



CY2022 THIRD 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 \$7.3 billion on energy bills and avoided 57 billion pounds of carbon through its energy efficiency programs.

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Portfolio Summary

936,695

Actual Net MWh YTD

1,643,355

CY2022 MWh Forecast

\$220,495,377

Actual Spend YTD

\$427,470,991

CY2022 Spending Cap

PORTFOLIO

- Through Q3, the portfolio has achieved 57% of its 2022 forecast of 1,643,355 MWh.
- Since its inception in 2008, the ComEd Energy Efficiency Program has saved ComEd customers over \$7.3 billion on their electric bills.

RESIDENTIAL IMPLEMENTATION

- Through Q3, market rate residential programs have achieved 70% of their combined 2022 forecast of 256,363 MWh, not including converted therms.
- Through Q3, income eligible residential programs have achieved 54% of their combined 2022 forecast of 213,560 MWh, not including converted therms.
- Customers have received over 231,400 incentives.
- Close to 28,500 homeowners and tenants – consisting of 15,490 income eligible participants - have received free direct install products from assessments through Q3.

C&I IMPLEMENTATION

- Through Q3, business private sector programs have achieved 55% of their combined 2022 forecast of 616,373 MWh.
- Business public sector programs have achieved 51% of their combined 2022 forecast of 155,274 MWh.
- Through Q3, 6,124 business private sector projects and 990 business public sector projects have been completed.

Residential Implementation Programs

Residential Direct to Consumer Program Highlights

- **Home Energy Savings - Home Energy Assessment (Market Rate and Income Eligible)** – In total year to date, the program has served 10,089 customers (both income-eligible and market rate) with assessments and energy saving products. Q3 was the strongest quarter thus far, with a 35% increase in participation as compared to Q2. Much of the increase in participation can be attributed to a market campaign, referred to as the Choice Campaign, that was targeted to customers that live in zip codes with a high density of income eligible (IE) households. The campaign ran from mid-July through the end of September and highlighted both the in-person and virtual assessment options that are available to customers.
- **Home Energy Savings - Income Eligible Retrofits** – Retrofits braided with the Illinois Home Weatherization Assistance Program (IHWAP) portion of the Home Energy Savings (HES) program saw two additional agencies with production in Q3: Community Contacts, Inc. (CCI) & the DuPage County CAA. Additional agencies with completed Q3 work include Tazwood, the Community and Economic Development Association of Cook County (CEDA), McHenry, Tri-County, Will County Center for Community Concerns (WCCCC), and Western Illinois Regional Council (WIRC). Customer satisfaction is still very high, at 9.9/10 YTD. For non-braided (“utility-only”) retrofits, a reach back campaign was held in Q3 and will continue into Q4, targeting customers that were previously deferred due to significant health and safety concerns identified in their home to target them with both a health and safety upgrades and energy efficiency retrofits. 38 total projects were identified and put into the pipeline. A new diverse Energy Efficiency Service Provider, Assured Insulation, was added to the program’s network. Overall, both braided and non-braided (utility-only) retrofits had the strongest quarter to date, with \$4,785,124 in ComEd incentives allocated to projects.
- **Multi-Family Energy Savings (Market Rate, Income-Eligible, and Public Housing)** – The program continues to see strong growth in submitted applications and completed projects. In Q3, over \$9M in incentives were issued, with ~\$7.7M being allocated to income-eligible and public housing projects. Year to date, the program has served over 1,400 income eligible buildings and over 8,700 tenant units throughout the service territory with energy efficiency upgrades. In July, the first public housing heat pump project was completed at the Jo Daviess County Housing Authority’s Meridian Manor in Warren; upgrades were completed in 15 units, converting inefficient electric resistance heating systems to efficient heat pump technologies, for a total incentive of \$90,000 and 47,624 kWh of savings. Year to date, the program has allocated \$595,900 to heat pump incentives, completing over 90 installations. In Q3, the program welcomed six new Energy Efficiency Service Providers (EESPs), bringing the total number to 84 with over a quarter being diverse suppliers. ~\$1.8m of the total YTD incentives have been allocated to Diverse Business Enterprise (DBE) EESPs.
- **Home Energy Reports** – Achieved energy savings in Q3 outperformed planned savings by 3,019 net MWhs. The program saw a 59.56% open rate for emailed Home Energy Reports (eHERs). In August, the program introduced Easy Open for eHERs, which gives customers the ability to click through the eHER and go directly into their MyAccount Home Energy Assessment without having to log-in. Not having the log in and credential barrier should enable

Residential Implementation Programs

more customers to complete their Home Energy Assessment and will allow additional data to be collected on their home and features, resulting in more accurate comparisons and reports.

| Program | Net MWh YTD | % Savings Achieved to Plan Savings Goal | Program Participation YTD | Unit Definition |
|--|-------------|---|---|--------------------|
| Home Energy Savings – Market Rate Assessment | 4,447 | 100% | 6,857 | Homes |
| Home Energy Savings – Income Eligible Assessment | 2,050 | 15% | 3,232 | Homes |
| Home Energy Savings – Income Eligible Retrofits | 3,416 | 25% | 2,204 | Homes |
| Multi-Family Energy Savings – Income Eligible | 8,057 | 47% | Tenant Unit Direct Installation: 10,007 Building Upgrades: 1,453 | Projects |
| Multi-Family Energy Savings – Public Housing | 488 | 15% | Tenant Unit Direct Installation: 0 Building Upgrades: 45 | Projects |
| Multi-Family Energy Savings – Market Rate | 4,764 | 79% | Tenant Unit Direct Installation: 6,195 Building Upgrades: 523 | Projects |
| Home Energy Report | 52,726 | 91% | Home Energy Reports (print): 5,102,127 Home Energy Reports (email): 8,363,229 High Usage Alerts: 1,773,215 Weekly Usage Reports: 7,081,241 | Reports and Alerts |

Residential Implementation Programs

Residential Channels Program Highlights

- **Retail (Market Rate and Income Eligible)** – The program offers post-purchase rebates, verified instant discounts, and markdowns at retailers across ComEd's service territory. In Q3, the program developed a new strategy that will roll out in early Q4 – the Corporate Retail Pop-Up event pilot. By partnering with ComEd's Strategic Energy Manager (SEM) program, the program will bring an in-office retail experience to six corporations this year (pilot) and may expand the offering into 2023, if the pilot is successful. In Q3, the program also expanded on Limited Time Offers (LTOs), specifically for income eligible customers. The first and second LTOs of Q3 were a continuation of Q2's free ENERGY STAR certified smart thermostat, launched at the end of July and mid-August. The third LTO, launched in early September, offered a free ENERGY STAR room air purifier.
- **Product Distribution (Market Rate and Income Eligible)**
 - **Food Bank Distribution** – In Q3, 23 events were hosted and over 55,000 energy saving products and informational material were distributed to over 7,000 income eligible customers. To date the program has distributed over 750,000 ENERGY STAR certified lighting products, over 6,400 water-saving products, over 12,000 advanced power strips, and over 25,000 rolls of weatherstripping.
 - **Income Eligible Kits** – In Q3 the program was able to distribute 40% of its annual goal. Community Action Agency (CAAs) continue to provide customer outreach, recruitment and enrollment for kits. In Q3, the program partnered with a new partner, Neighborhood Housing Services, as well as launched an ad campaign via the Propel App (formerly Fresh EBT, allows Electronic Benefits Transfer (EBT), Women, Infants, and Children (WIC), Supplemental Security Income (SSI), unemployment, and other recipients of federal benefits to check their balances) for additional customer leads. To date the program has distributed 33,784 kits.
 - **School Kits** – To date the program shipped 6,492 joint income eligible school kits and 14,624 joint market rate school kits. School kits has maintained a 90% satisfaction rating with teachers who participated in the program. The program will begin shipping a new jointly branded lithographic box design for school kits for the Fall portion of the program.
- **Residential New Construction** – The Affordable Housing program completed a project in Elgin that recently won an award from the American Planning Association for best practices. The project delivered 36 affordable units while promoting the preservation of historic buildings in the Elgin area. The program received excellent feedback from the industry regarding technical changes around heat pumps. Interest in electrification in new construction and major renovation are further increasing with the announcement of the Inflation Reduction Act (IRA) incentives and tax rebates.
- **Heating and Cooling** – The program increased its incentives up to \$2,000 for air source heat pumps and mini split heat pumps with a 16 SEER or higher efficiency, to encourage participation and technology adoption. Increased interest by Distributors and Service Providers in the territory has significantly increased in heat pumps due to the higher incentive and the recent announcement of the IRA.

Residential Implementation Programs

| Program | Net MWh YTD | % Savings Achieved to Plan Savings Goal | Program Participation YTD | Unit Definition |
|---|-------------|---|---|-----------------------------------|
| Retail – Market Rate | 85,902 | 66% | Home Products: 174,947 Lighting: 3,523,435 | Appliances; Light Bulbs |
| Retail – Income Eligible | 4,924 | 13% | Home Products: 52,426 Lighting: 283,359 | Appliances; Light Bulbs |
| Product Distribution – Market Rate | 974 | 46% | 14,936 | School Kits |
| Product Distribution – Income Eligible | 94,736 | 70% | 752,087 | Bulbs and weatherization measures |
| Residential New Construction – Affordable Housing | 926 | 49% | 10 | Projects |
| Residential New Construction – All Electric | 186 | 78% | 15 | Homes |
| Heating and Cooling – Midstream/ Rebates | 3,502 | 68% | 4,107 | Units |

C&I Implementation Programs

Business Program Highlights

- Small Business (Private and Public)** – In Q3, the new 30% For All campaign was launched for Private and Public sector customers with a goal of delivering 25 net GWh savings in approximately 775 projects. This very successful campaign has delivered over 48.5 net GWh savings (194% increase over the 25 GWh goal) during Q3 and is helping the program toward its goal. The campaign has been extended to November 4th and is on track to deliver more than 70.5 net GWh (282% increase over original goal). Interior lighting and networked lighting controls, in addition to park districts' outdoor lighting, are among the most popular measures during this quarter.
- Standard** – In July, incentives were increased an average of 33% across many of the most popular measures to encourage additional program participation amid changing economic conditions. These increases included LEDs, networked lighting fixtures and controls, occupancy sensors, and energy management systems (EMS).

| Program | Net MWh YTD | % Savings Achieved to Plan Goal | Program Participation YTD | Unit Definition |
|---------------------------------|-------------|---------------------------------|---------------------------|-----------------|
| Small Business – Private | 114,754 | 51% | 4,280 | Projects |
| Small Business – Public | 28,292 | 70% | 402 | Projects |
| Incentives – Standard - Private | 80,413 | 37% | 1,165 | Projects |
| Incentives – Standard – Public | 18,380 | 44% | 468 | Projects |
| Standard – ComEd Streetlights | 8,136 | 101% | 174 | Projects |

C&I Implementation Programs

Technical Program Highlights

- **Custom** – The Early Bird Promotion, along with increased incentives, was launched in September to encourage project completions in 2022. 48 pre-apps and 28 final-apps have been received in this quarter with an estimated 5.1 gross MWh in savings and \$684K in incentives for 2022.
- **Retro-Commissioning (RCx)** – Continued strong activity through Q3, especially in the Public Sector across all three program tracks (RCx Flex, Monitoring-Based Commissioning, and Virtual Commissioning). The program achieved 23 GWh in energy savings or 53% of the annual goal.
- **Industrial Systems** – In Q3, the program saw a large percentage of the comprehensive projects pipeline shift to 2023 due to customer delays and long lead times on equipment. In response, the program has increased incentives to customers and EESPs to offset higher project costs and to motivate the customer to complete projects in 2022. Also, there is a focus on compressed air leak repair projects which included re-engaging a major compressor manufacture (Atlas Copco) and outreach efforts to contact past customers and LCS managed customers.
- **Strategic Energy Management** – 18 Treasure Hunts were completed in Q3. Recruiting for SEM has been strong with 112 customers participating, including three >10MW customers. 15 student interns, all from within the ComEd service territory, have been hired for to support our future workforce. 8 SEM customer workshops were held in Q3, including an in-person SEM workshop for the Community cohort.
- **C&I New Construction (CINC)** – The program added 22 new private projects and 7 new public projects to the pipeline for completion in future years totaling 34,137 gross MWh and \$514,394 in electric incentives. Currently 8 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** – Design Lights Consortium (DLC) fixtures, up to 500W with restrictions, were added to Instant Discounts to influence purchasing decisions not being experienced with our existing downstream programs. To date, there has been positive feedback from the distributor network on this additional product category. Six new distributors have been added to the Instant Discounts program in Q3.

C&I Implementation Programs

| Program | Net MWh YTD | % Savings Achieved to Plan Goal | Program Participation YTD | Unit Definition |
|---------------------------------------|-------------|---------------------------------|---------------------------|---|
| Incentives – Custom | 3,713 | 20% | 52 | Projects |
| Incentives – Custom – Public | 1,066 | 29% | 8 | Projects |
| Retro-commissioning – Private | 11,442 | 31% | 73 | Projects |
| Retro-commissioning – Public | 12,427 | 96% | 69 | Projects |
| Industrial Systems | 26,736 | 59% | 247 | Projects |
| Midstream/Upstream – Private | 82,318 | 48% | 902,347 | Lighting products; battery chargers; HVAC |
| Midstream/Upstream – Public | 19,020 | 85% | 337,410 | Lighting products; battery chargers; HVAC |
| Strategic Energy Management – Private | 1,750 | 6% | 87 | Participating Customers |
| Strategic Energy Management – Public | 337 | 5% | 25 | Participating Customers |
| C&I New Construction – Private | 7,154 | 78% | 34 | Projects |
| C&I New Construction – Public | 97 | 8% | 7 | Projects |

C&I Implementation Programs

Engineering Program Highlights

- **Facility Assessments/Operational Measures** – Operational measures are identified through Facility Assessments and are comprised of measures that save energy but do not qualify for incentives. In Q3, 4.2 GWh in savings were added to the pipeline for a YTD total of 12.4 GWhs. Operational measures typically take a few months to be implemented after identification. Savings from these measures identified through Q3 2022 are anticipated in Q4 and into 2023.

| Program | Net MWh YTD | % Savings Achieved to Plan Goal | Program Participation YTD | Unit Definition |
|-----------------------|-------------|---------------------------------|---------------------------|-----------------|
| Assessments – Private | 359 | 13% | 12 | Projects |
| Assessments – Public | 234 | 26% | 11 | Projects |

Voltage Optimization

Voltage Optimization Highlights

- Savings below are equivalent to 24.6 million pounds of carbon dioxide reduction or removing 2,430 passenger vehicles driven each year.

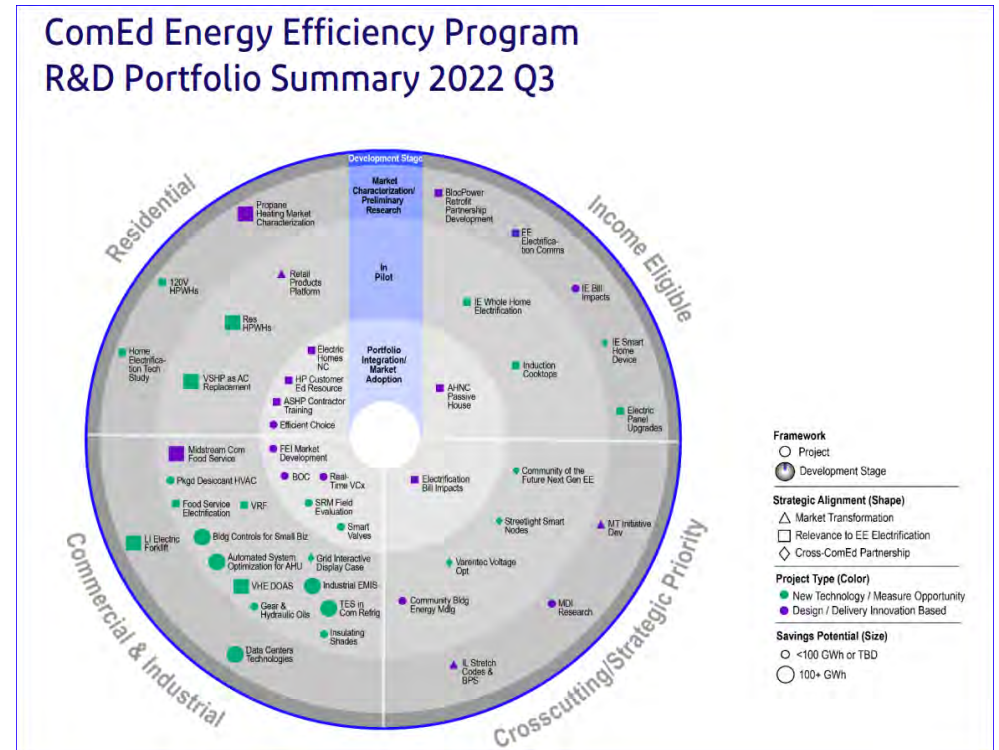
| Program | Net MWh YTD | % Savings Achieved to Plan Goal | Program Participation YTD | Unit Definition |
|----------------------|-------------|---------------------------------|---------------------------|---------------------------------------|
| Voltage Optimization | 29,019 | 18% | 10 stations; 68 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 Q3 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 December 2022
- Included TV, Cinema, Digital, and Out of Home
- Generated 1,940,183 digital impressions as of 10/2

- **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 December 2022
- Included Radio, Outdoor, Digital, and Print
- Generated 2,248,748 digital impressions as of 10/2

- **Energy Efficiency – Small 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.

- In-market through November 2022
- Includes digital, social, transit, and print
- Generated 1,207,237 impressions as of 10/2

Stipulations

Plan 6 Stipulations

As part of the Revised 2022-2025 Energy Efficiency & Demand Response Plan (Revised Plan 6), ComEd has agreed to report out on the following stipulations:

§ 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.

Q3 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 Q3 with monthly emails and targeted social media messages. In Q3, the campaign delivered 376,345 emails and was viewed by 119,953 customers, approximately 31.87% of the target group. Concurrently targeted English and Spanish social media messaging through Facebook and Twitter yielded a total of 385,312 impressions, cultivating engagement with approximately 5,240 customers, approximately 1.36% of the target group.
- The Community Energy Assistance Ambassador (CEAA) program, initially launched in 2020, provides in-person outreach in targeted communities to inform customers of programs available to help manage and reduce their energy bills, including financial assistance and energy efficiency programs. 2022 CEAA training launched on September 29 with approximately 100 ambassadors attending and will begin outreach activities in Q4.

Table 1

| Top 20 disconnect zip codes (as of Sept 2022) | 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 | 11 | 62 | 2 | 83 | 147 |
| 60419 | Dolton | 21 | 81 | 28 | 63 | 171 |
| 60426 | Harvey | 22 | 52 | 0 | 25 | 77 |
| 60429 | Hazel Crest | 9 | 36 | 0 | 21 | 57 |
| 60471 | Richton Park | 7 | 15 | 34 | 20 | 69 |
| 60472 | Robbins | 1 | 1 | 0 | 8 | 9 |
| 60617 | Chicago | 104 | 146 | 16 | 698 | 860 |
| 60619 | Chicago | 89 | 143 | 30 | 511 | 683 |
| 60620 | Chicago | 139 | 205 | 73 | 857 | 1135 |
| 60621 | Chicago | 14 | 33 | 56 | 270 | 360 |
| 60623 | Chicago | 11 | 8 | 7 | 507 | 522 |
| 60624 | Chicago | 6 | 16 | 20 | 349 | 384 |
| 60628 | Chicago | 78 | 139 | 954 | 711 | 1804 |
| 60636 | Chicago | 22 | 29 | 3 | 322 | 354 |
| 60637 | Chicago | 11 | 14 | 179 | 288 | 481 |
| 60644 | Chicago | 18 | 22 | 175 | 411 | 608 |
| 60649 | Chicago | 22 | 27 | 91 | 265 | 383 |
| 60651 | Chicago | 38 | 45 | 228 | 541 | 815 |
| 60827 | Riverdale | 18 | 58 | 85 | 61 | 205 |
| 61101 | Rockford | 0 | 0 | 193 | 22 | 215 |

Stipulations

§ 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.

Q3 Updates

- In Q3, the Low Income EE Accountability Committee (LIEEAC) held two (2) North region meetings and two (2) full committee 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.

§ 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

Q3 Updates

- Participation – buildings by zip code and apartment units**
In Q3 of 2022, the Multi-Family Energy Savings program served verified income eligible (IE) and public housing (PH) multi-family properties in 124 unique zip codes throughout ComEd’s service territory. In total, 819 IE and PH buildings participated with 5,556 tenant units receiving free products such as smart thermostats, LEDs, low flow showerheads and faucet aerators. Following table (*Table 2*) 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 of 2022.

- # of Apartment Units:* Each project with a recorded project type of “Direct Install” represents a unit served.

Table 2

| Zip Code | # of Building Participants (Income-Eligible) | # of Apartment Units Served (Income-Eligible) | # of Building Participants (Public Housing) | # of Apartment Units Served (Public Housing) |
|----------|--|---|---|--|
| 60005 | 0 | 0 | 1 | 0 |
| 60010 | 1 | 0 | 0 | 0 |
| 60016 | 5 | 0 | 0 | 0 |
| 60025 | 4 | 0 | 0 | 0 |
| 60031 | 0 | 0 | 0 | 0 |
| 60050 | 1 | 0 | 0 | 0 |
| 60056 | 0 | 0 | 0 | 0 |
| 60064 | 4 | 18 | 0 | 0 |
| 60067 | 0 | 0 | 0 | 0 |
| 60074 | 0 | 0 | 0 | 0 |
| 60077 | 1 | 0 | 0 | 0 |
| 60085 | 5 | 60 | 0 | 0 |
| 60087 | 13 | 423 | 0 | 0 |
| 60090 | 17 | 400 | 1 | 0 |
| 60096 | 5 | 40 | 0 | 0 |
| 60099 | 4 | 22 | 0 | 0 |
| 60104 | 1 | 11 | 0 | 0 |
| 60106 | 0 | 0 | 0 | 0 |
| 60110 | 0 | 0 | 0 | 0 |
| 60115 | 25 | 517 | 0 | 0 |
| 60123 | 1 | 4 | 0 | 0 |
| 60126 | 0 | 0 | 0 | 0 |
| 60131 | 0 | 0 | 0 | 0 |
| 60133 | 21 | 0 | 0 | 0 |
| 60148 | 0 | 0 | 0 | 0 |
| 60153 | 1 | 0 | 0 | 0 |
| 60155 | 1 | 5 | 0 | 0 |
| 60160 | 2 | 12 | 0 | 0 |
| 60169 | 1 | 0 | 0 | 0 |
| 60171 | 3 | 0 | 0 | 0 |
| 60173 | 0 | 0 | 0 | 0 |
| 60181 | 0 | 0 | 0 | 0 |
| 60187 | 0 | 0 | 0 | 0 |
| 60188 | 15 | 0 | 0 | 0 |
| 60201 | 1 | 0 | 1 | 0 |
| 60202 | 0 | 0 | 0 | 0 |
| 60302 | 3 | 0 | 0 | 0 |
| 60304 | 3 | 0 | 0 | 0 |
| 60402 | 1 | 0 | 0 | 0 |
| 60403 | 18 | 0 | 0 | 0 |
| 60406 | 0 | 0 | 0 | 0 |
| 60409 | 2 | 0 | 0 | 0 |
| 60411 | 1 | 4 | 0 | 0 |
| 60415 | 0 | 0 | 0 | 0 |
| 60419 | 2 | 4 | 0 | 0 |
| 60424 | 0 | 0 | 1 | 0 |
| 60432 | 0 | 0 | 0 | 0 |
| 60435 | 11 | 0 | 0 | 0 |
| 60438 | 2 | 6 | 0 | 0 |
| 60450 | 1 | 0 | 0 | 0 |
| 60453 | 3 | 0 | 0 | 0 |
| 60458 | 23 | 783 | 0 | 0 |
| 60460 | 0 | 0 | 2 | 0 |
| 60471 | 3 | 0 | 0 | 0 |
| 60475 | 15 | 677 | 0 | 0 |
| 60480 | 3 | 0 | 0 | 0 |

Stipulations

Table 2, continued

| Zip Code | # of Building Participants (Income-Eligible) | # of Apartment Units Served (Income-Eligible) | # of Building Participants (Public Housing) | # of Apartment Units Served (Public Housing) |
|----------|--|---|---|--|
| 60501 | 0 | 0 | 0 | 0 |
| 60506 | 12 | 100 | 0 | 0 |
| 60517 | 1 | 0 | 0 | 0 |
| 60527 | 6 | 0 | 0 | 0 |
| 60542 | 0 | 0 | 0 | 0 |
| 60559 | 31 | 0 | 0 | 0 |
| 60607 | 0 | 0 | 0 | 0 |
| 60608 | 2 | 9 | 0 | 0 |
| 60609 | 1 | 3 | 0 | 0 |
| 60611 | 0 | 0 | 0 | 0 |
| 60612 | 1 | 0 | 0 | 0 |
| 60613 | 6 | 287 | 0 | 0 |
| 60614 | 1 | 40 | 0 | 0 |
| 60615 | 12 | 59 | 0 | 0 |
| 60616 | 15 | 0 | 0 | 0 |
| 60617 | 7 | 22 | 1 | 0 |
| 60618 | 5 | 6 | 0 | 0 |
| 60619 | 11 | 59 | 0 | 0 |
| 60620 | 33 | 119 | 0 | 0 |
| 60621 | 13 | 103 | 0 | 0 |
| 60622 | 1 | 18 | 0 | 0 |
| 60623 | 13 | 10 | 0 | 0 |
| 60624 | 12 | 6 | 0 | 0 |
| 60625 | 20 | 27 | 0 | 0 |
| 60626 | 27 | 76 | 0 | 0 |
| 60628 | 126 | 895 | 0 | 0 |
| 60629 | 7 | 0 | 0 | 0 |
| 60634 | 1 | 0 | 0 | 0 |
| 60636 | 2 | 10 | 0 | 0 |
| 60637 | 11 | 18 | 0 | 0 |
| 60638 | 1 | 0 | 0 | 0 |
| 60639 | 5 | 0 | 0 | 0 |
| 60640 | 9 | 0 | 0 | 0 |
| 60641 | 2 | 0 | 0 | 0 |
| 60642 | 0 | 0 | 0 | 0 |
| 60643 | 3 | 65 | 0 | 0 |
| 60644 | 32 | 3 | 0 | 0 |
| 60645 | 5 | 0 | 0 | 0 |
| 60647 | 4 | 12 | 0 | 0 |
| 60649 | 50 | 293 | 0 | 0 |
| 60651 | 7 | 20 | 0 | 0 |
| 60652 | 0 | 0 | 0 | 0 |
| 60653 | 3 | 18 | 0 | 0 |
| 60657 | 0 | 0 | 0 | 0 |
| 60659 | 1 | 0 | 0 | 0 |
| 60660 | 9 | 103 | 0 | 0 |
| 60690 | 0 | 0 | 0 | 0 |
| 60707 | 0 | 0 | 0 | 0 |
| 60804 | 1 | 0 | 0 | 0 |
| 60827 | 6 | 0 | 0 | 0 |

| | | | | |
|-------|----|-----|---|---|
| 60901 | 6 | 0 | 0 | 0 |
| 60950 | 2 | 0 | 0 | 0 |
| 61008 | 26 | 0 | 0 | 0 |
| 61016 | 1 | 0 | 0 | 0 |
| 61032 | 1 | 0 | 0 | 0 |
| 61081 | 1 | 0 | 0 | 0 |
| 61087 | 0 | 0 | 1 | 0 |
| 61101 | 2 | 0 | 0 | 0 |
| 61102 | 1 | 0 | 0 | 0 |
| 61103 | 5 | 0 | 0 | 0 |
| 61104 | 2 | 0 | 0 | 0 |
| 61107 | 4 | 0 | 0 | 0 |
| 61108 | 11 | 24 | 0 | 0 |
| 61109 | 4 | 0 | 0 | 0 |
| 61111 | 3 | 40 | 0 | 0 |
| 61114 | 3 | 116 | 0 | 0 |
| 61319 | 0 | 0 | 1 | 0 |
| 61764 | 0 | 0 | 0 | 0 |

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

In total in Q3, the Multi-Family Energy Savings program allocated \$6,305,296 in ComEd incentives for efficiency upgrades within income eligible and public housing buildings and achieved 5,685 net MWhs and 380,907 net therms (to be converted to MWhs). Below (*Table 3*) 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 3

| | Incentive Spend (\$) | Non-Incentive Spend | Net MWh Savings Achieved | Net Therms Achieved |
|------------------------|----------------------|---------------------|--------------------------|---------------------|
| Income-Eligible | \$ 5,904,949.78 | \$ 2,848.00 | 5,451 | 371,349 |
| Public Housing | \$ 400,346.40 | \$ 147,168.00 | 234 | 9,558 |

Stipulations

§ 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)

Q3 Updates

- ComEd utilized 13 diverse prime contractors (Tier 1) during Q3, along with 78 diverse sub-contractors and service providers (Tier 2) during the same period. The following tables (*Table 4 and Table 5*) show a breakdown of vendor diversity and spend, by category.

Table 4

| Tier 1 | | |
|------------------|------------------------|--------------|
| Diverse Category | Spend (\$) | # of Vendors |
| MBE | \$ 4,651,314.80 | 5 |
| WBE | \$ 4,399,333.07 | 8 |
| Total | \$ 9,050,647.87 | 13 |

Table 5

| Tier 2 | | |
|------------------|-------------------------|--------------|
| Diverse Category | Spend (\$) | # of Vendors |
| MBE | \$ 4,505,551.82 | 33 |
| WBE | \$ 5,925,974.91 | 41 |
| VOSB | \$ 2,065,520.60 | 4 |
| Total | \$ 12,497,047.33 | 78 |

- **Data Definitions:**
 - **Tier 1 vendors:** Prime contract spend with a diverse supplier
 - **Tier 2 vendors:** 2 Subcontracted spend by a non-diverse prime contractor with a diverse supplier
 - **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
- **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

Stipulations

§ 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).

Q3 Updates

- The following tables (*Table 6* and *Table 7*) 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
 - Clutter
 - Standing Water
 - Asbestos

Table 6

| Health and Safety Related Deferrals | |
|-------------------------------------|----|
| Home Energy Savings | 20 |
| Multi-Family Energy Savings | 1 |

Table 7

| Health and Safety Related Spend YTD* |
|--------------------------------------|
| \$2,977,381.99 |

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

§ 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.

Q3 Updates

- ComEd issued a request for proposal (RFP) for the MDI program implementation in October, and has begun to review bid responses with a final selection pending later this year. In parallel, the commissioned MDI research is scheduled to complete later this year as well.

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.

Appendix: Program Descriptions

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 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.

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

LIEEAC Budget Report



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| Date |
| 10/26/2022 |
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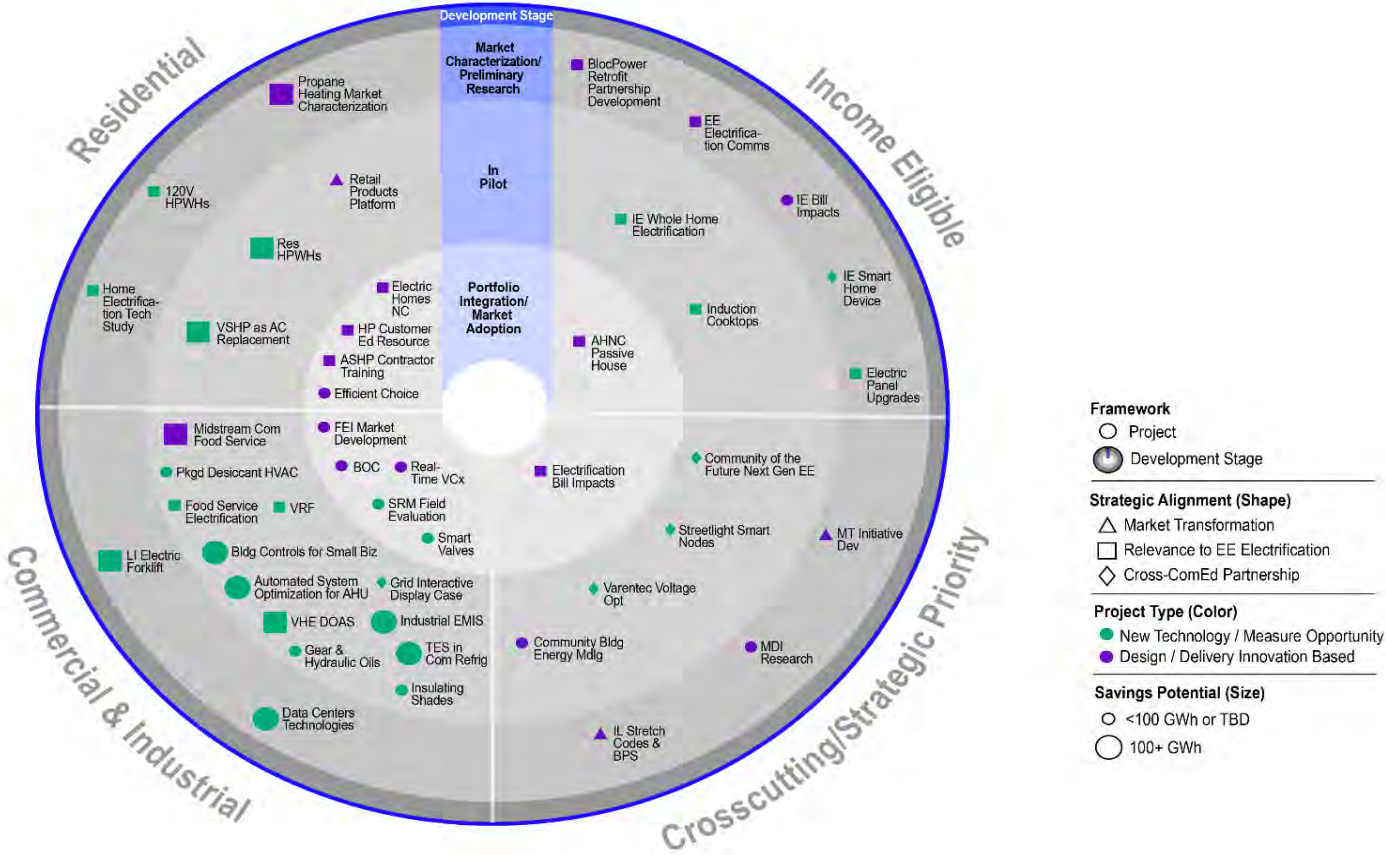
Bill To: **Commonwealth Edison Company**
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 2011 Swift Drive
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 630-437-2403

| | |
|---------------|----------------|
| P.O. # | 2046441 |
|---------------|----------------|

| Cost Category | Total Budget | Cumulative Invoices - Thr Sept | | October | November | December | Year-to-Date | Remaining |
|--|------------------------|--------------------------------|-------------|--------------|--------------|--------------|----------------------|----------------------|
| | | Labor | Expense | | | | | |
| Contract Release #1 (Facilitation) Budget | \$ 548,657.00 | | | | | | \$ 219,905.36 | \$ 328,751.64 |
| Facilitation Labor | \$495,276.00 | \$ 125,499.34 | \$ 9,406.02 | \$ 30,000.00 | \$ 40,000.00 | \$ 15,000.00 | \$ 219,905.36 | \$275,370.64 |
| Unallocated | \$ 53,381.00 | | | | | | \$ - | \$53,381.00 |
| Contract Release #2 Grants & Stipends) Budget | \$ 513,000.00 | | | | | | | \$ 513,000.00 |
| Leadership Team Stipends or Grants | \$ 94,362.50 | \$ 94,362.50 | | \$ 10,000.00 | \$ 10,000.00 | \$ 5,000.00 | \$ 119,362.50 | (\$25,000.00) |
| Committee Participation Stipends | \$ 72,162.50 | | | | | \$ 5,000.00 | \$ 5,000.00 | \$67,162.50 |
| Education and Outreach Grants | \$ 346,473.00 | | | | | | \$ - | \$346,473.00 |
| Overall Total | \$ 1,061,657.00 | | | | | | = \$ | 841,751.64 |

R&D Summary

ComEd Energy Efficiency Program R&D Portfolio Summary 2022 Q3



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 Q3

| Concept | Work Description | Partners | Customer Segment | End Date | Status Update | Web Link |
|---|--|---|------------------|----------|--|--|
| Portfolio Integration and Market Adoption | | | | | | |
| Affordable Housing New Construction Passive House | Integration of a PHUUS+ incentive tier into the Affordable Housing New Construction offering. | Slipstream | Income Eligible | 2023 Q4 | The Passive Building Pathway has five active projects enrolled; two are expected to begin construction later this year. The R&D team is providing marketing and incentive funding as well as evaluation support. | Link |
| Air Source Heat Pump 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 is continuing to expand the training with new resources and training events available to contractors. A Fall Training Series is underway. An interim memo outlining recommendations for further intervention planning for ComEd's review based on contractor/distributor feedback and pilot findings to date. | Link |
| Building Operator Certification | Training program to support commercial building staff in identifying operational energy efficiency opportunities. | Midwest Energy Efficiency Alliance (MEEA) | Commercial | 2022 Q4 | Two Level 1 classes are underway for 2022, with plans to migrate the offering to the EE portfolio (under the RCx program) by the end of the year. | Link |
| 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 2021 pilot, R&D is providing support on evaluation and portfolio integration. The number of product categories available to customers has been expanded. | Link |
| Electric Homes New Construction | Integration of all-electric homes standards into residential new construction offering. | Slipstream | Residential | Ongoing | Delays have caused a significant number of projects to slip into 2023. EHNC expects to complete 35-40 projects in 2022, vs. the original goal of 60. The R&D team is supporting on evaluation and strategy needs. | Link |
| 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 will be presented in Q4. | TBD |
| Fan Energy Index Market Development | Integration of savings algorithm to Illinois TRM and new savings opportunity for C&I offering. | Slipstream | Cross Cutting | 2023 Q1 | Contractor trainings will take place throughout Q4, and interviews with market actors continue on schedule. | Link |
| 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 | A project team has been selected from RFP and kickoff will occur by the end of October. Launch of the web resource is expected in early Q2 of 2023. | TBD |
| Switched Reluctance Motors | Testing energy savings and customer experience in real-world conditions. | TBD | Commercial | TBD | 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. | Link to previous project |
| Water Savings in Strategic Energy Management | Integration of water savings opportunities into existing SEM offering. | CLEAResult | Commercial | 2022 Q4 | The CLEAResult SEM program implementation team is working with ComEd to integrate the Water SEM offering into the current SEM program. | Link |
| In Pilot | | | | | | |
| Automated System Optimization for Air Handling Units | (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 field study using AHU controls and held an RFP seeking an ASO vendor in September. The research team is currently evaluating the proposals received and will select a vendor in Q4. | TBD |
| Commercial Food Service Electrification | (In development) Promoting electrification opportunities within a high-potential commercial customer segment. | TBD | Commercial | TBD | This new initiative will build on the successful joint-utility CFS midstream pilot and aim to promote high efficiency electric CFS equipment. A scope of work is under development. Pilot launch is expected in Q4 2022. | TBD |

R&D Portfolio Summary 2022 Q3

| Concept | Work Description | Partners | Customer Segment | End Date | Status Update | Web Link |
|---|--|---|---------------------------|----------|---|--|
| 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 developing a scope of work for further research on this technology, including additional field evaluation of savings in other building types. | Link to previous project |
| Communities of the Future Next Generation HVAC Demonstration | Testing energy savings and customer experience in real-world conditions. | Slipstream | Commercial | 2023 Q4 | Installation of next-gen HVAC technology at a church in the Bronzeville neighborhood is in progress. Additional buildings in Bronzeville and in Rockford are in the design consultation phase. | Link |
| Community Building Energy Modeling | Testing applicability of software to support customer targeting. | Palmetto | Cross Cutting | 2022 Q3 | The pilot team delivered efficiency upgrade scores for buildings in the study area (Rockford) along four upgrade dimensions: lighting, air leakage, wall insulation, and windows. The R&D team is now considering program use cases for this analysis and will take next steps in Q4 2022. | Link |
| Gear and Hydraulic Oils | 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. | Link |
| Grid Interactive Display Case | Testing energy savings and customer experience in real-world conditions. | National Renewable Energy Laboratory (NREL) | Commercial | 2022 Q4 | Results from laboratory evaluation are scheduled for delivery at the end of Q4 2022. | Link |
| Income Eligible Whole Home Electrification | Testing energy savings, costs, and customer experience in real-world conditions. | Elevate, Slipstream | Income Eligible | 2022 Q4 | Retrofits in the initial (Phase 1) building are still awaiting equipment delivery. Elevate is also conducting electrification retrofits on 100 income eligible customer housing units (Phase 2); the project team will monitor energy and bill savings from these installations as well as additional monitoring topics such as indoor air quality. | Link |
| Induction Cooktops for Income Eligible Customers | 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 will study customer barriers and perceptions around residential induction cooking equipment in ComEd's service territory through both primary and secondary research. Project kickoff will be held in Q4 2022. | TBD |
| Industrial Energy Management Information System (EMIS) | 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. | Link |
| Lithium Ion Electric Forklift | (In development) Testing energy savings and customer experience in real-world conditions and developing a scalable program design. | DNV | Industrial | 2023 Q2 | The R&D Team is developing customer case studies to support the Midstream Li-ion forklift truck offering. | TBD |
| 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. An RFP to identify a statewide implementation contractor is underway. | Link |
| Packaged Desiccant HVAC | (In development) Testing energy savings and customer experience in real-world conditions. | National Renewable Energy Laboratory (NREL) | Commercial | 2024 Q4 | Equipment design in 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. | TBD |
| Pressure Independent Control Valves Smart Retrofits | 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; a retrofit project in a hospital is undergoing monitoring. | Link |
| Real-Time Virtual Commissioning (VCx) | Testing energy savings and customer experience in real-world conditions. | Power TakeOff | Commercial, Public Sector | 2023 Q2 | The project team has completed all real-time installations and additional controls from project Phase 1. Additional installations are underway (Phase 2), with savings results for both pilot phases expected in early 2023. | Link |
| Residential Heat Pump Water Heaters | Ongoing concept development to assess opportunities and barriers presented by heat pump water heaters. | CLEAResult | Residential | 2023 Q2 | The project team has conducted one in-person training and has begun enrolling service providers to support this pilot. They have also begun customer recruitment activities. The next phase will be focused on baseline performance monitoring for a subset of customers and HPWH installation for the remaining customers. | Link |

R&D Portfolio Summary 2022 Q3

| Concept | Work Description | Partners | Customer Segment | End Date | Status Update | Web Link |
|---|---|---|------------------------------|----------|--|--|
| Retail Products Platform | Testing of a national Market Transformation program delivery model. | NEEA | Residential | 2022 Q4 | ComEd is nearing the end of its second full year of participation for clothes washers and refrigerators. The long-term success of the program is dependent upon resolution of outstanding questions about evaluation methodology; these are being addressed through discussions with Guidehouse and the SAG Market Transformation Working Group. | Link |
| Smart Controls for Small and Medium Commercial Buildings | Testing a two-tiered energy management system offering for small business customers. | Resource Innovations | Commercial | 2023 Q4 | ComEd and the pilot team recently launched an EMS field installation pilot for small business customers and are hoping to begin installations in Q4. | Link to previous project |
| Smart Nodes | (In development) Testing energy savings in real-world conditions. | TBD | Public | TBD | The R&D Team is working with the ComEd Smart Grid team to finalize the pilot plan and cost estimates. | TBD |
| Thermal Energy Storage in Commercial Refrigeration | Testing energy savings and customer experience in real-world conditions. | Slipstream | Commercial | 2023 Q3 | The project team is discussing installations with a few potential site owners and aiming for at least one installation in 2022. | Link |
| Variable Refrigerant Flow HVAC | Testing energy savings and customer experience in real-world conditions. | Slipstream | Commercial | 2023 Q2 | Site monitoring continues on schedule. A provisional TRM measure was accepted for TRM v11. | Link |
| Variable Speed Heat Pump as AC Replacement | Testing energy savings and customer experience in real-world conditions. | Center for Energy and Environment (CEE) | Residential | 2023 Q2 | The project team has completed installations for most of the target customers. The next phase of the project is focused on refining controls settings and installing monitoring equipment on all systems. | Link |
| Very High Efficiency Dedicated Outdoor Air System | Testing energy savings and customer experience in real-world conditions. | IMT, Slipstream, Ventacity | Cross Cutting | 2023 Q4 | Customer sites are in the process of design and modeling for eventual installations and monitoring, and agreements have been reached with several participants for installations in 2022. As these are whole system replacements at larger buildings, the recruitment and installation timeline is longer than usual. | Link |
| Voltage Optimization | 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 Q2 2022. Final analysis is underway with presentation of results in Q4 2022. | Link |
| Market Characterization and Preliminary Research | | | | | | |
| 120V Heat Pump Water Heater Research | Research of market for 120V HPWHs in ComEd service territory | Slipstream | Residential | 2022 Q4 | The project team continued research into market barriers and compiled recommendations for programmatic interventions. Final report deliverables will be presented in November 2022. | Link |
| Propane Heating Market Characterization | Market characterization of ComEd's residential propane heating customers. | Slipstream | Residential, Income Eligible | 2023 Q1 | The project team recently kicked off this market characterization study. The team will provide insight into how ComEd can best identify and serve these underserved customers through weatherization and heat pump retrofits. | Link |
| BlocPower Retrofit Partnership Development | 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. The BlocPower platform will map and model likely buildings for electrification. | Link |
| Energy Efficient Electrification Customer Communication Best Practices | 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 is completing analysis to present results at the end of October. | Link |
| Income Eligible Home Energy Management System Research | Market research and initial testing of home energy monitoring systems not requiring broadband access. | Slipstream | Income Eligible | 2022 Q3 | The project team has completed an 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. | Link |

R&D Portfolio Summary 2022 Q3

| Concept | Work Description | Partners | Customer Segment | End Date | Status Update | Web Link |
|---|---|---|-------------------------|----------|--|----------------------|
| Heat Pump Rating Representativeness | 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 is expected in 2023. | Link |
| Home Builder and HVAC Contractor Home Electrification Technology Study | Interviews with HVAC contractors and home builders to better understand perceptions and barriers around electrification opportunities. | Rabin Research | Residential | 2022 Q4 | Contractor and home builder interviews have been completed and study results will be presented in Q4 2022. | TBD |
| Home Electrical Panel Upgrades | 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 will present results by the end of October. | Link |
| Illinois Stretch Codes & Building Performance Standard | Research to establish applicability and savings potential. | Slipstream, Midwest Energy Efficiency Alliance (MEEA) | Cross Cutting | 2022 Q4 | The project team continued outreach to municipalities across northern IL about long-term savings potential from stretch codes and building performance standards. They also continue to make progress on developing a stretch code attribution model to enable the measurement of savings, and have begun developing a building performance standard evaluation pathway as well. | TBD |
| Income Eligible Weatherization Bill Impacts | Analysis of bill impacts of energy efficiency measures for income eligible customers. | Resource Innovations, Nicor, Peoples Gas, North Shore Gas | Income Eligible | 2022 Q4 | The project team is close to completing their analysis of the bill impacts of energy efficiency measures for income-eligible customers. Final results and recommendations are expected in Q4 2022. | Link |
| Liquid Cooling in Data Centers | Characterization of data centers market and assessment of applicable measures. | ERI | Commercial | 2022 Q4 | 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. | Link |
| Market Transformation Initiative Development | (In development) Identification and development of new market transformation initiatives. | ILLUME Advising | Cross Cutting | 2022 Q4 | The R&D Team is 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. | TBD |
| Market Development Initiative Research | 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 | All components of the study's assessment plan have completed or are underway. Internal and external interviews and surveys are complete. The final report and roadmap are under development and will be presented in Q4 2022. | Link |