ICC Docket No. 21-0155 ComEd Ex. 1.01R Page 1 of 104

ComEd. **Energy Efficiency** Program

Commonwealth Edison Company's Revised Energy Efficiency and Demand Response Plan 2022-2025

March 1, 2022

ICC Docket No. 21-0155 ComEd Ex. 1.01R Page 2 of 104

Table of Contents

1.	Executive Summary1						
2.	Introduction10						
3.	Plan C	verview					
	3.1	Key Statutory Requirements13					
	3.2	Challenges17					
	3.3	Opportunities					
4.	ComE	d's Planning Process					
	4.1	Analysis Stages					
	4.2	Key Planning Enhancements 29					
5.	The Co	omEd Portfolio					
	5.1	Portfolio Design					
	5.2	Residential & Income Eligible Program Elements 44					
	5.3	Business & Public Sector Program Elements 67					
	5.4	Multi-Segment Element					
	5.5	Third-Party Programs					
	5.6	Portfolio-Level					
6.	Evalua	ntion					
	6.1	Independent Program Evaluation Contractor95					
	6.2	Non-Electric Energy-Savings Calculations					
	6.3	Energy Efficiency Electrification Energy-Savings Calculations					
	6.4	Net-to-Gross					
7.	Risks	& Risk Management					
8.	. Cost Recovery						

1. Executive Summary

Commonwealth Edison Company ("ComEd") submits its Revised 2022–2025 Energy Efficiency and Demand Response Plan ("Revised Plan" or "Revised Plan 6") and the accompanying Revised 2022-2025 Energy Efficiency and Demand Response Plan Stipulation Agreement ("Revised Stipulation")¹ to the Illinois Commerce Commission ("Commission" or "ICC") for approval in accordance with Section 8-103B of the Public Utilities Act ("Act" or "PUA"). The Revised Plan updates ComEd's previously filed and approved 2022-2025 Energy Efficiency and Demand Response Plan ("Original Plan" or "Original Plan 6")² to conform its provisions to Public Act 102-0662's amendments to Section 8-103B, which became law on September 15, 2021.³ The Revised Plan, like the Original Plan, covers the four-year period commencing January 1, 2022, and extending through December 31, 2025 ("Plan Period" or "Plan 6 Period"). Since June 1, 2008, ComEd has administered EE programs to retail customers in its service territory in accordance with Section 8-103B of the Act, as applicable.

Because the Original Plan 6 and the Stipulation filed with it ("Original Stipulation") had synergistically created the most expansive and equitable EE portfolio to be offered to ComEd's retail customers in the State's nearly 15-year history of planning and implementing electric EE programs, much of the Original Plan and Original Stipulation had already anticipated – and were in compliance with – the Clean Energy Law's expanded provisions. Even so, the new Law's amendments create additional opportunities to enlarge Plan 6's reach – particularly in the areas of increased income-eligible ("IE") funding and new EE electrification initiatives. Below is a summary of the Clean Energy Law's changes to Section 8-103B and the conforming changes reflected in this Revised Plan 6 and the accompanying Revised Stipulation.

The Clean Energy Law's Key Changes to Section 8-103B

The Clean Energy Law, which modified numerous provisions of Section 8-103B, became law on September 15, 2021 (or nearly three months after the Commission approved Original Plan 6). The key statutory modifications are briefly summarized below.

¹ In addition to ComEd, the signatories to the Revised Stipulation are ICC Staff, the Citizens Utility Board ("CUB"), Environmental Law and Policy Center ("ELPC"), the Natural Resources Defense Council ("NRDC"), the People of the State of Illinois, by Kwame Raoul, Attorney General ("Illinois AG"), the City of Chicago, Community Organizing and Family Issues ("COFI"), by its attorney, National Consumer Law Center ("NCLC"), ACES 4 Youth ("ACES"), and People for Community Recovery ("PCR"), collectively with ComEd, the "Parties"). See Commonwealth Edison Company Revised 2022-2025 Energy Efficiency & Demand Response Plan (Plan 6) Stipulation Agreement, executed February 28, 2022, provided as ComEd Ex. 1.02.

² Commonwealth Edison Co., ICC Docket No. 21-0155, Final Order (June. 24, 2021).

³ Public Act 102-0662 (Sep. 15, 2021) (or, the "Clean Energy Law").

- Eligible Large Private Energy Customer Opt-Out Option: Prior to the Clean Energy Law, Section 8-103B required that an electric utility's largest customers be exempted from participation in EE plans and the associated charges applied to electric bills (i.e., the "Exempt Group"). The Clean Energy Law eliminates this mandatory exclusion of the Exempt Group and replaces it with an opt-out option for "eligible large private energy customers." For ComEd, these customers include retail customers whose total highest 30-minute demand was more than 10,000 kWs, and that are not federal, State, municipal or other public customers. Eligible customers must submit an application to opt out using the form prescribed by law, subject to the applicable statutory deadline. A valid opt-out submitted before January 1 of the commencement of the multi-year plan cycle is effective for the ensuing multi-year plan cycle.⁴ All federal, State, municipal or other public customers in EE plans and do not have the option to opt out.
- Annual Budgets and Spending Flexibility: The Clean Energy Law also increases the annual budgets applicable to multi-year plans, beginning with those plans commencing January 1, 2022 (the Plan 6 Period). With respect to the Plan 6 Period in particular, the Clean Energy Law increases the cap on the funding available for EE programs to "an amount necessary to limit the estimated average net increase due to the cost of the measures" to no more than 4% for each of the 4 years covered by the Plan a 0.25% increase from the prior 3.75% cap.⁵
- Beyond the budget increases, the Clean Energy Law also authorizes an electric utility to spend up to 10% more than the budget in any year during a multi-year plan period to costeffectively achieve additional savings so long as the average over the multi-year plan period does not exceed the applicable budget limitation percentage.⁶
- IE Expenditures and Offerings: The Clean Energy Law increases the applicable minimum IE expenditures per year. For ComEd, the former minimum spending requirement of \$25 million annually is increased to \$40 million per year. The Clean Energy Law also imposes a number of IE-specific requirements related to measures, segments, or customers, including whole building weatherization programs, multi-family buildings, health and safety ("H&S") funding, bundled offerings, insulation and air sealing, and the composition and operation of the Low-Income Energy Efficiency Accountability Committee ("Committee").⁷

⁴ 220 ILCS 5/8-103B(*I*).

⁵ 220 ILCS 5/8-103B(m)(1)-(3).

^{6 220} ILCS 5/8-103B(m).

^{7 220} ILCS 5/8-103B(c).

- Job Impacts and Equity: The Clean Energy Law changes also reflect an increased focus on the economic effects of the EE portfolio and require the independent evaluator to provide an estimate of job impacts and other macroeconomic impacts of the EE programs for a given year. Electric utilities must also demonstrate how they will ensure that program implementation contractors and EE installation vendors will promote workforce equity and quality jobs, collect data to these ends, and report to the Commission and legislature annually regarding these diversity efforts.⁸
- **EE Electrification:** The Clean Energy Law 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.⁹
- Non-Electric Savings: In addition, the Clean Energy Law revises the cap on the amount of savings of fuels other than electricity that can be counted in a given year – replacing the prior "10% of each year's applicable annual incremental goal" with "10% of each year's applicable annual total savings requirement."¹⁰ In practice, this means that a larger amount of annual savings can come from fuels other than electricity.
- Extension of Portfolio Beyond 2030: The Clean Energy Law provides for the EE multiyear plan cycle to continue indefinitely, and to this end directs the Commission to establish energy savings goals for each such plan cycle after 2030. To inform this process, as well as others, during the Plan 6 Period, a statewide potential study will be performed, in accordance with provisions in the Revised Stipulation. The Clean Energy Law also identifies each of the remaining "deemed cumulative persisting annual savings" values that are applicable in each of the years during the 2031 through 2040 period, after which period all such savings will have expired. Finally, the Clean Energy Law makes corresponding changes to the existing performance adjustment provisions – i.e., calculation of the applicable annual incremental goal ("AAIG") – to accommodate the extension of the portfolio beyond 2030, as well as introduces a new performance adjustment calculation that applies if certain conditions are met.

Revised Plan 6 and Revised Stipulation Highlights

As noted above, Original Plan 6 and the Original Stipulation went far beyond the statutory

⁸ 220 ILCS 5/8-103B(g)(9), (9.5), (9.6), & (10).

⁹ 220 ILCS 5/8-103B(b-27).

¹⁰ 220 ILCS 5/8-103B(b-25).

requirements to incorporate unprecedented expansions in spending and program minimums, particularly in the IE sector. Following enactment of the Clean Energy Law, many of these provisions of Original Plan 6 and the Original Stipulation proved prescient in that they not only met – but still exceeded – the new and expanded provisions of Section 8-103B, as modified by the Clean Energy Law. For example, Original Plan 6 proposed an average of \$85.6 million per year to be dedicated to the IE segment, which was a 240% increase over the pre-Clean Energy Law minimum of \$25 million. Under the increased Clean Energy Law minimum of \$40 million, this prior commitment remains a 114% increase over the new minimum. Original Plan 6 and the Original Stipulation also went above and beyond current requirements to include a new Market Development Initiative targeted at elevating diverse supplier participation in the portfolio, which also supports the Clean Energy Law's new emphasis on diverse suppliers and reporting.

While many, if not most, elements of Original Plan 6 and the Original Stipulation comply with the Clean Energy Law's amendments, Revised Plan 6 and the Revised Stipulation ensure that all aspects of the portfolio are in compliance with the new law. The Revised Plan and Stipulation also leverage the Clean Energy Law's expanded provisions to further enlarge the reach and trajectory of the portfolio, with a portfolio of programs and offerings that will outperform past EE goals and metrics in virtually every area, including:

- Achieving Revised Plan 6 Energy Savings Goals within the Increased Budget: Revised Plan 6 is designed to achieve Section 8-103B of the PUA's applicable statutory savings goals within the budgets established by Section 8-103B(m) for the four-year Plan Period.
- Offering a Diverse Portfolio of Programs for All Applicable Customers: ComEd's portfolio serves four primary customer groups: residential customers, IE customers, business customers, and public sector 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., Retail/Online discounts, Single-Family Upgrades). ComEd will also offer a variety of opportunities to participate in the portfolio for commercial and industrial ("C&I") customers, which include businesses and public sector customers (e.g., Small Business, Incentives). New to the Revised Plan, these programs have been expanded in size to accommodate large public customers and private customers that have not opted out.
- Maximizing IE Program Spend: While the law requires that a minimum of \$40 million per year be allocated towards IE programs, ComEd has dedicated an average of \$113 million per year to this customer segment, of which \$100 million will be spent on IE programs, public housing, and Research & Development ("R&D"). Within the \$100 million, ComEd will spend an average of \$69 million per year on IE Single-Family and Multifamily

Upgrades and New Construction – IE (ComEd's whole building weatherization programs), including EE electrification measures and excluding allocated overhead; and a minimum of \$32 million will go specifically to IE Multifamily Upgrades. Further, in compliance with Clean Energy Law amendments, ComEd's annual IE whole building weatherization programs' budget constitutes a minimum of 80% of ComEd's IE budget specifically dedicated to serving IE customers, and 15% of the whole building weatherization programs' annual budget has been allocated to H&S measures. In addition, \$13 million has also been budgeted for portfolio-level activities.

- Enhancing Program Implementation: The Revised Stipulation optimizes many IE program design features and H&S provisions, strengthens the connection between EE IE programs and financial assistance programs (as well as other offerings, such as Illinois Solar for All), and establishes various procedural and operational commitments to support the Committee.
- Increasing Coordination with Gas Utilities: Since the submittal of the Original Plan, ComEd has reached agreement with the gas utilities on joint or coordinated delivery of its IE Single-Family and Multifamily Upgrades programs and investment in building envelope improvements in non-IE homes. However, with the significant revisions incorporated in Revised Plan 6, it is possible subsequent discussions and revisions to these agreements may be necessary. As captured in the Stipulation, should such discussions be required, ComEd is committed to make best efforts to reach consensus. Moreover, the Stipulation also provides for a backstop mechanism if agreement cannot be reached between ComEd and the gas utilities.
- Standing Up Energy Efficiency Electrification: For the first time, the Clean Energy
 Law allows utilities to fund and claim savings from measures that electrify building and
 industrial end uses. The Revised Plan and Stipulation leverages this opportunity to offer
 new ways for customers to decarbonize their homes and facilities by gradually
 incorporating these measures into the portfolio, including business, public sector,
 residential, and income eligible customers, with a particular focus on IE customers.
- Streamlining Third-Party Programs: The Plan 6 Third-Party solicitation process focused on Retro-Commissioning and Industrial Systems (under the Business & Public Sector Targeted Systems ("Targeted Systems") offering) and delivery of up to \$5 million of innovative and non-duplicative approaches to IE customers. While this solicitation process has been completed, other new, innovative ideas can continue to be submitted for consideration through ComEd's existing R&D submission process.
- Expanding Supplier Diversity: Building on ComEd EE's prior diversity initiatives,

Original Plan 6 included a new Market Development Initiative ("MDI") targeted at further diversifying the suppliers and workforce supporting the portfolio. Revised Plan 6 preserves the MDI, and ComEd will dedicate on average \$4 million annually to the MDI.

 Increasing Reporting: Beginning in 2022, ComEd will significantly expand its reporting metrics on a range of topics, including but not limited to: IE Multifamily, H&S, equity/affordability, and supplier diversity. ComEd also agrees to support the inclusion of additional reporting metrics or topics in an updated version of the Illinois Energy Efficiency Policy Manual ("Policy Manual").

Portfolio Summary by the Numbers

Table 1-1 provides, for each calendar year, the following data: the statutory cumulative persisting annual savings ("CPAS") goal by percent and megawatt-hour ("MWh"); the legacy savings by percent and MWh; the AAIG in MWh; the DR goal in megawatt ("MW"); and the annual budget, which has been established in accordance with the statutory budget calculation set forth in Section 8-103B(m). See ComEd Ex. 1.03R (Section 8-103B(m) Budget Calculations).

ltem	2022	2023	2024	2025
Statutory CPAS (Percent)	13.1%	14.4%	15.7%	17.0%
Statutory CPAS (MWh)	10,982,206	11,952,817	13,031,890	14,110,964
Legacy Savings (Percent)	3.5%	3.1%	2.8%	2.5%
Legacy Savings (MWh)	2,934,177	2,573,176	2,324,159	2,075,142
Applicable Annual Incremental Goal (MWh)	1,089,837	970,610	1,079,074	1,079,074
Demand Response Goal (MW)	7.17	7.44	7.42	7.43
Annual Budget	\$427,497,608	\$423,304,298	\$423,304,298	\$423,304,298

TABLE 1-1: PLAN PERIOD GOALS AND BUDGET

As required by the Act, the portfolio (not including IE programs) must also be cost-effective, as determined by the Total Resource Cost ("TRC") test.

The Revised Plan 6 portfolio is designed to achieve the statutory EE and DR goals within the annual budgets and do so cost-effectively, based on current Illinois Technical Reference Manual 9.0 ("IL-TRM") assumptions.

The projected budgets and impacts of the programs are shown in Table 1-2 and Table 1-3. Table 1-4 shows projected budgets and impacts broken out for Residential and IE programs.

	2022	2023	2024	2025	4-Year Plan			
Programs	Budgets	Budgets	Budgets	Budgets	Budgets			
Residential & Income Eligible Programs								
Retail/Online	\$40,022,338	\$41,021,424	\$38,814,068	\$38,552,852	\$158,410,682			
Single-Family Upgrades	\$32,040,685	\$34,247,629	\$33,654,079	\$33,760,643	\$133,703,035			
Multifamily Upgrades	\$32,511,888	\$33,966,457	\$34,608,826	\$34,231,293	\$135,318,464			
Product Distribution	\$13,865,794	\$14,072,828	\$14,049,992	\$14,044,784	\$56,033,398			
Behavior – Res/IE	\$6,739,410	\$6,863,630	\$6,863,630	\$6,863,630	\$27,330,299			
New Construction – IE	\$3,376,145	\$3,339,749	\$4,120,984	\$4,205,615	\$15,042,493			
Contractor/Midstream Rebates	\$3,228,947	\$3,228,947	\$3,228,947	\$3,228,947	\$12,915,788			
Electrification – Res	\$315,149	\$775,832	\$808,369	\$848,438	\$2,747,788			
Electrification – IE	\$1,620,000	\$8,502,500	\$12,695,000	\$16,820,000	\$39,637,500			
Sector General	\$4,690,773	\$4,078,507	\$4,056,302	\$4,005,450	\$16,831,031			
RES/IE TOTAL	\$138,411,129	\$150,097,501	\$152,900,195	\$156,561,652	\$597,970,478			
Business & Public Sector P	rograms							
Small Business	\$90,326,049	\$87,014,957	\$86,881,254	\$87,016,948	\$351,239,208			
Incentives	\$94,836,955	\$80,419,397	\$79,890,049	\$76,226,492	\$331,372,892			
Targeted Systems	\$25,513,066	\$28,909,282	\$29,119,017	\$29,228,913	\$112,770,278			
Midstream/Upstream	\$15,344,091	\$15,073,164	\$14,911,914	\$14,770,939	\$60,100,108			
Behavior – Bus/Pub	\$6,468,712	\$6,468,712	\$6,468,712	\$6,468,712	\$25,874,847			
New Construction – Bus/Pub	\$3,497,564	\$3,432,149	\$3,384,808	\$3,337,468	\$13,651,989			
Assessments	\$2,804,401	\$2,804,401	\$2,804,401	\$2,804,401	\$11,217,605			
Electrification - Bus/Pub	\$244,760	\$1,130,316	\$1,712,532	\$2,329,776	\$5,417,385			
Sector General	\$6,716,000	\$5,882,547	\$6,330,819	\$6,823,918	\$25,753,283			
BUS/PUB TOTAL	\$245,751,598	\$231,134,924	\$231,503,506	\$229,007,566	\$937,397,594			
Portfolio-Level Costs								
Evaluation	\$9,500,000	\$9,500,000	\$8,500,000	\$8,500,000	\$36,000,000			
Research & Development	\$11,800,000	\$11,400,000	\$11,300,000	\$11,300,000	\$45,800,000			
Market Development Initiative	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$16,000,000			
Portfolio Administration	\$13,200,000	\$13,600,000	\$14,700,000	\$14,700,000	\$56,200,000			
Education & Awareness	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$8,000,000			
PORTFOLIO-LEVEL COSTS TOTAL	\$40,500,000	\$40,500,000	\$40,500,000	\$40,500,000	\$162,000,000			
PORTFOLIO TOTAL	\$424,662,727	\$421,732,426	\$424,903,701	\$426,069,219	\$1,697,368,072			

TABLE 1-2: PLAN 6 BUDGETS BY PROGRAM AND YEAR

	2022	2023	2024	2025	4-Year			
Programs	CPAS Contribution (MWh)	CPAS Contribution (MWh)	CPAS Contribution (MWh)	CPAS Contribution (MWh)	CPAS Energy Savings (MWh)			
Residential & Income Eligible Programs								
Retail/Online	218,863	445,781	652,936	855,290	855,290			
Single-Family Upgrades	61,184	122,735	181,715	241,102	241,102			
Multifamily Upgrades	34,823	69,736	103,105	136,023	136,023			
Product Distribution	145,729	290,870	435,571	580,307	580,307			
Behavior – Res/IE	89,923	160,063	214,916	257,180	257,180			
New Construction – Res/IE	2,426	4,560	6,411	8,111	8,111			
Contractor/Midstream Rebates	8,459	16,918	32,316	47,564	47,564			
Electrification – Res	2,180	7,599	13,314	19,398	19,398			
Electrification – IE	1,238	8,990	20,455	35,365	35,365			
RES/IE TOTAL	564,824	1,127,252	1,660,739	2,180,340	2,180,340			
Business & Public Sector Programs								
Small Business	265,564	540,418	808,620	1,070,125	1,070,125			
Incentives	304,177	601,507	879,174	1,130,201	1,130,201			
Targeted Systems	91,983	200,809	309,640	410,168	410,168			
Midstream/Upstream	192,926	395,081	603,119	800,982	800,982			
Behavior – Bus/Pub	38,895	77,790	116,685	155,580	155,580			
New Construction – Bus/Pub	10,549	21,098	31,647	42,196	42,196			
Assessments	4,051	8,102	12,153	15,321	15,321			
Electrification - Bus/Pub	1,533	5,788	11,090	17,881	17,881			
BUS/PUB TOTAL	909,678	1,850,594	2,772,127	3,642,453	3,642,453			
Multi-Segment & Portfolio-Level Activities								
Voltage Optimization	165,000	329,704	553,240	816,169	816,169			
Research & Development	21,651	44,746	70,160	99,434	99,434			
ComEd EE Portfolio								
PORTFOLIO TOTAL	1,661,153	3,352,295	5,056,265	6,738,396	6,738,396			

TABLE 1-3: PROJECTED PLAN 6 CPAS BY PROGRAM AND YEAR

Programs	2022	2023	2024	2025	4 Year Plan			
	Budget	Budget	Budget	Budget	Budget			
Income Eligible Budget								
Retail/Online	\$7,383,488	\$8,163,559	\$6,065,710	\$6,591,966	\$28,204,722			
Single-Family Upgrades	\$29,984,766	\$31,995,042	\$31,932,593	\$32,039,157	\$125,951,558			
Multifamily Upgrades	\$27,515,252	\$29,168,247	\$30,207,467	\$30,574,030	\$117,464,996			
Product Distribution	\$13,016,856	\$13,212,328	\$13,181,179	\$13,167,974	\$52,578,338			
New Construction – IE	\$3,376,145	\$3,339,749	\$4,120,984	\$4,205,615	\$15,042,493			
Electrification – Res/IE	\$1,620,000	\$8,502,500	\$12,695,000	\$16,820,000	\$39,637,500			
Research & Development - IE	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$8,000,000			
Sector General – IE	\$4,100,000	\$3,800,000	\$3,800,000 \$3,800,000		\$15,500,000			
Income Eligible Total	\$88,996,507	\$100,181,425	\$104,002,933 \$109,198,742		\$402,379,607			
Programs	First Year Energy Savings (MWh)	First Year Energy Savings (MWh)	First Year Energy Savings (MWh)	First Year Energy Savings (MWh)	4 Year Plan First Year Energy Savings (MWh)			
Income Eligible Saving	<u>g</u> s							
Retail/Online	41,408	43,341	20,128	21,782	126,659			
Single-Family Upgrades	53,990	54,358	54,766	55,173	218,288			
Multifamily Upgrades	27,834	28,134	28,236	28,412	112,616			
Product Distribution	143,733	143,146	142,727	142,761	572,367			
New Construction – IE	2,426	2,134	1,923	1,764	8,247			
Electrification – IE	1,238	7,752	11,465	14,910	35,365			
Income Eligible Total	270,629	278,866	259,245	264,802	1,073,542			

TABLE 1-4: PROJECTED PLAN 6 CPAS BY PROGRAM AND YEAR

2. Introduction

ComEd submits Revised Plan 6 to the Commission to reflect the applicable changes made to Section 8-103B of the Act by the Clean Energy Law. 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 that will be challenging to achieve. The overall ComEd savings goal is the achievement of CPAS of 21.5% by 2030, and subsequent savings goals beyond 2030, as established by the ICC. ComEd is confident that, through collaboration with stakeholders, it has developed a Plan that demonstrates an ability to achieve this and all other statutory goals for the life of this Plan while building a foundation for future success.

Since 2008, ComEd has offered a growing portfolio of EE programs and services to its residential and C&I customers, which has enabled its customers to save over \$6.4 billion on their electric bills to-date. This Revised Plan builds on these previous efforts and successes by continuing successful programs; adding new programs; offering outreach efforts that target specific customer segments (e.g., IE and public sector); and achieving all of the statutory requirements set forth in Section 8-103B. This Revised Plan describes how the statutory requirements, including the aggressive CPAS goals in Section 8-103B, will be achieved during the Plan 6 Period.

This Revised Plan 6 represents the culmination of extensive planning processes that involved Illinois stakeholders. The first planning phase occurred during 2020 and 2021, and resulted in the executed Original Stipulation. The consensus-building first began through the Illinois Stakeholder Advisory Group ("SAG") process, during which positions, challenges, and opportunities were presented and discussed by the utilities and the stakeholders. Following SAG discussions, ComEd engaged in extensive negotiations with certain stakeholders over several months, addressing a number of key components of the Original Plan, such as energy savings goals, IE program spend, coordination with the gas utilities, Third-Party programs, a new market development initiative, and increased reporting. These efforts were successful and resulted in the executed Original Stipulation and Original Plan 6, as approved by the Commission.

The second planning phase commenced after the Clean Energy Law took effect, which prompted signatories to the Original Stipulation to reconvene and discuss proposals to update the Original Stipulation and Original Plan 6. Like the Original Stipulation negotiations, these efforts were successful, and resulted in the executed Revised Stipulation and Revised Plan 6.

3. Plan Overview

Revised Plan 6 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 modified by the Clean Energy Law, as follows:

- Achieve the statutory CPAS goals using the statutory budgets for each of the four years of the Plan and demonstrate that the proposed EE measures will achieve the applicable requirements (i.e., savings targets);
- Demonstrate consideration of program options for (i) advancing new building codes, appliance standards, 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;
- Demonstrate that ComEd's portfolio, excluding the IE programs; is cost-effective using the TRC test; however, individual measures need not be cost-effective;¹¹
- Present a portfolio that represents a diverse cross-section of opportunities for customers of all rate classes, except those that opted out, to participate;¹²
- Demonstrate that the plan integrates the delivery of EE programs with (i) natural gas efficiency programs, (ii) programs promoting distributed solar and demand response, and (iii) other efforts to address bill payment issues;
- Solicit and fund, at a minimum, a \$25 million per year third-party EE implementation program;
- Provide programs for IE customers funded at a minimum of \$40 million per year;¹³
- Allocate 10% of the portfolio budget to public sector customers;¹⁴
- Implement cost-effective DR measures to reduce peak demand by 0.1% over the

¹¹ See 220 ILCS 5/8-103B(g)(3) (providing that "[i]ndividual measures need not be cost effective").

¹² See 220 ILCS 5/8-103B(*I*).

¹³ Section 8-103B provides that low-income households are those households at or below 80% of the Area Median Income ("AMI"). See 220 ILCS 5/8-103B(c).

¹⁴ See 220 ILCS 5/8-103B(c).

prior year for eligible retail customers and customers that elect to receive hourly service from ComEd;

- 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;
- Provide for adjustment to ComEd's return on equity component of its weighted average cost of capital to implement performance adjustments related to the extent to which ComEd achieves the AAIG;¹⁵
- Demonstrate how it will ensure that program implementation contractors and energy efficiency installation vendors will promote workforce equity and quality jobs, and collect data no less than quarterly to ensure compliance; and
- Allocate no more than 4% of the portfolio budget for research, development, or pilot deployment of new technology platforms or innovative approaches.¹⁶

ComEd's analysis of the Revised Plan's costs to acquire EE savings demonstrates that the statutory CPAS and DR targets applicable to ComEd during the Plan Period can be met within the statutory budgets. As reflected in Table 3-1, ComEd has therefore balanced the program mix such that the entire cost of the portfolio is within the overall budget.

Savings	2022	2023	2024	2025
Statutory CPAS Goal – MWH	10,982,206	11,952,817	13,031,890	14,110,964
Portfolio CPAS - MWH	10,996,650	12,208,575	13,372,902	14,516,122
Percent of Goal	100%	102%	103%	103%
CPAS Surplus (Shortfall)	14,444	255,758	341,012	405,158
Statutory DR Goal - MW	7.17	7.44	7.42	7.43
Portfolio Peak Demand Savings - MW	273.2	272.2	268.9	265.6
Percent of DR Goal	3811%	3659%	3624%	3575%
DR Surplus (Shortfall) - MW	266.1	264.8	261.5	258.2

TABLE 3-1: FORECASTED PLAN 6 SAVINGS¹⁷

¹⁵ Adjustments are provided for incremental goals falling under 0.6% of average sales during 2014-2016. See 220 ILCS 5/8-103B(g)(7)(C).

¹⁶ See 220 ILCS 5/8-103B(h).

¹⁷ See footnote 2, *supra*.

The Clean Energy Law's amendments to Section 8-103B continue to require, and in certain instances increase, specific allocations of the portfolio budget to IE and public sector customers. For example, the new Law increased Section 8-103B's minimum allocation for IE customers from \$25 million to \$40 million annually. Just as the Original Plan 6 committed an unprecedent allocation of EE funding to the IE segment (more than 240% over the \$25 million statutory minimum (or \$85.6 million)), Revised Plan 6 preserves and further expands this to \$113 million, which recognizes the significant portion of ComEd's residential customers) and is 184% over the statutory minimum. Importantly, this critical expansion of funding to the IE sector can be accomplished during the Plan Period while still meeting statutory savings goals and maintaining a cost-effective portfolio.

Section 8-103B also requires that 10% of the portfolio budget be allocated to public sector customers. ComEd has similarly been able to satisfy this requirement in this Plan.

Table 3-2 shows ComEd's budgets for these statutorily-required customer segments, as well as the \$25 million minimum Third-Party statutory requirement.

	2022		2023		2024		2025	
Programs	Budget (\$M)	%	Budget (\$M)	%	Budget (\$M)	%	Budget (\$M)	%
Customer Segments	\$424.7	100%	\$421.7	100%	\$424.9	100%	\$426.1	100%
Public Sector	\$61.7	15%	\$55.6	13%	\$54.6	13%	\$53.1	12%
Income Eligible	\$100.8	24%	\$113.2	27%	\$117.5	28%	\$123.5	29%
Third-Party	\$14.4	3%	\$32.7	8%	\$32.9	8%	\$33.1	8%

TABLE 3-2: PLAN 6 BUDGETS FOR STATUTORILY-REQUIRED SPEND PROGRAMS

Note: Customer segment costs include portfolio-level allocations.

3.1 Key Statutory Requirements

Section 8-103B's key statutory requirements, as modified by the Clean Energy Law, are briefly discussed below.

3.1.1 CPAS Goals

The energy savings goals applicable to ComEd under this Plan are measured cumulatively. Per Section 8-103B, ComEd's annual energy savings goals are based on CPAS. The CPAS methodology calculates the total electric energy savings achieved in a given year from measures installed in that year and in previous years, but no earlier than January 1, 2012, that are still operational and providing savings in that year (because the measures have not yet reached the end of their useful lives). The CPAS methodology thus values the lifetime

savings of the measure versus only the first-year savings, and is designed to focus ComEd's attention on deployment of measures with persisting savings. As a result, ComEd must consider the decay, or drop-off, of savings from measures that were previously installed but have not reached the end of their measure life, as well as the energy savings from new measures installed during each year of this Plan.

Section 8-103B also sets the value of deemed cumulative persisting annual savings attributable to measures installed prior to January 1, 2018 (but after January 1, 2012) – i.e., installed under the prior Section 8-103 framework (commonly called "legacy savings") – that are still providing savings in the applicable year. These legacy savings are applied by the utilities toward their CPAS goals.

3.1.2 Performance Adjustment

Section 8-103B includes a performance mechanism that increases or decreases the returnon-equity component of ComEd's weighted average cost of capital, depending on the extent to which ComEd exceeds or falls short of the AAIG for a given year. The AAIG is a different measurement than CPAS and is defined by statute as "the difference between the [CPAS] goal for the calendar year that is the subject of the independent evaluator's determination and the [CPAS] goal for the immediately preceding calendar year" 220 ILCS 5/8-103B(g)(7.5). In other words, the AAIG measures the amount of incremental first-year energy savings that ComEd achieved in an individual year. The AAIG measure is also used in the determination of the amount of non-electric energy savings that can be counted.

3.1.3 Transition from the Exempt Group Construct to an Opt-out Process for Eligible Large Customers

Prior to the Clean Energy Law, Section 8-103B of the Act exempted ComEd's largest customers from the funding of, and participation in, the Plan. The mandatory exclusion required that any retail customer account that had a 30-minute electric demand greater than 10 MW at any time during the 12 consecutive monthly billing periods prior to the start of the first year of each multi-year plan was automatically exempted from providing funding for, or participating in, the EE program subject to Section 8-103B.

The Clean Energy Law eliminates the Exempt Group construct, however, and replaces it with an opt-out framework that is available only to "eligible large private energy customers." If such a customer does not wish to participate in the EE program, then the customer may opt out by the statutorily-prescribed deadline by providing notice to ComEd using the opt-out form approved by the Commission.¹⁸ The Clean Energy Law defines an "eligible large

¹⁸ See Application Form for Notice for Opting Out of Electric Energy Efficiency Programs for Eligible Large Private Energy Customers, available at <u>https://icc.illinois.gov/downloads/public/PA-102-0662/ee-opt-out-application-form-for-eligible-large-private-energy-customers-final.docx</u>.

private energy customer" as one whose highest 30-minute demand was greater than 10MW over the prior 12 billing periods before the start of the first year of the applicable multi-year plan. If a business entity has multiple sites and one qualifies, then all sites identified are eligible to opt out. Those customers that have successfully opted out for a given multi-year plan (i.e., the "Opt-out Group") are excluded from participating in plan programs and benefits and exempt from the monthly plan charge applied to customer bills. All federal, State, municipal or other public customers must participate in EE plans and do not have the option to opt out.

To provide additional clarity around this new opt-out process, Commission Staff, ComEd, Ameren Illinois, and the Illinois Industrial Energy Consumers collaboratively developed and agreed to a "Frequently Asked Questions" document, which is posted on the Commission's website.¹⁹

3.1.4 Income Eligible (IE) Customers

As revised by the Clean Energy Law, Section 8-103B(c) requires ComEd to allocate a minimum of \$40 million to IE customers annually (i.e., those customers whose household income is at or below 80% of the Area Median Income). Investments in IE whole building weatherization programs must constitute a minimum of 80% of ComEd's IE budget specifically dedicated to serving IE customers. ComEd must also invest in H&S measures appropriate and necessary for comprehensively weatherizing a home or multifamily building and must allocate at least 15% of the total IE whole building weatherization budget to an H&S fund, which will be used for the statutorily-enumerated purposes. Measures implemented under this requirement need not be cost effective under the TRC test. Section 8-103B(c) also requires ComEd to establish reporting processes that demonstrate progress toward the IE spend and goal and to participate in a low-income energy efficiency accountability committee (referred to herein as the "Committee"), which will directly inform the design, implementation, and evaluation of IE and public-housing programs.

3.1.5 Public Sector

Section 8-103B(c) requires that a minimum of 10% of the annual EE funding level be used to procure cost-effective EE measures from local government, municipal corporations, school districts, public housing, and community college districts. Public housing must be funded at a minimum percentage that is equal to public housing's share of total public-building energy consumption. Public housing spend can count toward both the 10% public sector spend requirement and the \$40 million IE spend requirement.

¹⁹ See Frequently Asked Questions ("FAQ") about the Application Form for Notice for Opting Out of Electric Energy Efficiency Programs for Eligible Large Private Energy Customers, available at <u>https://icc.illinois.gov/downloads/public/informal-processes/EE%20Opt-Out%20FAQ_11-30-21%20FINAL.pdf</u>.

3.1.6 Integration with Other Programs

Section 8-103B(g)(3.5) requires the integration with natural gas efficiency programs, distributed solar programs, demand response programs, and efforts to address bill payment issues, to the extent such integration is practical and has the potential to enhance customer engagement, minimize market confusion, or reduce administrative costs.

3.1.7 Third-Party

Section 8-103B(g)(4) requires that ComEd budget \$25 million annually for programs solicited from, and implemented by, one or more third parties.

3.1.8 Voltage Optimization

Section 8-103B(b-20) allows ComEd to include cost-effective VO measures in the Plan, and ComEd may count the associated energy savings toward the CPAS goals for this Plan. Savings may be claimed for more than 15 years if ComEd can demonstrate, subject to the review of the independent evaluator, that additional necessary investments have been made to enable voltage optimization savings to continue beyond 15 years. Costs incurred to implement VO are recovered under ComEd's distribution rates and therefore are not included within the EE budget or recovered through ComEd's related cost-recovery mechanism, Rider EEPP – Energy Efficiency Pricing and Performance ("Rider EEPP").

3.1.9 Demand Response

Section 8-103B(g)(4.5) requires that ComEd implement cost-effective DR measures that reduce peak demand by 0.1% over the prior year for eligible retail customers and hourly service customers through December 2026.

3.1.10 TRC Test

Under Section 1-10 of the Illinois Power Authority Act, the benefits calculation of the TRC Test includes, *inter alia*, the avoided costs of other fuels (in addition to natural gas), as well as the avoided cost associated with reduced water consumption and reduced operation and maintenance ("O&M") costs.

The TRC Test also includes a societal discount rate, which is based on long-term treasury yields and deemed by the IL-TRM.

3.1.11 Cost Recovery

Section 8-103B allows ComEd to recover its EE expenditures through a regulatory asset and amortize those costs over a period of time that is equal to the weighted average of the EE measure lives implemented for that year that are included in the regulatory asset, which aligns cost recovery with the period during which customers receive a benefit. Additionally, ComEd may earn a return on the unamortized balance of costs in the regulatory asset and effect recovery through a dedicated formula rate. ComEd's EE formula rate is Rider EEPP; it was approved by the Commission in Docket No. 17-0287.

3.1.12 Non-Electricity Energy Savings

Section 8-103B(b-25) allows ComEd to claim non-electricity energy savings towards its annual goals. The Clean Energy Law revises the cap on the amount of savings of fuels other than electricity that can be counted in a given year – replacing the prior "10% of each year's applicable annual incremental goal" with "10% of each year's applicable annual total savings [AATS] requirement." In practice, this means that a larger amount of annual savings can come from fuels other than electricity. The non-electricity savings for IE programs must be converted to kWh first.

3.1.13 Energy Efficiency Electrification Energy Savings

Additionally, Section 8-103B(b-27) – added by the Clean Energy Law – permits ComEd to provide programs to electrify a variety of building and industrial processes, including heating and cooling, that would otherwise be served by fossil fuel combustion at the premises. This new subsection also states that EE electrification savings counted toward each year's AATS must be capped at 5% per year, during the Plan 6 Period. Further, at least 25% of EE electrification savings must come from electrification of end uses in IE housing. These electrification savings are in addition to the 10% of savings that can be claimed from non-electricity energy savings allowed under Section 8-103B(b-25).

3.1.14 Research & Development

Section 8-103B(h) recognizes the important role that emerging technologies, R&D, and the pilot deployment of new equipment and measures and delivery mechanisms play towards achieving future-year CPAS goals and sets the R&D budget at up to 4% of the overall portfolio budget. This Section also stresses that statewide approaches and stakeholder engagement are priorities.

3.2 Challenges

Two critical planning and implementation challenges extend over the planning horizon. How these challenges are addressed will greatly affect the shape of the portfolio and ComEd's ability to execute this Plan. Each issue and ComEd's proposed approach are described below.

3.2.1 Impact of the EISA Lighting Standard

New energy efficiency standards for light bulbs were part of the Energy Independence and Security Act of 2007 ("EISA"). The first phase of these standards eliminated incandescent bulbs from the market between 2012 and 2014.

The second phase of the standards was initially expected to also eliminate halogen bulbs (more efficient than incandescent, but still the least efficient bulb on the market) from the market on January 1, 2020. The IL-TRM for 2018 and 2019 reflected that expectation and kWh savings for residential lighting were assumed to be much lower after 2020. However, in September 2019, the U.S. Department of Energy issued a rule, stating that the second phase of EISA was not required, and therefore halogen bulbs would continue to be a market choice for customers after January 1, 2020. The increased post-2020 savings were incorporated into the 2021 IL-TRM (with the changes made retroactive to 2020).

ComEd responded in its program efforts by reducing residential lighting when the IL-TRM reflected reduced savings (in 2018 and 2019) and increasing residential lighting (in 2020 and 2021) when the IL-TRM savings increased. Revised Plan 6 assumes the continued availability of halogen bulbs through 2025 and higher kWh savings for residential lighting. Revised Plan 6 also includes the following additional residential lighting assumptions:

- ComEd has historically incentivized approximately 50% of the total number of light bulbs installed in its service territory each year (this percentage is 90% for IE customers). ComEd expects the same rates continue during the Plan Period. However, because of the increased market share of longer-lasting LED bulbs, ComEd assumes that the total number of residential bulbs replaced each year will decline over the Plan Period.
- ComEd assumes a declining net-to-gross ratio for residential lighting during the Plan Period. This is because free ridership will likely increase as LED bulbs move closer to market saturation.

As memorialized in the Revised Stipulation, ComEd will continue to monitor EISA developments and should changes in the law materially impact the implementation of Revised Plan 6 or provisions of the Revised Stipulation, the Parties will work collaboratively to discuss impacts and, if needed, reach consensus on Revised Plan adjustments or other measures in response to such changes. This is discussed further in Section 7 *infra*.

3.2.2 Joint and Coordinated Programs

ComEd has historically relied upon collaboration with the Northern Illinois gas utilities (i.e., Nicor Gas, Peoples Gas, and North Shore Gas) to deliver its EE portfolio. The sharing of program-level costs enables both the gas and electric EE measures to be installed more

cost-effectively. In addition, it provides dual customers a single, more efficient interaction.

Starting early in 2020, ComEd actively met with the gas utilities to discuss potential Plan 6 joint/coordinated programs and reach agreement on which programs would be offered together and the amounts of their associated budgets and savings targets. Agreements were finalized for many programs, but unfortunately, due to time constraints leading up to the Original Plan filing, ComEd was not able to reach consensus with the gas utilities on four program elements—IE Single-Family Upgrades, IE Multifamily Upgrades, building envelope improvements in non-IE homes (currently a gas-only funded program), and Retail/Online smart thermostat incentives.

ComEd has since reached consensus to offer these four program elements jointly or in coordination with the gas utilities. However, with the significant revisions incorporated in Revised Plan 6, it is possible subsequent discussions and revisions to these agreements may be necessary. As captured in the Revised Stipulation, should such discussions be required, ComEd is committed to make best efforts to reach consensus as is practical, given legislative and stakeholder commitments, budget limitations, and implementation constraints. As discussed further in Section 4.2.4 *infra*, moreover, the Revised Stipulation also provides for a backstop mechanism if agreement cannot be reached between ComEd and the gas utilities.

3.3 Opportunities

Although ComEd is facing some significant challenges, there are also many exciting opportunities reflected in Revised Plan 6, as discussed below.

3.3.1 Income Eligible Customers

In Plan 5, ComEd significantly increased its IE budgets – compared to prior plans – to an average of \$48 million annually, which was nearly double the \$25 million annual statutory minimum. This increase in program size involved working with non-profits and other partners to ramp up program participation and delivery. While these efforts have been incredibly successful, the scale and reality of the need in the ComEd service territory -- where more than 40% of residential customers meet the definition of "income eligible" – call for an unprecedent commitment of funding for this vulnerable customer segment.

As reflected in the Revised Stipulation, ComEd will dedicate to IE program elements and R&D an average of \$100 million annually during the 2022 through 2025 Plan 6 period. ComEd has also budgeted an average of \$13 million annually in portfolio-level costs. As previously stated, the \$113 million in total IE costs is 184% above the statutory minimum allocation, and a 137% increase from Plan 5. This commitment includes specific carveouts for and increases to the budgets for comprehensive programs, multifamily programs, and

H&S measures. The H&S budget increase, in particular, is a new opportunity under the Clean Energy Law and Revised Plan to defer fewer IE projects and reach those customers that need energy efficiency upgrades the most. Importantly, ComEd's portfolio is configured to fulfill these commitments while still meeting the statutory savings goals and maintaining a cost-effective portfolio.

In addition to dedicating more resources to the IE program elements, ComEd has committed in the Revised Stipulation to undertake three additional ways to increase the impact of EE programs for IE customers:

- Improve the coordination and delivery of EE programs and ComEd's customer financial assistance programs to IE customers;
- Measure and track not just EE savings but also bill impacts for customers; and
- Participate and receive recommendations from in the Committee.

ComEd believes that this is a holistic approach to the design and delivery of EE programs to IE customers. More details can be found in the Section 5.2.

3.3.2 Energy Efficiency Electrification

The Clean Energy Law allows utilities – for the first time – to fund and claim savings from measures that electrify building and industrial end uses. This is an exciting opportunity to offer customers a new way to decarbonize their homes and facilities, and affords ComEd the opportunity to potentially be one of the first utilities in the country to do this at scale. However, incorporating this work into the portfolio will need to be a gradual process, to ensure careful consideration is given to customer impacts and education, measure selection and project cost, program design, vendors and service providers, and gas utilities. More details can be found in Sections 5.2 and 5.3 *infra*.

3.3.3 Market Development Initiative

As memorialized in the Revised Stipulation, Revised Plan 6 preserves the new MDI introduced in Original Plan 6. The Clean Energy Law, moreover, underscores the importance of vendor, service provider, and workforce diversity. Supporting diverse market development—vendors, service providers, and workforce—has long been a priority for ComEd, and ComEd appreciates the opportunity to work with stakeholders on the MDI. To further expand the inclusivity and diversity of ComEd's EE portfolio, ComEd is dedicating \$4 million per year average to the MDI during the Plan Period.

The MDI will be developed in collaboration with the Parties to the Revised Stipulation, and

is designed to increase contracting opportunities for diverse business enterprises and community-based organizations ("CBOs") and assist them in developing the necessary capabilities to participate in the delivery of the EE portfolio and improve the diversity and inclusiveness of the ComEd EE Department's supplier and supplier workforce. More details can be found in Section 5.6 *infra*.

3.3.4 Commercial Lighting Controls

While LED lighting continues to gain market share in interior and exterior commercial and industrial lighting applications, additional savings are available through incentivizing lighting systems that include controls. Controls can fine tune wattage levels to fit current lighting needs more closely or reduce total hours of usage. ComEd currently offers additional incentives for lighting controls through both Standard and Small Business Programs. Both the budget and the savings for lighting controls grow throughout the Plan 6 Period.²⁰

3.3.5 Heat Pumps

Because of the limited opportunities available to upgrade residential electric space heating systems to more efficient heat pumps, ComEd's EE portfolio has historically placed little emphasis on heat pumps. Even so, in Plan 5, ComEd completed a demonstration project in 80 IE multifamily households. As set forth in the Revised Stipulation, Revised Plan 6 builds on Plan 5's efforts and expects significant growth in heat pumps for IE customers residing in multifamily buildings. For example, the Revised Stipulation establishes a target of no less than 1,000 heat pump units, for displacing electric resistance heat, in 2025. Heat pumps will also be a focus within ComEd's new electrification efforts.

3.3.6 Midstream Programs

ComEd's Midstream program element has successfully partnered with electrical distributors to incentivize more efficient commercial lighting for about a decade. In Revised Plan 6, this program model has been adopted for Residential HVAC, Commercial HVAC, and Commercial Food Service Equipment Programs. This program design offers the opportunity to increase the scope and reduce the \$/kWh cost.

3.3.7 Residential Plug Loads

One of the fasted growing areas of residential energy usage is in electronic equipment and plug loads. ComEd's Revised Plan 6 includes a target of over one million advanced smart power strips to be delivered through several different programs during the Plan Period.

²⁰ ComEd will meet periodically with NRDC and any other interested SAG participants to provide updates on progress in implementing, and to discuss refinements in strategy for accelerating adoption of, these technologies. See Rev. Stipulation, ComEd Ex. 1.02.

3.3.8 Large Customers

ComEd analysis has shown that large customers participate in ComEd EE programs, but there is an opportunity to increase their level of participation, particularly in the uptake of measures beyond lighting and lighting controls. During the Plan 6 Period, ComEd EE will work with the ComEd large customer account management group ("Large Customer Services") to increase its targeting and development of comprehensive EE projects with larger customers. The Revised Stipulation further strengthens these efforts for large public sector customers, in particular, by establishing a pilot that offers comprehensive studies (fully funded by ComEd), to inventory the customer's cost-effective opportunities for efficiency and electrification improvements across the customer's portfolio of buildings/facilities and outline strategies for the customers to make identified improvements over a multi-year period.

3.3.9 Research & Development

ComEd believes that the investment in new concepts is critical to the future success of its portfolio. The EE landscape has changed dramatically in the last decade. Many measures have reached saturation in the marketplace or no longer pass the required cost-effectiveness tests. In addition, more efficient appliance standards and building codes have been adopted, which reduce measure savings potential. The result is that ComEd needs to find new cost-effective, long-lived measures to help meet its energy savings goals.

In Plan 5, ComEd evaluated over 450 new technologies, proposals, and innovative concepts and executed over 90 research and pilot projects. Through this work, the ComEd EE team engaged 70 industry partners, including national laboratories, universities, program implementation firms, nonprofit organizations, and CBOs. Projects included pilots validating savings from promising new motor and HVAC technologies, pilots testing new approaches to IE customer outreach, pilots exploring long-term savings potential through Market Transformation approaches, and research into market barriers of high-potential portfolio measures.

As it relates to Revised Plan 6, a productive innovation effort will be critical for ComEd to achieve its future portfolio savings goals. Two distinct sets of innovation-focused initiatives, Emerging Opportunities and Market Transformation, will be carried out under the umbrella of R&D, which is detailed in Section 5.6 *infra*.

3.3.10 Collaboration & Co-Funding

The passage of the Clean Energy Law and the federal Infrastructure Investment & Jobs Act, as well as other efforts to expand decarbonization efforts across the country, present ComEd with an opportunity to coordinate and collaborate with external partners, including State and

local governments, to bring energy efficiency to customers. Among other avenues for this collaboration, during the Plan 6 Period, ComEd intends to work with the City of Chicago, other interested cities, municipalities and counties on their electrification and energy efficiency initiatives and how to coordinate and integrate those initiatives with ComEd's electrification and energy efficiency programs. As memorialized in the Revised Stipulation, the Parties will discuss the framework for claiming savings from co-funded EE electrification programs and from ComEd's role in helping state, municipal, and other public partners apply for and access state and/or federal funds for co-funded EE opportunities via the SAG Policy Manual subcommittee, to ensure this is addressed as part of Policy Manual Version 3.0.

4. ComEd's Planning Process

As discussed below, the portfolio ComEd proposes is the product of a multi-stage effort to gather and process the information required to determine program and portfolio cost effectiveness as defined by Illinois law. The Revised Plan 6 planning efforts also included several planning enhancements.

4.1 Analysis Stages

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.

4.1.1 Illinois TRC Test

Section 8-103B(g)(3) of the Act requires that the portfolio of energy efficiency measures – not including low-income (or, "income-eligible") programs – be "cost-effective," which is defined as having satisfied the TRC test. 220 ILCS 5/8-103B(g)(3); see also 220 ILCS 5/8-103B(a). The statute further confirms that "[i]ndividual measures need not be cost effective." 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. 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.

20 ILCS 3855/1-10.

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 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.

4.1.2 Measures Analysis

The first stage of the analysis – the measures analysis – determines the cost effectiveness of the individual EE measures using the TRC test. At the measure stage, the TRC test is only analyzing 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. For Revised Plan 6, Version 9 of the IL-TRM was used as the primary data source for the majority of EE measures.²¹ For measures not in the IL-TRM, ComEd validated the energy savings, demand reduction, estimated useful life, and incremental cost for each measure.

To design Revised Plan 6, ComEd first focused on measures that are contained within the SAG-vetted and Commission-approved IL-TRM, which provides measure level data used to determine the measure's cost effectiveness including, but not limited to measure life, measure cost, coincidence factor, and calculation of savings.²²

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 are not including 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

²¹ See Illinois Commerce Comm'n vs. Ameren et al., ICC Docket No. 20-0741, Final Order (December 2, 2020).

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 Revised Plan 6 cycle is in IL TRM Version 9.

ComEd utilized Analytica for Revised Plan 6 modeling and cost-effectiveness analyses. 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 A (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 6. 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 + utility implementation and administrative costs). The formal expression of the Illinois TRC test is as follows:

$$TRC = \frac{\frac{\sum_{t=1}^{N} UAC_{t} + OQB_{t}}{(1+d)^{t-1}}}{\frac{\sum_{t=1}^{N} PRC_{t} + PCN_{t} + UIC_{t}}{(1+d)^{t-1}}}$$

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 often is applied to assess the cost effectiveness of individual energy efficiency measures as well as energy efficiency 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.

4.1.3 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 costs are included in this TRC test analysis.

Upon analyzing the results of the TRC test on individual energy efficiency 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 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 screening process and the cost-effectiveness screening process for measures discussed above. First, when screening measures, the Program Cost ("PRC") variable ("program administrator costs") in the Illinois TRC test is set to zero. However, program-level screening requires that the PRC variable equal the cost to implement and administer the program.

Second, while the measure screening focused on the cost effectiveness of a single measure, program screening, 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 that 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. These customers are known as "free drivers" and the savings that their actions produce are termed "spillover." Just as the effects of free riders are accounted for, so are the effects of free drivers.

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 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. The NTG ratio is a number calculated based on post-implementation evaluation of program impacts. Using various evaluation methods dependent on the program type, evaluators attempt to determine which participants are free riders (i.e., would have undertaken a program-sponsored action even without the program) and which non-participants and participants are free drivers (i.e., took action even though they did not avail themselves of the program incentives). Program planners use the results of prior NTG ratio analyses and any available additional information as inputs to program cost-effectiveness calculations.

For Revised Plan 6, 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 to deliver the programs. These costs were adjusted to reflect potential increases or decreases in cost elements over time.

For new programs, ComEd developed estimates of NTG ratios using proxy values from current programs. 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 (discussed in more detail in Section 4.2.2 *infra*).

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 6 TRCs were calculated with and without societal NEIs amongst the benefits. This planning enhancement is discussed in more detail in Section 4.2.3 *infra*.

4.1.4 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, and Third-Party carveouts; budget constraints; funding assurance for portfolio-level costs (e.g., evaluation); and for Revised Plan 6, Stipulation requirements. Due to the introduction of CPAS goals in Plan 5, this step has become even more complex and critical for Revised Plan 6 as it attempts to build on Plan 5's successes, which means relying on the performance and persisting savings of Plan 5 programs to achieve the Revised Plan 6 CPAS goals. Thus, the need to ensure that the mix of measures provides future year savings is now more critical than ever.

4.2 Key Planning Enhancements

When developing Revised Plan 6, ComEd undertook several enhancements and changes to its planning process, as described below.

4.2.1 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 Plan 5, ComEd conducted updated End-Use Baseline Study to set the foundation for assumptions about additional kWh savings that EE programs could achieve in 2022-2025.²³ The End-Use 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 non-Exempt Group ComEd customers, including IE and public sector customers, who were new to the portfolio in 2018.

4.2.2 Market Potential Study

Based on the state of EE equipment and usage in ComEd's service territory established in the End-of-Use Baseline Study, ComEd conducted a Market Potential Study, provided as Appendix B, to estimate the future potential cost-effective EE savings that could be achieved from programs.²⁴ The Market Potential Study projected program savings

²³ Commonwealth Edison Baseline Study, August 14, 2020, available at <u>https://ilsag.s3.amazonaws.com/ComEd_Baseline_Study_Report_Final_Aug-2020.pdf</u> (last accessed February 25, 2021).

²⁴ See Dunsky, Commonwealth Edison Energy Efficiency Potential Study: A Comprehensive Assessment of 2021-2030 Net Economic Opportunities, August 2020 ("Market Potential Study"), available at https://ilsag.s3.amazonaws.com/ComEd-2021-2030-Potential-Study-Final-Report-rev1_Aug-2020.pdf (last accessed February 25, 2021) (attached hereto as Appendix B).

potential through 2025 for key customer classes, customer segments, 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 stakeholders through the SAG.

4.2.3 Cost Effectiveness

Several enhancements were made to the cost-effectiveness analyses starting in Original Plan 6 and continuing on in Revised Plan 6.

First, for prior Plans, ComEd licensed the computer software DSMore, a demand-side management planning model, and used the model to conduct the preliminary costeffectiveness analysis. For Original and Revised Plan 6, ComEd transitioned to Analytica, a visual software environment for building quantitative decision models. This transition was made to increase the transparency of cost-effectiveness inputs and calculations and for consistency with the ComEd independent evaluator's cost-effectiveness calculation methodology.

Also, beginning in 2021 and effective for the Plan 6 Period, ComEd has transitioned from hourly to annual average avoided costs. Similar to ComEd's transition to Analytica, the transition to annual average avoided costs was made to be consistent with our independent evaluator's existing methodology, as well as methodologies utilized by other Illinois utilities. Annual average avoided costs also offer greater flexibility and transparency with stakeholders.

Finally, 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 6 TRCs included societal NEIs amongst the benefits.

Societal NEIs, which are the quantified health impacts of avoided emissions to society, are incorporated into TRCs for Revised Plan 6 in two ways, depending on the program. For existing programs or those with minimal changes from Plan 5, ComEd used program-level monetized societal NEI values provided by the independent evaluator. For new or redesigned programs, ComEd used annual benefit-per-kWh estimates provided by the independent evaluator to calculate program-level societal NEI values – multiplying each year of a program's CPAS by each year's health-benefit-per-kWh estimate, then summing the result. ComEd did not account for utility NEI values (as independent evaluator results were not statistically significant) or participant NEI values (because only proxy values based on secondary research were available).

4.2.4 Stakeholder Input and Collaboration

In its Order approving ComEd's first EE Plan, the ICC directed ComEd and other portfolio administrators to establish the SAG—a collaborative stakeholder group convened to discuss, among other things, EE planning, implementation, and evaluation issues.²⁵ An independent facilitator was subsequently retained to manage the SAG meetings for the utilities and the Illinois Department of Commerce & Economic Opportunity ("DCEO"). The SAG, consisting primarily of environmental and consumer groups, has been a resource partner for ComEd throughout the implementation of all of its prior Plans, as well as for the development of this Plan.

This collaborative effort continues to be a success, with all stakeholders having built a shared understanding of the processes for program planning, implementation, and evaluation. Much of the consensus has been memorialized in the Policy Manual, which is applicable to this Plan. ComEd intends to continue to engage with the SAG as a forum for review and discussion throughout the Plan Period.

Like Plan 5 and those before it, the SAG and its stakeholder participants have been crucial in the development of Original and Revised Plan 6. As to Original Plan 6, consensus-building first began through the SAG process, during which positions, challenges, and opportunities were presented and discussed by the utilities and the stakeholders. SAG members also offered new program ideas, and ComEd provided SAG members the opportunity to preview Original Plan 6 and solicited stakeholder feedback. Following SAG discussions, ComEd engaged in extensive negotiations with several stakeholders in an effort to reach agreement regarding Original Plan 6. Over several months, ComEd and the negotiating stakeholders discussed key components of the Plan, culminating in the Original Stipulation executed by the applicable parties.

The second planning phase commenced after the Clean Energy Law took effect, which prompted signatories to the Original Stipulation to reconvene and discuss proposals to update the Original Stipulation and Original Plan 6. Like the Original Stipulation negotiations, these efforts were successful, and resulted in the executed Revised Stipulation and Revised Plan 6.

As noted in the Revised Stipulation, the Revised Plan satisfies the requirements of Section 8-103B of the Act, and the Parties accordingly urge the Commission to approve the Revised Plan and Revised Stipulation. Key aspects of the Revised Stipulation, ComEd Ex. 1.02R, include:

²⁵ See Commonwealth Edison Co., ICC Docket No. 07-0540, Final Order (Feb. 6, 2008) at 32-33.

- Energy Savings Goals: Revised Plan 6 is designed to achieve Section 8-103B of the PUA's applicable statutory savings goals within the budgets established by Section 8-103B(m) for the Plan Period. ComEd's Revised Plan 6 meets the requirements of Section 8-103B and should be approved by the Commission.
- IE Program Spend: While the law requires that a minimum of \$40 million per year be allocated towards IE programs, ComEd has committed to spend an average of \$100 million per year on this customer segment through its IE programs, public housing, R&D spend, and H&S. In addition, ComEd will spend an average of \$69 million per year on IE Single- and Multifamily Upgrades and IE New Construction (the ComEd whole-building retrofit programs), excluding allocated overhead; and a minimum of \$32 million will be allocated to IE Multifamily Upgrades. In compliance with Clean Energy Law amendments, investments in IE whole-building programs will constitute at least 80% of the budget specifically dedicated to serving IE customers, and ComEd has allocated at least 15% of the total IE whole-building weatherization programs' annual budget to H&S measures. While not a commitment in the Stipulation, as noted, ComEd has also budgeted \$13 million for portfolio-level activities, for a total annual average IE spend of \$113 million.
- Other IE Topics: The Revised Stipulation optimizes many IE program design features and H&S provisions, strengthens the connection between EE IE programs and financial assistance programs (as well as other offerings, such as Illinois Solar for All), and establishes various procedural and operational commitments to support the Committee.
- **Coordination with Gas Utilities:** Since the submittal of the Original Plan, ComEd • has reached agreement with the gas utilities on joint or coordinated delivery of its IE Single-Family and Multifamily Upgrades programs and investment in building envelope improvements in non-IE homes. However, with the significant revisions incorporated in Revised Plan 6, it is possible subsequent discussions and revisions to these agreements may be necessary. As captured in the Revised Stipulation, should such discussions be required, ComEd is committed to make best efforts to reach consensus. Moreover, the Revised Stipulation also provides for a backstop mechanism, if agreement cannot be reached between ComEd and the gas utilities. Specifically, in the event ComEd and the gas utilities are unable to reach an agreement for joint or coordinated delivery, ComEd commits to purchase kWh from the gas utilities for relevant offerings they may have (provided that forecasts are shared with ComEd at least 90 days prior to the start of the program year), and sell therms to the gas utilities for ComEd's relevant offerings. Additionally, for Joint Single-Family – IE and Multifamily – IE programs, ComEd commits to ensure that eligible gas and electric efficiency measures are identified and installed in all homes/buildings

treated, and that systems are in place to ensure individual multifamily building owners will not be recruited or marketed to by more than one of ComEd's implementation contractors. In addition, ComEd will also make best efforts to reach agreement with the gas utilities to streamline customer experiences and reduce possible customer confusion, including exploring opportunities for joint enrollment forms, agreeing on a common set of electric and gas measures to be offered, and reporting to SAG.

- **Standing Up Energy Efficiency Electrification:** The Revised Stipulation reflects ComEd's new ability to fund and claim savings from measures that electrify building and industrial end uses, including goals and program approaches (with a particular focus on IE customers), as well as future collaboration with stakeholders.
- Third-Party Programs: The Third-Party solicitation process for the Plan 6 Period focused on Retro-Commissioning and Industrial Systems (under the Business & Public Sector Targeted Systems offering) and delivery of up to \$5 million of innovative and non-duplicative approaches to IE customers. This solicitation process has been completed and satisfies the approval requirements in Section 8-103B(g)(4) of the PUA. Other new, innovative ideas can continue to be submitted for consideration via ComEd's existing R&D submission process.
- New MDI: ComEd has dedicated on average \$4 million annually to the new MDI.
- Increased Reporting: Beginning in 2022, ComEd will significantly expand its reporting metrics on a range of topics, including but not limited to: IE Multifamily, H&S, equity/affordability, and supplier diversity. ComEd agrees to support the inclusion of additional reporting metrics or topics in an updated version of the Policy Manual, to be discussed through the SAG.
- **Changes in Law:** To the extent that there are changes in applicable law (e.g., EISA) that materially impact the implementation of this Revised Plan or provisions of the Revised Stipulation, the Parties will work collaboratively with ComEd with the goal of reaching consensus on the related impacts and the need, if any, for adjustments to the Revised Stipulation and Revised Plan.

Overall, stakeholders have been a tremendous resource for ComEd as it has executed its EE portfolio, strengthening the portfolio's programs and expanding its reach and equitable provisions. ComEd is grateful for their continued engagement, input, and support.

4.2.5 Electric/Gas Integration

Since ComEd Plan 2, the Northern Illinois electric and gas utilities have implemented a

variety of jointly delivered EE programs and have met regularly for many years in support of coordinated efforts. These coordinated efforts have been very successful in the past and have added value to the portfolio from both the utilities' and customers' perspectives.

ComEd looks forward to continuing these efforts with the gas utilities as part of Revised Plan 6. The following program elements will be co-delivered, or coordinated, by ComEd and the gas utilities during the Plan 6 Period.

	Single-Family Upgrades
	Multifamily Upgrades
Posidential & Income Eligible	Product Distribution
	Retail/Online (smart thermostats only)
	New Construction – IE
	New Construction – Bus/Pub
Business & Public Sector	Targeted Systems (Retro- Commissioning)
	Behavior – Bus/Pub (Strategic Energy Management)

TABLE 4-1: PLAN 6 JOINT/COORDINATED PROGRAMS
5. The ComEd Portfolio

5.1 Portfolio Design

As in Plan 5, ComEd will continue to promote the portfolio under the banner of the "ComEd Energy Efficiency Program" during the Plan 6 Period. Starting with this Period, however, ComEd is approaching the portfolio with a more consolidated structure compared to Plan 5. While ComEd continues to generally view its portfolio as offering two "umbrella" programs – Residential and IE, and Business and Public Sector – with a variety of program elements under each umbrella, the new consolidated structure accomplishes several objectives: it reduces duplication of programs and offerings; simplifies the suite of programs, making energy-saving opportunities easier for customers to navigate; and provides greater flexibility in managing the portfolio overall.

Table 5-1 illustrates the new consolidated portfolio structure for Revised Plan 6. Unless otherwise noted throughout this Plan, the portfolio will be presented at the "program element" level, which is defined by the white boxes in the chart.

Key changes in the Revised Plan 6 portfolio organizational structure compared to Plan 5 include:

- Residential and IE program elements will be combined under one "umbrella," which will be easier for customers to navigate and allow for more cohesive delivery.
- To maximize efficiencies in Third-Party in Plan 6,²⁶ the remaining Plan 5 Third-Party programs will be incorporated into the core portfolio or phased out, to remove overlap with other programs, reduce administrative burden, and improve overall customer experience. Income Eligible Kits and Food Bank LED Distribution are now incorporated under Product Distribution. Offerings for targeted segments of business and public sector customers, which were largely duplicative of existing program elements, have been phased out. However, these customers will still be served under the Incentives program element and others and recruited to participate in Business and Public Sector offerings through targeted outreach. The Plan 6 Third-Party solicitation process focused on finding an implementer for the Targeted Systems

²⁶ In Plan 5, the Third-Party RFP was issued in 2018 (i.e., Year 1 of Plan 5) for programs to begin January 1, 2019 (i.e., Year 2 of Plan 5). A total of 11 ICC-approved Third-Party program elements targeting underserved sectors or areas, or taking advantage of underused delivery channels, were selected through a competitive bid process. With a few notable exceptions (i.e., Income Eligible Kits and Food Bank LED Distribution), over the course of the first two years of implementation, several programs underperformed in terms of projected impact and cost effectiveness. Additionally, they created duplication and redundancies with existing ComEd programs, especially in the Business sector. In some cases, Plan 5 Third-Party offerings have been ramped up over time, but others have already been phased out due to poor performance.

element, including Retro-Commissioning and Industrial Systems, under the Business and Public Sector program.

• Finally, the Multi-Segment program captures the VO element.



TABLE 5-1: COMED PLAN 6 PORTFOLIO DESIGN

The only key change in the Revised Plan 6 portfolio design compared to Original Plan 6 is the incorporation of EE electrification. ComEd's intent is to incorporate the offering of these measures into the Residential and Income Eligible program elements, as well as the Business and Public Sector elements. However, given the still new nature of this opportunity and desire to implement these measures gradually and conscientiously, Revised Plan 6 reflects the projected spend and savings at the program umbrella level (i.e., Residential and Income Eligible, and Business and Public Sector), while providing more detail for the IE program elements consistent with the Revised Stipulation. More details can be found in Sections 5.2 and 5.3. *infra*

The Revised Plan 6 portfolio is also designed to meet the applicable statutory DR goal. The statute defines DR as "measures that decrease peak demand or shift demand from peak to off-peak periods." 220 ILCS 3855/1-10. In Plan 5, ComEd satisfied the requirements of the DR goal through the implementation of energy efficiency measures that also reduced peak demand. This allowed ComEd to maximize the amount of energy efficiency funding for EE measures by reducing investment in an expensive stand-alone DR program. In light of ComEd's success in Plan 5 and to maximize available funding, ComEd will take the same approach for Revised Plan 6 and meet its DR goals through its EE Residential and IE programs.

The Revised Plan 6 portfolio and its cost effectiveness are presented below in several tables.

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

Programs	2022	2023	2024	2025	4-Year Plan
Programs	Budgets	Budgets	Budgets	Budgets	Budgets
Residential & Income E	Eligible Program	າຣ			
Retail/Online	\$40,022,338	\$41,021,424	\$38,814,068	\$38,552,852	\$158,410,682
Single-Family Upgrades	\$32,040,685	\$34,247,629	\$33,654,079	\$33,760,643	\$133,703,035
Multifamily Upgrades	\$32,511,888	\$33,966,457	\$34,608,826	\$34,231,293	\$135,318,464
Product Distribution	\$13,865,794	\$14,072,828	\$14,049,992	\$14,044,784	\$56,033,398
Behavior – Res/IE	\$6,739,410	\$6,863,630	\$6,863,630	\$6,863,630	\$27,330,299
New Construction – IE	\$3,376,145	\$3,339,749	\$4,120,984	\$4,205,615	\$15,042,493
Contractor/Midstream Rebates	\$3,228,947	\$3,228,947	\$3,228,947	\$3,228,947	\$12,915,788
Electrification – Res	\$315,149	\$775,832	\$808,369	\$848,438	\$2,747,788
Electrification – IE	\$1,620,000	\$8,502,500	\$12,695,000	\$16,820,000	\$39,637,500
Sector General	\$4,690,773	\$4,078,507	\$4,056,302	\$4,005,450	\$16,831,031
RES/IE TOTAL	\$138,411,129	\$150,097,501	\$152,900,195	\$156,561,652	\$597,970,478
Business & Public Sec	tor Programs				
Small Business	\$90,326,049	\$87,014,957	\$86,881,254	\$87,016,948	\$351,239,208
Incentives	\$94,836,955	\$80,419,397	\$79,890,049	\$76,226,492	\$331,372,892
Targeted Systems	\$25,513,066	\$28,909,282	\$29,119,017	\$29,228,913	\$112,770,278
Midstream/Upstream	\$15,344,091	\$15,073,164	\$14,911,914	\$14,770,939	\$60,100,108
Behavior – Bus/Pub	\$6,468,712	\$6,468,712	\$6,468,712	\$6,468,712	\$25,874,847
New Construction – Bus/Pub	\$3,497,564	\$3,432,149	\$3,384,808	\$3,337,468	\$13,651,989
Assessments	\$2,804,401	\$2,804,401	\$2,804,401	\$2,804,401	\$11,217,605
Electrification - Bus/Pub	\$244,760	\$1,130,316	\$1,712,532	\$2,329,776	\$5,417,385
Sector General	\$6,716,000	\$5,882,547	\$6,330,819	\$6,823,918	\$25,753,283
BUS/PUB TOTAL	\$245,751,598	\$231,134,924	\$231,503,506	\$229,007,566	\$937,397,594
Portfolio-Level Costs					
Evaluation	\$9,500,000	\$9,500,000	\$8,500,000	\$8,500,000	\$36,000,000
Research & Development	\$11,800,000	\$11,400,000	\$11,300,000	\$11,300,000	\$45,800,000
Market Development Initiative	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$16,000,000
Portfolio Administration	\$13,200,000	\$13,600,000	\$14,700,000	\$14,700,000	\$56,200,000
Education & Awareness	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$8,000,000
PORTFOLIO-LEVEL COSTS TOTAL	\$40,500,000	\$40,500,000	\$40,500,000	\$40,500,000	\$162,000,000
PORTFOLIO TOTAL	\$424,662,727	\$421,732,426	\$424,903,701	\$426,069,219	\$1,697,368,072

TABLE 5-2: PLAN 6 BUDGETS

Table 5-3 summarizes the projected first-year energy savings for each program element by year.

	2022	2023	2024	2025			
Programs	First Year Energy Savings (MWh)	First Year Energy Savings (MWh)	First Year Energy Savings (MWh)	First Year Energy Savings (MWh)	4-Year Energy Savings (MWh)		
Residential & Income Eligible Programs							
Retail/Online	218,863	226,918	207,156	202,353	855,290		
Single-Family Upgrades	61,184	61,552	61,959	62,366	247,061		
Multifamily Upgrades	34,823	34,912	35,374	35,356	140,466		
Product Distribution	145,729	145,142	144,722	144,757	580,349		
Behavior – Res/IE	89,923	89,923	89,923	89,923	359,692		
New Construction – IE	2,426	2,134	1,923	1,764	8,247		
Contractor/Midstream Rebates	8,459	8,459	15,410	15,410	47,737		
Electrification – Res	2,180	5,419	5,715	6,084	19,398		
Electrification – IE	1,238	7,752	11,465	14,910	35,365		
Res/IE Total	564,824	582,211	573,647	572,923	2,293,604		
Business & Public Sector Program	ns						
Small Business	265,564	274,854	268,720	263,039	1,072,177		
Incentives	304,177	297,330	278,439	252,684	1,132,630		
Targeted Systems	91,983	108,826	108,831	108,850	418,490		
Midstream/Upstream	192,926	202,155	208,037	197,864	800,982		
Behavior – Bus/Pub	38,895	38,895	38,895	38,895	155,580		
New Construction – Bus/Pub	10,549	10,549	10,549	10,549	42,196		
Assessments	4,051	4,051	4,051	4,051	16,204		
Electrification – Bus/Pub	1,533	4,255	5,302	6,791	17,881		
Bus/Pub Total	909,678	940,916	922,824	882,723	3,656,140		
Multi-Segment and Portfolio-Level Activities							
Voltage Optimization	165,000	164,704	223,536	262,929	816,169		
Research and Development	21,651	23,095	25,414	29,274	99,434		
ComEd EE Portfolio							
PORTFOLIO TOTAL	1,661,153	1,710,925	1,745,421	1,747,848	6,865,346		

TABLE 5-3: PROJECTED FIRST-YEAR SAVINGS BY PROGRAM AND YEAR

Table 5-4 summarizes the projected CPAS for each proposed program element by year. Revised Plan 6's CPAS contribution does not account for expiring savings from previous years.

	2022	2023	2024	2025	4-Year			
Programs	CPAS Contribution* (MWh)	CPAS Contribution* (MWh)	CPAS Contribution* (MWh)	CPAS Contribution* (MWh)	CPAS Energy Savings (MWh)			
Residential & Income Eligible Programs								
Retail/Online	218,863	445,781	652,936	855,290	855,290			
Single-Family Upgrades	61,184	122,735	181,715	241,102	241,102			
Multifamily Upgrades	34,823	69,736	103,105	136,023	136,023			
Product Distribution	145,729	290,870	435,571	580,307	580,307			
Behavior – Res/IE	89,923	160,063	214,916	257,180	257,180			
New Construction – Res/IE	2,426	4,560	6,411	8,111	8,111			
Contractor/Midstream Rebates	8,459	16,918	32,316	47,564	47,564			
Electrification – Res	2,180	7,599	13,314	19,398	19,398			
Electrification – IE	1,238	8,990	20,455	35,365	35,365			
RES/IE TOTAL	564,824	1,127,252	1,660,739	2,180,340	2,180,340			
Business & Public Sector	Programs							
Small Business	265,564	540,418	808,620	1,070,125	1,070,125			
Incentives	304,177	601,507	879,174	1,130,201	1,130,201			
Targeted Systems	91,983	200,809	309,640	410,168	410,168			
Midstream/Upstream	192,926	395,081	603,119	800,982	800,982			
Behavior – Bus/Pub	38,895	77,790	116,685	155,580	155,580			
New Construction – Bus/Pub	10,549	21,098	31,647	42,196	42,196			
Assessments	4,051	8,102	12,153	15,321	15,321			
Electrification – Bus/Pub	1,533	5,788	11,090	17,881	17,881			
BUS/PUB TOTAL	909,678	1,850,594	2,772,127	3,642,453	3,642,453			
Multi-Segment & Portfolio-Level Activities								
Voltage Optimization	165,000	329,704	553,240	816,169	816,169			
Research & Development	21,651	44,746	70,160	99,434	99,434			
ComEd EE Portfolio								
PORTFOLIO TOTAL	1,661,153	3,352,295	5,056,265	6,738,396	6,738,396			

TABLE 5-4: PROJECTED CPAS SAVINGS BY PROGRAM AND YEAR

Table 5-5 summarizes the projected first-year and lifecycle costs, by dollars per kWh, for each of the program elements. Residential and IE Programs and Business and Public Sector Programs include sector general costs, and ComEd Portfolio includes portfolio-level costs.

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

Programs	First-Year Costs (\$/kWh) 2022–2025 Average	Lifecycle Costs (\$/kWh) 2022–2025 Average
Residential & Income Eligible Programs		
Retail/Online	\$0.19	\$0.018
Single-Family Upgrades	\$0.54	\$0.038
Multifamily Upgrades	\$0.96	\$0.097
Product Distribution	\$0.10	\$0.010
Behavior – Res/IE	\$0.08	\$0.018
New Construction – IE	\$1.82	\$0.075
Contractor/Midstream Rebates	\$0.27	\$0.020
Electrification – Res	\$0.14	\$0.010
Electrification – IE	\$1.12	\$0.070
RES/IE	\$0.26	\$0.027
Business & Public Sector Programs		
Small Business	\$0.33	\$0.027
Incentives	\$0.29	\$0.021
Targeted Systems	\$0.27	\$0.028
Midstream/Upstream	\$0.08	\$0.007
Behavior – Bus/Pub	\$0.17	\$0.033
New Construction – Bus/Pub	\$0.32	\$0.019
Assessments	\$0.69	\$0.125
Electrification – Bus/Pub	\$0.30	\$0.023
BUS/PUB	\$0.26	\$0.022
COMED PORTFOLIO TOTAL	\$0.25	\$0.021

Table 5-6 presents the average measure life for each program element by year. The average measure life is an important metric for the CPAS goal.

	Measure Life (years)			
Programs	2022	2023	2024	2025
Residential & Income Eligible Pro	grams			
Retail/Online	10.9	10.9	10.9	10.9
Single-Family Upgrades	16.2	16.2	16.2	16.2
Multifamily Upgrades	12.0	12.2	12.3	12.5
Product Distribution	9.8	9.8	9.8	9.8
Behavior – Res/IE	10.0	10.0	10.0	10.0
New Construction – IE	25.0	25.0	25.0	25.0
Contractor/Midstream Rebates	15.1	15.1	13.3	13.3
Electrification – Res	14.9	14.9	14.8	14.6
Electrification – IE	16.0	16.0	16.0	16.0
RES/IE	11.3	11.3	11.4	11.4
Business & Public Sector Program	ns			
Small Business	13.4	13.4	13.4	13.3
Incentives	14.3	14.1	14.1	14.1
Targeted Systems	9.7	9.7	9.7	9.7
Midstream/Upstream	11.0	11.0	11.0	11.0
Behavior – Bus/Pub	5.0	5.0	5.0	5.0
New Construction – Bus/Pub	17.4	17.4	17.4	17.4
Assessments	4.6	4.6	4.6	4.6
Electrification – Bus/Pub	11.4	12.2	13.2	14.0
BUS/PUB	12.5	12.4	12.4	12.3
Multi-Segment and Portfolio-Leve	Activitie:	s		
Voltage Optimization	15.0	15.0	15.0	15.0
Research and Development	14.2	13.9	13.5	13.0
TOTAL COMED PORTFOLIO	12.1	12.1	12.2	12.3
TOTAL COMED PORTFOLIO, EXCLUDING VO	11.9	11.9	11.9	11.9

TABLE 5-6: PROJECTED PLAN 6 PROGRAM MEASURE LIFE

Table 5-7 shows the peak demand reductions expected from the Residential and IE programs.

	2022	2023	2024	2025	4-Year		
Program	Net MW	Net MW	Net MW	Net MW	I otal Net MW		
Residential & Income Eligible Programs							
Retail/Online	39.2	38.8	35.1	34.6	147.8		
Single-Family Upgrades	6.5	6.5	6.6	6.6	26.3		
Multifamily Upgrades	3.1	3.2	3.2	3.2	12.7		
Product Distribution	16.3	14.9	13.8	14.0	59.0		
Behavior – Res/IE	15.5	15.5	15.5	15.5	62.1		
New Construction – Res/IE	0.2	0.2	0.2	0.2	0.8		
Contractor/Midstream Rebates	1.6	1.6	1.6	1.6	6.3		
Electrification – Res	0.0	(0.0)	(0.1)	(0.2)	(0.4)		
Electrification – IE	0	0.0	0.0	0.0	0.0		
RES/IE TOTAL	82.5	80.7	75.8	75.5	314.5		

TABLE 5-7: PROJECTED PLAN 6 PEAK DEMAND REDUCTIONS

The Revised Plan 6 portfolio projected TRC and cost effectiveness values are presented in several tables below. The portfolio as a whole (excluding the IE programs) is cost effective, with a TRC test benefit-cost ratio of 2.54 average annually, or 3.44 with NEIs.

Table 5-8 presents projected TRC results for each program element. Residential and IE Programs and Business and Public Sector Programs include sector general costs.

Programs	TRC				
	2022	2023	2024	2025	
Residential & Income Eligible P	rograms				
Retail/Online	2.29	2.34	2.19	2.27	
Single-Family Upgrades	0.56	0.57	0.59	0.60	
Multifamily Upgrades	0.62	0.61	0.61	0.63	
Product Distribution	5.35	5.16	5.07	5.21	
Behavior – Res/IE	8.88	8.92	9.12	9.33	
New Construction – IE	0.94	0.89	0.77	0.73	
Contractor/Midstream Rebates	2.23	2.06	2.11	2.16	
Electrification – Res	1.23	1.20	1.17	1.12	
Electrification – IE	0.45	0.51	0.52	0.52	
RES/IE	1.95	1.85	1.77	1.80	
Business & Public Sector Progr	ams				
Small Business	2.30	2.30	2.29	2.28	
Incentives	2.78	2.92	2.84	2.77	
Targeted Systems	2.34	2.39	2.43	2.48	
Midstream/Upstream	7.47	7.33	7.49	7.65	
Behavior – Bus/Pub	1.44	1.49	1.54	1.59	
New Construction – Bus/Pub	1.89	1.72	1.77	1.82	
Assessments	0.39	0.38	0.40	0.41	
Electrification – Bus/Pub	0.33	0.28	0.26	0.24	
BUS/PUB	2.90	2.79	2.74	2.68	
Multi-Segment and Portfolio-Le	vel Activ	ities			
R&D/Market Trans	2.44	2.54	2.68	2.87	
Voltage Optimization	2.44	2.35	2.41	2.36	
PROGRAMS TOTAL	2.37	2.24	2.21	2.20	

TABLE 5-8: PROJECTED TRC BY PROGRAM

Table 5-9 presents the portfolio's cost-effectiveness test results. These values include portfolio-level costs.

Total Portfolio	CE Results Excluding NEIs	CE Results Including NEIs
TRC	2.26	2.98
PACT/UCT	2.58	
TRC – Excluding IE	2.54	3.44
PACT/UCT – Excluding IE	1.97	

TABLE 5-9: PLAN 6 COST-EFFECTIVENESS ("CE") TEST RESULTS

More detailed projected cost-effectiveness results, including TRC ratios and net benefit values, with and without NEIs, for each program element, can be found in Appendix C (Revised Plan 6 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 customers. ComEd has a total of 3.5 million residential customers, accounting for 90% of ComEd's total retail customers and approximately 32% of ComEd's overall kWh usage.

For Revised Plan 6, the Residential and IE program umbrella consists of the following seven program elements: (1) Behavior – Res/IE; (2) Retail/Online; (3) Contractor/Distributor Rebates; (4) Product Distribution; (5) Single-Family Upgrades; (6) Multifamily Upgrades; and (7) New Construction – IE. Additionally, as noted, ComEd's intent is to incorporate the offering of EE electrification measures in the program elements outlined above. However, given the still new nature of this opportunity and desire to do so gradually and conscientiously, Revised Plan 6 reflects the projected spend and savings at the program umbrella level – in this case Electrification – IE and Electrification – Res, while providing more detail for the IE program elements consistent with the Revised Stipulation. As shown above in Table 5-4, in total, these program elements are projected to cumulatively provide CPAS of 564,824 MWh, 1,127,252 MWh, 1,660,739 MWh, and 2,180,340 MWh for 2022, 2023, 2024 and 2025, respectively. Within the overall portfolio, the Residential and IE program umbrella is expected to attain 34% of ComEd's total CPAS goal in 2022, 34% in 2023, 33% in 2024, and 32% in 2025.

IE customers are able to participate in all of the Residential and IE program elements, but there are five program elements with funding dedicated specifically to IE customers (i.e., Retail/Online, Product Distribution, Single-Family Upgrades, Multifamily Upgrades, New Construction – IE). 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. The IE-specific portions of

the Residential and IE umbrella are projected to provide 270,747 MWh, 549,731 MWh, 809,093 MWh, and 1,074,013 MWh for 2022, 2023, 2024 and 2025, respectively (or, in terms of total portfolio CPAS goals, 16% in 2022, 16% in 2023, 16% in 2024, and 16% in 2025).

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 the 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 Plan 6 Period, ComEd collaborated with stakeholders to identify meaningful ways to increase the EE impact in IE communities even further. In Revised Plan 6, ComEd has dedicated \$113 million on average annually to this customer segment – 184% over the statutory minimum – all while still designing the portfolio to achieve the statutory savings goals and maintain cost-effectiveness. Within this expanded IE budget, ComEd has committed to the following specific allocations in the Stipulation:

- \$100 million per year to IE customers, on average, over the four-year plan period, excluding allocated overhead but including IE R&D, H&S, and public-housing efforts.
- A \$69 million average annual allocation to whole building weatherization program elements, as these projects have the greatest impact on customer energy bills.
- Within the whole building weatherization program elements, \$32 million on average to multifamily properties, a \$23.75 million annual increase from Plan 5. This increased focus on multifamily housing reflects ComEd's customer composition, as multifamily buildings make up approximately 58% of IE housing in the ComEd territory.²⁷

In compliance with Clean Energy Law amendments, investments in IE whole building weatherization programs constitute at least 80% 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.

See ComEd Ex. 1.02 and Table 5-10 below, which illustrates the program elements that

²⁷ As ComEd undertakes joint/coordinated programs with the gas utilities, ComEd may need to adjust its \$100 million total IE budget, \$69 million whole-building budget, and/or \$32 million multifamily whole-building budget, as a result of unanticipated changes in its coordination with the gas utilities, in an amount commensurate with those changes. ComEd agrees to consult with interested parties and to use best efforts to reach consensus. *See* Rev. Stipulation, ComEd Ex. 1.02.

comprise the various carveouts.

Program Element/Channel	IE ²⁸	Dedicated IE	Whole Building Weatherization IE	Whole Building Weatherization IE – MF
Single-Family Upgrades – IE	X	X	X	
Multifamily Upgrades – IE	Х	Х	Х	Х
Multifamily Upgrades – Public Housing	Х	х	Х	Х
Electrification – IE	Х	Х	Х	Х
New Construction – IE	Х	Х	Х	
Product Distribution – Food Bank Distribution	Х	х		
Product Distribution – IE Kits	Х	Х		
Retail/Online – IE	Х			
Single-Family Upgrades – IE Home Energy Assessment	Х			
Product Distribution – IE Elementary Education Kits	Х			
Sector General – IE	Х			
IE R&D	Х			
Budget Commitment (millions) ²⁹	\$101	\$81	\$69	\$32

TABLE 5-10: IE PROGRAM ELEMENT/DELIVERY CHANNEL CATEGORIZATION

Additionally, as reflected in the Revised Stipulation, ComEd has identified several complementary IE initiatives to increase the impact of the IE program elements, including: (1) increased coordination of customer education regarding the EE and financial assistance programs, (2) measuring and tracking not just EE savings, but also bill impacts for customers, and (3) participating in the Committee.

Tables 5-11 and 5-12 provide projected budgets and net savings for the Residential and IE program elements, by year.

²⁸ For the Retail/Online – IE, Single-Family Upgrades – IE Home Energy Assessment, Product Distribution – IE Elementary Education Kits programs, and IE R&D only the portion of spending that is specifically associated with IE customers counts towards the \$100 million IE spending commitment.

²⁹ ComEd also commits to a budget for H&S investments equal to 15% of the combined budget for Single Family Upgrades – IE, Multifamily Upgrades – IE, Multifamily Upgrades – Public Housing, and Electrification – IE.

Dregreme	2022	2023	2024	2025	4 Year Plan
Programs	Budget	Budget	Budget	Budget	Budget
Residential Budget					
Retail/Online	\$32,638,851	\$32,857,865	\$32,748,358	\$31,960,887	\$130,205,960
Single-Family Upgrades	\$2,055,918	\$2,252,588	\$1,721,486	\$1,721,486	\$7,751,478
Multifamily Upgrades	\$4,996,635	\$4,798,210	\$4,401,359	\$3,657,264	\$17,853,468
Product Distribution	\$848,938	\$860,500	\$868,813	\$876,809	\$3,455,060
Behavior – Res/IE	\$6,739,410	\$6,863,630	\$6,863,630	\$6,863,630	\$27,330,299
Contractor/Midstream Rebates	\$3,228,947	\$3,228,947	\$3,228,947	\$3,228,947	\$12,915,788
Electrification – Res/IE	\$315,149	\$775,832	\$808,369	\$848,438	\$2,747,788
Sector General – Res	\$590,773	\$278,507	\$256,302	\$205,450	\$1,331,031
Residential Total	\$51,414,622	\$51,916,077	\$50,897,262	\$49,362,910	\$203,590,871
Income Eligible Budget		-	-		-
Retail/Online	\$7,383,488	\$8,163,559	\$6,065,710	\$6,591,966	\$28,204,722
Single-Family Upgrades	\$29,984,766	\$31,995,042	\$31,932,593	\$32,039,157	\$125,951,558
Multifamily Upgrades	\$27,515,252	\$29,168,247	\$30,207,467	\$30,574,030	\$117,464,996
Product Distribution	\$13,016,856	\$13,212,328	\$13,181,179	\$13,167,974	\$52,578,338
New Construction – IE	\$3,376,145	\$3,339,749	\$4,120,984	\$4,205,615	\$15,042,493
Electrification – Res/IE	\$1,620,000	\$8,502,500	\$12,695,000	\$16,820,000	\$39,637,500
Research & Development - IE	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$8,000,000
Sector General – IE	\$4,100,000	\$3,800,000	\$3,800,000	\$3,800,000	\$15,500,000
Income Eligible Total	\$88,996,507	\$100,181,425	\$104,002,933	\$109,198,742	\$402,379,607
Total Residential & Income Eligible Budget	\$140,411,129	\$152,097,501	\$154,900,195	\$158,940,600	\$606,349,425

TABLE 5-11: RESIDENTIAL & INCOME ELIGIBLE BUDGETS

Programs	2022 First Year Energy Savings (MWh)	2023 First Year Energy Savings (MWh)	2024 First Year Energy Savings (MWh)	2025 First Year Energy Savings (MWh)	4 Year Plan First Year Energy Savings (MWh)
Residential Savings					
Retail/Online	177,455	183,577	187,028	180,572	728,631
Single-Family Upgrades	7,193	7,193	7,193	7,193	28,773
Multifamily Upgrades	6,989	6,778	7,138	6,944	27,850
Product Distribution	1,996	1,996	1,996	1,996	7,983
Behavior – Res/IE	89,923	89,923	89,923	89,923	359,692
Contractor/Midstream Rebates	8,459	8,459	15,410	15,410	47,737
Electrification – Res	2,180	5,419	5,715	6,084	19,398
Residential Total	294,195	303,344	314,402	308,121	1,220,062
Income Eligible Savings					
Retail/Online	41,408	43,341	20,128	21,782	126,659
Single-Family Upgrades	53,990	54,358	54,766	55,173	218,288
Multifamily Upgrades	27,834	28,134	28,236	28,412	112,616
Product Distribution	143,733	143,146	142,727	142,761	572,367
New Construction – IE	2,426	2,134	1,923	1,764	8,247
Electrification – IE	1,238	7,752	11,465	14,910	35,365
Income Eligible Total	270,629	278,866	259,245	264,802	1,073,542
Total Residential & Income Eligible Savings	564,824	582,211	573,647	572,923	2,293,604

TABLE 5-12: RESIDENTIAL & INCOME ELIGIBLE NET SAVINGS

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 D (Program Measures).

5.2.1 Behavior – Res/IE

- Program Description: Home Energy Reports is an opt-out only, behavioral-based program, which provides residential customers with information on how they use energy within their households and leverages social norms to drive customer adoption of energy-efficient behaviors. Customers receive up to six paper or monthly emailed reports a year. Both paper and emailed reports include neighbor comparison information, personalized EE tips, and information on additional ComEd EE offerings. All ComEd customers are 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 are able to select and manage preferences through the Preference Center available on ComEd.com/MyAccount and the ComEd mobile app.
- **Target Market:** This program targets residential single-family and multifamily 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 largely operate as continued education and awareness of EE because this program is conducted on an opt-out basis. The reports themselves 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: The Home Energy Reports provide residential customers with information on how they use energy within their households. The report may display usage analytics such as a last 2-months neighbor comparison, a 12-month neighbor comparison, 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 are primarily behavioral in nature and can 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 5-12.

Category	2022	2023	2024	2025	Total			
Participation Levels								
Total Households	1,650,000	2,000,000	2,000,000	1,800,000	2,000,000			
Annual Savings Targets								
Cumulative Persisting Annual	Savings							
Net MWh	89,923	160,063	214,916	257,180	257,180			
First Year Annual Savings								
Net MWh	89,923	89,923	89,923	89,923	359,692			
Net MW	16	16	16	16	62			
Program Budget								
Administration	\$235,295	\$235,295	\$235,295	\$235,295	\$941,180			
Implementation	\$6,459,396	\$6,583,616	\$6,583,616	\$6,583,616	\$26,210,243			
Incentives	\$0	\$0	\$0	\$0	\$0			
Marketing and Other	\$44,719	\$44,719	\$44,719	\$44,719	\$178,876			
Total	\$6,739,410	\$6,863,630	\$6,863,630	\$6,863,630	\$27,330,299			
Cost-Effectiveness Results								
TRC	9.06							
UCT	9.06							
\$ per 1st Year kWh	\$0.08							
\$ per Lifecycle kWh	\$0.02							

TABLE 5-12: BEHAVIOR – RES/IE PROGRAM TARGETS

5.2.2 Retail/Online

- **Program Description:** The Retail/Online program offers residential customers rebates and instant discounts on select ENERGY STAR® certified appliances, lighting, and other home products. Purchases can be made at any retailer that sells the qualifying ENERGY STAR® certified appliances, including online retailers, such as the ComEd Marketplace. Within this program, a portion of the budget is dedicated to IE customers by offering higher discounts at participating retailers on select products in targeted geographic areas (e.g., IE census tracts), making energy saving products more affordable for IE customers.
- **Collaboration:** It is ComEd's intent that, to the extent possible, it will coordinate with Nicor Gas, Peoples Gas, and North Shore Gas to offer customers a single incentive

on eligible smart thermostats.

- **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 residential customers in ComEd's service territory who are purchasing new or replacement appliances, lighting, and other home products through retail channels. Retail sales channels will include participating retailers serving ComEd's service territory, including in particular those that serve, in part or in full, ComEd residential customers with incomes at or below 80% of the AMI. 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, lighting, and other energy-efficient home products available for rebates or instant discounts. 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. Marketing materials will include the ENERGY STAR® brand as a trusted source of quality products.
- Eligible Measures: Eligible measures include a variety of ENERGY STAR® certified appliances, lighting, and other energy-efficient home products including, but not limited to, air purifiers, clothes washers, dehumidifiers, electric clothes dryers, freezers, refrigerators, advanced power strips, smart thermostats, pool pumps, and LED lighting. 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:** Retail/Online program targets are shown in Table 5-13.

Category	2022	2023	2024	2025	Total			
Participation Levels								
Total Measures	2,381,666	2,319,671	1,656,428	1,729,419	8,087,184			
Total IE Measures	1,028,383	966,388	303,146	420,792	2,718,709			
Annual Savings Targets	•		•	•				
Cumulative Persisting Annual Savings								
Net MWh	218,863	448,081	655,237	857,590	857,590			
Net IE MWh	41,408	84,749	104,877	126,659	126,659			
First Year Annual Savings								
Net MWh	159,942	161,962	138,809	136,360	597,073			
Net MW	39	39	35	35	148			
Net Therms	2,010,932	2,295,451	2,332,641	2,252,345	8,891,369			
Net MWh (therms converted)	58,920	67,257	68,346	65,994	260,517			
Net Composite MWh	218,863	229,218	207,156	202,353	857,590			
Net IE MWh	41,408	43,341	20,128	21,782	126,659			
Net IE MW	6	5	2	2	15			
Net IE Therms	0	0	0	0	0			
Net IE MWh (therms converted)	0	0	0	0	0			
Net IE Composite MWh	41,408	43,341	20,128	21,782	126,659			
Program Budget								
Total Budget	\$40,022,338	\$41,021,424	\$38,814,068	\$38,552,852	\$158,410,682			
Total IE Budget	\$7,383,488	\$8,163,559	\$6,065,710	\$6,591,966	\$28,204,722			
IE Spend as % of Program Budget	18%	20%	16%	17%	18%			
Cost-Effectiveness Results								
TRC	4.03							
UCT	2.08							
\$ per 1st Year kWh	\$0.19							
\$ per Lifecycle kWh	\$0.02							

TABLE 5-13: RETAIL/ONLINE PROGRAM TARGETS

5.2.3 Single-Family Upgrades

- **Program Description:** The Single-Family Upgrades program provides IE singlefamily homeowners a fully subsidized, whole-building approach to EE, ranging from energy assessments through weatherization. Funding to remedy H&S issues is also available. Additionally, a portion of this program element will provide non-IE, singlefamily customers with a free energy assessment, free or discounted EE products, and a customized report identifying additional ways to save energy and money through other EE offerings or actions. The IE portion of this program element will be offered in accordance with Weatherization Principles/Requirements provisions of the Stipulation.
- Collaboration: It is ComEd's intent that, to the extent possible, it will offer this

program jointly or in coordination with Nicor Gas, Peoples Gas, and North Shore Gas.

- 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 in the target market. To ensure coherence and coordination of this offering, the implementation contractor will manage all Single-Family Upgrade work – whether Illinois Home Weatherization Assistance Program ("IHWAP")braided³⁰, utility-only CAA, utility-only IE, or market-rate – but may include subcontracts and/or partnerships to assist with the delivery.
- **Target Market:** This program primarily targets single-family IE households in ComEd's service territory with incomes at or below 80% of the AMI, including, but not limited to, those served by the statewide IHWAP. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier. Additionally, the portion of the program targeting non-IE customers taking delivery service from ComEd regardless of their choice of supplier.
- Marketing Strategy: The marketing strategy will employ targeted communication channels to segments in and throughout the ComEd service territory. Communitybased outreach and neighborhood organizations will be used to build awareness of the program and grow participation. ComEd will supplement marketing to residents eligible for IHWAP, as needed. Eligible homeowners targeted for program delivery outside of IHWAP will be marketed to 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 for IE customers include LED lighting, programmable and smart thermostats, advanced power strips, faucet aerators, low-flow showerheads, pipe insulation, air sealing, and attic and wall insulation. In some cases, appliances, furnaces, water heaters, boiler tune-ups and replacements, ductless heat pumps, 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, in accordance with the H&S provisions of the Stipulation. Non-IE customers' participation will include low-cost measures, such as

³⁰ "IHWAP braided" refers to an IHWAP program, where the utilities and DCEO share the program costs.

select LED lighting, programmable and smart thermostats, advanced power strips, faucet aerators, low-flow showerheads, and pipe insulation. Although ComEd has not yet been able to reach consensus with the gas utilities on investment in building envelope measures in non-IE homes, it has committed (contingent upon the gas utilities making such a commitment in their Stipulation and Plans) to make best efforts to reach agreement, or as a backstop, to purchase kilowatt-hours ("kWh") from the gas utilities to support such measures.

• **Program Targets:** Single-Family Upgrades program targets are shown in Table 5-14.

Category	2022	2023	2024	2025	Total			
Participation Levels			•					
Total Homes	26,504	26,504	26,504	26,504	106,016			
Total IE Homes	26,401	26,401	26,401	26,401	105,604			
Annual Savings Targets								
Cumulative Persisting Annual Savings								
Net MWh	61,184	122,735	181,715	241,102	241,102			
Net IE MWh	53,990	108,349	160,957	213,973	213,973			
First Year Annual Savings			1	1				
Net MWh	31,766	31,906	32,061	32,216	127,949			
Net MW	6	7	7	7	26			
Net Therms	1,004,010	1,011,792	1,020,407	1,029,023	4,065,232			
Net MWh (therms converted)	29,417	29,645	29,898	30,150	119,111			
Net Composite MWh	61,184	61,552	61,959	62,366	247,061			
Net IE MWh	26,494	26,634	26,789	26,944	106,861			
Net IE MW	6	6	6	6	23			
Net IE Therms	938,449	946,231	954,847	963,462	3,802,989			
Net IE MWh (therms converted)	27,497	27,725	27,977	28,229	111,428			
Net IE Composite MWh	53,990	54,358	54,766	55,173	218,288			
Program Budget								
Total Budget	\$32,040,685	\$34,247,629	\$33,654,079	\$33,760,643	\$133,703,035			
Total IE Budget	\$29,984,766	\$31,995,042	\$31,932,593	\$32,039,157	\$125,951,558			
IE Spend as % of Program Budget	94%	93%	95%	95%	94%			
Cost-Effectiveness Results		_	-	-	_			
TRC	0.58							
UCT	1.26							
\$ per 1st Year kWh	\$0.54							
\$ per Lifecycle kWh	\$0.04							

TABLE 5-14: SINGLE-FAMILY UPGRADES PROGRAM TARGETS

5.2.4 Multifamily Upgrades

- Program Description: The Multifamily Upgrades program provides IE multifamily building owners, managers, public housing authorities, and tenants a fully- or largely-subsidized, whole-building approach to EE, including free multifamily building energy assessments, implementation contractor and/or service provider installation of free energy-saving products in tenant spaces and common areas, free or deeply discounted larger capital projects, technical assistance to support implementation, and, as needed, resolution of H&S issues. Additionally, a portion of this program element will provide non-IE, multifamily building owners, managers, and tenants with energy assessments and implementation contractor and/or service provider installation of free or discounted energy-saving products in tenant spaces and common areas. The IE portion of this program element will be offered in accordance with the Weatherization Principles/Requirements provisions of the Stipulation.
- **Collaboration:** It is ComEd's intent that, to the extent possible, it will offer this program jointly or in coordination with Nicor Gas, Peoples Gas, and North Shore Gas.
- 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 Multifamily Upgrade work – whether IHWAP-braided, utility-only CAA, utility-only IE, public housing, or marketrate – but may include subcontracts and/or partnerships to assist with the delivery.
- **Target Market:** This program targets all multifamily building owners, managers, and tenants in ComEd's service territory, including IE properties that serve renters with incomes at or below 80% of the AMI, homes served by statewide weatherization assistance programs such as the IHWAP, nonprofits that manage HUD 811 housing for people with disabilities and HUD 202 housing for elderly people, and Public Housing Authority-owned and managed buildings. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** This program's marketing strategy will be to employ highly targeted communication channels to building owners and property managers throughout the ComEd service territory. This will 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. Nonprofits that manage HUD 811 and HUD 202 housing, as well as multifamily building owners and managers, will be marketed to through a variety of potential channels including, but not limited to, direct mail, social media, community partner outreach, and community events. Marketing will also be done through ComEd's customer assistance programs.

- Eligible Measures: Eligible measures include LED lighting, programmable and smart thermostats, advanced power strips, faucet aerators, low-flow showerheads, and pipe insulation. For IE properties, appliances, furnaces, cooling equipment, water heaters, boiler tune-ups and replacements, ductless heat pumps, air sealing, and attic and wall insulation will also be available, as well as H&S measures in accordance with the H&S provisions of the Stipulation.
- Program Targets: Multifamily Upgrades program targets are shown in Table 5-15.

Category	2022	2023	2024	2025	Total
Participation Levels					
Market Rate Units	1,296	790	774	747	3,607
Public Housing IE Units	358	375	380	385	1,498
Other IE Units	9,041	5,590	5,600	5,623	25,854
Total Tenant Units	10,695	6,755	6,755	6,755	30,958
Annual Savings Targets			·		
Cumulative Persisting Annual Savings					
Net Market Rate MWh	6,989	13,768	20,409	26,667	26,667
Net IE MWh	27,834	55,968	82,696	109,356	109,356
Total Net MWh	34,823	69,736	103,105	136,023	136,023
First Year Annual Savings					
Net Market Rate MWh	6,051	5,840	5,638	5,444	22,973
Net Market Rate MW	1	1	1	1	4
Net Market Rate Therms	32,022	32,022	51,202	51,202	166,446
Net Market Rate MWh (therms					
converted)	938	938	1,500	1,500	4,877
MWh	6.989	6.778	7.138	6.944	27.850
Net IE MWh	16.093	16.307	16.392	16.543	65.334
Net IE MW	2	2	2	2	9
Net IE Therms	400,717	403,663	404,238	405,100	1,613,717
Net IE MWh (therms converted)	11,741	11,827	11,844	11,869	47,282
Net IE Composite MWh	27,834	28,134	28,236	28,412	112,616
Total Net MWh	22,144	22,147	22,030	21,987	88,307
Total Net MW	3	3	3	3	13
Total Net Therms	432,739	435,684	455,439	456,301	1,780,163
Total Net MWh (therms converted)	12,679	12,766	13,344	13,370	52,159
Total Net Composite MWh	34,823	34,912	35,374	35,356	140,466
Program Budget					
Market Rate Budget	\$4,996,635	\$4,798,210	\$4,401,359	\$3,657,264	\$17,853,468
IE Budget	\$27,515,252	\$29,168,247	\$30,207,467	\$30,574,030	\$117,464,996
Total Budget	\$32,511,888	\$33,966,457	\$34,608,826	\$34,231,293	\$135,318,464
IE Spend as % of Program Budget	85%	86%	87%	89%	87%
Cost-Effectiveness Results					
TRC	0.54				
UCT	0.47				
\$ per 1st Year kWh	\$0.96				
\$ per Lifecycle kWh	\$0.10				

TABLE 5-15: MULTIFAMILY UPGRADES PROGRAM TARGETS

5.2.5 Product Distribution

- **Program Description:** The Product Distribution program distributes free energysaving products and kits via local community channels including, but not limited to, participating local schools, Community Action Agencies ("CAAs"), CBOs, local food banks, and food pantries. The program also provides EE educational information and product installation instructions.
- **Collaboration:** It is ComEd's intent that, to the extent possible, it will offer a portion of this program jointly or in coordination with Nicor Gas and Peoples Gas/North Shore Gas.
- **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. Where appropriate, product distribution will utilize direct-to-consumer delivery of products through local channels.
- **Target Market:** This program targets residential customers in ComEd's service territory, including those with incomes at or below 80% of the AMI. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- Marketing Strategy: Marketing will be directed mostly to participating local delivery channels, like participating schools, food pantries, and community organizations. The program provides introductory products and educational information to all customers to help with self-installation and lowering their energy bills. The program also aims to increase awareness of and participation in the ComEd's other programs through cross-marketing and increased customer awareness of EE behaviors. Where possible, tactics will include feedback mechanisms such as customer satisfaction surveys and email collection for future messaging. Marketing materials will include the ENERGY STAR® brand as a trusted source of quality products, where applicable. Cross-marketing and awareness campaigns may also be done with the ComEd customer assistance programs.
- Eligible Measures: Eligible measures include ENERGY STAR® LED lighting, advanced power strips, low-flow faucet aerators, low-flow showerheads, water temperature setbacks, shower timers, and door sweeps. ComEd may revise eligible measures as needed in accordance with current market conditions, technology development, evaluation results, and program implementation experience.
- **Program Targets:** Product Distribution program targets are shown Table 5-16.

Category	2022	2023	2024	2025	Total
Participation Levels					
Total Measures	3,737,456	3,412,904	3,177,286	3,231,088	13,558,734
Total IE Measures	3,647,912	3,326,812	3,093,848	3,147,440	13,216,013
Annual Savings Targets					
Cumulative Persisting Annual Savings					
Net MWh	145,729	290,870	435,571	580,307	580,307
Net IE MWh	143,733	286,879	429,589	572,334	572,334
First Year Annual Savings					
Net MWh	129,312	129,312	129,312	129,312	517,249
Net MW	16	15	14	14	59
Net Therms	560,281	540,269	525,938	527,117	2,153,604
Net MWh (therms converted)	16,416	15,830	15,410	15,445	63,101
Net Composite MWh	145,729	145,142	144,722	144,757	580,349
Net IE MWh	127,317	127,316	127,317	127,317	509,266
Net IE MW	16	15	14	14	58
Net IE Therms	560,281	540,269	525,938	527,117	2,153,604
Net IE MWh (therms converted)	16,416	15,830	15,410	15,445	63,101
Net IE Composite MWh	143,733	143,146	142,727	142,761	572,367
Program Budget					
Total Budget	\$13,865,794	\$14,072,828	\$14,049,992	\$14,044,784	\$56,033,398
Total IE Budget	\$13,016,856	\$13,212,328	\$13,181,179	\$13,167,974	\$52,578,338
IE Spend as % of Program Budget	94%	94%	94%	94%	94%
Cost-Effectiveness Results					
TRC	5.20				
UCT	6.94				
\$ per 1st Year kWh	\$0.10				
\$ per Lifecycle kWh	\$0.01				

TABLE 5-16: PRODUCT DISTRIBUTION PROGRAM TARGETS

5.2.6 Contractor/Midstream Rebates

- **Program Description:** The Contractor/Midstream Rebates program provides rebates or instant discounts to the purchaser when buying specified HVAC equipment and services from a participating service provider or approved distributor. Intercepting end users and service providers at their common product purchasing channel provides a convenient and simple process for receiving incentives for higher efficiency HVAC equipment and services.
- Collaboration: None.
- 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 recruit and manage a network of HVAC service providers and distributors.

- **Target Market:** This program targets service providers and residential customers purchasing new or replacement HVAC equipment and HVAC services through a participating distributor or service provider 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: ComEd will leverage existing product market channels to generate program awareness and develop strong partnerships with participating 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 and services. Tactics may include webinar trainings, bill inserts, collateral materials, web communications, and electronic channels.
- Eligible Measures: Eligible measures include HVAC system tune-ups, air source heat pumps, ductless heat pumps, geothermal (ground source) heat pumps, furnace blower motors, duct insulation and sealing, high-efficiency central air conditioners, 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:** Contractor/Midstream Rebates program targets are shown in Table 5-17.

Category	2022	2023	2024	2025	Total				
Participation Levels									
Total Measures	10,282	10,282	10,282	10,282	41,129				
Annual Savings Targets									
Cumulative Persisting Annual Savings									
Net MWh	8,459	16,918	32,316	47,564	47,564				
First Year Annual Savings									
Net MWh	4,101	4,101	4,101	4,101	16,405				
Net MW	2	2	2	2	6				
Net Therms	148,727	148,727	385,952	385,952	1,069,358				
Net MWh (therms converted)	4,358	4,358	11,308	11,308	31,332				
Net Composite MWh	8,459	8,459	15,410	15,410	47,737				
Program Budget					-				
Administration	\$604,609	\$604,609	\$604,609	\$604,609	\$2,418,437				
Implementation	\$1,166,516	\$1,166,516	\$1,166,516	\$1,166,516	\$4,666,062				
Incentives	\$1,231,900	\$1,231,900	\$1,231,900	\$1,231,900	\$4,927,598				
Marketing and Other	\$225,923	\$225,923	\$225,923	\$225,923	\$903,691				
Total	\$3,228,947	\$3,228,947	\$3,228,947	\$3,228,947	\$12,915,788				
Cost-Effectiveness Results									
TRC	2.14								
UCT	3.05								
\$ per 1st Year kWh	\$0.27								
\$ per Lifecycle kWh	\$0.02								

TABLE 5-17: CONTRACTOR/MIDSTREAM REBATES PROGRAM TARGETS

5.2.7 New Construction – IE

- Program Description: The New Construction IE program offers technical assistance and incentive funding to building developers for new construction or major renovation of affordable housing, including single-family, low-rise, mid-rise, and highrise multifamily buildings. Bundled energy conservation measures and custom or prescriptive approaches for specific building types are designed to result in significant energy savings over the current Illinois energy code.
- **Collaboration:** It is ComEd's intent that, to the extent possible, it will offer a portion of this program jointly or in coordination with Nicor Gas, Peoples Gas, and North Shore Gas.
- **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:** The program targets building owners and developers of single-family and multifamily affordable housing. The program will be available for the energyefficient construction of housing units for households with incomes at or below 80% of the AMI. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** The program will be marketed to building owners, design professionals, developers, 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 whole-building energy modeling and achievement of whole-building performance targets above minimally code-compliant baseline conditions. Energy-efficient building practices emphasized under the program include high insulation levels, air sealing, controlled ventilation, and high efficiency HVAC systems.

Category	2022	2023	2024	2025	Total				
Participation Levels									
Total Square Feet	945,000	990,000	1,080,000	1,125,000	4,140,000				
Annual Savings Targets									
Cumulative Persisting Ann	ual Savings								
Net MWh	2,426	4,560	6,411	8,111	8,111				
First Year Annual Savings									
Net MWh	1,876	1,650	1,487	1,364	6,377				
Net MW	0	0	0	0	1				
Program Budget			-						
Administration	\$56,237	\$56,237	\$56,237	\$56,237	\$224,948				
Implementation	\$915,076	\$1,020,329	\$1,396,101	\$1,526,624	\$4,858,131				
Incentives	\$2,404,832	\$2,263,183	\$2,668,646	\$2,622,754	\$9,959,414				
Marketing and Other	\$0	\$0	\$0	\$0	\$0				
Total	\$3,376,145	\$3,339,749	\$4,120,984	\$4,205,615	\$15,042,493				
Cost-Effectiveness Results	6								
TRC	0.83								
UCT	0.70								
\$ per 1st Year kWh	\$1.82								
\$ per Lifecycle kWh	\$0.08								

TABLE 5-18: NEW CONSTRUCTION – IE PROGRAM TARGETS

Program Targets: New Construction – IE Program targets are shown in Table 5-18.

5.2.8 Electrification – IE

In Revised Plan 6, ComEd intends to offer fully- or largely-subsidized EE electrification measures to IE single- and multifamily customers, through its existing program elements, outlined in Sections 5.2.1 – 5.2.7 *supra*, with a particular focus on the whole-building program elements (i.e., Single-Family Upgrades, Multifamily Upgrades, and Affordable Housing New Construction). These efforts will leverage existing delivery channels, and ComEd will also explore additional, new delivery strategies. These efforts will be offered in accordance with the Energy Efficiency Electrification provisions of the Revised Stipulation.

ComEd will aim to spend the majority of the funds on full EE electrification (space heating, water heating and other end uses), and will also, to the extent practicable, integrate delivery of space heating electrification with weatherization measures (or into buildings which are already known to be efficient/weatherized). ComEd will only promote direct installation of EE electrification measures in applications for which all measure installations within each home are collectively expected to lower total energy bills and upon completion of EE electrification, and ComEd will assist customers who so desire to switch to its electric heating rate. For utility-only delivery channels, with the possible exception of some multifamily building owners, ComEd will not require customers to make a co-pay on EE electrification measures, including any required electric service upgrades, new electric end-use appliances, and removal and proper disposal of retired equipment. Eligible measures will include, but are not limited to heat pumps, heat pump water heaters, electric appliances, and electric service upgrades, as necessary.

Over the Plan 6 Period, ComEd will meet with stakeholders to discuss program design and to provide updates on IE Electrification progress. ComEd will also seek to collaborate with and co-fund EE electrification measures with the City of Chicago and other potential partners

ComEd will aim to spend a minimum of \$10 million per year, on average over the four-year Plan Period, on EE electrification of IE housing units, and has designed its IE electrification efforts to target at least \$1.6 million in 2022, \$8.5 million in 2023, \$12.7 million in 2024 and \$16.8 million in 2025.³¹ Additional detail on Electrification – IE targets are shown in Table 5-19.

³¹ These goals, which are based on forecasts and assumptions about the market for electrification, shall be revisited by Parties no later than January 2024 and may be modified in light of changed conditions or assumptions.

Category	2022	2023	2024	2025	Total
	Single F	amily Retrofits			
CPAS Net MWh	692	3,622	8,059	14,093	14,093
First Year Net MWh	-252	-1,068	-1,616	-2,198	-5,134
First Year Net Therms	32,198	136,456	206,582	280,983	656,219
First Year Net MWh (therms					
converted)	943	3,998	6,053	8,233	19,227
First Year Net Composite MWh	692	2,931	4,437	6,035	14,093
Budget	\$1,032,330	\$4,792,148	\$7,214,649	\$9,708,953	\$22,748,080
	Multi Fa	amily Retrofits			
CPAS Net MWh	546	2,861	6,365	11,131	11,131
First Year Net MWh	-192	-815	-1,235	-1,679	-3,922
First Year Net Therms	25,208	106,829	161,730	219,977	513,744
First Year Net MWh (therms					
converted)	739	3,130	4,739	6,445	15,053
First Year Net Composite MWh	546	2,315	3,504	4,766	11,131
Budget	\$587,670	\$2,728,007	\$4,107,055	\$5,526,977	\$12,949,710
	Affordable Hous	sing New Const	ruction		
CPAS Net MWh	0	2,507	6,032	10,141	18,679
First Year Net MWh	0	-939	-1,320	-1,539	-3,797
First Year Net Therms	0	117,609	165,331	192,750	475,690
First Year Net MWh (therms					
converted)	0	3,446	4,844	5,648	13,938
First Year Net Composite MWh	0	2,507	3,524	4,109	10,141
Budget	\$0	\$982,344	\$1,373,296	\$1,584,070	\$3,939,710
	Total Ele	ctrification - IE			
CPAS Net MWh	1,238	8,990	20,455	35,365	35,365
First Year Net MWh	-444	-2,822	-4,170	-5,416	-12,853
First Year Net Therms	57,406	360,894	533,643	693,711	1,645,653
First Year Net MWh (therms			1 - 000		10.010
converted)	1,682	10,574	15,636	20,326	48,218
First Year Net Composite MWh	1,238	7,752	11,465	14,910	35,365
	Tota	al Budget			
Implementation	\$428,236	\$2,792,081	\$4,121,285	\$5,338,647	12,680,249
Incentives	\$1,191,764	\$5,710,419	\$8,573,715	\$11,481,353	26,957,251
Total Budget	\$1,620,000	\$8,502,500	\$12,695,000	\$16,820,000	39,637,500
Cost-Effectiveness Results					
TRC	0.52				
UCT	0.48				
\$ per 1st Year kWh	\$1.12				
\$ per Lifecycle kWh	\$0.07				

TABLE 5-19: ELECTRIFICATION – IE TARGETS

5.2.9 Electrification – Res

In Revised Plan 6, ComEd also intends to offer EE electrification measures to non-IE single- and multifamily customers, through its existing program elements, outlined in Sections 5.2.1 - 5.2.7 supra. As with Electrification – IE, these efforts will leverage existing delivery channels, and ComEd will also explore additional, new delivery strategies. Eligible measures will include, but are not limited to, heat pumps, heat pump water heaters, and electric appliances. Given the still new nature of the EE electrification opportunity and desire to incorporate it into the portfolio gradually and conscientiously, the projected spend and savings are reflected at the market segment level in Table 5-20.

Category	2022	2023	2024	2025	Total				
Annual Savings Targets									
Cumulative Persisting Annual Savings									
Net MWh	2,180	7,599	13,314	19,398	19,398				
First Year Annual Savings									
Net MWh	-838	-2,111	-2,274	-2,485	-7,708				
Net MW	0	0	0	0	0				
Net Therms	103,013	256,983	272,657	292,448	925,101				
Net MWh (therms converted)	3,018	7,530	7,989	8,569	27,105				
Net Composite MWh	2,180	5,419	5,715	6,084	19,398				
Program Budget									
Administration	\$0	\$0	\$0	\$0	\$0				
Implementation	\$104,934	\$258,326	\$269,160	\$282,501	\$914,921				
Incentives	\$210,215	\$517,506	\$539,209	\$565,937	\$1,832,867				
Marketing and Other	\$0	\$0	\$0	\$0	\$0				
Total	\$315,149	\$775,832	\$808,369	\$848,438	\$2,747,788				
Cost-Effectiveness Results									
TRC	1.17								
UCT	1.21								
\$ per 1st Year kWh	\$0.14								
\$ per Lifecycle kWh	\$0.01								

TABLE 5-20: ELECTRIFICATION – RES TARGETS

5.2.10 IE Outreach & Complementary IE Initiatives

In Revised Plan 6, ComEd intends to conduct outreach and marketing to IE customers to continue to grow awareness of the IE offerings. Outreach will include targeting communities or demographics based on greatest need or lack of participation, as well as engaging with CBOs. This work will be performed in coordination with the efforts to link EE IE and financial assistance programs and in consultation with the Committee, both described in more detail below. Additionally, ComEd has identified several complementary IE initiatives to increase the impact of

its IE program elements:

- Linking EE IE and Financial Assistance Programs: ComEd is committed to holistically serving its customers who are experiencing financial hardship through both its EE and financial assistance programs. To strengthen these efforts in Revised Plan 6, ComEd has agreed to undertake the following initiatives as provided in the Revised Stipulation, ComEd Ex. 1.02:
 - Customer Engagement: ComEd will: (i) provide relevant EE program information to its customers at appropriate customer assistance "touch points;" (ii) provide relevant customer assistance information to its customers at appropriate EE program "touch points;" (iii) develop and distribute literature for IE customers, which contains information about customer assistance and EE programs for which they may be eligible (printed in both English and Spanish); and (iv) provide online resources that provide IE customers with comprehensive information about customer assistance and EE programs for which they may be eligible.
 - Mapping of Assistance Needs and Targeting Delivery of Weatherization Services: During the Plan 6 Period, ComEd will collect a variety of data for purposes of mapping areas of assistance needs and targeting EE and weatherization efforts. Data will be reported annually, and updates on targeting efforts will be provided quarterly in SAG reports.
 - Evaluation of Customer Engagement and Targeted EE Delivery Efforts: ComEd will direct the independent evaluator to perform one or more process evaluations of the "Customer Engagement" and "Mapping of Assistance Needs and Targeted Delivery of Weatherization Services" efforts during the Plan 6 Period.
 - Pilot Connecting Customers with Payment Trouble to EE: ComEd's EE Department will work directly with relevant ComEd business units to create a pilot or program that recruits customers who are payment troubled (e.g., customers at risk of being disconnected; with high arrears) into its IE EE programs. This pilot will be evaluated.
- **Tracking Bill Impacts:** To further improve portfolio impact for IE customers, ComEd believes it must measure and track customer bill impacts more systematically, while making actual (versus deemed) savings more sustainable over the life of the projects.
- In order to do this during the Plan 6 Period, ComEd will track bill impacts and reduced

energy burden based on deemed savings across all IE customers, for each IE offering. ComEd will also pilot ways to track actual bill impacts and reduced energy burden for a portion of IE single-family and multifamily customers, which will be for the purpose of facilitating follow up with customers to determine if actual savings were in line with projections.

- Low-Income Energy Efficiency Accountability Committee: Under Section 8-103B, ComEd must participate in a committee to receive stakeholder input on its IE programs. This committee was first convened prior to the start of Plan 5 and has continued to meet periodically during the Plan 5 Period. While these meetings have been fruitful, in the Original Stipulation the Parties agreed that the framework for this Committee should be revisited for the Plan 6 Period, and the Clean Energy Law did just that. The new framework includes a variety of new principles related to, but not limited to, Committee funding, membership, leadership, meeting structure, accessibility, priorities, Committee recommendations, and reporting. The Revised Stipulation reiterates a number of these principles, and also includes steps to ensure Committee facilitator independence, which have also been reviewed and approved by the Committee's leadership. In accordance with the Clean Energy Law, within Revised Plan 6, ComEd has annually budgeted 0.25% of its entire efficiency portfolio funding for a given year for the Committee, which shall be overseen by the Commission and from which Committee costs, such as ComEd's share of a facilitator contract and stipends, will be paid. This will be approximately \$1.07 million in 2022, \$1.06 million in 2023, \$1.06 million in 2024, and \$1.06 million in 2025.
- Projected IE outreach and Committee costs are included in the Sector General Res/IE budget and are shown in Table 5-21. Some costs associated with linking EE IE and Financial Assistance Programs (i.e., evaluation and pilot) and tracking bill impacts will be supported through the R&D and evaluation budgets.

Cost Component	2022 Budget	2023 Budget	2024 Budget	2025 Budget	4 Year Plan Budget			
Sector General - Res/IE								
Sector General - Income Eligible	\$4,100,000	\$3,800,000	\$3,800,000	\$3,800,000	\$15,500,000			
Sector General - Residential	\$590,773	\$278,507	\$256,302	\$205,450	\$1,331,031			
Sector General - Res/IE Sector Total	\$4,690,773	\$4,078,507	\$4,056,302	\$4,005,450	\$16,831,031			

TABLE 5-21 SECTOR GENERAL – RES/IE BUDGETS

5.3 Business & Public Sector Program Elements

ComEd's Business and Public Sector program elements are targeted at the C&I sector, including businesses and public sector customers. In Revised Plan 6, this includes

customers who were previously exempt from participating in the program elements – i.e., large public customers and large private customers that have not opted out. ComEd estimates that the business and public sector customer segments total approximately 400,000 customers but represent approximately 68% of overall kWh usage in the ComEd service territory.

For C&I 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 seven program elements that target these customers: (1) Small Business; (2) Incentives; (3) Targeted Systems; (4) Midstream/Upstream; (5) Behavior -Bus/Pub; (6) New Construction – Bus/Pub; and (7) Assessments. Additionally, as noted, ComEd's intent is to incorporate the offering of EE electrification measures in the program elements outlined above. However, given the still new nature of this opportunity and desire to do so gradually and conscientiously, Revised Plan 6 reflects the projected spend and savings at program level - in this case Electrification - Bus/Pub. Also new to the Revised Plan 6, certain program elements have been expanded in size to accommodate large public customers and those large private customers that have not opted out. As reflected in Table 5-4, the Business and Public Sector program umbrella is now projected to provide total CPAS of 909,678 MWh, 1,850,594 MWh, 2,772,127 MWh, and 3,642,453 MWh for 2022, 2023, 2024, and 2025, respectively. Within the overall portfolio, these program elements are expected to attain 55% of ComEd's total CPAS goal in 2022, 55% in 2023, 55% in 2024, and 54% in 2025. These program elements will provide, to the extent practical, cooperative offerings with the natural gas program offerings of Nicor Gas and Peoples Gas/North Shore Gas.

Tables 5-22 and 5-23 provide the projected expenditures and savings for each program element at the business and public sector level. Table 5-22 demonstrates ComEd's commitment to achieve Section 8-103B's 10% portfolio spending requirement on the public sector customer segment. (Public Housing spend is reflected and described under the Multifamily Upgrades element (Residential & IE) and is also included here to demonstrate total Public Sector spend. However, it is only reflected once in the total Portfolio budget, under Multifamily Upgrades.) With an overall portfolio budget of \$423-427 million annually, the public sector spending requirement is \$42.3-42.7 million per year. 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 target in each of the four Program Plan years. ComEd will closely monitor whether incentive levels for public sector measures and program elements are sufficient to meet the statutory requirements.³²

³² ComEd will track and report its incentive monitoring and additional performance data, including but not limited to the geographic distribution of public sector customers participating in incentive programs and the types of program measures utilized by public sector customers. This additional data will be reviewed and discussed at least once each calendar year during the 2022 through 2025 period with the City of Chicago and

Programs	2022 Budget	2023 Budget	2024 Budget	2025 Budget	4-Year Plan Budget			
Business Budget								
Small Business	\$80,546,760	\$77,661,825	\$77,646,467	\$77,836,980	\$313,692,033			
Incentives	\$64,033,098	\$54,590,010	\$55,034,998	\$52,905,224	\$226,563,330			
Targeted Systems	\$21,479,064	\$24,416,633	\$24,627,745	\$24,742,519	\$95,265,961			
Midstream/Upstream	\$13,463,816	\$13,220,632	\$13,084,447	\$12,966,387	\$52,735,282			
Behavior – Bus	\$4,667,296	\$4,667,296	\$4,667,296	\$4,667,296	\$18,669,183			
New Construction – Bus	\$3,147,808	\$3,088,934	\$3,046,327	\$3,003,721	\$12,286,790			
Assessments	\$1,850,905	\$1,850,905	\$1,850,905	\$1,850,905	\$7,403,619			
Electrification – Bus	\$220,284	\$1,017,285	\$1,541,279	\$2,096,799	\$4,875,646			
Sector General – Bus	\$6,716,000	\$5,882,547	\$6,330,819	\$6,823,918	\$25,753,283			
Business Total	\$196,125,030	\$186,396,067	\$187,830,283	\$186,893,747	\$757,245,127			
Public Sector Budget								
Small Business	\$9,779,289	\$9,353,132	\$9,234,787	\$9,179,968	\$37,547,176			
Incentives	\$30,803,857	\$25,829,387	\$24,855,051	\$23,321,268	\$104,809,562			
Targeted Systems	\$4,034,002	\$4,492,649	\$4,491,272	\$4,486,394	\$17,504,317			
Midstream/Upstream	\$1,880,276	\$1,852,531	\$1,827,466	\$1,804,553	\$7,364,826			
Behavior – Pub	\$1,801,416	\$1,801,416	\$1,801,416	\$1,801,416	\$7,205,664			
New Construction – Pub	\$349,756	\$343,215	\$338,481	\$333,747	\$1,365,199			
Assessments	\$953,496	\$953,496	\$953,496	\$953,496	\$3,813,986			
Electrification – Pub	\$24,476	\$113,032	\$171,253	\$232,978	\$541,738			
Sector General – Pub	\$2,216,280	\$1,941,240	\$2,089,170	\$2,251,893	\$8,498,584			
Public Housing Upgrades	\$2,570,412	\$2,570,053	\$2,570,662	\$2,569,865	\$10,280,992			
Public Sector Total	\$54,413,260	\$49,250,151	\$48,333,054	\$46,935,578	\$198,932,043			
Business Total Budget	\$245,751,598	\$231,134,924	\$231,503,506	\$229,007,566	\$937,397,594			

TABLE 5-22: PROJECTED BUSINESS & PUBLIC SECTOR BUDGETS

other interested stakeholders to inform consideration of possible future program adjustments. See Rev. Stipulation, ComEd Ex. 1.02.

Programs	2022 First Year Energy Savings (MWh)	2023 First Year Energy Savings (MWh)	2024 First Year Energy Savings (MWh)	2025 First Year Energy Savings (MWh)	4-Year Plan First Year Energy Savings (MWh)
Business Savings					
Small Business	236,708	245,206	240,003	235,133	957,050
Incentives	195,263	190,768	178,569	161,877	726,478
Targeted Systems	77,902	92,317	92,321	92,337	354,877
Midstream/Upstream	170,204	178,355	183,555	174,603	706,717
Behavior – Bus	29,171	29,171	29,171	29,171	116,685
New Construction – Bus	9,494	9,494	9,494	9,494	37,976
Assessments	2,674	2,674	2,674	2,674	10,695
Electrification – Bus	1,379	3,830	4,772	6,112	16,093
Business Total	722,796	751,815	740,559	711,401	2,926,571
Public Sector Saving	S				
Small Business	28,857	29,647	28,717	27,906	115,127
Incentives	108,914	106,562	99,869	90,807	406,152
Targeted Systems	14,081	16,509	16,510	16,513	63,612
Midstream/Upstream	22,722	23,800	24,482	23,260	94,265
Behavior – Pub	9,724	9,724	9,724	9,724	38,895
New Construction – Pub	1,055	1,055	1,055	1,055	4,220
Assessments	1,377	1,377	1,377	1,377	5,509
Public Housing Upgrades	2,915	3,055	3,091	3,135	12,197
Electrification – Pub	153	426	530	679	1,788
Public Sector Total	189,797	192,156	185,356	174,457	741,766
Business Total Savings	909,678	940,916	922,824	882,723	3,656,140

TABLE 5-23 PROJECTED BUSINESS & PUBLIC SECTOR NET SAVINGS

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 D (Program Measures).
5.3.1 Small Business

- **Program Description:** The Small Business Program provides incentives for the purchase and installation of energy-efficient equipment for small businesses and public facilities. The Small Business Program service providers conduct comprehensive energy assessments for small businesses and public facilities to identify cost-effective options and submit pre-applications on behalf of customers to reserve funding for projects. Service provider contractors then install the energy-saving measure in the customer's facility.
- 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 and outreach activities.
- **Target Market:** All private commercial customers under 200 kW demand and all public sector businesses under 400 kW taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** The Small Business Program relies primarily upon a closed service provider network for project development. ComEd supports the service provider network by providing formal program training, marketing/outreach guidance and support, and co-branded promotional materials. The support for service providers will be supplemented by ComEd external affairs managers and the EE Call Center.
- Eligible Measures: The Small Business Program has historically installed mostly lighting retrofit measures, but other measures include HVAC, controls (including thermostats), refrigeration, compressed air, motors, water heating and other end-use areas are also offered.
- Program Targets: Small Business program targets are shown in Table 5-24.

TABLE 5-24 SMALL BUSINESS PROGRAM TARGETS

Category	2022	2023	2024	2025	Total
Participation Levels					
Total Measures	54,676,832	58,968,670	58,968,670	58,968,670	231,582,843
Total Private Measures	48,520,669	52,376,315	52,425,687	52,476,621	205,799,292
Total Public Measures	6,156,163	6,592,355	6,542,984	6,492,050	25,783,551
Annual Savings Targets	, , ,	, , , ,	, , ,		
Cumulative Persisting Ann	ual Savings				
Net MWh	265,564	540,418	808,620	1,070,125	1,070,125
First Year Annual Savings				· ·	· · ·
Net MWh	264,236	273,421	263,018	252,520	1,053,195
Net MW	51	53	52	50	207
Net Therms	45,345	48,910	194,595	359,018	647,869
Net MWh (therms					
converted)	1,329	1,433	5,702	10,519	18,983
Net Composite MWh Total	265,564	274,854	268,720	263,039	1,072,177
Net Composite MWh	000 700	0.45 000	0.40,000	005 400	057.050
Private	236,708	245,206	240,003	235,133	957,050
Public	28.857	29.647	28.717	27.906	115.127
Program Budget	L .,		ļ - ,	,	
Administration	\$870,667	\$870,667	\$870,667	\$870,667	\$3,482,670
Implementation	\$11,818,161	\$10,997,847	\$10,843,104	\$10,977,836	\$44,636,950
Incentives	\$77,501,577	\$75,016,029	\$75,016,029	\$75,016,029	\$302,549,665
Marketing and Other	\$135,642	\$130,413	\$151,453	\$152,415	\$569,924
Total Budget	\$90,326,049	\$87,014,957	\$86,881,254	\$87,016,948	\$351,239,208
Total Private Budget	\$80,546,760	\$77,661,825	\$77,646,467	\$77,836,980	\$313,692,033
Total Public Budget	\$9,779,289	\$9,353,132	\$9,234,787	\$9,179,968	\$37,547,176
Cost-Effectiveness Result	S				
TRC	2.29				
UCT	1.67				
\$ per 1st Year kWh	\$0.33				
\$ per Lifecycle kWh	\$0.03				

5.3.2 Incentives

 Program Description: The Incentives program provides monetary incentives to business and public sector customers installing qualified EE improvements in their facilities. The incentive is 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 select projects 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 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 C&I customers, except for private customers over 10 MW that have chosen to opt out. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** ComEd will leverage multiple existing product market channels and partnerships with participating service providers and distributors 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, bill inserts, collateral materials, web communications, and electronic channels.
- **Eligible Measures:** Eligible measures include more energy efficient lighting, HVAC, refrigeration, compressed air, motors, water heating and other end-use areas.
- **Program Targets:** Incentives program targets are shown in Table 5-25.

Category	2022	2023	2024	2025	Total
Participation Levels					
Total Measures	6,636,018	7,060,772	6,760,322	6,234,535	26,691,647
Total Private Measures	4,586,530	4,861,530	4,667,043	4,326,264	18,441,367
Total Public Measures	2,049,488	2,199,241	2,093,279	1,908,272	8,250,280
Annual Savings Targets					
Cumulative Persisting Anr	ual Savings				
Net MWh	304,177	601,507	879,174	1,130,201	1,130,201
First Year Annual Savings					
Net MWh	291,049	283,325	263,817	238,451	1,076,642
Net MW	51	52	48	43	193
Net Therms	448,056	477,973	499,027	485,793	1,910,848
Net MWh (therms					
converted)	13,128	14,005	14,621	14,234	55,988
Net Composite MWh Total	304,177	297,330	278,439	252,684	1,132,630
Net Composite MWh Private	195,263	190,768	178.569	161.877	726.478
Net Composite MWh	,				0, 0
Public	108,914	106,562	99,869	90,807	406,152
Program Budget					
Administration	\$2,345,657	\$2,345,657	\$2,345,657	\$2,345,657	\$9,382,627
Implementation	\$16,396,438	\$14,913,887	\$16,671,118	\$16,967,544	\$64,948,986
Incentives	\$75,777,590	\$62,880,106	\$60,622,719	\$56,672,292	\$255,952,708
Marketing and Other	\$317,270	\$279,747	\$250,555	\$240,999	\$1,088,570
Total Budget	\$94,836,955	\$80,419,397	\$79,890,049	\$76,226,492	\$331,372,892
Total Private Budget	\$64,033,098	\$54,590,010	\$55,034,998	\$52,905,224	\$226,563,330
Total Public Budget	\$30,803,857	\$25,829,387	\$24,855,051	\$23,321,268	\$104,809,562
Cost-Effectiveness Results	5				
TRC	2.82				
UCT	3.48				
\$ per 1st Year kWh	\$0.29				
\$ per Lifecycle kWh	\$0.02				

TABLE 5-25: INCENTIVES PROGRAM TARGETS

5.3.3 Targeted Systems

- **Program Description:** The Targeted Systems program provides a fully funded engineering study to help optimize operations of existing building and industrial systems and identifies low-cost and no-cost measures for systems and processes. Virtual commissioning is also available to smaller customers, in which smart meter interval usage data is used to remotely identify operational savings opportunities.
- **Collaboration:** ComEd coordinates the Retro-Commissioning component of this program with Nicor Gas, North Shore Gas, and Peoples Gas, when applicable.

- **Delivery Strategy:** ComEd's Plan 6 Third-Party RFP focused on the Targeted Systems program. The third-party implementation contractor selected through the RFP solicitation process 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 public and private C&I customers in ComEd's service territory. Typical participants include commercial office buildings, hospitals/health care facilities, higher education buildings, and industrial customers. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- Marketing Strategy: Participating service providers are the primary conduit for this
 program and will market the program through their direct relationships with business
 customers. They will identify, communicate, and enroll customer participants through
 their own marketing initiatives, assisted by the efforts of our account managers, which
 may be supplemented by the program.
- Eligible Measures: Eligible measures include low-cost energy conservation measures that have an average simple payback of 18 months, capital investments, and 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 5-26.

Category	2022	2023	2024	2025	Total	
Participation Levels						
Total Projects	629	690	706	723	2,747	
Total Private Projects	542	595	609	624	2,371	
Total Public Projects	87	94	96	99	376	
Annual Savings Targets						
Cumulative Persisting Ann	ual Savings					
Net MWh	91,983	200,809	309,640	410,168	410,168	
First Year Annual Savings						
Net MWh	91,983	108,826	108,831	108,850	418,490	
Net MW	8	9	9	9	35	
Net MWh Private	77,902	92,317	92,321	92,337	354,877	
Net MWh Public	14,081	16,509	16,510	16,513	63,612	
Program Budget						
Administration	\$2,272,014	\$2,564,506	\$2,564,593	\$2,564,943	\$9,966,057	
Implementation	\$7,196,970	\$7,445,344	\$7,654,198	\$7,766,805	\$30,063,318	
Incentives	\$15,654,526	\$18,509,877	\$18,510,670	\$18,513,842	\$71,188,915	
Marketing and Other	\$389,555	\$389,555	\$389,555	\$383,322	\$1,551,988	
Total	\$25,513,066	\$28,909,282	\$29,119,017	\$29,228,913	\$112,770,278	
Total Private Budget	\$21,479,064	\$24,416,633	\$24,627,745	\$24,742,519	\$95,265,961	
Total Public Budget	\$4,034,002	\$4,492,649	\$4,491,272	\$4,486,394	\$17,504,317	
Cost-Effectiveness Results	S					
TRC	2.41					
UCT	2.36					
\$ per 1st Year kWh	\$0.27					
\$ per Lifecycle kWh	\$0.03					

TABLE 5-26: TARGETED SYSTEM PROGRAM TARGETS

5.3.4 Midstream/Upstream

- **Program Description:** This program offers instant discounts to C&I customers or their service providers for opting to purchase (i) high-efficiency commercial lighting products from an approved lighting distributor, (ii) high-efficiency rooftop HVAC equipment, (iii) forklift chargers, or (iv) high-efficiency food service equipment, such as cooking equipment, refrigerators and ice-makers.
- **Collaboration:** The commercial food service equipment program is offered jointly with Nicor Gas and Peoples Gas/North Shore Gas.
- **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 C&I customers purchasing new or replacement lighting, HVAC, or food service equipment. All customers that have not chosen to opt out during the Plan Period taking delivery service from ComEd are eligible for this program, regardless of their choice of supplier.
- **Marketing Strategy:** ComEd will leverage existing product market channels to generate program awareness and develop strong partnerships with participating service providers and distributors. 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 electronic channels.
- Eligible Measures: Eligible measures include screw-in LEDs, Tubular LED lamps, LED exit signs, high intensity discharge LED, wall packs, and reduced-wattage linear T8 and T5 lamps. This program also provides incentives for industrial (forklift) battery chargers, Rooftop HVAC systems, and several high-efficiency commercial cooking equipment options.
- Program Targets: Midstream/Upstream program targets are shown in Table 5-27.

Category	2022	2023	2024	2025	Total			
Participation Levels								
Total Measures	2,466,136	2,466,136	2,466,136	2,466,136	9,864,545			
Total Private Measures	2,175,597	2,175,705	2,175,832	2,176,135	8,703,270			
Total Public Measures	290,539	290,432	290,304	290,001	1,161,275			
Annual Savings Targets								
Cumulative Persisting Ann	ual Savings							
Net MWh	192,926	395,081	603,119	800,982	800,982			
First Year Annual Savings								
Net MWh	192,926	202,155	208,037	197,864	800,982			
Net MW	49	47	44	42	182			
Net MWh Private	170,204	178,355	183,555	174,603	706,717			
Net MWh Public	22,722	23,800	24,482	23,260	94,265			
Program Budget								
Administration	\$361,792	\$361,792	\$361,792	\$361,792	\$1,447,168			
Implementation	\$2,394,213	\$2,123,286	\$1,962,036	\$1,821,061	\$8,300,596			
Incentives	\$12,432,608	\$12,432,608	\$12,432,608	\$12,432,608	\$49,730,432			
Marketing and Other	\$155,478	\$155,478	\$155,478	\$155,478	\$621,912			
Total	\$15,344,091	\$15,073,164	\$14,911,914	\$14,770,939	\$60,100,108			
Total Private Budget	\$13,463,816	\$13,220,632	\$13,084,447	\$12,966,387	\$52,735,282			
Total Public Budget	\$1,880,276	\$1,852,531	\$1,827,466	\$1,804,553	\$7,364,826			
Cost-Effectiveness Results	S							
TRC	7.48							
UCT	11.92							
\$ per 1st Year kWh	\$0.08							
\$ per Lifecycle kWh	\$0.01							

TABLE 5-27: MIDSTREAM/UPSTREAM PROGRAM TARGETS

5.3.5 Behavior – Bus/Pub

- **Program Description:** This program assists customers in identifying and implementing EE improvements in industrial facilities and commercial buildings. Under the Strategic Energy Management component, a customer joins with a cohort of 10 to 12 other customers to participate in workshops, other training, and on-site activities to adopt more energy efficient behaviors within a facility. Customers can also utilize the Building Energy Analyzer, a software tool to identify and analyze EE opportunities.
- 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, develop marketing materials, and

conduct program marketing and outreach activities.

- **Target Market:** This program targets all C&I customers that have not opted out. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** ComEd outreach includes direct e-mail, bill inserts, collateral materials, web communications, direct outreach, and electronic channels.
- Eligible Measures: All measures are eligible. The program focuses on individual behavior to improve on-going operational EE.
- Program Targets: Behavior Bus/Pub program targets are shown in Table 5-28.

Category	2022	2023	2024	2025	Total
Participation Levels			· · · · · · · · · · · · · · · · · · ·		
Total Projects	88	88	88	88	354
Total Private Projects	66	66	66	66	265
Total Public Projects	22	22	22	22	88
Annual Savings Targets					
Cumulative Persisting Ann	ual Savings				
Net MWh	38,895	77,790	116,685	155,580	155,580
First Year Annual Savings					
Net MWh	38,895	38,895	38,895	38,895	155,580
Net MW	0	0	0	0	0
Net MWh Private	29,171	29,171	29,171	29,171	116,685
Net MWh Public	9,724	9,724	9,724	9,724	38,895
Program Budget					
Administration	\$120,847	\$120,847	\$120,847	\$120,847	\$483,389
Implementation	\$5,534,453	\$5,534,453	\$5,534,453	\$5,534,453	\$22,137,814
Incentives	\$801,561	\$801,561	\$801,561	\$801,561	\$3,206,245
Marketing and Other	\$11,850	\$11,850	\$11,850	\$11,850	\$47,399
Total	\$6,468,712	\$6,468,712	\$6,468,712	\$6,468,712	\$25,874,847
Total Private Budget	\$4,667,296	\$4,667,296	\$4,667,296	\$4,667,296	\$18,669,183
Total Public Budget	\$1,801,416	\$1,801,416	\$1,801,416	\$1,801,416	\$7,205,664
Cost-Effectiveness Results	5				
TRC	1.52				
UCT	1.53				
\$ per 1st Year kWh	\$0.17				
\$ per Lifecycle kWh	\$0.03				

TABLE 5-28: BEHAVIOR – BUS/PUB PROGRAM TARGETS

5.3.6 Assessments

- **Program Description:** A facility assessment ("FA") is the first step to engaging a customer on how to become more energy efficient and how to participate in the ComEd EE programs. The FA increases customer awareness, provides a source of customer leads, and identifies energy saving opportunities. FAs provide a high-level assessment to Business customers that are not Exempt, by identifying opportunities to save energy and provide a path to begin participation in the ComEd EE programs. During the FA, no-cost/low-cost operational measures (i.e., opportunities that result in energy savings but do not meet the requirements for an incentive) will also be identified. Operational measures typically require awareness, education, change in the behavior or operation of the facility, or maintenance-type improvements. The information obtained in an FA is available to all program managers and implementers in order to quantify customer opportunities and assess and determine the appropriate program or programs that will satisfy the customer's needs. Using this information, outreach personnel are able to follow up with customers to assist them with the process. In the case of the operational measures, either outreach personnel or the FA engineer will confirm the implementation of the measure and the realized savings will be attributed to the FA program.
- **Collaboration:** ComEd will collaborate with Peoples Gas and North Shore Gas on utility sharing of public sector project leads.
- Delivery Strategy: ComEd account managers will help market the program and identify potential candidate customers for participation. Interested customers can also submit a request for an FA through ComEd's website or call center. An engineer will conduct the assessment by performing the site visit and working with outreach personnel and the account manager to deliver the report to the customer. Operational measures identified during the assessment can either be implemented immediately or at a later date. After the FA is delivered to the customer, outreach service providers will follow up with the customer to assist with participation in the program.
- **Target Market:** This program targets all C&I customers that have not opted out. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** Account managers are the primary conduits for this program, and ComEd will leverage the managers' direct relationships with their C&I customers to market this program. Unmanaged customers will be targeted through direct outreach campaigns focused on customer type.

- Eligible Measures: Measures will be inclusive of all qualifying measures for all programs. Operational savings do not qualify for an incentive, will be at no-cost/low-cost to customers, and may include equipment scheduling, shutdown, behavior modification or maintenance-type improvements.
- **Program Targets:** Assessments program targets are shown in Table 5-29.

Category	2022	2023	2024	2025	Total		
Participation Levels							
Total Assessments	264	264	264	264	1,055		
Total Private Assessments	174	174	174	174	696		
Total Public Assessments	90	90	90	90	359		
Annual Savings Targets							
Cumulative Persisting Ann	ual Savings						
Net MWh	4,051	8,102	12,153	15,321	15,321		
First Year Annual Savings							
Net MWh	4,051	4,051	4,051	4,051	16,204		
Net MW	0	0	0	0	0		
Net MWh Private	2,674	2,674	2,674	2,674	10,695		
Net MWh Public	1,377	1,377	1,377	1,377	5,509		
Program Budget							
Administration	\$1,001,977	\$1,001,977	\$1,001,977	\$1,001,977	\$4,007,908		
Implementation	\$1,787,656	\$1,787,656	\$1,787,656	\$1,787,656	\$7,150,625		
Incentives	\$0	\$0	\$0	\$0	\$0		
Marketing and Other	\$14,768	\$14,768	\$14,768	\$14,768	\$59,073		
Total	\$2,804,401	\$2,804,401	\$2,804,401	\$2,804,401	\$11,217,605		
Total Private Budget	\$1,850,905	\$1,850,905	\$1,850,905	\$1,850,905	\$7,403,619		
Total Public Budget	\$953,496	\$953,496	\$953,496	\$953,496	\$3,813,986		
Cost-Effectiveness Results	5						
TRC	0.39						
UCT	0.39						
\$ per 1st Year kWh	\$0.69						
\$ per Lifecycle kWh	\$0.13						

TABLE 5-29: ASSESSMENTS PROGRAM TARGETS

5.3.7 New Construction – Bus/Pub

 Program Description: The New Construction – Bus/Pub program offers technical assistance and incentive funding to building developers for construction or major renovation of commercial and industrial buildings for both private and public customers. Bundled energy conservation measures and custom or prescriptive approaches for specific building types are designed to result in significant energy savings over the current Illinois energy code. This element is also designed to fulfill the statutory requirements concerning new building standards, by providing education and training events.

- **Collaboration:** It is ComEd's intent that, to the extent possible, it will offer a portion of this program jointly or in coordination with Nicor Gas, Peoples Gas, and North Shore Gas.
- **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.
- **Target Market:** The program targets building owners and developers of C&I buildings for private and public customers. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
- **Marketing Strategy:** The program will be marketed to building owners, design professionals, developers, 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 whole-building energy modeling and achievement of whole-building performance targets above minimally code-compliant baseline conditions. Energy efficient building practices emphasized under the program include high insulation levels, air sealing, controlled ventilation, and high-efficiency HVAC systems.
- **Program Targets:** New Construction Bus/Pub program targets are shown in Table 5-30.

TABLE 5-30: NEW	CONSTRUCTION -	- BUS/PUB	PROGRAM	TARGETS
-----------------	-----------------------	-----------	---------	----------------

Category	2022	2023	2024	2025	Total
Participation Levels					
Total Square Feet	13,666,620	13,666,620	13,666,620	13,666,620	54,666,480
Total Private Square Feet	12,299,958	12,299,958	12,299,958	12,299,958	49,199,832
Total Public Square Feet	1,366,662	1,366,662	1,366,662	1,366,662	5,466,648
Annual Savings Targets					
Cumulative Persisting Ann	ual Savings				
Net MWh	10,549	21,098	31,647	42,196	42,196
First Year Annual Savings					
Net MWh	10,539	10,539	10,539	10,539	42,156
Net MW	2	2	2	2	8
Net Therms	338	338	338	338	1,352
Net MWh (therms			10		10
converted)	10	10	10	10	40
Net Composite MWh Total	10,549	10,549	10,549	10,549	42,196
Private	9,494	9,494	9,494	9,494	37,976
Net Composite MWh	-,	-,	-,	•,••	
Public	1,055	1,055	1,055	1,055	4,220
Program Budget					
Administration	\$149,790	\$149,790	\$149,790	\$149,790	\$599,160
Implementation	\$1,823,245	\$1,757,829	\$1,710,488	\$1,663,148	\$6,954,710
Incentives	\$1,524,530	\$1,524,530	\$1,524,530	\$1,524,530	\$6,098,119
Marketing and Other	\$0	\$0	\$0	\$0	\$0
Total Budget	\$3,497,564	\$3,432,149	\$3,384,808	\$3,337,468	\$13,651,989
Total Private Budget	\$3,147,808	\$3,088,934	\$3,046,327	\$3,003,721	\$12,286,790
Total Public Budget	\$349,756	\$343,215	\$338,481	\$333,747	\$1,365,199
Cost-Effectiveness Results	6				
TRC	1.81				
UCT	5.00				
\$ per 1st Year kWh	\$0.32				
\$ per Lifecycle kWh	\$0.02				

5.3.8 Electrification – Bus/Pub

In Revised Plan 6, ComEd intends to offer EE electrification measures to business and public sector customers, through its existing program elements, outlined in Sections 5.3.1 – 5.3.7 *supra*. As with Electrification – IE and Electrification – Res, these efforts will leverage existing delivery channels, and ComEd will also explore additional, new delivery strategies. Eligible measures will include, but are not limited to, heat pumps, heat pump water heaters, electric appliances, electric commercial cooking equipment, and forklifts. Given the still new nature of the EE electrification opportunity and desire to incorporate it into the portfolio gradually and conscientiously, the projected spend and savings are reflected at the market segment level in Table 5-31.

Category	2022	2023	2024	2025	Total				
Annual Savings Targets									
Cumulative Persisting Annual Savings									
Net MWh	1,533	5,788	11,090	17,881	17,881				
First Year Annual Savings									
Net MWh	-693	-2,088	-2,849	-3,932	-9,562				
Net MW	0	-1	-2	-3	-7				
Net Therms	75,974	216,514	278,171	365,975	936,635				
Net MWh (therms converted)	2,226	6,344	8,150	10,723	27,443				
Net Composite MWh Total	1,533	4,255	5,302	6,791	17,881				
Net Composite MWh Private	1,379	3,830	4,772	6,112	16,093				
Net Composite MWh Public	153	426	530	679	1,788				
Program Budget									
Administration	\$0	\$0	\$0	\$0	\$0				
Implementation	\$104,934	\$750,000	\$1,250,000	\$1,750,000	\$3,854,934				
Incentives	\$139,826	\$380,316	\$462,532	\$579,776	\$1,562,451				
Marketing and Other	\$0	\$0	\$0	\$0	\$0				
Total Budget	\$244,760	\$1,130,316	\$1,712,532	\$2,329,776	\$5,417,385				
Total Private Budget	\$220,284	\$1,017,285	\$1,541,279	\$2,096,799	\$4,875,646				
Total Public Budget	\$24,476	\$113,032	\$171,253	\$232,978	\$541,738				
Cost-Effectiveness Results									
TRC	0.26								
UCT	0.29								
\$ per 1st Year kWh	\$0.30								
\$ per Lifecycle kWh	\$0.02								

TABLE 5-31: ELECTRIFICATION – BUS/PUB TARGETS

5.3.9 Business & Public Outreach

Business and public sector customer acquisition begins with outreach. Various outreach strategies increase program awareness and identify service-provider training opportunities, leading to higher performing service providers and distributors. This, in turn, increases the identification of projects that support the program sales channel and increases customer participation.

ComEd supports a team of outreach service providers to focus on specific market segments based on customer need, opportunity, and other factors. While the customer segments change from year to year, general examples include healthcare, industrial, commercial real estate, K-12 schools, community colleges and universities, wastewater treatment, and government entities. Outreach efforts include, but are not limited to, identifying customers, growing the project pipeline, building customer relationships, conducting needs assessments, scheduling and attending facility assessments, assisting customers with applications, making program referrals, signing customers up for Business Energy Analyzer, and planning/attending events and webinars to educate customers. Targeted marketing campaigns are also used to communicate program updates and other information to small business service providers, architectural and engineering firms, and distributors, as well as customers.

ComEd's EE Department also maintains a customer relationship management system that is comprised of a network of databases that enables tracking and management of customer acquisition activities, including outreach, service provider engagement, marketing, FA opportunities, and events. By having all program activity captured within this database system, program implementers and ComEd program managers are able to communicate with customers with minimum redundancy, determine the status of customer program participation, assess customer need, and share customer information across all program elements. All of the collected data becomes available to program managers and implementers for use in quantifying customer opportunities and determining the appropriate program for customer engagement.

This strategy provides program managers and implementers with the ability to increase customer awareness of, and participation in, the programs and encourages customers to regard ComEd as a trusted energy advisor.

Projected Business and Public Sector outreach costs are included in the Sector General – Bus/Pub budget and are shown in Table 5-32.

Cost Component	2022	2023	2024	2025	4 Year Plan
eeer eempenent	Cost	Cost	Cost	Cost	Cost
Sector General – Bus/Pub					
Sector – Business	\$4,499,720	\$3,941,306	\$4,241,648	\$4,572,025	\$17,254,700
Sector – Public Sector	\$2,216,280	\$1,941,240	\$2,089,170	\$2,251,893	\$8,498,584
Sector General – Bus/Pub Sector Total	\$6,716,000	\$5,882,547	\$6,330,819	\$6,823,918	\$25,753,283

TABLE 5-32: SECTOR GENERAL – BUSINESS/PUBLIC PROJECTED COSTS

5.4 Multi-Segment Element

Voltage Optimization ("VO") is a multi-segment program element that delivers energy efficiency savings to residential, IE, business, and public sector customers. As shown in Table 5-30, during the Plan 6 Period, VO is projected to provide CPAS of 165,000 MWh, 330,000 MWh, 554,000 MWh, and 818,000 MWh for 2022, 2023, 2024 and 2025, respectively. In the context of the entire portfolio, ComEd anticipates that the VO program element will attain 11% of the total CPAS goal in 2022, 11% in 2023, 12% in 2024, and 13% in 2022.

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, and Distribution Operation teams.
- **Target Market:** A total of 227 ComEd distribution substations with 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.
- **Total Program Targets:** Voltage Optimization program targets are shown in Table 5-33.

Category	2022	2023	2024	2025	Total			
Participation Levels								
Total Measures	37	49	68	73	227			
Annual Savings Targets	•							
Cumulative Persisting Annual Sa	vings							
Net MWh	165,000	329,704	553,240	816,169	816,169			
First Year Annual Savings								
Net MWh	165,000	164,704	223,536	262,929	816,169			
Net MW	29	29	39	46	142			
Program Budget		-						
Administration	\$0	\$0	\$0	\$0	\$0			
Implementation	\$0	\$0	\$0	\$0	\$0			
Incentives	\$0	\$0	\$0	\$0	\$0			
Marketing and Other	\$0	\$0	\$0	\$0	\$0			
Total	\$0	\$0	\$0	\$0	\$0			
Cost-Effectiveness Results			•					
TRC	2.39							
UCT	2.39							
\$ per 1st Year kWh	\$0.00							
\$ per Lifecycle kWh	\$0.00							

TABLE 5-33: VOLTAGE OPTIMIZATION PROGRAM TARGETS

5.5 Third-Party Programs

In 2021, following the Commission's approval of Original Plan 6, ComEd worked with an independent consultant to implement a solicitation for \$25 million annually of EE programs administered by third parties, as described in Section 8-103B(g)(4) of the Act. This solicitation was focused on Retro-Commissioning and Industrial Systems, under the Business Targeted Systems offering, and also focused on up to \$5 million of innovative and non-duplicative approaches to serving IE customers ("Innovative Proposals"). See Rev. Stipulation, ComEd Ex. 1.02.

In accordance with the statute, the independent consultant scored and ranked the proposals submitted by potential third-party implementers and assembled the Third-Party programs portfolio. A primary goal of the Innovative Proposal evaluation and selection process was to select a minimal number of Innovative Proposals (i.e., two or fewer proposals total) to minimize administrative burden and market confusion, and the forecasted cost of each selected Innovative Proposal has to be no greater than the Plan 6 ComEd average portfolio cost per kWh. ComEd also committed to consult with non-financially-interested SAG participants on the solicitation and selections, but the independent consultant was not required to recommend, and ComEd was not required to select, any of the Innovative Proposals submitted in the Third-Party RFP process. Implementers were selected for Retro-Commissioning and Industrial Systems, but no Innovative Proposals were selected. Other new, innovative ideas can continue to be submitted for consideration through ComEd's existing R&D submission process during the Plan 6 Period.

The Parties to the Revised Stipulation acknowledge that the Third-Party solicitation process has been completed consistent with Original Plan 6 and the Original Stipulation, and that ComEd's Revised Plan 6 and this Revised Stipulation satisfies the Third-Party Program solicitation approval requirements in Section 8-103B(g)(4) of the PUA. Now that the Third-Party Program implementers have been selected, ComEd will submit the list of Third-Party Program implementers to the Commission for approval. See Revised Stipulation, ComEd Ex. 1.02R.

As this solicitation did not occur until midway through 2021, for a portion of 2022 ComEd will not be incurring any costs under the Third-Party program. However, Revised Plan 6's extension of the Plan 5 Retro-Commissioning and Industrial Systems offerings has ensured the continuation of those successful programs while the new solicitation and selection for the Plan 6 Third-Party programs was underway.

5.6 Portfolio-Level

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 5-34. In accordance with the Revised Stipulation, ComEd has limited its budgeted portfolio-level costs, excluding IE R&D, to an annual average of no more than \$38.5 million each year of the 2022-2025 Plan. Each activity is discussed in more detail below.

Cost Component	2022 Budget	2023 Budget	2024 Budget	2025 Budget	4-Year Plan Budget
Portfolio Level Costs				Dungu	
Evaluation	\$9,500,000	\$9,500,000	\$8,500,000	\$8,500,000	\$36,000,000
Research & Development	\$11,800,000	\$11,400,000	\$11,300,000	\$11,300,000	\$45,800,000
Research & Development - IE	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$8,000,000
Market Development Initiative	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$16,000,000
Portfolio Administration	\$13,200,000	\$13,600,000	\$14,700,000	\$14,700,000	\$56,200,000
Education & Awareness	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$8,000,000
Portfolio Level Costs	\$40,500,000	\$40,500,000	\$40,500,000	\$40,500,000	\$162,000,000
Portfolio Level Costs (excluding Research & Development - IE)	\$38,500,000	\$38,500,000	\$38,500,000	\$38,500,000	\$154,000,000

TABLE 5-34: PROJECTED PORTFOLIO-LEVEL COSTS

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." 220 ILCS 5/8-103B(h). Applied to ComEd's annual average budget of \$424 million, this equates to no more than approximately \$17 million per year. Plan 6 allocates \$11 million on average annually for R&D.

Investments in R&D during the Plan 6 Period are crucial given the significant challenges to achieving increasing CPAS savings goal over time. A key goal of the Plan 6 Period R&D work is to significantly innovate and evolve the current portfolio to meet the aggressive CPAS goals under Plan 7.

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 energy efficiency technologies and program delivery strategies into the ComEd EE portfolio. The Revised Plan 6 R&D work is also designed to achieve the statutory requirements concerning new building and appliance standards.

- Shifts in Approach: In the Plan 6 Period, ComEd will look to increase the impact of the Emerging Opportunities work by incorporating lessons learned from Plan 5. This will involve placing more emphasis on the integration of R&D efforts into the portfolio. It is well documented that integrating emerging technologies and innovative program-delivery strategies (also known as technology transfer) is a challenge for many program administrators. For an energy efficiency innovation to create a meaningful impact after it is identified. tested, and validated by the R&D Team, the innovation must be successfully integrated into the portfolio and brought to scale. While a traditional approach to R&D may stop work after validating a new concept, ComEd's Plan 5 experience demonstrates that the R&D Team must undertake additional work to successfully bring the concept to market-akin to product or market development. This additional effort will focus on more fully understanding market barriers, developing detailed plans for stimulating market adoption, and ensuring portfolio and customer value is delivered. During the Plan 6 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.
- Additionally, ComEd will work in the Plan 6 Period to continue to diversify the focus of research and pilot initiatives to include not just new technologies and measures, but also innovative program designs, operational enhancements for implementation teams, and market adoption strategies for underperforming portfolio measures.
 - Areas of Focus: A primary area of focus within Emerging Opportunities will be identifying, testing, validating, and integrating 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 CBOs, expanded retrofit options for existing all-electric customers, and new program models for New Construction – IE. 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. As shown in Table 5-31, ComEd anticipates

dedicating \$2 million annually to this R&D-IE work.

- 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.
- Additional 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 6 and its other demand response programs, (iii) ComEd's EE and Smart Grid teams, and (iv) ComEd and other Illinois utilities.
- Finally, research will be performed during the Plan 6 Period to inform future plans through studies, including a statewide potential study, which will be performed in accordance with provisions in the Revised Stipulation.
- Market Transformation: The purpose of Market Transformation is to strategically intervene in markets to create lasting and measurable change in market behavior. This will be accomplished by removing barriers and leveraging opportunities to accelerate the adoption of cost-effective energy efficiency as a matter of standard practice. Market Transformation initiatives are unique in that they typically require resource commitments over a longer period of time and often have savings impacts that are longer term and quantified differently than those from resource acquisition programs. Because of the still-emerging nature of these activities in Illinois, Market Transformation is included under the R&D umbrella in Revised Plan 6.
- Building off Plan 5's successful pilot of the ENERGY STAR® Retail Products Platform through a partnership between ComEd and the Northwest Energy Efficiency Alliance, ComEd plans to identify and launch several new initiatives aimed at other customer markets during the Plan 6 Period. Other areas of promising opportunity include

stretch codes, benchmarking and building performance standards³³, windows³⁴ and recent building shell innovations, residential heat pump equipment, contractor training, and lighting controls. 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 quarterly updates to stakeholders on each initiative, present regularly to 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 and the ComEd EE Department and includes a 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 utilized by ComEd EE in connection with implementing this Plan. During the Plan 6 Period, ComEd EE will expand its market development efforts through a new Market Development Initiative

³³ As described in the Revised Stipulation, ComEd will launch a market transformation initiative to promote the adoption of efficiency performance standards for existing buildings in one or more municipalities in its service territory. ComEd will work with NRDC and other interested SAG participants in the design of the initiative. *See* Rev. Stipulation, ComEd Ex. 1.02R. ComEd will also pilot supporting municipalities as they design and implement stretch codes for new construction. ComEd is working with SAG on a framework for claiming savings for these types of initiatives.

³⁴ As described in the Revised Stipulation, ComEd will collaborate with NRDC and other interested stakeholders, through the Stakeholders Advisory Group Market Transformation Savings Working Group, in reviewing the potential for and merits of a Statewide or multi-state regional triple-glazed window market transformation pilot during the Plan 6 Period. *See* Rev. Stipulation, ComEd Ex. 1.02R.

and dedicate an average of \$4 million annually during the Plan Period 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. It is through the MDI that ComEd will also meet the new Clean Energy Law provision that ensures program implementation contractors and energy efficiency installation vendors will promote workforce equity and quality jobs. The details of the MDI will be informed by research performed in 2021-2022. ComEd has consulted with the SAG on this research and plans to do so for the forthcoming MDI implementation plan. Additional details about the MDI, including MDI implementation, evaluation, and reporting, are provided in the Revised Stipulation. See Rev. Stipulation, ComEd Ex. 1.02R.

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 executed a new evaluation contract for the Plan 6 Period, in accordance with the evaluator-independence protocols, as outlined in the Policy Manual. The statute sets the evaluation budget at no more than 3% of the total annual budget. 220 ILCS 5/8-103B(g)(6). ComEd has allocated approximately \$9 million per year, which is 2% of the total annual budget. See ComEd Ex. 1.01R. More detail can be found in Section 6.

5.6.4 Education & Awareness

Education and Awareness activities include non-program specific marketing efforts designed to generally promote EE and increase customer awareness of ComEd's EE portfolio. These first steps are critical to the customer engagement process. Building awareness about the value of EE and providing education regarding the value of specific EE actions and initiatives helps prepare a customer to take action when they encounter a specific EE offering in the market.

In Revised Plan 6, education and awareness ("E&A") initiatives focus primarily on delivering the message of EE and overall energy management across the ComEd service territory, with a specific focus on IE and other historically underserved communities in the ComEd territory. These initiatives will provide customers with knowledge about EE 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 and take action to lower their electric bills. Additionally, ComEd will continue its coordination of EE program marketing with other ComEd customer programs and tools (e.g., demand response, real-time pricing). General E&A initiatives and tactics to be implemented may include the following:

- Community-sponsored events and energy efficiency education;
- Carefully timed, high-impact awareness marketing campaigns designed to reach a high percentage of customers multiple times, generally over an 8- to 10-week period. Tactics may include, TV, radio, digital, social, and out-of-home executions;
- Working with ComEd Communication to secure earned media coverage such as Energy Doctor radio and TV interviews, ComEd EE-focused partnerships, press releases, and news media stories; and
- Posting videos on the ComEd.com website that illustrate the portfolio offerings.

5.6.5 **Portfolio Administration**

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

Beginning in 2022, ComEd will significantly expand its reporting metrics, including but not limited to: IE Multifamily, H&S, equity/affordability, and supplier diversity. This will largely be done through the established ICC-filed Quarterly and Annual Reports. To ensure accuracy and efficiency in its reporting, ComEd will need to incorporate these metrics into its existing tracking and reporting system, which will require significant work in 2021 and 2022. ComEd agrees to support the inclusion of additional reporting metrics and topics in an updated version of the Policy Manual, to be discussed through the SAG. See Rev. Stipulation, ComEd Ex. 1.02R.

6. Evaluation

6.1 Independent Program Evaluation Contractor

Section 8-103B of the Act requires an annual independent evaluation of the costeffectiveness 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." 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 the 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., 3412 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.

Fuel	Energy Units	Btus per Energy Unit	Site kWh Equivalents per Energy Unit
Electricity	kWh	3,412	1.0
Natural Gas	therms	100,000	29.3
Propane	gallons	91,333	26.8
Fuel Oil	gallons	138,500	40.6

TABLE 6-1: FUEL CONVERSION TABLE

If there are gas savings funded with electric customer funds that, when converted, exceed 10% of the AATS requirement, 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 10% of the AATS 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.

During the 2018 through 2021 period, the non-electricity energy savings achieved by the ComEd portfolio exceeded the applicable 10% statutory limit, which was based on AAIG, rather than AATS. It is anticipated that, through the Plan 6 Period (2022–2025), the portfolio may exceed the revised 10% limit. 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 10% 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).

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

	2022	2023	2024	2025					
Program	Converted Therms	Converted Therms	Converted Therms	Converted Therms					
Res/IE Programs									
Retail/Online	58,920	64,956	68,346	65,994					
Single-Family Upgrades	29,417	29,645	29,898	30,150					
Multifamily Upgrades	12,679	12,766	13,344	13,370					
Product Distribution	16,416	15,830	15,410	15,445					
Behavior – Res/IE	0	0	0	0					
New Construction – Res/IE	550	484	436	400					
Contractor/Midstream Rebates	4,358	4,358	11,308	11,308					
Bus/Pub EE Programs									
Small Business	1,329	1,433	5,702	10,519					
Incentives	13,128	14,005	14,621	14,234					
Targeted Systems	0	0	0	0					
Midstream/Upstream	0	0	0	0					
Behavior – Bus/Pub	0	0	0	0					
New Construction – Bus/Pub	10	10	10	10					
Assessments	0	0	0	0					
Sector Level & Research and Development									
Voltage Optimization	0	0	0	0					
Research and Development	6,941	6,941	6,941	6,941					
Total ComEd Portfolio	143,748	150,427	166,017	168,370					

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

6.3 Energy Efficiency Electrification Energy-Savings Calculations

As noted, the Clean Energy Law 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. This new provision also states that EE electrification savings counted toward each year's AATS must be capped at 5% per year, during the Plan 6 Period. Further, at least 25% of EE electrification savings must come from electrification of end uses in IE housing. *See* 220 ILCS 5/8-103B(b-27). These electrification savings are in addition to the 10% of 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 Btu's 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." 220 ILCS 5/8-103B(b-27).

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

Market Segment	2022 First Year Energy Savings (MWh)	2023 First Year Energy Savings (MWh)	2024 First Year Energy Savings (MWh)	2025 First Year Energy Savings (MWh)	4-Year First Year Energy Savings (MWh)
Residential	2,180	5,419	5,715	6,084	19,398
Income Eligible	1,238	7,752	11,465	14,910	35,365
Business	1,379	3,830	4,772	6,112	16,093
Public Sector	153	426	530	679	1,788
EE Electrification Total	4,951	17,426	22,482	27,784	72,644

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

6.4 Net-to-Gross

The Parties to the Revised Stipulation have agreed that during the Plan 6 Period they will engage in good faith efforts at SAG to identify policy mechanisms that could support enhanced investment in both (1) targeting of EE programs and services to economically challenged, historically under-served and diverse communities; and (2) the diversification of contractors and trade allies delivering EE programs and services. Such policy mechanisms

may include, but would not be limited to, the potential to adopt higher NTG assumptions for targeted communities than currently used for programs as a whole (across ComEd's service territory). See Rev. Stipulation, ComEd Ex. 1.02R.

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 two primary risks that must be managed within ComEd's portfolio:

- Achievement: The risk that ComEd does not achieve the annual energy savings (MWh) and DR (MW) targets that are approved in the Plan.
- **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 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 6, additional major risks include:

- **Energy prices** continue to decline, although some price rebound has begun to surface in the capacity markets.
- 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 6 execution and subsequent savings. Examples of how potential changes in law could impact ComEd's Revised Plan 6 execution include:
 - If a federal stimulus bill is passed, which includes significant funding for EE, ComEd could be required to make budget or implementation strategy shifts. For example, if there is a significant increase to federal IHWAP funds and CAAs are pressured to spend it very quickly (akin to what resulted from the American Recovery & Reinvestment Act of 2009), CAAs may not be able to focus on or even take utility dollars, such as those proposed under this Revised Plan 6. This would impede the implementation of the Revised Plan 6 measures and programs that rely upon CAA participation.
 - \circ As discussed in Section 3.2.1 *supra*, if new federal lighting standards are

implemented that increase the baseline values, there could be a significant adverse impact on the viability of core portfolio lighting programs, which would result in decreased portfolio-wide savings and challenge ComEd's ability to achieve its Revised Plan 6 goals. However, this would be dependent on what is included in the standards, and whether they are incorporated into the IL-TRM within the Revised Plan 6 timeframe.

- ComEd cannot now reasonably plan for or mitigate these (or other) scenarios given that, in some cases, their likelihood of becoming law (and any details of their final enacted provisions) is entirely unknown at this time, and in others, they have only become law recently and the resulting impacts are still not entirely certain. As such, to the extent there are changes in applicable law that materially impact the implementation of ComEd's Revised Plan 6 or provisions of the Revised 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.
- Additionally, since the Original Plan and Original Stipulation filing, the passage of the • Clean Energy Law and the federal Infrastructure Investment & Jobs Act, as well as other efforts to expand decarbonization efforts across the country, present ComEd with an opportunity to coordinate and collaborate with external partners, including State and local governments, to bring energy efficiency to customers - but it also presents potential challenges both in program implementation and evaluation. To augment the risk mitigation process outlined in the Original Stipulation, ComEd has now also committed to work with the City of Chicago and other interested cities, municipalities, and counties on their electrification and energy efficiency initiatives, including how to coordinate and integrate those initiatives with ComEd's electrification and energy efficiency programs. Further, the Parties to the Revised Stipulation will discuss the framework for claiming savings from co-funded building and industrial electrification programs and from ComEd's role in helping state, municipal, and other public partners apply for and access state and/or federal funds for co-funded EE opportunities via the SAG Policy Manual subcommittee, to ensure this is addressed as part of Policy Manual Version 3.0. See Revised Stipulation, ComEd Ex. 1.02.

ComEd also uses other tactics to manage risk, including:

 Strong data tracking and reporting: ComEd currently collects implementation and tracking data on a daily or weekly basis for most programs, which allows it to monitor the progress and performance of the programs. Program managers can modify marketing tactics and incentive structures as needed to remediate program performance shortfalls. • **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 in an effort 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. 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. ComEd is not proposing any changes to the Rider as part of the Revised Plan 6 filing.

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 AAIGs. Like Rider EEPP, ComEd is not proposing any changes to Rider EEPA as part of the Revised Plan 6 filing.