



MEMORANDUM

To: Nick Warnecke, AIC, Seth Craigo-Snell, SCS Analytics, and Elizabeth Horne, ICC Staff

From: The Opinion Dynamics Evaluation Team

Date: January 21, 2025

Re: Ameren Illinois Company Lighting Carryover Savings Claimable in 2024

This memo summarizes carryover savings claimable in 2024 from lighting distributed by Ameren Illinois Company (AIC) energy efficiency programs in prior years but not installed until 2024. The relevant initiatives include:

- Residential Program
 - Retail Products Initiative (Point of Purchase, Online Marketplace, and Efficient Choice Tool channels)
 - Kits Initiatives (School Kits, High School Innovation, Community Kits, and Food Pantry Distribution channels)
 - Income Qualified Initiative (SAVE Kits and Mobile Home Kits channels)
- Business Program
 - Midstream Initiative (Midstream Lighting channel)

METHODS

All 2024 carryover savings are estimated primarily based on assumptions outlined in the Illinois Technical Resource Manual Version 12.0 (IL-TRM V12.0), IL-TRM V10.0, and the finalized IL-TRM V10.0 errata measures memo.¹ Some ISR trajectories reflect installations over a three-year period, but exact trajectories vary by lamp type, application, and delivery channel. For lamps with three-year trajectories, savings are claimed the year that lamps are installed, meaning that savings from third-year installations of lamps rebated or distributed in 2022 are claimed as part of the 2024 AIC portfolio. Table 1 below provides Retail Products Initiative LED installation trajectories by bulb type and application, highlighting installations that will occur in 2024.

Table 1. Retail Products Initiative LED Lighting ISR Trajectory

Year of Sale	Application	Measure Category	First Year	Second Year	Third Year	Cumulative
2022	Residential	Standard LED	76.0%	11.9%	10.1%	98.0%
2022	Residential	Specialty LED	81.5%	8.9%	7.6%	98.0%
2022	Residential	LED Nightlights	84.0%	7.6%	6.4%	98.0%
2022	Commercial	All ^a	82.5%	8.4%	7.1%	98.0%

^a LED nightlights are assumed to be installed exclusively in residential applications and do not have associated commercial savings.

¹ Due to changes made to lighting measures in IL-TRM V11.0, the IL-TRM V10 and IL-TRM V10.0 errata memo is the final reference source for key lighting assumptions necessary for remaining carryover from certain lighting measures sold prior to 2023.

Table 2 below provides Direct Distribution Efficient Products Initiative LED installation trajectories by delivery channel, highlighting installations that will occur in 2024.

Table 2. Direct Distribution Efficient Products Initiative LED Lighting ISR Trajectory

Year of Sale	Delivery Channel	First Year	Second Year	Third Year	Cumulative
2022	School Kits	60.0%	13.0%	11.0%	84.0%
2022	High School Kits	60.0%	13.0%	11.0%	84.0%
2022	Community Kits	88.0%	4.0%	3.0%	95.0%
2022	Food Pantry Distribution – LED Nightlights	60.0%	13.0%	11.0%	84.0%
2022	Food Pantry Distribution – All Other	88.0%	4.0%	3.0%	95.0%

Table 3 below provides Income Qualified Initiative LED installation trajectories by delivery channel, highlighting installations that will occur in 2024.

Table 3. Income Qualified Initiative LED Lighting ISR Trajectory

Year of Sale	Delivery Channel	First Year	Second Year	Third Year	Cumulative
2022	Mobile Home Kits	88.0%	4.0%	3.0%	95.0%
2022	SAVE Kits (Verified)	88.0%	4.0%	3.0%	95.0%
2022	SAVE Kits (Unverified)	88.0%	4.0%	3.0%	95.0%

Table 4 below provides the Midstream Lighting Channel's LED installation trajectories, highlighting installations that will occur in 2024.

Table 4. Midstream Initiative – Lighting Channel LED Lighting ISR Trajectory

Year of Sale	Measure Category	First Year	Second Year	Third Year	Cumulative
2023	Linear LED	83.1%	8.1%	6.8%	
2022	Linear LED	83.1%	8.1%	6.8%	98.0%
	Mogul LED	82.5%	8.4%	7.1%	
	Specialty LED				

ANNUAL SAVINGS

The Retail Products Initiative achieved 7,943 MWh and 1.04 MW in verified net carryover savings in 2024, as shown in Table 5. Income qualified participation accounts for slightly more than half of energy and demand savings from 2022 purchases.

Table 5. Retail Products Initiative Carryover Savings Claimable in 2024

Year	Delivery Channel	Measure Category	Verified Gross Energy Savings (MWh)	Verified Gross Demand Savings (MW)	NTGR	Verified Net Energy Savings (MWh)	Verified Net Demand Savings (MW)
2022	Point of Sale (Income Qualified)	Standard LED	3,108	0.40	0.916	2,847	0.36
		Directional LED	681	0.09	0.901	614	0.08
		Decorative LED	842	0.11	0.883	743	0.10
		LED Nightlight	33	0.00	0.998	33	0.00
	Point of Sale and Online Marketplace (Market Rate)	Standard LED	3,050	0.39	0.706	2,153	0.28
		Directional LED	892	0.12	0.713	636	0.08
		Decorative LED	1,112	0.15	0.711	790	0.10
		LED Fixture	129	0.03	0.914	118	0.03
		LED Outdoor Fixture	1	0.00	0.690	<1	0.00
		LED Nightlight	3	0.00	0.690	2	0.00
	ECT (Market Rate)	LED Lighting	9	<0.01	0.676	6	<0.01
Total			9,859	1.29	0.806	7,943	1.04

The Direct Distribution Efficient Products Initiative achieved 373 MWh and 0.04 MW in verified net carryover savings in 2024, as shown in Table 6.

Table 6. Direct Distribution Efficient Products Initiative Carryover Savings Claimable in 2024

Year	Delivery Channel	Measure Category	Verified Gross Energy Savings (MWh)	Verified Gross Demand Savings (MW)	NTGR	Verified Net Energy Savings (MWh)	Verified Net Demand Savings (MW)
2022	School Kits	Directional LED	227	0.03	1.000	227	0.03
	High School Innovation	Directional LED	50	0.01	1.000	50	0.01
	Community Kits	Standard LED	21	<0.01	1.000	21	<0.01
	Food Pantry Distribution	Decorative LED	21	<0.01	1.000	21	<0.01
	Food Pantry Distribution	Standard LED	19	<0.01	1.000	19	<0.01
	Food Pantry Distribution	LED Nightlight	20	0.00	1.000	20	0.00
	Food Pantry Distribution	Directional LED	15	<0.01	1.000	15	<0.01
Total			373	0.04	1.000	373	0.04

The Income Qualified Initiative achieved 32 MWh and <0.01 MW in verified net carryover savings in 2024, as shown in Table 7.

Table 7. Income Qualified Initiative Carryover Savings Claimable in 2024

Year	Delivery Channel	Measure Category	Verified Gross Energy Savings (MWh)	Verified Gross Demand Savings (MW)	NTGR	Verified Net Energy Savings (MWh)	Verified Net Demand Savings (MW)
2022	Mobile Home Kit	Standard LED	1	<0.01	1.000	1	<0.01
	Unverified SAVE Kit	Standard LED	15	<0.01	1.000	15	<0.01
	Unverified SAVE Kit	Decorative LED	9	<0.01	1.000	9	<0.01
	Unverified SAVE Kit	Directional LED	7	<0.01	1.000	7	<0.01
	Verified SAVE Kit	Standard LED	0.01	<0.01	1.000	0.01	<0.01
	Verified SAVE Kit	Decorative LED	0.01	<0.01	1.000	0.01	<0.01
	Verified SAVE Kit	Directional LED	0.01	<0.01	1.000	0.01	<0.01
Total			32	<0.01	1.000	32	<0.01

The Midstream Initiative achieved 3,235 MWh and 0.77 MW in verified net carryover savings in 2024, as shown in Table 8.

Table 8. Midstream Initiative Carryover Savings Claimable in 2024

Year	Delivery Channel	Measure Category	Verified Gross Energy Savings (MWh)	Verified Gross Demand Savings (MW)	NTGR	Verified Net Energy Savings (MWh)	Verified Net Demand Savings (MW)
2022	Midstream Lighting	Linear LED	1,501	0.36	0.913	1,371	0.33
		Mogul LED	296	0.07	0.913	270	0.06
		Specialty LED	107	0.02	0.913	98	0.02
2023	Midstream Lighting	Linear LED	1,639	0.39	0.913	1,496	0.36
Total			3,543	0.84	0.913	3,235	0.77

CUMULATIVE PERSISTING ANNUAL SAVINGS

The following tables provide cumulative persisting savings (CPAS) associated with total carryover savings and carryover savings from each Initiative.

Table 9. 2024 AIC Portfolio Carryover CPAS and WAML

Initiative	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Retail Products Carryover (IQ)	10.0	4,663	0.908	4,236	4,236	4,236	4,236		4,236		39,443
Retail Products Carryover (MR)	9.4	5,196	0.713	3,706	3,706	3,706	3,706	...	1,498	...	24,173
Direct Distribution Carryover	9.9	373	1.000	373	373	373	373	...	373	...	3,408
Income Qualified Carryover	10.0	32	1.000	32	32	32	32	...	32	...	293
Midstream Lighting Carryover	14.6	3,543	0.913	3,235	3,235	3,235	3,197	...	3,138	...	43,754
2024 CPAS		13,806	0.839	11,582	11,582	11,582	11,544	...	9,277	...	111,070
Expiring 2024 CPAS				0	0	0	39	...	119	...	
Expired 2024 CPAS				0	0	0	39	...	2,306	...	
WAML											

Table 10. 2024 Retail Products Initiative Carryover CPAS and WAML (Income Qualified)

Measure Category	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
2022 Standard LED - Residential IQ	10.0	3,108	0.916	2,847	2,847	2,847	2,847	...	2,847	...	26,844
2022 Directional LED - Residential IQ	10.0	681	0.901	614	614	614	614	...	614	...	5,643
2022 Decorative LED - Residential IQ	10.0	842	0.883	743	743	743	743	...	743	...	6,696
2022 LED Nightlight - Residential IQ	8.0	33	0.998	33	33	33	33	...	33	...	260
2024 CPAS		4,663	0.908	4,236	4,236	4,236	4,236	...	4,236	...	39,443
Expiring 2024 CPAS				0	0	0	0	...	0		
Expired 2024 CPAS				0	0	0	0	...	0		
WAML	10.0										

Table 11. 2024 Retail Products Initiative Carryover CPAS and WAML (Market Rate)

Measure Category	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
2022 Standard LED - Residential Non-IQ	10.0	2,649	0.690	1,828	1,828	1,828	1,828		621		11,041
2022 Standard LED - Commercial	5.5	401	0.812	325	325	325	325		0		1,472
2022 Directional LED - Residential Non-IQ	10.0	696	0.690	480	480	480	480		293		3,680
2022 Directional LED - Commercial	6.9	196	0.794	156	156	156	156		87		900
2022 Decorative LED - Residential Non-IQ	10.0	869	0.690	599	599	599	599		420		4,915
2022 Decorative LED - Commercial	4.7	243	0.785	191	191	191	191	...	0	...	859
2022 LED Fixture - Commercial	14.8	129	0.914	118	118	118	118		72		1,249
2022 LED Outdoor Fixture - Commercial	11.6	1	0.690	<1	<1	<1	<1	...	<1	...	3
2022 LED Nightlight - Residential Non-IQ	8.0	3	0.690	2	2	2	2	...	2	...	15
2022 ECT Lighting	10.0	9	0.676	6	6	6	6	...	2	...	39
2024 CPAS		5,196	0.713	3,706	3,706	3,706	3,706	...	1,498	...	24,173
Expiring 2024 CPAS				0	0	0	0	...	67		
Expired 2024 CPAS				0	0	0	0	...	2,208		
WAML	9.4										

Table 12. 2024 Direct Distribution Efficient Products Initiative Carryover CPAS and WAML

Measure Category	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
2022 School Kits Reflector LED	10.0	227	1.000	227	227	227	227	...	227	...	2,090
2022 High School Kit Reflector LED	10.0	50	1.000	50	50	50	50	...	50	...	461
2022 Community Kit Standard LED	10.0	21	1.000	21	21	21	21	...	21	...	196
2022 Food Pantry Distribution Standard LED	10.0	19	1.000	19	19	19	19	...	19	...	180
2022 Food Pantry Distribution Reflector LED	10.0	15	1.000	15	15	15	15	...	15	...	137
2022 Food Pantry Distribution Specialty LED	10.0	21	1.000	21	21	21	21	...	21	...	187
2022 Food Pantry Distribution LED Nightlights	8.0	20	1.000	20	20	20	20	...	20	...	157
2024 CPAS		373	1.000	373	373	373	373	...	373	...	3,408
Expiring 2024 CPAS				0	0	0	0	...	0	...	
Expired 2024 CPAS				0	0	0	0	...	0	...	
WAML	9.9										

Table 13. 2024 Income Qualified Initiative Carryover CPAS and WAML

Measure Category	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
2022 Mobile Home Kit - 9W LED	10.0	1	1.000	1	1	1	1	...	1	...	6
2022 Unverified SAVE Kit - 9W LED	10.0	15	1.000	15	15	15	15	...	15	...	141
2022 Unverified SAVE Kit - 6W LED	10.0	9	1.000	9	9	9	9	...	9	...	78
2022 Unverified SAVE Kit - 8W LED	10.0	7	1.000	7	7	7	7	...	7	...	67
2022 Verified SAVE Kit - Standard LED	10.0	<1	1.000	<1	<1	<1	<1	...	<1	...	<1
2022 Verified SAVE Kit - Specialty LED	10.0	<1	1.000	<1	<1	<1	<1	...	<1	...	<1
2022 Verified SAVE Kit - Reflector LED	10.0	<1	1.000	<1	<1	<1	<1	...	<1	...	<1
2024 CPAS		32	1.000	32	32	32	32	...	32	...	293
Expiring 2024 CPAS				0	0	0	0	...	0	...	
Expired 2024 CPAS				0	0	0	0	...	0	...	
WAML	10.0										

Table 14. 2024 Midstream Initiative Carryover CPAS and WAML

Measure Category	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
2022 Linear LED	14.8	1,501	0.910	1,371	1,371	1,371	1,371	...	1,371	...	20,287
2022 Mogul LED	14.8	296	0.910	270	270	270	270	...	270	...	3,996
2022 Specialty LED	8.4	107	0.910	98	98	98	98	...	1	...	563
2023 Linear LED	14.8	1,639	0.910	1,496	1,496	1,496	1,496	...	1,496	...	22,143
2024 CPAS		3,543	0.910	3,235	3,235	3,235	3,235	...	3,138	...	46,989
Expiring 2024 CPAS				0	0	0	0	...	53	...	
Expired 2024 CPAS				0	0	0	0	...	97	...	
WAML	14.6										

APPENDIX: 2024 MIDLIFE ADJUSTMENTS FOR 2022 SALES

Guidance is provided in the IL-TRM V10.0 errata document that deferred installations of screw-based lamps from 2022 occurring in 2024 should use all assumptions in the IL-TRM V10.0, with the exception of the timing of the midlife adjustment. The errata document details how the timing of the midlife adjustment’s application should be modified to account for deferred installation. For ease of review, we reproduce those details in Table 15.

Table 15. Mid-Life Adjustments for Screw-Based Lamps Sold in 2022 and Installed in 2024

Purchase Year	Lamp Type	Category	Measure Life	Install Year			
				2023		2024	
				Year Applied	Adjustment	Year Applied	Adjustment
2022	Omnidirectional	Income Qualified	10 ^b	2030	81%	2031	81%
		All Others ^a	10 ^b	2027	34%	2028	34%
	Decorative	Income Qualified	10 ^b	2030	67%	2031	67%
		All Others ^a	10 ^b	2027	70%	2028	70%
	Directional	Income Qualified	10 ^b	2030	73%	2031	73%
		All Others ^a	10 ^b	2027	61%	2028	61%

Source: IL-TRM V10.0 errata document: https://www.ilsag.info/wp-content/uploads/v10.0_Errata_Measures_Memo_FINAL_09282022.pdf

^a Including nonresidential applications.

^b In residential applications. Nonresidential applications use calculated measure lives per IL-TRM V10.0.