Commonwealth Edison Company's Energy Efficiency Plan

2027-2029

Revised Plan 7

June 1, 2026

List of Tables

Executive Summary

Commonwealth Edison Company ("ComEd") submits its 2027–2029 Energy Efficiency Plan ("Plan" or "Revised Plan 7") and the accompanying Revised 2027-2029 Energy Efficiency Plan Stipulation Agreement ("Stipulation") to the Illinois Commerce Commission ("Commission" or "ICC") for approval in accordance with Section 8-103B of the Public Utilities Act ("Act" or "PUA"). Since June 1, 2008, ComEd has administered energy efficiency ("EE") programs to retail customers in its service territory in accordance with Section 8-103 or 8-103B of the Act, as applicable. ComEd filed its original Plan 7 ("Original Plan 7") on February 27, 2025, covering the four-year period from 2026 through 2029, and the Illinois Commerce Commission approved the plan on August 24, 2025. Following the enactment of the Clean and Reliable Grid Affordability Act ("CRGA"), codified at 220 ILCS 5/8103B, on October 31, 2025 and effective on June 1, 2026, ComEd is required to file a Revised Plan 7 that meets the new energy efficiency goals of the statute. The revised filing covers a three-year period beginning January 1, 2027, and ending December 31, 2029 (the Plan Period or Revised Plan 7 Period).

Clean and Reliable Grid Act Highlights

The Clean and Reliable Grid Act ("CRGA") establishes a long-term framework for improving Illinois' energy system by advancing affordability, reliability, equity, and decarbonization through sustained investment in demand side resources integrated with grid modernization and clean energy deployment. Building on changes introduced under CEJA and carried forward in Original Plan 7, CRGA elevates energy efficiency as a core system resource by increasing portfolio budgets and setting substantially higher annual energy savings goals than under the prior structure. The Act reinforces equitable and durable outcomes by establishing minimum Income Eligible ("IE") spending requirements with proportional flexibility in savings goals for increased IE and Moderate-Income investment, alongside new portfolio lifetime standards and limits on short lived savings. CRGA also expands the range of savings pathways available to ComEd by increasing allowable converted gas and electrification savings. Collectively, these provisions reflect CRGA's intent to deliver persistent, high quality energy savings, prioritize underserved communities, and align energy efficiency with Illinois' broader clean energy and grid reliability objectives. The following outlines key components of CRGA influencing this Plan.

Annual Energy Savings Goals and Budgets

- CRGA establishes annual energy efficiency savings targets equal to 2% of applicable retail sales, a significant increase from CEJA's AAIG levels, with flexibility to reduce goals when utilities increase investment in Income Eligible and Moderate-Income customers in recognition of higher delivery costs.
- Annual portfolio budgets reflect this elevated ambition, increasing to $523M during this period to support sustained, scaled program delivery.

Required Income Eligible Spending Minimum

- CRGA requires that at least 25% of total portfolio spending serve Income Eligible customers, embedding equity as a core compliance requirement rather than a discretionary priority. This

requirement ensures proportional investment in households with the highest energy burdens while reinforcing a policy tradeoff that values deeper, more complex savings through interactions with savings goal flexibility.

Minimum Lifetime Requirements and Short Life Cap

- CRGA requires the average portfolio lifetime, weighted by savings, to exceed 12 years, emphasizing durable measures with long lasting system and customer benefits.
- CRGA limits measures with effective useful lives of five years or less to no more than 20% of total portfolio savings, preventing over reliance on rapidly expiring savings and supporting portfolio stability.

Increased Gas Savings Conversions

- The Act increases the allowable share of converted gas savings from 10% to 30%, with a focus on weatherization and mechanical system insulating measures, to support more integrated, whole-building solutions.

Electrification Savings

- CRGA doubles the share of electrification savings that may count toward savings goals from 10% to 20% while reestablishing alignment with Income Eligible objectives through spending requirements rather than savings achieved.

Revised Plan 7 Highlights

- **Offering a Diverse Portfolio of Programs for All Applicable Customers:** ComEd's portfolio serves four primary customer groups: business customers (including commercial and industrial or "C&I"), public sector customers, and residential customers, which includes income eligible ("IE"), and Moderate Income ("MI") customers. Residential customers, including IE customers, will be offered a suite of program elements that provide opportunities for them to participate in the portfolio (e.g., Home Energy Products, Single-Family Home Energy Savings, Multi-Family Energy Savings). ComEd will also offer a variety of opportunities to participate in the portfolio for business customers, which include small and large businesses as well as public sector customers (e.g., Small Business, Targeted Systems, New Construction). Portfolio budgets reflect this diversity of offerings, including: 51% directed to business customers, 11% directed at public sector customers, and 42% directed to Residential customers, or which 75% serve low and moderate-income households.
- **Maximizing IE Program Spend:** CRGA now requires that a minimum spend of 25% of total portfolio budget – or approximately $130.8 million – per year be allocated towards IE programs. This is a significant increase from the previous minimum statutory IE spend of $40 million per year. In Revised Plan 7, ComEd will surpass these minimums by delivering an average of $165 million per year on measures targeted at low and moderate-income households, including IE R&D, public housing efforts, home energy product solutions and health and safety ("H&S"). ComEd's annual IE whole building weatherization programs budget has also increased from minimum annual average of $74 million, to $115.5M, representing over 80% of the total budget specifically dedicated to

serving IE customers. This funding vastly increases comprehensive, long-lasting, whole building solutions offered to households with the most need and establishes new programs offering these solutions for previously underserved moderate-income households.

- **Expanding Whole Building Residential Solutions:** ComEd is expanding access to comprehensive, whole building weatherization solutions by establishing new offerings for Market Rate and Moderate-Income residential customers who have historically lacked access to these services within the portfolio. Supported by a total annual investment of $25M, these newly established programs are designed to address rising energy costs through integrated, whole home upgrades that reduce energy consumption across building systems while improving comfort, durability, and long-term performance. By extending whole building solutions beyond Income Eligible households, ComEd is filling a critical market gap for customers who are increasingly cost-burdened yet previously underserved by comprehensive efficiency programs. These investments are expected to deliver deeper, longer-lasting savings and meaningful bill relief through durable improvements that persist over time.
- **Breaking Down Participation Barriers for Public and Business Customers:** ComEd's Energy Advising program serves as a foundational, cross cutting element of the energy efficiency portfolio by providing personalized, customer specific guidance that connects customers to appropriate programs, incentives, and comprehensive solutions. Through one-on-one engagement, energy assessments, and tailored recommendations, Energy Advising lowers participation barriers, increases awareness of available offerings, and supports informed decision making across residential, small business, and Income Eligible customers. The program plays a critical role in advancing equity objectives by prioritizing outreach to hard to reach and underserved customers in the Business and Public sectors, supporting navigation of whole building and electrification opportunities, and increasing conversion into deeper, longer lasting efficiency measures. By functioning as both an education platform, optimization strategy partner and a pathway into other portfolio solutions, Energy Advising enhances participation, improves program integration, and strengthens overall portfolio performance.
- **Expanding Program Comprehensiveness:** ComEd is expanding comprehensive targets within Business downstream programs (Incentives, Small Business) with a higher focus on non-lighting measures with long-life savings (Advanced Controls, HVAC, Refrigeration). To support this, the portfolio has concentrated much of the traditional lighting offerings upstream (Midstream) and heavily adjusted downstream measure mixes towards non-lighting. This will help align our direct-to-consumer incentives to support energy savings in high-cost systems and deliver comprehensive, long-lasting energy impact to businesses.

Portfolio Goals & Budgets

CRGA fundamentally revises the energy efficiency framework established under CEJA by setting new energy savings goals, methods to determine achievement of those goals, and budget requirements. Unlike CEJA, which emphasized cumulative persisting savings over time, CRGA shifts the focus to achieving high first-year savings paired with minimum lifetime requirements. Under CRGA, annual energy savings goals are set at a fixed amount and must be achieved through measures with an average effective useful life of at

least 12 years.

The overall structure for establishing portfolio budgets remains consistent, although CRGA increases the overall budget amount by updating the reference year used for retail electricity rates and deliveries. The table below provides the values and methodology used to establish ComEd's Revised Plan 7 goals and budgets.

Revised Plan 7 Budget and Goal Calculation:

TABLE ES-1: REVISED PLAN 7 BUDGET CALCULATION

Category	Label	Equation/Source	Value
Base Delivery (GWh)	***a***	*Average Sales to Customers (2023) ICC Form 21*	82,290
Opt-Out (GWh)	***b***	*Opt-outs Usage (2023)*	7,539
Net Delivery (GWh)	***c***	***a-b***	74,750
CRGA spending cap (%)	***d***	*220 ILCS 5/8-103B(m)(4)*	4.25%
Average 2023 Residential spending per kWh ($/kWh)	***e***	*2023 ICC Form 21*	$0.1647
Annual spending cap amount / Budget ($M)	***f***	***c*d*e***	$523.4

TABLE ES-2: REVISED PLAN 7 GOAL CALCULATION

Category	Label	Equation/Source	Value
Base Delivery (GWh)	***a***	*Average Sales to Customers (2021-2023) ICC Form 21*	84,366
Opt-Out (GWh)	***b***	*Average Opt-outs Usage (2021-2023)*	7,200
Net Delivery (GWh)	***c***	***a-b***	77,166
CRGA Annual Incremental Savings Target (%)	***d***	*220 ILCS 5/8-103B(b-16)*	2%
CRGA Annual Incremental Savings Goal (GWh)	***e***	***c*d***	1,543

Portfolio Summary by the Numbers

Table ES-3 provides, for each calendar year, statutory incremental annual and lifetime savings goals for 2027-2029. Table ES-4 provides Revised Plan 7 budgets by program and year. Table ES-5 provides projected Revised Plan 7 incremental annual energy savings and achievements by program and year. *See* ComEd Ex. 1.03R (Section 8-103B(m) Budget Calculations).

TABLE ES-3: REVISED PLAN 7 GOALS AND ACHIEVEMENTS

Item	2027	2028	2029
Annual Incremental Savings Goal (GWh)	**1,543**	**1,543**	**1,543**
Lifetime Savings Goal (GWh, 12yr Life)	**18,516**	**18,516**	**18,516**
Legislated Budget ($M, Total)	**$523.4**	**$523.4**	**$523.4**
IE/Mod Income Spending as % of Budget	30.4%	31.6%	33.1%
IE/Mod Income Spending, Above 25% Req. (Rounded down)	5.0%	6.0%	8.0%
Goal % Reduction	0.13%	0.15%	0.20%
Adjusted Annual Goal as % of Sales	1.88%	1.85%	1.80%
Adjusted Annual Goal Based on IE/Mod Income Spend (GWh)	**1,447**	**1,428**	**1,389**
Adjusted Lifetime Goal Based on IE/Mod Income Spend (GWh)	**17,362**	**17,131**	**16,668**
Annual Incremental Savings Achieved (GWh)	1,663	1,617	1,585
Projected Budget Spending ($M, Total)	$523.4	$523.4	$523.4
Average Portfolio Lifetime (Years)	14.7	14.8	14.9
% Annual Savings <5 year life	5%	5%	5%
Demand Savings (First year, MW)	164	151	140

TABLE ES-4: REVISED PLAN 7 BUDGETS BY PROGRAM AND YEAR

Programs	2027 CY Cost (M)	2028 CY Cost (M)	2029 CY Cost (M)	3 Year Plan Cost (M)
Res/IE Programs - EE Programs				
Behavior - Res	$6.9	$6.0	$5.6	$18.5
Contractor/Midstream Rebates	$14.7	$14.4	$14.3	$43.4
Home Energy Products	$35.2	$35.9	$36.1	$107.2
Multi-Family Energy Savings	$35.2	$38.7	$41.8	$115.8
New Construction	$8.2	$8.5	$8.7	$25.3
Home Energy Savings (Single Family)	$50.2	$58.8	$69.9	$179.0
Whole Home Electric	$41.2	$42.9	$47.6	$131.8
Overhead (Non-Program) Costs	$13.1	$13.1	$13.1	$39.4
Res/IE Total	**$204.8**	**$218.3**	**$237.2**	**$660.3**
Business - EE Programs				
BEA	$0.7	$0.7	$0.8	$2.2
Behavior - Bus/Pub	$11.7	$12.0	$12.3	$36.0
Commercial Food Service	$0.5	$0.5	$0.5	$1.6
Energy Advising	$14.3	$18.1	$19.0	$51.4
Incentives	$67.8	$59.8	$49.2	$176.8
Midstream/Upstream	$89.3	$77.4	$78.3	$245.0
New Construction - Bus/Pub	$4.4	$4.3	$4.2	$12.9

Small Business	$54.8	$56.6	$43.5	$154.8
Targeted Systems	$28.3	$27.5	$27.5	$83.3
Overhead (Non-Program) Costs	$9.9	$9.9	$9.9	$29.7
Business Total	**$281.6**	**$266.8**	**$245.3**	**$793.7**
Multi-Sector and Portfolio Costs				
Stretch Codes	$1.1	$2.4	$5.0	$8.5
Voltage Optimization	$0.0	$0.0	$0.0	$0.0
Portfolio Level Costs	$35.9	$35.9	$35.9	$107.6
Multi-Sector and Portfolio Level Costs	**$37.0**	**$38.3**	**$40.9**	**$116.1**
ComEd Programs Total	**$523.4**	**$523.4**	**$523.4**	**$1,570.1**

TABLE ES-3: REVISED PLAN 7 INCREMENTAL ANNUAL SAVINGS BY PROGRAM AND YEAR

Programs	2027 Annual Savings (MWh)	2028 Annual Savings (MWh)	2029 Annual Savings (MWh)	3-Year Annual Savings (MWh)
Res/IE Programs - EE Programs				
Behavior - Res	78,472	68,635	68,016	215,124
Contractor/Midstream Rebates	79,326	75,756	73,773	228,856
Home Energy Products	470,669	469,365	462,714	1,402,748
Multi-Family Energy Savings	73,831	87,402	104,550	265,783
New Construction	18,361	18,441	18,407	55,210
Home Energy Savings (Single Family)	64,817	69,315	80,055	214,187
Whole Home Electric	27,084	27,650	30,638	85,372
Res/IE	**812,560**	**816,565**	**838,155**	**2,467,281**
Business - EE Programs				
BEA	24,412	25,245	25,186	74,843
Behavior - Bus/Pub	56,036	56,392	56,606	169,035
Commercial Food Service	1,511	1,443	1,405	4,358
Energy Advising	27,411	33,878	34,786	96,074
Incentives	138,308	118,593	94,772	351,673
Midstream/Upstream	348,487	289,920	284,514	922,921
New Construction - Bus/Pub	7,749	7,400	7,207	22,356
Small Business	103,760	109,134	83,406	296,300
Targeted Systems	79,007	75,186	73,519	227,712
Business	**786,680**	**717,191**	**661,401**	**2,165,272**
Multi-Sector and Portfolio-Level Activities				
Stretch Codes	4,803	7,651	21,008	33,462
Voltage Optimization	55,854	75,990	64,579	196,423
ComEd EE Portfolio				
Historical Carryover	3,441	0	0	3,441
ComEd Programs Total	**1,663,338**	**1,617,397**	**1,585,144**	**4,865,879**

1. Introduction

Since 2008, ComEd has offered a growing portfolio of EE programs and services to its residential and business customers. To date, this portfolio has delivered impressive savings of more than $13.5 billion in customer electric bills. Revised Plan 7 builds on previous efforts and successes to continue ComEd's legacy of building and delivering successful EE programs for our customers.

ComEd submits Revised Plan 7 to the Commission in accordance with Section 8-103B of the Public Utilities Act ("PUA"). As amended, the provisions of Section 8-103B continue to require ComEd to have one of the largest EE portfolios in the country, with aggressive energy savings goals. In 2025, the Illinois legislature enacted the Clean and Reliable Grid Act ("CRGA"), which materially revised the statutory requirements governing utility energy efficiency programs. Among other changes, CRGA increased ComEd's authorized annual Energy Efficiency ("EE") portfolio budget and established new requirements affecting program design, customer segment allocations, and savings structures. CRGA required ComEd to revise its previously approved 2026-2029 Energy Efficiency Plan and refile a revised plan for program years 2027–2029 by June 1, 2026.

Following CRGA's passage, ComEd promptly initiated planning activities and stakeholder negotiations to develop this Revised Plan 7 on a timeline sensitive to its commitment to run a timely portfolio solicitation process beginning in Q2 2026 which enables ComEd to have newly designed and expanded programs in the market January 2027. Through a negotiation process with the IL SAG, ComEd worked diligently to create a revised plan that ensures compliance with the updated statutory framework while continuing to balance cost-effectiveness, equity objectives, and achievable savings.

CRGA's passage brings new opportunities while also creating a number of new constraints and risks for ComEd. The statute shifted savings expectations to annual incremental savings with an emphasis on long lived measures. As the statute's growing specificity around required investment categories constrains the ability to holistically balance the portfolio and optimize outcomes across competing priorities, ComEd faces reduced flexibility and increased exposure to implementation risk. These changes can significantly shift outcomes and require new measures across the portfolio, stretching resources during an already complex period of change.

Additional risks are presented by significantly increased portfolio funding which coincides with similar funding increases to other utility partner budgets. New funding requires rapid scaling of delivery infrastructure, workforce capacity, and coordination across a diverse set of market actors. Many of the programs emphasized under CRGA—particularly whole building and Income Eligible offerings—depend on specialized contractors and community-based partners whose capacity must grow in parallel with program demand. Similar funding increases for partner utilities also create potential for competing offerings and constraints across the broader network of third-party delivery partners. At the same time, new combinations of statutory constraints on portfolio composition and savings structures limit flexibility in how incremental savings are achieved. Revised Plan 7 reflects ComEd's recognition of these realities and is designed to responsibly scale the portfolio over the 2027–2029 period in a manner that supports durable savings, sustainable program delivery, and meeting the needs of our customers.

The conclusions of Revised Plan 7 were reached during negotiations with stakeholders to address key

components of the Plan. These efforts were successful and resulted in the executed Revised Stipulation (Exhibit 1.02R) that informed many aspects of ComEd's Revised Plan 7.

2. Plan Overview

Revised Plan 7 is designed to address and balance the multiple statutory requirements laid out in subsection (g) and other applicable provisions of Section 8-103B of the PUA, as follows:

- Achieve the CRGA-modified annual savings goal using the statutory budgets for each of the three years of the Plan and demonstrate that the proposed EE measures will achieve the applicable requirements.
- Achieve the CRGA-modified lifetime savings goal, which is defined as the product of the annual savings goal and the minimum average savings life of 12 years, with no more than 20% of the savings from measures with a lifetime of 5 years or less.
- Provide programs for IE customers funded at a minimum of 25% of total EE spending per year.[1]
- Demonstrate that ComEd's portfolio is cost-effective using the Total Resource Cost ("TRC") test; however, individual measures need not be cost-effective. [2]
- Present a portfolio that represents a diverse cross-section of opportunities for customers of all rate classes, except those that opted out, to participate.
- Expand and fund utility energy efficiency programs in accordance with CRGA with overall EE budgets set as a percentage of utility revenues and increased over time, rather than fixed annual dollar amounts.
- Demonstrate consideration of program options for (i) advancing new building codes and municipal regulations governing existing and new building efficiency improvements and (ii) supporting efforts to improve compliance with such codes, standards, and regulations as a potentially cost-effective means of acquiring savings to count toward savings goals.
- Include a cost-recovery tariff mechanism.
- Provide for the independent evaluation of portfolio cost-effectiveness, as well as a full review of the multi-year Plan's results of the broader net program impacts. Such independent evaluation will influence, to the extent practicable, future adjustment of measures. The resources for such evaluation shall not exceed 3% of the portfolio budget in any year.
- Demonstrate how it will ensure that program implementation contractors ("ICs") will promote

[1] Section 8-103B(c) provides that low-income households are those households at or below 80% of the Area Median Income ("AMI"). For purposes of Revised Plan 7, ComEd generally uses the term "income-eligible" to refer to these customers and programs, rather than the statutory term "low income."

[2] *See* 220 ILCS 5/8-103B(g)(3) (providing that "[i]individual measures need not be cost effective").

workforce equity and quality jobs and collect data no less than quarterly to ensure compliance.

- Allocate no more than 4% of the portfolio budget for research, development, or pilot deployment of new technology platforms or innovative approaches.

ComEd's analysis of the Plan's costs to acquire EE savings projects that the savings goals applicable to ComEd during the Plan Period can be met within the statutory budgets. Further, ComEd's portfolio design increases low income and moderate-income spending requirement by 5% above statutory minimums, resulting in a goal adjustment. ComEd has balanced the program mix such that the entire cost of the portfolio is within the overall budget, as reflected in 2-2.

Table 2-1 shows ComEd's forecasted Revised Plan 7 savings and the impact of income eligible spend by annual savings.

TABLE 2-1: FORECASTED REVISED PLAN 7 SAVINGS[3]

Item	2027	2028	2029
Adjusted Annual Goal Based on IE/Mod Income Spend (GWh)	1,447	1,428	1,389
Legislated Budget ($M, Total)	$523.4	$523.4	$523.4
Annual Incremental Savings Achieved (GWh)	1,663	1,617	1,585
Projected Budget Spending ($M, Total)	$523.4	$523.4	$523.4
Average Portfolio Lifetime (Years)	14.7	14.8	14.9
% Annual Savings <5 year life	5%	5%	5%

Table 2-2 shows ComEd's Revised Plan 7 budgets for the statutorily required customer segments.

TABLE 2-2: REVISED PLAN 7 BUDGETS FOR STATUTORILY REQUIRED SPEND PROGRAMS

Programs	2027		2028		2029	
	Cost ($M)	%	Cost ($M)	%	Cost ($M)	%
Budget	$523.4	100%	$523.4	100%	$523.4	100%
Public Sector Share	$58.4	11%	$55.8	11%	$50.9	10%
Income Eligible Share	$154.8	30%	$156.3	30%	$156.2	30%
Income Eligible and Moderate Income Share	$158.9	30%	$165.3	32%	$173.2	33%

Challenges

ComEd faces the challenge of designing and administering an increasingly diverse and complex energy

[3] *See* footnote 2, *supra*.

efficiency portfolio that must simultaneously serve multiple customer segments with distinct needs, participation barriers, and delivery requirements. The portfolio spans residential customers, including income eligible and moderate-income households, commercial and industrial businesses of varying sizes, and public sector entities, each of which requires different program designs, incentive structures, and engagement strategies. Balancing this diversity while maintaining budgetary allocation requirements, operational efficiency, and equitable delivery presents a significant coordination challenge. ComEd is allocating nearly half of portfolio spending to residential customers, while ensuring a majority of those funds reach low- and moderate-income households, further constraining program design flexibility and heightening the importance of accurate targeting, outreach, and workforce capacity. At the same time, ComEd will continue to deliver comprehensive savings to business and public sector customers through programs such as Small Business, Targeted Systems, and New Construction, all while optimizing competing measure mixes, project timelines, and administrative requirements across sectors.

These challenges are intensified by recent statutory changes and evolving policy objectives under CRGA. The substantially increased minimum spending requirements for income eligible programs require rapid scaling of whole building weatherization, health and safety investments, and electrification efforts, particularly in single family and multi-family joint utility programs relying on uncertain gas utility budgets. Expanding comprehensive, whole building solutions beyond income eligible households to moderate income and market rate customers introduces additional complexity, as these customers have historically lacked access to integrated services and may face different participation and financing barriers. While expanded converted gas savings caps provide more flexibility, constraints around weatherization and insulation requirements limit comprehensive solutions for business customers that provide great synergy with existing electric measures. Similarly, efforts to shift commercial and industrial programs toward more comprehensive, long-lived, non-lighting measures place new demands on partnering service providers and customer decision making. Breaking down persistent participation barriers for public sector and business customers, while increasing program comprehensiveness and maintaining performance against statutory goals, requires intensive advisory support, cross program coordination, and continuous optimization of delivery strategies within an increasingly constrained and dynamic regulatory environment.

Retirement of CPAS and AAIG

Under prior plans, ComEd's energy efficiency performance was evaluated using CPAS (Cumulative Persisting Annual Savings) and AAIG (Applicable Annual Incremental Goal), which together reflected both the accumulation of persisting savings over time and the annual addition of new savings. Consistent with recent statutory changes, this construct has been replaced by an incremental annual savings goal framework that places primary compliance emphasis on annual (first-year) savings, rather than a cumulative persisting savings accounting model. While this change simplifies portfolio planning and tracking and reduces goal volatility driven by expiring savings, it also requires reconfiguration of ComEd's existing data collection, tracking, and reporting frameworks. These systems were originally designed to support CPAS and AAIG calculations, including persistence and legacy or expiring savings concepts embedded in CPAS reporting.

More significantly, the revised framework constrains portfolio design by sharpening the need to balance measures that deliver strong first-year savings with measures that deliver strong lifetime savings—

objectives that are not always aligned. This tension is heightened by legislative priorities emphasizing weatherization and whole-building approaches, which tend to produce substantial lifetime savings but comparatively lower first-year savings, requiring ComEd to manage more difficult tradeoffs in measure selection to satisfy multiple, and at times competing, expectations. These constraints are further compounded by other portfolio challenges, including market transformations such as the continued transition to LED lighting and the additional issues discussed in the sections that follow.

Market Transition to LED Lighting

Cost-effective residential lighting has historically been a mainstay of the ComEd Energy Efficiency ("EE") portfolio. In response to increased efficiency standards enacted under the Energy Independence and Security Act of 2007 ("EISA"), ComEd eliminated market-rate residential lighting offerings in Revised Plan 6 while continuing to offer lighting incentives to Income-Eligible ("IE") customers. Under Original Plan 7, ComEd assumed the market transition to LED lighting in the residential sector would be largely complete and therefore did not include incentives for standard residential LED measures, with the exception of exterior and common-area linear fixture lighting for multi-family properties. These assumptions largely remain unchanged in Revised Plan 7, as residential LED saturation remains high and opportunities for additional cost-effective savings are limited.

In the commercial sector, Revised Plan 7 assumes the continued transition from legacy lighting technologies to LEDs, with remaining opportunities concentrated in smaller businesses and in low-income and disadvantaged communities, making cost-effective project identification more challenging. Consistent with the Original Plan 7 approach, Revised Plan 7 continues to focus commercial lighting incentives and services in these market segments. Original Plan 7 also initiated the phase-out of tubular LED lamps ("TLEDs"), limiting them to direct-install early replacement opportunities within the Small Business program. Revised Plan 7 maintains this approach. While savings from commercial lighting controls continue to be pursued, realized savings have been lower than originally projected.

There remains no known technology that can cost-effectively replace the magnitude of lighting savings achieved in earlier plans. As in Original Plan 7, ComEd has addressed this decline by developing and expanding several lower-cost programs focused on market transformation and customer behavior, such as Stretch Codes, Business Energy Analyzer ("BEA") and Energy Advising. Revised Plan 7 continues to rely on these strategies to help offset declining lighting savings while supporting longer-term market impacts.

Higher Program Costs

Inflation, labor market changes, and other economic factors have increased program labor, equipment, and implementation costs and were expected to persist into Original Plan 7 and now also into Revised Plan 7. In addition, escalating global conflicts and heightened U.S. defense and security commitments have the potential to disrupt supply chains and increase input costs, further contributing to upward cost pressure—particularly for equipment- and labor-intensive measures.

Original Plan 7 incorporated inflation assumptions that were discussed with ComEd stakeholders and anticipated only a marginal increase in overall program costs. These assumptions largely carry forward into

Revised Plan 7. If actual costs exceed assumed levels, however, it may become more difficult for ComEd to achieve its statutory energy efficiency goals, underscoring the importance of managing both total program spending and the average cost per kilowatt-hour of savings.

Higher delivery costs for hard-to-reach customers have also proven persistent, particularly in areas such as residential weatherization and electrification, where remaining savings potential is limited. Controlling the average cost per kilowatt-hour of savings therefore remains critical to achieving Revised Plan 7 goals. ComEd continues to address these pressures by optimizing program design to reduce administrative costs while proportionally increasing incentive funding and delivering savings.

Gas Conversion Caps

While expanded converted gas savings caps are intended to increase flexibility and accelerate clean energy goals, their narrow application limits ComEd's ability to fully leverage long life, comprehensive electric efficiency measures that produce demonstrable gas savings through operational optimization rather than envelope improvements alone. Measures such as advanced controls, retro-commissioning, strategic energy management, and complex industrial system upgrades frequently deliver persistent gas savings by reducing run hours, improving set points, optimizing process operations, and enhancing overall system efficiency. However, because these measures do not always include direct weatherization or insulation components, they are excluded from converted gas eligibility despite providing durable, cost-effective savings with strong electric and gas synergies. This constraint reduces program design flexibility, particularly for commercial and industrial customers, and limits ComEd's ability to deploy integrated solutions that address both electric and gas consumption through operational efficiency. As a result, otherwise compelling comprehensive projects may face reduced incentive support or diminished customer uptake, even when they align with broader policy goals of long-lived savings, bill impact, and system optimization.

Uncertain Funding for Joint Delivery Programs

ComEd faces additional challenges related to uncertainty surrounding external funding sources that are integral to the delivery of joint utility and coordinated programs within the energy efficiency portfolio. A significant portion of Revised Plan 7 relies on braiding ComEd program funds with complementary resources such as partnering gas utilities, Illinois Home Weatherization Assistance Program ("IHWAP") and other joint delivery mechanisms to maximize comprehensive, whole building outcomes, particularly for income eligible and moderate-income customers. These coordinated approaches allow ComEd to deliver deeper savings and improved customer outcomes, but they also introduce risks when external funding availability or timing is uncertain. If anticipated joint funding does not materialize as expected, ComEd may need to support the pipeline independently, potentially leading to increased reliance on converted gas savings. At the same time, while Inflation Reduction Act ("IRA") funding represents a potential future opportunity to support electrification and whole building solutions, policy and administrative uncertainty surrounding implementation and continuity under the current federal administration makes the timing and availability of those funds unclear. As a result, Revised Plan 7 does not assume IRA funding as a firm delivery component, though ComEd will continue to monitor and evaluate these resources as

implementation certainly improves. Together, these uncertainties necessitate careful portfolio balancing and ongoing contingency planning to ensure compliance with statutory limits.

Capacity Scale-Up Due To CRGA Increased Funding

The Revised Plan 7 portfolio includes a significant budget increase, averaging approximately $99 million per year, particularly within Income Eligible and whole-building offerings. This expansion substantially increases demand on implementers and community-based delivery partners. Portfolio allocations acknowledge the challenge of scaling delivery and, where appropriate, incorporate a ramp-up approach. The electric Energy Efficiency Electrification (EEE) cap was formerly 10% of total portfolio savings and is now 20%, reflecting a higher statutory allowance for electrification savings. While this increase provides additional flexibility relative to prior law, the cap remains binding in practice. Even at 20%, ComEd continues to identify cost-effective electrification savings that cannot be claimed due to statutory limitations.

Additionally, while the potential for realized EEE savings is real, at present, the number of existing measures that fit statutory definitions is limited. This is due, in part, to the very prescriptive nature of legislation and presents a significant risk, as creating new measures requires a lengthy and thorough process. ComEd is simultaneously faced with several new time-sensitive competing priorities; therefore, it remains unclear how long into the Plan EEE savings would be realized at scale considering these limitations.

Opportunities

Revised Plan 7 presents a set of strategic opportunities for ComEd to build on the progress achieved in prior plans while responding to evolving regulatory direction, market conditions, and customer needs. These opportunities focus on integrating market transformation initiatives into core programs, expanding comprehensive electrification and weatherization offerings, and thoughtfully addressing gaps in measures and offerings across the portfolio. Together, they reflect ComEd's commitment to advancing long-term, sustainable energy savings while maintaining alignment with statutory priorities and stakeholder expectations.

A central opportunity under Revised Plan 7 is the continued maturation and integration of market transformation efforts. Building on pilots launched in Revised Plan 6 and Original Plan 7, ComEd can apply lessons learned to embed these initiatives within established residential and commercial programs, supporting durable changes in market practices, codes, and standards. This approach enables ComEd to scale impact over time while strengthening coordination with other Illinois utilities, evaluators, and regulatory partners.

Revised Plan 7 also creates opportunities to expand comprehensive, all-electric and weatherization solutions in a manner that supports equity, affordability, and efficient use of program resources. As CRGA formalizes income-based program priorities, ComEd can balance a strong focus on low-income and moderate-income households with targeted options that address unmet needs among other customers. These opportunities position ComEd to advance electrification, improve building performance, and enhance customer outcomes while remaining responsive to statutory incentives and implementation

constraints.

Market Transformation Integration

ComEd will continue to work closely with stakeholders and the other Illinois utilities to advance the regulatory and evaluation frameworks required to support the Market Transformation initiatives begun during Revised Plan 6 and integrate them into ComEd's EE programs under originally approved and Revised Plan 7. As legislative and regulatory actions increasingly shift energy efficiency baselines through new appliance standards, building codes, and performance requirements, market transformation presents a critical opportunity to adapt program design in ways that preserve long-term savings potential while supporting policy objectives.

ComEd's first market transformation pilot, the ENERGY STAR Retail Products Platform, was fully integrated into the Home Energy Products program under Original Plan 7, providing early experience in transitioning upstream and midstream strategies into core program delivery. ComEd is applying the lessons learned from that integration—including the need for rapid, creative program design and close coordination with evaluators—to its new construction stretch building codes pilot, which is intended to align with, and ultimately be integrated into, the residential and commercial New Construction programs.

Other Revised Plan 7 market transformation work will include the development of building performance standards for building renovations, creating new structural opportunities to influence energy use beyond traditional measure-based approaches. Collectively, these efforts support a transition toward savings frameworks that reflect evolving baselines, enable deeper and more durable energy reductions, and position ComEd's EE portfolio to respond to future changes in codes, standards, and fuel-specific savings opportunities, including therm savings, as market and policy conditions continue to evolve.

Expanding Capacity, Visibility, and Trust

Revised Plan 7 reflects an opportunity for ComEd to respond thoughtfully to a period of heightened complexity, marked by rapid technological dependence on the electric grid, growing uncertainty across energy markets, and persistently high energy prices facing customers. In this context, the introduction of visible initiatives such as the Low-Income Discount (LID) provides an important touchpoint for re-engaging customers and reinforcing the role of energy efficiency as a stabilizing tool. While these new offerings will draw attention, their value lies in how effectively they are integrated into a broader portfolio that helps customers manage costs and navigate an increasingly electrified and grid-dependent future.

At the same time, the expanded budget authorized under Revised Plan 7 presents a responsibility to deploy additional resources with care and discipline. The increase in funding allows ComEd to extend services to more customers and deliver meaningful savings at a time when affordability pressures are acute, while continuing to demonstrate strong stewardship of legislative dollars. By capitalizing on the convergence of greater investment and heightened program visibility, ComEd can responsibly expand its reach, support customers through a period of transition, and reinforce its role as a trusted partner to communities facing evolving energy challenges.

Increased Comprehensive Whole Building Solutions

Recent statutory changes under CRGA have expanded gas and electrification savings caps, providing ComEd with greater flexibility to deliver comprehensive, whole building solutions that integrate weatherization, electrification, and long-lived efficiency measures. This additional flexibility enables ComEd to deepen investment in income eligible households while expanding access to whole building approaches for customer segments that historically lacked such opportunities. A cornerstone of this effort is the Whole Home Electric program, first introduced in Original Plan 7 and continued in Revised Plan 7, which delivers comprehensive upgrades to income eligible single-family and multifamily homes and buildings. Through this program, inefficient fossil fueled appliances and heating and cooling systems are replaced with high efficiency electric technologies, with an emphasis on converting homes with electric resistance heating to modern heat pump systems. Where appropriate, weatherization measures are incorporated to reduce heating loads and ensure durable, cost-effective performance. At the same time, CRGA formally establishes moderate income customers as a defined program category and links increased spending on low- and moderate-income households to additional statutory flexibility. In this context, ComEd is expanding comprehensive offerings beyond traditional income eligible programs and evaluating new approaches for moderate income households, as well as potential market rate weatherization pathways, to address rising energy burdens among customers who previously did not qualify for whole building services. These efforts allow ComEd to deliver deeper, longer-lasting savings across a broader customer base while preserving funding focus and delivery capacity for low-income and moderate-income customers who are explicitly prioritized under CRGA.

Elimination of Expiring Savings

While the transition to the new savings goal structure presents several implementation challenges, it represents a meaningful improvement in supporting long lasting, comprehensive energy efficiency solutions. The retirement of the CPAS construct eliminates the compounding impacts of expiring savings, removing structural constraints that previously limited program flexibility and hindered responsiveness to changing market conditions. Under the new framework, each program year is evaluated as a standalone target, allowing ComEd to focus delivery efforts on emerging opportunities and evolving customer needs without the risk that current year savings will adversely affect future program performance. This approach reduces the distortion created by concentrations of expiring savings, improves alignment between program design and customer demand, and enables more adaptive portfolio management over time.

3. Revised Plan 7 Development

As discussed below, the portfolio ComEd proposes in Revised Plan 7 is the product of a multi-stage effort to gather and process the information required to meet savings goals while maintaining cost-effectiveness. At a high level, the multi-stage analysis can be broken down into three distinct stages: measures, programs, and portfolio. The TRC test is used at each stage.

3.1 Illinois TRC Test

Section 8-103B(g)(3) of the Act requires that the portfolio of EE measures—not including IE programs—be "cost-effective," which is defined as having satisfied the TRC test. *See* 220 ILCS 5/8-103B(g)(3); *see also* 220 ILCS 5/8-103B(a). The statute further confirms that individual measures need not be cost effective." *See* 220 ILCS 5/8-103B(g)(3).

Illinois defines the TRC test as follows:

> "Total resource cost test" or "TRC test" means a standard that is met if, for an investment in energy efficiency or demand-response measures, the benefit-cost ratio is greater than one. The benefit-cost ratio is the ratio of the net present value of the total benefits of the program to the net present value of the total costs as calculated over the lifetime of the measures. A total resource cost test compares the sum of avoided electric utility costs, representing the benefits that accrue to the system and the participant in the delivery of those efficiency measures and including avoided costs associated with reduced use of natural gas or other fuels, avoided costs associated with reduced water consumption, and avoided costs associated with reduced operation and maintenance costs, as well as other quantifiable societal benefits, to the sum of all incremental costs of end-use measures that are implemented due to the program (including both utility and participant contributions), plus costs to administer, deliver, and evaluate each demand-side program, to quantify the net savings obtained by substituting the demand-side program for supply resources. In calculating avoided costs of power and energy that an electric utility would otherwise have had to acquire, reasonable estimates shall be included of financial costs likely to be imposed by future regulations and legislation on emissions of greenhouse gases ("GHG"). In discounting future societal costs and benefits for the purpose of calculating net present values, a societal discount rate based on actual, long-term Treasury bond yields should be used. Notwithstanding anything to the contrary, the TRC test shall not include or take into account a calculation of market price suppression effects or demand reduction induced price effects.[4]
>
> In basic terms, the TRC test compares the benefits realized by installing a measure with the costs to install that measure. Benefits are calculated as the product of the measure's estimated energy and peak demand savings and the utility's avoided cost. Costs are equal to the incremental capital, installation, and operations and maintenance ("O&M") costs. The incremental cost is defined as the difference between the cost of the efficiency measure and the cost of the measure that otherwise would have been installed.

3.2 Measures Analysis

To design Revised Plan 7, ComEd first focused on measures that are contained within the Illinois Stakeholder

[4] 20 ILCS 3855/1-10 (Public Act 102-662) (defining the Total Resource Cost test to include avoided societal costs associated with reductions in greenhouse gas emissions).

Advisory Group ("SAG")-vetted and Commission-approved Illinois Statewide Technical Reference Manual ("IL-TRM"), which provides measure-level data used to determine a measure's cost-effectiveness including, but not limited to, measure life, measure cost, coincidence factor, and calculation of savings.[5] Version 13 of the IL-TRM was used as the primary data source for most EE measures; when Version 14 of the IL-TRM was released in early 2026, ComEd updated measure details to align with significant IL-TRM changes.

The first stage of the analysis—the measures analysis—used the TRC test to determine the cost-effectiveness of the individual EE measures. At the measure stage, the TRC test only analyzes the cost of each measure, which means that program administration costs are not included because they are not yet relevant. Only the benefits associated with the measure are compared to the measure's costs.

While the IL-TRM provides an extensive starting point for measures, it is by no means comprehensive, particularly where more complex measures are concerned. For more complicated measures that were not included in the current IL-TRM, ComEd relied on savings algorithms, assumptions, and values provided by the program implementers and independent evaluators.

The cost-effectiveness analysis also requires the estimate of the useful life of each measure to account for all of the energy savings realized by implementation of the measure over time. For example, installing an LED generates savings relative to an incandescent bulb for a number of years, depending on how many hours per year, over how many years, the bulb is used.

Finally, the cost-effectiveness analysis requires a discount rate to estimate the present value of the efficiency measure's costs and benefits. The TRC test definition includes the calculation of this discount rate as prescribed by law. *See* 20 ILCS 3855/1-10. Real and nominal societal discount rates are listed in the IL-TRM. The societal discount rate used for analyses pertaining to the Plan 7 cycle is in IL-TRM Version 12.

ComEd utilized Analytica for Revised Plan 7 modeling and cost-effectiveness analyses, ensuring consistency with current evaluation cost-effectiveness testing. Analytica, a visual software environment that specializes in building quantitative decision models, uses a variety of data inputs to perform the analyses. Major inputs to the model include, but are not limited to, Avoided Energy Cost, Avoided Ancillary Charges, Avoided Capacity Cost, Avoided Transmission and Distribution Cost, Line Losses, Carbon Adder and Escalators. Detailed TRC assumptions and sources can be found in Appendix D (TRC Assumptions and Sources).

Using this data, ComEd calculated the value of the TRC test for each of the measures in consideration for Revised Plan 7. Measures that score a ratio of benefits to costs of 1.0 or greater are considered to pass the TRC test. In general terms, the TRC test compares benefits (i.e., avoided costs, energy and demand savings) and costs (i.e., incremental capital, installation and O&M costs of measures). The formal expression of the Illinois TRC test is as follows:

[5] *Id*.

$$TRC = \frac{\frac{\sum_{t=1}^{N} UAC_t + OQB_t}{(1+d)^{t-1}}}{\frac{\sum_{t=1}^{N} PRC_t + PCN_t + UIC_t}{(1+d)^{t-1}}}$$

Where:

UAC_t = Utility Avoided Cost in year t

OQB_t = Other Quantifiable Societal Benefits in year t

PRC_t = Program Costs in year t

PCN_t = Participant Costs in year t

UIC_t = Utility Increased Supply Costs in year t

d = Discount Rate

The TRC test is often applied to assess the cost-effectiveness of individual EE measures as well as EE programs. When the analysis of measures is prepared, we look at a single measure's costs and benefits and do not include variables such as program implementation costs because, at this stage in the analysis, there are no program costs.

3.3 Programs Analysis

The second analysis stage is the bundling of cost-effective EE measures into programs and performing the cost-effectiveness analysis at the program level. The program implementation and administration costs are included in this TRC test analysis.

Upon analyzing the results of the TRC test on individual EE measures, ComEd then determined whether any of those individual measures could be "bundled" into a program element. A program element is a general classification that references the types of measures that might be offered within a program targeted at a specific market. The bundling process is used because very few, if any, program elements and programs are designed and implemented as only including a single measure. Rather, program designers build programs around combinations of measures that might appeal to a given market and that can be delivered using similar channels. The bundling process is also necessary because, in subsequent steps, ComEd estimates how many of each measure would or could be adopted by program participants and then sums the energy and demand reduction impacts of these measures.

After bundling measures into program elements, ComEd calculated the TRC test at a program level to determine cost-effectiveness at the program level (as opposed to the program's measures individually). There are three differences between this program-level cost-effectiveness analysis process and the cost-effectiveness analysis process for measures discussed above. First, when analyzing measures, the Program Cost ("PRC") variable ("program administrator costs") in the Illinois TRC test is set to zero. However, program-level analysis requires that the PRC variable equal the cost to implement and administer the program.

Second, while the measure analysis focused on the cost-effectiveness of a single measure, program analysis, by definition, is the cost-effectiveness of a bundle of measures as those measures are adopted by program participants. This means that, at the program level, ComEd must also project the number of measures that are expected to be adopted as a result of the program.

The third difference is directly related to the second. Every customer who receives an incentive for undertaking a specific program-sponsored activity is a participant, but not every participant is motivated to undertake that activity by the program. Some percentage of program participants will be "free riders"—participants that would have undertaken the desired action even in the absence of the program. To account for these free riders, the estimated savings for a program is reduced by the amount of savings attributed to the free riders. At the same time, however, there will be some customers who undertake the action the program is attempting to motivate, but who do not actually take any incentive from the program. Savings from these customers are known as "spillover." Just as the effects of free riders are accounted for, so are the effects of spillover.

The net effect of free ridership and spillover is known as the net-to-gross ("NTG") ratio, which is the ratio of: (1) net program savings, which are calculated as the net of free ridership and spillover, and (2) gross program savings, which are equal to the total number of measures installed and their associated savings. For Revised Plan 7, the NTG ratio estimates for continuing programs are generally based on the results of the most recent evaluation reports completed by the independent evaluator. In certain cases, these values were adjusted to reflect likely future market behavior. For continuing programs, cost data was based on the current costs of delivering the programs. These costs were adjusted to reflect potential increases or decreases in cost elements over time.

For new programs, ComEd used NTG ratios determined by the independent evaluator. Program cost data used for new programs is based on the costs reported by others in the industry implementing similar programs. The data was then modified to reflect adjustments that would be expected in the ComEd service territory. Similarly, the participation data was based on the actual or projected achievements of similar programs. These data were also compared against the market potential study ComEd conducted.

Finally, per Section 8-103B, TRC benefits include quantifiable social benefits, or Non-Energy Impacts ("NEIs"). Beginning in 2017, ComEd's independent evaluator conducted research to quantify and monetize societal, utility, and participant NEIs associated with ComEd's programs. In addition to NEIs currently deemed in the IL-TRM and other quantifiable NEIs, such as water savings, other fuel savings, and avoided O&M, the Revised Plan 7 TRCs were calculated with and without societal NEIs amongst the benefits. This planning enhancement is discussed in Section 4.3 *infra*.

3.4 Portfolio Analysis

In the third and final analysis stage, the programs are bundled into the overall portfolio and analyzed for cost-effectiveness, which includes the non-program specific, portfolio-level costs in the cost-effectiveness test. It is also at this stage that the portfolio is balanced, with program participation levels being increased or decreased in an effort to satisfy multiple objectives including but not limited to cost-effectiveness; portfolio reach; IE, Public Sector; budget constraints; funding assurance for portfolio-level costs (e.g.,

evaluation); and, for Revised Plan 7, Stipulation requirements.

4. Key Planning Enhancements

When developing Revised Plan 7, ComEd undertook several enhancements to its planning process, as described below.

4.1 End-Use Baseline Study

ComEd has conducted end-use baseline studies in the past to determine the status of efficiency measures in the ComEd market. During Revised Plan 6, ComEd participated in a statewide end-use baseline study (Appendix C) to set the foundation for assumptions about additional kWh and therm savings that EE and EEE programs could achieve in 2026-2029. The baseline study surveyed a sample of customers to determine important characteristics of energy-using equipment and their operation. It was designed to capture energy usage data for all ComEd customers (other than those eligible customers that had chosen to opt out), including IE and public sector customers. While the baseline study reflected older results at the point of design for Revised Plan 7, it was still critical in providing a reference point for targeted program design and market capacity.

4.2 Market Potential Study

Based on the state of EE equipment and usage in ComEd's service territory established in the end use baseline study, ComEd participated in a statewide market potential study, attached here as Appendix C and initially introduced in Original Plan 7, to estimate the future potential cost-effective EE and EEE savings that could be achieved from programs.[6] The market potential study projected program savings potential through 2029 for key customer classes, customer segments, building types, and end-uses. The results were used to ensure program energy savings assumptions were consistent with the potential for savings available in the market. The results of both the baseline and market potential studies were reviewed at length with interested stakeholders in the SAG. While the baseline study reflected older results at the point of design for Revised Plan 7, it was still critical in providing a reference point potential program savings capacity and measure market potential for continued targeting.

4.3 Stakeholder Input and Collaboration

Like Original Plan 7 and those before it, the SAG and its stakeholder participants have been crucial in the development of Revised Plan 7. Consensus-building first began through the SAG process, during which positions, challenges, and opportunities were presented and discussed by the utilities and the stakeholders.

[6] *See GDS, Illinois 2023 Baseline and Potential Study*, available at https://www.ilsag.info/wp-content/uploads/IL-Baseline-and-Potential-Study-SAG-Presentation-August-13-2024-V2.pdf (last accessed February 20, 2025) (attached hereto as Appendix C).

SAG members also offered new program ideas (i.e. MRx), and ComEd provided SAG members the opportunity to preview Revised Plan 7 and solicited stakeholder feedback. Following SAG discussions, ComEd engaged in extensive negotiations with several stakeholders to reach agreement. Through a rigorous negotiation process, ComEd and the negotiating stakeholders discussed key components of the Plan, culminating in the Stipulation executed by the signatory parties. Key aspects of the Stipulation, ComEd Ex. 1.02, are as follows:

- **IE Program Spend:** While the law requires that a minimum of 25% ($130.8 M) per year be allocated towards IE programs, ComEd has committed to budgeting an annual minimum of $155 million per year with a $147.5 million average annual minimum spend commitment on measures targeted at low-income households, including IE R&D, public housing efforts, and H&S but excluding allocated overhead. ComEd will spend an average of $115.5 million per year on IE whole building weatherization programs, as these projects have the greatest impact on customer energy bills.
- **Other IQ Topics:** The Stipulation also commits ComEd to developing a whole building weatherization program targeting moderate-income households, a customer segment not previously recognized by the statute. ComEd has committed to budgeting an annual minimum of $10 million with an average annual minimum spend commitment of $8 million on measures targeted at moderate-income households. This commitment expands impactful whole building offerings to another traditionally underserved customer sector that will benefit from deep comprehensive home improvements resulting in long lasting bill reductions.
- **Market Rate Offerings:** ComEd has also committed to expanding residential whole building weatherization services to Market Rate customers with best efforts on joint delivery with gas utilities. This offering will have a minimum annual budget of $15M with an average annual minimum spend commitment of $13.5M on measures targeting market rate gas and electric households. This commitment expands comprehensive whole building services to market rate customers, with specific benefits of added comprehensive expert support that was previously unavailable in market rate retail and midstream programs.

TABLE 4-1: PLAN 7 JOINT/COORDINATED PROGRAMS

Residential & Income Eligible Sector	Home Energy Products
	Home Energy Savings (Single Family)
	Multi-Family Energy Savings
	New Construction
Business & Public Sector	Behavior - Bus/Pub
	New Construction Bus/Pub
	Targeted Systems (Retro-commissioning only)

- **Bill Impacts:** ComEd commits to provide customer-specific energy bill impact estimates for its IE whole building electrification program, Whole Home Electric, for each fuel-switching participant to the maximum extent feasible. This means potentially including rate discounts within the bill impact analysis which will provide customers with a more personalized impact outlook to changes they

should expect to see on their bill.

- **Changes in Law:** To the extent that there are changes in applicable law that materially impact the implementation of this Plan or provisions of the Stipulation, ComEd and the stakeholders will work collaboratively with the goal of reaching consensus on the related impacts and the need, if any, for adjustments to the Stipulation and Plan.

5.1 Portfolio Design

During the Revised Plan 7 Period, ComEd will continue to streamline the portfolio structure under the banner of the "ComEd Energy Efficiency Program" by optimizing measure delivery between programs in order to more efficiently target customer segments and eliminate competing targets among upstream and downstream programs. Optimizing and streamlining its portfolio helps ComEd accomplish several objectives: reducing duplication and competition of programs and offerings; simplifying the suite of programs, making energy-saving opportunities easier for customers to navigate; and providing greater flexibility in managing the portfolio overall. Unless otherwise noted throughout this Plan, the portfolio will be presented at the "program element" level, . Table 5-1 names "program elements" by category.

TABLE 5-2: COMED REVISED PLAN 7 PORTFOLIO DESIGN

Residential & IE	Business and Public Sector	Multi-Segment
Behavior - Res	BEA	Stretch Codes
Contractor/Midstream Rebates	Behavior - Bus/Pub	Voltage Optimization
Home Energy Products	Commercial Food Service	
Multi-Family Energy Savings	Energy Advising	
New Construction	Incentives	
Home Energy Savings (Single Family)	Midstream/Upstream	
Whole Home Electric	New Construction - Bus/Pub	
	Small Business	
	Targeted Systems	

Table 5-2 summarizes the portfolio's budgets, including each program element's projected cost, by year.

TABLE 5-3: REVISED PLAN 7 BUDGETS

Programs	2027 CY Cost (M)	2028 CY Cost (M)	2029 CY Cost (M)	3 Year Plan Cost (M)
Res/IE Programs - EE Programs				
Behavior - Res	$6.9	$6.0	$5.6	$18.5
Contractor/Midstream Rebates	$14.7	$14.4	$14.3	$43.4
Home Energy Products	$35.2	$35.9	$36.1	$107.2
Multi-Family Energy Savings	$35.2	$38.7	$41.8	$115.8

New Construction	$8.2	$8.5	$8.7	$25.3
Home Energy Savings (Single Family)	$50.2	$58.8	$69.9	$179.0
Whole Home Electric	$41.2	$42.9	$47.6	$131.8
Overhead (Non-Program) Costs	$13.1	$13.1	$13.1	$39.4
Res/IE Total	**$204.8**	**$218.3**	**$237.2**	**$660.3**
Business - EE Programs				
BEA	$0.7	$0.7	$0.8	$2.2
Behavior - Bus/Pub	$11.7	$12.0	$12.3	$36.0
Commercial Food Service	$0.5	$0.5	$0.5	$1.6
Energy Advising	$14.3	$18.1	$19.0	$51.4
Incentives	$67.8	$59.8	$49.2	$176.8
Midstream/Upstream	$89.3	$77.4	$78.3	$245.0
New Construction - Bus/Pub	$4.4	$4.3	$4.2	$12.9
Small Business	$54.8	$56.6	$43.5	$154.8
Targeted Systems	$28.3	$27.5	$27.5	$83.3
Overhead (Non-Program) Costs	$9.9	$9.9	$9.9	$29.7
Business Total	**$281.6**	**$266.8**	**$245.3**	**$793.7**
Portfolio and Multi-Sector Costs				
Stretch Codes	$1.1	$2.4	$5.0	$8.5
Voltage Optimization	$0.0	$0.0	$0.0	$0.0
Portfolio Level Costs	$35.9	$35.9	$35.9	$107.6
Multi-Sector and Portfolio Level Costs	**$37.0**	**$38.3**	**$40.9**	**$116.1**
ComEd Programs Total	**$523.4**	**$523.4**	**$523.4**	**$1,570.1**

Table 5-3 summarizes the projected incremental annual savings for each program element by year.

TABLE 5-4: REVISED INCREMENTAL ANNUAL SAVINGS BY PROGRAM AND YEAR

Programs	2027 Annual Savings (MWh)	2028 Annual Savings (MWh)	2029 Annual Savings (MWh)	3-Year Annual Savings (MWh)
Res/IE Programs - EE Programs				
Behavior – Res	78,472	68,635	68,016	215,124
Contractor/Midstream Rebates	79,326	75,756	73,773	228,856
Home Energy Products	470,669	469,365	462,714	1,402,748
Multi-Family Energy Savings	73,831	87,402	104,550	265,783
New Construction	18,361	18,441	18,407	55,210
Home Energy Savings (Single Family)	64,817	69,315	80,055	214,187
Whole Home Electric	27,084	27,650	30,638	85,372
Res/IE	**812,560**	**816,565**	**838,155**	**2,467,281**
Business - EE Programs				
BEA	24,412	25,245	25,186	74,843
Behavior - Bus/Pub	56,036	56,392	56,606	169,035

Commercial Food Service	1,511	1,443	1,405	4,358
Energy Advising	27,411	33,878	34,786	96,074
Incentives	138,308	118,593	94,772	351,673
Midstream/Upstream	348,487	289,920	284,514	922,921
New Construction - Bus/Pub	7,749	7,400	7,207	22,356
Small Business	103,760	109,134	83,406	296,300
Targeted Systems	79,007	75,186	73,519	227,712
Business	**786,680**	**717,191**	**661,401**	**2,165,272**
Multi-Sector and Portfolio-Level Activities				
Stretch Codes	4,803	7,651	21,008	33,462
Voltage Optimization	55,854	75,990	64,579	196,423
ComEd EE Portfolio				
Historical Carryover	3,441	0	0	3,441
ComEd Programs Total	**1,663,338**	**1,617,397**	**1,585,144**	**4,865,879**

Table 5-4 summarizes the projected first-year and lifecycle costs, in dollars per kWh, for each of the program elements. Residential and IE Programs and Business and Public Sector Programs include sector general costs. The total average shown for each sector is weighted by savings.

5: PROJECTED FIRST-YEAR AND LIFECYCLE COSTS (DOLLARS PER KWH)

Program	First Year Costs ($/kWh) 2027-2029 Average	Lifecycle Costs ($/kWh) 2027-2029 Average
Res/IE - EE Programs		
Behavior - Res	$0.09	$0.02
Contractor/Midstream Rebates	$0.19	$0.01
Home Energy Products	$0.08	$0.00
Multi-Family Energy Savings	$0.44	$0.03
New Construction	$0.46	$0.03
Home Energy Savings (Single Family)	$0.84	$0.05
Whole Home Electric	$1.54	$0.09
Res/IE	**$0.27**	**$0.02**
Business - EE Programs		
BEA	$0.03	$0.00
Behavior - Bus/Pub	$0.21	$0.03
Commercial Food Service	$0.37	$0.03
Energy Advising	$0.54	$0.06
Incentives	$0.50	$0.03
Midstream/Upstream	$0.27	$0.02
New Construction - Bus/Pub	$0.58	$0.03
Small Business	$0.52	$0.04
Targeted Systems	$0.37	$0.05
Business	**$0.37**	**$0.03**

Multi-Sector Activities		
Stretch Codes	$0.25	$0.02
Voltage Optimization	$0.00	$0.00
Multi-Segment Total	**$0.04**	**$0.00**
ComEd EE Portfolio		
ComEd Programs Total	**$0.32**	**$0.02**

Table 5-5 presents the average weighted average measure life (WAML) for each program element by year. WAML is provided for informational purposes to illustrate portfolio composition and the durability of savings across program elements.

TABLE 5-5: REVISED PLAN 7 WAML

Programs	WAML		
	2027	2028	2029
Res/IE - EE Programs			
Behavior - Res	10.0	10.0	10.0
Contractor/Midstream Rebates	16.0	16.0	16.0
Home Energy Products	18.9	18.9	18.9
Multi-Family Energy Savings	15.5	15.5	15.5
New Construction	15.0	15.0	15.0
Home Energy Savings (Single Family)	18.2	18.3	18.6
Whole Home Electric	16.7	16.9	17.4
Res/IE	**17.4**	**17.5**	**17.5**
Business - EE Programs			
BEA	7.8	7.8	7.8
Behavior - Bus/Pub	7.0	7.0	7.0
Commercial Food Service	12.4	12.4	12.4
Energy Advising	8.6	8.6	8.6
Incentives	15.2	15.4	15.5
Midstream/Upstream	15.0	15.0	15.0
New Construction - Bus/Pub	17.4	17.4	17.4
Small Business	13.4	13.2	13.1
Targeted Systems	7.8	7.9	7.9
Business	**13.4**	**13.1**	**13.0**
Multi-Sector and Portfolio-Level Activities			
Stretch Codes	16.1	16.1	16.1
Voltage Optimization	15.0	15.0	15.0
ComEd Programs Total	**15.3**	**15.4**	**15.4**
ComEd Programs Total Excluding VO	**15.3**	**15.4**	**15.5**

The Revised Plan 7 portfolio projected TRC and cost-effectiveness values are presented in several tables below. The portfolio is cost-effective, with a TRC test benefit-cost ratio of 3.04 average annually, or 3.93

with NEIs.

Table 5-6 presents projected TRC results for each program element, including across Residential, IE Programs, and Business & Public Sector Programs.

TABLE 5-6: PROJECTED TRC BY PROGRAM

Programs	TRC		
	2027	2028	2029
Res/IE - EE Programs			
Behavior - Res	5.0	5.0	5.2
Contractor/Midstream Rebates	7.6	7.4	7.3
Home Energy Products	12.4	12.6	12.7
Multi-Family Energy Savings	0.8	0.9	1.0
New Construction	0.8	0.7	0.7
Home Energy Savings (Single Family)	1.2	1.1	1.0
Whole Home Electric	1.8	1.7	1.7
Res/IE	**3.2**	**3.0**	**2.8**
Business - EE Programs			
BEA	24.8	23.7	22.9
Behavior - Bus/Pub	3.2	3.1	3.0
Commercial Food Service	3.1	3.1	3.0
Energy Advising	1.2	1.2	1.2
Incentives	3.5	3.4	3.2
Midstream/Upstream	6.3	6.2	6.1
New Construction - Bus/Pub	0.7	0.7	0.7
Small Business	2.8	2.9	2.9
Targeted Systems	2.5	2.4	2.4
Business	**3.7**	**3.5**	**3.5**
Multi-Sector and Portfolio-Level Activities			
Stretch Codes	0.4	0.4	0.4
Voltage Optimization	1.8	2.9	2.4
ComEd Programs Total	**3.1**	**2.9**	**2.7**

Table 5-7 presents the portfolio's cost-effectiveness test ("CE test") results, both TRC and Utility Cost Test ("UCT"). These values include portfolio-level costs.

TABLE 5-7: COST-EFFECTIVENESS TEST RESULTS

CE Test	Income Eligible	CE Results including NEIs	CE Results excluding NEIs
TRC	Business and Market Rate Residential	3.7	2.9
TRC	Income Eligible Only	3.2	2.7

TRC	Overall	3.6	2.9
UCT	Business and Market Rate Residential	N/A	2.2
UCT	Income Eligible Only	N/A	2.1
UCT	Overall	N/A	2.1

More detailed projected CE test results, including TRC ratios and net benefit values, with and without NEIs, for each program element, can be found in Appendix D (Revised Plan 7 Supplemental TRC Results).

5.2 Residential & Income Eligible Program Elements

ComEd's Residential and IE program elements are targeted at the residential customer segment, including IE and moderate-income customers. ComEd serves over 3.5 million residential customers, accounting for 90% of ComEd's total retail customers and approximately 32% of ComEd's overall kWh usage. All targeted customers taking delivery service from ComEd are eligible for the Residential and IE programs regardless of their choice of supplier.

For Revised Plan 7, the Residential and IE program umbrella consists of the following seven program elements: (1) Behavior – Res/IE; (2) Home Energy Products; (3) Home Energy Savings; (4) Multi-Family Energy Savings; (5) Contractor/Midstream Rebates; (6) New Construction; and (7) Whole Home Electric.

IE customers can participate in all the Residential and IE program elements, but there are five program elements with funding dedicated specifically to IE customers (i.e., Home Energy Products, Home Energy Savings, Multi-Family Energy Savings, New Construction, Whole Home Electric). Traditionally, higher incentives or additional services are required to engage the IE customer base, making IE-focused programs generally more expensive on a cents-per-kWh basis than many of the traditional EE programs. Because IE customers make up more than 40% of all ComEd residential customers, ComEd recognizes the importance of providing as much assistance as possible to this segment. As such, while at the time of submitting ComEd's first plan under Section 8-103B (Plan 5), the statute required only a minimum of $25 million per year be spent on the IE customer segment, ComEd committed to spending, on average, $48 million annually through IE programs. For the Revised Plan 6 Period, ComEd collaborated with stakeholders to identify meaningful ways to increase the EE impact in IE communities even further. In Original Plan 7, ComEd budgeted $103 million, on average, annually to this customer segment—184% over the respective statutory minimum—all while still designing the portfolio to achieve the statutory savings goals and maintain cost-effectiveness. For Revised Plan 7, ComEd continues to maximize IE and moderate-income spend within the portfolio, budgeting $165 million annually to these customer segments. Within this expanded IE budget, ComEd has committed to the following specific budget allocations and spending minimums in the Revised Plan 7 Stipulation:

- $155 million per year to IE customers and will commit to a minimum average annual spend of $147.5, over the three-year plan period, excluding allocated portfolio overhead but including IE Sector General spend, IE R&D, H&S, and public-housing efforts.
- A $115.5 million minimum average annual spend to whole building weatherization program elements, as these projects have the greatest impact on customer energy bills.

- $10 million per year budgeted to Moderate Income customers and will commit to a minimum average annual spend of $8 million, over the three-year plan period.

Investments in IE whole building weatherization programs constitute at least 80%[7] of the budget specifically dedicated to serving IE customers, and ComEd has allocated at least 15% of the following IE whole building weatherization programs' annual budget to H&S measures.

Table 5--8 illustrates the program elements that comprise the various carveouts.

TABLE 5-8: IE PROGRAM ELEMENT/DELIVERY CHANNEL CATEGORIZATION

Program Element / Channel	IE	Dedicated IE	Whole Building Weatherization IE
Single-Family (SF) Upgrades – IE	X	X	X
Whole Home Electric SF – IE	X	X	X
Multi-Family (MF) Upgrades – IE	X	X	X
Whole Home Electric MF – IE	X	X	X
New Construction – IE	X	X	X
Home Energy Products – Food Bank – IE	X	X	
Home Energy Products – Retail – IE	X	X*	
Sector General – IE	X	X	
IE R&D	X	X	
Minimum Average Annual Spend Commitments	**$147.5 M**	**$144.4 M**	**$115.5 M**

**Home Energy Products - Retail is only partially dedicated, as Instant Discount IE incentives are provided by geographical location of retailer rather than direct. Dedicated Spend only applies to program spend related to large appliance measures where customer IE eligibility is verified on a customer level.*

Table 5-9 and Table 5-10 provide projected budgets and net savings for the Residential and IE programming elements, by year.

TABLE 5-9: RESIDENTIAL & INCOME ELIGIBLE BUDGETS

Programs	2027 CY Cost (M)	2028 CY Cost (M)	2029 CY Cost (M)	3 Year Plan Cost (M)
Non-IE Costs				
Behavior - Res	$6.9	$6.0	$5.6	$18.5
Contractor/Midstream Rebates	$14.7	$14.4	$14.3	$43.4
Home Energy Products	$10.5	$10.8	$11.0	$32.4
Multi-Family Energy Savings	$2.1	$5.0	$8.0	$15.2
New Construction	$1.7	$1.9	$2.1	$5.7

[7] See supra text accompanying note 2.

Home Energy Savings (Single Family)	$2.1	$5.1	$8.0	$15.1
Whole Home Electric	$2.1	$4.0	$9.1	$15.2
Overhead (Non-Program) Costs	$5.8	$5.8	$5.8	$17.5
Residential - EE non-IE Total	**$46.0**	**$52.9**	**$64.0**	**$162.9**
IE and Moderate Income Costs (M)				
Behavior - Res	$0.0	$0.0	$0.0	$0.0
Contractor/Midstream Rebates	$0.0	$0.0	$0.0	$0.0
Home Energy Products	$24.6	$25.1	$25.1	$74.8
Multi-Family Energy Savings	$33.1	$33.7	$33.8	$100.6
New Construction	$6.5	$6.6	$6.6	$19.7
Home Energy Savings (Single Family)	$48.2	$53.8	$61.9	$163.9
Whole Home Electric	$39.2	$38.9	$38.5	$116.6
Overhead (Non-Program) Costs	$7.3	$7.3	$7.3	$21.9
Residential - EE IE/MI Total	**$158.9**	**$165.3**	**$173.2**	**$497.4**
Total Residential Costs	**$204.8**	**$218.3**	**$237.2**	**$660.3**

TABLE 5-10: RESIDENTIAL & INCOME ELIGIBLE NET SAVINGS (MWH)

Programs	2027 Annual Savings (MWh)	2028 Annual Savings (MWh)	2029 Annual Savings (MWh)	3 Year Plan Annual Savings (MWh)
Non-IE Savings				
Behavior - Res	78,472	68,635	68,016	215,124
Contractor/Midstream Rebates	79,326	75,756	73,773	228,856
Home Energy Products	154,228	154,228	154,228	462,685
Multi-Family Energy Savings	4,645	18,744	37,278	60,666
New Construction	2,900	3,102	3,392	9,394
Home Energy Savings (Single Family)	624	1,486	7,015	9,125
Whole Home Electric	1,719	3,255	7,161	12,135
Residential - EE non-IE Total	**321,913**	**325,207**	**350,865**	**997,986**
IE and Moderate Income Savings				
Behavior - Res	0	0	0	0
Contractor/Midstream Rebates	0	0	0	0
Home Energy Products	316,440	315,137	308,486	940,063
Multi-Family Energy Savings	69,186	68,658	67,272	205,117
New Construction	15,462	15,339	15,015	45,815
Home Energy Savings (Single Family)	64,193	67,829	73,040	205,062
Whole Home Electric	25,365	24,395	23,477	73,238
Residential - EE IE/MI Total	**490,647**	**491,358**	**487,290**	**1,469,295**
Total Residential Savings	**812,560**	**816,565**	**838,155**	**2,467,281**

The following pages provide detailed descriptions of each element, including IE-specific targets where

applicable, as well as the complementary initiatives to increase the impact of EE programs in IE communities. Research & Development, including IE R&D, is described in greater detail later in Section 5.6 *infra*. A complete list of program measures can be found in Appendix E (Portfolio Measures List).

5.2.1 Behavior – Res/IE

- **Program Description:** Behavior – Res/IE is an opt-out only, behavioral-based program that will provide residential customers with information on how their households use energy and leverage social norms to drive customer adoption of energy-efficient behaviors. Customers will receive paper and/or monthly emailed Home Energy Reports throughout the year. Both paper and emailed reports will include neighbor comparison information, personalized EE tips, and information on additional ComEd EE program offerings. All ComEd customers will be encouraged to visit www.ComEd.com/MyAccount to access additional online energy management tools, including the option to receive alerts and notifications like a High Bill Alert sent based on a pre-established threshold, or a Weekly Usage Report that provides insights by comparing the current and previous week's usage to highlight the days and hours when a customer uses the most energy.
- **Collaboration:** None.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, develop marketing materials, and conduct program marketing activities. Call center personnel will be trained to field customer questions and help manage program opt-out requests. Additionally, customers will be able to select and manage preferences through the Preference Center available on ComEd.com/MyAccount and the ComEd mobile app.
- **Target Market:** This program will target residential single-family and multi-family customers in ComEd's service territory. All such targeted customers taking delivery service from ComEd are eligible for this program, regardless of their choice of supplier.
- **Marketing Strategy:** The overall marketing strategy for Home Energy Reports will operate largely as continued education and awareness of EE because this program will be conducted on an opt-out basis. The reports themselves will serve as a marketing channel for other EE offerings. Customers participating in the program will be reached through messages on their customized reports, alerts and notifications, tools, and resources available through My Account and the mobile app, digital media, and additional targeted mailings based on energy reduction needs.
- **Eligible Measures:** Home Energy Reports will provide residential customers with information on how they use energy within their households. The report may display usage analytics such as a recent neighbor comparison, and a personal comparison that illustrates the customer's usage from the same time last year, and specific energy tips that are based on the characteristics and usage of the household. The types of measures undertaken by customers will be primarily behavioral in nature and may include turning off lights, adjusting air conditioning temperature set-points, and turning off/unplugging electronic equipment when not in use. Given the design of the program and the method of measuring energy savings (which relies on the customer's monthly energy consumption versus a control group), the breadth of measures actually undertaken is not known.

- **Program Targets:** Behavior – Res/IE program targets are shown in .

TABLE 5-11: BEHAVIOR – RES/IE PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	78,472	68,635	68,016
Demand Savings (MW)	13	11	11
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	78,472	68,635	68,016
Lifetime Savings			
Average Program Lifetime (Years)	3.7	3.7	3.7
Lifetime Savings (MWh)	288,561	252,388	250,112
First Year Annual Income Eligible Net Savings			
True Electric Savings (MWh)	0	0	0
Demand Savings (MW)	0	0	0
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Net Composite Savings (MWh)	0	0	0
Program Budget (M)			
Total Budget	$6.9	$6.0	$5.6
Total IE and Moderate Income Budget	$0.0	$0.0	$0.0
IE spend as % of Program Budget	0%	0%	0%
Cost Effectiveness			
TRC	5.02	4.97	5.16
UCT	2.58	2.65	2.87
$ per first year kWh	$0.09		
$ per lifetime kWh	$0.02		

5.2.2 New Construction

- **Program Description:** The New Construction program will offer financial incentives for Market Rate residential buildings with a focus on electrification and affordable housing buildings served by both gas and electric that exceed minimum energy code requirements. Bundled energy conservation measures and custom or prescriptive approaches for specific building types will be designed to achieve significant energy savings over the current Illinois energy code.

  Residential new construction incentives will apply to site-built and modular detached single-family homes, duplexes, townhomes, and low-rise multi-family dwellings. The affordable housing offering will provide technical assistance and incentives to developers to incorporate energy-efficient

building practices into moderate rehab, major renovation, and new construction of single-family units in multi-family low-rise and mid-rise buildings. The residential offering may transition to ENERGY STAR or another national standard.

- **Collaboration:** ComEd may coordinate with Nicor Gas, Peoples Gas, and North Shore Gas to offer joint incentives were possible or coordinated marketing.
- **Delivery Strategy:** An implementation contractor will deliver the program and work with ComEd to finalize the program design, develop marketing materials, and conduct program marketing and outreach activities. The implementation contractor will also coordinate with the Stretch Code program.
- **Target Market:** The residential program offering targets homebuilders of site-built and modular detached single-family, duplex, and townhome dwellings. The affordable housing offering targets developers of single-family and multi-family affordable housing units for households with incomes at or below 80% of the AMI.
- **Marketing Strategy:** The program will be marketed to building owners, design professionals, builders, and contractors through outreach and education. Marketing will be coordinated and aligned to provide a single message to targeted customers. Tactics may include (i) direct outreach and marketing to architects, engineers, design teams, and developers, (ii) formal education and training events, and (iii) development of partnerships with professional organizations.
- **Eligible Measures:** Energy savings and incentives will be based on achievement of whole building performance targets above minimally code-compliant baseline conditions, with a focus on energy-efficient electrification technologies. Energy-efficient building practices emphasized under the program may include high insulation levels, air sealing, controlled ventilation, high-efficiency HVAC systems including heat pumps, and energy efficient appliances.
- **Program Targets:** New Construction program targets are shown in Table 5-12

TABLE 5-12: NEW CONSTRUCTION PROGRAM TARGETS – RESIDENTIAL

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	2,500	2,520	2,529
Demand Savings (MW)	0	0	0
Claimed Therms	114,544	113,630	111,232
Claimed Therms (MWh)	3,357	3,330	3,260
Claimed Electrification (MWh)	12,504	12,591	12,618
Composite Savings (MWh)	18,361	18,441	18,407
Lifetime Savings			
Average Program Lifetime (Years)	15.0	15.0	15.0
Lifetime Savings (MWh)	275,421	276,616	276,109
First Year Annual Income Eligible Net Savings			
True Electric Savings (MWh)	1,994	1,978	1,937

Demand Savings (MW)	0	0	0
Claimed Therms	114,583	113,669	111,270
Claimed Therms (MWh)	3,357	3,330	3,260
Claimed Electrification (MWh)	10,110	10,030	9,818
Net Composite Savings (MWh)	15,462	15,339	15,015
Program Budget (M)			
Total Budget	$8.2	$8.5	$8.7
Total IE and Moderate Income Budget	$6.5	$6.6	$6.6
IE spend as % of Program Budget	79%	78%	76%
Cost Effectiveness			
TRC	0.78	0.73	0.67
UCT	1.30	1.31	1.32
$ per first year kWh	$0.46		
$ per lifetime kWh	$0.03		

5.2.3 Home Energy Products

- **Program Description:** The Home Energy Products program will offer residential customers discounts and rebates on select energy efficient appliances and products for the home. Instant discounts will be available on qualifying products from participating retailers. Rebates will be available for purchases of eligible ENERGY STAR appliances and other home products and can be made at any physical or online retailer that sells the qualifying appliances and home products. Within Home Energy Products, a portion of the budget will be dedicated to IE customers by offering higher rebates to IE customers and instant discounts at participating retailers on select products in targeted geographic areas (e.g., IE zip codes with 60% density), making energy-saving products more affordable for these customers. In addition, select energy-saving home products will be made available at no cost to IE customers through participating local food banks, food pantries, and similar organizations serving that customer segment. Energy saving kits will also be offered to IE customers through direct outreach, partner organizations and elementary schools in targeted geographic areas. Low- or no-cost energy-saving products may also be offered to targeted residential customer segments through limited time offers ("LTOs") or other, similar distribution channels. The Home Energy Products program also includes participation in the ENERGY STAR Retail Products Platform which is a collaborative midstream market transformation initiative where ComEd provides incentives to participating retailers to change their inventories by increasing the stocking and sale of select ENERGY STAR products.
- **Collaboration:** ComEd may coordinate with Nicor Gas, Peoples Gas, and North Shore Gas to offer energy saving kits. The ENERGY STAR Retail Products Platform transforms the market through a collaborative midstream initiative in which ComEd is a program sponsor.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, develop marketing materials, and conduct program marketing and outreach activities.

- **Target Market:** This program will target residential customers in ComEd's service territory who are purchasing new or replacement appliances and other home products through retail channels. Retail sales channels will include participating retailers serving ComEd's service territory, including those that serve, in part or in full, ComEd residential customers with incomes at or below 80% of the Area Median Income ("AMI"). Energy-saving products will be provided at no or low cost to targeted residential customer segments through targeted delivery channels, such as food banks, food pantries, schools, community partners and LTOs. All residential customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** The overall marketing strategy will be to leverage customer interactions at the point-of-sale to deliver information about ENERGY STAR-certified appliances and other energy-efficient home products available for rebates or instant discounts. The program will also work directly with retailers and distributors to promote the stocking and visibility of specific energy efficient products within their stores. Other tactics may include bill inserts, general consumer education and awareness, mass media, direct mail, and electronic marketing. When possible, tactics will include feedback mechanisms such as customer satisfaction surveys and email collection for future messaging. Where possible, marketing materials will include the ENERGY STAR brand as a trusted source of quality products.
- **Eligible Measures:** Eligible measures will include a variety of ENERGY STAR-certified appliances and other energy-efficient home products which may include, but not limited to, air purifiers, clothes washers, dehumidifiers, electric and heat pump clothes dryers, room air conditioners, refrigerators (ENERGY STAR Retail Products Platform only), advanced power strips, DIY weatherization products, and smart thermostats. ComEd may revise eligible measures and incentive amounts as needed in accordance with current market conditions, technology development, evaluation results, and program implementation experience.
- **Program Targets:** Home Energy Products program targets are shown in Table 5-13.

TABLE 5-13: HOME ENERGY PRODUCTS PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	167,787	167,318	164,880
Demand Savings (MW)	11	11	10
Claimed Therms	10,272,592	10,244,115	10,100,453
Claimed Therms (MWh)	301,090	300,255	296,044
Claimed Electrification (MWh)	1,792	1,792	1,790
Composite Savings (MWh)	470,669	469,365	462,714
Lifetime Savings			
Average Program Lifetime (Years)	18.9	18.9	18.9
Lifetime Savings (MWh)	8,897,789	8,874,110	8,747,436
First Year Annual Income Eligible Net Savings			
True Electric Savings (MWh)	116,015	115,547	113,108

Demand Savings (MW)	7	7	7
Claimed Therms	6,837,650	6,809,163	6,665,452
Claimed Therms (MWh)	200,343	199,508	195,298
Claimed Electrification (MWh)	82	82	80
Net Composite Savings (MWh)	316,440	315,137	308,486
Program Budget (M)			
Total Budget	$35.2	$35.9	$36.1
Total IE and Moderate Income Budget	$24.6	$25.1	$25.1
IE spend as % of Program Budget	70%	70%	69%
Cost Effectiveness			
TRC	12.43	12.56	12.68
UCT	9.62	9.94	10.28
$ per first year kWh	$0.08		
$ per lifetime kWh	$0.00		

5.2.4 Home Energy Savings (Single Family)

- **Program Description:** The Home Energy Savings program will provide IE, moderate income, and market rate single-family residential customers with home energy assessments that include free and discounted products to help customers save energy and water, as well as the option for more comprehensive retrofits that include air sealing and weatherization.
- **Collaboration:** It is ComEd's intent, to the extent possible, to offer this program jointly or in coordination with Nicor Gas, Peoples Gas, and North Shore Gas. ComEd also intends to work with Community Action Agencies ("CAAs") and leverage IHWAP to braid utility dollars with state and federal dollars.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, develop marketing materials, conduct program marketing and outreach activities, and provide energy assessments and direct installations or product delivery to the target market. To ensure coherence and coordination of this offering, the implementation contractor will manage all components of the Single-Family Home Energy Savings program, including assessments and direct installation or delivery of measures, weatherization retrofits, and braided work delivered through IHWAP. The implementation contractor may use subcontractors and/or partners to assist with delivery.
- **Target Market:** This program will primarily target single-family (defined as two or fewer units) households in several groupings: 1) IE households in ComEd's service territory with incomes at or below 80% of the AMI, including, but not limited to, those served by IHWAP, 2) Moderate Income householders currently defined as households between 80% of area median income (AMI) and 300% of the Federal poverty Limit (FPL) and 3) market rate households that do not qualify for either moderate or income eligible offerings.
- **Marketing Strategy:** Eligible customers targeted for the program will be marketed through a variety of potential channels including, but not limited to, direct mail, social media, community

partner outreach, and community events. Marketing may also be delivered through ComEd's customer assistance programs. As needed, ComEd will supplement the marketing done by the State of Illinois' IHWAP program to engage customers who are eligible for IHWAP.

- **Eligible Measures:** Eligible measures for customers may include programmable and smart thermostats, advanced power strips, faucet aerators, low-flow showerheads and pipe insulation. Qualifying customers may also be served with weatherization measures including air sealing, duct sealing, and attic and wall insulation. In some cases, appliances, furnaces, water heaters, boiler tune-ups and replacements, and central air conditioning will also be available. ComEd will not provide incentives for early replacements of single-family air conditioners, gas furnaces, gas boilers or gas water heaters, except in cases of emergency and/or H&S needs, or in the IHWAP-braided portion of the program element. Health and safety measures will also be offered, as budget allows.
- **Program Targets:** Single-Family Home Energy Savings program targets are shown in Table 5-14.

TABLE 5-6: HOME ENERGY SAVINGS (SINGLE FAMILY) PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	17,492	18,682	19,283
Demand Savings (MW)	5	5	5
Claimed Therms	1,614,640	1,727,513	2,073,428
Claimed Therms (MWh)	47,325	50,633	60,772
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	64,817	69,315	80,055
Lifetime Savings			
Average Program Lifetime (Years)	18.2	18.3	18.6
Lifetime Savings (MWh)	1,179,823	1,270,269	1,486,422
First Year Annual Income Eligible Net Savings			
True Electric Savings (MWh)	16,868	17,195	17,573
Demand Savings (MW)	5	5	5
Claimed Therms	1,615,191	1,728,102	1,893,078
Claimed Therms (MWh)	47,325	50,633	55,467
Claimed Electrification (MWh)	0	0	0
Net Composite Savings (MWh)	64,193	67,829	73,040
Program Budget (M)			
Total Budget	$50.2	$58.8	$69.9
Total IE and Moderate Income Budget	$48.2	$53.8	$61.9
IE spend as % of Program Budget	96%	91%	89%
Cost Effectiveness			
TRC	1.17	1.06	0.99
UCT	0.99	0.96	0.96
$ per first year kWh	$0.84		
$ per lifetime kWh	$0.05		

5.2.5 Multi-Family Energy Savings

- **Program Description:** Multi-Family Energy Savings is a single comprehensive program that will provide a range of EE services to qualifying property owners**,** managers, public housing authorities, and tenants. These services will include EE assessments, energy-saving products, and incentives for larger capital projects, and EE measures installed by a participating EE service provider. The program also will provide technical assistance to support implementation. These services will be available to both market rate and IE properties, as well as buildings owned or managed by Public Housing Authorities.
- **Collaboration:** It is ComEd's intent, to the extent possible, to offer this program jointly or in coordination with Nicor Gas, Peoples Gas, and North Shore Gas. ComEd also intends to work with CAAs and leverage the IHWAP to braid utility dollars with state and federal dollars.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, develop marketing materials, conduct program marketing and outreach activities, recruit and manage a closed network of service providers, provide energy assessments, and, when appropriate, direct installations in the target market. To ensure coherence and coordination of this offering, the implementation contractor will manage all program components of Multi-Family Energy Savings, including assessments and direct installation or delivery of measures, incentive processing for large capital projects and EE measures, and the braided work delivered through the IHWAP. The implementation contractor may use subcontractors and / or partners to assist with the delivery.
- **Target Market:** This program will target both market rate and IE multi-family (defined as three or more units) building owners and managers in ComEd's service territory. For IE, ComEd will target multifamily properties that serve renters with incomes at or below 80% of the AMI. It will also target building owners and managers with buildings served by statewide weatherization assistance programs, such as IHWAP, and Public Housing Authorities with owned and managed buildings.
- **Marketing Strategy:** This program's marketing strategy includes employing highly targeted communication channels to likely eligible building owners and property managers throughout the ComEd service territory. For the IE components, the intent is to build on existing marketing channels already in use by nonprofit entities and government agencies that have existing relationships with, or experience serving, IE communities. ComEd will supplement marketing to properties participating in IHWAP, as needed. Multi-family building owners and managers may be marketed through a variety of potential channels including, but not limited to, direct mail, social media, community partner outreach, and community events. Marketing may also be done through ComEd's customer assistance programs.
- **Eligible Measures:** Eligible measures may include programmable and smart thermostats, advanced power strips, faucet aerators, low-flow showerheads, and pipe insulation. Incentives for appliances, furnaces, cooling equipment, water heaters, boiler tune-ups and replacements, air sealing, and attic and wall insulation will also be available, as well as H&S measures as budget

allows.

- **Program Targets:** Multi-Family Energy Savings program targets are shown in Table 5-15.

TABLE 5-7: MULTI-FAMILY ENERGY SAVINGS PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	24,173	28,263	30,806
Demand Savings (MW)	0	0	0
Claimed Therms	1,694,220	2,017,710	2,516,012
Claimed Therms (MWh)	49,658	59,139	73,744
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	73,831	87,402	104,550
Lifetime Savings			
Average Program Lifetime (Years)	15.5	15.5	15.5
Lifetime Savings (MWh)	1,147,335	1,358,225	1,624,714
First Year Annual Income Eligible Net Savings			
True Electric Savings (MWh)	19,529	19,392	19,032
Demand Savings (MW)	0	0	0
Claimed Therms	1,694,798	1,681,458	1,646,439
Claimed Therms (MWh)	49,658	49,267	48,241
Claimed Electrification (MWh)	0	0	0
Net Composite Savings (MWh)	69,186	68,658	67,272
Program Budget (M)			
Total Budget	$35.2	$38.7	$41.8
Total IE and Moderate Income Budget	$33.1	$33.7	$33.8
IE spend as % of Program Budget	94%	87%	81%
Cost Effectiveness			
TRC	0.79	0.87	0.97
UCT	1.06	1.21	1.40
$ per first year kWh	$0.44		
$ per lifetime kWh	$0.03		

5.2.6 Contractor/Midstream Rebates

- **Program Description:** The Contractor/Midstream Rebates program will provide midstream incentives on energy-efficient heat pumps, and potentially other measures, installed in ComEd residential customers' homes. A discount will be applied directly at the point of sale from approved distributors. The program will also offer downstream incentives via authorized geothermal EE service providers installing eligible geothermal heat pumps at residential customers' homes. Intercepting end users and heat pump-trained contractors/geothermal EE service providers at their common product purchasing channel provides a convenient and simple process for receiving

incentives for higher efficiency HVAC equipment.

- **Collaboration:** None.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, develop marketing materials, develop training for contractors that compliments existing training offered through manufacturers, conduct program marketing and outreach activities, and recruit and manage a network of HVAC heat-pump-trained contractors/geothermal EE service providers and distributors.
- **Target Market:** This program will target heat pump-trained contractors/geothermal EE service providers and residential customers purchasing and/or installing new or replacement HVAC equipment through a participating distributor in ComEd's service territory.
- **Marketing Strategy:** ComEd will leverage existing product market channels to generate program awareness and develop strong partnerships with participating heat-pump-trained contractors/geothermal EE service providers and distributors. Marketing will utilize specific messaging, targeted campaigns, and behavioral tactics to drive the stocking, purchasing, and installation of high-efficiency HVAC equipment. Additionally, messaging is intended to reach residential customers to drive the awareness and selection of high-efficiency HVAC products. Tactics may include webinar trainings, bill inserts, collateral materials, web communications, and electronic channels.
- **Eligible Measures:** Eligible measures will include air source heat pumps, ductless mini-split heat pumps, and geothermal (ground source) heat pumps. ComEd may also incentivize other measures appropriate for the midstream channel. ComEd may revise eligible measures and incentive amounts as needed in accordance with current market conditions, technology development, evaluation results, and program implementation experience.
- **Program Targets:** Contractor/Midstream Rebates program targets are shown in Table 5-16.

TABLE 5-8: CONTRACTOR/MIDSTREAM REBATES PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	25,216	24,081	23,451
Demand Savings (MW)	3	3	3
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	54,110	51,675	50,323
Composite Savings (MWh)	79,326	75,756	73,773
Lifetime Savings			
Average Program Lifetime (Years)	14.3	14.3	14.3
Lifetime Savings (MWh)	1,137,210	1,086,036	1,057,605
First Year Annual Income Eligible Net Savings			
True Electric Savings (MWh)	0	0	0

Demand Savings (MW)	0	0	0
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Net Composite Savings (MWh)	0	0	0
Program Budget (M)			
Total Budget	$14.7	$14.4	$14.3
Total IE and Moderate Income Budget	$0.0	$0.0	$0.0
IE spend as % of Program Budget	0%	0%	0%
Cost Effectiveness			
TRC	7.59	7.44	7.31
UCT	3.69	3.73	3.77
$ per first year kWh	$0.19		
$ per lifetime kWh	$0.01		

5.2.7 Whole Home Electric

- **Program Description:** The Whole Home Electric program will upgrade both market rate and IE single-family and multi-family homes and buildings with comprehensive measures. For eligible IE properties, the offering will replace fossil-fueled appliances and heating and cooling systems with electric appliances and systems and convert homes and buildings using inefficient electric resistance heating systems to efficient heat pump technologies. Weatherization will also be available through the program if the home or building has not been previously weatherized. Market rate properties with electric space heating will be offered incentives for energy efficiency upgrades, such as air sealing and insulation.
- **Collaboration:** ComEd is interested in collaborating with external funding sources to braid dollars to serve more customers and bring down project costs.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, develop marketing materials, conduct program marketing and outreach activities, provide assessments and coordinate with a network of Energy Efficiency Service Providers to complete the upgrades. The implementation contractor may use subcontractors and/or partners to assist with the delivery.
- **Target Market:** This program will target market rate single family and multifamily households with electric heating, as well as single-family (defined as two or fewer units) households with incomes at or below 80% of the AMI along with multi-family (defined as three or more units) building owners and managers that serve renters with incomes at or below 80% of the AMI. Buildings owned or managed by Public Housing Authorities will also be eligible to participate.
- **Marketing Strategy:** Eligible customers targeted for the program may be marketed through a variety of potential channels including, but not limited to, direct mail, social media, community partner outreach, and community events. Marketing may also be delivered through ComEd's customer assistance programs.

- **Eligible Measures:** Eligible measures may include air source heat pumps (ducted and ductless), heat pump water heaters, induction stoves, heat pump and high-efficiency electric clothes dryers, air sealing, and weatherization. Health and safety measures will also be offered, as the budget allows.
- **Program Targets:** Whole Home Electric program targets are shown in Table 5-17.

TABLE 5-9: WHOLE HOME ELECTRIC TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	12,591	13,273	16,565
Demand Savings (MW)	1	1	2
Claimed Therms	13,989	13,878	13,585
Claimed Therms (MWh)	410	407	398
Claimed Electrification (MWh)	14,083	13,970	13,676
Composite Savings (MWh)	27,084	27,650	30,638
Lifetime Savings			
Average Program Lifetime (Years)	16.6	16.8	17.2
Lifetime Savings (MWh)	449,895	464,305	527,171
First Year Annual Income Eligible Net Savings			
True Electric Savings (MWh)	10,873	10,018	9,404
Demand Savings (MW)	1	1	1
Claimed Therms	13,994	13,882	13,589
Claimed Therms (MWh)	410	407	398
Claimed Electrification (MWh)	14,083	13,970	13,676
Net Composite Savings (MWh)	25,365	24,395	23,477
Program Budget (M)			
Total Budget	$41.2	$42.9	$47.6
Total IE and Moderate Income Budget	$39.2	$38.9	$38.5
IE spend as % of Program Budget	95%	91%	81%
Cost Effectiveness			
TRC	1.81	1.74	1.70
UCT	0.51	0.53	0.60
$ per first year kWh	$1.54		
$ per lifetime kWh	$0.09		

5.3 Business & Public Sector Program Elements

ComEd's Business and Public Sector program elements are targeted at the business sector, consisting of non-opt out private and public sector customers taking delivery service from ComEd, regardless of their choice of supplier. ComEd estimates that the business and public sector customer segments total

approximately 360,000 customers but represent approximately 73% of overall kWh usage in the ComEd service territory.

For business customers, ComEd proposes one set of program elements that will serve both business and public sector customers. Under the Business and Public Sector umbrella, the Plan will offer the following five program elements that target these customers: (1) Small Business; (2) Incentives; (3) Targeted Systems; (4) Midstream/Upstream; (5) Behavior; and (6) Business Energy Analyzer (7) New Construction (8) Energy Advising (9) Commercial Food Service. As reflected in Table 5-4, the Business and Public Sector program umbrella is now projected to provide total annual savings of 914,447 MWh; 841,044 MWh; and 798,830 MWh for 2027, 2028, and 2029, respectively. Within the overall portfolio, on an average annual basis, these program elements are expected to achieve 55% of ComEd's total annual goal for Revised Plan 7. These program elements will provide, to the extent practical, cooperative offerings with the natural gas program offerings of Nicor Gas, Peoples Gas, and North Shore Gas.

Table 5-18 and Table 5-19 provide the projected expenditures and savings for each program element at the business and public sector level. With the addition of the portfolio-level costs allocated to the projected public sector spend at the program element level, ComEd expects to exceed the public sector spend target in each of the three Plan years.

TABLE 5-10: PROJECTED BUSINESS, PUBLIC, AND MULTI-SECTOR BUDGETS

Programs	2027 CY Cost (M)	2028 CY Cost (M)	2029 CY Cost (M)	3 Year Plan Cost (M)
Business - EE Programs				
BEA	$0.6	$0.6	$0.6	$1.9
Behavior - Bus/Pub	$9.0	$9.0	$9.2	$27.3
Commercial Food Service	$0.5	$0.5	$0.5	$1.5
Energy Advising	$9.7	$12.3	$12.9	$35.0
Incentives	$48.3	$42.9	$35.7	$127.0
Midstream/Upstream	$77.2	$66.9	$67.7	$211.9
New Construction - Bus/Pub	$3.5	$3.4	$3.4	$10.3
Small Business	$44.3	$46.1	$35.3	$125.7
Targeted Systems	$25.3	$24.5	$24.4	$74.2
Overhead (Non-Program) Costs	$9.0	$9.0	$9.0	$27.1
Business Total	**$227.5**	**$215.4**	**$198.9**	**$641.9**
Public Sector - EE Programs				
BEA	$0.1	$0.1	$0.1	$0.3
Behavior - Bus/Pub	$2.6	$3.0	$3.1	$8.8
Commercial Food Service	$0.0	$0.0	$0.0	$0.1
Energy Advising	$4.6	$5.8	$6.1	$16.5
Incentives	$19.5	$16.9	$13.5	$49.8
Midstream/Upstream	$12.1	$10.4	$10.5	$33.0

New Construction - Bus/Pub	$0.9	$0.8	$0.8	$2.6
Small Business	$10.5	$10.4	$8.2	$29.1
Targeted Systems	$3.0	$3.0	$3.1	$9.1
Overhead (Non-Program) Costs	$0.9	$0.9	$0.9	$2.6
Public Total	**$54.0**	**$51.4**	**$46.4**	**$151.8**
Business Total Cost	**$281.6**	**$266.8**	**$245.3**	**$793.7**
Multi-Sector Programs				
Stretch Codes	$1.1	$2.4	$5.0	$8.5
Voltage Optimization	$0.0	$0.0	$0.0	$0.0
Multi-Sector Total	**$1.1**	**$2.4**	**$5.0**	**$8.5**

TABLE 5-11: PROJECTED BUSINESS & PUBLIC SECTOR NET SAVINGS

Programs	2027 Annual Savings (MWh)	2028 Annual Savings (MWh)	2029 Annual Savings (MWh)	3 Year Plan Annual Savings (MWh)
Business - EE Programs				
BEA	21,579	20,608	20,069	62,257
Behavior - Bus/Pub	40,055	36,431	35,477	111,964
Commercial Food Service	1,435	1,371	1,335	4,140
Energy Advising	0	0	0	0
Incentives	95,894	82,812	66,918	245,624
Midstream/Upstream	303,184	252,230	247,527	802,941
New Construction - Bus/Pub	6,587	6,290	6,126	19,003
Small Business	81,622	87,092	66,270	234,983
Targeted Systems	71,258	67,437	65,770	204,465
Business Total	**621,613**	**554,272**	**509,491**	**1,685,376**
Public Sector - EE Programs				
BEA	2,832	4,637	5,118	12,587
Behavior - Bus/Pub	15,981	19,961	21,129	57,071
Commercial Food Service	76	72	70	218
Energy Advising	27,411	33,878	34,786	96,074
Incentives	42,414	35,781	27,854	106,049
Midstream/Upstream	45,303	37,690	36,987	119,980
New Construction - Bus/Pub	1,162	1,110	1,081	3,353
Small Business	22,139	22,042	17,136	61,317
Targeted Systems	7,749	7,749	7,749	23,248
Public Total in Business Sector	**165,067**	**162,919**	**151,910**	**479,897**
Business Total	**786,680**	**717,191**	**661,401**	**2,165,272**
Multi-Sector Activities				
Stretch Codes	4,803	7,651	21,008	33,462
Voltage Optimization	55,854	75,990	64,579	196,423
Multi-Sector Total	**60,657**	**83,641**	**85,587**	**229,885**

The following pages provide detailed descriptions of the Business and Public Sector program elements. A complete list of program measures can be found in Appendix E (Portfolio Measure List).

5.3.1 Small Business

- **Program Description:** The Small Business program will provide EE assessments and incentives for the purchase and installation of energy-efficient equipment to small and medium businesses and public facilities. A closed network of SMB Program service providers will conduct energy assessments, at no cost to the customer, to identify a list of recommended EE improvement opportunities for eligible private and public customers. Service providers will also submit pre-applications on behalf of customers to reserve incentive funding for projects, install the energy-saving measure(s) in the customer's facility, and bill the customer for their share (if any) of the project cost after incentives have been applied.
- **Collaboration:** None.
- **Delivery Strategy:** An implementation contractor will deliver the program and work with ComEd to finalize the program design and incentives, develop marketing materials for the SMB service providers, and conduct program marketing and outreach activities.
- **Target Market:** This program will target all commercial and industrial customers, both private and public sector, under 500 kW peak demand.
- **Marketing Strategy:** The SMB Program will rely upon the implementation contractor and closed service provider network for project development. ComEd will support the service provider network through marketing and outreach guidance, co-branded materials, and support from ComEd marketing teams, the EE Call Center, and other departments.
- **Eligible Measures:** Incentives will be available for more efficient lighting and controls, HVAC, compressed air, refrigeration, and building envelope.
- **Program Targets:** SMB program targets are shown in Table 5-20.

TABLE 5-12: SMALL BUSINESS PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	103,760	109,134	83,406
Demand Savings (MW)	20	21	16
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	103,760	109,134	83,406
Composite Savings (MWh) Private	81,622	87,092	66,270

Composite Savings (MWh) Public	22,139	22,042	17,136
Lifetime Savings			
Average Program Lifetime (Years)	13.4	13.2	13.1
Lifetime Savings (MWh)	1,392,510	1,439,195	1,093,084
Program Budget (M)			
Implementation	$8.3	$8.9	$7.0
Incentives	$46.5	$47.7	$36.5
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$54.8	$56.6	$43.5
Total Private Budget	$44.3	$46.1	$35.3
Total Public Budget	$10.5	$10.4	$8.2
Cost Effectiveness			
TRC	2.82	2.94	2.94
UCT	1.69	1.75	1.79
$ per first year kWh	$0.52		
$ per lifetime kWh	$0.04		

5.3.2 Incentives

- **Program Description:** The Incentives program will provide monetary incentives to business and public sector customers installing qualified EE improvements in their facilities. The incentives will be offered on either a fixed per-unit basis ("standard") or determined based on the calculated annual energy savings ("custom"). Standard measures have savings algorithms based on the IL-TRM. Custom measures are not in the IL-TRM and are identified and implemented based on site-specific factors. Technical assistance for certain project types will be provided to assist in the evaluation and implementation of custom EE projects.
- **Collaboration:** None.
- **Delivery Strategy:** An implementation contractor will deliver the program and work with ComEd to finalize the program design, support program marketing and outreach, process applications and administer incentive payments.
- **Target Market:** This program will target all commercial and industrial customers, both private and public sector.
- **Marketing Strategy:** ComEd will leverage multiple existing product market channels and partnerships with participating service providers to increase program awareness and generate project leads. Marketing will utilize specific messaging, targeted campaigns, and behavioral tactics to drive installation of efficient equipment. Tactics may include direct e-mail, collateral materials, web communications, and other digital channels.
- **Eligible Measures:** Eligible measures will include lighting, lighting controls, commercial appliances, HVAC, refrigeration, compressed air equipment, VFDs, water heating, Energy Management Systems, industrial measures, and other end-use areas.

- **Program Targets:** Incentives program targets are shown in Table 5-21.

TABLE 5-13: INCENTIVES PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	138,308	118,593	94,772
Demand Savings (MW)	26	22	17
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	138,308	118,593	94,772
Composite Savings (MWh) Private	95,894	82,812	66,918
Composite Savings (MWh) Public	42,414	35,781	27,854
Lifetime Savings			
Average Program Lifetime (Years)	14.5	14.5	14.5
Lifetime Savings (MWh)	2,003,031	1,722,632	1,372,010
Program Budget (M)			
Implementation	$15.7	$14.3	$12.7
Incentives	$52.1	$45.5	$36.5
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$67.8	$59.8	$49.2
Total Private Budget	$48.3	$42.9	$35.7
Total Public Budget	$19.5	$16.9	$13.5
Cost Effectiveness			
TRC	3.46	3.36	3.24
UCT	1.93	1.94	1.94
$ per first year kWh	$0.50		
$ per lifetime kWh	$0.03		

5.3.3 Targeted Systems

- **Program Description:** Targeted Systems will provide a fully funded engineering study to help optimize operations of existing building and industrial systems and identify low-cost and no-cost measures for systems and processes. The program will also offer Building Operator Certification.
- **Collaboration:** ComEd coordinates the Retro-Commissioning component of this program with Nicor Gas, North Shore Gas, and Peoples Gas, when applicable.
- **Delivery Strategy:** An implementation contractor will deliver the program and work with ComEd to finalize the program design, process application, support outreach and marketing activities and process incentive payments.
- **Target Market:** Eligible public and private business customers in ComEd's service territory. Typical

customer segments include commercial real estate, healthcare, higher education, and industrial plants.

- **Marketing Strategy:** Participating service providers are the primary participation conduit for this program where service providers will market the program through their direct relationships with business and public customers. The service providers will identify, communicate, and enroll customer participants through their own marketing initiatives, supplemented by program-led marketing efforts.
- **Eligible Measures:** Eligible measures include low-cost energy efficiency measures that have an average simple payback of 18 months, that may include operational adjustments, such as optimizing operating parameters, properly matching equipment to load, and installing controls that improve system efficiency. Applicable systems include compressed air, process cooling, industrial refrigeration, building HVAC systems, water and wastewater treatment, and process efficiency for heating and cooling in production.
- **Program Targets:** Targeted System program targets are shown in Table 5-22.

TABLE 5-22: TARGETED SYSTEMS SAVINGS TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	79,007	75,186	73,519
Demand Savings (MW)	9	8	8
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	79,007	75,186	73,519
Composite Savings (MWh) Private	71,258	67,437	65,770
Composite Savings (MWh) Public	7,749	7,749	7,749
Lifetime Savings			
Average Program Lifetime (Years)	7.6	7.6	7.7
Lifetime Savings (MWh)	602,142	574,779	562,841
Program Budget (M)			
Implementation	$10.1	$9.7	$9.7
Incentives	$18.2	$17.8	$17.8
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$28.3	$27.5	$27.5
Total Private Budget	$25.3	$24.5	$24.4
Total Public Budget	$3.0	$3.0	$3.1
Cost Effectiveness			
TRC	2.51	2.44	2.39
UCT	1.20	1.21	1.22
$ per first year kWh	$0.37		
$ per lifetime kWh	$0.05		

5.3.4 New Construction – Bus/Pub

- **Program Description:** The New Construction program will offer financial incentives for commercial buildings that exceed minimum energy code requirements. Bundled energy efficiency measures and custom or prescriptive approaches for specific building types will be designed to streamline participation to incentivize higher efficient systems beyond Illinois energy code.

  The offering will provide technical assistance and incentive funding to building developers and owners for construction or major renovation of commercial and industrial buildings for both private and public customers.

- **Collaboration:** Jointly offered with gas utilities

- **Delivery Strategy:** An implementation contractor will deliver the program and work with ComEd to finalize the program design, process applications, support outreach and marketing activities and process incentive payments. The implementation contractor also will coordinate with the New Construction Market Transformation program.

- **Target Market:** The offering targets building owners and developers of commercial and industrial buildings for private and public customers.

- **Marketing Strategy:** The program will be marketed to building owners, design professionals, builders, and contractors through outreach and education. Marketing will be coordinated and aligned with program goals to target customers. Tactics may include (i) direct outreach and marketing to architects, engineers, design teams, and developers, (ii) formal education and training events, and (iii) development of partnerships with professional organizations.

- **Eligible Measures:** Energy savings and incentives will be based on achievement of whole building performance targets above minimally code-compliant baseline conditions. Energy-efficient building practices emphasized under the program may include high insulation levels, air sealing, controlled ventilation, high-efficiency HVAC systems including heat pumps, and energy efficient appliances.

- **Program Targets:** New Construction program targets are shown in Table 5-23.

TABLE 5-23: NEW CONSTRUCTION PROGRAM TARGETS - BUSINESS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	7,749	7,400	7,207
Demand Savings (MW)	1	1	1
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	7,749	7,400	7,207
Composite Savings (MWh) Private	6,587	6,290	6,126

Composite Savings (MWh) Public	1,162	1,110	1,081
Lifetime Savings			
Average Program Lifetime (Years)	17.4	17.4	17.4
Lifetime Savings (MWh)	134,833	128,766	125,395
Program Budget (M)			
Implementation	$3.1	$3.0	$3.0
Incentives	$1.3	$1.3	$1.3
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$4.4	$4.3	$4.2
Total Private Budget	$3.5	$3.4	$3.4
Total Public Budget	$0.9	$0.8	$0.8
Cost Effectiveness			
TRC	0.72	0.71	0.70
UCT	1.68	1.68	1.68
$ per first year kWh	$0.58		
$ per lifetime kWh	$0.03		

5.3.5 Midstream/Upstream

- **Program Description:** This program will offer instant discounts to business customers through a distributor network for opting to purchase high-efficiency rooftop HVAC equipment, (ii) forklift chargers or electric fork trucks,
- **Collaboration:** None
- **Delivery Strategy:** An implementation contractor or contractors will deliver the program and work with ComEd to finalize the program design, process incentive payments, develop marketing materials, and conduct program marketing and outreach activities.
- **Target Market:** This program targets all business customers purchasing new or replacement HVAC, lighting, forklift chargers, and electric fork trucks
- **Marketing Strategy:** ComEd will leverage existing distributor channels to generate program awareness. Marketing will utilize specific messaging, targeted campaigns, and behavioral tactics to drive installation of efficient equipment. Tactics may include direct e-mail, bill inserts, collateral materials, web communications, and other digital channels.
- **Eligible Measures:** This program will provide incentives for LED technologies and controls, industrial (forklift) battery chargers, electric fork trucks, and rooftop HVAC systems
- **Program Targets:** Midstream/Upstream program targets are shown in table 5-24 .

TABLE 5-24: MIDSTREAM/UPSTREAM PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			

First Year Annual Total Net Savings			
True Electric Savings (MWh)	276,466	218,811	214,162
Demand Savings (MW)	63	50	49
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	72,021	71,109	70,352
Composite Savings (MWh)	348,487	289,920	284,514
Composite Savings (MWh) Private	303,184	252,230	247,527
Composite Savings (MWh) Public	45,303	37,690	36,987
Lifetime Savings			
Average Program Lifetime (Years)	15.0	15.0	15.0
Lifetime Savings (MWh)	5,226,750	4,348,328	4,267,708
Program Budget (M)			
Implementation	$6.5	$5.2	$5.3
Incentives	$82.8	$72.1	$73.0
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$89.3	$77.4	$78.3
Total Private Budget	$77.2	$66.9	$67.7
Total Public Budget	$12.1	$10.4	$10.5
Cost Effectiveness			
TRC	6.32	6.19	6.13
UCT	3.77	3.68	3.74
$ per first year kWh	$0.27		
$ per lifetime kWh	$0.02		

5.3.6 Behavior – Bus/Pub

- **Program Description:** This program will assist business and public customers to identify and implement operational and behavioral energy-saving improvements in their buildings. Under the Strategic Energy Management component, a customer will join a cohort to participate in workshops, training, and on-site activities designed to promote more energy efficient behaviors within a facility.
- **Collaboration:** Nicor Gas and Peoples Gas/North Shore Gas, when applicable.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, process applications, develop marketing materials, process incentive payments and conduct program marketing and outreach activities.
- **Target Market:** This program targets all business customers.
- **Marketing Strategy:** ComEd outreach includes direct e-mail, bill inserts, collateral materials, web communications, direct outreach, and digital channels.
- **Eligible Measures:** All measures are eligible. The program focuses on operational and behavioral measures to improve ongoing operational EE.

- **Program Targets:** Behavior – Bus/Pub program targets are shown in table 5-25.

TABLE 5-25: BEHAVIOR – BUS/PUB PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	56,036	56,392	56,606
Demand Savings (MW)	0	0	0
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	56,036	56,392	56,606
Composite Savings (MWh) Private	40,055	36,431	35,477
Composite Savings (MWh) Public	15,981	19,961	21,129
Lifetime Savings			
Average Program Lifetime (Years)	7.0	7.0	7.0
Lifetime Savings (MWh)	392,254	394,743	396,245
Program Budget (M)			
Implementation	$8.0	$8.3	$8.5
Incentives	$3.6	$3.7	$3.8
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$11.7	$12.0	$12.3
Total Private Budget	$9.0	$9.0	$9.2
Total Public Budget	$2.6	$3.0	$3.1
Cost Effectiveness			
TRC	3.16	3.10	3.01
UCT	1.40	1.41	1.42
$ per first year kWh	$0.21		
$ per lifetime kWh	$0.03		

5.3.7 Business Energy Analyzer

- **Program Description:** This program consists of a free online platform that facilitates commercial and industrial customers to leverage their energy usage information to gain greater insight and control over their electricity use. The tool serves an important customer education function by providing customers with access to interval data and analytic tools to track their energy usage, optimize energy consumption, and identify immediate low-cost and no-cost energy saving opportunities.
- **Collaboration:** BEA provides tips for energy efficiency opportunities that in some cases have dual fuel efficiency benefits and create awareness of programs jointly run with Nicor Gas, Peoples Gas, or North Shore Gas, depending on which company serves their account.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with

ComEd to finalize the program design, develop marketing materials, and conduct program marketing and outreach activities.

- **Target Market:** This program targets all business customers.
- **Marketing Strategy:** ComEd outreach includes direct e-mail, bill inserts, collateral materials, web communications, direct outreach, and digital channels.
- **Eligible Measures:** All measures are eligible. The program focuses on operational and behavior measures to improve ongoing operational EE.
- **Program Targets:** BEA program targets are shown in Table 5-26.

TABLE 5-26: BUSINESS ENERGY ANALYZER PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	24,412	25,245	25,186
Demand Savings (MW)	0	0	0
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	24,412	25,245	25,186
Composite Savings (MWh) Private	21,579	20,608	20,069
Composite Savings (MWh) Public	2,832	4,637	5,118
Lifetime Savings			
Average Program Lifetime (Years)	7.8	7.8	7.8
Lifetime Savings (MWh)	190,411	196,913	196,454
Program Budget (M)			
Implementation	$0.7	$0.7	$0.8
Incentives	$0.0	$0.0	$0.0
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$0.7	$0.7	$0.8
Total Private Budget	$0.6	$0.6	$0.6
Total Public Budget	$0.1	$0.1	$0.1
Cost Effectiveness			
TRC	24.77	23.75	22.86
UCT	11.14	11.15	11.16
$ per first year kWh	$0.03		
$ per lifetime kWh	$0.00		

5.3.7 Commercial Food Service

- **Program Description:** This program will offer high-efficiency food service equipment, such as cooking equipment and refrigerators.

- **Collaboration:** The commercial food service equipment program will be offered jointly with Nicor Gas, Peoples Gas/North Shore Gas and Ameren.
- **Delivery Strategy:** An implementation contractor or contractors will deliver the program and work with ComEd to finalize the program design, process incentive payments, develop marketing materials, and conduct program marketing and outreach activities.
- **Target Market:** This program targets all food service equipment.
- **Marketing Strategy:** ComEd will leverage existing distributor channels to generate program awareness. Marketing will utilize specific messaging, targeted campaigns, and behavioral tactics to drive installation of efficient equipment. Tactics may include direct e-mail, bill inserts, collateral materials, web communications, and other digital channels.
- **Eligible Measures:** This program will provide incentives for high-efficiency commercial cooking, refrigeration, and sanitation equipment.
- **Program Targets:** Commercial food service program targets are shown in table 5-27.

TABLE 5-27: COMMERCIAL FOOD SERVICE PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	1,511	1,443	1,405
Demand Savings (MW)	0	0	0
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	1,511	1,443	1,405
Composite Savings (MWh) Private	1,435	1,371	1,335
Composite Savings (MWh) Public	76	72	70
Lifetime Savings			
Average Program Lifetime (Years)	12.4	12.4	12.4
Lifetime Savings (MWh)	18,801	17,955	17,485
Program Budget (M)			
Implementation	$0.3	$0.3	$0.3
Incentives	$0.3	$0.3	$0.3
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$0.5	$0.5	$0.5
Total Private Budget	$0.5	$0.5	$0.5
Total Public Budget	$0.0	$0.0	$0.0
Cost Effectiveness			
TRC	3.11	3.05	3.01
UCT	2.43	2.43	2.44
$ per first year kWh	$0.37		
$ per lifetime kWh	$0.03		

5.3.8 Energy Advising

- **Program Description:** This program provides free, opt-in energy advising services for commercial and industrial customers. The program delivers customized analysis, benchmarking, and one on one consulting to help customers understand their energy usage, identify actionable energy efficiency opportunities, and reduce energy costs. Energy advisors use customer-specific interval data and operational insights to recommend low cost and no cost improvements and support customers in taking next steps toward deeper efficiency investments and utility incentive programs.
- **Collaboration:** The Energy Advising program will coordinate closely with ComEd's existing EE programs, including incentive-based offerings, to ensure consistency of messaging and streamlined customer referrals. Coordination may also occur with internal ComEd teams responsible for customer engagement and data analytics.
- **Delivery Strategy:** An implementation contractor will deliver the Energy Advising program and work with ComEd to refine program design, develop customer-facing materials, and conduct outreach to eligible customers. The implementation contractor will provide energy advising services directly to customers, leveraging interval data and operational information to develop customized insights and recommendations. The implementation contractor will also coordinate with ComEd EE program staff to facilitate customer transitions from advising to incentive-supported EE projects where appropriate.
- **Target Market:** This program will target commercial and industrial customers within ComEd's service territory that opt in to receive energy advising services, particularly customers seeking to better understand their energy use, reduce operating costs, or explore EE opportunities beyond standard program participation.
- **Marketing Strategy:** Marketing will emphasize direct outreach to eligible business customers and highlight the availability of free, personalized energy advising services. Messaging will focus on value to the customer, including improved understanding of energy use, identification of cost-saving opportunities, and support in navigating EE programs.
- **Eligible Measures:** The program does not directly offer incentives for specific measures. Eligible recommendations may include operational improvements, low-cost and no-cost measures, and capital EE upgrades that are supported through other ComEd EE programs.
- **Program Targets:** Energy Advising program targets are shown in Table 5-28.

TABLE 5-28: ENERGY ADVISING PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	27,411	33,878	34,786
Demand Savings (MW)	3	4	4
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	27,411	33,878	34,786
Composite Savings (MWh) Private	0	0	0
Composite Savings (MWh) Public	27,411	33,878	34,786
Lifetime Savings			
Average Program Lifetime (Years)	8.6	8.6	8.6
Lifetime Savings (MWh)	235,732	291,347	299,158
Program Budget (M)			
Implementation	$14.3	$18.1	$19.0
Incentives	$0.0	$0.0	$0.0
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$14.3	$18.1	$19.0
Total Private Budget	$9.7	$12.3	$12.9
Total Public Budget	$4.6	$5.8	$6.1
Cost Effectiveness			
TRC	1.24	1.21	1.17
UCT	0.91	0.90	0.90
$ per first year kWh	$0.54		
$ per lifetime kWh	$0.06		

5.4 Multi-Segment Elements

5.4.1 Voltage Optimization

Voltage Optimization ("VO") is a multi-segment program element that delivers EE savings to residential, IE, business, and public sector customers. As shown in Table 5-28, during the Revised Plan 7 Period, VO is projected to provide Annual Savings of 55,854 MWh; 75,990 MWh; 64,579 MWh for 2027, 2028 and 2029, respectively. In the context of the entire portfolio, ComEd anticipates that the VO program element will attain 3.7% of the Annual Savings Goal for Program Years 2027 and 5.0% for 2028 and 4.2% for 2029.

VO optimizes voltage at points on the electric distribution system, thereby reducing electricity consumption by electric consumers' end use devices.

- **Program Description:** VO is a combination of Conservation Voltage Reduction ("CVR") and Volt-VAR Optimization ("VVO"). The CVR approach is designed to directly control the voltage of electricity

supplied to end-use customers using transformer load tap changers, voltage regulators, and capacitors. The VVO approach coordinates capacitor bank operations to flatten reductions across an entire feeder or network of feeders.

- **Collaboration:** None.
- **Delivery Strategy:** ComEd plans to work internally through its Project Management, Smart Grid and Capacity Planning, Transmission and Substation, and Distribution Operation teams to plan, manage, engineer, construct, test, and activate the VO system on the substations and feeders in the project plan.
- **Target Market:** A total of 63 ComEd distribution substations with 471 distribution feeders are estimated to be viable (i.e., cost-effective), and thus will be targeted during the Plan Period. Unlike most EE programs, VO does not require consumers to change energy-utilization habits or purchase additional equipment to be effective.
- **Marketing Strategy:** Not applicable.
- **Eligible Measures:** VO will be deployed on distribution class substations where the benefit of reduced customer energy consumption is expected to outweigh the cost of deployment. Delivery system work on feeders and substations will be prioritized insofar as practical in order of cost-effectiveness, along with selected smart substations upgraded or installed as part of ComEd's Energy Infrastructure Modernization Act grid modernization efforts.
- **Program Targets:** VO program targets are shown in Table 5-29.

TABLE 5-29: VOLTAGE OPTIMIZATION PROGRAM TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	55,854	75,990	64,579
Demand Savings (MW)	10	13	11
Claimed Therms	0	0	0
Claimed Therms (MWh)	0	0	0
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	55,854	75,990	64,579
Composite Savings (MWh) Private	55,854	75,990	64,579
Composite Savings (MWh) Public	0	0	0
Lifetime Savings			
Average Program Lifetime (Years)	15.0	15.0	15.0
Lifetime Savings (MWh)	837,807	1,139,850	968,690
Program Budget (M)			
Implementation	$0.0	$0.0	$0.0
Incentives	$0.0	$0.0	$0.0
Marketing and Other	$0.0	$0.0	$0.0

Total Budget	$0.0	$0.0	$0.0
Total Private Budget	$0.0	$0.0	$0.0
Total Public Budget	$0.0	$0.0	$0.0
Cost Effectiveness			
TRC	1.83	2.90	2.45
UCT	1.10	1.77	1.53
$ per first year kWh	N/A		
$ per lifetime kWh	N/A		

5.4.2 Stretch Codes

The purpose of Market Transformation ("MT") is to strategically intervene in markets to create lasting and measurable change in market behavior. This is accomplished by removing barriers and leveraging opportunities to accelerate the adoption of cost-effective EE as a matter of standard practice. MT initiatives are unique in that they typically require resource commitments over a longer period and often have savings impacts that are longer term and quantified differently than those from resource acquisition programs.

ComEd will build upon the MT work begun in Revised Plan 6 to improve the energy performance of commercial and residential buildings through continuing its support of municipalities considering adoption of the Illinois Stretch Energy Code ("Stretch Code"), which was made available for adoption on January 1, 2025[8]. The Stretch Code establishes building EE requirements that are more stringent than the existing Illinois Energy Conservation Code. Adoption of the Stretch Code is voluntary; ComEd's support is intended to increase municipal adoption of the stretch code sooner, and at a higher rate, than would have occurred without ComEd support.

- **Program Description:** ComEd will provide direct support to municipalities considering adoption of the Stretch Code, including education/training of municipal staff and building community, support of municipal enforcement and compliance efforts once the Stretch Code is adopted, and provision of financial incentives to new buildings being constructed in that municipality. Close collaboration with ComEd's existing New Construction program will be required to ensure a smooth customer experience and a consistent message to the market.
- **Collaboration:** None.
- **Delivery Strategy:** An implementation contractor will deliver the program and will work with ComEd to finalize the program design, develop marketing materials, and conduct program outreach activities to municipalities, both one-on-one and through coordination with groups such as the Metropolitan Mayors Caucus. The implementation contractor will coordinate and facilitate activities working with the R&D team and the New Construction program.

[8] https://cdb.illinois.gov/business/codes/illinois-energy-codes/illinois-stretch-energy-code.html

- **Target Market:** Eligible municipalities in ComEd's service territory; in particular, municipal staff involved in energy codes and standards impacting residential and commercial buildings in their jurisdiction.
- **Marketing Strategy:** Direct outreach to municipal staff and groups such as the Metropolitan Mayors Caucus is intended to raise awareness of the availability of the Stretch Code.
- **Eligible Measures:** All measures that can aid new construction designers and builders to meet Stretch Code requirements.
- **Program Targets:** Stretch code program targets are shown in table 5-30.

TABLE 5-30: STRETCH CODE SAVINGS TARGETS

Category	2027	2028	2029
Savings Targets			
First Year Annual Total Net Savings			
True Electric Savings (MWh)	2,559	4,078	11,196
Demand Savings (MW)	0	0	1
Claimed Therms	76,560	121,968	334,889
Claimed Therms (MWh)	2,243	3,574	9,812
Claimed Electrification (MWh)	0	0	0
Composite Savings (MWh)	4,803	7,651	21,008
Composite Savings (MWh) Private	4,803	7,651	21,008
Composite Savings (MWh) Public	0	0	0
Lifetime Savings			
Average Program Lifetime (Years)	16.1	16.1	16.1
Lifetime Savings (MWh)	77,115	122,852	337,317
Program Budget (M)			
Implementation	$0.0	$0.0	$0.0
Incentives	$1.1	$2.4	$5.0
Marketing and Other	$0.0	$0.0	$0.0
Total Budget	$1.1	$2.4	$5.0
Total Private Budget	$1.1	$2.4	$5.0
Total Public Budget	$0.0	$0.0	$0.0
Cost Effectiveness			
TRC	0.35	0.35	0.35
UCT	3.08	2.31	3.26
$ per first year kWh	$0.23		
$ per lifetime kWh	$0.01		

5.5 Portfolio-Level Activities

In addition to the program activities, the Plan also includes five activities to support the overall operation

and administration of the portfolio, i.e., Portfolio-Level activities: R&D, MDI, evaluation, education and awareness, and portfolio administration. Projected Portfolio-Level costs are shown in Table 5-31. In accordance with the Stipulation, ComEd has limited its budgeted portfolio-level costs, excluding IE R&D, to an annual average of no more than $40 million each year of the Plan Period. Each activity is discussed in more detail below.

TABLE 5-31: PROJECTED PORTFOLIO-LEVEL COSTS

Cost Component	2027 CY Cost (M)	2028 CY Cost (M)	2029 CY Cost (M)	3 Year Plan Cost
Portfolio Level Costs				
EE Reg Asset Labor - Portfolio	$5.6	$5.6	$5.6	$16.8
Evaluation, Measurement & Verification	$10.7	$10.7	$10.7	$32.1
Facility Assessment	$2.1	$2.1	$2.1	$6.4
Market Development Initiative	$4.1	$4.1	$4.1	$12.2
Portfolio Administration	$6.8	$6.8	$6.8	$20.3
R&D Costs - Market Rate	$6.6	$6.6	$6.6	$19.9
Portfolio Level Costs	**$35.9**	**$35.9**	**$35.9**	**$107.6**

5.6.1 R&D

Section 8-103B(h) of the Act states that no more than 4% of EE and demand response program funding may be allocated for "research, development, or pilot deployment of new equipment or measures." *See* 220 ILCS 5/8-103B(h). Applied to ComEd's annual average budget of $523 million, this equates to no more than approximately $20.9 million per year. Revised Plan 7 allocates approximately $10 million on average annually for R&D. Investments in R&D during the Revised Plan 7 Period are crucial given the significant challenges to achieving increasing savings goal over time. A key goal of the Revised Plan 7 Period R&D work is to significantly innovate and evolve the current portfolio to meet the aggressive annual and lifetime savings goals of this Plan and the future.

R&D activities can be divided into the following three major categories: (i) emerging opportunities, (ii) market transformation, and (iii) memberships to leading EE organizations.

- **Emerging Opportunities:** The Emerging Opportunities work includes EE research, demonstration projects (designed to develop understanding of potential use cases for new technologies), and pilots (designed to vet technologies and program delivery concepts in a real-world setting). The purpose of these activities is to identify, test, validate, and integrate the next generation of EE technologies and program delivery strategies into the ComEd EE portfolio. The Revised Plan 7 R&D work is also designed to achieve the statutory requirements concerning new building and appliance standards.

  During the Revised Plan 7 Period, ComEd also intends to increase the overall success rate of pilot initiatives by (i) collaborating closely with program managers and their implementation contractor

teams during the development and execution of every initiative, (ii) creating several-year roadmaps for every innovation, and (iii) focusing more on market adoption. The goal of these efforts is to reduce the pilot-to-program gap that often challenges R&D initiatives. Collaboration with implementation program staff from pilot outset to define clear research questions as well as an achievable and beneficial end state will increase the value of R&D pilot findings.

A primary area of focus within Emerging Opportunities will be solutions that improve how the ComEd Energy Efficiency Program serves IE customers, prioritizing initiatives focused on assessment or delivery of comprehensive measures. Pilot and research initiatives will focus on themes such as: inclusive and effective outreach strategies for vulnerable populations, more accessible financing options, cost-effective approaches to whole home upgrades, new ways to partner effectively with Community-Based Organizations ("CBOs"), expanded retrofit options for existing all-electric customers, and new program models for New Construction. Special attention will be given to opportunities that enhance collaboration between ComEd's EE and financial assistance programs, between ComEd and non-traditional industry stakeholders such as healthcare, and between ComEd and other Illinois utilities.

Additional areas of focus related to exploring new technology and measure opportunities include, but are not limited to, cold-climate heat pumps and other breakthrough HVAC technologies (both residential and commercial), low-GHG refrigerants and refrigeration innovations, next-generation building energy management and control, process efficiency innovations for large customers, and promising EE electrification technologies or applications that could fit within Illinois' EE framework. ComEd will prioritize innovative program designs, operational enhancements for implementation teams, and market adoption strategies for underperforming portfolio measures. The goal of these efforts is to drive down the $/kWh of existing program implementation to ensure a more cost-effective portfolio spend that can meet future performance goals.

Areas of focus related to exploring new program design opportunities include, but are not limited to, supporting and advancing ComEd's midstream program portfolio, EE project financing innovations, smarter use of customer advanced metering infrastructure data for implementation efficiencies, and breakthrough program models, such as pay-for-performance and EE as a service. Special attention will be given to opportunities that enhance collaboration between (i) ComEd and local centers of innovation, such as national laboratories, universities, incubators, and accelerators, (ii) ComEd's EE programs under Revised Plan 7 and its other demand response programs, (iii) ComEd's EE and Smart Grid teams, and (iv) ComEd and other utilities. Finally, research will be performed during the Revised Plan 7 Period to inform future plans through studies, including a potential study.

- **Market Transformation:** The purpose of Market Transformation is to strategically intervene in markets to create lasting and measurable changes in market behavior. This will be accomplished by removing barriers and leveraging opportunities to accelerate the adoption of cost-effective EE as a matter of standard practice. Market Transformation initiatives are unique in that they typically require resource commitments over a longer period and often have savings impacts that are longer term and quantified differently than those from resource acquisition programs. ComEd will continue to pursue long-term, cost-effective opportunities for savings through Market

Transformation initiatives under the R&D umbrella in Revised Plan 7.

Building off ComEd's successful pilot of the ENERGY STAR Retail Products Platform (a partnership of utilities across the country to advance the EE of household appliances), ComEd will pursue market transformation initiatives aimed at other markets during the Revised Plan 7 Period. Efforts to support the advancement of stretch energy codes and building performance standards will continue; other areas of potential opportunity include efficient windows and other building shell innovations, residential heat pump equipment, contractor training, lighting controls, and data centers. To explore these concepts, basic research into savings and market potential will likely be funded under the Emerging Opportunities area but then transitioned to Market Transformation once a complete initiative has been created.

ComEd will continue to work closely with stakeholders and the other Illinois utilities to advance the regulatory and evaluation frameworks required to support the Market Transformation initiatives. Due to the critical need for Market Transformation intervention strategies to be transparent and accessible at all stages of development, the ComEd EE R&D Team will continue to provide regular updates to stakeholders on each initiative, work closely with the SAG Market Transformation Working Group, and participate in regional collaboratives focused on identifying and partnering on new opportunities.

- **Memberships/Other R&D Efforts:** Besides specific R&D projects, ComEd will also continue to invest in organizations that provide information and research in support of utility EE programs, such as E-Source, New Buildings Institute, Continental Automated Buildings Association ("CABA"), American Council for an Energy-Efficient Economy ("ACEEE"), and Consortium for Energy Efficiency ("CEE"). Organizations such as these not only provide new EE reconnaissance but also offer opportunities to take advantage of research being conducted at a national level, leveraging research funds from across the country.

5.6.2 Market Development Initiative

Diverse market development is a priority for ComEd, which has a strong focus on providing opportunities for non-profit organizations, Illinois-based business enterprises, and Certified MBE, WBE, VBE, service-disabled, and LGBTQ-owned business enterprises to compete on an equal basis for materials and services used by ComEd in the implementation of this Plan. During the Plan Period, ComEd will continue its MDI efforts by dedicating an average of $4 million annually to (1) increase contracting opportunities for diverse business enterprises and CBOs and assist them in developing the necessary capabilities to participate in the delivery of the EE portfolio; and (2) improve the diversity and inclusiveness of the ComEd EE department's supplier and supplier workforce. ComEd will track and report regularly on MDI performance metrics related to training outcomes, workforce placement, economic impact, and equity and inclusion.

5.6.3 Evaluation

Evaluation activity relates to retaining and compensating the work of an independent evaluator to conduct the required independent evaluation function for the portfolio. ComEd will execute a new evaluation contract or contract(s) for the Revised Plan 7 Period, in accordance with the evaluator independence

protocols outlined in the Policy Manual. The statute sets the evaluation budget at no more than 3% of the total annual budget. *See* 220 ILCS 5/8-103B(g)(6). In Revised Plan 7, ComEd has allocated approximately $10.7 million per year, on average, which is approximately 2% of the total annual budget.

5.6.4 Education and Awareness

Education and Awareness ("E&A") activities include non-program specific marketing efforts designed to increase customer awareness and understanding of EE and EEE. Building awareness and understanding about the value of EE/EEE helps prepare a customer to take action when they encounter specific offerings in the market.

In Revised Plan 7, E&A initiatives focus primarily on delivering the messages of EE, EEE, and overall energy management across the ComEd service territory and, in some instances, with a specific focus on IE and other historically underserved communities. These initiatives will provide customers with knowledge about EE/EEE and the programs offered under the Plan, as well as how their energy usage affects their bills. These marketing efforts will result in customers continuing to become aware of EE/EEE and taking action to reduce their energy usage and lower their electric bills. Additionally, ComEd will continue to cross-promote EE program marketing with other ComEd customer programs and tools (e.g., DR, real-time pricing) that benefit our customers. General E&A initiatives and tactics to be implemented may include the following:

- Outreach-focused events
- Community-sponsored events
- Advertising campaigns, which may include TV, digital, radio, social and out-of-home executions
- Earned media coverage such as Energy Doctor radio and TV interviews, ComEd EE-focused partnerships, press releases, and news media stories
- Energy Efficiency lifestyle magazines and newsletters
- Targeted customer emails and direct mailings
- Surveys, studies, and testimonials

5.6.5 Portfolio Administration

Portfolio Administration activities will include internal non-program ComEd labor, tracking and reporting systems, the EE Call Center, legal services, and IL-TRM and SAG contracts.

6 Evaluation

6.1 Independent Program Evaluation Contractor

Section 8-103B of the Act requires an annual independent evaluation of the cost-effectiveness of the portfolio, as well as a full review of the multi-year plan results of the broader net program impacts and, to the extent practical, an adjustment of the measures on a going-forward basis as a result of the evaluations.

See 220 ILCS 5/8-103B(g)(6). To fulfill this obligation and ensure the evaluator's independence is maintained, ComEd will implement the evaluator independence protocols, as outlined in the Policy Manual.

6.2 Non-Electric Energy-Savings Calculations

Electric utilities subject to Section 8-103B may count savings of fuels other than electricity, which are converted to electric savings on an equivalent British Thermal Unit ("BTU") basis for the premises and may recover the costs of offering the gas EE measures, as defined by Section 8-103B(b-25). The electric utility must also prioritize programs for IE customers, as applicable and practicable. Section 8-103B(b-25) also states, "[i]n no event shall more than 10% of each year's applicable annual total savings requirement as defined in paragraph (7.5) of subsection (g) of this Section be met through savings of fuels other than electricity." *See* 220 ILCS 5/8-103B(b-25).

The statute enables ComEd to convert the fuel savings to equivalent electric savings on a BTU basis at the premises. Pursuant to Section 11.3 of the Policy Manual, the conversion of fossil fuel savings to electric savings is based on site energy use, as set forth in Table 6-1. For example, a therm of natural gas savings is converted to kWh savings based on the amount of energy a kWh provides a home or business (i.e., 3,412 BTUs). Thus, as shown in the table below, a therm of natural gas savings (approximately 100,000 BTUs) is equal to 29.3 kWh savings.

TABLE 6-1: FUEL CONVERSION TABLE

Fuel	Heat Content	Equivalent kWh
Natural Gas	100,000 BTU/therm	29.31/therm
Propane	91,333 BTU/gallon	26.77/gallon
Heating Oil (No. 2)	138,500 BTU/gallon	40.59/gallon

If there are gas savings funded with non-electric customer funds that, when converted, exceed 30% of the annual savings goal, then all gas conversions for IE programs must be used first, up to the full amount of gas conversion savings available from IE programs, or the full 30% of the annual goal limit, whichever is less. Gas conversions for non-IE programs can only be counted towards ComEd's performance goal after all of the IE gas conversions are made. Note that while therms are emphasized in this Plan, other non-electricity fuels (e.g., propane) may also be converted, as permitted by Section 8-103B.

Pursuant to Section 8-103B(b-25), ComEd will first prioritize therms associated with IE programs. If the IE programs do not provide the full 30% goal allocation, ComEd has the discretion to choose the therms for conversion that best serve the long-term impact of the portfolio (e.g., longer life measures). Additionally, ComEd will only claim savings associated with other fuels from weatherization measures that reduce heat loss through the building envelope, insulating mechanical systems, or the heating distribution system, including, but not limited to, air sealing and building shell measures.

Table 6-2 provides a projection from which programs ComEd will convert therms in Revised Plan 7.

TABLE 6-2: PROJECTED CONVERTED THERMS FOR SELECT PROGRAM ELEMENTS

Program	2027 Converted Therms (MWh)	2028 Converted Therms (MWh)	2029 Converted Therms (MWh)
Res/IE - EE Programs			
Behavior - Res	0	0	0
Contractor/Midstream Rebates	0	0	0
Home Energy Products	301,090	300,255	296,044
Multi-Family Energy Savings	49,658	59,139	73,744
New Construction	3,357	3,330	3,260
Home Energy Savings (Single Family)	47,325	50,633	60,772
Whole Home Electric	410	407	398
Business - EE Programs			
BEA	0	0	0
Behavior - Bus/Pub	0	0	0
Commercial Food Service	0	0	0
Energy Advising	0	0	0
Incentives	0	0	0
Midstream/Upstream	0	0	0
New Construction - Bus/Pub	0	0	0
Small Business	0	0	0
Targeted Systems	0	0	0
Multi-Sector and Portfolio-Level Activities			
Stretch Codes	2,243	3,574	9,812
Voltage Optimization	0	0	0
ComEd Programs Total	**404,083**	**417,338**	**444,031**

6.3 Energy Efficiency Electrification Energy-Savings Calculations

Section 8-103B authorizes electric utilities to claim savings from measures that electrify space heating, water heating, cooling, drying, cooking, industrial processes, and other building and industrial end uses that would otherwise be served by combustion of fossil fuel at the premises, provided that the electrification measures reduce total consumption on the premises. *See* 220 ILCS 5/8-103B(b-27). This provision also states that EE electrification savings counted toward each year's savings goal must be capped at 20% per year, during the Revised Plan 7 Period. Further, at least 33% of EE electrification spend must come from electrification of end uses in IE housing. These electrification savings are in addition to the 30% savings that can be claimed from non-electricity energy savings allowed under Section 8-103B(b-25).

The statute dictates that "the reduction in energy consumption at the premises shall be calculated as the difference between: (A) the reduction in BTU consumption of fossil fuels as a result of electrification, converted to kilowatt-hour equivalents by dividing by 3,412 BTUs per kilowatt hour; and (B) the increase in kilowatt hours of electricity consumption resulting from the displacement of fossil fuel consumption as a result of electrification." *See* 220 ILCS 5/8-103B(b-27).

Table 6-3 provides a projection from which market segments ComEd will claim EE electrification savings in Plan 7.

TABLE 6-3: PROJECTED EE ELECTRIFICATION SAVINGS BY MARKET SEGMENT

Market Segment	2027 Annual Energy Savings (MWh)	2028 Annual Energy Savings (MWh)	2029 Annual Energy Savings (MWh)	3 Year Annual Savings (MWh)
Residential	58,214	55,947	54,833	**168,994**
Income Eligible	24,275	24,081	23,573	**71,930**
Business	62,658	61,865	61,206	**185,729**
Public Sector	9,363	9,244	9,146	**27,753**
EE Electrification Total	**154,510**	**151,137**	**148,759**	**454,406**

7. Risks & Risk Management

Inherent in any EE portfolio is the uncertainty associated with program performance and evaluation outcomes. These uncertainties lead to risks for ComEd. There are three primary risks that must be managed within ComEd's portfolio:

- **Modification:** The risk that measured savings and associated lifetimes used in planning may be modified in future years of the plan through the annual TRM update process.
- **Achievement**: The risk that ComEd does not achieve its annual energy savings (MWh).
- **Budget:** The risk that ComEd exceeds the applicable budget.

Over the past Plan cycles, several potential risk-mitigating factors were introduced, including the IL-TRM review processes and the Policy Manual. Both manuals have been approved by the Commission. The IL-TRM deems the energy savings for many EE measures, removing any risk concerning the measure savings. The Policy Manual has formalized the NTG framework that establishes the NTG value set for most programs, again reducing energy-savings risk.

For Revised Plan 7, additional major risks are as follows:

- **Low Income Discounts** for customers may change customer behavior towards pursuing energy efficiency projects.
- While an approved Policy Manual, NTG framework, and IL-TRM exist, continued **evaluation uncertainty** adds a new layer of unpredictability, particularly in the application of baselines and *ex-post* reductions to energy savings.
- **Changes to Federal and State law** could impact ComEd's Revised Plan 7 execution and subsequent savings. Because any future changes to federal or state law are presently unknown, ComEd cannot reasonably account for such changes in its planning. As such, to the extent there are changes in applicable law that materially impact the implementation of ComEd's Revised Plan 7 or provisions

of the Stipulation, the Parties will work collaboratively with ComEd to discuss impacts and, if needed, reach consensus on adjustments or other measures in responses to material changes in law.

- **Cross-program flexibility:** Occasionally a program will not respond to changes in marketing or incentives, and in those cases the program managers may decide it is best to shift funds to other programs to offset the savings shortfall.

8. Cost Recovery

Section 8-103B requires that electric utilities include with their Plan filing a cost recovery tariff mechanism, as provided for under Section 8-103B(d), to fund the proposed EE and DR measures and to ensure the recovery of the prudently and reasonably incurred costs of Commission-approved programs. *See* 220 ILCS 5/8-103B(g)(5).

ComEd's EE cost recovery mechanism, Rider EEPP, was approved by the Commission in Docket No. 17-0287 and is currently in effect. Relatedly, the Commission approved Rider EEPA in Docket No. 17-0312, which calculates and applies the performance adjustments associated with ComEd's achievement of the applicable annual goals. ComEd will propose minor administrative revision to Rider EEPP and Rider EEPA that will take effect on January 1, 2027, with the start of Revised Plan 7.

Appendix B - TRC Assumptions and Sources

TRC Input: Non-Measure Level	ComEd Assumptions & Sources
Gas and Electric Avoided Costs (avoided energy and avoided capacity)	**Gas Cost** - Provided by Nicor Gas which they calculated with natural gas commodity prices at Henry Hub from CME Group website using the Wood Mackenzie Natural Gas Forecast, Long Term View Source: CME Group website (https://www.cmegroup.com/trading/energy/natural-gas/natural-gas.html) **Electric Supply/Generation Cost -** The 2026 (Year 1) ATC price is derived from NYMEX futures, consistent with guidance from Integral Analytics. All years from 2026 onward use AEO price forecasts for average generation price paid by all customers for electricity from the 'Electricity Supply, Disposition, Prices, and Emissions' table under the 'Energy Prices' section of the AEO datasets. ComEd is using Generation real cost per kWh, excluding transmission and distribution costs. Source: NYMEX futures. **Ancillary Charges -** Sum NERC FEE and RFC Fee from Schedule 10, and 9-1 Control Area Administrative on Service Fee from Schedule 9, available on the PJM website Source: PJM website (https://www.pjm.com/committees-and-groups/committees/fc/pass-through-rates); (https://www.pjm.com/committees-andgroups/committees/fc/pjm-admin-cost-rates.aspx) **Capacity Cost -** ComEd Resource Clearing Price (RCP) and Forecast Pool Requirement (FPR) are retrieved from the appropriate Base Residual Auction report and multiplied to find the Installed Capacity (ICAP) cost. ICAP is annualized and multiplied by Marginal Peak Loss factor (see below). Source: PJM website (https://www.pjm.com/markets-and-operations/rpm.aspx).
T&D Avoided Costs	These avoided costs are considered internal and confidential. Avoided capacity costs for ComEd include two main categories, avoided costs for peak growth and avoided costs for substation growth capacity. Each main category consists of both a distribution and a transmission component. The avoided costs for each component in simple terms are the result of multiplying ComEd's levelized fixed charge rate by the potential deferable expenditures and dividing by the average peak load growth for 2017 through 2027. Unavoidable expenditures include cost for material condition, location of growth and relocation of load. About 90% of our capacity expenditures are considered unavoidable. Source: ComEd Capacity Group
Water and Unregulated Energy/Fuel Avoided Costs	Approximate water cost per 1,000 gallons is retrieved from the City of Chicago Water Utility website. The water rate is doubled to account for water and sewer because the sewer rate is 100% of the water rate as of 1/1/2015. Source: City of Chicago Water Utility website (https://www.cityofchicago.org/city/en/depts/fin/supp_info/utility-billing/water-and-sewer-rates.html)

TRC Input: Non-Measure Level	ComEd Assumptions & Sources
Carbon Adder (dollar amount)	The societal costs associated with greenhouse gas emissions shall be $200 per short ton, expressed in 2025 dollars or the most recently approved estimate developed by the federal government using a real discount rate consistent with long-term Treasury bond yields, whichever is greater. Changes in greenhouse gas emissions due to changes in electricity consumption shall be estimated using long-run marginal emissions rates developed by the National Renewable Energy Laboratory's Cambium model or other Illinois-specific modeling of comparable analytical rigor.
Non-Energy Benefits or Non-Energy Impacts	NEIs include water, other fuel, O&M, and societal NEIs provided by the independent evaluator based on primary research. Societal NEI source: Primary research conducted by independent evaluator (https://www.ilsag.info/nei-working-group/)
Line losses (Energy and Peak)	Marginal energy and peak loss are calculated with inputs from most recent ComEd transmission and distribution loss studies and weighted by the most recently evaluated portfolio savings. Source: ComEd's 2021 Transmission System Loss Study, ComEd's 2021 Distribution System Loss Study
Societal Discount Rate	Nominal Societal Discount Rate: 2.31% Real Societal Discounts Rate: 0.34% Source: Negotiated with Stakeholders
Inflation Rate	Inflation Rate: 1.96% Source: Negotiated with Stakeholders.
Escalators	Annual escalators are calculated with energy price data from the U.S. Energy Information Administration Annual Energy Outlook reference case, using generation (real) cents per kilowatt-hour values from the "Electricity Supply, Disposition, Prices, and Emissions" table and the inflation rate above. Source: U.S. Energy Information Administration website (https://www.eia.gov/outlooks/aeo/)

GDS Associates, Inc.
ENGINEERS & CONSULTANTS

MichaelsEnergy

CADMUS

brightline GROUP

MAD DASH FIELD SERVICES

PRESENTED BY GDS ASSOCIATES, INC.

ILLINOIS 2023 BASELINE AND POTENTIAL STUDY

Presentation of Key Observations and Draft Results

August 13, 2024

AGENDA

STUDY OVERVIEW
Objectives
Approach
Study Process

BASELINE STUDY RESULTS
Data collection and analysis approach
Snapshots of key observations

POTENTIAL STUDY FRAMEWORK
Levels of Potential
Policy Drivers in Achievable Scenarios
Differences from upcoming utility plans

POTENTIAL RESULTS
Statutory Maximum Achievable Potential Results
Considerations for Additional Scenarios

NEXT STEPS
Baseline and Potential

STUDY OVERVIEW

Illinois Baseline and Potential Study

STUDY OBJECTIVES (SUMMARIZED)

- **Develop baseline and efficiency program potential for:**
  - *ComEd*
  - *Nicor Gas*
  - *Ameren Illinois electricity and natural gas*
- **Collect data and develop analyses on:**
  - *Energy utilization by residential, commercial, and industrial customers*
  - *Collect survey data to understand equipment efficiency saturations*
- **Estimate total achievable potentials for multiple scenarios**
- **Provide data, summaries, and documentation**
- **Offer independent opinions on future potential**
- **Work collaboratively with utilities and stakeholders**
- **Inform 2026-2029 plans, long-term opportunity to 2045**

THE STUDY PROCESS

- Kick-off August 15
- Formed Working Group – many involved, met weekly

- Initial focus on the Baseline Study data collection
- Received data from utilities for sampling, customer contacts
- Many discussions on approaches, policy, modeling considerations

THE STUDY PROCESS

- **Fall 2023**
  - *Focus on baseline data collection*
  - *Developed sampling approach, drew samples with available data*
  - *Developed survey instruments with input from Working Group*
- **Winter 2023/2024**
  - *Finalized data collection instruments*
  - *Received final utility customer data in late February*
  - *Launched online survey in March 2024*
- **Spring 2024**
  - *Conducted online surveys and site visits for nested samples*
  - *Across residential and nonresidential sectors:*
    - **6,300 online baseline survey responses**
    - **1,027 willingness to participate survey responses**
    - **739 site visits**

THE STUDY PROCESS

- **Spring 2024 (cont'd)**
  - *Engaged working group on potential modeling topics*
  - *Began model development*
  - *Onsite data collection completed in late June 2024*
- **Summer 2024**
  - *Summarization of online survey results, discussion w/ Working Group*
  - *Summarization of onsite results (still underway)*
  - *Finalization of baseline results (reconciliation of online and onsite)*
  - *Finalizing all potential scenarios (in-process)*
  - *Reporting (forthcoming)*

APPROACH SUMMARY: BASELINE STUDY

- **Conduct online data collection using utility customer databases**
  - *Collect general information about the homes and buildings for key end uses*
  - *Confirm appropriate segmentation by building type*
  - *Collect household size and income information to confirm IQ status*
  - *Recruit for onsite data collection*
- **Collect Willingness to Participate data to inform potential modeling**
  - *For major end uses, likelihood to participate in a program based on:*
  - *Utility incentive share of cost (residential)*
  - *Simply payback or rate of return (nonresidential)*
  - *Advanced lighting controls decision tree (nonresidential)*
- **Kept online study open to complete onsite recruitment or meet target goals**
  - *Nonresidential recruitment was a census of all available customers*
  - *Residential kept open to ensure IQ coverage and achieve onsite target count*

APPROACH SUMMARY: POTENTIAL STUDY

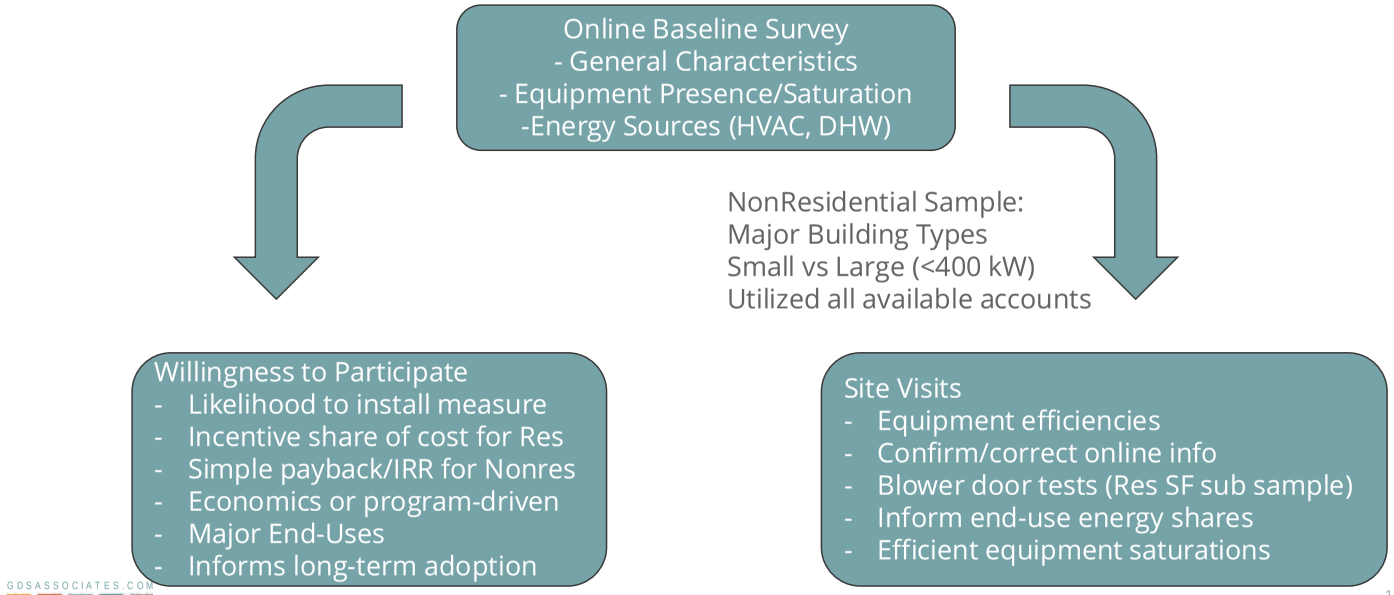
- **Utilize utility forecasts to develop baseline forecasts by customer segment and end-use**
- **Apply end-use shares of consumption to equipment types**
  - *Energy Information Administration data*
  - *Baseline data collection results*
  - *Other information from utilities or research*
- **Develop measure characterizations, primarily using the IL TRM (V12)**
- **By end-use, segment savings opportunities, accounting for existing efficient shares**
- **Develop potential scenarios, focusing on incremental annual savings**
  - *Role of efficiency, electrification*
  - *Starting with Statutory Maximum, moving toward Stipulation-like and others*
  - *Estimate savings and annual program budgets*

Baseline Study Results

Illinois Baseline and Potential Study

BASELINE STUDY DATA COLLECTION

- **Three efforts for residential and nonresidential**



SURVEY RESPONSE OUTCOMES

NonResidential

Income and Housing Type	SF*	MF
IQ (<80% AMI)	33%	47%
Not IQ	67%	53%
Count	1,953	1,931
Income not provided	221	311

*includes 45 mobile homes

Online Baseline

2,157 online respondents
12 building types
83% < 400 kW (small electric)

337 onsite completes
Multifamily - 152
Single Family - 185
- 69 with blower door tests

Site Visits

399 site visit completes
All 12 building types
81% < 400 kW (small electric)

Income and Housing Type	SF	MF
IQ (<80% AMI)	125	138
Not IQ	268	213
Total	393	351

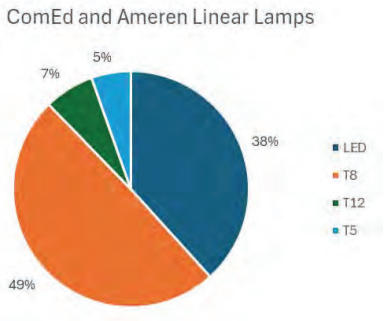
Willingness to Participate

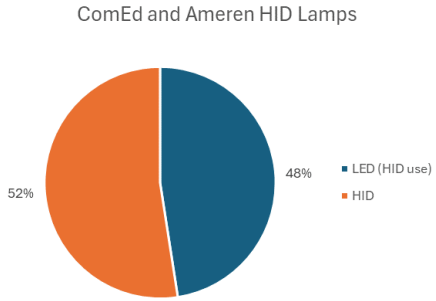
282 completes
All 12 building types
62% < 400 kW (small electric)

KEY BASELINE STUDY FINDINGS

NonResidential Snapshot: Site Visits, Lighting

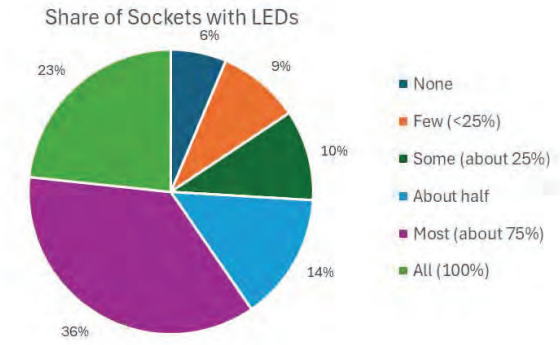
- *Linear LED Lamp Saturation Less than Expected*
- *HID LEDs show a similar share to linear*
- *Ongoing opportunities for lighting retrofits*
  - **Education, Retail, and "Other" buildings > 50% linear LEDs**
  - **Industrial, Retail, and Warehouse > 65% LED HID use**

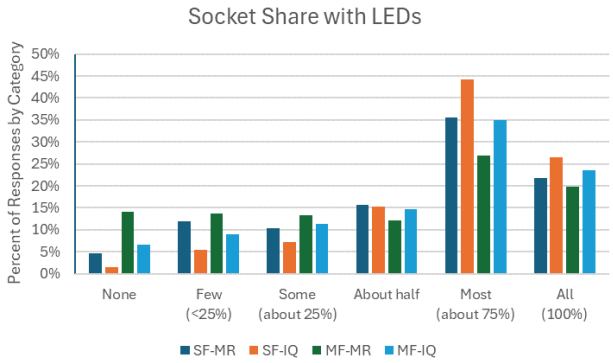




KEY BASELINE STUDY FINDINGS

Residential Snapshot - LEDs

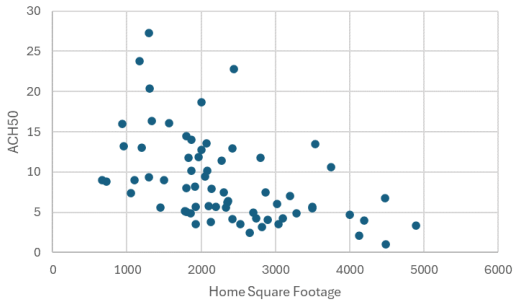


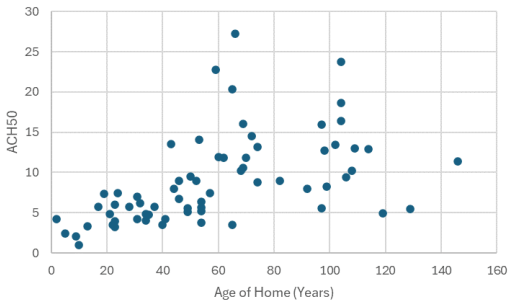


KEY BASELINE STUDY FINDINGS

Snapshot – SF Blower Door Results

By Home Age

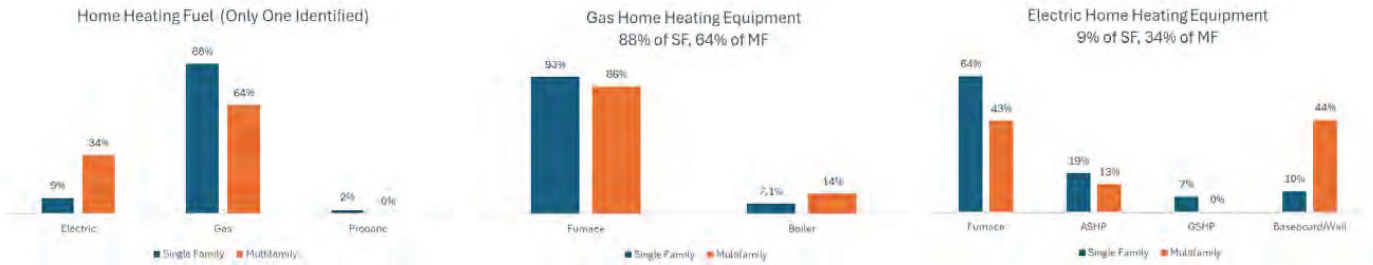




Sealing Quality	Count	ACH50	Avg Occ Sq Ft	Avg Age
Good	15	5.2	2,919	40
Normal/Fair	38	9.4	2,130	58
Poor	16	15.1	2,033	79

KEY BASELINE STUDY FINDINGS

Snapshot – Residential Space Heating Energy and Equipment (from online responses)

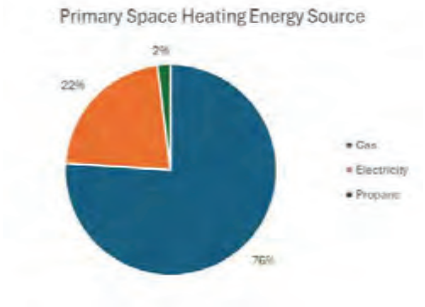


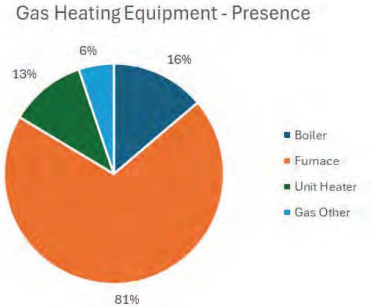
~9% of SF and 7% of MF indicated multiple heating sources

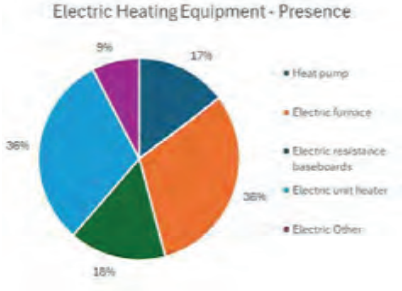
- Includes small space heaters
- ASHPs – 4% SF and 7% MF (of multifuel), mostly linked to natural gas furnaces

KEY BASELINE STUDY FINDINGS

Snapshot – Nonresidential Space Heating Energy and Equipment (from online responses)







ADDITIONAL BASELINE WORK UNDERWAY

- **Breakouts**
  - *Mobile Homes*
  - *Statistical review of Large vs Small Nonresidential*
  - *Recommended utility breakout vs aggregated*

- **Ongoing data review**
  - *Share of electric heating, multifuel analysis*
  - *Presence of HPWH (unlikely high shares)*
  - *Site visit reconciliation with online results*

- **Equipment efficiencies and characteristics from site visits**

Potential Study Observations

Illinois Baseline and Potential Study

CONTEXT FOR THE POTENTIAL STUDY RESULTS

- **The potential study results ARE NOT program plans**
- **Multiple scenarios will be useful to understand the implication of possible program plans**
  - *May inform draft utility plans*
  - *Useful for stakeholders to consider the implication of stipulations*
- **Modeling assumptions and choices point to program opportunities and challenges**
  - *Addressing policy requirements or constraints*
  - *Balancing opportunities with finite resources*
- **Draft or final utility program plans will likely deviate from potential scenarios**

LEVELS AND TYPES OF POTENTIAL

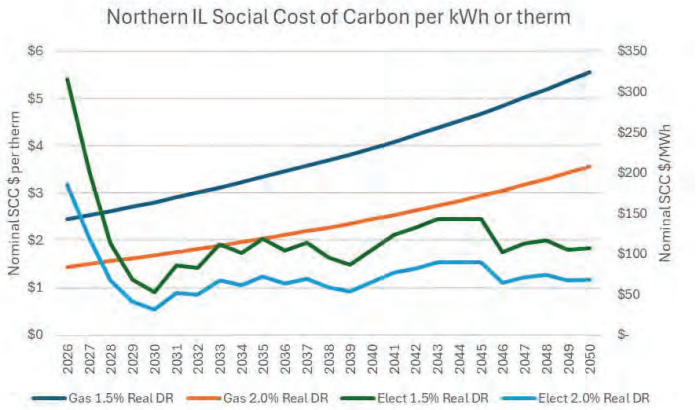
- **Technical Potential**
  - *What is feasible, regardless of cost*
  - *An upper bound*
- **Economic Potential**
  - *Measures must pass cost-effectiveness test (TRC, with NEIs)*
  - *A subset of technical potential*
- **Maximum Achievable Potential**
  - *Assume programs offer 100% of measure cost (incremental or full)*
  - *Utilize adoption curves based on WTP survey results*
  - *Apply typical program costs (i.e. non-incentive costs per kWh or therm)*
  - *An upper bound on program opportunities*
  - *Subset of economic potential (includes program costs, NTG)*
  - *Not bounded by spending limitations or policy requirements*

LEVELS AND TYPES OF POTENTIAL

- **Realistic Achievable Potential**
  - *Apply typical utility incentives for measures*
  - *Apply typical utility program costs ($ per unit energy savings)*
  - *Adoption of measures informed by adoption curves*
  - *A subset of maximum achievable potential*
  - *What programs could do if not bounded by spending caps or other constraints – a step to model constrained potential scenarios*
- **Statutory Maximum Achievable Potential (SMAP)**
  - *Based on Illinois statutes, one form of constrained potential*
  - *Modeling choices to capture key elements of:*
    - **Statutory Requirements (e.g. minimum IQ spending)**
    - **Maximum electrification (net MWh), applied to electric utilities**
      - ***Used to understand the possible impact of electrification under other constrained scenarios***

KEY MODELING INPUTS AND OBSERVATIONS

- **Social Cost of Carbon (SCC), Criteria Pollutant NEIs**
  - *Working group provided GDS with SCC assumptions*
    - **Value per therm and per MWh across forecast period**
    - **Utilizes EPA SCC work and reflects changing emissions rates of electricity production.**



TRC B/C RATIO IS SENSITIVE TO SCC

- **SCC value has a substantial impact**
  - **Measures and programs are very cost-effective**
  - **Electrification program cost-effectiveness is positive**
  - **Portfolio B/C results are sensitive to SCC assumptions**
    - ***70 percent of electricity benefits are SCC (average over 20 years)****
    - ***77 percent of natural gas benefits are SCC (average over 20 years)****
- **ComEd Residential examples, assume IQ = 1.0:**

Program	B/C With NEIs	B/C Without NEIs
Retail Online	3.2	0.7
Single Family Upgrades	5.7	1.2
Multifamily Upgrades	3.2	1.1
Electrification	2.9	1.1
Overall (all Res programs)	5.6	1.2

Partial program list

IQ is embedded

Does not include cross-cutting portfolio costs

ELECTRIFICATION OBSERVATIONS AND CONSIDERATIONS

- **Illinois is early in the electrification process**
  - *Policy, program, and market discovery phase*
  - *Heavy natural gas use compared to states with greater experience*
- **Statutes limit contribution of electrification**
  - *Natural gas sales likely to be impacted at the margins*
  - *Limited impact on availability of natural gas energy efficiency*
  - *Propane customers are limited, but show positive economic outcome*
- **Stipulation requirements for IQ spending, billing reductions**
  - *Places cap on possible non-IQ electrification*
  - *IQ electrification is generally more expensive to acquire*
  - *Determination of bill impacts can only occur after project initiation*
- **General incentives are lower than other jurisdictions w/ more aggressive electrification efforts**

ELECTRIFICATION OPPORTUNITIES, ASSUMPTIONS

- **Programs can leverage IRA over the next plan**
  - *Tax credits for homes*
  - *State HEERA (IQ-focused, 10% multifamily)*
  - *Reduce acquisition costs, leverage funding, market pull*
- **Propane opportunities exist**
  - *Water heating, space heating, forklifts*
  - *Likely insufficient to "make a market"; difficult to specifically forecast*
- **Potential study assumes**
  - *Focused program efforts*
  - *No major change to incentives*
  - *Market acceptance will happen and continue*
  - *Capped at statutory limits (10% for Plan 7, then 15%) for statutory maximum scenario*

ELECTRIFICATION: ENERGY OPERATING COSTS

Space Heating
ASHP vs Fossil Fuel
(excludes possible cooling savings)

Net cost per purchased MMBTU

Price per kWh

Price per therm of fossil fuel

	$0.10	$0.11	$0.12	$0.13	$0.14	$0.15	$0.16	$0.17	$0.18	$0.19	$0.20
$ 0.30	$ (6.55)	$ (7.72)	$ (8.89)	$ (10.06)	$ (11.24)	$ (12.41)	$ (13.58)	$ (14.75)	$ (15.92)	$ (17.10)	$ (18.27)
$ 0.40	$ (4.82)	$ (6.00)	$ (7.17)	$ (8.34)	$ (9.51)	$ (10.68)	$ (11.86)	$ (13.03)	$ (14.20)	$ (15.37)	$ (16.54)
$ 0.50	$ (3.10)	$ (4.27)	$ (5.44)	$ (6.62)	$ (7.79)	$ (8.96)	$ (10.13)	$ (11.30)	$ (12.48)	$ (13.65)	$ (14.82)
$ 0.60	$ (1.38)	$ (2.55)	$ (3.72)	$ (4.89)	$ (6.06)	$ (7.24)	$ (8.41)	$ (9.58)	$ (10.75)	$ (11.92)	$ (13.09)
$ 0.70	$ 0.35	$ (0.82)	$ (1.99)	$ (3.17)	$ (4.34)	$ (5.51)	$ (6.68)	$ (7.85)	$ (9.03)	$ (10.20)	$ (11.37)
$ 0.80	$ 2.07	$ 0.90	$ (0.27)	$ (1.44)	$ (2.61)	$ (3.79)	$ (4.96)	$ (6.13)	$ (7.30)	$ (8.47)	$ (9.65)
$ 0.90	$ 3.80	$ 2.63	$ 1.45	$ 0.28	$ (0.89)	$ (2.06)	$ (3.23)	$ (4.41)	$ (5.58)	$ (6.75)	$ (7.92)
$ 1.00	$ 5.52	$ 4.35	$ 3.18	$ 2.01	$ 0.83	$ (0.34)	$ (1.51)	$ (2.68)	$ (3.85)	$ (5.03)	$ (6.20)
$ 1.10	$ 7.25	$ 6.07	$ 4.90	$ 3.73	$ 2.56	$ 1.39	$ 0.21	$ (0.96)	$ (2.13)	$ (3.30)	$ (4.47)
$ 1.20	$ 8.97	$ 7.80	$ 6.63	$ 5.45	$ 4.28	$ 3.11	$ 1.94	$ 0.77	$ (0.41)	$ (1.58)	$ (2.75)
$ 1.30	$ 10.69	$ 9.52	$ 8.35	$ 7.18	$ 6.01	$ 4.83	$ 3.66	$ 2.49	$ 1.32	$ 0.15	$ (1.03)
$ 1.40	$ 12.42	$ 11.25	$ 10.07	$ 8.90	$ 7.73	$ 6.56	$ 5.39	$ 4.21	$ 3.04	$ 1.87	$ 0.70
$ 1.50	$ 14.14	$ 12.97	$ 11.80	$ 10.63	$ 9.45	$ 8.28	$ 7.11	$ 5.94	$ 4.77	$ 3.59	$ 2.42
$ 1.60	$ 15.87	$ 14.69	$ 13.52	$ 12.35	$ 11.18	$ 10.01	$ 8.83	$ 7.66	$ 6.49	$ 5.32	$ 4.15
$ 1.70	$ 17.59	$ 16.42	$ 15.25	$ 14.07	$ 12.90	$ 11.73	$ 10.56	$ 9.39	$ 8.21	$ 7.04	$ 5.87
$ 1.80	$ 19.31	$ 18.14	$ 16.97	$ 15.80	$ 14.63	$ 13.45	$ 12.28	$ 11.11	$ 9.94	$ 8.77	$ 7.59
$ 1.90	$ 21.04	$ 19.87	$ 18.69	$ 17.52	$ 16.35	$ 15.18	$ 14.01	$ 12.83	$ 11.66	$ 10.49	$ 9.32
$ 2.00	$ 22.76	$ 21.59	$ 20.42	$ 19.25	$ 18.07	$ 16.90	$ 15.73	$ 14.56	$ 13.39	$ 12.21	$ 11.04
$ 2.10	$ 24.49	$ 23.32	$ 22.14	$ 20.97	$ 19.80	$ 18.63	$ 17.46	$ 16.28	$ 15.11	$ 13.94	$ 12.77
$ 2.20	$ 26.21	$ 25.04	$ 23.87	$ 22.70	$ 21.52	$ 20.35	$ 19.18	$ 18.01	$ 16.84	$ 15.66	$ 14.49
$ 2.30	$ 27.94	$ 26.76	$ 25.59	$ 24.42	$ 23.25	$ 22.08	$ 20.90	$ 19.73	$ 18.56	$ 17.39	$ 16.22
$ 2.40	$ 29.66	$ 28.49	$ 27.32	$ 26.14	$ 24.97	$ 23.80	$ 22.63	$ 21.46	$ 20.28	$ 19.11	$ 17.94

0.58 UEF FF Storage 2.6 UEF HPWH

Price per kWh

	$0.10	$0.11	$0.12	$0.13	$0.14	$0.15	$0.16	$0.17	$0.18	$0.19	$0.20
$ 0.30	$ (6.02)	$ (6.99)	$ (7.97)	$ (8.95)	$ (9.92)	$ (10.90)	$ (11.88)	$ (12.85)	$ (13.83)	$ (14.81)	$ (15.78)
$ 0.40	$ (4.77)	$ (5.74)	$ (6.72)	$ (7.70)	$ (8.67)	$ (9.65)	$ (10.63)	$ (11.60)	$ (12.58)	$ (13.56)	$ (14.53)
$ 0.50	$ (3.52)	$ (4.49)	$ (5.47)	$ (6.45)	$ (7.42)	$ (8.40)	$ (9.38)	$ (10.35)	$ (11.33)	$ (12.31)	$ (13.28)
$ 0.60	$ (2.27)	$ (3.24)	$ (4.22)	$ (5.20)	$ (6.17)	$ (7.15)	$ (8.13)	$ (9.10)	$ (10.08)	$ (11.06)	$ (12.03)
$ 0.70	$ (1.02)	$ (1.99)	$ (2.97)	$ (3.95)	$ (4.92)	$ (5.90)	$ (6.88)	$ (7.85)	$ (8.83)	$ (9.81)	$ (10.78)
$ 0.80	$ 0.23	$ (0.74)	$ (1.72)	$ (2.70)	$ (3.67)	$ (4.65)	$ (5.63)	$ (6.60)	$ (7.58)	$ (8.56)	$ (9.53)
$ 0.90	$ 1.48	$ 0.51	$ (0.47)	$ (1.45)	$ (2.42)	$ (3.40)	$ (4.38)	$ (5.35)	$ (6.33)	$ (7.31)	$ (8.28)
$ 1.00	$ 2.73	$ 1.76	$ 0.78	$ (0.20)	$ (1.17)	$ (2.15)	$ (3.13)	$ (4.10)	$ (5.08)	$ (6.06)	$ (7.03)
$ 1.10	$ 3.98	$ 3.01	$ 2.03	$ 1.05	$ 0.08	$ (0.90)	$ (1.88)	$ (2.85)	$ (3.83)	$ (4.81)	$ (5.78)
$ 1.20	$ 5.23	$ 4.26	$ 3.28	$ 2.30	$ 1.33	$ 0.35	$ (0.63)	$ (1.60)	$ (2.58)	$ (3.56)	$ (4.53)
$ 1.30	$ 6.48	$ 5.51	$ 4.53	$ 3.55	$ 2.58	$ 1.60	$ 0.62	$ (0.35)	$ (1.33)	$ (2.31)	$ (3.28)
$ 1.40	$ 7.73	$ 6.76	$ 5.78	$ 4.80	$ 3.83	$ 2.85	$ 1.87	$ 0.90	$ (0.08)	$ (1.06)	$ (2.03)
$ 1.50	$ 8.98	$ 8.01	$ 7.03	$ 6.05	$ 5.08	$ 4.10	$ 3.12	$ 2.15	$ 1.17	$ 0.19	$ (0.78)
$ 1.60	$ 10.23	$ 9.26	$ 8.28	$ 7.30	$ 6.33	$ 5.35	$ 4.37	$ 3.40	$ 2.42	$ 1.44	$ 0.47
$ 1.70	$ 11.48	$ 10.51	$ 9.53	$ 8.55	$ 7.58	$ 6.60	$ 5.62	$ 4.65	$ 3.67	$ 2.69	$ 1.72
$ 1.80	$ 12.73	$ 11.76	$ 10.78	$ 9.80	$ 8.83	$ 7.85	$ 6.87	$ 5.90	$ 4.92	$ 3.94	$ 2.97
$ 1.90	$ 13.98	$ 13.01	$ 12.03	$ 11.05	$ 10.08	$ 9.10	$ 8.12	$ 7.15	$ 6.17	$ 5.19	$ 4.22
$ 2.00	$ 15.23	$ 14.26	$ 13.28	$ 12.30	$ 11.33	$ 10.35	$ 9.37	$ 8.40	$ 7.42	$ 6.44	$ 5.47
$ 2.10	$ 16.48	$ 15.51	$ 14.53	$ 13.55	$ 12.58	$ 11.60	$ 10.62	$ 9.65	$ 8.67	$ 7.69	$ 6.72
$ 2.20	$ 17.73	$ 16.76	$ 15.78	$ 14.80	$ 13.83	$ 12.85	$ 11.87	$ 10.90	$ 9.92	$ 8.94	$ 7.97
$ 2.30	$ 18.98	$ 18.01	$ 17.03	$ 16.05	$ 15.08	$ 14.10	$ 13.12	$ 12.15	$ 11.17	$ 10.19	$ 9.22
$ 2.40	$ 20.23	$ 19.26	$ 18.28	$ 17.30	$ 16.33	$ 15.35	$ 14.37	$ 13.40	$ 12.42	$ 11.44	$ 10.47

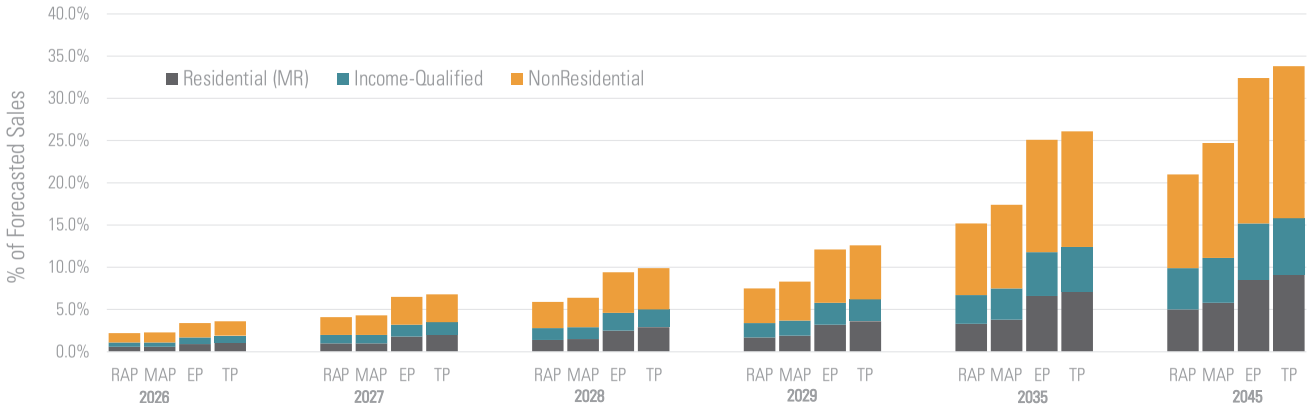
80% AFUE furnace 3.0 COP ASHP

Potential Study Results

Illinois Baseline and Potential Study

OVERALL ELECTRIC SUMMARY

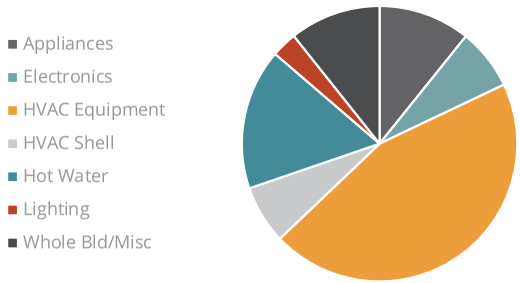
ComEd & Ameren Combined, Electric Energy Efficiency Only



RESIDENTIAL END-USE BREAKDOWN OF RAP

- Opportunities emphasize HVAC and DHW
- Limited lighting (excludes EISA lamps)
- HVAC equipment shrinks over time
- Shell measures increase

Savings by End Use (2026)

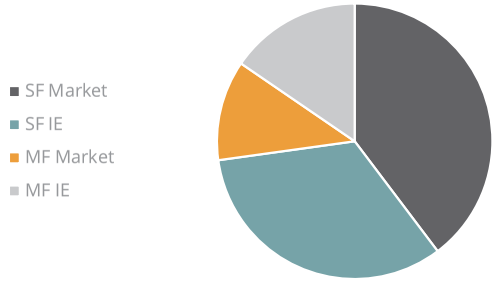


Cum. Ann. Savings by End Use

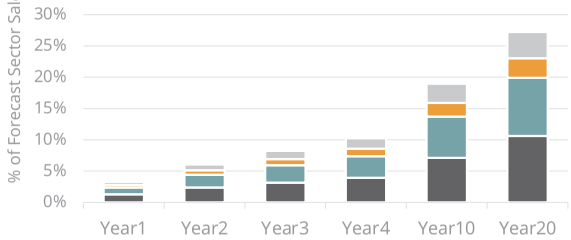
RESIDENTIAL BREAKDOWN OF ACHIEVABLE POTENTIAL (HOUSING/INCOME TYPE)

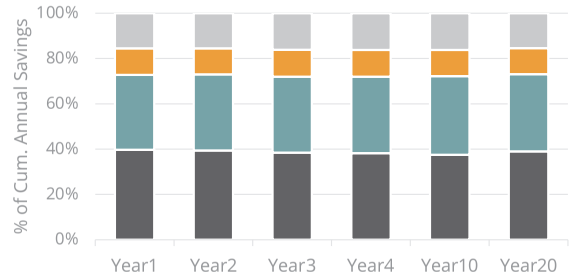
- Shares in the marketplace held constant
- Ongoing opportunities for MR and IE
- Housing stock and savings dominated by single family
- Multifamily and IE are important shares

Savings by Housing Type (2026)



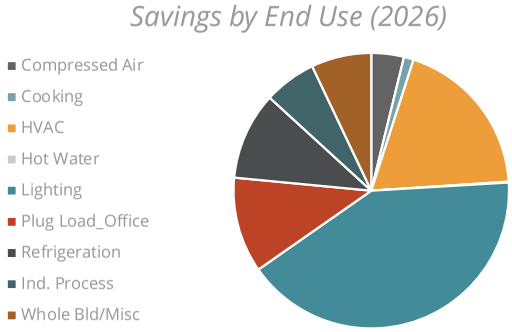
Cum. Ann. Savings by Housing Type

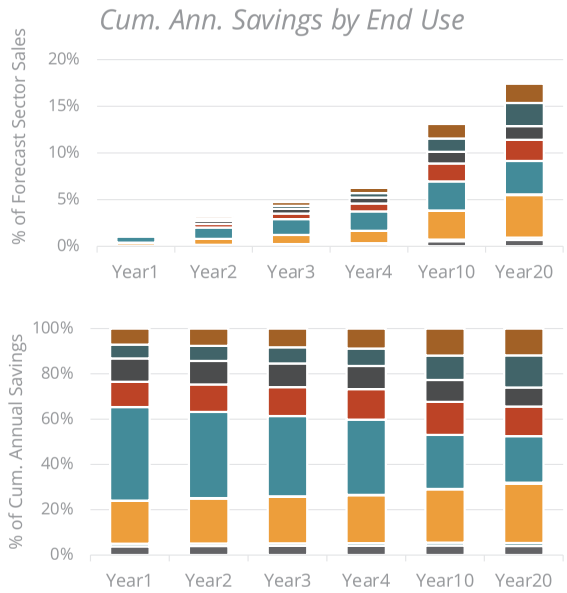




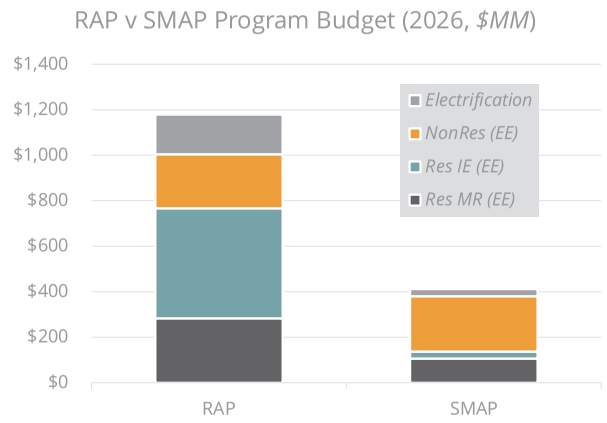
NONRESIDENTIAL BREAKDOWN OF ACHIEVABLE POTENTIAL (END USE)

- **Near-term significant lighting, decreasing over time**
- **Other end-uses grow to fill the gap**
- **Long-term EE opportunities across end-uses**





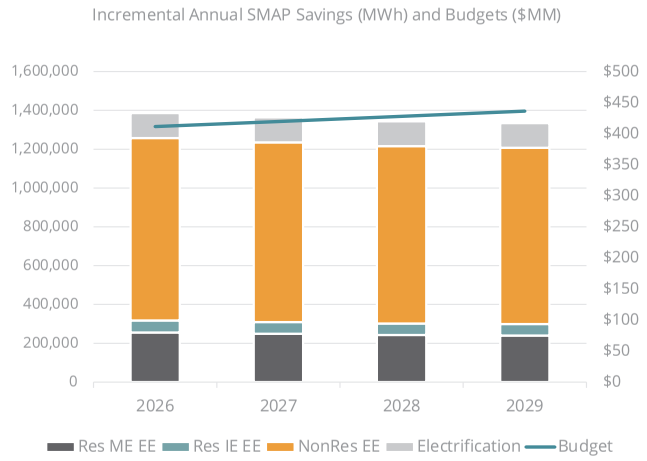
COMED - RAP TO STATUTORY MAXIMUM (SMAP)



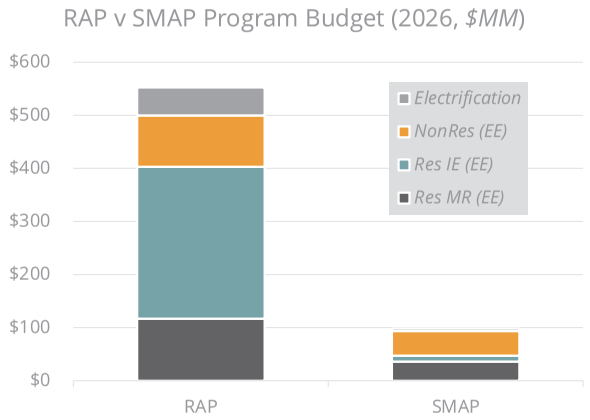
SMAP PARAMETERS
$411.5MM overall program budget, excluding cross-cutting portfolio costs
$40MM IE (IQ) Spending
10% electrification savings thru 2029
15% electrification savings thru 2045
NonRes budget similar to current spend
IQ budget substantially reduced from current ~$100MM
Simple scaling of RAP EE opportunities, adjusting for budget shares

COMED STATUTORY MAXIMUM (SMAP)

ComEd Electric Energy Efficiency and Electrification

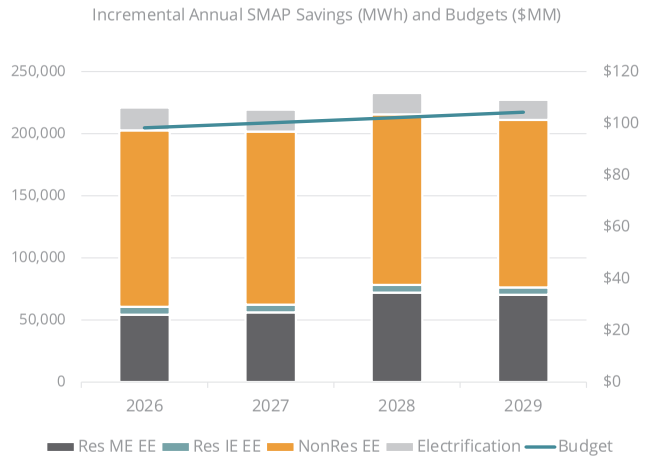


AMEREN ELECTRIC - RAP TO SMAP



SMAP PARAMETERS
$98MM overall program budget, excluding cross-cutting portfolio costs
$13MM IE (IQ) Spending
10% electrification savings thru 2029
15% electrification savings thru 2045
NonRes budget similar to current spend
10% electrification does not reflect current focus on propane
Simple scaling of RAP EE opportunities, adjusting for budget shares

AMEREN ELECTRIC STATUTORY MAXIMUM (SMAP)



TOP MEASURES BY SECTOR – RAP AND SMAP

Residential

Measure	% OF RAP	% OF SMAP
Home Energy Reports	9.6%	31.9%
Duct Sealing	11.9%	9.3%
Low Flow Showerhead	6.7%	5.2%
Advanced Thermostat Installation	5.1%	4.3%
Heat Pump Water Heaters	4.7%	3.7%
Ducted Heat Pumps	4.8%	3.4%
Energy Star Refrigerators	3.8%	3.1%
Emerging Tech - Advanced Windows U-0.10	3.0%	2.9%
Advanced Power Strip - Tier 1	3.4%	2.7%
Central AC	2.8%	2.4%
Emerging Tech - Home Energy Management System	2.5%	2.4%
ENERGY STAR Television	2.3%	1.9%
GSHP	2.3%	1.7%
Insulated Cellular Shades	1.4%	1.4%
Energy Star Air Purifier/Cleaner	1.6%	1.3%

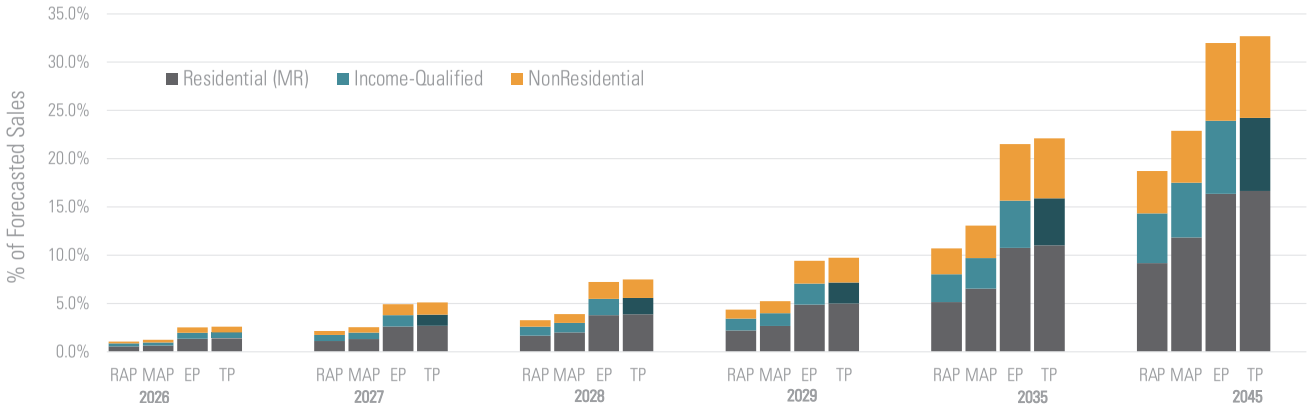
NonResidential

Measure	% OF RAP	% OF SMAP
Lighting Controls	8.8%	8.9%
LED Linear Replacement Lamps and Troffers	6.3%	6.5%
Advanced Power Strip	5.7%	5.9%
Pump and Fan Variable Frequency Drive Controls (Fans)	5.1%	5.2%
Custom Miscellaneous	4.9%	4.9%
SEM	5.2%	4.4%
LED High-Bay Fixtures	4.2%	4.4%
Fluorescent Delamping | 4-ft	4.3%	4.4%
Demand Controlled Ventilation	3.5%	3.6%
Computer Room Air Conditioner Economizer	3.3%	3.4%
Retro-commissioning	3.3%	3.4%
Energy Management System	3.2%	3.3%
Anti-Sweat Heater Controls for Glass Door Cooler or Refrigerator-Cooler	2.4%	2.4%
Compressed Air Leak Repair	2.0%	2.0%
LED Low-Bay Fixtures	1.9%	1.9%

- Wide range of measures / end-uses in residential
- More lighting focus in Nonresidential
- Top 15 in Residential = 77% of residential opportunity
- Top 15 in Nonresidential = 65% of nonresidential opportunity

OVERALL GAS SUMMARY

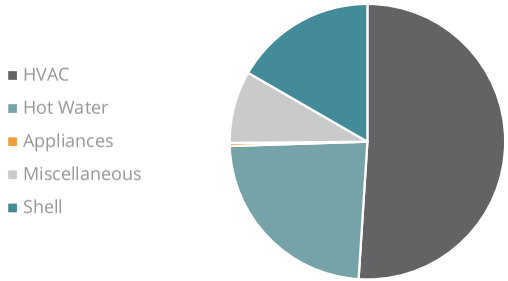
Nicor Gas & Ameren Gas Combined, Gas Efficiency



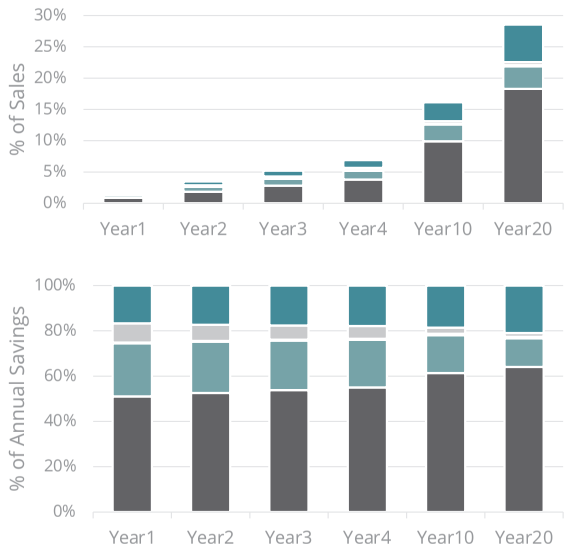
RESIDENTIAL END-USE BREAKDOWN OF RAP

- **HVAC and Hot Water equipment show highest opportunities**
- **Hot water decreases over time**
- **Building shell increases over time**

Savings by End Use (2026)



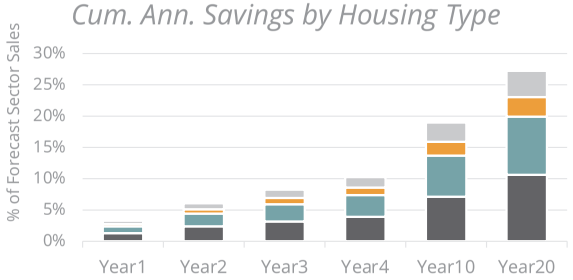
Cum. Ann. Savings by End Use



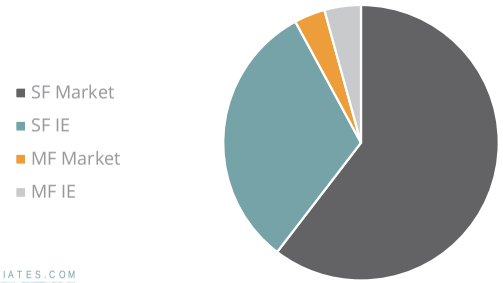
RESIDENTIAL BREAKDOWN OF ACHIEVABLE POTENTIAL (HOUSING/INCOME TYPE)

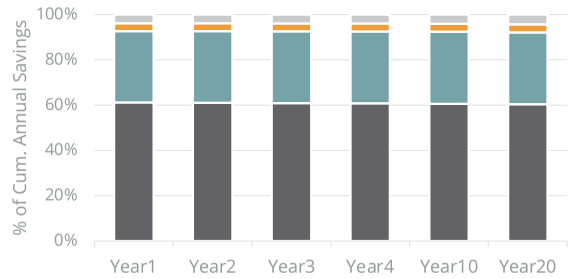
- Shares in the marketplace held constant
- Ongoing opportunities for MR and IE
- Housing stock and savings dominated by single family
- Emerging tech important to achieve savings outcomes

Cum. Ann. Savings by Housing Type



Savings by Housing Type (2026)



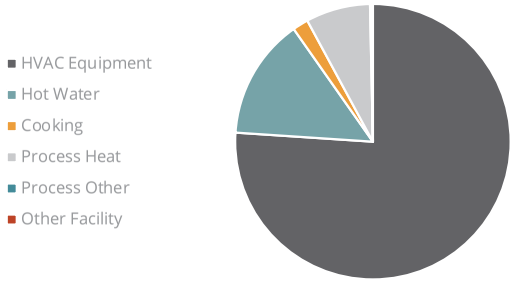


GDSASSOCIATES.COM

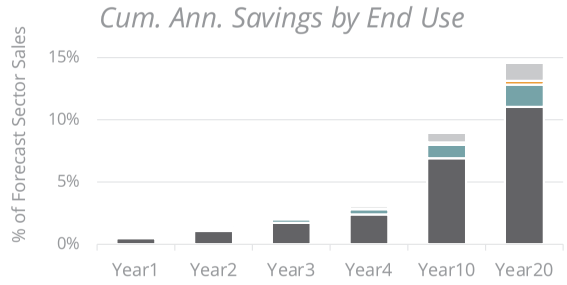
NONRESIDENTIAL BREAKDOWN OF ACHIEVABLE POTENTIAL (END USE)

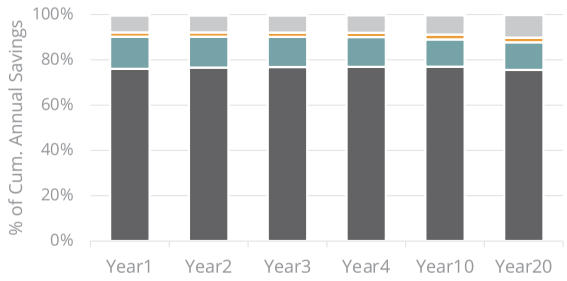
- **HVAC Equipment is *the* major category**
- **Hot water and industrial process heat are also important**
- **Relative opportunities steady through forecast**

Savings by End Use (2026)

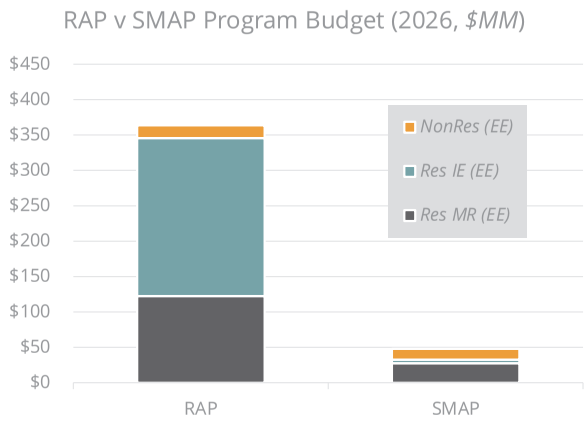


Cum. Ann. Savings by End Use



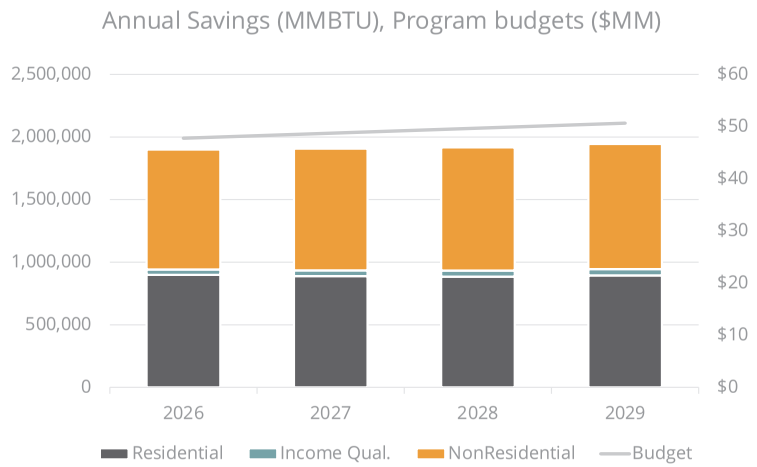


RAP TO SMAP – NICOR (GENERAL)

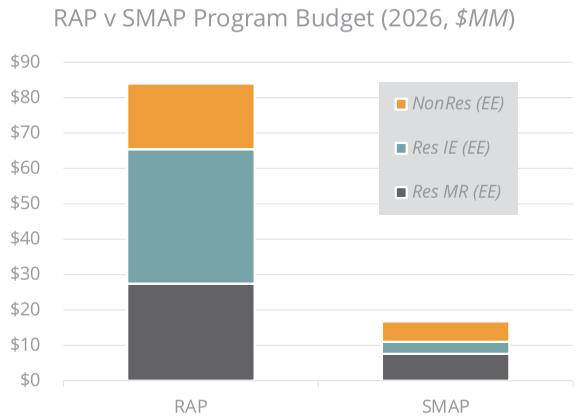


SMAP PARAMETERS
$50MM for EE programs (w/o) cross-cutting portfolio costs
$32MM for Residential (with IQ)
IQ (IE) spending $5.2MM
Health and safety not included in SMAP scenario
Prioritize IQ spending 75% toward shell measures
Prioritize $6MM of Res market rate for furnaces and thermostats

NICOR GAS STATUTORY MAXIMUM (SMAP)

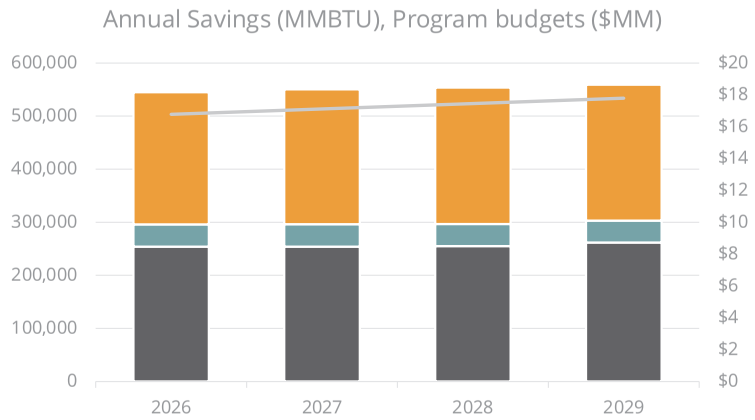


RAP TO SMAP – AMEREN GAS



SMAP PARAMETERS
$17MM for EE programs (w/o) cross-cutting portfolio costs
$11MM for Residential (with IQ)
IQ (IE) spending $3.4MM
Health and safety not included in SMAP scenario
Prioritize IQ spending 75% toward shell measures
Prioritize $2.5MM of Res market rate for furnaces and thermostats

AMEREN GAS STATUTORY MAXIMUM (SMAP)



TOP MEASURES BY SECTOR

Residential Measures	% OF RAP	% OF SMAP
ENERGY STAR Furnace	17.3%	27.9%
Advanced thermostat	11.8%	25.8%
Low Flow Showerhead	9.3%	5.4%
Efficient Gas Storage Water Heater	6.2%	3.7%
Duct Sealing	6.2%	3.4%
Gas Furnace Tune-Up	6.1%	3.3%
Emerging Tech - Advanced Windows U-0.10 (Gas heating and central AC)	5.2%	3.2%
Emerging Tech - Advanced Duct Sealing (Gas heating and central AC)	4.7%	2.7%
Pool Covers	4.6%	2.6%
Faucet Aerator	4.4%	2.5%
Energy recovery ventilator	4.3%	2.1%
ENERGY STAR Windows	4.2%	2.8%
Wall Insulation	2.2%	1.5%
Attic Insulation	1.7%	1.2%
Thermostatic Restrictor Valve	1.6%	0.9%

C&I Measures	% OF RAP	% OF SMAP
Small Commercial Thermostats-RET	28.1%	28.4%
High Efficiency Furnace	18.1%	16.8%
RCx	8.3%	7.9%
Tank Insulation	5.8%	6.0%
Space Heating Boiler Tune-up	5.5%	5.2%
Efficient ProcHeat Equipment	5.0%	5.8%
Boiler Chemical Descaling	3.8%	3.8%
Efficient ProcHeat O&M	3.5%	4.0%
Steam Trap Replacement or Repair	3.1%	3.1%
Boiler Lockout/Reset Controls	2.7%	2.9%
Storage Water Heater	2.5%	2.6%
Dishwasher	2.0%	2.1%
Steam Trap Monitoring System	1.6%	1.2%
High Efficiency Pre-Rinse Spray Valve	1.5%	1.5%
Infrared Heaters	1.4%	1.4%

- Heating equipment and controls are key opportunities in both sectors
- Water savings remains important source of savings
- Building shell (including emerging tech) important for residential
- Boiler and process measures important for nonresidential

Thank You!

Questions?

Appendix D - TRC Assumptions and Sources

TRC Input: Non-Measure Level	ComEd Assumptions & Sources
Gas and Electric Avoided Costs (avoided energy and avoided capacity)	**Gas Cost** - Provided by Nicor Gas which they calculated with natural gas commodity prices at Henry Hub from CME Group website using the Wood Mackenzie Natural Gas Forecast, Long Term View Source: CME Group website (https://www.cmegroup.com/trading/energy/natural-gas/natural-gas.html) **Electric Supply/Generation Cost -** The 2026 (Year 1) ATC price is derived from NYMEX futures, consistent with guidance from Integral Analytics. All years from 2026 onward use AEO price forecasts for average generation price paid by all customers for electricity from the 'Electricity Supply, Disposition, Prices, and Emissions' table under the 'Energy Prices' section of the AEO datasets. ComEd is using Generation real cost per kWh, excluding transmission and distribution costs. Source: NYMEX futures. **Ancillary Charges -** Sum NERC FEE and RFC Fee from Schedule 10, and 9-1 Control Area Administrative on Service Fee from Schedule 9, available on the PJM website Source: PJM website (https://www.pjm.com/committees-and-groups/committees/fc/pass-through-rates); (https://www.pjm.com/committees-andgroups/committees/fc/pjm-admin-cost-rates.aspx) **Capacity Cost -** ComEd Resource Clearing Price (RCP) and Forecast Pool Requirement (FPR) are retrieved from the appropriate Base Residual Auction report and multiplied to find the Installed Capacity (ICAP) cost. ICAP is annualized and multiplied by Marginal Peak Loss factor (see below). Source: PJM website (https://www.pjm.com/markets-and-operations/rpm.aspx).
T&D Avoided Costs	These avoided costs are considered internal and confidential. Avoided capacity costs for ComEd include two main categories, avoided costs for peak growth and avoided costs for substation growth capacity. Each main category consists of both a distribution and a transmission component. The avoided costs for each component in simple terms are the result of multiplying ComEd's levelized fixed charge rate by the potential deferable expenditures and dividing by the average peak load growth for 2017 through 2027. Unavoidable expenditures include cost for material condition, location of growth and relocation of load. About 90% of our capacity expenditures are considered unavoidable. Source: ComEd Capacity Group
Water and Unregulated Energy/Fuel Avoided Costs	Approximate water cost per 1,000 gallons is retrieved from the City of Chicago Water Utility website. The water rate is doubled to account for water and sewer because the sewer rate is 100% of the water rate as of 1/1/2015. Source: City of Chicago Water Utility website (https://www.cityofchicago.org/city/en/depts/fin/supp_info/utility-billing/water-and-sewer-rates.html)

TRC Input: Non-Measure Level	ComEd Assumptions & Sources
Carbon Adder (dollar amount)	The societal costs associated with greenhouse gas emissions shall be $200 per short ton, expressed in 2025 dollars or the most recently approved estimate developed by the federal government using a real discount rate consistent with long-term Treasury bond yields, whichever is greater. Changes in greenhouse gas emissions due to changes in electricity consumption shall be estimated using long-run marginal emissions rates developed by the National Renewable Energy Laboratory's Cambium model or other Illinois-specific modeling of comparable analytical rigor.
Non-Energy Benefits or Non-Energy Impacts	NEIs include water, other fuel, O&M, and societal NEIs provided by the independent evaluator based on primary research. Societal NEI source: Primary research conducted by independent evaluator (https://www.ilsag.info/nei-working-group/)
Line losses (Energy and Peak)	Marginal energy and peak loss are calculated with inputs from most recent ComEd transmission and distribution loss studies and weighted by the most recently evaluated portfolio savings. Source: ComEd's 2021 Transmission System Loss Study, ComEd's 2021 Distribution System Loss Study
Societal Discount Rate	Nominal Societal Discount Rate: 2.31% Real Societal Discounts Rate: 0.34% Source: Negotiated with Stakeholders
Inflation Rate	Inflation Rate: 1.96% Source: Negotiated with Stakeholders.
Escalators	Annual escalators are calculated with energy price data from the U.S. Energy Information Administration Annual Energy Outlook reference case, using generation (real) cents per kilowatt-hour values from the "Electricity Supply, Disposition, Prices, and Emissions" table and the inflation rate above. Source: U.S. Energy Information Administration website (https://www.eia.gov/outlooks/aeo/)

ComEd 2027-29 Energy Efficiency Portfolio Measure List

Measure | Program	Short Measure Name	Measure Type	Sector	Units	Measure Life	Dual Baseline (Y/N)	Non-Fuel Switching Electricity Savings (kWh)	Demand Savings (kW)
Business Behavior | BEA	Business Behavior	Behavioral	Business	per project	7.8	N	55,732	0.0
BEA Third Party | Nonlighting	BEA Third Party | Nonlightir	Third Party Nonlighting	Business	per unit	7.8	N	55,732	0.0
SEM - Public | SEM	SEM - Public	Strategic Energy Management	Business	per project	7.0	N	439,559	0.0
SEM - Private | SEM	SEM - Private	Strategic Energy Management	Business	per project	7.0	N	439,559	0.0
SEM | Third Party | NonLighting	SEM Third Party - NonLighti	Third Party Nonlighting	Business	per unit	7.0	N	439,559	0.0
Automatic Conveyer Broiler | CFS	Automatic Conveyer Broiler	Food Service Equipment	Business	per unit	12.0	N	4,529	1.0
Combination Oven | CFS	Combination Oven	Food Service Equipment	Business	per unit	12.0	N	12,520	2.9
Commercial Steam Cooker | CFS	Commercial Steam Cooker	Food Service Equipment	Business	per unit	12.0	N	21,020	4.8
Electric Deck Oven | CFS	Electric Deck Oven	Food Service Equipment	Business	per unit	12.0	N	4,932	1.1
ENERGY STAR Convection Oven | CFS	ENERGY STAR Convection C	Food Service Equipment	Business	per unit	12.0	N	2,575	0.6
ENERGY STAR Fryer | CFS	ENERGY STAR Fryer	Food Service Equipment	Business	per unit	12.0	N	1,364	0.3
ENERGY STAR Griddle | CFS	ENERGY STAR Griddle	Food Service Equipment	Business	per unit	12.0	N	5,412	1.2
ENERGY STAR Hot Food Holding Cabinet | CFS	ENERGY STAR Hot Food Ho	Food Service Equipment	Business	per unit	12.0	N	603	0.1
Commercial Solid and Glass Door Refrigerators | CFS	Commercial Solid and Glass I	Food Service Equipment	Business	per unit	12.0	N	781	0.2
Commercial Solid and Glass Door Freezers | CFS	Commercial Solid and Glass I	Food Service Equipment	Business	per unit	12.0	N	1,477	0.3
Ice Maker | CFS	Ice Maker	Food Service Equipment	Business	per unit	9.0	N	1,606	0.4
ENERGY STAR Dishwasher | CFS	ENERGY STAR Dishwasher	Food Service Equipment	Business	per unit	19.0	N	4,538	1.0
Kitchen Demand Ventilation Controls (HP) | CFS	Kitchen Demand Ventilation	HVAC Controls	Business	per unit	20.0	N	13,901	3.2
Virtual Commissioning (VCx) | RetroCommissioning (RC)	Virtual Commissioning (VCx)	Third Party Nonlighting	Business	per project	8.6	N	165,787	18.2
Virtual Commissioning (VCx) - DAC | RetroCommissionir	Virtual Commissioning (VCx)	Third Party Nonlighting	Business	per project	8.6	N	141,633	15.6
Lighting Misc | Private | Custom	Lighting Misc	Lighting Misc	Business	per project	15.0	N	235,411	43.4
Process Equipment | Private | Custom	Process Equipment	Process Equipment	Business	per project	15.0	N	241,253	44.5
Refrigeration | Private | Custom	Refrigeration	Refrigeration	Business	per project	15.0	Y	232,096	42.8
Other | Public | Custom	Other	Other	Business	per project	18.0	Y	227,992	42.1
HVAC Equipment | Private | Custom	HVAC Equipment	HVAC Equipment	Business	per project	23.0	Y	215,554	39.8
Compressed Air | Private | Custom	Compressed Air	Compressed Air	Business	per project	13.0	N	319,287	58.9
Motors_VSD | Private | Custom	Motors_VSD	Motors_VSD	Business	per project	15.0	N	273,372	50.4
New Construction Data Centers | Private | Custom	New Construction Data Cente	Data Centers	Business	per project	17.4	N	766,389	141.4
Other | Private | Custom	Other	Other	Business	per project	18.0	Y	552,427	101.9
Lighting Misc | Public | Custom	Lighting Misc	Lighting Misc	Business	per project	15.0	N	6,075	1.1
HVAC EMS | Public | Custom	HVAC EMS	HVAC Controls	Business	per project	16.0	N	179,077	33.0
HVAC Equipment | Public | Custom	HVAC Equipment	HVAC Equipment	Business	per project	23.0	Y	52,141	9.6
Motors_VSD | Public | Custom	Motors_VSD	Motors_VSD	Business	per project	15.0	N	384,211	70.9
Pre App LED Streetlights | Standard	Pre App LED Streetlights	Lighting Street	Business	per project	20.0	N	80,385	14.8
Heat Pump Water Heater (Electric Only) | Standard	Heat Pump Water Heater (El	Hot Water	Business	per project	18.7	N	437	0.1
VSD on Pool Pump | Standard	VSD on Pool Pump	Motors_VSD	Business	per project	22.7	N	30,283	5.6
Air Compressor(s) with Integrated VSD <= 200 HP | Stan	Air Compressor(s) with Integ	Compressed Air	Business	per project	13.0	N	74,484	13.7
Compressed Air Dryer | Standard	Compressed Air Dryer	Compressed Air	Business	per project	13.0	N	28,030	5.2
High-Efficiency Air Nozzles | Standard	High-Efficiency Air Nozzles	Compressed Air	Business	per project	13.0	N	5,788	1.1
No-Loss Condensate Drains | Standard	No-Loss Condensate Drains	Compressed Air	Business	per project	13.0	N	4,865	0.9
Thermostats | Standard	Thermostats	HVAC Thermostats	Business	per project	11.0	N	1,630	0.3
Building Energy Management System | Standard	Building Energy Managemen	HVAC Controls	Business	per project	18.7	N	112,735	20.8
Air-Cooled Chiller | Standard	Air-Cooled Chiller	HVAC Equipment	Business	per project	18.7	N	42,367	7.8
Air-Side Economizer | Standard	Air-Side Economizer	HVAC Equipment	Business	per project	18.7	N	91,482	16.9
Chilled Water Reset Controls | Standard	Chilled Water Reset Controls	HVAC Controls	Business	per project	18.7	N	8,172	1.5
Chillers with Integrated VSD | Standard	Chillers with Integrated VSD	HVAC Equipment	Business	per project	18.7	N	269,760	49.8
Demand Controlled Ventilation | Standard	Demand Controlled Ventilatic	HVAC Equipment	Business	per project	18.7	N	21,152	3.9
Electronically Commutated Motor (ECM) on Fan-Powere	Electronically Commutated M	HVAC Equipment	Business	per project	18.7	N	14,343	2.6
Ground Source Heat Pump | Standard	Ground Source Heat Pump	Heat Pumps	Business	per project	18.7	N	90,165	16.6
Guest Room Energy Management System | Standard	Guest Room Energy Managen	HVAC Controls	Business	per project	18.7	N	96,773	17.8
High Efficiency Pumps and Pumping Efficiency Improver	High Efficiency Pumps and P	HVAC Equipment	Business	per project	18.7	N	7,031	1.3
Oil-Free Bearing Chiller | Standard	Oil-Free Bearing Chiller	HVAC Equipment	Business	per project	18.7	N	455,268	84.0
Package Terminal AC (PTAC) / Package Terminal Heat F	Package Terminal AC (PTAC)	HVAC Equipment	Business	per project	18.7	N	4,424	0.8
Restroom Exhaust Fan Occupancy Sensor | Standard	Restroom Exhaust Fan Occup	HVAC Controls	Business	per project	18.7	N	400	0.1
Rooftop Unit | Standard	Rooftop Unit	HVAC Equipment	Business	per project	18.7	N	14,520	2.7
Variable Speed Drive on HVAC Fan or Pump <= 200 HP	Variable Speed Drive on HVA	HVAC Equipment	Business	per project	18.7	N	86,417	15.9
VSD on HVAC Chiller | Standard	VSD on HVAC Chiller	HVAC Equipment	Business	per project	18.7	N	94,772	17.5
Water-Cooled Chiller | Standard	Water-Cooled Chiller	HVAC Equipment	Business	per project	18.7	N	72,936	13.5
Indoor LED Fixtures and Retrofits | Standard	Indoor LED Fixtures and Ret	LED Fixture	Business	per project	12.8	N	51,233	9.4
Occupancy Sensors | Standard	Occupancy Sensors	Individual Lighting Controls	Business	per project	12.8	N	9,635	1.8
Occupancy Sensors Plus Daylighting Controls | Standard	Occupancy Sensors Plus Dayl	Individual Lighting Controls	Business	per project	12.8	N	8,137	1.5
Plug-Load Occupancy Sensors | Standard	Plug-Load Occupancy Sensors	Individual Lighting Controls	Business	per project	12.8	N	1,352	0.2
Time Clocks for Lighting | Standard	Time Clocks for Lighting	Individual Lighting Controls	Business	per project	12.8	N	2,735	0.5
Vacancy Sensors | Standard	Vacancy Sensors	Individual Lighting Controls	Business	per project	12.8	N	4,574	0.8
Indoor Networked Lighting Control System | Standard	Indoor Networked Lighting C	Advanced Lighting Controls	Business	per project	12.8	N	100,909	18.6
Indoor Networked Lighting Measures | Standard	Indoor Networked Lighting M	Advanced Lighting Controls	Business	per project	12.8	N	117,555	21.7
Agriculture LED Indoor Grow for Lighting Retrofit | Stan	Agriculture LED Indoor Grow	LED Grow	Business	per project	12.8	N	933,681	172.2
All Electric Injection Molding Machine | Standard	All Electric Injection Molding	Industrial Systems	Business	per project	20.0	N	72,262	13.3
Hybrid Injection Molding Machine | Standard	Hybrid Injection Molding Mac	Industrial Systems	Business	per project	20.0	N	132,571	24.5
LED Grow Lights | Standard	LED Grow Lights	LED Grow	Business	per project	12.8	N	1,971,090	363.5
Network Combing Line and Trunk Equipment Removal |	Network Combing Line and T	Industrial Systems	Business	per project	20.0	N	45,361	8.4
Networked Lighting Controls for LED Grow Lights | Stan	Networked Lighting Controls	Advanced Lighting Controls	Business	per project	12.8	N	1,197,771	220.9
Low Pressure Drop High Efficiency (Non-HEPA) Air Filte	Low Pressure Drop High Effic	Compressed Air	Business	per project	13.0	N	59,579	11.0
LED Streetlighting | Standard	LED Streetlighting	Lighting Street	Business	per project	12.8	N	212,344	39.2
Exterior LED Channel Sign | Standard	Exterior LED Channel Sign	Lighting Misc	Business	per project	12.8	N	10,177	1.9
Outdoor & Garage - LED Fixtures and Retrofits | Standar	Outdoor & Garage - LED Fixt	LED Exterior Bldg	Business	per project	12.8	N	25,384	4.7
Outdoor & Garage - Occupancy Sensors | Standard	Outdoor & Garage - Occupanc	Exterior Lighting Controls	Business	per project	12.8	N	5,993	1.1
Outdoor & Garage - Photocells Plus Time Clock | Standar	Outdoor & Garage - Photocell	Exterior Lighting Controls	Business	per project	12.8	N	2,141	0.4
Photocells | Standard	Photocells	Exterior Lighting Controls	Business	per project	12.8	N	1,091	0.2
Outdoor Networked Lighting Control System | Standard	Outdoor Networked Lighting	Exterior Lighting Controls	Business	per project	12.8	N	12,406	2.3
Outdoor Networked Lighting System | Standard	Outdoor Networked Lighting	Exterior Lighting Controls	Business	per project	12.8	N	49,675	9.2
Adding Doors to Cooler Display Cases | Standard	Adding Doors to Cooler Displ	Refrigeration	Business	per project	13.1	N	40,383	7.4
Anti-Sweat Heater Controls for Glass Door Cooler and F	Anti-Sweat Heater Controls f	Refrigeration	Business	per project	13.1	N	141,217	26.0
Automatic High Speed Doors | Standard	Automatic High Speed Doors	Refrigeration	Business	per project	13.1	N	2,886	0.5
Cooler Display Cases with Doors | Standard	Cooler Display Cases with Do	Refrigeration	Business	per project	13.1	N	96,667	17.8
Demand Defrost Controls on Walk-in Coolers or Freezers	Demand Defrost Controls on \	Refrigeration	Business	per project	13.1	N	2,162	0.4

EC Motor for Reach-in Refrigerated Case | Standard	EC Motor for Reach-in Refrig	Refrigeration	Business	per project	13.1	N	191,906	35.4
EC Motor for Walk-in Cooler or Freezer | Standard	EC Motor for Walk-in Cooler	Refrigeration	Business	per project	13.1	N	18,398	3.4
EC Motor with Evaporator Fan Controls for Walk-in Coo	EC Motor with Evaporator Fa	Refrigeration	Business	per project	13.1	N	42,841	7.9
Efficient Refrigeration Condenser | Standard	Efficient Refrigeration Conde	Refrigeration	Business	per project	13.1	N	6,780	1.3
Evaporator Fan Controls on EC Motor | Standard	Evaporator Fan Controls on E	Refrigeration	Business	per project	13.1	N	5,594	1.0
Floating Head Pressure Controls | Standard	Floating Head Pressure Cont	Refrigeration	Business	per project	13.1	N	94,558	17.4
Freezer Display Cases with Doors | Standard	Freezer Display Cases with D	Refrigeration	Business	per project	13.1	N	287,717	53.1
Grocer-Variable Frequency Drive for Condenser Fans | St	Grocer-Variable Frequency D	Refrigeration	Business	per project	13.1	N	22,350	4.1
LED Refrigerated Display Case Lighting for Open and C	LED Refrigerated Display Ca	Refrigeration	Business	per project	13.1	N	62,824	11.6
Night Covers | Standard	Night Covers	Refrigeration	Business	per project	13.1	N	22,855	4.2
Special Doors with Low/No Anti-Sweat Heaters (ASH) | S	Special Doors with Low/No An	Refrigeration	Business	per project	13.1	N	16,468	3.0
Standard Third Party - Lighting	Standard Third Party - Lighti	Third Party Lighting	Business	per unit	12.8	N	55,538	10.2
Standard Third Party - NonLighting	Standard Third Party - NonLi	Third Party Nonlighting	Business	per unit	17.1	N	58,311	10.8
ASHP | Instant Discounts | 250GWh	ASHP	Electrification HVAC	Business	per unit	15.0	0	2,143	0.5
MSHP | Instant Discounts | 250GWh	MSHP	Electrification HVAC	Business	per unit	15.0	0	1,557	0.4
PTAC | Instant Discounts | 250GWh	PTAC	HVAC Equipment	Business	per unit	15.0	0	79	0.0
PTHP | Instant Discounts | 250GWh	PTHP	HVAC Equipment	Business	per unit	15.0	0	531	0.1
RTU | Instant Discounts | 250GWh	RTU	HVAC Equipment	Business	per unit	15.0	0	3,103	0.7
Decorative | Instant Discounts | 250GWh	Decorative	Lighting Misc	Business	per unit	15.0	0	121	0.0
DLC Fixture Exterior | Instant Discounts | 250GWh	DLC Fixture Exterior	LED Exterior Bldg	Business	per project	15.0	0	1,452	0.3
DLC Fixture Interior | Instant Discounts | 250GWh	DLC Fixture Interior	LED Fixture	Business	per project	15.0	0	825	0.2
Four Pin Based LED | Instant Discounts | 250GWh	Four Pin Based LED	Lighting Misc	Business	per unit	15.0	0	15	0.0
Hardwired Exit Sign Retrofit | Instant Discounts | 250GW	Hardwired Exit Sign Retrofit	Lighting Misc	Business	per unit	15.0	0	168	0.0
New Exit Sign Fixture | Instant Discounts | 250GWh	New Exit Sign Fixture	Lighting Misc	Business	per unit	15.0	0	183	0.0
Screw in Exit Sign Retrofit | Instant Discounts | 250GWh	Screw in Exit Sign Retrofit	Lighting Misc	Business	per unit	15.0	0	195	0.0
Screw-in HID (E26 Base) | Instant Discounts | 250GWh	Screw-in HID (E26 Base)	Lighting Misc	Business	per unit	15.0	0	145	0.0
Screw-in HID (E39 Base) | Instant Discounts | 250GWh	Screw-in HID (E39 Base)	Lighting Misc	Business	per unit	15.0	0	402	0.1
Two Pin Based LED | Instant Discounts | 250GWh	Two Pin Based LED	Lighting Misc	Business	per unit	15.0	0	13	0.0
BPD | Instant Discounts | 250GWh	BPD	Miscellaneous	Business	per unit	15.0	0	10,178	2.3
FS | Instant Discounts | 250GWh	FS	Electrification Forklifts	Business	per unit	15.0	0	-	0.0
NFS | Instant Discounts | 250GWh	NFS	Forklifts	Business	per unit	15.0	0	26,342	6.0
Integrated Integrated Occ Sensors | Instant Discounts | 25	Integrated Integrated Occ Se	Advanced Lighting Controls	Business	per unit	15.0	0	58	0.0
Integrated Daylighting | Instant Discounts | 250GWh	Integrated Daylighting	Advanced Lighting Controls	Business	per unit	15.0	0	68	0.0
Integrated Occ + Daylighting | Instant Discounts | 250GW	Integrated Occ + Daylighting	Advanced Lighting Controls	Business	per unit	15.0	0	92	0.0
Integrated LLLC | Instant Discounts | 250GWh	Integrated LLLC	Advanced Lighting Controls	Business	per unit	15.0	0	147	0.0
Integrated Ext Occ Sensor | Instant Discounts | 250GWh	Integrated Ext Occ Sensor	Advanced Lighting Controls	Business	per unit	15.0	0	11	0.0
New Construction - Private | New Construction	New Construction - Private	New Construction	Business	per project	17.4	N	58,614	6.8
New Construction - Public | New Construction	New Construction - Public	New Construction	Business	per project	17.4	N	38,236	4.4
[AC1]Early Replacement for Air Cooled AC (<= 5 ton) | S	[AC1]Early Replacement for A	HVAC Equipment	Business	per ton	15.0	N	165	0.0
[AC2]Early Replacement for Air Cooled AC (>5 ton and ≤	[AC2]Early Replacement for A	HVAC Equipment	Business	per ton	15.0	N	242	0.0
[AC3]Early Replacement for Air Cooled AC (>10 ton and	[AC3]Early Replacement for A	HVAC Equipment	Business	per ton	15.0	N	228	0.0
[AC4]End of life Replacement for Air Cooled AC (<= 5 to	[AC4]End of life Replacement	HVAC Equipment	Business	per ton	15.0	N	103	0.0
[AC5]End of life Replacement for Air Cooled AC (> 5 ton	[AC5]End of life Replacement	HVAC Equipment	Business	per ton	15.0	N	129	0.0
[AC6]End of life Replacement for Air Cooled AC (> 10 to	[AC6]End of life Replacement	HVAC Equipment	Business	per ton	15.0	N	125	0.0
[AC7]Early Replacement for Air Cooled AC (> 20 ton) | Sr	[AC7]Early Replacement for A	HVAC Equipment	Business	per ton	15.0	N	278	0.1
Advanced Rooftop Controls (ARC) - DCV Only | Small Bu	Advanced Rooftop Controls (A	HVAC Controls	Business	per ton	10.0	N	12	0.0
Advanced Rooftop Controls (ARC)- DCV & VFD-3 | Small	Advanced Rooftop Controls (A	HVAC Controls	Business	per ton	10.0	N	676	0.1
Advanced Rooftop Controls with Switch Rotor Pole Moto	Advanced Rooftop Controls w	HVAC Controls	Business	per ton	12.0	N	1,019	0.2
Advanced Rooftop Controls with Switch Rotor Pole Moto	Advanced Rooftop Controls w	HVAC Controls	Business	per ton	12.0	N	1,043	0.2
Air Compressors with Integrated VSD (50 - 200 HP) | Sm	Air Compressors with Integra	Compressed Air	Business	per horsepow	13.0	N	729	0.1
Air Compressors with Integrated VSD <= 40 HP | Small I	Air Compressors with Integra	Compressed Air	Business	per horsepow	13.0	N	658	0.1
Anti-Sweat Heater Controls for Glass Door Cooler or Fre	Anti-Sweat Heater Controls f	Refrigeration	Business	per unit	10.0	N	850	0.2
Auto Closer for Walk-in Cooler | Small Business | Refriger	Auto Closer for Walk-in Coole	Refrigeration	Business	per unit	8.0	N	2,399	0.5
Auto Closer for Walk-in Freezer | Small Business | Refrige	Auto Closer for Walk-in Freez	Refrigeration	Business	per unit	8.0	N	6,949	1.3
Cogged V-Belt | Small Business | HVAC	Cogged V-Belt	HVAC Equipment	Business	per unit	3.1	N	257	0.0
Compressed Air Leak Repair | Small Business | Compress	Compressed Air Leak Repair	Compressed Air	Business	per horsepow	2.0	N	90	0.0
Compressed Air Pressure Reduction | Small Business | Co	Compressed Air Pressure Red	Compressed Air	Business	per unit	5.0	N	1,514	0.3
Compressed Air Storage Tank | Small Business | Compres	Compressed Air Storage Tank	Compressed Air	Business	per horsepow	10.0	N	277	0.1
Direct Install: Aerator (Bathroom) | Small Business | Wat	Direct Install: Aerator (Bathr	Hot Water	Business	per unit	10.0	N	106	0.0
Direct Install: Aerator (Kitchen) | Small Business | Water	Direct Install: Aerator (Kitche	Hot Water	Business	per unit	10.0	N	139	0.0
Direct Install: Beverage & Snack Machine Controls | Sma	Direct Install: Beverage & Sn	Refrigeration	Business	per unit	5.0	N	437	0.1
Direct Install: High-Efficiency Air Nozzles | Small Busine	Direct Install: High-Efficiency	Compressed Air	Business	per unit	15.0	N	273	0.1
Direct Install: Showerhead - Low Flow | Small Business | '	Direct Install: Showerhead - I	Hot Water	Business	per unit	10.0	N	351	0.1
Direct Install: Smart Strip | Small Business | HVAC	Direct Install: Smart Strip	Advanced Power Strip	Business	per unit	7.0	N	109	0.0
EC Motor for Reach-in Cooler or Freezer | Small Business	EC Motor for Reach-in Cooler	Refrigeration	Business	per unit	15.0	N	1,586	0.3
EC Motor for Walk-in Cooler or Freezer | Small Business	EC Motor for Walk-in Cooler	Refrigeration	Business	per unit	15.0	N	1,586	0.3
EC Motor with Evaporator Fan Controls for Walk-in Coo	EC Motor with Evaporator Fa	Refrigeration	Business	per unit	13.0	N	1,879	0.4
Economizer Repair & Optimization- ADEC | Small Busine	Economizer Repair & Optimiz	HVAC Equipment	Business	per ton	5.0	N	59	0.0
Economizer with DCV | Small Business | HVAC	Economizer with DCV	HVAC Equipment	Business	per ton	10.0	N	282	0.1
Efficient Refrigerated CA Dryer | Small Business | Compr	Efficient Refrigerated CA Dry	Compressed Air	Business	per CFM	13.0	N	7	0.0
Energy Efficient Hand Dryers | Small Business | HVAC	Energy Efficient Hand Dryers	Miscellaneous	Business	per unit	10.0	N	497	0.1
ENERGY STAR Solid Door Freezer | Small Business | Ref	ENERGY STAR Solid Door Fr	Refrigeration	Business	per unit	12.0	N	596	0.1
ENERGY STAR Solid or Glass Door Refrigerator | Small	ENERGY STAR Solid or Glas	Refrigeration	Business	per unit	12.0	N	347	0.1
Guest Room Energy Management System (Electric Heat/	Guest Room Energy Managen	HVAC Controls	Business	per sq ft	15.0	N	655	0.1
Hard wired LED exit retrofit kits | Small Business | Exit S	Hard wired LED exit retrofit k	TLED Misc	Business	per kit	15.0	N	47	0.0
LED Fixtures - T8/T5 to LED | Small Business | Lighting	LED Fixtures - T8/T5 to LED	LED Fixture	Business	per watt redu	13.1	N	4	0.0
LED New Fixtures | Small Business | Lighting	LED New Fixtures	LED Fixture	Business	per watt redu	13.1	N	4	0.0
LED Retrofits | Small Business | Lighting	LED Retrofits	LED Fixture	Business	per watt redu	15.0	N	4	0.0
Mini fridge | Small Business | Refrigeration	Mini fridge	Refrigeration	Business	per unit	15.0	N	243	0.0
Networked Lighting Controls (Upgrading Existing Contr	Networked Lighting Controls	Advanced Lighting Controls	Business	per watt contr	14.7	N	1	0.0
Networked Lighting Controls | Small Business | Lighting	Networked Lighting Controls	Advanced Lighting Controls	Business	per watt contr	14.7	N	2	0.0
Night Covers - Horizontal (Refrigerator) | Small Business	Night Covers - Horizontal (Re	Refrigeration	Business	per linear ft	5.0	N	81	0.0
Night Covers - Vertical (Refrigerator) | Small Business | R	Night Covers - Vertical (Refri	Refrigeration	Business	per linear ft	5.0	N	192	0.0
No-Loss Condensate Drains | Small Business | Compresse	No-Loss Condensate Drains	Compressed Air	Business	per unit	10.0	N	1,269	0.2
Non-Programmable thermostat to Programmable thermo	Non-Programmable thermostat	HVAC Thermostats	Business	per unit	10.0	N	1,390	0.3
Non-programmable thermostat to Smart or Advanced Th	Non-programmable thermostat	HVAC Thermostats	Business	per unit	10.0	N	1,569	0.3
Outdoor: Networked Lighting Controls (Upgrading Existi	Outdoor: Networked Lighting	Exterior Lighting Controls	Business	per watt contr	14.7	N	2	0.0
Outdoor: Networked Lighting controls | Small Business | I	Outdoor: Networked Lighting	Exterior Lighting Controls	Business	per watt contr	14.7	N	2	0.0
Outdoor: Photocell with Time Clock | Small Business | Lig	Outdoor: Photocell with Time	Exterior Lighting Controls	Business	per watt contr	14.7	N	2	0.0
Outdoor: Photocells | Small Business | Lighting Controls	Outdoor: Photocells	Exterior Lighting Controls	Business	per watt contr	14.7	N	0	0.0
Outdoor: Time Clocks for Lighting | Small Business | Ligh	Outdoor: Time Clocks for Ligh	Exterior Lighting Controls	Business	per watt contr	14.7	N	0	0.0
Outdoor: TLED (Type C) | Small Business | Lighting	Outdoor: TLED (Type C)	TLED Type C	Business	per watt redu	15.0	N	4	0.0
Programmable thermostat to Smart or Advanced Therm	Programmable thermostat to	HVAC Thermostats	Business	per unit	10.0	N	933	0.2
Q-Sync Motors for Reach-in Coolers/Freezers | Small Busi	Q-Sync Motors for Reach-in C	Refrigeration	Business	per unit	10.0	N	461	0.1
Reach-In Cooler Gasket | Small Business | Refrigeration	Reach-In Cooler Gasket	Refrigeration	Business	per unit	5.0	N	248	0.0
Restroom Exhaust Fan Occupancy Sensor | Small Busine	Restroom Exhaust Fan Occup	HVAC Equipment	Business	per unit	15.0	N	144	0.0
RTU Sealing | Small Business | HVAC	RTU Sealing	HVAC Equipment	Business	per ton	5.0	N	56	0.0

Strip Curtains for Cooler | Small Business | Refrigeration	Strip Curtains for Cooler	Refrigeration	Business	per door	4.0	N	612	0.1
Strip Curtains for Freezer | Small Business | Refrigeratior	Strip Curtains for Freezer	Refrigeration	Business	per door	4.0	N	2,381	0.5
Thermostat Adjustment - Continuous | Small Business | T	Thermostat Adjustment - Con	HVAC Thermostats	Business	per unit	2.0	N	867	0.2
Thermostat Adjustment - Intermittent | Small Business | '	Thermostat Adjustment - Inte	HVAC Thermostats	Business	per unit	2.0	N	894	0.2
TLED (Type C) | Small Business | Lighting	TLED (Type C)	TLED Type C	Business	per watt redu	15.0	N	4	0.0
Variable Speed Drive on HVAC Fan or Pump (≤ 5 HP) | S	Variable Speed Drive on HVA	HVAC Equipment	Business	per horsepow	15.0	N	698	0.1
Variable Speed Drive on HVAC Fan or Pump (5 HP to 20	Variable Speed Drive on HVA	HVAC Equipment	Business	per horsepow	15.0	N	698	0.1
Variable Speed Drives for HVAC Supply and Return Fan	Variable Speed Drives for HV	HVAC Equipment	Business	per horsepow	15.0	N	1,461	0.3
Variable Speed Drives for HVAC Supply and Return Fan	Variable Speed Drives for HV	HVAC Equipment	Business	per horsepow	15.0	N	1,484	0.3
Small Business Third Party - Lighting	Small Business Third Party -	Third Party Lighting	Business	per unit	14.4	N	3	0.0
Small Business Third Party - NonLighting	Small Business Third Party -	Third Party Nonlighting	Business	per unit	9.1	N	178	0.0
Air Nozzles | Industrial	Air Nozzles	Industrial Systems	Business	per project	15.0	N	12,343	1.4
Compressed Air - Controls | Industrial	Compressed Air - Controls	Industrial Systems	Business	per project	15.0	Y	361,092	39.7
Compressed Air - Equipment | Industrial	Compressed Air - Equipment	Industrial Systems	Business	per project	13.0	N	235,687	25.9
Compressed Air - Equipment - DAC | Industrial	Compressed Air - Equipment	Industrial Systems	Business	per project	13.0	N	18,903	2.1
Compressed Air - No Loss Drains | Industrial	Compressed Air - No Loss Dra	Industrial Systems	Business	per project	10.0	N	15,393	1.7
HVAC Equipment | Industrial	HVAC Equipment	Industrial Systems	Business	per project	23.0	Y	364,106	40.1
Leak Repair | Industrial	Leak Repair	Industrial Systems	Business	per project	3.0	N	128,473	14.1
Leak Repair - DAC | Industrial	Leak Repair - DAC	Industrial Systems	Business	per project	3.0	N	48,055	5.3
Other | Industrial	Other	Industrial Systems	Business	per project	13.0	N	651,242	71.6
VFD | Industrial	VFD	Industrial Systems	Business	per project	15.0	N	291,637	32.1
All Other Tracks | RetroCommissioning (RCx)	All Other Tracks	Commisioning	Business	per project	8.6	N	186,456	20.5
All Other Tracks - DAC | RetroCommissioning (RCx)	All Other Tracks - DAC	Commisioning	Business	per project	8.6	N	292,583	32.2
Building Operator Certification | RetroCommissioning (R	Building Operator Certificatic	Commisioning	Business	per project	13.0	Y	95,594	10.5
Business New Construction | Stretch Code | Market Tra	New Construction	Stretch Code	Multi-Seg		17.0	N	20,342	2.4
Res New Construction | Stretch Code | Market Transfor	New Construction	Stretch Code	Multi-Seg		15.0	N	16,432	1.9
Voltage Optimization	Voltage Optimization	Voltage Optimization	Multi-Seg	per project	15.0	N	119,918,000	20839.5
Home Energy Report | Home Energy Report | HER	Home Energy Report	Behavioral	Res/IE	per home	10.0	N	60	0.0
ASHP Tier 1 - DAC Fuel Switch IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 2 - DAC Fuel Switch IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
DMSHP - DAC Fuel Switch IE	Ductless Mini Split Heat Pum	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 1 - DAC Non Fuel Switch IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,242	0.7
ASHP Tier 2 - DAC Non Fuel Switch IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,608	0.8
DMSHP - DAC Non Fuel Switch IE	Ductless Mini Split Heat Pum	Heat Pumps	Res/IE	per unit	16.0	Y	6,148	0.7
ASHP Tier 1 - Non-DAC Fuel Switch IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 2 - Non-DAC Fuel Switch IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
DMSHP - Non-DAC Fuel Switch IE	Ductless Mini Split Heat Pum	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 1 - Non-DAC Non Fuel Switch IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,242	0.7
ASHP Tier 2 - Non-DAC Non Fuel Switch IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,608	0.8
DMSHP - Non-DAC Non Fuel Switch IE	Ductless Mini Split Heat Pum	Heat Pumps	Res/IE	per unit	16.0	Y	6,148	0.7
ASHP Tier 1 - DAC Fuel Switch Non-IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 2 - DAC Fuel Switch Non-IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
DMSHP - DAC Fuel Switch Non-IE	Ductless Mini Split Heat Pum	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 1 - DAC Non Fuel Switch Non-IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,242	0.7
ASHP Tier 2 - DAC Non Fuel Switch Non-IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,608	0.8
DMSHP - DAC Non Fuel Switch Non-IE	Ductless Mini Split Heat Pum	Heat Pumps	Res/IE	per unit	16.0	Y	6,148	0.7
ASHP Tier 1 - Non-DAC Fuel Switch Non-IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 2 - Non-DAC Fuel Switch Non-IE	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
DMSHP - Non-DAC Fuel Switch Non-IE	Ductless Mini Split Heat Pum	Electrification HVAC	Res/IE	per unit	16.0	Y	-	0.0
ASHP Tier 1 - Non-DAC Non Fuel Switch Non-IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,242	0.7
ASHP Tier 2 - Non-DAC Non Fuel Switch Non-IE	Air Source Heat Pump	Heat Pumps	Res/IE	per unit	16.0	Y	6,608	0.8
DMSHP - Non-DAC Non Fuel Switch Non-IE	Ductless Mini Split Heat Pum	Heat Pumps	Res/IE	per unit	16.0	Y	6,148	0.7
Battery Backup Lamp | Foodbank	Battery Backup Lamp	Lighting Misc	Res/IE	per unit	8.0	N	29	0.0
Closed-Foam Weatherstripping Roll (17') | Foodbank	Closed-Foam Weatherstrippir	Shell	Res/IE	per unit	20.0	N	54	0.0
Self-Adhesive Door Sweep | Foodbank	Self-Adhesive Door Sweep	Shell	Res/IE	per unit	20.0	N	48	0.0
7-Plug Advanced Power Strip | Foodbank	7-Plug Advanced Power Strip	Advanced Power Strip	Res/IE	per unit	7.0	N	94	0.0
Smart Plug | Foodbank	Smart Plug	Advanced Power Strip	Res/IE	per unit	7.0	N	47	0.0
Rope Caulk (30') | Foodbank	Rope Caulk (30')	Shell	Res/IE	per unit	20.0	N	88	0.0
Closed-Foam Weatherstripping Roll (17') | Limited Time (	Closed-Foam Weatherstrippir	Shell	Res/IE	per unit	20.0	N	54	0.0
Rope Caulk (30') | Limited Time Offer Kits | IE Kits	Rope Caulk (30')	Shell	Res/IE	per unit	20.0	N	88	0.0
Self-Adhesive Door Sweep | Limited Time Offer Kits | IE I	Self-Adhesive Door Sweep	Shell	Res/IE	per unit	20.0	N	48	0.0
Advanced Power Strip | Markdown | Retail | IE	Advanced Power Strip	Advanced Power Strip	Res/IE	per unit	7.0	N	62	0.0
Room Air Conditioner | Markdown | Retail | IE	Room Air Conditioner	Room AC	Res/IE	per unit	12.0	N	489	0.1
Door Sweep / Seal | Markdown | Retail | IE	Door Sweep / Seal	Shell	Res/IE	per unit	20.0	N	50	0.0
Weatherstripping | Markdown | Retail | IE	Weatherstripping	Shell	Res/IE	per unit	20.0	N	26	0.0
Spray Foam insulation | Markdown | Retail | IE	Spray Foam insulation	Shell	Res/IE	per unit	20.0	N	78	0.0
Caulking | Markdown | Retail | IE	Caulking	Shell	Res/IE	per unit	20.0	N	79	0.0
Low Flow Shower Head | Markdown | Retail | IE	Low Flow Shower Head	Hot Water	Res/IE	per unit	10.0	N	86	0.0
Clothes Washer | Rebate | Retail | IE	Clothes Washer	Appliances	Res/IE	per unit	14.0	N	117	0.0
Electric Dryer | Rebate | Retail | IE	Electric Dryer	Appliances	Res/IE	per unit	16.0	N	163	0.0
Smart Thermostat | Rebate | Retail | IE	Smart Thermostat	HVAC Thermostats	Res/IE	per unit	11.0	N	310	0.0
Induction Cooktop | Rebate | Retail | IE	Induction Cooktop	Appliances	Res/IE	per unit	16.0	N	46	0.0
All-in-One washer/dryer | Rebate | Retail | IE	All-in-One washer/dryer	Appliances	Res/IE	per unit	14.0	N	380	0.0
All-in-One washer/hp dryer | Rebate | Retail | IE	All-in-One washer/hp dryer	Appliances	Res/IE	per unit	14.0	N	520	0.1
HP Dryer (> 4.4 CF) | Rebate | Retail | IE	HP Dryer (> 4.4 CF)	Appliances	Res/IE	per unit	16.0	N	392	0.0
Air Purifier | Rebate | Retail | MR	Air Purifier	Miscellaneous	Res/IE	per unit	9.0	N	368	0.0
Dehumidifier | Rebate | Retail | MR	Dehumidifier	Miscellaneous	Res/IE	per unit	12.0	N	142	0.0
Water Dispenser | Rebate | Retail | MR	Water Dispenser	Miscellaneous	Res/IE	per unit	10.0	N	68	0.0
Clothes Washer | Rebate | Retail | MR	Clothes Washer	Appliances	Res/IE	per unit	14.0	N	73	0.0
Electric Dryer | Rebate | Retail | MR	Electric Dryer	Appliances	Res/IE	per unit	16.0	N	147	0.0
Smart Thermostat | Rebate | Retail | MR	Smart Thermostat	HVAC Thermostats	Res/IE	per unit	11.0	N	121	0.0
Induction Cooktop | Rebate | Retail | MR	Induction Cooktop	Appliances	Res/IE	per unit	16.0	N	11	0.0
All-in-One washer/dryer | Rebate | Retail | MR	All-in-One washer/dryer	Appliances	Res/IE	per unit	14.0	N	380	0.0
All-in-One washer/hp dryer | Rebate | Retail | MR	All-in-One washer/hp dryer	Appliances	Res/IE	per unit	14.0	N	520	0.1
HP Dryer (> 4.4 CF) | Rebate | Retail | MR	HP Dryer (> 4.4 CF)	Appliances	Res/IE	per unit	16.0	N	160	0.0
Air Purifier | Markdown | Retail | MR	Air Purifier	Miscellaneous	Res/IE	per unit	9.0	N	258	0.0
Dehumidifier | Markdown | Retail | MR	Dehumidifier	Miscellaneous	Res/IE	per unit	12.0	N	101	0.0
Water Dispenser | Markdown | Retail | MR	Water Dispenser	Miscellaneous	Res/IE	per unit	10.0	N	68	0.0
Door Sweep / Seal | Markdown | Retail | MR	Door Sweep / Seal	Shell	Res/IE	per unit	20.0	N	50	0.0
Weatherstripping | Markdown | Retail | MR	Weatherstripping	Shell	Res/IE	per unit	20.0	N	26	0.0
Spray Foam insulation | Markdown | Retail | MR	Spray Foam insulation	Shell	Res/IE	per unit	20.0	N	78	0.0
Caulking | Markdown | Retail | MR	Caulking	Shell	Res/IE	per unit	20.0	N	63	0.0
Low Flow Shower Head | Markdown | Retail | MR	Low Flow Shower Head	Hot Water	Res/IE	per unit	10.0	N	86	0.0
Clothes Washer | Verified Instant | Retail | MR	Clothes Washer	Appliances	Res/IE	per unit	14.0	N	73	0.0
Electric Dryer | Verified Instant | Retail | MR	Electric Dryer	Appliances	Res/IE	per unit	16.0	N	147	0.0
Smart Thermostat | Verified Instant | Retail | MR	Smart Thermostat	HVAC Thermostats	Res/IE	per unit	11.0	N	283	0.0
Induction Cooktop | Verified Instant | Retail | MR	Induction Cooktop	Appliances	Res/IE	per unit	16.0	N	11	0.0

All-in-One washer/dryer | Verified Instant | Retail | MR	All-in-One washer/dryer	Appliances	Res/IE	per unit	14.0	N		380	0.0
All-in-One washer/hp dryer | Verified Instant | Retail | MR	All-in-One washer/hp dryer	Appliances	Res/IE	per unit	14.0	N		520	0.1
HP Dryer (> 4.4 CF) | Verified Instant | Retail | MR	HP Dryer (> 4.4 CF)	Appliances	Res/IE	per unit	16.0	N		368	0.0
Clothes Washer | RPP	Clothes Washer	Appliances	Res/IE	per unit	14.0	N		184	0.0
Refrigerator | RPP	Refrigerator	Appliances	Res/IE	per unit	17.0	N		157	0.0
Induction Cooktop | RPP	Induction Cooktop	Kitchen Electrification	Res/IE	per unit	16.0	N		30	0.0
Room AC | IE | RPP	Room AC	HVAC Equipment	Res/IE	per unit	9.0	N		57	0.0
MF IE | ComEd/PGL | Joint	MF IE | ComEd/PGL | Joint	MF IE | ComEd/PGL | Joint	Res/IE	per project	15.5	N		28,359	0.0
MF IE | ComEd/NSG | Joint	MF IE | ComEd/NSG | Joint	MF IE | ComEd/NSG | Joint	Res/IE	per project	15.5	N		21,800	0.0
MF IE | ComEd/Nicor | Joint	MF IE | ComEd/Nicor | Joint	MF IE | ComEd/Nicor | Joint	Res/IE	per project	15.5	N		21,750	0.0
MF IE | ComEd/Nicor - ComEd Only	MF IE | ComEd/Nicor - Com	MF IE | ComEd/Nicor - ComEd (	Res/IE	per project	15.5	N		21,750	0.0
MF IE | ComEd/PGL - ComEd Only	MF IE | ComEd/PGL - ComE	MF IE | ComEd/PGL - ComEd Or	Res/IE	per project	15.5	N		28,359	0.0
MF IE | ComEd/NSG - ComEd Only	MF IE | ComEd/NSG - ComE	MF IE | ComEd/NSG - ComEd O	Res/IE	per project	15.5	N		21,800	0.0
MF IHWAP | ComEd/PGL | Joint	MF IHWAP | ComEd/PGL | Jo	MF IHWAP | ComEd/PGL | Joint	Res/IE	per project	15.5	N		32,196	0.0
MF IHWAP | ComEd/Nicor | Joint	MF IHWAP | ComEd/Nicor | J	MF IHWAP | ComEd/Nicor | Joint	Res/IE	per project	15.5	N		29,104	0.0
MF IHWAP PH | ComEd/PGL | Joint	MF IHWAP PH | ComEd/PGL	MF IHWAP PH | ComEd/PGL | Jo	Res/IE	per project	15.5	N		40,866	0.0
MF MR | ComEd/PGL | Joint	MF MR | ComEd/PGL | Joint	MF MR | ComEd/PGL | Joint	Res/IE	per project	15.5	N		28,359	0.0
MF MR | ComEd/NSG | Joint	MF MR | ComEd/NSG | Joint	MF MR | ComEd/NSG | Joint	Res/IE	per project	15.5	N		21,800	0.0
MF MR | ComEd/Nicor | Joint	MF MR | ComEd/Nicor | Joint	MF MR | ComEd/Nicor | Joint	Res/IE	per project	15.5	N		21,750	0.0
MF MR | ComEd/Nicor - ComEd Only	MF MR | ComEd/Nicor - Com	MF MR | ComEd/Nicor - ComEd (	Res/IE	per project	15.5	N		21,750	0.0
MF MR | ComEd/PGL - ComEd Only	MF MR | ComEd/PGL - Coml	MF MR | ComEd/PGL - ComEd O	Res/IE	per project	15.5	N		28,359	0.0
MF MR | ComEd/NSG - ComEd Only	MF MR | ComEd/NSG - Com	MF MR | ComEd/NSG - ComEd C	Res/IE	per project	15.5	N		21,800	0.0
MF PH | ComEd/PGL | Joint	MF PH | ComEd/PGL | Joint	MF PH | ComEd/PGL | Joint	Res/IE	per project	15.5	N		14,390	0.0
MF PH | ComEd/NSG | Joint	MF PH | ComEd/NSG | Joint	MF PH | ComEd/NSG | Joint	Res/IE	per project	15.5	N		13,850	0.0
MF PH | ComEd/Nicor | Joint	MF PH | ComEd/Nicor | Joint	MF PH | ComEd/Nicor | Joint	Res/IE	per project	15.5	N		13,850	0.0
MF Public Housing | ComEd/Nicor - ComEd Only	MF Public Housing | ComEd/I	MF Public Housing | ComEd/Nicor	Res/IE	per project	15.5	N		13,850	0.0
MF Public Housing | ComEd/PGL - ComEd Only	MF Public Housing | ComEd/I	MF Public Housing | ComEd/PGL	Res/IE	per project	15.5	N		8,030	0.0
MF Public Housing | ComEd/NSG - ComEd Only	MF Public Housing | ComEd/	MF Public Housing | ComEd/NSC	Res/IE	per project	15.5	N		13,850	0.0
Affordable Housing New Construction (per project avg) | A	Affordable Housing New Cons	New Construction	Res/IE	per project	15.0	N		118,358	0.0
All Electric New Construction(per home/unit average) | E	All Electric New Construction	New Construction	Res/IE	per home	15.0	N		2,459	0.0
HES HEA IE | ComEd/Nicor - ComEd Only	HES HEA IE | ComEd/Nicor -	HES HEA IE | ComEd/Nicor - Cor	Res/IE	Per project	11.6	N		1,093	0.2
HES HEA IE | ComEd/PGL - ComEd Only	HES HEA IE | ComEd/PGL -	HES HEA IE | ComEd/PGL - Com	Res/IE	Per project	11.6	N		1,047	0.2
HES HEA IE | ComEd/NSG - ComEd Only	HES HEA IE | ComEd/NSG -	HES HEA IE | ComEd/NSG - Con	Res/IE	Per project	11.6	N		1,029	0.2
HES HEA IE | ComEd/Nicor - Joint	HES HEA IE | ComEd/Nicor -	HES HEA IE | ComEd/Nicor - Joi	Res/IE	Per project	11.6	N		1,093	0.2
HES HEA IE | ComEd/PGL - Joint	HES HEA IE | ComEd/PGL -	HES HEA IE | ComEd/PGL - Join	Res/IE	Per project	11.6	N		1,047	0.2
HES HEA IE | ComEd/NSG - Joint	HES HEA IE | ComEd/NSG -	HES HEA IE | ComEd/NSG - Join	Res/IE	Per project	11.6	N		1,029	0.2
HES IHWAP | ComEd/Nicor - Joint	HES IHWAP | ComEd/Nicor	HES IHWAP | ComEd/Nicor - Joi	Res/IE	Per project	18.7	N		3,222	0.7
HES IHWAP | ComEd/PGL - Joint	HES IHWAP | ComEd/PGL -	HES IHWAP | ComEd/PGL - Join	Res/IE	Per project	18.7	N		3,054	0.7
HES IHWAP | ComEd/NSG - Joint	HES IHWAP | ComEd/NSG -	HES IHWAP | ComEd/NSG - Join	Res/IE	Per project	18.7	N		1,215	0.3
HES IE Retrofit | ComEd/Nicor - ComEd Only	HES IE Retrofit | ComEd/Nico	HES IE Retrofit | ComEd/Nicor - C	Res/IE	Per project	19.9	N		526	0.2
HES IE Retrofit | ComEd/PGL - ComEd Only	HES IE Retrofit | ComEd/PGL	HES IE Retrofit | ComEd/PGL - C	Res/IE	Per project	19.9	N		707	0.3
HES IE Retrofit | ComEd/NSG - ComEd Only	HES IE Retrofit | ComEd/NSC	HES IE Retrofit | ComEd/NSG - C	Res/IE	Per project	19.9	N		713	0.2
HES IE Retrofit | ComEd/Nicor - Joint	HES IE Retrofit | ComEd/Nico	HES IE Retrofit | ComEd/Nicor - J	Res/IE	Per project	19.9	N		526	0.2
HES IE Retrofit | ComEd/PGL - Joint	HES IE Retrofit | ComEd/PGL	HES IE Retrofit | ComEd/PGL - Jo	Res/IE	Per project	19.9	N		707	0.3
HES IE Retrofit | ComEd/NSG - Joint	HES IE Retrofit | ComEd/NSC	HES IE Retrofit | ComEd/NSG - Jo	Res/IE	Per project	19.9	N		713	0.2
MI ComEd/Nicor - ComEd Only	MI ComEd/Nicor - ComEd On	MI ComEd/Nicor - ComEd Only	Res/IE	per project	19.9	N		923	0.2
MI ComEd/PGL - ComEd Only	MI ComEd/PGL - ComEd Onl	MI ComEd/PGL - ComEd Only	Res/IE	per project	19.9	N		1,255	0.3
MI ComEd/NSG - ComEd Only	MI ComEd/NSG - ComEd Onl	MI ComEd/NSG - ComEd Only	Res/IE	per project	19.9	N		1,070	0.2
MI ComEd/Nicor - Joint	MI ComEd/Nicor - Joint	MI ComEd/Nicor - Joint	Res/IE	per project	19.9	N		923	0.2
MI ComEd/PGL - Joint	MI ComEd/PGL - Joint	MI ComEd/PGL - Joint	Res/IE	per project	19.9	N		1,255	0.3
MI ComEd/NSG - Joint	MI ComEd/NSG - Joint	MI ComEd/NSG - Joint	Res/IE	per project	19.9	N		1,070	0.2
ComEd/Nicor - ComEd Only	ComEd/Nicor - ComEd Only	ComEd/Nicor - ComEd Only	Res/IE	per project	19.9	N		923	0.2
ComEd/PGL - ComEd Only	ComEd/PGL - ComEd Only	ComEd/PGL - ComEd Only	Res/IE	per project	19.9	N		1,255	0.3
ComEd/NSG - ComEd Only	ComEd/NSG - ComEd Only	ComEd/NSG - ComEd Only	Res/IE	per project	19.9	N		1,070	0.2
ComEd/Nicor - Joint	ComEd/Nicor - Joint	ComEd/Nicor - Joint	Res/IE	per project	19.9	N		923	0.2
ComEd/PGL - Joint	ComEd/PGL - Joint	ComEd/PGL - Joint	Res/IE	per project	19.9	N		1,255	0.3
ComEd/NSG - Joint	ComEd/NSG - Joint	ComEd/NSG - Joint	Res/IE	per project	19.9	N		1,070	0.2
MF Upgrades Electric Only | Heat Pump | Electric Only	Heat Pump	Heat Pumps	Res/IE	per tenant un	16.0	N		7,589	0.5
MF Upgrades Electric Only | Weatherization | Electric (	Shell	Shell	Res/IE	per tenant un	20.0	N		2,593	0.2
MF Upgrades Electric Only | Health and Safety | Electr	Health & Safety	Health & Safety	Res/IE	per tenant un	0.0		0	-	0.0
HEA Electric Only | Average Electric Only Project	Electric Only Home	Electric Only Home	Res/IE	per home	14.0	N		9,375	2.1
HEA Electric Only | Ductless Heat Pumps	Heat Pumps	Heat Pumps	Res/IE	per home	15.1	N		6,372	1.4
HEA Electric Only | Weatherization	Shell	Shell	Res/IE	per home	20.0	N		3,100	0.7
HEA Electric Only | Health and Safety	Health and Safety	Health and Safety	Res/IE	per home	0.0		0	-	0.0
Whole Home Electric | Market Rate | Electric Only | We	Shell	Shell	Res/IE	per home	20.0	N		3,100	0.7
Air Source Heat Pump | Whole Home Electric | Multifamil	Air Source Heat Pump	Electrification HVAC	Res/IE	per project	16.0	N		-	0.0
Heat Pump Water Heater | Whole Home Electric | Multifa	Heat Pump Water Heater	Electrification Hot Water	Res/IE	per unit	15.0	N		-	0.0
Electric Dryer | Whole Home Electric | Multifamily	Electric Dryer	Appliances	Res/IE	per project	16.0	N		-	0.0
Electric Stove | Whole Home Electric | Multifamily	Electric Stove	Kitchen Electrification	Res/IE	per unit	16.0	N		-	0.0
Induction Stove | Whole Home Electric | Multifamily	Induction Stove	Kitchen Electrification	Res/IE	per unit	16.0	N		-	0.0
Ductless Heat Pump | Whole Home Electric | Multifamily	Ductless Heat Pump	Electrification HVAC	Res/IE	per project	16.0	N		-	0.0
Electric Water Heater | Whole Home Electric | Multifamil	Electric Water Heater	Electrification Hot Water	Res/IE	per unit	15.0	N		-	0.0
Health & Safety | Whole Home Electric | Multifamily	Health & Safety	Health & Safety	Res/IE	per project	1.0	N		-	0.0
Assessment | Whole Home Electric | Multifamily	Assessment	Assessment	Res/IE	per project	1.0	N		-	0.0
Advanced thermostat | Whole Home Electric | Multifamily	Advanced thermostat	HVAC Thermostats	Res/IE	per project	11.0	N		735	0.1
Air Sealing - Door Sweep | Whole Home Electric | Multifa	Air Sealing - Door Sweep	Shell	Res/IE	per project	20.0	N		156	0.0
Air Sealing - Sealing Tape | Whole Home Electric | Multifa	Air Sealing - Sealing Tape	Shell	Res/IE	per project	20.0	N		5	0.0
Air Sealing - Weatherstripping | Whole Home Electric | M	Air Sealing - Weatherstrippin	Shell	Res/IE	per project	20.0	N		5	0.0
Attic Insulation | Whole Home Electric | Multifamily	Attic Insulation	Shell	Res/IE	per project	20.0	N		2	0.0
Bathroom Aerator | Whole Home Electric | Multifamily	Bathroom Aerator	Hot Water	Res/IE	per project	10.0	N		38	0.0
Bathroom Exhaust Fan | Whole Home Electric | Multifami	Bathroom Exhaust Fan	HVAC Equipment	Res/IE	per project	19.0	N		95	0.0
DHW Pipe Insulation | Whole Home Electric | Multifamily	DHW Pipe Insulation	Hot Water	Res/IE	per project	15.0	N		529	0.1
Kitchen Aerator | Whole Home Electric | Multifamily	Kitchen Aerator	Hot Water	Res/IE	per project	10.0	N		183	0.0
Showerhead | Whole Home Electric | Multifamily	Showerhead	Hot Water	Res/IE	per project	10.0	N		86	0.0
Tier 1 Advanced Power Strip | Whole Home Electric | Mult	Tier 1 Advanced Power Strip	Advanced Power Strip	Res/IE	per project	7.0	N		103	0.0
WHE Partial Electrification | Partial plus Wx	Partial Electrification	Electrification HVAC	Res/IE	per home	16.8	N		19,428	0.0
WHE Hybrid Electrification | Hybrid plus Wx	Hybrid Electrification	Electrification HVAC	Res/IE	per home	16.8	N		12,270	0.0
Air Source Heat Pump | Whole Home Electric | Single Fan	Air Source Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	N		-	0.0
Heat Pump Water Heater | Whole Home Electric | Single I	Heat Pump Water Heater	Electrification Hot Water	Res/IE	per unit	15.0	N		-	0.0
Electric Dryer | Whole Home Electric | Single Family	Electric Dryer	Appliances	Res/IE	per unit	16.0	N		-	0.0
Electric Stove | Whole Home Electric | Single Family	Electric Stove	Kitchen Electrification	Res/IE	per unit	16.0	N		-	0.0
Induction Stove | Whole Home Electric | Single Family	Induction Stove	Kitchen Electrification	Res/IE	per unit	16.0	N		-	0.0
Ductless Heat Pump | Whole Home Electric | Single Famil	Ductless Heat Pump	Electrification HVAC	Res/IE	per unit	16.0	N		-	0.0
Electric Water Heater | Whole Home Electric | Single Fam	Electric Water Heater	Electrification Hot Water	Res/IE	per unit	15.0	N		-	0.0
Electric Washer | Whole Home Electric | Single Family	Electric Washer	Appliances	Res/IE	per unit	14.0	N		-	0.0
Advanced Thermostat | Whole Home Electric | Single Fam	Advanced Thermostat	HVAC Thermostats	Res/IE	per unit	7.0	N		1,175	0.0
Air Sealing | Whole Home Electric | Single Family	Air Sealing	Shell	Res/IE	per home	20.0	N		1,213	0.0

Air Sealing - Door Sweep | Whole Home Electric | Single F	Air Sealing - Door Sweep	Shell	Res/IE	per home	20.0	N	78	0.0
Air Sealing - Sealing Tape | Whole Home Electric | Single	Air Sealing - Sealing Tape	Shell	Res/IE	per home	20.0	N	7,491	0.1
Attic Insulation | Whole Home Electric | Single Family	Attic Insulation	Shell	Res/IE	per home	20.0	N	1,347	0.0
Bathroom Aerator | Whole Home Electric | Single Family	Bathroom Aerator	Hot Water	Res/IE	per home	10.0	N	21	0.0
Bathroom Exhaust Fan | Whole Home Electric | Single Fa	Bathroom Exhaust Fan	HVAC Equipment	Res/IE	per home	19.0	N	95	0.0
DHW Pipe Insulation | Whole Home Electric | Single Fam	DHW Pipe Insulation	Hot Water	Res/IE	per home	15.0	N	529	0.1
Duct Insulation and Sealing | Whole Home Electric | Singl	Duct Insulation and Sealing	Shell	Res/IE	per home	20.0	N	1,852	0.0
Floor Insulation Above Crawlspace | Whole Home Electric	Floor Insulation Above Crawl	Shell	Res/IE	per home	20.0	N	520	0.0
Kitchen Aerator | Whole Home Electric | Single Family	Kitchen Aerator	Hot Water	Res/IE	per unit	10.0	N	231	0.0
Rim Joist Insulation | Whole Home Electric | Single Famil	Rim Joist Insulation	Shell	Res/IE	per home	20.0	N	145	0.0
Showerhead | Whole Home Electric | Single Family	Showerhead	Hot Water	Res/IE	per home	10.0	N	69	0.0
Tier 1 Advanced Power Strip | Whole Home Electric | Sing	Tier 1 Advanced Power Strip	Advanced Power Strip	Res/IE	per home	7.0	N	103	0.0
Wall Insulation | Whole Home Electric | Single Family	Wall Insulation	Shell	Res/IE	per home	20.0	N	1,733	0.0
Health & Safety | Whole Home Electric | Single Family	Health & Safety	Health & Safety	Res/IE	per home	1.0	N	-	0.0
Assessment | Whole Home Electric | Single Family	Assessment	Assessment	Res/IE	per home	1.0	N	-	0.0

Non-Fuel Switching Savings (Therms)	Fuel Switching Electricity Savings (kWh)	Gross Annual Water Savings (gallons)	Total Incremental Cost per Unit	TRC
-	-	-	-	INF
-	-	-	-	INF
-	-	-	26,021.6	12.9
-	-	-	26,021.6	12.9
-	-	-	9,865.3	33.9
-	-	-	3,109.3	2.5
-	-	-	3,721.0	5.8
-	-	98	2,408.5	14.9
-	-	-	1,022.0	8.3
-	-	-	1,667.0	2.6
-	-	-	1,250.0	1.9
-	-	-	30.0	308.7
-	-	-	1,000.0	1.0
-	-	-	208.8	6.4
-	-	-	98.6	25.6
-	-	-	78.7	27.7
-	-	183	1,068.4	10.3
-	-	-	1,992.0	17.5
-	-	-	32,852.3	5.9
-	-	-	28,066.1	5.9
-	-	-	39,490.4	11.6
-	-	-	74,341.3	6.3
-	-	-	58,798.1	7.2
-	-	-	22,038.9	18.9
-	-	-	74,341.3	6.3
-	-	-	17,541.0	31.8
-	-	-	88,617.2	6.0
-	-	-	2,264,669.8	0.7
-	-	-	144,763.5	7.0
-	-	-	1,137.7	10.4
-	-	-	54,755.7	6.7
-	-	-	17,577.1	6.5
-	-	-	88,617.2	8.4
-	-	-	81,357.5	1.8
-	-	-	1,284.8	0.6
-	-	-	2,648.8	22.1
-	-	-	17,541.0	5.5
-	-	-	17,541.0	2.1
-	-	-	2,091.7	3.6
-	-	-	244.0	25.9
-	-	-	175.0	17.4
-	-	-	59,280.3	3.2
-	-	-	30,631.7	2.3
-	-	-	16,572.8	9.3
-	-	-	10,666.7	1.3
-	-	-	34,144.4	13.3
-	-	-	1,178.0	41.2
-	-	-	6,875.0	3.5
-	-	-	11,189.5	13.6
-	-	-	26,000.0	7.3
-	-	-	375.0	31.7
-	-	-	126,176.3	6.1
-	-	-	840.0	8.9
-	-	-	450.0	1.5
-	-	-	3,469.5	7.6
-	-	-	6,573.0	22.2
-	-	-	34,144.4	4.7
-	-	-	21,570.6	5.7
(514)	-	-	1,500.0	43.7
(95)	-	-	1,100.0	11.2
(85)	-	-	1,000.0	10.4
-	-	-	40.0	43.3
(31)	-	-	279.3	12.5
(46)	-	-	1,100.0	5.3
(892)	-	-	11,800.0	10.9
(1,095)	-	-	11,800.0	12.8
-	-	-	430,455.0	2.8
-	-	-	27,450.0	4.7
-	-	-	27,406.3	8.6
-	-	-	430,455.0	5.9
-	-	-	8,570.2	9.4
-	-	-	453,667.5	3.4
-	-	-	10,000.0	7.7
-	-	-	81,357.5	3.3
-	-	-	1,022.1	12.7
-	-	-	13,702.2	2.4
-	-	-	820.0	9.4
-	-	-	186.1	14.7
-	-	-	386.3	3.6
-	-	-	6,124.7	2.6
-	-	-	25,657.5	2.5
-	-	-	23,400.0	2.3
-	-	-	8,513.5	21.6
-	-	-	1,200.0	3.1
-	-	-	15,011.3	8.4
-	-	-	85.1	33.1

-	-	-	30,459.0	8.2
-	-	-	3,045.9	7.9
-	-	-	7,614.8	7.3
-	-	-	332.9	26.6
-	-	-	1,670.9	4.4
-	-	-	12,924.9	9.5
-	-	-	28,950.3	13.0
-	-	-	1,170.0	24.9
-	-	-	9,328.4	8.8
-	-	-	4,200.0	7.1
-	-	-	2,238.7	9.6
-	-	-	31,162.0	2.3
-	-	-	35,395.6	2.6
-	4,160	-	1,000.0	11.0
-	5,212	-	1,000.0	11.5
-	-	-	252.0	0.6
-	-	-	252.0	4.3
-	-	-	3,469.5	1.8
-	-	-	11.3	21.6
-	-	-	572.3	5.1
-	-	-	145.3	11.5
-	-	-	1.7	18.7
-	-	-	32.5	10.4
-	-	-	32.5	11.4
-	-	-	32.5	12.2
-	-	-	1.5	201.6
-	-	-	1.5	560.4
-	-	-	1.7	16.3
-	-	-	200.0	103.1
-	131,579	-	10,200.0	20.6
-	-	-	17,000.0	3.1
-	-	-	50.0	2.4
-	-	-	50.0	2.7
-	-	-	50.0	3.7
-	-	-	50.0	6.0
-	-	-	82.0	0.3
-	-	-	100,000.0	1.2
-	-	-	100,000.0	0.8
-	-	-	825.0	0.4
-	-	-	825.0	0.6
-	-	-	825.0	0.5
-	-	-	100.0	2.0
-	-	-	100.0	2.5
-	-	-	100.0	2.5
-	-	-	100.0	5.5
-	-	-	57.5	0.3
-	-	-	574.5	1.7
-	-	-	516.4	3.3
-	-	-	516.4	3.3
-	-	-	175.4	7.3
-	-	-	202.3	5.7
-	-	-	85.1	14.3
-	-	-	156.0	18.2
-	-	-	156.0	52.7
-	-	-	15.0	8.6
-	-	-	48.2	0.6
-	-	-	125.0	9.4
-	-	-	150.0	2.7
-	-	8	8.0	19.2
-	-	8	8.0	25.0
-	-	-	239.0	1.4
-	-	-	76.8	7.0
-	-	14	12.0	42.1
-	-	-	10.0	11.5
-	-	-	304.6	10.2
-	-	-	304.6	10.2
-	-	-	304.6	10.8
-	-	-	45.0	1.0
-	-	-	278.0	1.5
-	-	-	6.0	2.0
-	-	-	483.0	1.5
-	-	-	99.8	9.9
-	-	-	208.8	2.7
-	-	-	260.0	4.9
-	-	-	32.5	2.9
-	-	-	1.5	4.5
-	-	-	1.5	4.5
-	-	-	1.5	5.0
-	-	-	100.0	4.7
-	-	-	0.9	1.6
-	-	-	0.9	4.3
-	-	-	42.0	1.5
-	-	-	42.0	3.5
-	-	-	244.0	7.5
-	-	-	175.0	11.4
-	-	-	175.0	12.8
-	-	-	0.9	3.8
-	-	-	0.9	4.6
-	-	-	0.9	3.9
-	-	-	0.9	0.6
-	-	-	0.9	1.0
-	-	-	1.5	5.8
-	-	-	175.0	7.6
-	-	-	96.0	6.9
-	-	-	100.0	1.9
-	-	-	36.0	7.8
-	-	-	19.4	2.2

-	-	-	81.8		4.7
-	-	-	81.8		18.4
-	-	-	32.0		8.9
-	-	-	32.0		9.2
-	-	-	1.5		5.0
-	-	-	320.0		4.3
-	-	-	320.0		4.3
-	-	-	320.0		9.0
-	-	-	320.0		9.1
-	-	-	1.7		3.4
-	-	-	127.1		1.9
-	-	-	2,091.7		9.3
-	-	-	61,193.4		8.3
-	-	-	39,941.4		8.4
-	-	-	2,466.6		10.9
-	-	-	2,608.5		6.9
-	-	-	61,704.2		12.1
-	-	-	15,263.7		3.3
-	-	-	15,263.7		1.2
-	-	-	104,119.4		8.9
-	-	-	49,423.2		9.3
-	-	-	36,948.2		4.4
-	-	-	57,978.2		4.4
-	-	-	1,695.0		51.8
550	-	-	100,000.0		0.5
550	-	-	100,000.0		0.4
-	-	-	0.5	INF	
-	-	-	-	INF	
-	19,606	-	500.0		29.2
-	20,756	-	500.0		30.9
-	11,580	-	1,336.0		6.5
-	-	-	500.0		9.0
-	-	-	500.0		9.5
-	-	-	1,336.0		3.6
-	19,606	-	500.0		29.2
-	20,756	-	500.0		30.9
-	11,580	-	1,336.0		6.5
-	-	-	500.0		9.0
-	-	-	500.0		9.5
-	-	-	1,336.0		3.6
-	19,606	-	500.0		29.2
-	20,756	-	500.0		30.9
-	11,580	-	1,336.0		6.5
-	-	-	500.0		9.0
-	-	-	500.0		9.5
-	-	-	1,336.0		3.6
-	19,606	-	500.0		29.2
-	20,756	-	500.0		30.9
-	11,580	-	1,336.0		6.5
-	-	-	500.0		9.0
-	-	-	500.0		9.5
-	-	-	1,336.0		3.6
-	-	-	7.1		4.5
3	-	-	2.9		60.6
3	-	-	3.0		49.1
-	-	-	15.1		6.2
-	-	-	8.1		5.7
5	-	-	3.5		75.7
3	-	-	2.3		76.8
5	-	-	2.9		91.2
3	-	-	2.4		61.3
-	-	-	15.0		4.1
-	-	-	100.0		7.5
5	-	-	8.0		23.8
3	-	-	2.0		49.1
8	-	-	2.0		156.8
8	-	-	2.0		150.6
-	-	-	10.0		17.7
-	-	-	150.0		1.7
-	234	-	150.0		4.7
-	-	-	100.0		11.2
-	209	-	150.0		2.9
-	234	-	350.0		2.9
-	472	-	550.0		2.9
-	472	-	400.0		3.8
-	-	-	92.3		4.9
-	-	-	45.0		4.9
-	-	-	60.0		1.5
-	-	-	40.0		3.9
-	234	-	150.0		4.5
-	-	-	75.0		12.0
-	209	-	100.0		3.7
-	234	-	350.0		2.9
-	472	-	550.0		2.9
-	472	-	400.0		2.7
-	-	-	92.3		3.4
-	-	-	75.0		2.1
-	-	-	60.0		1.5
5	-	-	8.0		23.8
3	-	-	2.0		49.1
8	-	-	2.0		156.8
9	-	-	1.0		297.2
-	-	-	10.0		17.7
-	-	-	150.0		1.1
-	234	-	150.0		4.5
-	-	-	75.0		15.2
-	209	-	100.0		3.7

-	234	-	350.0	2.9
-	472	-	550.0	2.9
-	500	-	400.0	3.8
-	-	8	84.0	3.8
-	-	-	40.0	7.3
-	190	-	949.0	0.5
-	-	-	100.0	0.7
-	-	-	19,557.9	2.4
-	-	-	15,442.6	2.3
-	-	-	15,242.6	2.3
3,274	-	-	33,873.1	2.3
8,355	-	-	64,276.3	2.4
1,585	-	-	25,268.3	2.2
-	-	-	300,000.0	0.2
-	-	-	271,189.0	0.2
10,000	-	-	380,792.0	0.5
-	-	-	19,557.9	2.4
-	-	-	15,442.6	2.3
-	-	-	15,242.6	2.3
3,274	-	-	33,873.1	2.4
8,355	-	-	64,276.3	2.5
1,585	-	-	25,268.3	2.2
-	-	-	387,213.5	0.1
-	-	-	61,922.0	0.4
-	-	-	123,703.2	0.2
2,949	-	-	29,755.1	2.1
8,030	-	-	60,158.3	2.0
1,260	-	-	21,272.3	1.8
6,800	600,000	-	100,000.0	12.3
-	11,632	-	100,000.0	0.2
55	-	-	449.6	5.1
65	-	-	454.8	5.1
60	-	-	447.9	5.0
-	-	-	347.9	5.2
-	-	-	333.1	5.2
-	-	-	335.3	5.1
-	-	-	5,799.5	1.3
-	-	-	4,999.3	1.4
-	-	-	3,996.8	0.7
165	-	-	3,944.5	1.1
251	-	-	3,352.5	2.0
294	-	-	5,164.0	1.4
-	-	-	1,205.1	1.3
-	-	-	832.7	2.5
-	-	-	1,258.4	1.6
413	-	-	15,759.6	0.6
505	-	-	11,949.2	1.0
408	-	-	12,222.5	0.8
-	-	-	4,793.0	0.5
-	-	-	3,527.7	0.9
-	-	-	4,047.6	0.6
413	-	-	15,759.6	0.6
505	-	-	11,949.2	1.1
408	-	-	12,222.5	0.8
-	-	-	4,793.0	0.5
-	-	-	3,527.7	0.9
-	-	-	4,047.6	0.7
-	-	-	500.0	27.5
-	-	-	1,200.0	4.6
-	-	-	-	0.0
-	-	-	21,488.0	0.8
-	-	-	500.0	25.7
-	-	-	1,500.0	5.1
-	-	-	-	0.0
-	-	-	1,500.0	5.1
-	15,450	-	500.0	51.5
-	4,975	-	1,113.0	7.1
-	186	-	246.0	1.3
-	151	-	949.0	0.3
-	141	-	949.0	0.2
-	12,336	-	1,336.0	15.4
-	2,505	-	491.0	8.1
-	-	-	1,750.0	0.0
-	-	-	350.0	0.0
-	-	-	79.0	13.4
-	-	-	10.0	30.2
-	-	-	1.0	8.8
-	-	-	2.0	5.1
-	-	-	0.3	21.3
-	-	2	3.0	28.6
-	-	-	48.0	4.3
-	-	-	30.0	31.9
-	-	7	3.0	90.7
-	-	10	7.0	16.6
-	-	-	10.0	10.1
496	26,058	-	$ 35,201.4	2.4
318	17,912	-	$ 24,106.7	2.3
-	20,871	-	500.0	69.6
-	4,609	-	1,113.0	6.6
-	193	-	246.0	1.3
-	151	-	949.0	0.3
-	141	-	949.0	0.2
-	37,788	-	1,336.0	47.1
-	3,862	-	491.0	12.5
-	624	59	87.0	11.0
-	-	-	79.0	13.1
-	-	-	1,000.0	2.4

-	-	-	10.0	15.1
-	-	-	2,000.0	7.4
-	-	-	250.0	10.4
-	-	2	3.0	22.1
-	-	-	48.0	4.3
-	-	-	30.0	31.9
-	-	-	1,000.0	3.6
-	-	-	1,000.0	1.0
-	-	11	3.0	109.4
-	-	-	100.0	3.0
-	-	2	7.0	13.1
-	-	-	10.0	10.2
-	-	-	250.0	13.5
-	-	-	6,798.2	0.0
-	-	-	1,000.0	0.0