



# CY2022 FOURTH QUARTER REPORT



ComEd has received the ENERGY STAR Partner of the Year Award for Sustained Excellence for the 10th consecutive year. ComEd customers have saved more than \$7.6 billion on energy bills and avoided close to 60 billion pounds of carbon through its energy efficiency programs.

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## Portfolio Summary

**1,619,155**

Actual Net MWh YTD

**1,643,355**

CY2022 MWh Forecast

**\$399,377,042**

Actual Spend YTD

**\$427,470,991**

2022 Budget

### PORTFOLIO

- Through Q4, the portfolio has achieved approximately 115% of its statutory applicable annual incremental goal (AAIG).
- Since its inception in 2008, the ComEd Energy Efficiency Program has saved ComEd customers over \$7.6 billion on their electric bills.

### RESIDENTIAL IMPLEMENTATION

- Through Q4, market rate residential programs have achieved 98% of their combined 2022 forecast of 256,363 MWh, not including converted therms.
- Through Q4, income eligible residential programs have achieved 99% of their combined 2022 forecast of 213,560 MWh, not including converted therms.
- Customers have received over 568,700 incentives.
- Close to 33,200 homeowners and tenants – consisting of over 18,900 income eligible participants - have received free direct install products from assessments through Q4.

### C&I IMPLEMENTATION

- Through Q4, business private sector programs have achieved 101% of their combined 2022 forecast of 616,373 MWh.
- Business public sector programs have achieved 93% of their combined 2022 forecast of 155,274 MWh.
- Through Q4, over 9,300 business private sector projects and over 1,500 business public sector projects have been completed.

# Residential Implementation Programs

## Residential Direct to Consumer Program Highlights

- **Home Energy Savings (HES) - Home Energy Assessment (Market Rate and Income Eligible)** – Q4 was the strongest quarter of the 2022 program year, with over 4,500 assessments completed. Approximately half of the completed assessments were within income eligible customer homes. The program added 15 new bulb types in Q4 including new color varieties, floodlights, and candelabra bulbs. This effort was to increase savings opportunities and to provide more options to customers. The program launched partnerships with two new community-based organizations; Rockford Habitat for Humanity became an Enrollment Partner, committing to sign customers up for the offering, while Rockford AARC Booker is supporting the program as an Awareness Partner, committing to educate customers on the program offering.
- **Home Energy Savings (HES) - Income Eligible Retrofits** – The Illinois Home Weatherization Assistance Program (IHWAP) braided portion of the HES - Retrofits program saw significant production in Q4. Incentives totaled almost \$1M and accounted for 35% of the total IHWAP braided production this year. Additionally, over 485 net MWhs savings were achieved. Seven agencies participated in the braided portion of the program including the Community and Economic Development Association of Cook County (CEDA), Community Contacts, Inc. (CCI), DuPage, McHenry, Tazwood, Tri-County and Will County. Customer satisfaction remains high at 9.9/10 YTD. In Q4, over \$7.5M in incentives were spent through the non-braided portion of the offering as well, which accounted for 46% of the total non-braided portion this year. The program team developed co-branded Energy Efficiency Service Provider (EESP) outreach materials in both English and Spanish. These materials can be leveraged by partner EESPs for customer outreach. Six retrofit delivery partners (EESPs) participated in Q4, including: DNR, Urban Efficiency, CEDA, CCI, Anura, and Assured Insulation. EESPs utilized ComEd's health and safety fund in Q4, allowing 142 customers to receive comprehensive retrofits that otherwise would have been deferred. The program was also successful in partnering with the Midwest Energy Efficiency Alliance (MEEA) to obtain \$715K in grant funding through the Federal Home Loan Bank (FHLB)'s affordable housing program. These dollars will be allocated to health and safety measures, allowing more customers to be served by the program in future years.
- **Multi-Family Energy Savings (MFES) - (Market Rate, Income-Eligible, and Public Housing)** – The MFES program ended in 2022 with strong growth in submitted applications and completed projects. In Q4, over \$12M in incentives were issued, with ~\$11M being allocated to income-eligible and public housing projects. In 2022, the program served over 2,500 income eligible and public housing buildings and over 10,000 tenant units throughout the service territory with energy efficiency upgrades. The program ended the year with 89 EESPs, over 25% being certified diverse suppliers.
- **Home Energy Reports** – In Q4, print Home Energy Reports, emailed tools, and online widgets were updated to reflect ComEd's new branding. 2022 saw strong engagement with customers across all online widgets, with a 42% increase in unique visits as compared to 2021. These online widgets allow customers to have more insight into their energy usage and provide tools and tips to educate them on how to save.

# Residential Implementation Programs

Program	Net MWh YTD	% Savings Achieved of 2022 Forecast	Program Participation YTD	Unit Definition
Home Energy Savings – Market Rate Assessment	5,929	87%	9,026	Homes
Home Energy Savings – Income Eligible Assessment	3,836	100%	5,387	Homes
Home Energy Savings – Income Eligible Retrofits	5,671	98%	3,022	Homes
Multi-Family Energy Savings – Income Eligible	13,356	80%	Tenant Unit Direct Installation: 10,541 Building Upgrades: 2,542	Projects
Multi-Family Energy Savings – Public Housing	594	85%	Tenant Unit Direct Installation: 0 Building Upgrades: 55	Projects
Multi-Family Energy Savings – Market Rate	8,017	102%	Tenant Unit Direct Installation: 5,214 Building Upgrades: 798	Projects
Home Energy Report	105,182	100%	Home Energy Reports (print): 6,514,228 Home Energy Reports (email): 11,016,984 High Usage Alerts: 2,332,528 Weekly Usage Reports: 9,153,035	Reports and Alerts

# Residential Implementation Programs

## Residential Channels Program Highlights

- **Retail (Market Rate and Income Eligible)** – In Q4, the program piloted a new program component, the Corporate Retail Pop-Up event. Partnering with ComEd's Strategic Energy Manager (SEM) program, the program successfully brought an in-office retail experience to six corporations this year as a pilot and will be expanding the offering into 2023 as another element to the program. In Q4, the program also expanded limited time offers (LTOs) for both income eligible and market rate customers. The first and second LTOs of Q4 were weatherization bundles; one targeting income eligible customers and one targeting market rate customers. Both were successful and met their targets of 7,500 units. The last LTO of 2022 was a Plug & Play bundle, consisting of LED night lights, a desk lamp, and power strip. This LTO was targeted towards income eligible customers and was the first to have a direct mailer piece in addition to a targeted email. Both were successful elements, and the LTO hit its target of 25,000 units. Lastly, the Midstream Recycling offering launched and completed its first pick-up of 20 units.
- **Product Distribution (Market Rate and Income Eligible)**
  - **Food Bank Distribution** – 25 events were hosted in Q4, including in both the Bronzeville and Rockford communities. An event in the Woodlawn neighborhood in Chicago in November provided an opportunity to distribute energy saving products and informational material to over 3,000 income eligible customers. Year-to-date, the program has distributed over 1,890,000 ENERGY STAR certified lighting products, over 30,000 water-saving products, over 17,000 advanced power strips, and over 124,000 rolls of weatherstripping, through 4 major food bank partners (Greater Chicago Food Depository; Northern Illinois Food Bank; River Bend Food Bank; Illinois Partners In Hope) and 577 participating food pantries.
  - **Income Eligible Kits** – In Q4 the program distributed over 33,000 kits, and, year-to-date, distributed over 70,000 kits. Across 10 separate participating area organizations, Community Action Agencies (CAAs) continue to be a key provider of customer outreach, recruitment, and enrollment leads for kit distribution. In November, the program leveraged its partnership with Neighborhood Housing Services, by hosting a booth at a housing fair, in the South Shore neighborhood, and gathered over 300 leads for customers interested in receiving a kit.
  - **School Kits** – Year-to-date, the program shipped 18,686 joint income eligible school kits and 27,328 joint market rate school kits. School kits continued to be well-received by teachers who participated in the program, with a composite score of 8.94/10.00 for the year. The program hosted a booth at the Illinois Association of School Business Officials (IASBO) conference in November, to boost awareness of and enrollment into the program.
- **Residential New Construction** – During Q4, the Affordable Housing portfolio of the program completed 4 projects, which included 124 units for Income Eligible families that are at 80% AMI or below, with a total of \$349,914 in incentives. This brought our total projects for the year to 14, supporting 598

# Residential Implementation Programs

affordable housing units. Many of these projects received prestigious building and design industry awards and were run in partnership with Illinois Housing Development Authority (IHDA), the City of Chicago, and Habitat for Humanity.

- **Heating and Cooling** – The program saw a substantial increase in participation through the midstream distribution channel, as a result of incentive increases and a special “amnesty” promotion, which allowed applications to be submitted after the 60-day submission deadline passed. In Q4, distributors sold 306 Air Source Heat Pumps, and 537 year-to-date; and 296 (ductless) mini-split heat pumps in Q4, and 623 year-to-date. The program team is partnering with other implementers, distributors, and manufacturers on expanding heat pump training and education for program EESPs in 2023.

Program	Net MWh YTD	% Savings Achieved of 2022 Forecast	Program Participation YTD	Unit Definition
Retail – Market Rate	115,342	93%	Home Products: 275,183 Lighting: 4,667,742	Appliances; Light Bulbs
Retail – Income Eligible	32,439	97%	Home Products: 286,967 Lighting: 665,772	Appliances; Light Bulbs
Product Distribution – Market Rate	1,811	92%	27,328	School Kits
Product Distribution – Income Eligible	154,404	102%	2,171,898	Bulbs and weatherization measures
Residential New Construction – Affordable Housing	1,562	111%	14	Projects
Residential New Construction – All Electric	504	158%	28	Homes
Heating and Cooling – Midstream/ Rebates	5,546	99%	6,620	Units

# C&I Implementation Programs

## Business Program Highlights

- **Small Business (Private and Public)** – The fourth quarter saw the successful completion of the “30% For All” campaign, which brought in the highest quarterly volume of projects (2,501) in the Program’s history. Approximately \$36.4M of incentives and 103 GWhs of savings are benefiting participating small business customers by completing these projects.
- **Standard (Private and Public)** – An additional 15% incentive was being offered for final applications received in November, to encourage more 2022 project completions. This effort was successful resulting in the highest December incentive processing in the last 5 years. In total, an estimated \$51.5M of incentives were paid to support energy efficiency project participation in 2022.

Program	Net MWh YTD	% Savings Achieved of 2022 Forecast	Program Participation YTD	Unit Definition
Small Business - Private	194,029	101%	6,148	Projects
Small Business – Public	52,818	85%	593	Projects
Incentives – Standard - Private	154,876	97%	1,848	Projects
Incentives – Standard – Public	30,862	97%	707	Projects
Standard – ComEd Streetlights	11,671	115%	240	Projects



# C&I Implementation Programs

## Technical Program Highlights

- **Custom** – 31 applications completed in Q4 qualified for the Early Bird Bonus resulting in 16,426 net MWh in savings and \$2,606,384 incentives. 41 projects were added to the Private pipeline with a potential 4,731 net MWh savings and incentives of \$1,173,393. 14 projects were added to the Public pipeline with a potential 1,711 net MWh savings and incentives of \$501,939.
- **Retro-Commissioning (RCx)** – Continued strong activity through Q4, especially in the Public Sector across all three program tracks (RCx Flex, Monitoring-Based Commissioning, and Virtual Commissioning). The program achieved its annual net savings goal of 45 GWhs.
- **Industrial Systems** – In Q4, 204 customers repaired compressed air leaks for 16,150 MWh of savings or 37% of total year end savings that was a result of the increased customer incentives and EESP fees initiated in Q3. Additionally, the increased incentives motivated 5 customers to approve purchase orders for expensive, long lead time equipment to be installed in 2023 with a total projected savings of 5,000 MWh. Coordination efforts with OSP, Custom, and SEM teams have resulted in multiple project leads for Industrial Systems, including two new industrial refrigeration studies.
- **Strategic Energy Management (SEM)** – 8 Treasure Hunts were completed in Q4. Continuous recruiting efforts for SEM has been strong with 99 customers participating, including three >10MW customers. 2 student interns from within the ComEd service territory will continue supporting the SEM program. An SEM Community cohort workshop was held in Q4.
- **C&I New Construction (CINC)** – The program added 16 new projects to the pipeline for completion in future years totaling \$247,339 in electric incentives. Currently 9 projects are enrolled under the High Performance Design incentive for meeting a green rating system (e.g., LEED, WELL, Living Building Challenge, Green Globes, Passive House).
- **Midstream/Upstream (Instant Discounts)** – An additional 15% distributor incentive was added in Q4 for all submissions on or before 12/15/2022 to drive YE participation. Q4 represented 34.67% of total savings for 2022 and was a record stretch for Instant Discounts, paying over \$4.5 million dollars of incentives. U.S. Department of Energy's Energy Independence and Security Act will cause major changes to the Instant Discounts program in 2023 – product removals were communicated to distributors and customers in Q4, and program updates for increased HVAC incentives were delivered during 2023 launch webinar on 11/30. Q4 represented 34.67% of total savings for 2022 and was a record stretch for Instant Discounts, paying over \$4.5 million dollars of incentives.

# C&I Implementation Programs

Program	Net MWh YTD	% Savings Achieved of 2022 Forecast	Program Participation YTD	Unit Definition
Incentives – Custom	22,038	298%	78	Projects
Incentives – Custom – Public	2,478	134%	16	Projects
Retro-commissioning – Private	20,315	104%	125	Projects
Retro-commissioning – Public	24,818	97%	140	Projects
Industrial Systems	43,875	106%	445	Projects
Midstream/Upstream – Private	126,669	89%	1,319,335	Lighting products; battery chargers; HVAC
Midstream/Upstream – Public	28,457	106%	471,959	Lighting products; battery chargers; HVAC
Strategic Energy Management – Private	33,465	106%	87	Participating Customers
Strategic Energy Management – Public	3,400	68%	25	Participating Customers
C&I New Construction – Private	9,267	102%	347	Projects
C&I New Construction – Public	1,247	133%	8	Projects

# C&I Implementation Programs

## Engineering Program Highlights

- **Facility Assessments/Operational Measures** – In Q4, 3.5 GWh in operational savings were implemented. Additionally, 1.2 GWh were added to the pipeline for a 2022 pipeline total of 13.6 GWh. Operational measures typically take a few months to be implemented after identification. Savings from these measures identified through Q4 2022 are anticipated in 2023.

Program	Net MWh YTD	% Savings Achieved of 2022 Forecast	Program Participation YTD	Unit Definition
Assessments – Private	3,198	140%	32	Verified Wins
Assessments – Public	281	31%	15	Verified Wins

# Voltage Optimization

## Voltage Optimization Highlights

- Savings below are equivalent to 140.3 million pounds of carbon dioxide reduction or removing 13,833 passenger vehicles driven each year.

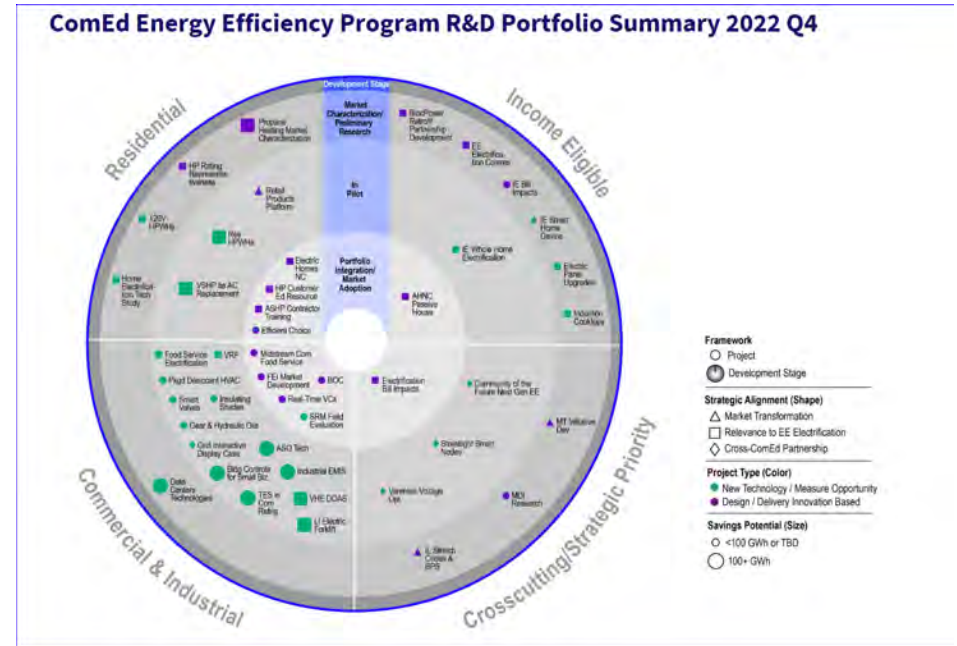
Program	Net MWh YTD	% Savings Achieved of 2022 Forecast	Program Participation YTD	Unit Definition
Voltage Optimization	165,222	100%	37 stations; 378 feeders	Stations Activated; Feeders Activated

# Emerging Technologies and Market Transformation (“R&D”)

## 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 *R&D Summary* section in the Appendix for a summary of active Emerging Technologies and Market Transformation projects.



# Marketing Education & Awareness

## Marketing Education & Awareness Q4 Highlights

### Energy Efficiency Business Campaign – Seamless

*Overview: The campaign was created to promote awareness of the energy efficiency offerings with a call to action of ComEd.com/PoweringBiz.*

- In-market through 2/5/23 (TV, Radio, WGN PTOs ran into Jan., CHGO Podcast & Video mentions ran into early Feb., all other tactics ended in Dec.)
- Included Cable news, TV (including WFLD World Cup ads), Cinema, Radio, OTTs (including WFLD World Cup ads), Digital Display, Page Take Overs, Social, Print, Out of Home, Digital sponsorship of Rockford Ice Hogs, and Radio sponsorship on IHeart's Brilliantly Black podcast
- Generated 24,864,155 digital impressions

### Residential Energy Efficiency Campaigns – Home full of Savings

*Overview: This campaign was created to talk about our available offerings for residential customers with a call to action of ComEd.com/HomeSavings.*

- In-market through 1/29/23 (Cinema ran in January, all other tactics ended in Dec.)
- Included Radio, Outdoor, Digital, Social, Print, TV and Cinema
- Generated total of 47,355,856 digital impressions: (E&A Res.: 17,687,401, Retail: 3,146,533, IE Single Family: 26,521,922)

### Energy Efficiency – Distressed Communities Business Campaign and K-12 Schools

*Overview: The campaign was created to promote awareness of our public sector offerings for K-12 schools and small businesses within distressed communities.*

- K-12 Schools in-market through 1/29/23 (K-12 Schools' Social Display and Social Video ran into Jan., Distressed Communities' Digital Display and OOH ended in Nov.)
- K-12 Schools includes Social Display and Social Video
- Distressed Communities Business includes Digital Display, Digital Video, Social and Out of Home
- Generated 6,619,991 digital impressions

### Energy Efficiency – Business Case Studies Campaign

*Overview: The campaign was created to increase awareness of Standard and Small Business by driving customers to existing case studies around local business heroes/iconic Chicago businesses.*

- In-market through 1/22/23 (Radio and NBC Sport Live TV Announcements ran into Jan. and Social, PTOs, Digital, Transit and E-Blasts ended in Dec.)
- Includes Digital, Page Take Overs, Social, Transit, Radio, E-blasts and TV Live Announcements
- Generated 11,664,009 digital impressions

### Energy Efficiency – Value & LMI Interviews

*Overview: Radio and TV interview opportunities alongside Radio, TV and Digital promotions were secured for ComEd executives to deliver the ComEd Value message and raise awareness of LMI offerings.*

- Interviews and promotional materials ran in December 2022
- Overview of Interviews:
  - **Radio (iHeart, Audacy, WCPT, and WVON):** 6 radio interviews and 12 radio promotions across 15 radio stations
  - **TV (CBS TV and WGN TV):** 3 TV Interviews and 2 TV segments across 2 TV networks
  - **Digital (CBS and WGN):** As part of TV packages an additional 4 sponsored posts, 2 digital takeovers and 1 interstitial ad were included among promotional material
- Generated 9,442,600 impressions

# Stipulations

## Plan 6 Stipulations

As part of the Revised 2022-2025 Energy Efficiency & Demand Response Plan 6 Stipulation Agreement (“RSA”), and in compliance with the Clean Energy Jobs Act (“CEJA”), ComEd has agreed to report out on the following stipulations:

**RSA § IV (A-6a)** ComEd commits to work with stakeholders to develop progress metrics for ICC-filed Quarterly Reports in the second quarter of 2022 and present progress on energy efficiency and financial assistance efforts described above at a joint Committee and SAG meeting.

**Metric 1** Number and percentage of customers receiving utility bill assistance that were referred to EE measures/programs, broken down by:

- Number of customers, in total, referred to EE programs, broken down by program and SF/MF designation
- Number of customers referred to EE programs, broken down by program and SF/MF designation for the population of bill assistance customers as a whole
- Number of customers referred to EE programs, broken down by program and SF/MF designation for the top 20 zip codes (and/or census tracts) with the highest disconnection rate

**Metric 2** The number and percentage of IQ EE applicants/participants that were referred to energy assistance programs or other financial assistance support (including, the Low Income Home Energy Assistance Program (LIHEAP), the Percentage of Income Payment Plan Program (PIPP), any utility-sponsored assistance program, and the ability to wave customer deposits & late fees, per CEJA provisions) broken down by:

- SF and MF, total and tracked separately
- By zip code and/or census tract

**Metric 3** Details on which programs and measures were recommended including:

- The implementer they were recommended by
- Type of referral/recommendation (e-mail, flyer, direct assistance/hand-holding)

**Metric 6** Narrative updates on current efforts and future planned efforts to coordinate utility bill assistance and credit and collections with energy efficiency programs

**Metric 8** Description of how the company intends to increase outreach in top 20 communities with disconnections (i.e., presentations, materials distributed, which community organizations, information on how to apply, streamlined application process, etc.)

## Q4 Updates

- **Metric 1:** During 2022, over 223K customers receiving utility bill assistance also received information about Energy Efficiency programs.
  - Local Administering Agencies, by process, offer Energy Efficiency kits to LIHEAP and PIPP recipients and review the weatherization program with them.
    - There were 174,682 LIHEAP customers and 28,802 PIPP customers in 2022
  - Supplemental Arrearage Reduction Program (SARP) customers receive Energy Efficiency information from ComEd packaged as Ways to Save
    - There were 20,182 SARP customers in 2022

ComEd's customer-facing digital tool, the Smart Assistance Manager (or SAM), serves as a way for customers seeking assistance to receive tailored recommendations for ways to assist with managing their electric bills. During 2022, customers who leveraged the 'assistance finder' functionality within SAM received referrals to/information about the following programs:

Program	Sessions*
Budget Billing	4,778
Due Date Extensions	4,239
Free Energy Savings Products	17,814
Give A Ray	7,286
Home Energy Savings	13,676
LIHEAP	15,587
Multi Family Energy Savings	5,427
Payment Arrangements	11,064
Peak Time Savings	17,857
PIPP	5,756
Retail Discounts	15,438
SARP	2,456

\*Sessions include authenticated and unauthenticated users, and can include duplicate visits from the same customer/user.

# Stipulations

The following list represents a breakdown of customers referred to EE programs broken down by program for the top 20 zip codes with the highest disconnection rates (zip codes 60944, 60958, and 61057 did not have any customer participation):

Zip Code / Program	Number of Customers	Zip Code / Program	Number of Customers	Zip Code / Program	Number of Customers
<b>60409</b>	<b>434</b>	<b>60619</b>	<b>567</b>	<b>60636</b>	<b>189</b>
Budget Billing	17	Budget Billing	22	Budget Billing	5
Due Date Extensions	16	Due Date Extensions	15	Due Date Extensions	7
Free Energy Savings Products	65	Free Energy Savings Products	83	Free Energy Savings Products	30
Give A Ray	36	Give A Ray	32	Give A Ray	9
Home Energy Savings	54	Home Energy Savings	67	Home Energy Savings	23
LIHEAP	52	LIHEAP	74	LIHEAP	22
Multi Family Energy Savings	14	Multi Family Energy Savings	32	Multi Family Energy Savings	10
Payment Arrangements	23	Payment Arrangements	38	Payment Arrangements	13
Peak Time Savings	79	Peak Time Savings	93	Peak Time Savings	31
PIPP	19	PIPP	29	PIPP	9
Retail Discounts	52	Retail Discounts	72	Retail Discounts	27
SARP	7	SARP	10	SARP	3
<b>60419</b>	<b>210</b>	<b>60620</b>	<b>563</b>	<b>60637</b>	<b>446</b>
Budget Billing	7	Budget Billing	16	Budget Billing	11
Due Date Extensions	6	Due Date Extensions	17	Due Date Extensions	12
Free Energy Savings Products	34	Free Energy Savings Products	81	Free Energy Savings Products	67
Give A Ray	14	Give A Ray	33	Give A Ray	29
Home Energy Savings	27	Home Energy Savings	71	Home Energy Savings	31
LIHEAP	20	LIHEAP	69	LIHEAP	63
Multi Family Energy Savings	5	Multi Family Energy Savings	18	Multi Family Energy Savings	40
Payment Arrangements	15	Payment Arrangements	42	Payment Arrangements	29
Peak Time Savings	34	Peak Time Savings	96	Peak Time Savings	76
PIPP	11	PIPP	29	PIPP	18
Retail Discounts	30	Retail Discounts	71	Retail Discounts	59
SARP	7	SARP	20	SARP	11
<b>60426</b>	<b>270</b>	<b>60621</b>	<b>275</b>	<b>60644</b>	<b>377</b>
Budget Billing	11	Budget Billing	6	Budget Billing	15
Due Date Extensions	6	Due Date Extensions	6	Due Date Extensions	14
Free Energy Savings Products	40	Free Energy Savings Products	42	Free Energy Savings Products	56
Give A Ray	24	Give A Ray	17	Give A Ray	25
Home Energy Savings	35	Home Energy Savings	26	Home Energy Savings	34
LIHEAP	30	LIHEAP	34	LIHEAP	52
Multi Family Energy Savings	9	Multi Family Energy Savings	21	Multi Family Energy Savings	25
Payment Arrangements	14	Payment Arrangements	12	Payment Arrangements	19
Peak Time Savings	46	Peak Time Savings	53	Peak Time Savings	62
PIPP	12	PIPP	12	PIPP	18
Retail Discounts	36	Retail Discounts	37	Retail Discounts	46
SARP	7	SARP	9	SARP	11

Zip Code / Program (cont.)	Number of Customers	Zip Code / Program	Number of Customers	Zip Code / Program	Number of Customers
<b>60428</b>	<b>27</b>	<b>60623</b>	<b>490</b>	<b>60649</b>	<b>628</b>
Budget Billing	1	Budget Billing	21	Budget Billing	22
Due Date Extensions	1	Due Date Extensions	14	Due Date Extensions	15
Free Energy Savings Products	4	Free Energy Savings Products	70	Free Energy Savings Products	102
Give A Ray	1	Give A Ray	35	Give A Ray	25
Home Energy Savings	3	Home Energy Savings	43	Home Energy Savings	50
LIHEAP	3	LIHEAP	59	LIHEAP	72
Payment Arrangements	2	Multi Family Energy Savings	36	Multi Family Energy Savings	56
Peak Time Savings	5	Payment Arrangements	34	Payment Arrangements	42
PIPP	2	Peak Time Savings	76	Peak Time Savings	112
Retail Discounts	4	PIPP	23	PIPP	36
SARP	1	Retail Discounts	63	Retail Discounts	90
<b>60472</b>	<b>46</b>	SARP	16	SARP	6
Due Date Extensions	2	<b>60624</b>	<b>325</b>	<b>60827</b>	<b>284</b>
Free Energy Savings Products	7	Budget Billing	11	Budget Billing	9
Give A Ray	2	Due Date Extensions	11	Due Date Extensions	7
Home Energy Savings	7	Free Energy Savings Products	48	Free Energy Savings Products	44
LIHEAP	6	Give A Ray	19	Give A Ray	28
Payment Arrangements	2	Home Energy Savings	27	Home Energy Savings	34
Peak Time Savings	7	LIHEAP	40	LIHEAP	34
PIPP	3	Multi Family Energy Savings	23	Multi Family Energy Savings	14
Retail Discounts	7	Payment Arrangements	20	Payment Arrangements	13
SARP	3	Peak Time Savings	56	Peak Time Savings	48
<b>60484</b>	<b>42</b>	PIPP	14	PIPP	7
Budget Billing	1	Retail Discounts	42	Retail Discounts	39
Due Date Extensions	3	SARP	14	SARP	7
Free Energy Savings Products	6	<b>60628</b>	<b>524</b>		
Give A Ray	3	Budget Billing	18		
Home Energy Savings	4	Due Date Extensions	20		
LIHEAP	5	Free Energy Savings Products	74		
Multi Family Energy Savings	2	Give A Ray	29		
Payment Arrangements	3	Home Energy Savings	66		
Peak Time Savings	5	LIHEAP	65		
PIPP	3	Multi Family Energy Savings	16		
Retail Discounts	6	Payment Arrangements	40		
SARP	1	Peak Time Savings	85		
		PIPP	22		
		Retail Discounts	64		
		SARP	25		

- Metric 2:** In Q4, all (100%) recipients of the Home Energy Savings' Income Eligible Home Energy Assessment (IE HEA) and Product Distribution's Income Eligible Kits program offerings received referrals to the financial assistance programs. In addition to the referrals shown in the tables (*Table 1 & Table 2*), customers who received an energy savings kits from a participating school or attended program sponsored food pantry event through the Product Distribution program received additional information to further help them manage their energy bills, including ComEd's financial assistance programs. These program offerings do not track customer level participation information to allow for zip code level reporting.



# Stipulations

Table 1

Product Distribution Income Eligible Kits Participation Counts											
Q4 2022											
Service Zip Code	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts
60002	50	60130	27	60432	16	60545	6	60714	44	61115	19
60004	58	60131	16	60433	10	60546	27	60715	1	61243	2
60005	45	60132	1	60435	12	60548	9	60803	54	61250	5
60007	36	60133	35	60436	8	60550	2	60804	199	61252	18
60008	26	60134	1	60438	137	60551	1	60805	32	61257	1
60010	37	60135	1	60439	14	60554	3	60827	230	61261	3
60013	2	60137	9	60440	17	60555	2	60901	26	61270	21
60014	9	60139	12	60441	9	60558	1	60912	1	61277	10
60015	24	60140	3	60442	1	60559	4	60914	8	61283	12
60016	99	60142	1	60443	106	60560	4	60915	5	61301	1
60018	31	60143	2	60445	52	60561	9	60918	1	61310	11
60020	48	60146	1	60446	7	60565	2	60940	2	61318	1
60022	3	60148	10	60447	6	60585	1	60941	1	61321	2
60025	32	60151	1	60448	1	60586	7	60946	1	61325	2
60026	8	60152	6	60449	5	60601	13	60950	4	61333	1
60030	69	60153	98	60450	11	60603	1	60954	2	61334	4
60031	134	60154	27	60451	3	60605	62	60958	3	61341	2
60033	2	60155	30	60452	61	60606	3	60964	1	61342	25
60035	38	60156	6	60453	99	60607	76	61001	3	61346	1
60040	2	60157	1	60455	42	60608	683	61006	7	61349	4
60041	27	60160	32	60456	13	60609	867	61007	2	61350	2
60042	11	60162	15	60457	34	60610	157	61008	48	61353	2
60044	8	60163	15	60458	59	60611	13	61010	12	61360	12
60045	6	60164	27	60459	44	60612	613	61012	4	61364	96
60046	31	60165	6	60461	4	60613	51	61013	1	61369	10
60047	20	60169	52	60462	39	60614	45	61015	1	61370	1
60048	52	60171	12	60463	11	60615	345	61016	1	61376	5
60050	10	60172	16	60464	1	60616	451	61018	2	61377	3
60051	20	60173	22	60465	31	60617	1308	61020	4	61378	1
60053	26	60174	2	60466	137	60618	372	61021	118	61764	4
60056	65	60176	18	60467	10	60619	1088	61024	5	61769	1
60060	46	60177	9	60468	2	60620	1237	61027	1		
60061	65	60178	7	60469	25	60621	633	61029	1		
60062	16	60180	1	60470	1	60622	299	61030	5		
60064	104	60181	14	60471	84	60623	1158	61031	5		
60067	28	60185	5	60472	29	60624	791	61032	250		
60068	17	60187	4	60473	81	60625	236	61039	1		
60069	6	60188	20	60475	18	60626	192	61042	1		
60070	25	60189	2	60476	8	60627	2	61044	1		
60071	1	60190	2	60477	52	60628	1268	61046	4		
60073	141	60191	4	60478	114	60629	1125	61047	3		
60074	89	60192	12	60480	3	60630	237	61048	11		
60076	46	60193	41	60481	1	60631	42	61050	1		
60077	69	60194	34	60482	20	60632	1048	61051	5		
60083	9	60195	2	60484	10	60633	138	61054	15		
60084	15	60197	2	60486	1	60634	507	61060	9		
60085	318	60201	82	60487	24	60636	625	61061	13		
60087	92	60202	53	60491	2	60637	782	61062	3		
60089	86	60301	5	60501	27	60638	360	61063	1		
60090	154	60302	34	60502	4	60639	861	61064	9		
60091	11	60304	12	60504	22	60640	175	61065	9		
60093	3	60305	6	60505	46	60641	442	61067	4		
60096	13	60402	165	60506	24	60642	75	61068	1		
60097	1	60403	7	60511	1	60643	567	61070	4		
60098	9	60404	4	60513	19	60644	851	61071	15		
60099	231	60406	101	60514	1	60645	248	61073	5		
60101	16	60408	2	60515	5	60646	64	61075	1		
60102	3	60409	227	60516	5	60647	585	61078	1		
60103	19	60411	286	60517	11	60649	790	61079	1		
60104	60	60415	49	60518	7	60651	1063	61081	151		
60106	7	60416	6	60521	3	60652	386	61084	2		
60107	40	60417	3	60523	3	60653	611	61085	13		
60108	6	60418	22	60525	39	60654	8	61087	4		
60109	1	60419	156	60526	5	60655	60	61089	1		
60110	15	60421	1	60527	11	60656	88	61091	1		
60112	2	60422	19	60530	1	60657	45	61101	75		
60115	30	60423	6	60531	2	60659	245	61102	28		
60118	3	60424	2	60532	11	60660	94	61103	50		
60119	1	60425	33	60534	34	60661	7	61104	51		
60120	42	60426	121	60538	7	60687	1	61107	33		
60123	23	60428	67	60540	1	60688	1	61108	32		
60124	3	60429	97	60542	7	60706	64	61109	24		
60126	6	60430	34	60543	9	60707	152	61111	15		
60129	1	60431	5	60544	1	60712	13	61114	10		

Table 2

Income Eligible - Home Energy Assessments Participation Counts											
Q4 2022											
Service Zip Code	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts	Service Zip Code, cont.	Customer Counts
60002	3	60099	11	60201	3	60461	7	60564	4	60706	5
60004	4	60101	7	60202	2	60462	15	60585	2	60707	18
60005	3	60103	8	60203	1	60463	1	60586	6	60712	2
60007	3	60104	17	60302	8	60465	3	60603	1	60714	8
60008	4	60106	5	60304	6	60466	33	60605	1	60803	5
60010	9	60107	17	60305	2	60467	9	60606	1	60804	11
60012	4	60108	7	60401	3	60469	2	60607	3	60805	4
60013	5	60110	4	60402	15	60471	6	60608	10	60827	33
60014	9	60112	1	60403	9	60472	2	60609	20	60901	15
60015	6	60115	11	60404	1	60473	27	60610	2	60914	10
60016	10	60118	3	60406	11	60475	2	60611	2	60915	2
60018	7	60119	3	60407	1	60477	11	60612	8	60940	1
60020	3	60120	12	60408	2	60478	13	60613	4	60941	1
60025	11	60123	18	60409	35	60480	1	60615	10	60946	1
60026	3	60124	6	60410	1	60481	2	60616	17	60950	6
60030	7	60126	3	60411	35	60482	5	60617	64	61008	5
60031	10	60130	4	60415	3	60484	9	60618	17	61010	1
60033	2	60131	4	60416	5	60487	6	60619	68	61019	2
60035	4	60133	9	60417	11	60490	3	60620	76	61021	3
60041	1	60134	1	60418	5	60491	3	60621	13	61032	15
60042	2	60135	4	60419	38	60501	5	60622	4	61039	1
60043	1	60137	1	60420	2	60502	5	60623	15	61047	2
60044	1	60139	4	60422	6	60503	2	60624	21	61048	3
60045	4	60140	2	60423	4	60504	10	60625	11	61052	1
60046	2	60142	15	60425	7	60505	9	60626	9	61054	1
60047	9	60146	2	60426	20	60506	12	60628	101	61061	1
60048	3	60148	13	60428	14	60513	3	60629	37	61062	2
60050	5	60153	16	60429	26	60515	6	60630	9	61063	3
60051	6	60154	6	60430	5	60516	5	60631	5	61065	3
60053	6	60155	12	60431	6	60517	5	60632	23	61073	1
60056	11	60156	7	60432	1	60521	2	60633	8	61078	1
60060	7	60160	2	60433	3	60523	2	60634	19	61081	4
60061	10	60162	7	60435	14	60525	7	60636	27	61088	3
60062	11	60163	1	60436	5	60526	2	60637	24	61101	10
60064	2	60164	6	60438	15	60527	8	60638	13	61102	8
60067	6	60165	1	60439	3	60532	4	60639	25	61103	13
60068	7	60169	5	60440	8	60534	4	60640	8	61104	3
60069	4	60171	1	60441	8	60538	12	60641	12	61107	16
60071	1	60172	7	60443	10	60540	1	60642	3	61108	10
60073	7	60173	4	60445	4	60543	6	60643	49	61109	10
60074	7	60175	3	60446	12	60544	8	60644	21	61111	7
60076	10	60176	5	60447	6	60545	5	60645	9	61114	9
60077	8	60177	1	60448	4	60546	3	60646	8	61115	

# Stipulations

- **Metric 3: Home Energy Savings – Income Eligible Home Energy Assessment:** Franklin Energy, a subcontractor to Resource Innovation performs the Home Energy Assessments and provides customers with information on ComEd’s financial assistance programs in the assessment report customer receive at the conclusion of the assessment appointment.
  - Product Distribution – Walker Miller is the program implementer
    - Income Eligible (IE) and School Kits: Green Home Experts, a program subcontractor, ships IE kits directly to eligible customer’s homes who request a kit or to participating schools to distribute to students. Included in the kit is a brochure describing additional programs, including financial assistance, to help customers manager their energy bills.
    - Food Bank: Program representatives distribute brochures during program sponsored food pantry events to customers. The brochure describes additional programs, including financial assistance, to help customers manager their energy bills.
- **Metric 6:** All residential brochures distributed by ComEd residential energy efficiency programs and through sponsored events, include financial assistance information. Additionally, and as described in the “*Mapping of Assistance Needs...*” section, energy efficiency, financial assistance and revenue management departments coordinated on a marketing campaign (Targeted hardship Campaign) targeting income eligible customers experiencing payment issues, like arrearages and financial assistance, to drive awareness of and participation in energy efficiency programs. This campaign leveraged email and social media tactics to reach targeted customers. The campaign was in market in June - December and will relaunch in 2023. Lastly, and as described in the “*Pilot Connecting Customers with Payment Trouble...*” section, energy efficiency coordinated with financial assistance to launch a new program, Catch Up & Save, in early 2023 which brings together the benefits of energy efficiency with an energy savings kits and a payment plan offered through the Supplemental Arrearage Reduction Program (SARP) historically limited to LIHEAP recipients through a single enrollment process.
- **Metric 8:** Energy efficiency has been expanding its marketing campaigns and strategies to better target income eligible customers,

particularly those living in communities whose residents are predominately income eligible. Typically, most if not all, communities experiencing high disconnections are also those communities whose residents are predominately low income. So, energy efficiency’s marketing campaigns and tactics that target predominately low income zip codes are also reaching those top 20 communities with disconnections and are now better targeted and informed of energy efficiencies programs to help them reduce energy usage and energy bills. The Targeted Hardship campaign described above and in the “*Pilot Connecting Customers with Payment Trouble...*” section is a good example of a new campaign focusing on reaching customers experiencing payment troubles including those living in these top 20 communities with disconnections to inform them of energy efficiency offerings with plan to relaunch in 2023.

**RSA § IV (A-6b) Mapping of Assistance Needs and Targeting Delivery of Weatherization Services:** During the Plan 6 Period, ComEd will collect a variety of data for purposes of mapping areas of financial assistance needs and targeting energy efficiency and weatherization efforts. Data will be reported quarterly in the ICC-filed Quarterly Report and updates on targeting efforts will be provided in the ICC-filed Quarterly Report, and at least annually at joint SAG and Committee meetings, with commitment to seek input from interested stakeholders.

## Q4 Updates

- The Targeting Hardship Customers campaign promoting energy efficiency programs and services to help income eligible customers with payment troubles manage and reduce their energy bills continued throughout Q4 with monthly emails and targeted social media messages. In Q4, the campaign delivered 108,896 emails and was viewed by 38,497 customers, approximately 35.35% of the target group. Concurrently targeted English and Spanish social media messaging through Facebook and Twitter also continued yielding a total of 72,570 impressions, cultivating engagement with approximately 1,448 customers, approximately 2% of the target group. The following table (*Table 3*) includes the list of top 20 zip codes to receive disconnect notices and services and the year-to-date participation in the various income eligible EE programs.

# Stipulations

Table 3

Top 20 disconnect zip codes	Community/ City name	# of Single Family Income Eligible Retrofit Participants (YTD)	Single Family Income Eligible Retrofit Energy Savings (MWh YTD)	Multi-Family Income Eligible & Public Housing Energy Savings (MWh YTD)	Other Income Eligible EE Program Energy Savings (MWh YTD)	Total Income Eligible Energy Savings (MWh YTD)
60411	Chicago Heights	18	90	2	403	495
60419	Dolton	26	102	28	363	493
60426	Harvey	36	90	0	156	246
60429	Hazel Crest	15	57	0	177	234
60471	Richton Park	11	26	34	67	127
60472	Robbins	5	2	0	43	45
60617	Chicago	145	194	16	1,881	2,091
60619	Chicago	125	199	30	1,501	1,731
60620	Chicago	215	318	73	5,941	6,332
60621	Chicago	17	36	56	786	878
60623	Chicago	14	12	7	1,812	1,831
60624	Chicago	15	18	20	1,060	1,099
60628	Chicago	143	206	954	2,438	3,598
60636	Chicago	39	44	3	862	909
60637	Chicago	14	20	179	870	1,069
60644	Chicago	32	39	175	1,108	1,322
60649	Chicago	32	40	91	962	1,093
60651	Chicago	58	57	228	1,605	1,890
60827	Riverdale	29	83	85	223	391
61101	Rockford	1	1	193	569	763

**RSA § IV (A-6d) Pilot Connecting Customers with Payment Trouble to Energy Efficiency:** ComEd Energy Efficiency will work directly with relevant ComEd business units to create a pilot or program that recruits customers who are payment troubled (e.g., customers at risk of being disconnected; with high arrears) into its IE energy efficiency programs, with commitment to incorporate ideas and input from interested stakeholders on pilot design and modifications, as practicable. ComEd will direct its independent evaluator to perform an impact and a process evaluation of the pilot. ComEd will provide updates to the SAG and Committee in joint meetings on pilot progress and the evaluation results, and include updates in ICC filed Quarterly Reports, as appropriate.

## Q4 Updates

- During Q4, ComEd Energy Efficiency and Financial Assistance coordinated in the development of a new program offering, Catch Up & Save, designed to provide additional assistance to customers experiencing payment trouble. This new offering will provide eligible

customers the benefits of energy efficiency with an energy savings kits and a payment plan offered through the Supplemental Arrearage Reduction Program (SARP) historically limited to LIHEAP recipients through a single enrollment process. Program is scheduled to launch in 2023.

ComEd is also working with Guidehouse to identify whether or not other utilities offer similar EE – FA integrated programs that ComEd may consider for an additional pilot. Research is anticipated to be completed in Q1.

**RSA § IV (A-7a,7b)** ComEd will track bill impacts and reduced energy burden based on deemed savings across all IE customers, for each IE offering. ComEd will also pilot ways to track actual bill impacts and reduced energy burden for a portion of IE Single-Family and Multi-Family customers, which will be for the purpose of facilitating follow up with customers to determine if actual savings were in line with projections. This pilot initiative and its associated data are for research and development purposes, and parties acknowledge that the pilot results are not intended or designed to inform changes to the IL-TRM. However, to the extent the pilot results are relevant and applicable, nothing in this Revised Stipulation would preclude consideration of the results in shaping future evaluation activities. ComEd will provide updates on this pilot in its ICC-filed Quarterly Reports, including, but not limited to, an overall comparison of deemed savings projections with actual bill impacts broken out between Single Family and Multi-Family. ComEd will work with interested stakeholders at the SAG to define energy burden and discuss ideas for piloting the tracking of EE bill impacts and related reduced energy burden. The funds spent on the pilot(s) will be considered IE R&D funds.

## Q4 Updates

- In Q4 2022, the study team concluded their primary analysis of bill impacts. The study team is comprised of staff from Resource Innovations, which was selected by ComEd, Nicor Gas, Peoples Gas and North Shore Gas via joint RFP. The main tasks completed include estimating achieved energy and bill savings impacts by customer segment and program offering (across five different income eligible customer programs), estimating future bill impacts potential, and interviewing utilities on the topic of tracking and communicating bill impacts to customers with the goal of identifying best practices for communicating information to customers to help them achieve savings. The study team presented a draft summary of results in December and

# Stipulations

is expected to finalize a report in January. Depending on the results of this primary analysis, additional research tasks may be required to enable ComEd (and the gas utilities) to answer secondary questions and design an appropriate pilot interaction with customers.

**RSA § IV (A-8e)** Income Eligible (“IE”) - Low Income Energy Efficiency Accountability Committee (“LIEEAC” or “Committee”) Facilitator Independence, Budget, and Process e) ComEd acknowledges that Section 8-103B imposes certain quarterly reporting obligations on ComEd relative to the operation of the Committee. ComEd agrees to include in the narrative section of each such quarterly report updates on all of the reporting requirements set forth in Section 8-103B(c) of the PUA, and including new approaches or changes to program approaches adopted by ComEd pursuant to the recommendations of the LIEEAC. ComEd also agrees to attach the LIEEAC’s quarterly budget report to ComEd’s quarterly report filed with the Commission.

## Q4 Updates

- In Q4, the Low Income EE Accountability Committee (LIEEAC) held three (3) full committee meetings with both the North and South regions. ComEd has not received input or recommendations from the committee regarding the design, implementation or evaluation of our income eligible energy efficiency programs. See *Appendix* for LIEEAC budget report.

**RSA § V (D-1b)** ComEd commits to providing the following IE Multi-Family reporting metrics in its ICC-filed Quarterly Reports:

- Actuals (YTD)
  - Participation – buildings by zip code and apartment units
  - Spending – incentives, non-incentives, total
  - Savings (1st year) – MWh, therms

## Q4 Updates

- Participation – buildings by zip code and apartment units**  
In 2022, the Multi-Family Energy Savings program served verified income eligible (IE) and public housing (PH) multi-family properties in 167 unique zip codes throughout ComEd’s service territory. In total, 3,154 IE and PH buildings participated with 14,457 tenant units receiving free products such as smart thermostats, LEDs, low flow showerheads and faucet aerators. Following table (*Table 4*) shows the

breakout of the number of buildings and tenant units served, by program component (income eligible, public housing) and by zip code.

- # of Building Participants (Income-Eligible & Public Housing):** Assuming each building under an account is participating, including both direct install and rebate projects with a date install up to the end of Q4 of 2022.
- # of Apartment Units:** Each project with a recorded project type of “Direct Install” represents a unit served.

Table 4

Zip Codes	# of Building Participants YTD (Income-Eligible)	# of Apartment Units Served YTD (Income-Eligible)	# of Building Participants YTD (Public Housing)	# of Apartment Units Served YTD (Public Housing)
60005	2	0	1	0
60008	1	0	0	0
60010	3	98	0	0
60016	15	0	1	0
60025	9	8	0	0
60026	80	105	0	0
60031	0	0	0	0
60035	0	0	0	0
60037	209	179	0	0
60050	3	25	0	0
60053	0	0	0	0
60056	13	272	0	0
60062	0	0	0	0
60064	9	53	0	0
60067	32	12	0	0
60074	51	65	0	0
60076	1	0	0	0
60077	5	0	0	0
60085	53	158	0	0
60087	26	438	0	0
60088	1	0	0	0
60090	34	679	1	0
60091	0	0	0	0
60096	5	40	0	0
60099	7	50	0	0
60104	2	22	0	0
60106	7	695	0	0
60110	97	0	0	0
60115	76	744	0	0
60123	2	4	0	0
60126	1	80	0	0
60130	2	0	0	0
60131	2	16	0	0
60133	66	330	0	0
60148	0	0	0	0
60152	1	0	0	0
60153	3	3	0	0
60155	2	5	0	0
60160	6	33	0	0
60164	1	0	0	0
60169	1	0	0	0
60171	11	7	0	0

# Stipulations

Table 4, continued

60173	0	0	0	0
60181	1	0	0	0
60187	0	0	0	0
60188	15	0	0	0
60193	0	0	0	0
60194	0	0	0	0
60201	5	6	1	0
60202	3	4	0	0
60301	1	0	0	0
60302	8	41	0	0
60304	3	0	0	0
60305	0	0	0	0
60402	4	7	0	0
60403	36	667	0	0
60406	5	0	0	0
60409	6	4	0	0
60411	6	12	1	0
60415	2	0	0	0
60419	12	4	0	0
60424	0	0	1	0
60426	2	0	0	0
60429	0	0	0	0
60432	0	0	2	0
60433	1	0	0	0
60435	27	0	14	0
60436	1	0	0	0
60438	10	14	0	0
60441	1	0	0	0
60444	0	0	1	0
60446	0	0	0	0
60450	1	0	0	0
60453	12	4	0	0
60458	46	783	0	0
60460	0	0	2	0
60466	386	0	0	0
60471	3	0	0	0
60475	30	677	0	0
60477	0	0	0	0
60480	6	0	0	0
60501	0	0	1	0
60505	1	0	0	0
60506	22	101	0	0
60517	3	13	0	0
60525	0	0	0	0
60527	12	0	0	0
60532	0	0	0	0
60542	2	45	0	0
60546	0	0	0	0
60559	62	0	0	0
60601	0	0	0	0
60604	0	0	0	0
60605	0	0	0	0
60606	0	0	0	0
60607	3	6	0	0
60608	16	79	26	0
60609	2	3	0	0
60610	0	0	0	0
60611	0	0	0	0
60612	9	12	0	0

Table 4, continued

60613	8	370	0	0
60614	1	40	0	0
60615	37	265	0	0
60616	26	108	0	0
60617	28	60	1	0
60618	9	24	0	0
60619	59	190	0	0
60620	62	654	0	0
60621	24	212	0	0
60622	1	18	0	0
60623	25	40	0	0
60624	32	237	0	0
60625	30	31	0	0
60626	59	160	0	0
60628	371	1245	2	0
60629	28	117	0	0
60630	1	0	0	0
60631	0	0	0	0
60632	2	7	0	0
60634	2	0	0	0
60636	5	18	0	0
60637	47	612	0	0
60638	4	6	0	0
60639	20	29	0	0
60640	19	82	0	0
60641	7	3	0	0
60642	2	225	0	0
60643	8	88	0	0
60644	82	381	0	0
60645	27	78	0	0
60647	12	76	0	0
60649	98	730	0	0
60651	18	104	0	0
60652	2	9	0	0
60653	20	466	0	0
60654	0	0	0	0
60657	0	0	0	0
60659	14	34	0	0
60660	26	165	0	0
60661	0	0	0	0
60690	1	0	0	0
60707	7	141	0	0
60714	0	0	1	0
60804	4	48	0	0
60827	8	0	0	0
60901	6	0	0	0
60950	3	0	0	0
61008	78	109	0	0
61016	1	0	0	0
61028	0	0	1	0
61032	2	0	0	0
61041	0	0	1	0
61081	4	32	0	0
61087	0	0	2	0
61101	3	0	1	0
61102	1	0	0	0
61103	14	64	1	0
61104	6	0	0	0
61107	22	144	0	0
61108	22	60	0	0
61109	56	120	0	0
61111	16	70	0	0
61114	14	182	0	0
61115	1	0	0	0
61319	0	0	1	0
61764	0	0	2	0

# Stipulations

- **Spending – Incentives, non-incentives and 1<sup>st</sup> year savings by MWh and Therms**

In 2022, the Multi-Family Energy Savings program allocated \$20,251,805 in ComEd incentives for efficiency upgrades within income eligible and public housing buildings and achieved 13,957 net MWhs and 1,379,661 net therms (to be converted to MWhs). Below (Table 5) is a breakout of savings and spend by program component (income eligible, public housing).

- The incentive and savings data is specific to ComEd and not the full program (the gas incentives and savings have been removed.)

Table 5

	Incentive Spend	Non-Incentive Spend*	Net MWh Savings Achieved	Net Therms Achieved
<b>Income-Eligible</b>	\$ 19,279,501.61	\$ 6,692,347.00	13,363	1,361,323
<b>Public Housing</b>	\$ 972,303.00	\$ 298,633.58	594	18,338

**RSA § V (D-3a)** ComEd commits to providing the following in its ICC-filed EE Quarterly Reports:

- 1) Number or proportion of diverse vendors by category (i.e., MBE, WBE and VBE), as well as by primary contractors and subcontractors, and network service providers)
- 2) Breakdown of diverse vendors by category (i.e., MBE, WBE and VBE)
- 3) Percent of or amount of portfolio dollars (excluding pass-through incentives) for diverse spend, by category (i.e., MBE, WBE and VBE)

## Q4 Updates

- ComEd utilized 17 diverse prime contractors (Tier 1) during Q4, along with 83 diverse sub-contractors and service providers (Tier 2) during the same period. The following tables (Table 6 and Table 7) show a breakdown of vendor diversity and spend, by category.

Table 6

<b>Tier 1</b>		
Diverse Category	Spend (\$)	# of Vendors
<b>MBE</b>	<b>\$23,825,212.62</b>	<b>5</b>
<b>WBE</b>	<b>\$10,093,657.16</b>	<b>12</b>
<b>Total</b>	<b>\$33,918,869.78</b>	<b>17</b>

Table 7

<b>Tier 2</b>		
Diverse Category	Spend (\$)	# of Vendors
<b>WBE</b>	<b>\$12,732,889.49</b>	<b>42</b>
<b>MBE</b>	<b>\$7,762,109.26</b>	<b>36</b>
<b>VOSE</b>	<b>\$3,114,287.47</b>	<b>5</b>
<b>Total</b>	<b>\$23,609,286.22</b>	<b>83</b>

- **Data Definitions:**

- **Tier 1 vendors:** Prime diverse vendor
- **Tier 2 vendors:** Prime non-diverse vendor, subcontracting to a diverse vendor
- **Minority-owned Business Enterprise (MBE):** A for-profit enterprise, regardless of size, physically located in the United States, which is 51% owned, operated, and controlled by minority group members, defined by the following:
  - **Asian-Indian-owned business enterprise:** A U.S. citizen whose origins are from India, Pakistan, or Bangladesh
  - **Asian-Pacific-owned business enterprise:** A U.S. citizen whose origins are from Japan, China, Indonesia, Malaysia, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Thailand, Samoa, Guam, the U.S. Trust Territories of the Pacific, or the Northern Marianas
  - **African-American-owned business enterprise:** A U.S. citizen having origins in any of the Black racial groups of Africa

# Stipulations

- **Hispanic-owned business enterprise:** A U.S. citizen of Hispanic heritage, from any of the Spanish-speaking areas of the following regions: Mexico, Central America, South America, or the Caribbean Basin
- **Native-American-owned business enterprise:** A person who is an American Indian, Eskimo, Aleut, or Native Hawaiian, and is regarded as such by the community of which the person claims to be a part
- **Woman-owned Business Enterprise (WBE):** An independent business concern that is at least 51% owned and controlled by one or more women who are U.S. citizens or Legal Resident Aliens; whose business formation and principal place of business are in the U.S. or its territories; and whose management and daily operation is controlled by one or more of the women owners
- **Veteran-owned Small Business (VOSB):** A business that is at least 51% owned, operated, and controlled by one or more veterans

- Clutter
- Standing Water
- Asbestos
- Mechanical Issues
- Electrical Issues

Table 8

Health and Safety Related Deferrals	
Home Energy Savings	3
Multi-Family Energy Savings	14

Table 9

Health and Safety Related Spend YTD*	
\$6,831,223.90	

\*Note: Spend includes dollars spent on exhaust fans and emergency HVAC replacement, which also contribute to energy savings.

**RSA § V (D-4a)** ComEd commits to annually providing the following Health & Safety-related metrics for IE Whole Building Retrofit Programs at joint SAG and Committee meetings, in 4th quarter quarterly SAG reports, and in ICC-filed Annual Reports.

- 4) Number of properties deferred because of health and safety issues and general trends in the type of related H&S issues (will also be provided in ICC-filed Quarterly Reports).
- 5) The percentage and/or dollar amount of the Health and Safety Fund that has been spent down (will also be provided in ICC-filed Quarterly Reports)

## Q4 Updates

- The following tables (*Table 8* and *Table 9*) show a breakdown of health and safety related deferrals and total spend year to date for IE retrofit programs. The type of health and safety issues identified to lead to deferrals include:
  - Structural issues
  - Roof issues
  - Mold

**RSA § VIII (B-3)** ComEd will report to the ICC in its ICC-filed Quarterly Reports on the progress of the Market Development Initiative (MDI) with the ICC-filed Annual Reports summarizing annual progress.

## Q4 Updates

- In Q4 2022, the study team concluded their research and provided a completed set of deliverables. The study team was led by Griffin & Strong, P.C. with Emerald Cities Collaborative and was selected by ComEd, Nicor Gas, Peoples Gas and North Shore Gas via joint RFP in 2021. Concurrently in Q4, ComEd conducted an RFP to identify an implementation contractor for the implementation of the MDI starting in January 2023. ComEd selected Walker-Miller Energy Services in December and sharing is underway between Griffin & Strong, Walker-Miller, and ComEd to create a 2023-2025 MDI roadmap.

# Total Resource Cost

## CY2022 New Measures

All measures in the table below were launched in CY2022.

Sector	Program	Measure	IL TRC	Justification for TRC < 1.00
Business	Standard	High Efficiency Hand Dryer	2.03	
Business	Standard	Ag Fan Thermostat Controller	26.24	
Business	Standard	Ag LED Indoor Grow for Light	6.01	
Business	Standard	Grocer Automatic Door Closer	2.74	
Business	Standard	Grocer VFD for Condenser Fans	0.87	This measure was brought over from the previous grocery program in order to provide customers and service providers with continuity of incentive opportunities.
Business	Standard	Switch Peripheral Equipment Consolidation	2.28	
Business	Standard	Chiller with integrated VSD	18.66	
Business	Standard	Oil-free Bearing Chiller	36.69	
Business	Small Business	Energy Efficient Hand Dryer	3.10	
Business	Small Business	Low/No Anti-Sweat Heaters for Coolers	0.24	This measure comes from the Standard offering, and the Small Business offering is testing if small business customers would also consider this measure when offered. Prior to offering this measure, service provider feedback indicated it could be a viable measure.
Business	Small Business	Low/No Anti-Sweat Heaters for Freezers	0.78	Same as above
Business	Small Business	Insulation of Bare Refrigeration Lines	3.92	
Business	Small Business	Beverage & Snack Machine Controls	0.44	This measure is newly created; however, it is a combination of three previously offered Small Business offering measures [Direct Install Reach-in (Novelty) Cooler Controls, Snack Machine Controls, and Beverage Machine Controls] which had to be merged into a single measure in 2022 to align with TRM v10.0. This is expected to be a viable measure for small business customers.



# Appendix: Program Descriptions

## Program Descriptions

### Home Energy Savings (Single-Family Upgrades)

#### Home Energy Assessments (Market Rate & Income Eligible), Retrofits (Income Eligible)

Overview: Under the Home Energy Savings program, ComEd provides three offerings for single family residential customers: Home Energy Assessments (HEA) - Market Rate, HEA – Income Eligible, and Income Eligible Retrofits. These offerings are closely linked through a centralized intake process and coordinated customer journey. Single family includes single family detached, vintage homes (30+years), manufactured homes, condo units, townhomes, two-flats, and duplex. The program offers free assessments and installation of energy savings products such as LEDs, water-saving devices, water heater pipe wrap, advanced power strips and thermostats with income eligible customers receiving all products installed for free. Certain income-eligible customers also receive comprehensive weatherization services. The program is delivered jointly with the Northern Illinois Gas Utilities (Nicor Gas, People Gas and North Shore Gas).

### Multi-Family Energy Savings (Multi-Family Upgrades)

#### Market Rate, Income Eligible, Public Housing

Overview: The Multi-Family Energy Savings (MFES) program is a single comprehensive program offering that provides a full range of multi-family energy efficiency services. The MFES program consists of three offerings for 2022: Income Eligible, Public Housing, and Market Rate. This program offers efficiency upgrades for multi-family properties, including gas and electric measures for tenant units and common areas. This program offering is delivered jointly with the Northern Illinois Gas Utilities (Nicor Gas, Peoples Gas, and North Shore Gas). Income Eligible, Public Housing, and Market Rate Property owners/managers who complete weatherization and other energy efficiency improvements enjoy reduced operating costs, increased comfort in tenant spaces, increased occupancy rates, and improved property value. Additionally, building tenants experience increased comfort and reduced energy costs.

### 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.

## Retail

### Market Rate, Income Eligible

Overview: ComEd offers residential delivery customers rebates on select ENERGY STAR® certified appliance, home products and lighting products. Deeper discounts are available to income eligible customers on select products via instant discount at retail locations within zip codes where at least 60% or more of the households are at or below 80% Area Median Income (AMI) or through customized discount channels to pre-qualified income eligible customers, like Limited Time Offers (LTOs). Retail Program also includes incentives offered via the ComEd Marketplace.

## Product Distribution

### Food Bank (Income Eligible), IE Kits (Income Eligible), School Kits (Market Rate and Income Eligible)

Overview: Product Distribution includes kits (Market Rate and Income Eligible school kits and Income Eligible kits distributed through Community Action Agencies and other partners) and distribution of products through Food Banks, Food pantries and other partners. By providing free energy efficiency products and education distributed through trusted channels, ComEd can reach more customers, particularly those most in need and introduce them to the wide-ranging benefits of energy efficiency including reduced energy usage, reduced energy costs, improved their quality of life and reduced environmental impacts.

## Residential New Construction

### Affordable Housing New Construction, Electric Home New Construction

Overview: Residential New Construction consists of two offerings for 2022: Affordable Housing New Construction (AHNC) and Electric Homes New Construction (EHNC). The 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 Nicor Gas. The EHNC Program promotes high performance all-electric homes that allow ComEd customers to stack the benefits of all-electric energy efficiency, demand-response, electric vehicles, solar, and new rate structures. Program works with local builders and Home Energy Rating System (HERS) raters to ensure that new homes exceed the requirements of the state's energy code for increased energy savings.

# Appendix: Program Descriptions

## Heating and Cooling

Overview: ComEd offers Heating & Cooling incentives to ComEd residential delivery customers that replace existing heating and cooling equipment with qualifying, high-efficiency central air conditioners, air source heat pumps, ductless mini-split heat pumps, geothermal (ground source) heat pumps, furnace blower motors (ECMs), or smart thermostats. Measures including central air conditioning (CAC), air source heat pump, and ductless mini-split heat pumps, are offered through a distributor (midstream channel). Measures including furnace blower motors (ECMs), smart thermostats, duct sealing, CAC tune ups, air source heat pump tune ups, and geothermal heat pumps, are offered by Energy Efficiency Service Providers (contractors) to residential customers and are downstream measures (incentives paid to customers through the participating EESP). Also offered downstream are incentives for new and replacement geothermal heat pumps that involve full loop systems.

## Small Business

### Private, Public

Overview: Offers private and public sector small business customers cost-effective turn-key energy efficiency retrofit and replacement services. These customers are typically underrepresented in energy efficiency programs due to limited staff and resources, lack of capital, and leased instead of owned facilities. For 2022, the former stand-alone Small Business Kits and Public Buildings in Distressed Communities offerings have now been incorporated into the Small Business offering. 2022 promotional incentives for specific projects are offered in the following categories: Public sector Early Bird bonus, 100-200 kW peak demand, Virtual Energy Consultations, Public Libraries, Distressed Communities, Public schools, and Non-Lighting. Incentives are calculated based on a per unit basis.

## Standard Incentives

### Private, Public, ComEd Streetlights

Overview: The Standard Program provides monetary incentives to customers on a "Standard" fixed or per-unit basis. Standard offers incentives for common energy-efficiency improvements including: Indoor and outdoor lighting equipment (including networked lighting and LED streetlights), HVAC equipment (e.g., variable speed drives, chillers, roof-top units), commercial appliances including industrial and laboratory equipment, compressed air equipment, and Energy Management Systems (EMS).

## Custom Incentives

### Private, Public

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, IT equipment upgrades, process cooling, compressed air, VFDs on large motors, free cooling systems, refrigeration improvements, wastewater treatment plants, combined heat and power, and other measures not covered in the Standard offering.

## Retro-Commissioning (RCx)

### Private, Public

Overview: The RCx program provides customers with a fully funded engineering study to help business and public-sector customers optimize operations of existing building systems to reduce energy usage while continuing to maintain desired environmental conditions. Common energy conservation measures focus on control of HVAC and lighting using building automation systems. Typical participants include commercial office buildings, hospitals/health care facilities, and higher education buildings. RCx options include RCx Flex and a Monitoring-Based Commissioning (MBCx). Each conduct an engineering study identifying ECMs. Additionally, RCx includes a Virtual Commissioning (VCx) option which offers free identification of energy-saving measures and remote technical assistance for implementation. VCx focuses on smaller customers in which smart meter interval usage data is used to remotely identify operational savings opportunities.

## Industrial Systems

Overview: The Industrial Systems program assists industrial customers to optimize and/or identify energy efficiency measures to improve the performance of the following systems or processes: Compressed air, process cooling, industrial refrigeration, water and wastewater treatment plant, process efficiency for heating and cooling in production.

## Midstream/Upstream

### Private, Public

Overview: ComEd provides point-of-sale discounts on commercial LED lighting and HVAC equipment, as well as industrial forklift battery chargers. Purchasers can verify customer and product eligibility through participating distributors using a full-service webtool, which reimburses distributors for incentives instantly provided to eligible purchasers.

## Strategic Energy Management (SEM)

### Private, Public

Overview: SEM helps organizations embed energy efficiency into their operations and company culture. Efforts ultimately allow for organizations to establish energy policies, improve operating efficiencies, and build budgets for energy efficiency efforts. SEM

# Appendix: Program Descriptions

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 provides incentives for behavioral energy savings as well as operational measures.

consistently deliver only the voltage each customer requires while providing energy savings.

## **C&I New Construction**

### **Private, Public**

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.

## **Assessments**

### **Private, Public**

Overview: Assessments identify energy saving measures (capital cost and operational) and provide information on available financial incentives for energy efficient equipment upgrades and retrofits. Assessments save energy annually and lower operating expenses through implementation of recommended measures. The free Facility Assessment is a tool that helps customers take the first step toward making their facility more efficient by identifying opportunities to participate in the various programs within the EE portfolio. The assessments involve an initial site visit (in-person or virtual) where an engineer collects data regarding a facility. After the site visit, the engineer compiles all the opportunities with their estimated savings, costs, incentives, and simple paybacks into a report that is presented to the customer. Customers >10 MW (except for private commercial accounts that have opted out) are now eligible to have a free assessment and for the portfolio to claim operational savings measures.

## **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

# LIEEAC Budget Report



End-Of-Year Expenditure Report  
 IQ Energy Efficiency Committee (LIEEAC) - IQ-N  
 2/2/2023

Commonwealth Edison Company  
 Phil Halliburton  
 2011 Swift Drive  
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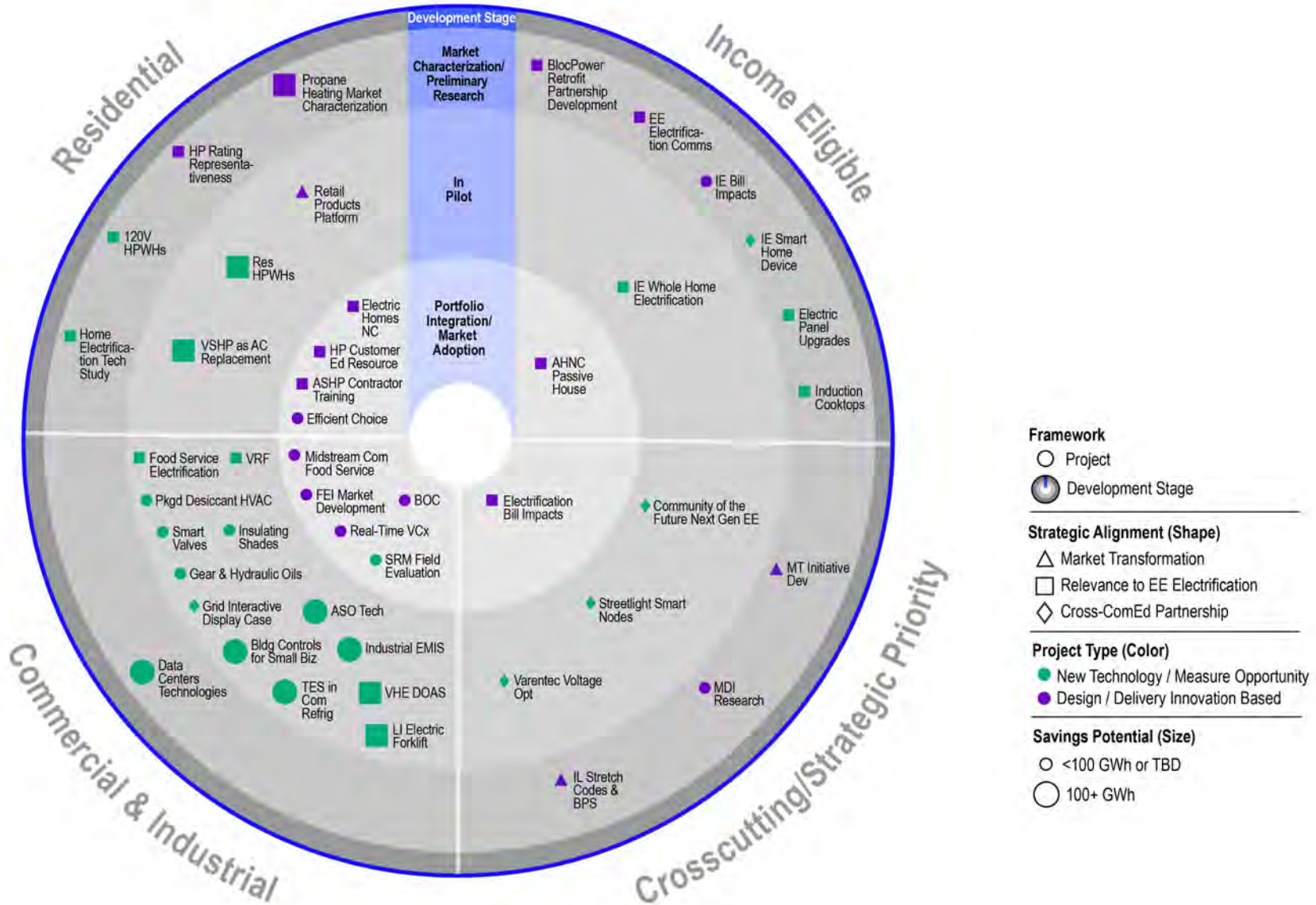
P.O. #	2046441
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Cost Category	Total Budget	PAID to Date	Q1 - Q2 + August	September	October	November	December	Year-to-Date	Remaining	Comments
<b>Contract Release #1 (Facilitation) Budget</b>	<b>\$ 548,657.00</b>									
Facilitation Labor, includes Initial Fixed Fee	\$495,276.00	\$136,851.06	\$119,143.32	\$17,707.74	\$17,503.75	\$17,228.62	\$ 16,442.99	\$171,583.43	\$323,692.57	No Roll-Over
Unallocated	\$ 53,381.00							\$ -	\$ 53,381.00	No Roll-Over (subject to further ComEd/ICC Discussion)
<b>Contract Release #2 Grants &amp; Stipends) Budget</b>	<b>\$ 513,000.00</b>									
Leadership Team Stipends or Grants	\$ 68,250.00	\$ 72,742.13	\$ 57,278.78	\$ 15,463.35	\$525.00	\$ 2,625.00	\$ 2,275.00	\$ 78,167.13	\$ (9,917.13)	LT Payments over. Per ComEd, excess will come from Committee Participation Stipends.
Committee Participation Stipends	\$ 57,000.00							\$ -	\$ -	LT Overage will come from Committee Participation Stipends.
Education and Outreach Grants	\$ 388,048.15							\$ -	\$ -	Per ComEd, rolls-over
<b>Overall Total</b>	<b>\$ 1,061,657.00</b>									

NOTE: Overall total in contract is not equal to sum of "line item" budgets. Kept total from contract and individual line items in contract.

# R&D Summary

# ComEd Energy Efficiency Program R&D Portfolio Summary 2022 Q4



This visualization provides an overview of the R&D Team's selected research concepts for 2022, organized by stage of research and relevant customer segment. Further information about each concept may be found in the following table.

## R&D Portfolio Summary 2022 Q4

Concept	Work Description	Partners	Customer Segment	End Date	Status Update	Web Link
<b>Portfolio Integration and Market Adoption</b>						
Affordable Housing New Construction Passive House	Integration of a PHIUS+ incentive tier into the Affordable Housing New Construction offering.	Slipstream	Income Eligible	2023 Q4	The Passive Building Pathway has five active projects enrolled with a goal of adding one more in Q1 of 2023. Two projects are already under construction, and three are expected to begin construction later this year. The R&D team is providing marketing and incentive funding as well as evaluation support.	<a href="#">Link</a>
Air Source Heat Pump (ASHP) Training	Series of educational activities designed to develop the EESP market for heat pumps.	Slipstream, Center for Energy and the Environment (CEE)	Residential	2023 Q2	The project team created two new training modules, one focused on ASHPs in new construction and one targeted to students. They hosted a live webinar on ASHPs for new construction and held ten training events for distributors and contractors. The project team also created cost of heat guides in English and Spanish for contractor use.	<a href="#">Link</a>
Building Operator Certification	Training program to support commercial building staff in identifying operational energy efficiency opportunities.	Midwest Energy Efficiency Alliance (MEEA)	Commercial	2022 Q4	The Building Operator Certification program was successfully transitioned to the Business programs team and is being managed by Resource Innovations under the RCx contract.	<a href="#">Link</a>
Efficient Choice	Integration of new choice engine website into the residential portfolio.	Enervee	Residential	Ongoing	After transferring the website to the Channels team after a successful pilot, R&D is providing support on evaluation and portfolio integration. The number of product categories available to customers has been expanded and rebate values are now listed alongside relevant products.	<a href="#">Link</a>
Electric Homes New Construction (EHNC)	Integration of all-electric homes standards into residential new construction offering.	Slipstream	Residential	Ongoing	EHNC closed out 2022 with 28 participating homes completed. The program adopted the utilization of a gas baseline for calculating savings, and the year end results are currently under evaluation. The goals for 2023 are 85 units and 1,077 total site energy net MWh savings. The current pipeline forecast suggests we will reach this goal. In addition, discussions are underway to develop a market transformation initiative targeting the EHNC market.	<a href="#">Link</a>
Electrification Bill Impacts Calculations	Analysis and calculation of the potential customer bill impacts related to electrification measures.	Center for Energy and Environment (CEE)	Cross Cutting	Ongoing	The project team has completed a set of customer case studies and provided a set of calculators for program implementation teams to integrate into their activities regarding electrification measures. A second case study set with further sensitivity parameters was presented in Q4.	N/A
Fan Energy Index (FEI) Market Development	Integration of savings algorithm to Illinois TRM and new savings opportunity for C&I offering.	Slipstream	Commercial	Jun-23	The project team delivered contractor trainings and an interim report on effectiveness of these trainings and potential for FEI as a midstream offering. ComEd to provide input on scope/timing of Phase 4 activities in order to proceed to the next task.	<a href="#">Link</a>
Heat Pump Customer Education Resource	Preparation of a web-based resource for customers and contractors to learn about the energy and bill impacts of switching to heat pumps.	Slipstream, CEE, Fahrenheit Creative Group	Residential	2023 Q2	The project team is developing a website to serve as a comprehensive heat pump resource for ComEd customers and contractors. The team will leverage existing content from research and develop new content as needed. The team is also gathering feedback on content and usability through customer focus groups and surveys. The site is planned to launch in Q2.	N/A
Midstream Commercial Food Service	Testing of the midstream program design for increasing participation in commercial food service measures.	GTI, Frontier Energy	Commercial	2022 Q4	The pilot concept has been deemed a success and all Illinois utility partners have agreed to transition it to a statewide, jointly implemented, midstream program model. A solicitation was held in Q4 2022 and a new implementation contractor was selected to begin in January 2023.	<a href="#">Link</a>
Real-Time Virtual Commissioning (VCx)	Testing energy savings and customer experience in real-world conditions.	Power TakeOff	Commercial, Public Sector	2023 Q4	All Phase 2 installations will be complete in January 2023. The project team is continuing to provide site management services for 18-months following the installations. A final report will be provided following completion of M&V for Phase 1 installations, and discussions are underway to transition the offer to the RCx program.	<a href="#">Link</a>
Switched Reluctance Motors	Testing energy savings and customer experience in real-world conditions.	TBD	Commercial	Q4 2022	The R&D Team is soliciting feedback from the Standard and other implementation teams on additional research needs for this technology. The TRM measure has been approved for v11.	<a href="#">Link to previous project</a>
<b>In Pilot</b>						
Commercial Building Automated System Optimization (ASO) Technology	(In development) Testing energy savings and customer experience in real-world conditions.	TBD	Commercial	TBD	The R&D team has identified a host building for a demonstration and held an RFP seeking an ASO vendor in 4Q 2022. The research team has made a preliminary decision on a vendor and will be moving forward in Q1.	N/A
Commercial Food Service (CFS) Electrification	(In development) Promoting electrification opportunities within a high-potential commercial customer segment.	Frontier	Commercial	TBD	This new initiative will build on the successful joint-utility CFS midstream pilot and aim to promote high efficiency electric CFS equipment. Contract is near final and pilot will launch January 2023.	N/A
Commercial Interior Insulating Shades	Testing energy savings and customer experience in real-world conditions.	Illinois Institute of Technology	Commercial	TBD	A field evaluation has been completed at a large customer site. The R&D team is talking with a customer about potential expansion.	<a href="#">Link to previous project</a>
Communities of the Future Next Generation HVAC Demonstration	Testing energy savings and customer experience in real-world conditions.	Slipstream	Commercial	2023 Q4	Installation of high efficiency electric HVAC technology at a church in the Bronzeville neighborhood is in the final stages. Additional buildings in Bronzeville and Rockford are in the design consultation phase.	<a href="#">Link</a>



<b>Gear and Hydraulic Oils</b>	Testing energy savings and customer experience in real-world conditions.	Leidos, ExxonMobil	Industrial	2023 Q3	Due to supply chain issues, accessing the necessary products to conduct the field evaluation has been a challenge. As a result, pilot recruitment has been paused until the issues are resolved. This will cause a delay in the pilot timeline.	<a href="#">Link</a>
<b>Grid Interactive Display Case</b>	Testing energy savings and customer experience in real-world conditions.	National Renewable Energy Laboratory (NREL)	Commercial	2023 Q2	Results from laboratory evaluation are scheduled for delivery at the end of Q2 2023.	<a href="#">Link</a>
<b>Income Eligible Whole Home Electrification</b>	Testing energy savings, costs, and customer experience in real-world conditions.	Elevate, Slipstream	Income Eligible	2023 Q1	By end of year 2022, the project team completed all or some of the electrification retrofits at 71 of 100 housing units. The project team also developed an energy savings impact report and a survey to share with all participants.	<a href="#">Link</a>
<b>Industrial Energy Management Information System (EMIS)</b>	Testing energy savings and customer experience in real-world conditions.	Leidos, EPS Energie	Industrial	2024 Q1	Installation is complete at 3 of the 4 pilot locations with the final site to be complete Q1 2023. The project team is developing and implementing energy savings solutions for relevant facility components. All sites will have an impact evaluation conducted in 2023.	<a href="#">Link</a>
<b>Lithium Ion Electric Forklift</b>	(In development) Testing energy savings and customer experience in real-world conditions and developing a scalable program design.	DNV	Industrial	2023 Q2	Customer case studies are under development to support the new midstream Li-ion forklift truck offering in 2023.	N/A
<b>Packaged Desiccant HVAC</b>	(In development) Testing energy savings and customer experience in real-world conditions.	National Renewable Energy Laboratory (NREL)	Commercial	2024 Q4	Equipment design is undergoing development with results from laboratory evaluation scheduled for delivery in Q2 2023. After results are available, the team will determine a design for real-world testing.	N/A
<b>Pressure Independent Control Valves Smart Retrofits</b>	Testing energy savings and customer experience in real-world conditions.	Slipstream	Commercial	2023 Q3	The project team is proceeding with market actor interviews to gather information on the prevalence and preference for this retrofit approach. Additionally, a retrofit project in a hospital is undergoing monitoring.	<a href="#">Link</a>
<b>Residential Heat Pump Water Heaters (240V)</b>	Ongoing concept development to assess opportunities and barriers presented by heat pump water heaters.	CLEAResult	Residential	2023 Q3	The project team completed the enrollment of participating service providers and conducted outreach to recruit customers. Installations are complete at 8 customer homes and the team has a robust pipeline of natural gas, electric resistance and propane equipment participants. The project team also presented recommendations for 2023 program design based on discussions with key market actors.	<a href="#">Link</a>
<b>Retail Products Platform</b>	Testing of a national Market Transformation program delivery model.	NEEA	Residential	2023 Q4	Outstanding questions about evaluation methodology are being addressed through discussions with Guidehouse and the SAG Market Transformation Working Group; the 2022 evaluation report should include resolution to many of these questions, which will inform decisions about future program direction.	<a href="#">Link</a>
<b>Smart Controls for Small and Medium Commercial Buildings</b>	Testing a two-tiered energy management system (EMS) offering for small business customers.	Resource Innovations	Commercial	2023 Q4	The project team selected 5 EESPs to participate in the pilot from the RFP and are working with them to identify customers to participate. They narrowed in on several EMS products to test in the pilot and anticipate finalizing the product/vendor selection and beginning customer recruitment in Q1 2023.	<a href="#">Link to previous project</a>
<b>Smart Nodes</b>	(In development) Testing energy savings in real-world conditions.	TBD	Public	2023 Q3	As of December 2022, installations are underway; the R&D team is working with the Smart Grid team to track progress and troubleshoot any installation issues.	N/A
<b>Thermal Energy Storage in Commercial Refrigeration</b>	Testing energy savings and customer experience in real-world conditions.	Slipstream	Commercial	2023 Q4	The project team is discussing installations with a few potential site owners and aiming for at least one installation in 2023. The team is working with the Industrial Systems Offering to explore partnership opportunities for pilot sites.	<a href="#">Link</a>
<b>Variable Refrigerant Flow HVAC</b>	Testing energy savings and customer experience in real-world conditions.	Slipstream	Commercial	2023 Q4	Site monitoring continues on schedule, with some interviews and comfort surveys being administered. A provisional TRM measure was accepted for TRM v11.	<a href="#">Link</a>
<b>Variable Speed Heat Pump (VSHP) as AC Replacement</b>	Testing energy savings and customer experience in real-world conditions.	Center for Energy and Environment (CEE)	Residential	2023 Q3	The project team completed all 33 customer installations of the VSHP and single stage ASHPs and has started the continuous monitoring at customer homes.	<a href="#">Link</a>
<b>Very High Efficiency Dedicated Outdoor Air System</b>	Testing energy savings and customer experience in real-world conditions.	IMT, Slipstream, Ventacity	Cross Cutting	2024 Q2	Installation complete at one site. Other customer sites are in the process of design and modeling for eventual installations and monitoring, and installation agreements have been reached with several participants. As these are whole system replacements at larger buildings, the recruitment and installation timeline is longer than usual.	<a href="#">Link</a>
<b>Voltage Optimization Grid Edge Technology</b>	Testing installation needs and energy savings in real-world conditions.	Sentient Energy	Cross Cutting	2022 Q4	All hardware units were successfully installed and monitoring concluded in 2022. Final analysis was scheduled to conclude in Q4.	<a href="#">Link</a>

## Market Characterization and Preliminary Research

<b>120V Heat Pump Water Heater (HPWH) Research</b>	Research of market for 120V HPWHs in ComEd service territory	Slipstream	Residential	2022 Q4	The project team completed a final report and presented their findings and recommendations in Q4.	<a href="#">Link</a>
<b>Propane Heating Market Characterization</b>	Market characterization of ComEd's residential propane heating customers.	Slipstream	Residential, Income Eligible	2023 Q1	This study will provide insight into how ComEd can best identify and serve propane heating customers through weatherization and heat pump retrofits. Many hidden costs for propane customers have been uncovered and will influence ComEd's outreach strategy.	<a href="#">Link</a>
<b>BlocPower Retrofit Partnership Development</b>	Development of mapping and tools to provide better outreach for customer electrification.	BlocPower	Income Eligible	2023 Q1	This early partnership development effort kicked off in October. BlocPower team has incorporated ComEd customer energy consumption information to create BlocMaps (maps identifying good candidates for building electrification) for Chicago building stock. Other deliverables underway include a draft Integrated Building Report and customer-facing intake tool.	<a href="#">Link</a>
<b>Energy Efficient Electrification Customer Communication Best Practices</b>	Research of outreach tactics to provide customers with savings information.	ILLUME Advising	Income Eligible	2022 Q4	Customer surveys completed at the end of September, and the project team completed analysis and presented results at the end of October. ComEd team to consolidate all recommendations for integration into Programs.	<a href="#">Link</a>
<b>Income Eligible Home Energy Management System Research</b>	Market research and initial testing of home energy monitoring systems not requiring broadband access.	Slipstream	Income Eligible	2022 Q4	The project team concluded their assessment of both broadband and non-broadband home energy monitoring systems, providing recommendations on technologies and program designs to pursue for customers without broadband access.	<a href="#">Link</a>
<b>Induction Cooktops for Income Eligible Customers</b>	Research to better understand customer perceptions and barriers, and how to best promote to income eligible customers.	ILLUME Advising	Income Eligible	2023 Q1	The project team completed and presented the results of the secondary research. The primary research is ongoing and the project team is coordinating with the Elevate IE Whole Home Electrification pilot team to set up interviews with participants and non-participants.	N/A
<b>Heat Pump Rating Representativeness Initiative</b>	Research partnership to refine savings calculations for heat pumps.	NEEP	Residential, Commercial	2023 Q2	Field data collection continues on the installed heat pumps; further work in a Phase 2 is expected in 2023.	<a href="#">Link</a>
<b>Home Builder and HVAC Contractor Home Electrification Technology Study</b>	Interviews with HVAC contractors and home builders to better understand perceptions and barriers around electrification opportunities.	Rabin Research	Residential	2023 Q1	Contractor and home builder interviews have been completed and study results will be presented in Q1 2023.	N/A
<b>Home Electrical Panel Upgrades</b>	Research on delivery models for a program regarding electrical panel upgrades.	Slipstream	Residential	2022 Q4	The project team has completed analysis of costs and impacts associated with electrical upgrades necessary for electrification measures, and presented results in a final report and presentation in October 2022.	<a href="#">Link</a>
<b>Illinois Building Code Advancement</b>	Research to establish applicability and savings potential.	Slipstream, Midwest Energy Efficiency Alliance (MEEA)	Cross Cutting	2023 Q4	The project team continued outreach to municipalities across northern IL about long-term savings potential from stretch codes and building performance standards in anticipation of future evaluation under an MT framework. They also continue to make progress on developing a stretch code attribution model to enable the measurement of savings.	N/A
<b>Income Eligible Weatherization Bill Impacts</b>	Analysis of bill impacts of energy efficiency measures for income eligible customers.	Resource Innovations, Nicor, Peoples Gas, North Shore Gas	Income Eligible	2023 Q1	The project team completed the bill impacts analysis and the final report and presented their final results to ComEd, Nicor and Peoples/North Shore Gas in mid-December.	<a href="#">Link</a>
<b>Liquid Cooling in Data Centers</b>	Characterization of data centers market and assessment of applicable measures.	ERI	Commercial	2023 Q2	The project team is engaging with large data center customers to survey operations and opinions on liquid cooling, as well as recruit a case study site.	<a href="#">Link</a>
<b>Market Transformation Initiative Development</b>	(In development) Identification and development of new market transformation initiatives.	ILLUME Advising	Cross Cutting	2022 Q4	Working internally and holding periodic discussions with partners such as Nicor Gas, Ameren, NEEA, Illume Advising, and Apex Analytics on new market transformation initiative concepts. Concepts under final consideration include heat pumps, heat pump water heaters, luminaire level lighting control systems, and all-electric new home construction.	N/A
<b>Market Development Initiative (MDI) Research</b>	Research to support development of a broad set of initiatives aimed at increasing diverse supplier utilization and associated workforce training.	Griffin & Strong P.C., Emerald Cities	Cross Cutting	2022 Q4	The study completed in Q4 and the research team delivered the final roadmap. At the same time, ComEd completed the solicitation process for the MDI Implementation Contractor, and sharing of results between the two teams is underway.	<a href="#">Link</a>