), Chicagoland Vintage Home Association (not-for-profit), Franklin Energy (for-profit), Illinois Association of Community Action Agencies (not-for-profit), Resource Innovations (WBE forprofit), 15 community action agencies in the ComEd territory (notfor-profits)
  - Multi-Family Retrofits Elevate Energy (not-for profit), Franklin Energy (for-profit), Resource Innovations (WBE for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
  - Public Housing Retrofits Elevate Energy (not-for-profit), University of Illinois at Chicago Energy Resources Center (not-for-profit)
  - Affordable Housing New Construction Slipstream Group Inc. (notfor-profit)
  - Income Eligible Lighting Discounts CLEAResult (for-profit)
  - Income Eligible Energy Saving Kits University of Illinois at Chicago Energy Resources Center (not-for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
  - Food Bank CLEAResult (for-profit), food banks affiliated with Feeding America, including Greater Chicago Food Bank (not-forprofit), Northern Illinois Food Bank (not-for-profit), Riverbend Food Bank (not-for-profit); as well as through (not-for-profit) food pantries outside the Feeding America network.
  - Outreach & Marketing Eire (WBE for-profit), PACO (MBE forprofit), Surge Solutions (MBE for-profit), The L3 Agency (WMBE forprofit)
- d. Job training in economically disadvantaged and diverse communities within its service territory that is supported by ComEd's efficiency

### Stipulations

program portfolio funding, including training offered through the IHWAP program necessary to increase capacity to deliver services in ComEd's territory

 The ComEd Energy Efficiency Service Provider (EESP) Incubator program has provided training and support services to enable diverse contractors to join the ComEd Energy Efficiency Service Provider Network, represent the portfolio to customers and complete energy efficiency projects by leveraging existing workforce development frameworks, community-based agency partnerships and support from ComEd's Energy Efficiency Portfolio Implementation Contractors. The 2021 Incubator cohort graduated 28 members from five counties in the ComEd service territory. Eight are lighting contractors, seven are HVAC contractors, six are general contractors and the others are in project management, energy consulting or weatherization. As of 12/31/2021, 17 of the 28 cohort members have been accepted into ComEd Energy Efficiency Service Provider Network (61%) resulting in 117 EE projects submitted and completed. Also in 2021, the EESP Incubator program expanded to include mentorship opportunities and an alumni network for graduated cohort members.

- Additionally, ComEd annually supports IHWAP's training programs.
- In its upcoming Plan 6, ComEd has committed to launch a full Market Development Initiative (MDI), which will focus both on growing diverse business and workforce opportunities. The focus of this work in 2021 has been research to inform the MDI. ComEd issued a related RFP in Q2 and selected a vendor, Griffin & Strong/Emerald Cities, whose work will run from Q4 2021 – Q2 2022.

### CY2021 New Measures

All measures in the table below were launched in CY2021.

Measure TOTAL RESOURCE COST (TRC)	Sector	IL TRC
Mag Bearing - College	Business	7.50
Mag Bearing - Healthcare Office	Business	16.72
Mag Bearing - Hosptial	Business	19.68
Mag Bearing - Hotel	Business	20.21
Mag Bearing - K-12	Business	9.18
Mag Bearing - Office	Business	16.56
VSD Chiller - College	Business	15.37
VSD Chiller - Healthcare Office	Business	26.62
VSD Chiller - Hosptial	Business	24.83
VSD Chiller - Hotel	Business	28.85
VSD Chiller - K-12	Business	15.56
VSD Chiller - Office	Business	23.15
Smart Socket	Business	1.54
Advanced Rooftop Controls with Switch Rotor Pole Motor (> 20 ton)	Business	0.47
Advanced Rooftop Controls with Switch Rotor Pole Motor (> 10 ton to ≤ 20 ton)	Business	0.57
Advanced Rooftop Controls with Switch Rotor Pole Motor (>5 ton to ≤ 10 ton)	Business	0.68
Advanced Rooftop Controls with Switch Rotor Pole Motor (<=5 tons)	Business	0.74
Dipper Wells	Business	41.60
LED Grow Lights - Flowering	Business	3.82
LED Grow Lights - Vegetative	Business	2.09
Energy Efficient Rectifier	Business	3.55
Network Combing, Line and Trunk Equipment Removal	Business	2.60
ENERGY STAR Uninterruptible Power Supply	Business	1.73
Agricultural Swine Heat Pad	Business	0.19
Common Area Vending Miser Non-Refrigerated	Residential	0.40
ENERGY STAR Most Efficient Refrigerators	Residential	0.96
LED Globe 6-watt 450 lumens	Residential	3.57
LED BR30 bulb	Residential	4.15
LED Candelabra 5-watt 325 lumens	Residential	3.40
LED Mini Globe (350 Lumens)	Residential	1.40
Three Way A19 LED (500/1000/1500 lumens)	Residential	2.62

### 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 households, personalized energy efficiency advice, program promotions, and application of behavioral principles and social norms to drive adoption of energy efficient behaviors.

### 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: LEDs, LED trim kits, and LED integrated fixtures.

### **Appliance Rebates**

Overview: Appliance Rebates offers rebates to ComEd residential customers on the purchase of new, select ENERGY STAR® certified appliances/products including: air purifier, clothes washer, electric clothes dryer, refrigerator, freezer, dehumidifier, variable speed pool pump, room air conditioner, smart thermostat, and advanced power strip.

### Home Energy Assessment

Overview: Offered 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 LEDs, programmable thermostats, WaterSense® certified showerheads, faucet aerators, and hot water pipe insulation. Advanced Power Strips are provided at a discounted price to the customer and left behind for the customer to install. Nest Learning and Nest E smart thermostats are also available for purchase at a discount and include free installation.

### Multi-Family Energy Savings

Overview: In partnership with Nicor Gas, North Shore Gas, and Peoples Gas, the Multi-Family Energy Savings Program provides multi-family tenants and property owners and managers with a variety of ways to save electricity and natural gas. The program will serve as a "one stop shop" to generate energy savings throughout the property. After an initial assessment, immediate energy savings are generated by the direct installation of energy-saving products in both tenant and common area spaces. The program further provides Service Provider installs of common area lighting measures.

### Heating & Cooling Rebates

Overview: The Heating & Cooling Rebates Program promotes investment in longterm savings by providing rebates for the purchase and installation of high efficiency central air conditioners, air source heat pumps, ductless mini-split heat pumps, ECM furnace blower motors, smart thermostats, and ground source heat pumps.

### Income Eligible Product Discounts

Overview: Income Eligible Retail Discounts provides deeper instant in-store discounts to ComEd residential customers at participating retail stores located in qualifying neighborhoods. These discounts are provided for select ENERGY STAR® certified lighting: LED bulbs, LED trim kits, LED nightlights, and LED integrated fixtures (both interior and exterior); as well as instant in-store discounts on select ENERGY STAR certified appliances, such as air purifiers, dehumidifiers, and room air conditioners. Instant in-store discounts are also available on advanced power strips (APS). These deeper instant discounts are offered to help reduce the energy burden for income eligible customers, by lowering the potential cost barrier to energy efficient products for home use.

### **Single-Family Retrofits**

Overview: The Single-Family Retrofits Program offering is delivered through several channels including, Illinois Community Action Agencies (CAAs), the Chicago Bungalow Association (CBA), and the Chicagoland Vintage Home Association (CVHA). The offering includes comprehensive home energy audits and work through contractors to complete weatherization (air sealing, attic and wall insulation, duct sealing), health & safety, and additional energy efficiency home upgrades at no cost to the customers served.

CBA/CVHA identifies and enrolls qualified vintage homeowners located in the City of Chicago and certain Cook County suburbs; coordinates home assessments to identify areas in the homes prone to air leaks or drafts; and works with contractors to complete weatherization, health & safety, and direct installation of energy efficiency upgrades (LEDs, water saving measures, programmable thermostats) to their homes. The CBA/CVHA channel delivers the single-family retrofits program offering in partnership with Peoples Gas.

### **Appendix: Program Descriptions**

*ComEd, in coordination with the CAAs, and in partnership with the northern gas utilities, partially (and in some cases fully) funds whole single-family home energy upgrades in coordination with the Illinois Department of Commerce and Economic Opportunity (DCEO) Illinois Home Weatherization Assistance Program (SF IHWAP). Upgrades may include all measures delivered through the CBA/CVHA channel, as well as mechanical system upgrades or replacements where the customer and equipment qualify.* 

### **Multi-Family Retrofits**

Overview: The Multi-Family Retrofits Program is delivered through two channels including Illinois Community Action Agencies (CAAs) for the Illinois Housing Weatherization Assistance Program (MF IHWAP) and the multi-family energy savings (IEMS) offering. The program offerings identify and enroll qualified multifamily building owners and property managers whose buildings serve incomeeligible residents. Upgrade options include energy assessments, weatherization, and direct installation of energy-saving devices at no cost. As well as replacement of inefficient equipment/systems at no or very limited cost.

The MF IHWAP offering is delivered in partnership with all the northern Illinois gas utilities. The IEMS offering is delivered in partnership with Peoples Gas.

### Affordable Housing New Construction

Overview: The Affordable Housing New Construction (AHNC) Program offering provides technical support and incentives for whole-building energy efficiency for new construction and major renovation projects to reduce the energy burden for income eligible households by lowering their potential monthly energy costs. The program supports developers building or providing major renovation to affordable housing buildings, including both single and multi-family projects. The program offering's incentives are based on the square footage of the areas serving income eligible tenants, while upgrade requirements apply to the full building. The Affordable Housing New Construction offering is delivered in partnership with all the northerm Illinois gas utilities.

#### Standard

Overview: The Standard Program provides monetary incentives to customers on a "Standard" fixed or per-unit basis. Offered measures include LEDs, networked lighting and controls, building automation systems, air- and water-cooled chillers and variable speed drives, ground source heat pumps, roof top units, EC motors, energy recovery ventilators, absorbent air cleaners, as well as equipment with niche

or targeted market applications, such as laboratory, commercial food service equipment, and grocery refrigeration measures.

#### Custom

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

#### Small Business (Private and Public)

Overview: In 2021, Small Business started offering energy efficiency services for both private and public customers. The eligibility requirements are 0-200 kW for private customers and 0-400 for public customers. The program provides comprehensive energy savings solutions for customers including advanced lighting, refrigeration, HVAC, and compressed air.

#### **Business Instant Discounts**

Overview: The Instant Discounts Program provides instant discounts on qualifying commercial screw-in, pin-base, HID, exit signs, forklift battery chargers, and qualifying HVAC equipment. Linear fluorescent lamps can be replaced with reduced wattage T8 lamps or Tubular LED (TLED) lamps. All screw-in, pin-base and exit sign replacements are LED.

### **C&I New Construction**

Overview: The New Construction Program offering provides technical assistance, support for the Leadership in Energy and Environmental Design (LEED) rating system, and incentives for whole-building energy efficiency for new construction and major renovation projects 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. The program serves private commercial and industrial buildings (CINC) as well as public sector buildings (PSNC) through a combined offering. The New Construction Program offering is delivered in partnership with all the northern Illinois gas utilities.

### Strategic Energy Management (SEM)

Overview: Strategic Energy Management provides tools, coaching and technical resources to support customers' 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 helps implement organizational structures, behavior changes, and systematic practices that can lead to reducing energy costs by up to 15% for both electricity and natural gas.

### LED Street Lighting

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

### **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 various types of ComEd Energy Efficiency Program studies and Facility Assessments (FAs). Examples of such opportunities include shutting off idle equipment, optimizing the efficiency of existing systems and changes in the operating habits of occupants.

### **Public Housing Retrofits**

Overview: The Public Housing Retrofits Program offering provides energy efficiency retrofits in Public Housing Authority (PHA) facilities in the ComEd service territory. The program offers energy assessments and incentives to upgrade most inefficient equipment in the buildings served, including residential units, and common areas at no cost. The program offering identifies and enrolls qualified public housing buildings. Upgrade options include energy assessments, weatherization, and direct installation of energy-saving devices at no cost. As well as replacement of inefficient equipment/systems at no or very limited cost. For energy efficiency projects requiring funding beyond program incentives, technical assistance is offered to support implementation and identify financing options. The offering is delivered in partnership with Nicor Gas and Peoples Gas.

#### **Elementary Energy Education**

Overview: ComEd, Nicor Gas, Peoples Gas, and North Shore Gas have partnered to offer schools the opportunity to teach 5<sup>th</sup> 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 LEDs, faucet aerators, and other energy-saving products to install at home with their families. The kits also contain a coupon that can be redeemed for free specialty LED bulbs.

### **Small Business Kits**

Overview: The Small Business Kits Program is an entry level program targeting C&I customers <200KW and public sector customers <400KW peak demand in restaurants and other general/office facilities and fire stations, libraries, park district offices and public works offices who have not previously participated in energy efficiency programs. Eligibility criteria was changed in 2021 to align with the Small Business Offering requirements. The program achieves savings through a kit of self-install energy efficiency measures delivered directly to customer facilities. A customer survey is used to determine installation rates for each measure.

#### Food Banks LED Distribution

Overview: The Food Banks Distribution Program provides ENERGY STAR® LEDs to food banks affiliated with Feeding America, as well as through pantries outside the Feeding America network. The food banks then use their network of local food pantries to distribute the bulbs to utility customers in need, who may elect to receive the offered products. The offering is designed to help reduce the energy burden for income eligible customers, by providing them with free energy efficient products for home use. Additional products (e.g. weather strips, night lights, and battery back-up LED bulbs) are distributed through pop up events on a limited basis.

#### **Income Eligible Kits**

Overview: The Income Eligible Energy Saving Kits Program provides energy efficiency kits to income eligible residential customers, primarily through the network of Illinois Community Action Agencies (CAAs). The kits include (1) Tier 1 Advanced Powr Strip, (4) 9W LED bulbs, (2) 15W LED bulbs, (1) 6W LED Globe bulb, (1) 5W LED Candelabra bulb, (1) 8W BR30 LED bulb, (1) Night Light, (1) Lowflow Kitchen Aerator, (1) Low-flow Bathroom Aerator, (1) Low-flow Showerhead, (1) Plumber's Tape; an instructional brochure which includes links to instructional

### **Appendix: Program Descriptions**

videos for product use and installation, plus general information on energy savings. The offering is designed to help reduce the energy burden for income eligible customers, by providing them with free energy efficient products for home use.

#### **Grocery Program**

Overview: The Grocery Program provides free customized assessments to identify energy-saving opportunities for lighting and commercial refrigeration system retrofits and upgrades, along with financial incentives and implementation assistance.

### Non-Profit Offering (NPO)

Overview: The Nonprofit Organizations Program is a new program designed for nonprofit, 501(c)3 organizations with a maximum peak demand of 400 kW and that provide direct services to at-risk populations. The Program provides free energy assessments, procurement assistance, project oversight and a comprehensive list of incentives. Direct install is available for LED lamps and vending machine misers.

### Agriculture

Overview: The Agricultural Program is a specialized offering that targets the full vertical market including farms (dairy, poultry, hogs, cash crops, etc.), greenhouses, indoor agriculture facilities, supply houses, and on-site processing facilities. It serves both existing facilities and new construction and offers Standard and Custom type of incentives. Once a customer is engaged, the program will offer customers a free walk-through assessment appropriate for their facility to identify energy efficiency opportunities and assist the customer with prioritizing projects and through the application process.

#### Telecommunications

Overview: The Telecommunication program offers incentives for telecommunication and internet service providers and associated systems such as rectifiers, soft switches, air flow management, HVAC solutions, economization and lighting. Customer engagements are supported from the national and local levels with dedicated energy advisors and engineers providing individual customized assessments and reports on energy efficiency opportunities throughout the network infrastructures and facilities within ComEd's territory.

#### Public Building in Distressed Communities

Overview: Public Building in Distressed Communities provides LED light kits for selfinstall, and the top 6 HVAC measures, to provide energy efficiency to public buildings that do not have extra capital for these upgrades.

### Voltage Optimization

Overview: The Voltage Optimization Program deploys circuit voltage detectors and control equipment that will effectively assess and adapt the amount of voltage traveling across a power line at any given time. Once in place, these devices will allow ComEd to more precisely monitor, manage and deliver the voltage customers need. No additional effort by consumers will be required as the control equipment will automatically adjust to consistently deliver only the voltage each customer requires while providing energy savings.

# ATTACHMENT

Name	Partners	Project Type	Customer Segment	Start	End	Quarterly Update	Web Link
Validating New Technologies for	r New Energy Sa	avings					
Commercial Interior Insulating Shades	IIT, Parata Solutions, Amatis Controls	Technology Assessment	Commercial	Sep-20	Mar-22	Final monitoring of the pilot installation is on schedule, with results and analysis expected in Q1 2022.	<u>Link</u>
Cooling Tower Future Opportunities	AWE, PNNL	Research	Cross Cutting	Jul-20	Mar-22	AWE and PNNL completed life cycle and market barrier analyses for three cooling tower technologies that were found to have the greatest water and energy savings potential based on the original technical and market potential analysis.	<u>Link</u>
Flash Gas Condensers	DNV GL	Technology Assessment	Commercial	Oct-20	Oct-21	Project concluded. The final report notes that customer barriers to participation in the pilot include business operations impacts due to COVID-19, alternative technologies overlapping with the savings potential of flash gas condensers, and system incompatibility. The R&D team will continue to monitor the potential of this measure for future pilot evaluation.	<u>Link</u>
Gear and Hydraulic Oils Efficiency Evaluation	Leidos, ExxonMobil	Technology Assessment	Industrial	Aug-21	Jun-22	Pilot installations at one site were completed and the project team is actively recruiting additional sites. Results from the first site did not demonstrate the expected savings from this technology. The team is examining the test procedure and will conduct additional tests to verify the initial results.	Link
Industrial Energy Management Information Systems (EMIS)	Leidos, EPS Energie	Technology Assessment	Industrial	Feb-20	Jun-22	The project team has selected five sites for implementation of an EMIS plan. Facility audits have been completed and EMIS plans have been presented to all participants. Four plans have been accepted and these sites are in the installation phase. The remaining site is expected to accept their plans and begin work in Q1 2022.	<u>Link</u>
Innovations in Efficient Elevator Systems	360 Energy Group, SEDAC, Kone Engineering	Research	Commercial	Dec-20	Nov-21	The project team submitted their final report in October. While technical potential for retrofitting elevators with energy efficiency measures in ComEd's service territory is significant, the interviews with elevator manufacturers, building managers, architectural/ engineering firms, and contractors highlighted a number of market barriers, including a low concern for elevator energy usage and high cost of retrofits.	<u>Link</u>
National Laboratory Emerging Tech Partnership	NREL and various technology partners	Technology Assessment	Commercial, Industrial	Jan-19	Jun-22	Progress continues to be made on projects originally scheduled for completion in 2020 but were delayed due to COVID-19-related lab closures. The project team published the final reports for refrigerated display cases using R-290 propane refrigerant and the high-performance cold climate heat pumps for residential and small commercial applications in Q4. Both technologies showed promising energy savings potential and are currently being reviewed by ComEd. The high efficiency water-cooled refrigerated display case retrofit lab study will be completed in early 2022.	Link
Refrigeration Thermal Energy Storage	Slipstream	Technology Assessment	Commercial	Apr-21	Jun-22	This project has entered Phase 2, which will study the on-site performance of the refrigeration thermal energy storage (TES) approaches identified as the most promising in Phase I. The project team had difficulties with recruitment in 2021 and aims to recruit and evaluate at least two demonstration sites in 2022.	<u>Link</u>
Secondary Glazing Systems Market Characterization	Slipstream	Technology Assessment	Commercial	Sep-21	Jan-22	This project kicked off in September and has focused on interviews with relevant market actors. The research team will focus on determining what market interventions would be most impactful and whether this measure is best suited for resource acquisition or market transformation program models. The final report will be delivered in January.	Link

Name	Partners	Project Type	Customer Segment	Start	End	Quarterly Update	Web Link
Smart Controls for Small and Medium Commercial Buildings	E Source	Research	Commercial	Mar-21	Nov-21	The project team presented their final research results and recommendations to ComEd in November. R&D will discuss a potential pilot concept for the recommended technologies with the Small Business team.	<u>Link</u>
Switched Reluctance Motor Field Evaluation	Slipstream, Turntide Technologies	Technology Assessment	Commercial	Jun-20	Feb-22	Monitoring at all customer sites completed in December 2021. The project team is analyzing the collected data and will present results in Q1 2022.	<u>Link</u>
Thin Triple Windows Market Characterization	Resource Innovations	Research	Commercial	Sep-21	Jan-22	This project kicked off in September and has thus far focused on interviews with relevant market actors. This project is a collaboration between utilities to assess the existing thin triple window market and qualitatively estimate the market size and potential for this technology in ComEd's service territory, as well as to inform fit for a potential market transformation program. The final report will be delivered in Q1 of 2022.	<u>Link</u>
Variable Refrigerant Flow for Cold Climates	Slipstream	Technology Assessment	Commercial	Sep-20	Sep-22	Recruitment for field evaluations of VRF continues, with installations expected to begin as soon as Q2 2022. The project team's research on savings drivers and market characterization will be completed in Q1.	<u>Link</u>
Variable Speed Heat Pumps as AC Replacement	Center for Energy and Environment	Technology Assessment	Residential	Aug-21	Jan-23	The project team conducted heat pump manufacturer and contractor interviews to identify the VSHP products and baseline systems in the ComEd market. The team has started contractor and customer recruitment for field evaluation sites and will continue to focus on recruitment and participant onboarding into Q1 2022.	<u>Link</u>
Very High Efficiency HVAC	IMT, Slipstream, Ventacity	Technology Assessment	Cross Cutting	Dec-20	Dec-23	Customer sites are in the process of design and modeling for eventual installations and monitoring, and agreements have been reached with several participants for installations in 2022. As these are typical whole system replacements at larger buildings, the recruitment and installation timeline is longer than usual.	<u>Link</u>
Water Heating Technology Opportunities	Evergreen Economics, GDS Associates	Research	Residential	Aug-20	Jan-22	The project team developed proposed program designs and strategies for the recommended water heating technologies identified in the study and submitted the draft final report. Next steps will be considered in Q1.	Link

Name	Partners	Droject Type	Customer Segment	Start	End	Quarterly Update	Web Link
Increasing Market Adoption Th		Project Type e Program D	<u> </u>	Start	Ellu		WEDLINK
Affordable Multifamily Electrification Demonstration	Elevate and Slipstream	Technology Assessment and Program Design	Residential, Income Eligible	Aug-21	Jun-22	Pre-retrofit monitoring is ongoing in all nine participating units and the project team completed an initial analysis of the pre-retrofit monitoring results. Retrofits have been delayed due to supply chain issues/backordering of equipment; installations are expected to complete in Q1 2022.	Link
Air Source Heat Pump Training	Slipstream	Program Design	Residential	Oct-21	Jun-23	The project team conducted a needs assessment with contractors, distributors and manufacturers in the territory to inform training plans. The team developed a training landing webpage and LMS platform site to host all training content and hosted two live contractor training webinars in November. More trainings are planned for early 2022.	<u>Link</u>
BIT Neighborhood	Slipstream, Southface, Illinois Green Alliance, Environmental Defense Fund	Outreach Strategy	Income Eligible Residential	Feb-19	Oct-21	The project completed in October 2021. Slipstream and the BIT Aides completed the implementation of the BIT Building program for the 13 participating CHA sites, including the energy modeling and analysis as the development of the BIT Playbook. Slipstream continued to provide career guidance and professional development to the three BIT Aides through the end of the pilot. Slipstream hired one of the BIT Aides for a full time position and is continuing to work with the other two BIT Aides to find full time employment in the energy industry. The R&D team is continuing concept transfer efforts internally in Q1-Q2 2022.	<u>Link</u>
Building Operator Certification	Midwest Energy Efficiency Alliance	Program Design	Commercial	Jan-21	Dec-21	BOC was successfully introduced into the IL TRM v10. In Q3 The R&D team created new marketing/promotional approaches to student recruitment. Overall class sizes were very low in 2021 due to COVID-related factors, but expected to rebound in 2022. The R&D team is working internally to transfer BOC permanently to the most relevant program team.	<u>Link</u>
Customer Targeting through NMEC	Power TakeOff, Recurve (separate projects)	Research	Cross Cutting	Oct-20	Mar-22	The Recurve research team received customer AMI data and their analysis of the selected measures is underway with a target completion date of late Q1 2022. The Power TakeOff team completed their analysis on indoor lighting, outdoor lighting and variable speed drive measures and were unable to predict common traits of high energy saving customers for those measures, other than high users tend to be high energy savers post program participation.	<u>Link</u>
Electric Homes New Construction	Slipstream	Program Design	Residential	Mar-19	Dec-21	EHNC closed out 7 projects in 2021 through end of Q3. The program has seen delays due to high construction costs in the market. There are 5 additional projects with pre-applications submitted and 5-10 others pending submission. This concept will transition from pilot to program implemation (as part of the EHNC + AHNC contract) in 2022.	<u>Link</u>
ENERGY STAR® Retail Products Platform	NEEA, US EPA	Market Transformation	Residential	Apr-20	Dec-22	The project team continues to participate in ongoing discussions with Guidehouse and the SAG Market Transformation Working Group on details of the 2021 evaluation plan. A letter of support for enhanced ENERGY STAR testing procedures for refrigerators was submitted by NEEA with ComEd support.	<u>Link</u>
Home Energy Reports Paperless Experience	Oracle	Program Design	Residential	Apr-19	Dec-21	The digital-only reports experience for 20,000 pilot customers concluded in 2021. Preliminary results show positive savings of several GWh; Oracle completed an analysis with recommended future directions.	<u>Link</u>

			Customer				
Name	Partners	Project Type	Segment	Start	End	Quarterly Update	Web Link
Income Eligible Electric Heating Heat Pump Barriers Research	Resource Innovations	Research	Residential, Income Eligible	Sep-21	Jan-22	This research project will identify program barriers to integrating heat pump measures for income eligible customers with inefficient electric heating. The project team is currently conducting DCEO and utility program interviews and will provide a report with their findings in Q1 of 2022.	<u>Link</u>
Midstream Commercial Food Service	GTI, Frontier Energy	Program Design	Commercial	Apr-19	Dec-21	Electric measure rebates continue to lag behind gas measures. Bridging the pilot into 2022 for a state-wide pilot offering is currently under discussion between all the IL utilities as GTI recently proposed a plan for 2022 implementation.	<u>Link</u>
Bronzeville Next Generation HVAC Demonstration	Slipstream	Technology Assessment	Commercial, Income Eligible	Jul-21	Dec-22	Discussions continue with two sites in the Bronzeville community area to design, install and monitor savings from next-gen HVAC solutions; installations are expected in 2022.	<u>Link</u>
Online Choice Engine Program Model	Enervee	Technology Assessment	Residential	May-20	Dec-21	An impact evaluation showed the platform generated 133 MWh of verified net savings and reached over 40,000 customers. Based on the results of the pilot, the Efficient Choice Platform has been approved as an offering as part of the residential program portfolio.	<u>Link</u>
Passive House Affordable Housing New Construction Portfolio Integration	Slipstream	Program Design	Income Eligible	May-21	Dec-22	Marketing and outreach to builders and stakeholders across the local affordable housing industry continues. R&D is supporting this pilot with enhanced incentives to reach the PHIUS+ standard, plus training and marketing support.	<u>Link</u>
Real-Time Virtual Commissioning (VCx)	Power TakeOff	Technology Assessment	Commercial, Public Sector	Sep-20	Jun-22	Real time monitoring equipment and pulse meter upgrades for an additional 10 CPS sites were installed in Q4 2021. The pilot team is working to install cooling controls at 4 of the CPS sites that don't currently have cooling controls, which is expected to garner another 1-1.5 GWh of savings. Engagement continues and the project team received the verified results from the first batch of participant data in early Q4 2021.	Link
Scalable Community Building Energy Modeling	Palmetto	Technology Assessment	Cross Cutting	Jan-21	Apr-22	All data transfer tasks are complete and the team is in the final stages of the ingestion and vetting process. In Q1 2022 the team will combine this dataset with GIS, three-dimensional building form, and related cadastral data to create building energy models for the target geographies.	<u>Link</u>
Smart Home Income Eligible Pilot	Slipstream, Ezlo	Technology Assessment	Residential, Income Eligible	Jul-21	Sep-22	Delays in the configuration of the smart home platform has pushed customer recruitment, installation, and monitoring into 2022.	<u>Link</u>

Name	Partners	Project Type	Customer Segment	Start	End	Quarterly Update	Web Link					
Thinking Outside the Box for Future Opportunities												
Illinois Building Energy Code Advancement	Slipstream, Midwest Energy Efficiency Alliance	Research	Cross Cutting	Jan-21	Jun-22	The research team continued outreach to municipalities across northern IL about long-term savings potential from stretch codes and building performance standards. They also made progress on developing an attribution model to enable the measurement of savings. They have requested input from the SAG Market Transformation Working Group and Guidehouse on a draft program logic model and evaluation pathway for a stretch energy codes program; discussions are continuing into 2022.	<u>Link</u>					
Market Development Initiative Research	Griffin & Strong	Research	Income Eiligible	Nov-21	Jun-22	This project launched in November. The research team finalized the assessment plan in Q4 2021 and is prepared to begin conducting interviews and launch various internal and market assessments in Q1 2022.	<u>Link</u>					
Municipal Water Infrastructure Leak Reduction	TRC, Rezatec	Program Design	Cross Cutting	Jun-20	Mar-22	Waterdistribution infrastructure testing is complete and the project team is finalizing data collection for the impact evaluation. The project team is compiling reports for each community that outline recommendations for water infrastructure upgrades and funding opportunities.	<u>Link</u>					
Water Energy Savings with Strategic Energy Management	CLEAResult	Program Design	Commercial	Jun-20	Dec-21	The project team submitted their final report and presented results and recommendations to ComEd in December. An impact evaluation is in progress by Guidehouse, to be completed in Q1 2022.	Link					