

# ComEd Energy Efficiency Program



## CY2021 FIRST QUARTER REPORT



ComEd has received the ENERGY STAR Partner of the Year Award for Sustained Excellence for the 9th consecutive year.

ComEd customers have saved more than \$5.3 billion on energy bills and avoided 57 billion pounds of carbon through its energy efficiency programs.

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## Residential Programs

**327,017**

Actual Net MWh YTD

**1,718,436**

CY2021 MWh Forecast

**1,659,037**

CY2021 MWh Filed Goal

**\$69,977,717**

Actual Spend YTD

**\$351,334,190**

CY2021 Spending Cap

### PORTFOLIO

- Through Q1, the portfolio has achieved 19% of its CY2021 forecast of 1,718,436 MWh and 20% of its CY2021 filed goal of 1,659,037 MWh.
- Since its inception in 2008, the ComEd Energy Efficiency Program has saved ComEd customers over \$5.6 billion on their electric bills.
- For granular breakout by program, please see the narrative.

### RESIDENTIAL PROGRAMS

- Through Q1, residential programs have achieved 23% of its combined CY2021 forecast of 303,798 MWh.
- Customers have received over 36,624 rebates and over 6,941 homeowners and tenants have received free direct install products from assessments through Q1.

### INCOME ELIGIBLE PROGRAMS

- Through Q1, income eligible programs have achieved 21% of their combined CY2021 forecast of 81,034 MWh, not including MWh savings from converted therms.
- Over 10,080 income eligible households have participated through Q1.

### BUSINESS PROGRAMS

- Through Q1, business private sector programs have achieved 20% of its combined CY2021 forecast of 649,933 MWh; business public sector programs have achieved 13% of its combined CY2021 forecast of 118,510 MWh.
- Over 3342 business private sector projects and 346 business public sector projects have been completed through Q1.

### THIRD PARTY PROGRAMS

- Through Q1, third party programs have achieved 16% of their combined CY2021 forecast of 172,629 MWh.

# Residential Programs

## 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.*

- **19,982 Net MWh savings achieved (27% of forecast)**

Report generation year-to-date, as of February 2021:

- Home Energy Reports (print): 1,947,351
- Home Energy Reports (email): 1,052,470
- High Usage Alerts (unique customers): 1,120,778
- Weekly Usage Reports: 217,639
- The program continues to have a low opt-out rate, high customer satisfaction through customer inquiries, and high digital communication engagement rate.
- The program started a low-to-moderate income (LMI) pilot in Q1 to test if altering the Weekly Usage Report experience by adding more usage insights leads to additional savings, increased customer satisfaction, or has other benefits for LMI customers. The pilot will wrap up in early 2022, with results to follow by mid-2022.

## Lighting Discounts

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

- **37,211 Net MWh savings achieved (25% of forecast) based on 1,332,504 discounted LED bulbs and fixtures.**
- The program saw a 128% increase in Q1 LED globe sales compared to Q1 of 2020. The increase in sales is likely attributal to the increase in product options available to customers.
- The program established a new partnership with Feit Electric and Lowe's, increasing the number of available incentivized ENERGY STAR bulbs at Lowe's stores within ComEd service territory.

## Appliance Rebates

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

- **3,316 Net MWh savings achieved (11% of forecast) based on 34,965 rebated appliances.**
- During Q1, the program saw a 149% increase in smart thermostat sales compared to Q1 2020. The increase is attributable to manufacturers introducing lower cost models, offering manufacturer discounts, and increasing the utility rebate from \$75 to \$100.
- The program reintroduced \$25 incentives for bathroom exhaust fan and hot water dispenser measures.
- The program processed the first rebate from the recently launch "bulk rebate" tool. This tool is intended for multi-family building owners/property managers and allows them to submit multiple rebates via a single application in a quick and efficient manner for smart thermostats, clothes washers, electric clothes dryers, and refrigerators that meet product qualifications.

## Home Energy Assessment

*Overview: Offered in partnership with Nicor Gas, North Shore Gas, and Peoples Gas, the Home Energy Assessment is a free walkthrough assessment with an energy advisor that determines the ways energy is used in the home. Customers receive personalized energy-efficiency recommendations, and the following energy-saving products are installed for free: ENERGY STAR® certified LEDs, programmable thermostats, WaterSense® certified showerheads, faucet aerators, and hot water pipe insulation. Advanced Power Strips are provided at a discounted price to the customer and left behind for the customer to install. Nest Learning and Nest E smart thermostats are also available for purchase at a discount and include free installation.*

- **4,245 Net MWh savings achieved (24% of forecast) based on 4,051 in-home and 414 virtual assessments.**

## Residential Programs

- In Q1, the program upgraded its scheduling software to a tool which optimizes routes for Energy Advisors, which resulted in an overall decrease in average customer wait-times by 3 days.
- The HEA program is offering a free Tier 1 Advanced Power Strip (APS) to eligible customers when opting for a virtual home energy assessment. The virtual home energy assessment is a lower cost option for the program. Typically, Tier 1 APS are offered to customers at a discounted rate of \$10.
- The program saw a slightly lower than planned kWh savings per in-home assessment in Q1 due to decreased LED install opportunities and smart thermostat co-pays. The program is exploring options to increase the average per home savings.

### Multi-Family Energy Savings

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

- **1,394 Net MWh savings achieved (15% of forecast) based on 2,390 tenant units, 86 common area installs, and \$358,468 in Service Provider Installation**
- The program successfully launched a “Self-Installation” offering. Property managers may elect to install eligible measures on their own and must agree to a quality assurance process. Self-Installation provides a “contactless” option and was developed in response to the COVID-19. During the first quarter five properties participated in this option.

### Heating & Cooling Rebates

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

- **783 Net MWh savings achieved (23% of forecast) based on 1659 rebates**
- Ductless Mini Split and Air Source Heat Pumps incentives moved to a midstream model.
- The incentive for Heat Pump tune-ups was increased from \$25 to \$50 due to the increased cost and to generate more interest in Heat Pump tune-ups.

# Income Eligible Programs

## Income Eligible Product Discounts

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

- **15,326 Net MWh savings achieved (23% of forecast) based on 17,381 APS; 73 Air Purifiers; 27 Dehumidifiers; 17,399 LED Nightlights; 60,312 LED Kits/Fixtures; and 292,716 LED Bulbs (126,897 bulb packages)**
- 58% of total lighting incentives achieved through the first quarter of the program were allocated to non-big box/DIY stores.
- The program saw a 102% increase in total air purifier sales sold through income-eligible retailers in Q1 of 2021 as compared to Q1 of 2020. This has been a popular measure during the COVID-19 pandemic.

## Single-Family Retrofits

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

*CBA/CVHA identifies and enrolls qualified vintage homeowners located in the City of Chicago and certain Cook County suburbs; coordinates home assessments to identify areas in the homes prone to air leaks or drafts; and works with contractors to complete weatherization, health & safety, and direct installation of energy efficiency upgrades (LEDs, water saving measures, programmable*

*thermostats) to their homes. The CBA/CVHA channel delivers the single-family retrofits program offering in partnership with Peoples Gas.*

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

- **688 Net MWh savings achieved (20% of forecast) based on 396 participating customers (Includes SF IHWAP + CBA/CVHA)**
- **CBA/CVHA**
  - **312 Homes Upgraded**
    - 147 Jointly funded with Peoples Gas
    - 165 ComEd-only funded
- **Single-Family IHWAP**
  - **84 Homes Upgraded**
    - 31 Jointly funded with DCEO (“Braided”)
    - 53 Utility-only funded

### CBA/CVHA

- Interest in the program remains high, and the pipeline of customers is strong with potential for growth beyond the original 2021 targets.
- Safety continued to be a top priority for Q1 2021. All customer interactions during audits, weatherization work, direct installs, and post-inspections were conducted with strict enhanced safety protocols.

### SF IHWAP

- In Q1, the Illinois Association of Community Action Agencies (IACAA) conducted a survey of all northern CAAs to assess potential need for marketing support in 2021. Most agencies have fully established their single-family retrofit pipelines for the year without need for any additional marketing assistance. Four agencies have requested possible marketing assistance. The program will work with the agencies to determine the best tactics to support them.
- ComEd and DuPage County are currently exploring resources to complete retrofits for income-qualified customers in the Brandywine

## Income Eligible Programs

neighborhood in Villa Park. This all-electric community presents interesting opportunities to test emerging technologies while serving customers with high energy burden.

### Multi-Family Retrofits

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

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

- **1,037 Net MWh savings achieved (19% of forecast) based on 1,195 impacted customers (Includes MF IHWAP + IEMS)**
- **IHWAP MF**
  - **56 Tenant Units in 6 buildings upgraded**
    - 29 Units (1 Buildings) Jointly funded with DCEO (“Braided”)
    - 27 Units (5 Buildings) Utility-only funded
- **IEMS**
  - **1,139 tenant units in 90 buildings upgraded**
    - 574 Units (40 Buildings) Jointly funded with Peoples Gas
    - 565 Units (50 Buildings) ComEd-only funded

### IHWAP

- The program offering held three “CAA Multi-Family Cohort Meetings” in Q1 to share best practices, provide support, clarify processes, and enhance coordination efforts for MF IHWAP projects; bringing together community action agencies with representatives from DCEO, all northern Illinois utilities, and an engineering firm.
- The Community Economic Development Association of Cook County (CEDA) and Lake County community action agencies each successfully completed tenant unit measures for 3 separate

properties in Q1. Common area and central plant measures for these projects were completed in 2020, but tenant unit measures were delayed until 2021 due to COVID-related building access restrictions and supply chain issues.

- CEDA started work on the Olympic Village project in Chicago Heights. This project includes 320 units across 30 buildings and will be completed over 6 months.

### IEMS

- Completed weatherization projects at 32 buildings.
- Work is underway at Courtyards in Belvidere, IL, a large campus property. Projects completed include pipe insulation, health & safety, and weatherization work.
- Implemented process improvement that increased direct install project volume. Resulted in increased participation levels which have not been realized since prior to the COVID-19 operational hiatus that began in March 2020.

# Income Eligible Programs

## Affordable Housing New Construction

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

- **126 Net MWh savings achieved (8% of forecast) based on 38 eligible tenant units in one project and 16,686 sq. ft. of eligible building area from completed projects through Q1.**
- Forecasting to achieve 82% of planned savings by year end, compared to the original scope of work. The shortfall is due to five projects moving out of the 2021 pipeline (either cancelled or projecting completion in future year).
- Launched the new tiered incentive structure with success. Program now has a base standard and incentive, with optional advanced measures that earn a higher incentive. Q1 new project application volume was similar to prior years.
- In response to customer interest, the program curated a panel discussion on integrating solar energy into energy-efficient affordable projects using ComEd and Illinois-specific programs within the Low-Income Housing Tax Credit framework. Seventeen attendees from developers and design firms gave positive feedback, new project leads, and expressed a desire for future content on case studies and financials.



# Business Programs

## Standard

*Overview: The Standard Program provides monetary incentives to customers on a "Standard" per-unit or per-fixture basis. Offered measures include LEDs, T-8 and T-5 lighting and controls, building automation systems, air- and water-cooled chillers and variable speed drives, ground source heat pumps, roof top units, Q-sync motors, energy recovery ventilators, absorbent air cleaners, as well as equipment with niche or targeted market applications, such as laboratory, farm and commercial food service equipment, and grocery refrigeration measures.*

- **Private: 33,633 Net MWh savings achieved (20% of forecast) based on 694 projects**
- **Public: 3,078 Net MWh savings achieved (15% of forecast) based on 160 projects**
- This quarter, Standard offering released a new application track for projects with incentives of \$1,000 or less to encourage submission of small projects. In Q1, the program saw a 24% increase in small applications as compared the last two-year Q1 average.
- The Standard offering successfully hosted two networked lighting control webinars in Q1, which were attended by 89 customers and Service Providers.

## Custom

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

- **Private: 355 Net MWh savings achieved (3% of forecast) based on 15 projects**
- **Public: 136 Net MWh savings achieved (5% of forecast) based on 3 projects**
- The program received three times as many pre-applications in Q1 as the program received during the same timeframe in 2020.

Due to the COVID-19 pandemic, the team is holding EESP training events virtually to help increase engagement and assist where possible.

## Small Business (Private and Public)

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

- **Private: 55,774 Net MWh savings achieved (30% of forecast) and 2,379 projects**
- **Public: 2,920 Net MWh savings achieved (22% of forecast) based on 75 projects**
- **Small Business**
- Q1 provided a strong start to 2021 and exceeded 2020Q1 by the following:
  - Private: 35% more net MWh savings
  - Public: 111% more net MWh savings
  - Pipeline is also very strong
- With the increased customer peak demand participation criteria:
  - Private: 5% of projects from 100-200 kW customers
  - Public: 28% of projects from 100-400 kW customers
- Average kWh/project 2021Q1 vs 2020Q1
  - Private: ~21% increase
  - Public ~19% increase

## Business Instant Discounts

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

- **Private: 29,067 Net MWh savings achieved (19% of forecast) based on 341,758 products sold**
- **Public: 4,448 Net MWh savings achieved (20% of forecast) based on 82,136 products sold**
- HVAC submissions have substantially increased at the end of Q1, with a full pipeline of expected projects forecasted for the rest of 2021.

## Business Programs

- Distributor activity in the midstream tool has improved processing timeline, submission accuracy and payment tracking for all 2021 distributors.

### C&I New Construction

*Overview: The New Construction Program offering provides technical assistance, support for the Leadership in Energy and Environmental Design (LEED) rating system, and incentives for whole-building energy efficiency for new construction and major renovation projects to influence building design practices during the design and construction of new buildings, major renovations of existing buildings, and tenant build-outs in the C&I market. The program serves private commercial and industrial buildings (CINC) as well as public sector buildings (PSNC) through a combined offering. The New Construction Program offering is delivered in partnership with all the northern Illinois gas utilities.*

- **Private: 1,219 Net MWh savings achieved (8% of forecast) based on 9 projects and 1,525,212 sq. ft. of building area from completed projects**
- **Public: 750 Net MWh savings achieved (43% of forecast) based on 7 projects and 766,304 sq. ft. of building area from completed projects**
- CINC is currently forecasting lower than anticipated energy savings at year end. PSNC is on track to deliver anticipated savings by year end.
- Best Practices Path process evaluation interviews indicate a high level of satisfaction among participants. One participant commented "I thought ComEd did a really nice job with the overall program. Whenever I was online with them, I felt that my questions were answered."

### Industrial Systems

*Overview: The Industrial Systems Program is a study-based offering for compressed air, process cooling, industrial refrigeration and wastewater treatment plant. The target customer is over 100 kW but under 10 MW. Because this is a study-based program, there are no predefined measures. Measures are a mix of no- to low-cost system optimization as well as capital improvements like custom measures.*

- **Private: 5,066 Net MWh savings achieved (11% of forecast) based on 81 projects**
- The Fix-It-Now (FIN) Compressed Air offering won a MEEA Inspiring Efficiency Award for Innovation for delivering a cost-effective way to fix compressed air leaks for industrial customers.

A very successful virtual Service Provider kickoff event was held with over 80 attendees that were engaged in learning about program offerings in 2021. A very strong pipeline for the start of 2021 that will deliver the 2021 savings goal.

### Retro-Commissioning (RCx)

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

- **Private: 4,997 Net MWh savings achieved (14% of forecast) based on 35 projects**
- **Public: 655 Net MWh savings achieved (4% of forecast) based on 4 projects**
- The program has streamlined from the original five program options to three program options, Retro-Commissioning Flex (RCxF), Monitoring-Based Commissioning (MBCx), and Virtual Commissioning (VCx). Approach simplified the offering and was well received by service providers.
- The program has had a slower start in January and February but rapidly gained momentum in March, with strong interest and pipeline build up in the private sector MBCx and VCx options

### Strategic Energy Management (SEM)

*Overview: Strategic Energy Management provides tools, coaching and technical resources to support customers' energy goals through a year-long series of workshops and one-on-one coaching. It draws on principles of continuous improvement and organizational change and integrates Lean, Six Sigma and other cost savings and operational excellence initiatives. SEM helps implement*

## Business Programs

*organizational structures, behavior changes, and systematic practices that can lead to reducing energy costs by up to 15% for both electricity and natural gas.*

- **Private YTD: 0 Net MWh savings achieved (0% of forecast) based on 74 Customers** energy savings are generally recognized at the end of the year once the cohort completes.
- **Public YTD: 0 Net MWh savings achieved (0% of forecast) based on 12 WWT customers, 13 additional Public customers, including 6 School Districts— covering 70 schools**
- Fully recruited and completed kickoff workshops for new Industrial Refrigeration and Mixed Industrial cohorts.
- Two Alumni cohorts and one Municipal cohort being run jointly with natural gas utilities.
- 17 SEM customers received Energy Star's Treasure Hunt recognition.

### LED Street Lighting

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

- **Private (ComEd Owned): 757 Net MWh savings achieved (5% of forecast) based on 24 applications**
- **Public (Municipality Owned): 2,444 Net MWh savings achieved (9% of forecast) based on 10 applications**
- Launched a new Streetlights in Distressed Communities initiative to provide free LED streetlight upgrades to municipalities located in economically distressed areas. Of the 41 municipalities eligible, ten have submitted applications and another fifteen are in the process of preparing applications or finalizing the scope of their project.
- In 2021, the Offering's Streetlight Hybrid Network grew from 22 Service Providers in 2020 to 40, an 82% increase.

### Operational Savings

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

- **Private: 473 Net MWh savings achieved (16% of forecast) based on 28 implemented measures**
- **Public: 366 Net MWh savings achieved (80% of forecast) based on 2 implemented measures**
- Facility Assessment requests continue to trend upward resulting in an increase in identified operational measures.

# Business Programs

## Public Housing Retrofits

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

- **301 Net MWh savings achieved (14% of forecast)**
- **Upgraded 1,954 residential units in 50 buildings**
- 540 Units (2 Buildings) Jointly funded with Peoples Gas
- 162 Units (4 Buildings) Jointly funded with Nicor Gas
- 1,252 Units (44 Buildings) ComEd-only funded - these were electric-only (lighting) projects in Nicor Gas territory and Peoples Gas territory but not jointly funded since no gas savings
- In Q1, the program engaged with ten PHAs: five PHAs completed projects, five PHAs completed new assessments or pursued new projects based on previous assessments. Three new PHAs are participating in the program: Housing Authority of Joliet, Housing Authority of Elgin, and Jo Daviess County Housing Authority.

## Third Party Programs

### Elementary Energy Education

*Overview: ComEd, Nicor Gas, Peoples Gas, and North Shore Gas have partnered to offer schools the opportunity to teach 5<sup>th</sup> grade students and their families how to use less energy at home. Students learn about valuable ways to save energy and money through in-class education. They also receive free take-home kits containing ENERGY STAR®-certified LEDs, faucet aerators, and other energy-saving products to install at home with their families. The kits also contain a coupon that can be redeemed for free specialty LED bulbs.*

- **496 Net MWh savings achieved (6% of forecast) based on 4,160 shipped kits and 12 LED portal redemptions.**
- The program introduced a coupon that is included in the take-home kits, allowing students/parents to access a portal to select and order free LED specialty bulbs (up to eight) for their homes.
- Invited select 6th grade classrooms to participate in the program. This is a special, one-time opportunity for students that did not have the opportunity to participate in the program in 2020, due to COVID-19.

### Small Business Kits

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

- **767 Net MWh savings achieved (11% of forecast) based on 957 Kits**
- The top participating kit segments in Q1 include restaurants & grocery, construction & retail building materials, and medical & dental offices, as these businesses continue reopening after COVID-related closings. These segments cover 44% of the 767 Net MWh in Q1.
- Starting targeted outreach to low participation customers in distressed communities and at-risk small businesses impacted by

financial hardships, including those who received COVID-19 grants and bill payment assistance from ComEd.

### Food Banks LED Distribution

*Overview: The Food Banks Distribution Program provides ENERGY STAR® LEDs to food banks affiliated with Feeding America, as well as through pantries outside the Feeding America network. The food banks then use their network of local food pantries to distribute the bulbs to utility customers in need, who may elect to receive the offered products. The offering is designed to help reduce the energy burden for income eligible customers, by providing them with free energy efficient products for home use.*

- **18,289 Net MWh savings achieved (20% of forecast) based on 544,344 A19 LED bulbs (136,086 4-bulb packages); 2,200 Weather Strips; 1,400 Night Lights**
- The program had no product to distribute in January and early February, due to COVID-related shipping delays but will be back on track by the end of Q2.
- Participated in two large event partnerships: one in Elgin (February) and one in Rockford (March), serving over 2,000 customers collectively.
- 16% of products distributed in Q1 went to communities with the lowest median household incomes in the ComEd service territory.

### Income Eligible Kits

*Overview: The Income Eligible Energy Saving Kits Program provides energy efficiency kits to income eligible residential customers, primarily through the network of Illinois Community Action Agencies (CAAs). The kits include (1) Tier 1 Advanced Power Strip, (4) 9W LED bulbs, (2) 15W LED bulbs, (1) 6W LED Globe bulb, (1) 5W LED Candelabra bulb, (1) 8W BR30 LED bulb, (1) Night Light, (1) Low-flow Kitchen Aerator, (1) Low-flow Bathroom Aerator, (1) Low-flow Showerhead, (1) Plumber's Tape; an instructional brochure which includes links to instructional videos for product use and installation, plus general information on energy savings. The offering is designed to help reduce the energy burden for income eligible customers, by providing them with free energy efficient products for home use.*

- **3,308 Net MWh savings achieved (11% of forecast) based on 6,500 IE Energy Savings Kits delivered**

## Third Party Programs

- The IE Kits have expanded to include additional energy-saving measures for the 2021 program year. The customer satisfaction survey often includes feedback that customers would like to receive more measures, and the IE Kit includes the most measures to date.
- The program will continue distributing kits at Community Action Agency facilities and mailing them directly to customers' homes to ensure customer safety during COVID-19.

### Grocery Program

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

- **305 Net MWh savings achieved (6% of forecast) based on 10 projects**
- Program customer qualifications changed from peak demand of 100-400 kW in 2020 to 200-400 kW in 2021 and continues to provide outreach to grocery customers of all sizes. Project leads for customers outside of that size range are referred to Standard, Small Business, and Custom programs.
- The program has had a strong start with continued customer interest and has completed 10 projects, while building a healthy pipeline.

### Non-Profit Offering (NPO)

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

- **25 Net MWh savings achieved (1% of forecast) based on 1 project completed, 142 units of measures installed, and 7 assessments completed**
- The offering had a slightly delayed start in Q1 due to this reopening and reengagement but has built a steady pipeline of projects and is on track to meet yearend goals.

### Agriculture

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

- **1,046 Net MWh savings achieved (12% of forecast) based on 45 projects**
- Identified energy efficiency opportunities for indoor agriculture and controlled environmental agriculture facilities have increased and is a strong component of the pipeline for 2021.
- The agriculture community is starting to rebound from COVID-19 impacts. However, there are some project delays due to availability of products. The pipeline for 2021 is very strong and on-track to meet goals.

### Telecommunications

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

- **864 Net MWh savings achieved (10% of forecast) based on 8 completed projects**
- Lighting, HVAC, and specific telecommunications measures were added as a standard measure to the program.

## Third Party Programs

### Public Building in Distressed Communities

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

- **2,881 Net MWh savings achieved (19% of forecast) based on projects (installation phase) YTD: 187 Projects, Completed projects YTD: 58 Projects**
- New applications are no longer being accepted due to a significant number of uninstalled measures already in the field.
- Team has shifted focus to prioritize project completions with associated energy savings.

# Voltage Optimization

## 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.*

- **38,075 Net MWh of energy savings (15% of YE target) based on 13 commissioned substations and 80 feeders**
- This is equivalent to 60M pounds of carbon dioxide reduction or removing ~6,000 passenger vehicle driven each year.



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

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

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



2021 Q1 ComEd EE RD Portfolio Summa

R&D Portfolio Summary Q1 2021							
Name	Partners	Project Type	Customer Segment	Start	End	Quarterly Update	Web Link
<b>Validating New Technologies for New Energy Savings</b>							
Commercial Interior Insulating Shades	IT, Parata Solutions, Amatis Controls	Technology Assessment	Commercial	Sep-20	Aug-21	Monitoring has been delayed due to controls equipment issues, but scheduled to proceed in Q2.	<a href="#">Link</a>
Cooling Tower Future Opportunities	AWE, PNNL	Research	Cross Cutting	Jul-20	Oct-21	AWE and PNNL completed the Cooling Tower Estimating Model and accompanying guidebook and are working on their analysis of the water and energy savings of selected alternative treatments for cooling towers.	<a href="#">Link</a>
Dipper Wells Market Research	Frontier Energy	Research	Commercial	Jan-21	May-21	Frontier completed a summary of key market actors, research plan, and interview guide at the beginning of the quarter. Currently, interviews are underway with end users, distributors, and health departments. Interview results summary and market potential report both to be delivered for review to ComEd in late April.	<a href="#">Link</a>
Flash Gas Condensers	DNV GL	Technology Assessment	Commercial	Oct-20	Oct-21	As the primary savings for this measure will be during cooling season, installations and subsequent monitoring were placed on hold until May 2021.	<a href="#">Link</a>
Industrial EMIS	Leidos, EPS Energie	Technology Assessment	Industrial	Feb-20	Jun-22	The pilot team has selected 5 sites for installation and implementation of an EMIS plan. Facility audits are ongoing at these facilities and will be completed by end of Q2. Installation of EMIS equipment and strategies to follow.	<a href="#">Link</a>

## Marketing Education & Awareness

There has been no advertising in market for Q1.

# Stipulations

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

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

- Identification of budget, savings, and number of participants served through Income-Qualified Plan funding, separately tracking by single-family and multi-family programs:
  - For budget and savings, please refer to the Income Qualified Programs section on the “Ex Ante Results” tab of the statewide quarterly report template. Total Income Qualified homes served is captured on the “Other” tab of the statewide quarterly report template.
  - The Single-Family Retrofits program has completed projects in 396 income-qualified homes through Q1.
  - The Multi-Family Retrofits program has completed direct install work in 1,195 tenant units through Q1.
  - The Public Housing Retrofits program has completed direct install work in 1,954 tenant units through Q1.
  - The Affordable Housing New Construction program has completed 1 project for a total of 38 tenant units serving income eligible residents through Q1.
  - The Income Eligible Product Discounts program has provided deeper instant in-store discounts to income eligible customers for 17,381 advanced power strips, 73 Air Purifiers; 27 Dehumidifiers; 17,399 LED Nightlights; 60,312 LED Kits/Fixtures; and 292,716 LED Bulbs (126,897 bulb packages) through Q1.
  - The Income Eligible Kits program has distributed 6,500 kits to income-qualified single-family homes through Q1.
  - The Food Banks Distributions program has distributed 544,344 A19 LED bulbs (136,086 4-bulb packages); 2,200 Weather Strips; 1,400 Night Lights through Q1.
- Income-Qualified R&D projects:
  - The ComEd Emerging Tech team has completed several pilot and research projects specific to income eligible and public housing customers in the past year; information can be found at <https://www.comedemergingtech.com>.
  - Information on active R&D project can be found in the R&D section of this report.
- Identification of implementation vendors who receive funding designated for Income-Qualified programs, indicating whether each vendor is an independent third party that has demonstrated capabilities to serve such households, including not-for-profit entities and government agencies that have existing relationships with or experience serving Low-Income communities in the State:
  - Single-Family Retrofits – Chicago Bungalow Association (not-for-profit), Chicagoland Vintage Home Association (not-for-profit), Franklin Energy (for-profit), Illinois Association of Community Action Agencies (not-for-profit), Resource Innovations (WBE for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
  - Multi-Family Retrofits – Elevate Energy (not-for profit), Franklin Energy (for-profit), Resource Innovations (WBE for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
  - Public Housing Retrofits – Elevate Energy (not-for-profit), University of Illinois at Chicago Energy Resources Center (not-for-profit)
  - Affordable Housing New Construction – Slipstream Group Inc. (not-for-profit)
  - Income Eligible Lighting Discounts – CLEARResult (for-profit)
  - Income Eligible Energy Saving Kits – University of Illinois at Chicago Energy Resources Center (not-for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
  - Food Bank – CLEARResult (for-profit), food banks affiliated with Feeding America, including Greater Chicago Food Bank (not-for-profit), Northern Illinois Food Bank (not-for-profit), Riverbend Food Bank (not-for-profit); as well as through (not-for-profit) food pantries outside the Feeding America network.
  - Outreach & Marketing – Eire (WBE for-profit), PACO (MBE for-profit), Surge Solutions (MBE for-profit), The L3 Agency (WMBE for-profit)

## Stipulations

- Job training in economically disadvantaged and diverse communities within its service territory that is supported by ComEd's efficiency program portfolio funding, including training offered through the IHWAP program necessary to increase capacity to deliver services in ComEd's territory
  - The ComEd Incubator program has provided training and support services to enable diverse contractors to join the ComEd Energy Efficiency Service Provider Network, represent the portfolio to customers and complete energy efficiency projects by leveraging existing workforce development frameworks, community-based agency partnerships and support from ComEd's Energy Efficiency Portfolio Implementation Contractors. The 2021 Incubator cohort (which graduated training on 4/30) has 28 members from five counties in the ComEd service territory. Eight are lighting contractors, seven are HVAC contractors, six are general contractors and the others are in project management, energy consulting or weatherization. Phase 2 of the program will begin in May and run for 6 months.

This will include back office support with a focus on 1X1 training with each cohort member in providing support within their business growth plans. In addition, the program will be conducting a mentoring pilot for cohort members to work with an existing EESP on their first EE project. 2022 Incubator recruitment is anticipated in Q3.

- Additionally, ComEd annually supports IHWAP's training programs.
- In its upcoming Plan 6, ComEd has committed to launch a full Market Development Initiative (MDI), which will focus both on growing diverse business and workforce opportunities. The focus of this work in 2021 will be research to inform the MDI, and ComEd will be issuing a related RFP in Q2.

## CY2021 New Measures

### CY2021 New Measures

All measures in the table below were launched in CY2021.

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