

November 13, 2023

ComEd EE Portfolio Q3 Update

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Agenda

- 2023 Portfolio Summary and Medium- and Long-term Outlook
- Business & Public Sector Highlights
- Residential & Income Eligible Highlights
- Research & Development: Go Electric Online Resource

Near-, Medium-, and Long-Term ComEd Challenges

- The ComEd EE Portfolio has been tremendously successful since its inception in 2008, and we expect to continue to deliver huge benefits to our customers and the environment moving forward – however, we are looking out at a **horizon of annual and cumulative goals that are increasingly difficult to achieve**
- Wide range of factors we see impacting the Portfolio:
 - **Economic conditions** and resulting increase in \$/kWh
 - Increasing amounts of **expiring savings**
 - Significant **drop-offs in low-cost savings** opportunities (e.g., EISA, VO, and C&I lighting market saturation)
- **We are not alone** – benchmarking in 2022 confirmed that many other utilities have similar concerns
- At the start of 2023, we were on track to just meet CPAS and AAIG, and 2024 and 2025 were at-risk, but over the course of the year we've been able to:
 - **Ramp down \$/kWh of programs** that had significant increases in 2022, to address market conditions, collectively **improving portfolio cost-effectiveness by ~\$0.02**
 - **Reduce the 2023 forecast by ~\$17M, to put towards projected savings gaps in 2024 and 2025**
 - While, staying on track to meet legislative/stipulation targets

2023 Portfolio Summary Through Q3

- ComEd **on-track to exceed 2023 CPAS and AAIG**, with an estimated **WAML of 13.1**
- Residential & Income Eligible (IE) Programs
 - Programs have achieved 70% of 2023 savings forecast (Res 122,413 MWh and IE 425,551 MWh), not including converted therms
 - **On-track to meet all IE spend requirements, including electrification**
- Business & Public Sector Programs – Private sector programs have achieved 66% of their savings forecast of (547,133 MWh), and public sector programs have achieved 65% of their combined 2023 savings forecast (108,863 MWh)
- Meanwhile, some **new challenges** have emerged; for example, while EE electrification (EEE) demand is strong, low-income whole home electrification in first year has been very expensive, and we are already seeing the 25% CEJA rule as a limiting factor for this new savings opportunity for the portfolio

1,006,863

Actual Net MWh YTD

1,599,866

2023 MWh Forecast

\$298,979,196

Actual Spend YTD

\$439,746,496

2023 Budget

Medium-Term 2024-2025 Forecast

- In our 2024 build-up, we've been able to close forecasted **savings gaps**; hovering at just ~100% of CPAS and AAIG achievement
- **2025 presents significant savings challenges**
 - Actively looking at closure opportunities, e.g., continuing to bring \$/kWh of programs down where possible (especially IE EEE), shifting non-incentive funds into incentives, analyzing disadvantaged communities NTG of 1 opportunity, braiding other funding (e.g., City of Chicago, IRA)

IRA Sidebar

- In 2023, completed analysis of **tax credits** and connections to portfolio, which has already allowed us to right-size some incentives (e.g., HPs)
- Working with State on **retrofit and EEE rebates** braiding/coordination – have been speaking with them since Q1, and in December all utilities meeting to help inform IEPA plan to be submitted

Business & Public Sector Highlights

- **Small Business (Private and Public)** – Budget was fully reserved at end of Q3, including more than \$20M in incentives for disadvantaged communities, and significantly increasing the share of non-lighting measures; completing projects and campaign to continue to build 2024 project pipeline in disadvantaged communities will be focus of Q4
- **Standard (Private and Public)** – Due to strong project pipeline in Q1/Q2, marketing efforts shifted to long-life measures and disadvantaged communities

Program	Net MWh YTD	Program Participation YTD
Small Business - Private	158,439	4,379 projects
Small Business – Public	28,432	444 projects
Incentives – Standard - Private	96,763	1,344 projects
Incentives – Standard – Public	16,028	364 projects



Business & Public Sector Highlights (cont.)

- **Midstream/Upstream** – Fork truck incentive, recently added in Q2, experienced very strong demand and became fully subscribed in Q3, on-track to achieve ~3 GWh; incentive has been lowered and projects will start again in 2024
- **Retro-Commissioning** – Has 36 completed projects in disadvantaged communities, with over 7 GWh of savings already verified; team also initiated work with Chicago Department of Aviation, on the implementation of a project at Midway and enrolling O'Hare soon
- **Custom** – In Q2, completed first electrification project (VRF with heat recovery) and customer has already submitted a screening form for Phase 2 of this project; in Q3 focused on innovations to streamline the process and improve the customer experience (e.g., applications updated to reduce duplicate data entries and time, improved internal processes to accelerate the pre-application review process)



Business & Public Sector Highlights (cont.)

- **Industrial Systems** – 22 treasure hunts completed, with 26 study opportunities (typically have about 5 ECMs per study, so = ~130 ECMs); have been pushing opportunities to grow program, including holding an EESP roundtable to deepen engagement, adding 2 EESPs, creating a new payment option, and coordinating with Cook County BRITE program
- **Commercial Food Service** – Saw growth in demand controlled kitchen ventilation units (DCKV) which helped accelerate the pace to our savings goal, while also increasing cost-effectiveness of the offering

Program	Net MWh YTD	Program Participation YTD	Unit Definition
Incentives – Custom – Private	6,439	48	Projects
Incentives – Custom – Public	668	11	Projects
Retro-commissioning – Private	10,659	86	Projects
Retro-commissioning – Public	10,750	57	Projects
Industrial Systems	16,591	215	Projects
Strategic Energy Management – Private	7,020	109	Participating Customers
Strategic Energy Management – Public	3,019	36	Participating Customers
C&I New Construction – Private	4,167	38	Projects
C&I New Construction – Public	593	11	Projects
Midstream/Upstream – Private	62,464	801,762	Lighting; battery chargers; HVAC, Fork Trucks
Midstream/Upstream – Public	10,941	219,367	Lighting; battery chargers; HVAC, Fork Trucks
Commercial Food Services - Private	796	354	Units
Commercial Food Services - Public	36	14	Units

Residential & Income Eligible Highlights



- **Home Energy Savings**
 - **Income Eligible Retrofits** – New EESP, Comfort 1st, began production in Rockford, in partnership with Habitat for Humanity of Rockford, which is a new HES enrollment partner – to-date, has completed four retrofit projects and has 28 in production, 23 of which are referrals from Habitat; overall, completed over 400 projects in Q3, including 48 IHWAP-braided
 - **Assessments** transitioned to a new vendor, Utility Energy Services, an MBE, serving customers with both in-home and virtual Home Energy Assessment options; also expanded relationships with community partners – Metropolitan Mayors Caucus (MMC) conducted asset-mapping research in offering's 9 target communities to increase IE participation, to identify opportunities for munis to engage customers (e.g., municipal committees, newsletters, and departments)
- **Whole Home Electrification** (SF and MF) – Converted 26 SF IE homes, bringing YTD total to 59; continued scoping and construction across 5 MF IE properties, representing 169 units, with all work expected to complete in 2023; Q4 efforts focused on reach back to customers served with weatherization that are identified to be a good fit for WHE, based on known characteristics of their home

Residential & Income Eligible Highlights (cont.)

Table 9

Health and Safety Related Deferrals*	
Home Energy Savings	0
Multi-Family Energy Savings	0

Table 10

Health and Safety Related Spend YTD*	
Home Energy Savings	\$5,346,090
Multi-Family Energy Savings	\$2,715,143

Program	Net MWh YTD	Program Participation YTD	Unit Definition
Home Energy Savings – Market Rate Assessment	242	5,159	Homes
Home Energy Savings – Income Eligible Assessment	3,512	4,518	Homes
Home Energy Savings – Income Eligible Retrofits	4,288	2,441	Homes
Multi-Family Energy Savings – Income Eligible	15,847	Tenant Unit Direct Installation: 7,892 Building Upgrades: 1,967	Projects
Multi-Family Energy Savings – Public Housing	1,422	Tenant Unit Direct Installation: 0 Building Upgrades: 37	Projects
Multi-Family Energy Savings – Market Rate	5,290	Tenant Unit Direct Installation: 1,163 Building Upgrades: 147	Projects
Whole-Home Electrification	1,722	Single Family Homes: 59 Multi-Family Buildings: 0 Tenant Unit Conversions: 0	Projects
Home Energy Reports	48,264	Home Energy Reports (print): 3,088,501, Home Energy Reports (email): 7,067,489, High Usage Alerts: 1,798,866, Weekly Usage Reports: 6,332,957	Reports and Alerts

Residential & Income Eligible Highlights (cont.)

- **Heating and Cooling** – Program has processed 7,014 incentives, including 2,337 air source heat pumps, 1,143 mini split heat pumps, 1,254 smart thermostats, and 1,718 central air conditioners (CACs); incentives for central air conditioner discontinued as of 7/1
- **Retail (Market Rate and Income Eligible)** – Enhanced efforts to serve IE customers with unique, higher post purchase rebates on various ENERGY STAR certified products including water dispensers, air purifiers, dehumidifiers, refrigerators, induction cooktops, clothes washers, electric clothes dryers, and heat pump clothes dryers; additionally a “Back to School” limited time offer (LTO) was launched in August to select income-eligible customers, which included an advanced power strip, desk lamp, and two nightlights

Program	Net MWh YTD	Program Participation YTD	Unit Definition
Retail – Market Rate	18,775	Home Products: 298,800	Appliances
Retail – Income Eligible	65,881	Home Products: 153,801 Lighting: 1,320,307	Appliances; Light Bulbs
Product Distribution – Market Rate	3,367	17,783	School Kits
Product Distribution – Income Eligible	207,303	2,690,473	Bulbs and weatherization measures
Residential New Construction – Affordable Housing	830	4	Projects
Residential New Construction – All Electric	81	36	Homes
Heating and Cooling - Midstream/ Rebates	9,560	7,014	Units

EE – Financial Assistance Highlights

- **Last year’s negotiated metrics** continue to be included in quarterly reports (see right), including highlights like:

ComEd’s customer-facing digital tool, the Smart Assistance Manager (or SAM), serves as a way for customers seeking assistance to receive tailored recommendations for ways to assist with managing their electric bills. During Q3, customers who leveraged the ‘assistance finder’ functionality within SAM received referrals to/information about the following programs:

Program	Sessions
Budget Billing	260
Due Date Extensions	175
Free Energy Savings Products	400
Give A Ray	360
Home Energy Savings	840
Multi Family Energy Savings	297
Payment Arrangements	462
Retail Discounts	287
SARP	1,700

- Number and percentage of customers receiving utility bill assistance that were referred to EE measures/programs, broken down by:
 - Number of customers, in total, referred to EE programs, broken down by program and SF/MF designation
 - Number of customers referred to EE programs, broken down by program and SF/MF designation for the population of bill assistance customers as a whole
 - Number of customers referred to EE programs, broken down by program and SF/MF designation for the top 20 zip codes (and/or census tracts) with the highest disconnection rate
- The number and percentage of IQ EE applicants/participants that were referred to energy assistance programs or other financial assistance support (including, the Low Income Home Energy Assistance Program (LIHEAP), the Percentage of Income Payment Plan Program (PIPP), any utility-sponsored assistance program, and the ability to wave customer deposits & late fees, per CEJA provisions) broken down by:
 - SF and MF, total and tracked separately
 - By zip code and/or census tract
- Details on which programs and measures were recommended including:
 - The implementer they were recommended by
 - Type of referral/recommendation (e-mail, flyer, direct assistance/hand-holding)
- Narrative updates on current efforts and future planned efforts to coordinate utility bill assistance and credit and collections with energy efficiency programs
- Description of how the company intends to increase outreach in top 20 communities with disconnections (i.e., presentations, materials distributed, which community organizations, information on how to apply, streamlined application process, etc.)

Portfolio Diverse Spend

- Through Q3, ComEd diverse EE spend is ~\$86.4M, ~29% of total spend, excluding customer pass-through incentives, however we anticipate this percentage to go up significantly, as there's always a lag in diverse spend reporting vs. invoicing
 - Tier 1 spend is \$44.2M
 - Tier 2 spend is \$42.2M
- In Q4, ComEd utilized 17 diverse prime contractors, along with 83 diverse sub-contractors and service providers (Tier 2) during the same period.

Tier 1 Diverse Category	Spend	# of Vendors YTD
MBE	\$21,289,657	9
MWBE	\$14,750,550	1
WBE	\$6,836,315	13
VOSB	\$1,351,335	2
Total	\$44,227,857	25

Tier 2 Diverse Category	Spend	# of Vendors YTD
MBE	\$9,164,632	37
WBE	\$24,870,435	50
VOSB	\$8,147,185	6
Total	\$42,182,252	93

Research & Development Highlight: “Go Electric” – Online Customer & Contractor Educational Resource

- To develop the market for heat pumps and other home electrification opportunities, it is important to **educate customers** and contractors on the latest technology, including its suitability for customer homes and **installation best practices**.
- The “Go Electric” website will eventually provide information on the full spectrum of **residential building electrification** opportunities (heating & cooling, water heating, cooking, laundry, outdoor).
- The **first phase of the website** focuses on residential heat pumps and includes **educational content** aimed at customers, and training resources for ComEd's contractor network.
- **A savings calculator** specializing in dual fuel/hybrid heat pump applications will help ComEd customers understand utility bill impacts, in compliance with CEJA.

A heat pump is essentially an air conditioner that can run in reverse.

In summer, the heat pump cools your home by moving heat from inside to outside. In winter, the heat pump heats your home by moving heat from outside to inside. Since it's moving heat, rather than generating it, heat pumps are more efficient than furnaces or boilers.



goelectric.comed.com

Energy efficient

Heat pumps provide more efficient cooling than traditional air conditioners. When heating, heat pumps are up to four times more efficient than traditional electric and gas furnaces.

Comfort year-round in one system

Heat pumps provide comfortable, consistent temperatures in both cooling and heating modes.

Savings Calculator – Operational Cost Savings

- In the current Phase 1 version, the calculator estimates operational cost savings; Phase 2 will expand cost savings estimation to include payback.
- The calculator evaluates the following inputs:
 - Home type
 - Home vintage
 - Home size
 - Weatherization
 - Heating fuel type
 - Heating equipment type
 - Heating Utility
 - Cooling Type
 - Ductwork

This calculator estimates how a heat pump might impact your heating and cooling bills. The results show estimated ranges of:

- Your current heating and cooling costs
- Annual and monthly bill changes
- Environmental impact

Completing the calculator survey takes about 10 minutes or less.

What is your home type?

Single Family

This calculator currently does not accommodate buildings with more than 4 units.

When was your home built?

Before 1961

What is your home's estimated square footage?

1,500 sq.ft. or less

Include finished and unfinished square footage.

Is your home weatherized?

No

A weatherized home has insulation and air sealing (when cracks, gaps and open seams that leak air have been sealed). Insulation and air sealing is particularly effective in the walls and attic.

What is your current heating fuel?

Natural Gas

If your home has multiple heating sources like a furnace and in-floor electric heat, choose the fuel for your most used source. The calculator currently does not accommodate other heating fuel types.

What is your gas utility?

Peoples Gas

What do you mainly use for heating?

Fossil Fuel Furnace

Savings Calculator Results

- 1. Expected Energy Bill Savings per year
- 2. Stacked bar graph showing heating and cooling costs for different dual fuel scenarios and all-electric compared to customer’s current estimated costs
- 3. Explanation of Dual Fuel and All-Electric Options
- 4. Monthly Electric Bill Impacts in Summer and Winter

Results

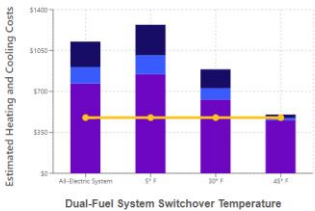
Based on your inputs, you could save up to:

1
\$21 per year

The following graphs show the estimated change on the heating and cooling portion of your bill and the environmental impact that you could make after installing a heat pump. This calculator compares your total current heating and cooling costs to your heating and cooling costs after a heat pump installation.

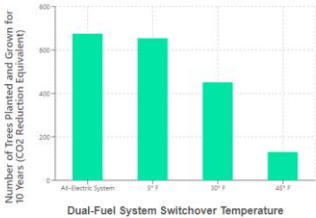
Depending on the type of heat pump you choose and its setup, your total annual heating and cooling costs are estimated below. In addition, the environmental impacts of making the change from your existing system to the new heat pump system for the lifetime of that system is also provided.

Estimated Annual Heating and Cooling Costs



- Current annual costs
- Conservative: 20% of customers in a similar home may see bills like this or higher.
- Median: 50% of customers in a similar home may see bills in this range.
- Optimistic: 20% of customers in a similar home may see bills like this or lower.

Estimated Lifetime Environmental Impacts



2

Every home is unique, and your actual results may vary depending on:

- The heat pump model you select
- System design and installation
- The switchover temperature (if installing a dual-fuel heat pump system)
- Your gas and electric utility rates
- Available incentives (local, state, federal and utility)

Energy prices fluctuate and as the price of fossil fuels rises, the cost savings of a heat pump can increase. If you’re not seeing the results you want, keep checking back to see how a heat pump system may work for you in the future. In addition, a qualified ComEd Energy Efficiency Service Provider (EESP) can help you determine the most likely scenario for your home and how you can improve your system performance to lower your future bills.

Click [here](#) to find an EESP near you!

About Your Results

These results are an estimate of the potential changes to the heating and cooling portion of your energy bills after installing a heat pump. Actual results may vary.

All-Electric Heat Pump Option

An all-electric system is a heat pump-only solution. No fossil fuel system is involved.

If you already have an electric heating system and upgrade to a heat pump, your electricity costs will likely decrease. If you switch from a fossil fuel system to an all-electric heat pump system, your gas heating costs will be eliminated while your electric bill will increase. This is because you are increasing your use of electricity to provide all your heating and cooling needs.

3

Dual-Fuel Heat Pump Option

A dual-fuel heat pump system involves a heat pump paired with a fossil fuel back-up heating system.

If you select a dual-fuel heat pump system, your gas bill will likely decrease while your electric bill will likely increase. This is due to decreasing how much of your heating is provided by gas and increasing how much is provided through electricity.

The chart above shows your total heating and cooling costs based on the temperature at which you switch from the heat pump to the fossil fuel system (the switchover temperature).

Monthly Electric Heating and Cooling Costs

Depending on the type of heat pump system you choose, your monthly electric heating and cooling cost changes are estimated below.

Average Summer Cooling Month

↓ \$5 to \$4 ↓

You'll likely save on cooling because heat pumps are more efficient than your current system.

4

Average Winter Heating Month

↑ \$6 to \$142 ↑

Depending on your switchover temperature, your electric heating costs may increase.

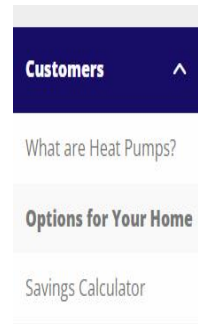
Weatherization

Congratulations! You've already taken an important step in improving your home's comfort and reducing your energy costs by weatherizing your home. Switching to a heat pump HVAC system can be a great next step to reducing your energy use even more.

BACK TO CALCULATOR

Phase 2 “Go Electric” Development

- UI/UX Research on Existing Site Content
 - How does the user experience the site content and the calculator?
 - Should more diagrams or visuals be added?
- Customer Content Additions
 - FAQ & Glossary of terms
 - Information on ComEd offerings, financing options
 - Additional Electrification Measures
 - Service Provider list with Heat Pump Designation for contractors who have completed training
- Contractor Content Additions
 - How/Why to get Involved
 - Training Opportunities & Resources
- Calculator Updates
 - Add total installation costs & available rebates
 - Add payback in years



Options for Your Home



There is a heat pump solution for every home.

A heat pump will get the job done to maximize your comfort and potentially lower your overall energy bills.

Talk with a ComEd Energy Efficiency Service Provider (EESP) to hear the best options for your home.

A qualified EESP can provide multiple heat pump options to match your goals and home needs. Make sure to consider the following when connecting with an EESP:

- **Know your goals.** Talking to an EESP about what you want out of a heat pump will help you get better options quoted. Common goals for heat pump installations include improving comfort at home, saving money on energy bills, and reducing greenhouse gas emissions.
- **Check for incentives.** Ask an EESP to quote you options that qualify for rebates and tax incentives.
- **Get multiple bids from different EESPs.** It is always a good idea to get bids from multiple EESPs to better compare prices and options.

Thank you