



ComEd Upstream Commercial Food Service Equipment Pilot Impact Evaluation Report

Energy Efficiency/Demand Response Plan:
Program Year 2022 (CY2022)
(1/1/2022-12/31/2022)

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Introduction

This report presents the results of the impact evaluation of the Upstream Commercial Food Service Equipment pilot for the program year from January 1 to December 31, 2022 (CY2022). The program was designed to increase the uptake of energy efficient commercial food service equipment among food service operators through a simplified administrative process, point of sale customer rebates, and upstream incentives. The goal of the pilot was to reduce barriers to this efficient equipment uptake by the food service operators, thereby reducing electricity and gas usage in the commercial food sector.

Program Savings Detail

Table 1 summarizes the incremental energy and demand savings the Upstream Commercial Food Service Equipment pilot achieved in CY2022.

Table 1. Total Annual Incremental Electric Savings - Total

Savings Category	Units	Ex Ante Gross Savings*	Program Realization Rate	Gross Verified Savings*	Program Net-to-Gross Ratio (NTG)	CY2020 Net Carryover Savings	CY2021 Net Carryover Savings	Verified Net Savings†
Electric Energy Savings - Direct‡	kWh	1,280,868	1.21	1,543,903	0.80			1,235,122
Electric Energy Savings - Converted from Gas§	kWh	0		0	0.80			0
Electric Energy Savings - Indirect from Fuel Switching (through Electrification)	kWh							
Total Electric Energy Savings#	kWh	1,280,868	1.21	1,543,903	0.80			1,235,122
Secondary Water Savings	kWh	1,606	3.29	5,278	0.80			4,222
Summer Peak** Demand Savings	kW	108	1.70	185	0.80			148

* Ex ante and verified gross savings exclude gross carryover savings from CY2020 and CY2021.

† The “Verified Net Savings” in row one (Electric Energy Savings - Direct) excludes carryover savings as they do not apply to this program.

‡ The Electric Energy Savings - Direct includes primary kWh savings from efficient measures (includes efficiency savings from fuel switching measures but excludes the fuel switching savings), secondary kWh savings from wastewater treatment, and electric heating penalties.

§ Gas savings converted to kWh by multiplying therms * 29.31 (which is based on 100,000 Btu/therm and 3,412 Btu/kWh). The evaluation team will determine which gas savings will be converted to kWh and counted toward ComEd’s electric savings goal while producing the portfolio-wide Summary Report.

|| Electrification savings from fuel switching measures excluding direct efficiency savings calculated from net electric savings from an increase in kWh consumption and decrease in gas consumption from fuel switching (kWh equivalent).

Total Electric Energy Savings is the sum of the Electric Energy Savings - Direct, the Electric Energy Savings Converted from Gas, and the Electrification Savings from fuel switching.

** The Peak Demand Savings are savings occurring at coincident Summer Peak period, defined as 1:00 p.m. - 5:00 p.m. Central Prevailing Time on non-holiday weekdays, June through August. This definition is in accordance with PJM requirement.

Note: The NTG value used the Policy Manual default of 0.80 as defined in the pilot evaluation plan.

Source: Evaluation team analysis

Cumulative Persisting Annual Savings

Table 2 shows the cumulative persisting annual savings (CPAS) for the measures installed in CY2022.

Table 2. CPAS – Electric

Savings Category	Verified Gross Savings (kWh)	Lifetime Net Savings (kWh)†	CPAS Verified Net kWh Savings										
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
CY2022 Program Total Contribution to CPAS	1,543,903	15,308,260					1,235,122	1,235,122	1,235,122	1,235,122	1,235,122	1,235,031	1,235,031
Historic Program Total Contribution to CPAS‡			0	0	67,304	347,026	347,026	347,026	347,026	347,026	347,026	347,026	347,026
Program Total CPAS	1,543,903	15,308,260			67,304	347,026	1,582,148	1,582,148	1,582,148	1,582,148	1,582,148	1,582,056	1,582,056
CY2022 Program Incremental Expiring Savings§								0	0	0	0	92	0
Historic Program Incremental Expiring Savings								0	0	0	0	0	0
Program Total Incremental Expiring Savings#								0	0	0	0	92	0

Savings Category	Verified Gross Savings (kWh)	Lifetime Net Savings (kWh)†	CPAS Verified Net kWh Savings										
			2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
CY2022 Program Total Contribution to CPAS	1,543,903	15,308,260	1,235,031	1,235,031	1,225,289	1,219,223	1,219,223	78,252	78,252	78,252	58,807	58,807	58,807
Historic Program Total Contribution to CPAS‡			343,353	333,707	330,301	268,866	48,116	48,116	48,116	40,001	40,001	40,001	40,001
Program Total CPAS	1,543,903	15,308,260	1,578,383	1,568,738	1,555,590	1,488,089	1,267,339	126,368	126,368	118,253	98,808	98,808	98,808
CY2022 Program Incremental Expiring Savings§			0	0	9,742	6,066	0	1,140,972	0	0	19,445	0	0
Historic Program Incremental Expiring Savings			3,673	9,646	3,406	61,436	220,750	0	0	8,115	0	0	0
Program Total Incremental Expiring Savings#			3,673	9,646	13,147	67,501	220,750	1,140,972	0	8,115	19,445	0	0

Savings Category	Verified Gross Savings (kWh)	Lifetime Net Savings (kWh)†	CPAS Verified Net kWh Savings										
			2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
CY2022 Program Total Contribution to CPAS	1,543,903	15,308,260	58,807	58,807	0	0	0	0	0	0	0	0	0
Historic Program Total Contribution to CPAS‡			40,001	0	0	0	0	0	0	0	0	0	0
Program Total CPAS	1,543,903	15,308,260	98,808	58,807	0	0	0	0	0	0	0	0	0
CY2022 Program Incremental Expiring Savings§			0	0	58,807	0	0	0	0	0	0	0	0
Historic Program Incremental Expiring Savings			0	40,001	0	0	0	0	0	0	0	0	0
Program Total Incremental Expiring Savings#			0	40,001	58,807	0	0	0	0	0	0	0	0

† Lifetime savings are the sum of CPAS savings through the EUL.

‡ Historical savings go back to CY2018.

§ Incremental expiring savings are equal to CPAS Yn-1 - CPAS Yn.

|| Historic incremental expiring savings are equal to Historic CPAS Yn-1 – Historic CPAS Yn.

Program total incremental expiring savings are equal to current year total incremental expiring savings plus historic total incremental expiring savings.

Source: Evaluation team analysis