



To: ComEd, Nicor Gas, Peoples Gas, North Shore Gas, ICC
From: Patricia Plympton, Kevin Grabner, Christina Cho, Guidehouse
CC: Jeff Erickson, Charlie Maglione, Stu Slote, Guidehouse
Date: May 25, 2022
Re: CY2020 Cost Effectiveness Test Results for Jointly Implemented Programs

In CY2020, there were 10 programs and one pilot (referred to collectively in this memo as “programs”) that were jointly implemented by ComEd, Nicor Gas, Peoples Gas (PGL), and North Shore Gas (NSG). Guidehouse used the CY2020 gas utilities’ cost-effectiveness test information (finalized on 02-07-2022) and ComEd’s cost-effectiveness test results¹ (finalized on 06-29-2021) to prepare this memo on CY2020 cost-effectiveness test results of 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 CY2020.

Table 1 - Summary of Jointly Implemented Programs

Sector	Program	ComEd	Nicor Gas	PGL	NSG
Income Eligible	Single-Family Retrofits - CBA and IHWAP *	X			
	Illinois Home Weatherization Assistance Program (IHWAP) **		X	X	X
	Chicago Bungalow Association (CBA) **			X	
Income Eligible	Multi-Family Retrofits - IEMS and IHWAP *	X			
	Multi-Family IHWAP **		X	X	X
	Income Eligible Multifamily Savings (IEMS) **			X	X
Income Eligible	Public Housing Energy Savings	X	X	X	X
Income Eligible	Affordable Housing New Construction	X	X	X	X
Business & Public Sector	Coordinated Non-Residential New Construction	X	X	X	X
Business & Public Sector	Coordinated Retro Commissioning	X	X	X	X
Business & Public Sector	Upstream Commercial Food Service Equipment (Pilot)	X	X	X	X
Residential	Single Family Assessment	X	X	X	X
Residential	Elementary Education Kits	X	X	X	X
Residential	Multi-Family Assessments	X	X	X	X

*Programs reported by ComEd as combined together.

**Programs reported by gas utilities individually

¹ <https://ilsag.s3.amazonaws.com/ComEd-CY2020-TRC-Report-2021-06-29.pdf>

Guidehouse's analysis determined that:

- Income Eligible joint programs did not have Illinois Total Resource Cost test (TRC) or Utility Cost Test (UCT) values above 1.0, with the exception of Affordable Housing New Construction, which had a TRC of 1.07.
- Business and Public Sector joint programs had TRC and UCT values above 1.0, with the exception of Upstream Commercial Food Service Equipment Pilot, with a UCT of 0.86. The Upstream Commercial Food Service Equipment Pilot was launched in September 2019 and program year 2020 was the first year to claim savings as a joint-utility offering. It is not unusual for a first-year program to have TRC and UCT values below 1.00 due to relatively higher start-up, outreach, and marketing costs
- Residential joint programs had TRC and UCT values above 1.0 except Single Family Assessments which had a UCT score of 0.59. The Single Family Assessments program achieves benefits through Energy Advisors conducting in-home assessments and direct installation of energy saving measures. In 2020, the COVID restrictions prevented that approach for most of the program year, and little savings were acquired in the second quarter of 2020. A virtual home inspection approach was developed and launched later in 2020, incurring program costs. Default in-service rates for participant-installed measures identified through virtual home inspection are about 20% lower than direct installed in-service rates, further reducing the program benefits.

Table 2 and 3 summarize the TRC and UCT calculations for CY2020's joint programs. These tables include values for the programs' benefit and cost components when aggregated across all utilities that were involved in their joint implementations. Table 4 summarizes TRC test values by program and utility for CY2020.

Table 2 - Summary of Program Level Benefits, Costs, and IL Total Resource Cost (TRC) Test Values – CY2020

Sector	Program/Pilot	Avoided Electric Production	Avoided Electric Capacity	Avoided Gas Savings	Avoided Gas Production	Other Benefits*	Non-Incentive Costs	Incremental Costs (Net)	IL TRC Benefits	IL TRC Costs	IL TRC Test Net Benefits	IL TRC Test
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h) = (a+b+c+d+e)	(i) = (f+g)	(j) = (h-i)	(k) = (h/i)
Income Eligible	Single-Family Retrofits - CBA and IHWAP	\$2,416,787	\$2,298,210	\$4,270,589	\$3,824,029	\$1,909,850	\$3,836,563	\$18,395,050	\$14,719,465	\$22,231,613	-\$7,512,148	0.66
Income Eligible	Multi-Family Retrofits - IEMS and IHWAP	\$1,302,763	\$188,293	\$922,898	\$4,411,867	\$920,815	\$3,278,512	\$8,639,508	\$7,746,635	\$11,918,020	-\$4,171,385	0.65
Income Eligible	Public Housing Energy Savings	\$428,107	\$91,166	\$233,560	-\$28,270	\$89,668	\$951,090	\$1,093,058	\$814,232	\$2,044,148	-\$1,229,917	0.40
Income Eligible	Affordable Housing New Construction	\$1,014,956	\$347,484	\$1,084,727	\$0	\$427,640	\$908,463	\$1,773,297	\$2,874,807	\$2,681,760	\$193,047	1.07
Business & Public Sector	Coordinated Non-Residential New Construction	\$15,226,971	\$5,863,670	\$5,442,766	\$135,193	\$3,256,099	\$1,593,689	\$12,280,092	\$29,924,698	\$13,873,781	\$16,050,917	2.16
Business & Public Sector	Coordinated Retro Commissioning	\$18,485,602	\$2,276,654	\$3,034,610	\$628,771	\$1,202,129	\$2,547,837	\$6,360,259	\$25,627,766	\$8,908,096	\$16,719,670	2.88
Business & Public Sector	Upstream Commercial Food Service Equipment (Pilot)	\$37,964	\$13,922	\$449,621	\$288	\$188,367	\$315,322	\$128,252	\$690,161	\$443,573	\$246,588	1.56
Residential	Single Family Assessment	\$4,118,754	\$1,501,535	\$4,022,814	-\$916,065	\$3,129,372	\$4,883,102	\$4,207,826	\$11,856,410	\$9,090,928	\$2,765,482	1.30
Residential	Elementary Education Kits	\$2,090,080	\$634,731	\$1,171,655	\$149,910	\$5,636,317	\$618,576	\$872,759	\$9,682,694	\$1,491,336	\$8,191,359	6.49
Residential	Multi-Family Assessments	\$2,881,263	\$958,614	\$19,965,698	-\$150,675	\$10,242,155	\$4,702,511	\$10,204,563	\$33,897,055	\$14,907,074	\$18,989,981	2.27
	Joint Programs Total	\$48,003,247	\$14,174,277	\$40,598,938	\$8,055,049	\$27,002,411	\$23,635,665	\$63,954,663	\$137,833,922	\$87,590,329	\$50,243,594	1.57

*Other Benefits include Avoided Water Costs

Table 3 - Summary of Program Level Benefits, Costs, and Utility Cost Test (UCT) Values – CY2020

Sector	Program/Pilot	Avoided Electric Production	Avoided Electric Capacity	Avoided Gas Savings	Avoided Gas Production	Non-Incentive Costs	Incentive Costs (Net)	IL UCT Benefits	IL UCT Costs	IL UCT Net Benefits	IL UCT
		(a)	(b)	(c)	(d)	(e)	(f)	(g) = (a+b+c+d)	(h) = (e+f)	(i) = (g-h)	(j) = (h/g)
Income Eligible	Single-Family Retrofits - CBA and IHWAP	\$1,271,976	\$2,298,210	\$2,813,074	\$3,824,029	\$3,836,563	\$14,684,610	\$10,207,289	\$18,521,173	-\$8,313,884	0.55
Income Eligible	Multi-Family Retrofits - IEMS and IHWAP	\$686,280	\$188,293	\$634,070	\$4,411,867	\$3,278,512	\$6,405,489	\$5,920,510	\$9,684,001	-\$3,763,491	0.61
Income Eligible	Public Housing Energy Savings	\$233,901	\$91,166	\$140,033	-\$28,270	\$951,090	\$837,302	\$436,831	\$1,788,392	-\$1,351,562	0.24
Income Eligible	Affordable Housing New Construction	\$539,749	\$347,484	\$727,988	\$0	\$908,463	\$1,773,297	\$1,615,221	\$2,681,760	-\$1,066,539	0.60
Business & Public Sector	Coordinated Non-Residential New Construction	\$7,970,738	\$5,863,670	\$3,358,330	\$135,193	\$1,593,689	\$5,524,885	\$17,327,930	\$7,118,574	\$10,209,356	2.43
Business & Public Sector	Coordinated Retro Commissioning	\$10,092,074	\$2,276,654	\$2,465,545	\$628,771	\$2,547,837	\$10,692,234	\$15,463,044	\$13,240,070	\$2,222,974	1.17
Business & Public Sector	Upstream Commercial Food Service Equipment (Pilot)	\$20,467	\$13,922	\$317,287	\$288	\$315,322	\$91,764	\$351,964	\$407,086	-\$55,122	0.86
Residential	Single Family Assessment	\$2,261,582	\$1,501,535	\$2,583,071	-\$916,065	\$4,883,102	\$4,370,766	\$5,430,123	\$9,253,868	-\$3,823,745	0.59
Residential	Elementary Education Kits	\$1,138,129	\$634,731	\$919,644	\$149,910	\$618,576	\$513,448	\$2,842,414	\$1,132,024	\$1,710,390	2.51
Residential	Multi-Family Assessments	\$1,581,984	\$958,614	\$15,079,315	-\$150,675	\$4,702,511	\$7,988,461	\$17,469,238	\$12,690,971	\$4,778,267	1.38
	Joint Programs Total	\$25,796,880	\$14,174,277	\$29,038,358	\$8,055,049	\$23,635,665	\$52,882,255	\$77,064,564	\$76,517,920	\$546,644	1.01

Table 4. Summary of TRC Test Values by Program and Utility – CY2020

Sector	Program	All	ComEd	Nicor Gas	PGL	NSG
Income Eligible	Single-Family Retrofits - CBA and IHWAP	0.66	0.68	0.59	0.72	0.28
Income Eligible	Multi-Family Retrofits - IEMS and IHWAP	0.65	0.72	0.27	0.55	0.40
Income Eligible	Public Housing Energy Savings	0.40	0.31	0.78	0.44	--
Income Eligible	Affordable Housing New Construction	1.07	0.67	2.72	1.94	--
Business & Public Sector	Coordinated Non-Residential New Construction	2.16	2.19	2.52	1.58	1.67
Business & Public Sector	Coordinated Retro Commissioning	2.88	2.86	2.64	3.25	3.76
Business & Public Sector	Upstream Commercial Food Service Equipment (Pilot)	1.56	0.35	2.24	2.69	1.60
Residential	Single Family Assessment	1.30	0.90	1.96	1.38	2.44
Residential	Elementary Education Kits	6.49	4.56	7.20	17.07	21.84
Residential	Multi-Family Assessments	2.27	0.79	4.34	2.95	1.68