



**To:** ComEd, Nicor Gas, Peoples Gas, North Shore Gas, ICC Staff; SAG Staff

**From:** Stefan Johnson, James Gin, Ensar Biscevic, Guidehouse

**CC:** Jeff Erickson, Charlie Maglione, Charles Ampong, Laura Agapay-Read, Guidehouse

**Date:** December 29, 2024

**Re:** CY2023 Cost Effectiveness Test Results for Jointly Implemented Programs

In CY2023, six programs (referred to collectively in this memo as “programs”) were jointly implemented by ComEd, Nicor Gas, Peoples Gas (PGL), and North Shore Gas (NSG). Guidehouse used the CY2023 gas utilities’ cost-effectiveness test information<sup>12</sup> and ComEd’s cost-effectiveness test results<sup>3</sup> to prepare this memo on CY2023 cost-effectiveness test results of these jointly implemented programs.

Table 1 lists the programs jointly implemented by ComEd and the gas utilities and indicates which utilities jointly implemented the programs in CY2023.

**Table 1. Summary of Jointly Implemented Programs**

Sector	Program	ComEd	Nicor Gas	PGL	NSG
Residential / Income Eligible	Single-Family Upgrades*	√	√	√	√
Residential / Income Eligible	Multi-Family Upgrades**	√	√	√	√
Income Eligible	Product Distribution***	√	√	√	√
Income Eligible	Affordable Housing New Construction (AHNC)	√	√	-	-
Business & Public Sector	Non-Residential New Construction	√	√	√	√
Business & Public Sector	Retrocommissioning ****	√	√	√	√

\* The Retrofit, Home Energy Assessments (HEA), and the Illinois Home Weatherization Assistance Program (IHWAP) program components are implemented jointly by ComEd and the gas utilities. The program also includes the Income Eligible Whole Home Electrification component, implemented solely by ComEd.

\*\* The IHWAP, Public Housing Authority (PHA), Market Rate (direct install and IE Multi-family program components are implemented jointly by ComEd and the gas utilities. The program also includes the Income Eligible Whole Home Electrification component, implemented solely by ComEd.

\*\*\* The Elementary Education Energy program component is implemented jointly by ComEd and the gas utilities. The program also includes the Food Bank and HEA Kits components, implemented solely by ComEd.

\*\*\*\* The Retrocommissioning program component is implemented jointly by ComEd and the gas utilities. ComEd offers it as part of its Targeted Systems program along with Virtual Commissioning and Industrial Systems.

- PGL & NSG did not implement projects in CY2023.

<sup>1</sup> <https://www.ilsag.info/wp-content/uploads/Nicor-Gas-2023-Summary-Savings-and-Cost-Effectiveness-Memo-2024-11-19-Final.pdf>  
<sup>2</sup> [https://www.ilsag.info/wp-content/uploads/PGL\\_NS-G-2023-Summary-Savings-and-Cost-Effectiveness-Memo-2024-11-18-Final.pdf](https://www.ilsag.info/wp-content/uploads/PGL_NS-G-2023-Summary-Savings-and-Cost-Effectiveness-Memo-2024-11-18-Final.pdf)  
<sup>3</sup> <https://www.ilsag.info/wp-content/uploads/ComEd-Cost-Effectiveness-Analysis-CY2023-Report-2024-06-28-Final.pdf>

Guidehouse's analysis determined that:

- The joint programs achieved an overall total resource cost (TRC) effectiveness of 2.94 with non-energy impacts (NEI)<sup>4</sup> and a TRC of 2.16 without NEI. The overall utility cost test (UCT) result was 1.19.
- When including NEIs, all four individual residential and income eligible programs achieved a TRC greater than 1.0 in CY2023. Of these programs, only Product Distribution was cost-effective under the UCT framework. Despite slightly lower costs under the UCT, benefit decreases from the exclusion of greenhouse gas (GHG) benefits and other NEIs<sup>5</sup> under the UCT brought the scores for Single-Family, Multi-family, and Affordable Housing New Construction (AHNC) to 0.58, 0.70, and 0.64, respectively.
- Both Business and Public Sector joint programs' TRCs were greater than 1.0 in CY2023, both with and without NEI. Non-Residential New Construction also achieved UCT cost-effectiveness at 1.61, largely due to its relatively low incentive payments (\$2.8 million) as a portion of incremental costs (\$11.8 million). Retrocommissioning had lower UCT cost-effectiveness at 0.80, down from 0.96 in previous year.
- The Product Distribution offerings, including the Elementary Education and Kits components, maintained the highest TRC and UCT scores at 6.46 (with NEI) and 3.41, respectively. This program also accumulated the most total benefits in CY2023, totaling nearly \$290 million with the inclusion of NEI.
- Overall, the TRC and UCT scores for the joint programs aligned closely with the scores attained by ComEd's individual portions of the programs. AHNC saw the only instance of misalignment, where the joint program posted a TRC of 0.97 compared to ComEd's 1.21 for their portion of the program. This general alignment tracks with expectations, as ComEd's programs represented 81% of overall TRC benefits for the joint programs.

Table 2 and Table 3 summarize the TRC and UCT calculations for CY2023 joint programs. These tables include values for the programs' benefit and cost components when aggregated across all utilities involved in joint implementation. Table 4 and Table 5 summarize TRC and UCT test values by program and utility for CY2023.

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<sup>4</sup> NEI benefits account for water and electricity benefits, societal benefits, and carbon adders.

<sup>5</sup> Other NEIs account for water and electricity benefits defined in the Illinois Technical Reference Manual (IL TRM), but exclude carbon and societal benefits.

**Table 2. Summary of Program Level Benefits, Costs, and IL Total Resource Cost (TRC\*) Test Values – CY2023**

Sector	Program / Pilot	Avoided Electric Production (w/GHG adder)	Avoided Gas Savings (w/ Env. Adder)	Societal NEI	Other Benefits	Non-Incentive Costs	Negative Benefits	Incremental Costs (Net)	"IL TRC Benefits (w/ NEI)"	"IL TRC Benefits (w/o NEI)"	IL TRC Costs	IL TRC Test Net Benefits (w/ 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) = (a+b+c+d)	(i) = (a+b+d)	(j) = (e+f+g)	(k) = (h-j)	(l) = (i-j)	(m) = (h/j)	(n) = (i/j)
Residential / Income Eligible	Single-Family Upgrades	\$11,199,712	\$32,415,066	\$8,080,735	\$2,426,701	\$13,419,716	\$270,963	\$23,174,434	\$54,122,213	\$46,041,479	\$36,865,113	\$17,257,100	\$9,176,365	1.47	1.25
Residential / Income Eligible	Multi-Family Upgrades	\$25,707,433	\$37,551,598	\$19,292,300	\$1,942,251	\$16,412,991	\$180,736	\$32,207,154	\$84,493,582	\$65,201,281	\$48,800,881	\$35,692,701	\$16,400,401	1.73	1.34
Income Eligible	Product Distribution	\$154,065,273	\$13,047,245	\$82,466,991	\$40,264,845	\$4,259,042	\$8,615,279	\$32,018,536	\$289,844,354	\$207,377,364	\$44,892,857	\$244,951,497	\$162,484,507	6.46	4.62
Income Eligible	Affordable Housing New Construction	\$2,497,956	\$486,268	\$553,105	\$638	\$1,673,230	\$36,092	\$1,356,251	\$3,537,967	\$2,984,862	\$3,065,573	\$472,394	\$(80,711)	1.15	0.97
Business & Public Sector	Non-Residential New Construction	\$11,121,077	\$4,406,668	\$6,009,291	\$14,121	\$2,346,674	-	\$11,834,241	\$21,551,157	\$15,541,866	\$14,180,915	\$7,370,242	\$1,360,951	1.52	1.10
Business & Public Sector	Retrocommissioning	\$37,977,106	\$3,845,129	\$21,184,218	-	\$9,765,487	-	\$17,968,120	\$63,006,453	\$41,822,235	\$27,733,607	\$35,272,845	\$14,088,628	2.27	1.51
<b>Joint Programs Total</b>		<b>\$242,568,557</b>	<b>\$91,751,975</b>	<b>\$137,586,639</b>	<b>\$44,648,556</b>	<b>\$47,877,139</b>	<b>\$9,103,070</b>	<b>\$118,558,736</b>	<b>\$516,555,726</b>	<b>\$378,969,087</b>	<b>\$175,538,946</b>	<b>\$341,016,780</b>	<b>\$203,430,141</b>	<b>2.94</b>	<b>2.16</b>

Note: Totals may not sum due to rounding.

\* The Illinois TRC test is defined in the Illinois Power Agency Act (see 20 ILCS 3855/1-10).

\*\* Other Benefits include Avoided Water Costs, Net Incremental Costs, and NPV Replacement Costs.

**Table 3. Summary of Program Level Benefits, Costs, and Utility Cost Test (UCT\*) Values – CY2023**

Sector	Program / Pilot	Avoided Electric Production (w/o GHG Adder)	Avoided Gas Savings (w/o GHG adder)	Non-Incentive Costs	Negative Benefits	Incentive Costs	IL UCT Benefits	IL UCT Costs	IL UCT Test Net Benefits	IL UCT Test
		(a)	(b)	(c)	(d)	(e)	(f) = (a+b)	(g) = (c+d+e)	(h) = (f-g)	(i) = (f/g)
Residential / Income Eligible	Single-Family Upgrades	\$7,137,461	\$21,039,473	\$13,419,716	\$270,963	\$34,671,021	\$28,176,934	\$48,361,700	\$(20,184,766)	0.58
Residential / Income Eligible	Multi-Family Upgrades	\$13,991,947	\$18,559,336	\$16,412,991	\$180,736	\$30,095,848	\$32,551,283	\$46,689,574	\$(14,138,291)	0.70
Income Eligible	Product Distribution	\$93,177,372	\$3,813,062	\$4,075,847	\$8,615,279	\$15,715,049	\$96,990,434	\$28,406,175	\$68,584,259	3.41
Income Eligible	Affordable Housing New Construction	\$1,368,950	\$363,486	\$1,673,230	\$36,092	\$1,007,765	\$1,732,436	\$2,717,087	\$(984,651)	0.64
Business & Public Sector	Non-Residential New Construction	\$6,493,106	\$1,811,315	\$2,346,674	-	\$2,808,473	\$8,304,421	\$5,155,147	\$3,149,274	1.61
Business & Public Sector	Retrocommissioning	\$22,535,451	\$2,085,849	\$9,765,487	-	\$21,128,810	\$24,621,301	\$30,894,297	\$(6,272,996)	0.80
<b>Joint Programs Total</b>		<b>\$144,704,287</b>	<b>\$47,672,520</b>	<b>\$47,693,944</b>	<b>\$9,103,070</b>	<b>\$105,426,964</b>	<b>\$192,376,807</b>	<b>\$162,223,979</b>	<b>\$30,152,829</b>	<b>1.19</b>

Note: Totals may not sum due to rounding.

\* The Illinois UCT test is defined in the Illinois Power Agency Act (see 20 ILCS 3855/1-10).

**Table 4. Summary of TRC Test Values by Program and Utility – CY2023**

Sector	Program	All	ComEd	Nicor Gas	PGL	NSG
Residential / Income Eligible	Single-Family Upgrades	<b>1.25</b>	1.16	2.28	1.82	0.79
Residential / Income Eligible	Multi-Family Upgrades	<b>1.34</b>	1.28	3.37	2.08	3.57
Income Eligible	Product Distribution	<b>4.62</b>	6.28	17.35	8.01	7.82
Income Eligible	Affordable Housing New Construction	<b>0.97</b>	1.21	0.74	--*	--*
Business & Public Sector	Coordinated Non-Residential New Construction	<b>1.10</b>	1.26	7.02	2.54	2.77
Business & Public Sector	Retrocommissioning	<b>1.51</b>	2.16	5.56	9.84	5.02

\* PGL & NSG did not implement projects in CY2023.

**Table 5. Summary of UCT Test Values by Program and Utility – CY2023**

Sector	Program	All	ComEd	Nicor Gas	PGL	NSG
Residential / Income Eligible	Single-Family Upgrades	<b>0.58</b>	0.53	0.92	0.50	0.23
Residential / Income Eligible	Multi-Family Upgrades	<b>0.70</b>	0.57	1.33	0.58	2.14
Income Eligible	Product Distribution	<b>3.41</b>	3.43	5.63	2.86	3.12
Income Eligible	Affordable Housing New Construction	<b>0.64</b>	0.67	0.38	--*	--*
Business & Public Sector	Coordinated Non-Residential New Construction	<b>1.61</b>	1.45	2.71	2.41	3.72
Business & Public Sector	Retrocommissioning	<b>0.80</b>	0.75	2.74	3.40	--**

\* PGL & NSG did not implement projects in CY2023.

\*\* Retrocommissioning program was not allocated any admin costs in CY2023. The impact on the overall joint UCT was small.