ComEd CY2022-CY2025 Summary Cost Effectiveness Analysis Report

Energy Efficiency and Demand Response Plan

Program Years CY2022-CY2025

(01/01/2022-12/31/2025)

Prepared for:

ComEd

FINAL

September 4, 2026

Prepared by:

Yamini Arab
Guidehouse

Ensar Biscevic
Guidehouse

James Gin
Guidehouse

Mike Frischmann
EcoMetric

Submitted to:
ComEd
2011 Swift Drive
Oak Brook, IL 60523

Submitted by:
Guidehouse Inc.
167 N. Green Street
12th Floor
Chicago, IL 60607

Contact:

Charles Maglione, Partner	Adam Knickelbein, Director	Neil Curtis, Director
703.431.1983	303.493.5483	802.526.5119
cmaglione@guidehouse.com	adam.knickelbein@guidehouse.com	neil.curtis@guidehouse.com

Charles Ampong, Associate Director
608.616.4922
charles.ampong@guidehouse.com

Table of Contents

Table of Tables, Figures, and Equations

1 Portfolio Results

This report summarizes Guidehouse's analysis of cost effectiveness results for ComEd's Revised 2022-2025 Energy Efficiency and Demand Response Plan (Revised Plan 6) slate of energy efficiency programs offered under the ComEd Energy Efficiency Portfolio Standard (EEPS). This report does not cover portfolio summary impact of verified energy and demand savings results, which are provided in a separate 4-year summary impact report.

1.1 Portfolio Cost Effectiveness Test Verified Results

This section summarizes findings regarding the cost-effectiveness of the ComEd portfolio of energy efficiency programs over Revised Plan 6, from CY2022 through CY2025[1]. The cost effectiveness methodology and description of data inputs are provided in Section 2.

Error! Reference source not found. summarizes the four-year combined results for the ComEd portfolio at the program, sector, and portfolio levels. The results presented in this table are based on the Illinois Total Resource Cost (TRC) test, which includes benefits from avoided environmental and societal costs, and is the primary test defined by the Climate and Equitable Jobs Act (CEJA) for ascertaining the portfolio's cost effectiveness. Throughout all four program years, the results indicate that the Revised Plan 6 portfolio was cost effective, achieving a TRC ratio of 4.17 (including societal non-energy impacts (NEIs)) and 2.63 (excluding societal NEIs), as well as a Utility Cost Test (UCT) ratio of 1.89.

Table 1-1. Summary of CY2022-CY2025 TRC and UCT Values for ComEd Programs

Sector	Program	Illinois TRC Test (With Societal NEIs)*	Illinois TRC Test (Without Societal NEIs)*	UCT*
Res & IE	ASI kWh Purchase‡	5.21	3.71	5.72
	Behavior - Res/IE	9.85	6.14	3.76
	Contractor/Midstream Rebates	5.56	2.74	1.96
	Electric Homes New Construction	2.42	1.38	1.18
	Multifamily Upgrades	1.79	1.17	0.77
	New Construction - IE	3.58	2.09	1.31
	Product Distribution	11.81	7.17	5.18
	Retail/Online	9.09	6.30	6.69
	Single-Family Upgrades	1.12	0.87	0.59
	Whole Home Electric	1.33	0.64	0.40
	Residential (Res)& Income Eligible (IE) Total	**6.06**	**3.96**	**3.03**
Bus & Pub	Behavior Bus/Pub	4.00	1.97	1.09
	Business Energy Analyzer (BEA)	5.75	3.28	15.32
	Incentives	3.16	1.99	1.65
	Midstream/Upstream	8.72	5.29	4.44
	New Construction - Bus/Pub	1.79	1.18	1.89
	Small Business	4.05	2.52	1.47
	Targeted Systems	2.93	1.63	0.99
	Assessments (2022 & 2023)	0.51	0.28	0.15
	Business (Bus) & Public (Pub) Total	**4.00**	**2.45**	**1.73**
Pilot & MT	Automated System Optimization	1.00	0.50	0.65
	Upstream Commercial Food Service Equipment	4.75	3.03	1.41
	VSHP as AC Replacement	0.79	0.49	0.34
	Heat Pump Water Heater Pilot	0.26	0.22	0.07
	ENERGY STAR Retail Products Platform	2.32	1.55	5.26
	Virtual Energy Coach	2.68	1.40	1.81
	Industrial EMIS	1.21	0.73	0.73
	EMS - Small Business - Pilot	0.27	0.12	0.07
	Pilot and Market Transformation (MT) Total	**2.15**	**1.43**	**2.88**
All	Voltage Optimization	2.31	1.40	0.90

[1] Each ComEd Program Year starting with 2022 begins on January 1 and ends on December 31.

Sector	Program	Illinois TRC Test (With Societal NEIs)*	Illinois TRC Test (Without Societal NEIs)*	UCT*
All	**Portfolio Total without IE & with VO†**	**3.71**	**2.35**	**1.75**
	Portfolio Total with IE & without VO†	**4.44**	**2.81**	**2.06**
	Portfolio Total without IE, VO, & Pilots†	**3.98**	**2.53**	**1.94**
	Portfolio Total with IE & VO†	**4.17**	**2.63**	**1.89**

** The TRC and UCT values are calculated using the sum of all Sector and Portfolio benefits and costs, respectively. Values are rounded to 2 digits.*
‡ ComEd's purchase of kWh from the Nicor Gas ASI program is not a ComEd program, but the savings and TRC results are counted in ComEd's residential sector.
† Portfolio Total rows include Pilots & Market Transformation.
Source: Guidehouse analysis

1.2 Portfolio Economic Impact Summary of Verified Results

Error! Reference source not found. summarizes Guidehouse's analysis of the cumulative economic and employment impacts attributable to ComEd's Revised Plan 6 energy efficiency portfolio.

Table 1-2. Economic Impacts by Time Period (CY2022, CY2023, CY2024, CY2025)

Evaluation Year	Time Period	Impact Type	Job Years[2]	Labor Income ($ Millions)	Industry Output ($ Millions)
CY2025	2025 – 2049	Direct	7,184	$509	$1,356
	2025 – 2049	Indirect	2,608	$223	$659
	2025 – 2049	Induced	18,903	$1,236	$5,914
	2025 – 2049	**Total**	**28,695**	**$1,968**	**$7,929**
CY2024	2024 – 2048	Direct	7,180	$509	$1,407
	2024– 2048	Indirect	2,640	$228	$674
	2024 – 2048	Induced	19,359	$1,266	$6,067
	2024 – 2048	**Total**	**29,179**	**$2,003**	**$8,148**
CY2023	2023 – 2047	Direct	5,630	$398	$1,147
	2023 – 2047	Indirect	2,066	$181	$543
	2023 – 2047	Induced	11,020	$720	$3,338
	2023 – 2047	**Total**	**18,715**	**$1,300**	**$5,028**
CY2022	2022 – 2046	Direct	6,228	$426	$1,180
	2022 – 2046	Indirect	2,178	$187	$556
	2022 – 2046	Induced	8,049	$527	$2,310
	2022 – 2046	**Total**	**16,454**	**$1,140**	**$4,050**
CY2022-CY2025	**2022 – 2049**	**Total**	**93,043**	**$6,411**	**$25,155**

Source: Guidehouse analysis

2 Program Specific Cost Effectiveness Results Summary

A 4-year summary of the components of the cost effectiveness calculations for each program without gas data from Joint Programs is shown in Table 2-1 for the Illinois TRC calculations and Table 2-2 for the UCT calculations. The tables include the value of each benefit and cost component for each program totaled over four years, as well as portfolio level totals for each component.

Following are summaries of the cost effectiveness calculations for the Illinois TRC and UCT benefits and costs for each program year, shown in

[2] Job-years are a cumulative measure of employment impact equal to one full-time equivalent job sustained for one year. Under CEJA economic impact analyses, job-years are used to quantify the statewide employment effects generated over time by utility energy efficiency investments and the resulting long-term energy bill savings.

Table 2-3 through Table 2-6.

Table 2-1. Summary of Program Level Benefits, Costs and Illinois TRC Test for 2022-2025 ($ Thousands)

Program	Benefits							Costs									IL Total Resource Cost (TRC) Test*				
	Electricity Cost Changes	Fossil Fuel Cost Changes**	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Incremental Costs (Net)	Electricity Cost Changes	Fossil Fuel Cost Changes	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits (w/o NEI)	IL TRC Costs (w/o NEI)	IL TRC Test Net Benefits (w/o NEI)	IL TRC Test (w/NEI)	IL TRC Test (w/o NEI)
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	(q) = a+b+c+d+f+g	(r) = h+i+j +k+m+n+p	(s) = q-r	(t) = (q+e)/(r+l)	(u) = q / r
ASI kWh Purchase	$3,569	$718	$0	$1,349	$2,290	$0	$0	$0	$0	$0	$0	$0	$0	$750	$0	$771	$5,636	$1,521	$4,115	5.21	3.71
Behavior - Res/IE	$97,843	$0	$0	$62,231	$97,803	$0	$0	$99	$0	$0	$54	$83	$0	$25,938	$0	$0	$160,074	$26,091	$133,983	9.85	6.14
Contractor/Midstream Rebates	$54,329	$18,628	$0	$38,327	$114,230	$0	$0	$0	$0	$0	$0	$0	$0	$9,421	$27,717	$31,169	$111,284	$40,590	$70,694	5.56	2.74
Electric Homes New Construction	$2,471	$840	$120	$1,881	$4,063	$9	$0	$10	$0	$0	$10	$11	$0	$1,992	$899	$1,852	$5,321	$3,864	$1,457	2.42	1.38
Multifamily Upgrades	$70,243	$33,572	$5,502	$47,306	$84,684	$2,750	$0	$5	$707	$0	$0	$1	$0	$44,148	$97,783	$91,590	$159,373	$136,450	$22,923	1.79	1.17
New Construction - IE	$13,190	$5,618	$1,177	$9,439	$21,430	$251	$0	$79	$131	$0	$60	$69	$0	$6,857	$8,149	$7,071	$29,675	$14,198	$15,477	3.58	2.09
Product Distribution	$370,084	$32,830	$16,240	$223,019	$481,151	$100,405	$0	$0	$11,150	$0	$0	$0	$0	$17,205	$52,519	$75,260	$742,578	$103,615	$638,963	11.81	7.17
Retail/Online	$532,720	$621,673	$43,726	$357,038	$740,476	$118,000	$0	$24	$28,538	$0	$0	$0	$0	$50,329	$100,319	$186,708	$1,673,157	$265,599	$1,407,558	9.09	6.30
Single-Family Upgrades	$32,186	$41,240	$3,524	$16,587	$30,088	$8,859	$16	$21	$994	$0	$5	$7	$0	$36,823	$92,112	$80,526	$102,412	$118,369	($15,957)	1.12	0.87
Whole Home Electric	$7,561	$3,278	$14	$5,295	$17,575	$1	$0	$353	$0	$0	$51	$57	$0	$5,722	$21,210	$19,216	$16,149	$25,342	($9,193)	1.33	0.64
Res & IE Sector Admin Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23,117	$0	$0	$0	$23,117	($23,117)	0.00	0.00
Res & IE Sector Total	**$1,184,199**	**$758,394**	**$70,303**	**$762,472**	**$1,593,792**	**$230,275**	**$16**	**$593**	**$41,520**	**$0**	**$179**	**$229**	**$0**	**$222,303**	**$400,706**	**$494,161**	**$3,005,659**	**$758,756**	**$2,246,903**	**6.06**	**3.96**
Behavior Bus/Pub	$37,679	$0	$0	$30,271	$69,605	$0	$0	$0	$0	$0	$0	$0	$0	$25,050	$9,495	$9,373	$67,950	$34,423	$33,527	4.00	1.97
Business Energy Analyzer (BEA)	$4,948	$0	$0	$1,772	$5,065	$0	$0	$0	$0	$0	$0	$0	$0	$323	$0	$1,726	$6,720	$2,049	$4,671	5.75	3.28
Incentives	$447,639	$44,778	$0	$254,979	$493,171	$93,131	$0	$3	$10,726	$0	$3	$4	$0	$53,305	$235,160	$357,892	$840,527	$421,929	$418,598	3.16	1.99
Midstream/Upstream	$484,082	$0	$222	$249,241	$515,755	$62,913	$0	$0	$7,033	$0	$0	$0	$0	$14,530	$87,550	$128,921	$796,458	$150,484	$645,974	8.72	5.29
New Construction - Bus/Pub	$22,368	$585	$3,294	$14,102	$20,883	$0	$0	$0	$0	$0	$0	$0	$0	$7,023	$6,860	$27,147	$40,349	$34,170	$6,179	1.79	1.18
Small Business	$509,654	$6,397	$90	$277,959	$520,828	$64,178	$259	$0	$21,224	$0	$0	$0	$0	$39,996	$290,995	$279,164	$858,537	$340,384	$518,153	4.05	2.52
Targeted Systems	$109,869	$2,562	$0	$67,879	$144,637	$0	$0	$0	$0	$0	$0	$0	$0	$38,644	$74,871	$72,073	$180,310	$110,717	$69,593	2.93	1.63
Assessments (2022 & 2023)	$662	$5	$0	$541	$960	$0	$0	$0	$0	$0	$0	$0	$0	$2,397	$2,011	$1,891	$1,208	$4,288	($3,080)	0.51	0.28
Business & Public Sector Admin Costs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$43,477	$0	$0	$0	$43,477	($43,477)	0.00	0.00
Business & Public Sector Total	**$1,616,901**	**$54,327**	**$3,606**	**$896,744**	**$1,770,904**	**$220,222**	**$259**	**$3**	**$38,983**	**$0**	**$3**	**$4**	**$0**	**$224,745**	**$706,942**	**$878,187**	**$2,792,059**	**$1,141,921**	**$1,650,138**	**4.00**	**2.45**
Automated System Optimization	$13	$0	$0	$6	$19	$0	$0	$0	$0	$0	$0	$0	$0	$20	$0	$18	$19	$38	($19)	1.00	0.50
Upstream Commercial Food Service Equipment	$561	$0	$0	$367	$525	$0	$0	$0	$0	$0	$0	$0	$0	$130	$268	$176	$928	$306	$622	4.75	3.03
VSHP as AC Replacement	$133	$0	$0	$112	$148	$0	$0	$0	$0	$0	$0	$0	$0	$288	$98	$208	$245	$496	($251)	0.79	0.49
Heat Pump Water Heater Pilot	$54	$0	$0	$51	$21	$0	$0	$0	$0	$0	$0	$0	$0	$443	$325	$39	$105	$482	($377)	0.26	0.22
ENERGY STAR Retail Products Platform	$10,855	$844	$51	$6,893	$9,235	$0	$0	$0	$0	$0	$0	$0	$0	$531	$1,704	$11,505	$18,643	$12,036	$6,607	2.32	1.55
Virtual Energy Coach	$38	$0	$0	$18	$51	$0	$0	$0	$0	$0	$0	$0	$0	$21	$0	$19	$56	$40	$16	2.68	1.40
Industrial EMIS	$185	$0	$0	$159	$227	$0	$0	$0	$0	$0	$0	$0	$0	$152	$100	$320	$344	$472	($128)	1.21	0.73
EMS - Small Business - Pilot	$24	$0	$0	$25	$59	$0	$0	$0	$0	$0	$0	$0	$0	$353	$0	$45	$49	$398	($349)	0.27	0.12
Pilot and MT Sector Total	**$11,863**	**$844**	**$51**	**$7,631**	**$10,285**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,938**	**$2,495**	**$12,330**	**$20,389**	**$14,268**	**$6,121**	**2.15**	**1.43**
Voltage Optimization	$270,646	$0	$0	$151,795	$273,409	$0	$0	$0	$0	$0	$0	$0	$0	$301,534	$0	$0	$422,441	$301,534	$120,907	2.31	1.40
Portfolio Admin Costs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$153,818	$0	$0	$0	$153,818	($153,818)	0.00	0.00

Program	Benefits							Costs									IL Total Resource Cost (TRC) Test*				
	Electricity Cost Changes	Fossil Fuel Cost Changes**	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Incremental Costs (Net)	Electricity Cost Changes	Fossil Fuel Cost Changes	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL TRC Benefits (w/o NEI)	IL TRC Costs (w/o NEI)	IL TRC Test Net Benefits (w/o NEI)	IL TRC Test (w/NEI)	IL TRC Test (w/o NEI)
Portfolio Total without IE & with VO	**$2,335,611**	**$483,300**	**$47,007**	**$1,356,604**	**$2,633,960**	**$314,086**	**$259**	**$162**	**$54,029**	**$0**	**$72**	**$107**	**$0**	**$775,020**	**$808,681**	**$1,103,638**	**$4,536,867**	**$1,932,921**	**$2,603,946**	**3.71**	**2.35**
Portfolio Total with IE & without VO	**$2,812,962**	**$813,561**	**$73,960**	**$1,666,845**	**$3,374,980**	**$450,497**	**$275**	**$596**	**$80,503**	**$0**	**$182**	**$233**	**$0**	**$602,805**	**$1,110,145**	**$1,384,357**	**$5,818,100**	**$2,068,443**	**$3,749,657**	**4.44**	**2.81**
Portfolio Total without IE, VO, & Pilots	**$2,059,233**	**$482,456**	**$46,975**	**$1,201,043**	**$2,355,319**	**$314,086**	**$259**	**$162**	**$54,029**	**$0**	**$72**	**$107**	**$0**	**$472,124**	**$807,104**	**$1,097,140**	**$4,104,052**	**$1,623,527**	**$2,480,525**	**3.98**	**2.53**
Portfolio Total with IE & VO	**$3,083,609**	**$813,561**	**$73,960**	**$1,818,640**	**$3,648,388**	**$450,497**	**$275**	**$596**	**$80,503**	**$0**	**$182**	**$233**	**$0**	**$904,340**	**$1,110,145**	**$1,384,357**	**$6,240,542**	**$2,369,978**	**$3,870,564**	**4.17**	**2.63**

**The TRC and UCT values are calculated using the sum of all the offerings' benefits and costs. Totals include portfolio and sector level non-incentive costs.*
***Gas heating penalties from energy efficiency measures designed to save electricity are being calculated as part of the overall fossil fuel cost changes.*
Source: Guidehouse analysis

Table 2-2. Summary of Program Level Benefits, Costs and Illinois UCT for CY2022-CY2025 ($ Thousands)

Program	Benefits							Costs									IL Utility Cost Test (UCT)*			
	Electricity Cost Changes	Fossil Fuel Cost Changes**	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Incremental Costs (Net)	Electricity Cost Changes	Fossil Fuel Cost Changes	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL UCT Benefits	IL UCT Costs	IL UCT Test Net Benefits	IL UCT Test
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	(v) = a+b+c	(w) = h+i+n+o	(x) = v-w	(y) = v/w
ASI kWh Purchase	$3,569	$718	$0	$1,349	$2,290	$0	$0	$0	$0	$0	$0	$0	$0	$750	$0	$771	$4,287	$750	$3,537	5.72
Behavior - Res/IE	$97,843	$0	$0	$62,231	$97,803	$0	$0	$99	$0	$0	$54	$83	$0	$25,938	$0	$0	$97,843	$26,037	$71,806	3.76
Contractor/Midstream Rebates	$54,329	$18,628	$0	$38,327	$114,230	$0	$0	$0	$0	$0	$0	$0	$0	$9,421	$27,717	$31,169	$72,957	$37,138	$35,819	1.96
Electric Homes New Construction	$2,471	$840	$120	$1,881	$4,063	$9	$0	$10	$0	$0	$10	$11	$0	$1,992	$899	$1,852	$3,431	$2,901	$530	1.18
Multifamily Upgrades	$70,243	$33,572	$5,502	$47,306	$84,684	$2,750	$0	$5	$707	$0	$0	$1	$0	$44,148	$97,783	$91,590	$109,317	$142,643	($33,326)	0.77
New Construction - IE	$13,190	$5,618	$1,177	$9,439	$21,430	$251	$0	$79	$131	$0	$60	$69	$0	$6,857	$8,149	$7,071	$19,985	$15,216	$4,769	1.31
Product Distribution	$370,084	$32,830	$16,240	$223,019	$481,151	$100,405	$0	$0	$11,150	$0	$0	$0	$0	$17,205	$52,519	$75,260	$419,154	$80,874	$338,280	5.18
Retail/Online	$532,720	$621,673	$43,726	$357,038	$740,476	$118,000	$0	$24	$28,538	$0	$0	$0	$0	$50,329	$100,319	$186,708	$1,198,119	$179,210	$1,018,909	6.69
Single-Family Upgrades	$32,186	$41,240	$3,524	$16,587	$30,088	$8,859	$16	$21	$994	$0	$5	$7	$0	$36,823	$92,112	$80,526	$76,950	$129,950	($53,000)	0.59
Whole Home Electric	$7,561	$3,278	$14	$5,295	$17,575	$1	$0	$353	$0	$0	$51	$57	$0	$5,722	$21,210	$19,216	$10,853	$27,285	($16,432)	0.40
Res & IE Sector Admin Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23,117	$0	$0	$0	$23,117	($23,117)	0.00
Res & IE Sector Total	**$1,184,199**	**$758,394**	**$70,303**	**$762,472**	**$1,593,792**	**$230,275**	**$16**	**$593**	**$41,520**	**$0**	**$179**	**$229**	**$0**	**$222,303**	**$400,706**	**$494,161**	**$2,012,896**	**$665,122**	**$1,347,774**	**3.03**
Behavior Bus/Pub	$37,679	$0	$0	$30,271	$69,605	$0	$0	$0	$0	$0	$0	$0	$0	$25,050	$9,495	$9,373	$37,679	$34,545	$3,134	1.09
Business Energy Analyzer (BEA)	$4,948	$0	$0	$1,772	$5,065	$0	$0	$0	$0	$0	$0	$0	$0	$323	$0	$1,726	$4,948	$323	$4,625	15.32
Incentives	$447,639	$44,778	$0	$254,979	$493,171	$93,131	$0	$3	$10,726	$0	$3	$4	$0	$53,305	$235,160	$357,892	$492,417	$299,194	$193,223	1.65
Midstream/Upstream	$484,082	$0	$222	$249,241	$515,755	$62,913	$0	$0	$7,033	$0	$0	$0	$0	$14,530	$87,550	$128,921	$484,304	$109,113	$375,191	4.44
New Construction - Bus/Pub	$22,368	$585	$3,294	$14,102	$20,883	$0	$0	$0	$0	$0	$0	$0	$0	$7,023	$6,860	$27,147	$26,247	$13,883	$12,364	1.89
Small Business	$509,654	$6,397	$90	$277,959	$520,828	$64,178	$259	$0	$21,224	$0	$0	$0	$0	$39,996	$290,995	$279,164	$516,141	$352,215	$163,926	1.47
Targeted Systems	$109,869	$2,562	$0	$67,879	$144,637	$0	$0	$0	$0	$0	$0	$0	$0	$38,644	$74,871	$72,073	$112,431	$113,515	($1,084)	0.99
Assessments (2022 & 2023)	$662	$5	$0	$541	$960	$0	$0	$0	$0	$0	$0	$0	$0	$2,397	$2,011	$1,891	$667	$4,408	($3,741)	0.15
Business & Public Sector Admin Costs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$43,477	$0	$0	$0	$43,477	($43,477)	0.00
Business & Public Sector Total	**$1,616,901**	**$54,327**	**$3,606**	**$896,744**	**$1,770,904**	**$220,222**	**$259**	**$3**	**$38,983**	**$0**	**$3**	**$4**	**$0**	**$224,745**	**$706,942**	**$878,187**	**$1,674,834**	**$970,673**	**$704,161**	**1.73**
Automated System Optimization	$13	$0	$0	$6	$19	$0	$0	$0	$0	$0	$0	$0	$0	$20	$0	$18	$13	$20	($7)	0.65
Upstream Commercial Food Service Equipment	$561	$0	$0	$367	$525	$0	$0	$0	$0	$0	$0	$0	$0	$130	$268	$176	$561	$398	$163	1.41
VSHP as AC Replacement	$133	$0	$0	$112	$148	$0	$0	$0	$0	$0	$0	$0	$0	$288	$98	$208	$133	$386	($253)	0.34
Heat Pump Water Heater Pilot	$54	$0	$0	$51	$21	$0	$0	$0	$0	$0	$0	$0	$0	$443	$325	$39	$54	$768	($714)	0.07
ENERGY STAR Retail Products Platform	$10,855	$844	$51	$6,893	$9,235	$0	$0	$0	$0	$0	$0	$0	$0	$531	$1,704	$11,505	$11,750	$2,235	$9,515	5.26
Virtual Energy Coach	$38	$0	$0	$18	$51	$0	$0	$0	$0	$0	$0	$0	$0	$21	$0	$19	$38	$21	$17	1.81
Industrial EMIS	$185	$0	$0	$159	$227	$0	$0	$0	$0	$0	$0	$0	$0	$152	$100	$320	$185	$252	($67)	0.73
EMS - Small Business - Pilot	$24	$0	$0	$25	$59	$0	$0	$0	$0	$0	$0	$0	$0	$353	$0	$45	$24	$353	($329)	0.07
Pilot and MT Sector Total	**$11,863**	**$844**	**$51**	**$7,631**	**$10,285**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,938**	**$2,495**	**$12,330**	**$12,758**	**$4,433**	**$8,325**	**2.88**
Voltage Optimization	$270,646	$0	$0	$151,795	$273,409	$0	$0	$0	$0	$0	$0	$0	$0	$301,534	$0	$0	$270,646	$301,534	($30,888)	0.90
Portfolio Admin Costs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$153,818	$0	$0	$0	$153,818	($153,818)	0.00
Portfolio Total without IE & with VO	**$2,335,611**	**$483,300**	**$47,007**	**$1,356,604**	**$2,633,960**	**$314,086**	**$259**	**$162**	**$54,029**	**$0**	**$72**	**$107**	**$0**	**$775,020**	**$808,681**	**$1,103,638**	**$2,865,918**	**$1,637,892**	**$1,228,026**	**1.75**
Portfolio Total with IE & without VO	**$2,812,962**	**$813,561**	**$73,960**	**$1,666,845**	**$3,374,980**	**$450,497**	**$275**	**$596**	**$80,503**	**$0**	**$182**	**$233**	**$0**	**$602,805**	**$1,110,145**	**$1,384,357**	**$3,700,483**	**$1,794,049**	**$1,906,434**	**2.06**
Portfolio Total without IE, VO, & Pilots	**$2,059,233**	**$482,456**	**$46,975**	**$1,201,043**	**$2,355,319**	**$314,086**	**$259**	**$162**	**$54,029**	**$0**	**$72**	**$107**	**$0**	**$472,124**	**$807,104**	**$1,097,140**	**$2,588,664**	**$1,333,419**	**$1,255,245**	**1.94**

Program	Benefits							Costs									IL Utility Cost Test (UCT)*			
	Electricity Cost Changes	Fossil Fuel Cost Changes**	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Incremental Costs (Net)	Electricity Cost Changes	Fossil Fuel Cost Changes	Water Cost Changes	Environmental Adder (GHGs)	Societal NEI	NPV Replacement costs	Non-Incentive Costs	Incentive Costs	Incremental Costs (Net)	IL UCT Benefits	IL UCT Costs	IL UCT Test Net Benefits	IL UCT Test
Portfolio Total with IE & VO	**$3,083,609**	**$813,561**	**$73,960**	**$1,818,640**	**$3,648,388**	**$450,497**	**$275**	**$596**	**$80,503**	**$0**	**$182**	**$233**	**$0**	**$904,340**	**$1,110,145**	**$1,384,357**	**$3,971,130**	**$2,095,584**	**$1,875,546**	**1.89**

**The TRC and UCT values are calculated using the sum of all the offerings' benefits and costs. Totals include portfolio and sector level non-incentive costs.*
***Gas heating penalties from energy efficiency measures designed to save electricity are being calculated as part of the overall fossil fuel cost changes.*
Source: Guidehouse analysis

Table 2-3. Summary of Program Level TRC and UCT for CY2022 ($ Thousands)

Program	IL Total Resource Cost (TRC) Test					IL Utility Cost Test (UCT)			
	IL TRC Benefits (w/o NEI)	IL TRC Costs (w/o NEI)	IL TRC Test Net Benefits (w/o NEI)	IL TRC Test (w/NEI)	IL TRC Test (w/o NEI)	IL UCT Benefits*	IL UCT Costs	IL UCT Test Net Benefits	IL UCT Test
Behavior - Res/IE	$55,081	$6,470	$48,611	14.66	8.51	$29,203	$6,438	$22,765	4.54
Contractor/Midstream Rebates	$10,306	$5,258	$5,048	2.91	1.96	$6,431	$3,568	$2,863	1.80
Electric Homes New Construction	$409	$308	$101	2.11	1.33	$214	$253	($39)	0.85
Multifamily Upgrades	$24,084	$30,703	($6,619)	1.05	0.78	$16,203	$34,309	($18,106)	0.47
New Construction - IE	$4,191	$1,164	$3,027	5.63	3.60	$2,433	$2,731	($298)	0.89
Product Distribution	$142,103	$17,317	$124,786	11.87	8.21	$71,071	$16,689	$54,382	4.26
Retail/Online	$181,719	$40,943	$140,776	6.20	4.44	$97,970	$40,761	$57,209	2.40
Single-Family Upgrades	$26,031	$28,160	($2,129)	1.13	0.92	$15,436	$32,252	($16,816)	0.48
Res & IE Sector Admin Cost	-	$14,584	($14,584)	-	-	-	$14,584	($14,584)	
Res & IE Sector Total	**$443,925**	**$144,907**	**$299,018**	**4.92**	**3.06**	**$238,963**	**$151,583**	**$87,380**	**1.58**
Behavior Bus/Pub	$16,198	$6,214	$9,984	4.67	2.61	$8,784	$6,263	$2,521	1.40
Incentives	$176,178	$133,667	$42,511	1.97	1.32	$109,452	$69,659	$39,793	1.57
Midstream/Upstream	$128,572	$30,205	$98,367	6.09	4.26	$74,250	$15,160	$59,090	4.90
New Construction - Bus/Pub	$11,844	$6,568	$5,276	2.64	1.80	$7,217	$3,525	$3,692	2.05
Small Business	$220,270	$103,686	$116,584	3.11	2.12	$127,327	$86,310	$41,017	1.48
Targeted Systems	$37,515	$23,012	$14,503	2.68	1.63	$22,934	$25,301	($2,367)	0.91
Assessments	$780	$1,217	($437)	1.20	0.64	$433	$1,264	($831)	0.34
Business & Public Sector Admin Costs	-	$13,687	($13,687)	-	-	-	$13,687	**($13,687)**	
Business & Public Sector Total	**$591,355**	**$318,256**	**$273,099**	**2.89**	**1.86**	**$350,395**	**$221,170**	**$129,225**	**1.58**
Upstream Commercial Food Service Equipment	$928	$306	$622	4.75	3.03	$561	$398	$163	1.41
VSHP as AC Replacement	$245	$496	($251)	0.79	0.49	$133	$386	($253)	0.34
Heat Pump Water Heater Pilot	$19	$310	($291)	0.10	0.06	$10	$357	($347)	0.03
ENERGY STAR Retail Products Platform	$9,968	$5,691	$4,277	2.63	1.75	$6,128	$1,143	$4,985	5.36
Pilot and MT Sector Total	**$11,161**	**$6,803**	**$4,358**	**2.48**	**1.64**	**$6,833**	**$2,285**	**$4,548**	**2.99**
Voltage Optimization	$182,647	$95,980	$86,667	2.80	1.90	$116,593	$95,980	$20,613	1.21
Portfolio Admin Costs	-	$39,316	($39,316)	-	-	-	$39,316	($39,316)	
Portfolio Total without IE & with VO	**$1,042,169**	**$538,035**	**$504,134**	**2.87**	**1.94**	**$613,860**	**$430,224**	**$183,636**	**1.43**
Portfolio Total with IE & without VO	**$1,046,440**	**$509,282**	**$537,158**	**3.02**	**2.05**	**$596,190**	**$414,355**	**$181,835**	**1.44**
Portfolio Total without IE, VO, & Pilots	**$858,329**	**$440,943**	**$417,386**	**2.89**	**1.95**	**$496,562**	**$333,102**	**$163,460**	**1.49**
Portfolio Total with IE & VO	**$1,229,087**	**$605,262**	**$623,825**	**2.99**	**2.03**	**$712,783**	**$510,335**	**$202,448**	**1.40**

**Water cost savings are included in UCT benefit values as a TRM benefit*
Source: Guidehouse analysis

Table 2-4. Summary of Program Level TRC and UCT for CY2023 ($ Thousands)

Program	IL Total Resource Cost (TRC) Test (NPV replacement cost as benefit)					IL Utility Cost Test (UCT)			
	IL TRC Benefits (w/o NEI)	IL TRC Costs (w/o NEI)	IL TRC Test Net Benefits (w/o NEI)	IL TRC Test (w/NEI)	IL TRC Test (w/o NEI)	IL UCT Benefits*	IL UCT Costs	IL UCT Test Net Benefits	IL UCT Test
ASI kWh Purchase	$1,937	$473	$1,464	4.94	4.10	$1,599	$250	$1,349	6.40
Behavior - Res/IE	$54,755	$6,577	$48,178	9.82	8.33	$34,449	$6,577	$27,872	5.24
Contractor/Midstream Rebates	$28,304	$8,967	$19,337	3.73	3.16	$15,394	$10,094	$5,300	1.53
Electric Homes New Construction	$1,186	$616	$570	2.15	1.93	$619	$658	($39)	0.94
Multifamily Upgrades	$30,314	$33,510	($3,196)	1.28	0.90	$18,599	$32,385	($13,786)	0.57
New Construction - IE	$2,741	$2,678	$63	1.21	1.02	$1,612	$2,397	($785)	0.67
Product Distribution	$191,270	$43,174	$148,096	6.28	4.43	$95,119	$27,737	$67,382	3.43
Retail/Online	$201,673	$40,004	$161,669	6.67	5.04	$134,131	$36,362	$97,769	3.69
Single-Family Upgrades	$24,622	$24,628	($6)	1.16	1.00	$19,078	$36,237	($17,159)	0.53
Res & IE Sector Admin Cost		$3,346	($3,346)				$3,346	($3,346)	
Res & IE Sector Total	**$536,801**	**$163,973**	**$372,828**	**4.45**	**3.27**	**$320,599**	**$156,042**	**$164,557**	**2.05**
Behavior Bus/Pub	$14,748	$8,426	$6,322	2.91	1.75	$7,811	$8,499	($688)	0.92
Incentives	$153,463	$101,583	$51,880	2.32	1.51	$96,947	$74,885	$22,062	1.29
Midstream/Upstream	$113,952	$33,298	$80,654	4.87	3.42	$71,316	$25,265	$46,051	2.82
New Construction - Bus/Pub	$11,135	$12,870	($1,735)	1.26	0.87	$6,507	$4,471	$2,036	1.46
Small Business	$191,109	$80,691	$110,418	3.49	2.37	$120,181	$94,323	$25,858	1.27
Targeted Systems	$38,254	$27,134	$11,120	2.16	1.41	$22,812	$30,302	($7,490)	0.75
Assessments	$428	$1,640	($1,212)	0.43	0.26	$234	$1,713	($1,479)	0.14
Business & Public Sector Admin Costs		$8,836	($8,836)				$8,836	($8,836)	
Business & Public Sector Total	**$523,087**	**$274,478**	**$248,609**	**2.93**	**1.91**	**$325,808**	**$248,293**	**$77,515**	**1.31**
Heat Pump Water Heater Pilot	$86	$172	($86)	0.55	0.50	$44	$411	($367)	0.11
ENERGY STAR Retail Products Platform	$8,675	$6,345	$2,330	2.04	1.37	$5,622	$1,092	$4,530	5.15
Industrial EMIS	$344	$472	($128)	1.21	0.73	$185	$252	($67)	0.73
Pilot and MT Sector Total	**$9,106**	**$6,670**	**$2,436**	**1.94**	**1.37**	**$5,851**	**$1,756**	**$4,095**	**3.33**
Voltage Optimization	$62,266	$70,018	($7,752)	1.34	0.89	$38,614	$70,018	($31,404)	0.55
Portfolio Admin Costs		$36,787	($36,787)				$36,787	($36,787)	
Portfolio Total without IE & with VO	**$832,922**	**$519,385**	**$313,537**	**2.23**	**1.60**	**$495,941**	**$409,648**	**$86,293**	**1.21**
Portfolio Total with IE & without VO	**$1,068,994**	**$481,907**	**$587,087**	**3.13**	**2.22**	**$652,258**	**$442,878**	**$209,380**	**1.47**
Portfolio Total without IE, VO, & Pilots	**$761,551**	**$442,697**	**$318,854**	**2.37**	**1.72**	**$451,476**	**$337,874**	**$113,602**	**1.34**
Portfolio Total with IE & VO	**$1,131,261**	**$551,926**	**$579,335**	**2.90**	**2.05**	**$690,873**	**$512,897**	**$177,976**	**1.35**

**Water cost savings are included in UCT benefit values as a TRM benefit*
Source: Guidehouse analysis

Table 2-5. Summary of Program Level TRC and UCT for CY2024 ($ Thousands)

Program	IL Total Resource Cost (TRC) Test (NPV replacement cost as benefit)					IL Utility Cost Test (UCT)			
	IL TRC Benefits (w/o NEI)	IL TRC Costs (w/o NEI)	IL TRC Test Net Benefits (w/o NEI)	IL TRC Test (w/NEI)	IL TRC Test (w/o NEI)	IL UCT Benefits*	IL UCT Costs	IL UCT Test Net Benefits	IL UCT Test
ASI kWh Purchase	$1,446	$491	$955	4.68	2.95	$1,005	$250	$755	$4
Behavior - Res/IE	$24,362	$6,457	$17,905	7.83	3.77	$15,633	$6,457	$9,176	2.42
Contractor/Midstream Rebates	$30,179	$13,778	$16,401	6.24	2.19	$19,159	$12,193	$6,966	1.57
Electric Homes New Construction	$1,219	$1,412	($193)	1.87	0.86	$844	$988	($144)	0.85
Multifamily Upgrades	$42,096	$41,065	$1,031	1.75	1.03	$28,634	$38,909	($10,275)	0.74
New Construction - IE	$8,755	$7,538	$1,217	2.11	1.16	$5,988	$4,770	$1,218	1.26
Product Distribution	$167,335	$24,554	$142,781	13.38	6.81	$95,226	$18,079	$77,147	5.27
Retail/Online	$624,460	$81,576	$542,884	11.37	7.65	$468,260	$46,249	$422,011	10.12
Single-Family Upgrades	$25,371	$34,581	($9,210)	1.03	0.73	$20,712	$33,346	($12,634)	0.62
Whole Home Electric	$4,252	$10,028	($5,776)	1.07	0.42	$2,511	$10,006	($7,495)	0.25
Res & IE Sector Admin Cost		$3,990	($3,990)				$3,990	($3,990)	
Res & IE Total	**$929,471**	**$225,470**	**$704,001**	**6.79**	**4.12**	**$657,969**	**$175,238**	**$482,731**	**3.75**
Behavior Bus/Pub	$16,795	$9,609	$7,186	4.26	1.75	$8,748	$9,609	($861)	0.91
Incentives	$300,287	$101,592	$198,695	4.78	2.96	$137,686	$83,609	$54,077	1.65
Midstream/Upstream	$204,681	$37,570	$167,111	10.11	5.45	$111,639	$24,157	$87,482	4.62
New Construction - Bus/Pub	$9,018	$6,918	$2,100	2.15	1.30	$6,363	$3,221	$3,142	1.98
Small Business	$220,909	$81,058	$139,851	4.98	2.73	$123,954	$84,205	$39,749	1.47
Targeted Systems	$45,332	$30,936	$14,396	3.12	1.47	$26,412	$29,793	($3,381)	0.89
Assessments	$0	$1,431	($1,431)	0.00	0.00	$0	$1,431	($1,431)	0.00
EMS - Small Business - Pilot	$49	$398	($349)	0.27	0.12	$24	$353	($329)	0.07
Business & Public Sector Admin Costs		$12,121	($12,121)				$12,121	**($12,121)**	
Business & Public Sector Total	**$797,070**	**$281,633**	**$515,437**	**5.05**	**2.83**	**$414,826**	**$248,499**	**$166,327**	**1.67**
Voltage Optimization	$91,841	$96,699	($4,858)	1.94	0.95	$56,309	$96,699	($40,390)	0.58
Portfolio Admin Costs		$39,318	($39,318)				$39,318	($39,318)	
Portfolio Total without IE & with VO	**$1,316,552**	**$481,300**	**$835,252**	**4.72**	**2.74**	**$805,438**	**$431,757**	**$373,681**	**1.87**
Portfolio Total with IE & without VO	**$1,726,542**	**$546,421**	**$1,180,121**	**5.40**	**3.16**	**$1,072,796**	**$463,055**	**$609,741**	**2.32**
Portfolio Total without IE, VO, & Pilots	**$1,224,711**	**$384,601**	**$840,110**	**5.42**	**3.18**	**$749,129**	**$335,058**	**$414,071**	**2.24**
Portfolio Total with IE & VO	**$1,818,383**	**$643,120**	**$1,175,263**	**4.88**	**2.83**	**$1,129,105**	**$559,754**	**$569,351**	**2.02**

**Water cost savings are included in UCT benefit values as a TRM benefit*
Source: Guidehouse analysis

Table 2-6. Summary of Program Level TRC and UCT for CY2025 ($ Thousands)

Program	IL Total Resource Cost (TRC) Test (NPV replacement cost as benefit)					IL Utility Cost Test (UCT)			
	IL TRC Benefits (w/o NEI)	IL TRC Costs (w/o NEI)	IL TRC Test Net Benefits (w/o NEI)	IL TRC Test (w/NEI)	IL TRC Test (w/o NEI)	IL UCT Benefits*	IL UCT Costs	IL UCT Test Net Benefits	IL UCT Test
ASI kWh Purchase	$2,253	$557	$1,696	5.92	4.05	$1,683	$250	$1,433	6.73
Behavior - Res/IE	$25,876	$6,587	$19,289	7.11	3.93	$18,558	$6,565	$11,993	2.83
Contractor/Midstream Rebates	$42,496	$12,587	$29,909	7.21	3.38	$31,973	$11,284	$20,690	2.83
Electric Homes New Construction	$2,507	$1,528	$979	3.11	1.64	$1,753	$1,003	$750	1.75
Multifamily Upgrades	$62,879	$31,171	$31,707	3.11	2.02	$45,881	$37,040	$8,841	1.24
New Construction - IE	$13,989	$2,818	$11,171	8.83	4.96	$9,952	$5,318	$4,634	1.87
Product Distribution	$241,870	$18,570	$223,300	22.53	13.02	$157,737	$18,369	$139,369	8.59
Retail/Online	$665,306	$103,077	$562,229	9.36	6.45	$497,759	$55,839	$441,920	8.91
Single-Family Upgrades	$26,389	$31,001	($4,612)	1.18	0.85	$21,725	$28,115	($6,390)	0.77
Whole Home Electric	$11,897	$15,314	($3,417)	1.50	0.78	$8,342	$17,280	($8,938)	0.48
Res & IE Sector Admin Cost		$1,197	($1,197)				$1,197	($1,197)	
Res & IE Sector Total	**$1,095,461**	**$224,406**	**$871,054**	**7.62**	**4.88**	**$795,364**	**$182,259**	**$613,105**	**4.36**
Behavior Bus/Pub	$20,209	$10,174	$10,034	4.24	1.99	$12,336	$10,174	$2,161	1.21
Business Energy Analyzer (BEA)	$6,720	$2,049	$4,671	5.75	3.28	$4,948	$323	$4,625	15.34
Incentives	$210,599	$85,088	$125,512	4.10	2.48	$148,332	$71,041	$77,290	2.09
Midstream/Upstream	$349,252	$49,411	$299,841	11.86	7.07	$227,098	$44,531	$182,567	5.10
New Construction - Bus/Pub	$8,352	$7,814	$538	1.63	1.07	$6,160	$2,666	$3,494	2.31
Small Business	$226,248	$74,950	$151,299	4.96	3.02	$144,679	$87,377	$57,301	1.66
Targeted Systems	$59,208	$29,635	$29,574	3.65	2.00	$40,273	$28,119	$12,153	1.43
Business & Public Sector Admin Costs		$8,833	($8,833)				$8,833	($8,833)	
Business & Public Sector Total	**$880,588**	**$267,952**	**$612,636**	**5.53**	**3.29**	**$583,824**	**$253,065**	**$330,760**	**2.31**
Automated System Optimization	$19	$37	($18)	1.02	0.52	$13	$20	($7)	0.65
Virtual Energy Coach	$56	$40	$16	2.68	1.40	$38	$21	$18	1.85
Pilot and MT Sector Total	**$75**	**$77**	**($2)**	**1.88**	**0.97**	**$51**	**$40**	**$11**	**1.27**
Voltage Optimization	$85,687	$38,837	$46,850	3.75	2.21	$59,130	$38,837	$20,293	1.52
Portfolio Admin Costs		$38,397	($38,397)				$38,397	($38,397)	
Portfolio Total without IE & with VO	**$1,345,224**	**$394,202**	**$951,022**	**5.56**	**3.41**	**$950,678**	**$366,264**	**$584,414**	**2.60**
Portfolio Total with IE & without VO	**$1,976,124**	**$530,833**	**$1,445,291**	**6.02**	**3.72**	**$1,379,240**	**$473,760**	**$905,479**	**2.91**
Portfolio Total without IE, VO, & Pilots	**$1,259,462**	**$355,287**	**$904,174**	**5.76**	**3.54**	**$891,497**	**$327,387**	**$564,110**	**2.72**
Portfolio Total with IE & VO	**$2,061,811**	**$569,670**	**$1,492,141**	**5.86**	**3.62**	**$1,438,370**	**$512,598**	**$925,772**	**2.81**

**Water cost savings are included in UCT benefit values as a TRM benefit*
Source: Guidehouse analysis

3 Cost Effectiveness Methodology

As part of Guidehouse's evaluation of ComEd energy efficiency programs for CY2022-CY2025, Guidehouse performed benefit-cost calculations based upon a combination of data provided by ComEd, evaluated program results, IL TRM, references from the Illinois Energy Efficiency Policy Manual[3], and other available resources. The focus of this section is on the basis and calculations used to conduct the Illinois TRC test.

The Illinois TRC test is defined in the Illinois Power Agency Act (see 20 ILCS 3855/1-10) as follows:[4]

> *"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 consider a calculation of market price suppression effects or demand reduction induced price effects.*

The Illinois TRC test differs from traditional TRC tests due to its requirement to include a reasonable estimate of the financial costs associated with future regulations and legislation on the emissions of greenhouse gases (GHG) and the use of the societal discount rate. These differences add a benefit to investments in efficiency programs that are typically included in the societal cost test in other jurisdictions.

The results of the Utility Cost Test (UCT) are also presented[5]. The UCT approaches cost-effectiveness from the perspective of the utility as program administrator. It determines whether the energy supply costs avoided by the utility exceed the overhead and cost outlays that the utility incurred to implement energy efficiency programs. The structure of the calculation is similar to the Illinois TRC with a few key

[3] Illinois Energy Efficiency Policy Manual, available at: https://www.ilsag.info/policy/
[4] See Section 1-10 Definitions of the Illinois Power Agency Act: http://www.ilga.gov/legislation/ilcs/ilcs5.asp?ActID=2934&ChapterID=5
[5] Utility Cost Test (UCT) assumes utilities are the program administrators.

changes. As the UCT is primarily focused on utility outlays, incentives paid by the utility to either participants or third-party implementers are included in the calculation, rather than incremental or participant costs. Additionally, since non-energy benefits accrue to society rather than to the utility implementing energy efficiency programs, these benefits are not included in the UCT formula. The UCT, however, accounts for water benefits defined in the IL TRM.

Table 3-1 outlines the data collected from different stakeholders to conduct cost-effectiveness analysis. The data is categorized into generic and program-specific categories. The program-specific data are further subdivided into those provided by the utility, those that are a result of evaluation activities, and those from multiple sources.

Table 3-1. Data Inputs for Cost-Effectiveness Analysis

Category	Data Inputs	Source
Generic	• Avoided Energy Costs ($/kWh) • Avoided Capacity Costs ($/kW) • Avoided T&D Electric ($/kWh) • Avoided Gas Production ($/therm)[6] • Avoided Water Costs ($/gallon) • Escalation Rates • Environmental Damages (GHG Adders) • Discount Rate • Line Loss Factor	ComEd, IL TRM, SAG Reports
Program Specific	• Participants/Measure Count • Verified Energy and Demand Savings • Realization Rate • Net-to-Gross Ratio • Measure Life • Incremental Measure Costs[7] • NPV Replacement Costs • Societal NEI Benefits	Guidehouse CY2022 - CY2025 Evaluation Reports of ComEd, Nicor Gas, PGL and NSG.
	• Non-Incentive Costs • Utility Incentive Costs • Direct Install Costs • Incremental Measure Costs	ComEd, Nicor Gas, PGL and NSG Data and Quarterly Reports to SAG.

Source: Guidehouse analysis

[6] From Nicor Gas, Peoples Gas and North Shore Gas reports to the SAG.

[7] Incremental measure costs come from program tracking data, program contractor invoices, and deemed value sources from IL TRM v10.0 through v13.0.