To: Nicor Gas

CC: Elizabeth Horne, David Brightwell, ICC Staff;
Celia Johnson, Illinois Stakeholder Advisory Group

From: Sophie Weinberg, Marina Dauer, Anna McCreery, Charles Ampong, Stu Slote, Laura Agapay-Read, Guidehouse

Date: December 15, 2023

Re: Nicor Gas 2022 Energy Efficiency Portfolio Economic Impact Reporting

1. Introduction

This memo presents results of the Guidehouse analysis of the 2022 economic and employment impacts produced by the 2022 Nicor Gas energy efficiency portfolio. This analysis was conducted in alignment with the Illinois Energy Efficiency Policy Manual ("the Policy Manual") Version 2.0 requirement that each program administrator in Illinois must annually report estimates of the economic development and employment impacts of its energy efficiency programs.

The methodology used in this analysis is consistent with the methodology developed by the Illinois Stakeholder Advisory Group Non-Energy Impacts Working Group and used in the previously prepared 2019, 2020, and 2021 analyses. The evaluation team made refinements to the analysis and data inputs (e.g., utility rates) as process improvements from the prior analyses, including purchasing the most recent Illinois data for IMPLAN. The most significant difference in the new IMPLAN dataset is that the productivity values increased (i.e., there is a higher economic output per job) resulting in fewer job-years than in previous economic analyses.

Overall, the 2022 Nicor Gas energy efficiency portfolio will produce 943 job-years and $282 million (M) dollars of industry output across the state of Illinois.

2. Results

2.1 Summary of Input Data

Table 1 presents a summary of input data used for the 2022 economic and employment impact analysis. All data was sourced from the evaluation team's 2022 evaluation of the Nicor Gas energy efficiency portfolio.

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Table 1. Summary of Economic and Employment Impact Analysis Input Data – Nicor Gas

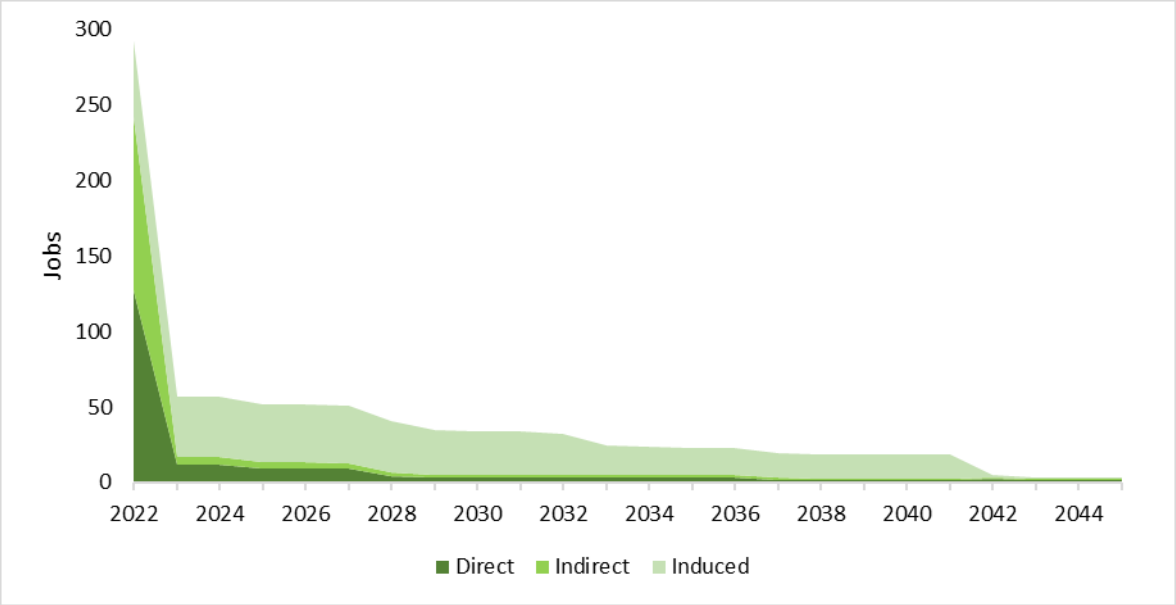
Impact Category	Amount (2022 $)	Description of Impact	Time Period
Gas Bill Savings	$147M	Positive economic effect on ratepayers	2022-2046
Program Funding	-$40M	Negative economic effect on ratepayers	Over WAML period (Gas: 2022)
Net Ratepayer Gas Bill Savings	$107M	Net economic effect on ratepayers	2022-2046
Lost Utility Fuel Expenditures	-$10M	Negative economic impact on fuel production and transportation	2022-2046
Incentives and Rebates	$18M	Positive economic effect on ratepayers	2022
Net Incremental Measure Costs	$42M	Negative economic effect on ratepayers; positive economic effect on retailers and suppliers	2022
Program Administration Costs	$22M	Positive economic effect on utilities	2022

Source: Guidehouse analysis of Nicor Gas Tracking data (2022).

2.2 Employment Impacts

Figure 1 presents a visual summary of the employment impacts of the 2022 energy efficiency portfolio investments over time, separated into direct, indirect, and induced impacts. Because the portfolio produces long-term economic effects as a result of persisting energy savings, employment impacts produced are not confined to a particular year, but occur over the 2022-2046 time period.

Figure 1. Energy Efficiency Portfolio Employment Impacts (2022-2046) – Nicor Gas



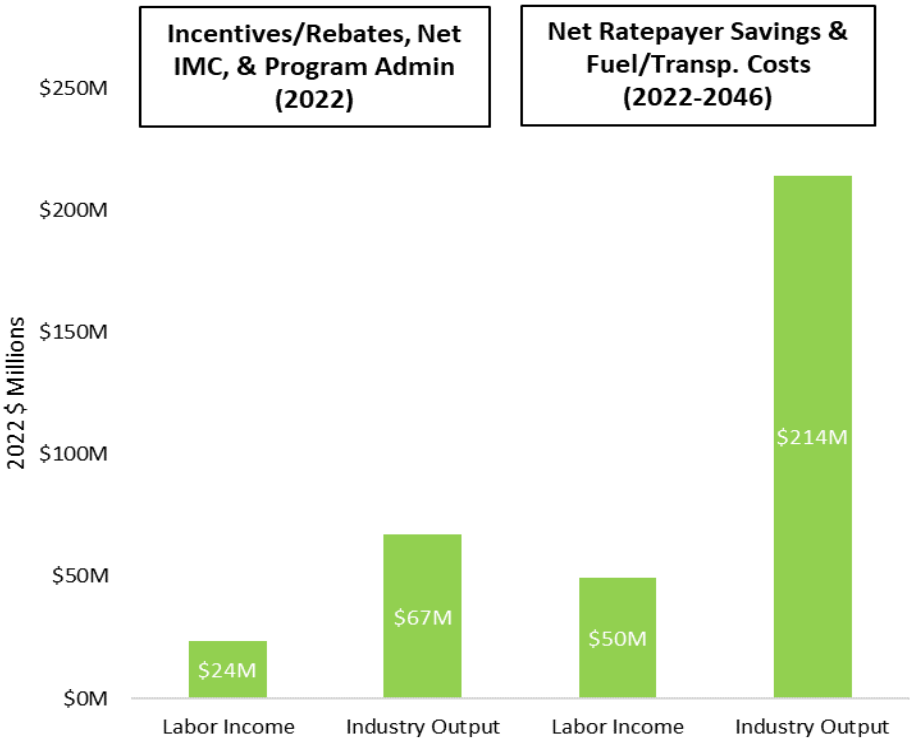
Source: Guidehouse analysis of Nicor Gas Tracking data (2022).

The large spike in impacts seen in 2022 results from initial spending triggered by the implementation and management of Nicor Gas's energy efficiency portfolio in calendar year 2022, including, but not limited to, program incentives and administrative spending, and incremental measure spending resulting from the effects of the portfolio. The impacts beyond 2022 are derived almost entirely from the persisting effects of Nicor Gas's energy efficiency portfolio in the form of net ratepayer bill savings realized by those who were treated by or participated in Nicor Gas's 2022 programs. The bill savings are derived from the cumulative persisting annual savings (CPAS) and bill rates for 2022. Impacts persist over a similar period as the CPAS produced by the Nicor Gas energy efficiency portfolio.

3. Industry Labor Income and Business Sales

Figure 2 presents direct, indirect, and induced effects on labor income and industry output from the 2022 Nicor Gas energy efficiency portfolio. The figure also separates these effects into those resulting from 1) program spending and program-induced spending (incentives, rebates, net incremental costs, and program administration costs, and 2) net ratepayer bill savings and fuel/transportation expenditures.

Figure 2. Energy Efficiency Portfolio Labor Income and Industry Output Impacts (2022-2046) – Nicor Gas



Source: Guidehouse analysis of Nicor Gas Tracking data (2022).

Table 2 presents a summary of the cumulative industry labor income and industry output impacts ("economic impacts") of Nicor Gas's 2022 energy efficiency portfolio investments (2022-2046).

Table 2. Cumulative 2022-2046 Industry Labor Income and Industry Output Impacts of 2022 Energy Efficiency Portfolio Investments – Nicor Gas

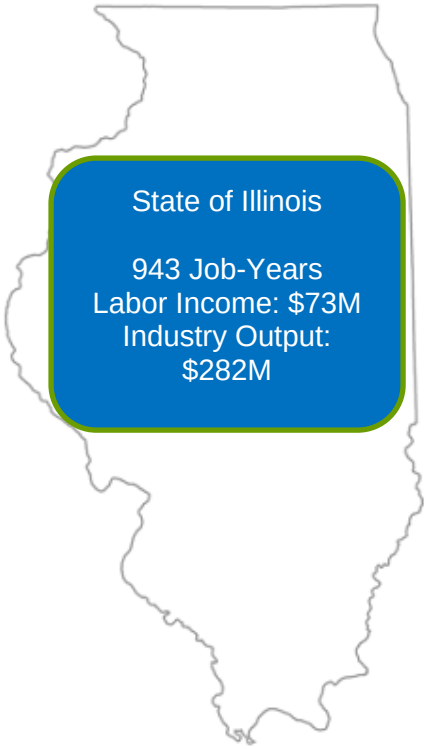
Impact Types	Labor Income (2022-$)	Industry Output (2022 $)
Direct	$22M	$77M
Indirect	$14M	$38M
Induced	$37M	$166M
Total	$73M	$282M

Source: Guidehouse analysis of Nicor Gas Tracking data (2022).
Note: Totals may not sum due to rounding.

Appendix

For comparison purposes, Figure 3, along with Table 3, provides the cumulative economic impacts and employment impacts in a format similar to that presented in the previous analyses.[1] The evaluation team advises against use of employment impacts reported in job-years for ongoing reporting moving forward. As shown in Figure 1, employment impacts are long-term effects not confined to a particular year, and reporting in job-years can mislead readers as to the effects produced.

Figure 3. Cumulative Economic Impacts (2022-2046) – Nicor Gas



Source: Guidehouse analysis of Nicor Gas Tracking data (2022).

[1] Previous iterations of this analysis provided economic impacts separately for the utility territory versus the rest of Illinois. For consistency across utilities and in order to meet requirements in the Illinois Climate and Equitable Jobs Act, the results presented here focus on the full state of Illinois.

Table 3. Economic Impacts by Time Period (2020, 2021, 2022) – Nicor Gas

Time Period	Impact Type	Job-Years	Labor Income (2022 $)	Industry Output (2022 $)
2022 – 2046	Direct	227	$22.4M	$77.2M
2022 – 2046	Indirect	161	$14.4M	$38.1M
2022 – 2046	Induced	555	$36.6M	$166.3M
2022 – 2046	**Total**	**943**	**$73.4M**	**$281.5M**
2021 – 2045	Direct	415	$28.6M	$77.5M
2021 – 2045	Indirect	191	$13.2M	$35.4M
2021 – 2045	Induced	541	$29.4M	$118.5M
2021 – 2045	**Total**	**1,148**	**$71.2M**	**$231.4M**
2020 – 2044	Direct	383	$24.0M	$71.9M
2020 – 2044	Indirect	176	$12.1M	$32.4M
2020 – 2044	Induced	203	$10.9M	$29.9M
2020 – 2044	**Total**	**762**	**$47.0M**	**$134.2M**
2020 – 2046	**Cumulative Total**	**2,853**	**$191.6M**	**$647.1M**

Source: Guidehouse analysis of Nicor Gas Tracking data (2022).
Note: Totals may not sum due to rounding.

The direct, indirect, and induced job-years for program years 2020 through 2023 are presented in Table 4. The job-year impacts are further outlined for 2022 in Table 5.

Table 4. Job-Year Impacts by Time Period (2020, 2021, 2022) – Nicor Gas

Time Period	Direct	Indirect	Induced	Cumulative Total
2022 – 2046	227	161	555	943
2021 – 2045	415	191	541	1,148
2020 – 2044	383	176	203	762
2020 – 2046	**1,025**	**528**	**1,299**	**2,853**

Source: Guidehouse analysis of Nicor Gas Tracking data (2022).
Note: Totals may not sum due to rounding.

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Table 5. Job Impacts by Year from 2022 Programs (2022-2046) – Nicor Gas

Year	Direct	Indirect	Induced	Total
2022	127	114	51	292
2023	12	5	40	57
2024	12	5	40	56
2025	9	4	38	52
2026	9	4	38	52
2027	9	4	38	51
2028	4	2	34	41
2029	3	2	29	35
2030	3	2	29	34
2031	3	2	29	34
2032	3	2	28	32
2033	3	2	19	24
2034	3	2	19	24
2035	3	2	18	23
2036	3	2	18	23
2037	2	1	16	19
2038	2	1	16	19
2039	2	1	16	19
2040	2	1	16	19
2041	2	1	16	18
2042	2	1	1	5
2043	2	1	1	4
2044	2	1	1	4
2045	2	1	1	4
2046	2	1	1	4
Total	**227**	**161**	**555**	**943**

Source: Guidehouse analysis of Nicor Gas Tracking data (2022).
Note: This table includes job-year impacts only for the 2022 programs, and does not include cumulative impacts from previous program years.

3.2 Program-Level Economic Impacts Among Retailers and Suppliers (Net Incremental Measure Costs Only)

Table 6 presents program-level economic impacts from the net incremental measure costs associated with each program. Note that these values are specific to the direct, indirect, and induced economic impacts among retailers and suppliers from the net incremental measure costs, and do not include economic impacts from other program spending or customer bill savings, or economic costs for households and businesses from the net incremental measure costs, which are included in Table 3.

Table 6. Program-level Economic Impacts, Net Incremental Measure Costs Only (2022-2046) – Nicor Gas

Sector	Program	Labor Income (2022 $)	Industry Output (2022 $)	# of Jobs
Residential	Elementary Energy Education	$0.1M	$0.4M	1
Residential	Energy Saving Kits	$0.2M	$0.9M	3
Residential	Home Energy Efficiency Rebate	$8.5M	$27.3M	101
Residential	Home Energy Savings	$1.2M	$3.6M	15
Residential	Multi-Family	$0.4M	$1.0M	4
Residential	Residential New Construction	$1.7M	$5.4M	21
Residential	Home Energy Reports	$0.6M	$1.2M	7
Income Eligible	Affordable Housing New Construction	$0.3M	$0.8M	3
Income Eligible	Multi-Family - IHWAP, Contractors Channel, BNP, Kits	$1.1M	$3.4M	14
Income Eligible	Public Housing Energy Savings	$0.2M	$0.6M	2
Income Eligible	Single Family - IHWAP, Contractors Channel, BNP, Kits	$2.2M	$6.6M	27
Business	Business Custom Rebates, Plus Nicor Gas only RCx	$4.3M	$13.8M	52
Business	Business Energy Efficiency Rebates	$2.4M	$6.2M	29
Business	Coordinated Non-Residential New Construction	$0.6M	$1.2M	6
Business	Coordinated Retro Commissioning	<$0.1M	$0.1M	<1
Business	Small Business Program	$1.3M	$4.3M	15
Business	Strategic Energy Management	$0.7M	$1.4M	8
Market Transformation	Building Operator Certification	n/a	n/a	n/a
Market Transformation	Market Development Initiative	n/a	n/a	n/a
Total		**$25.7M**	**$78.0M**	**309**

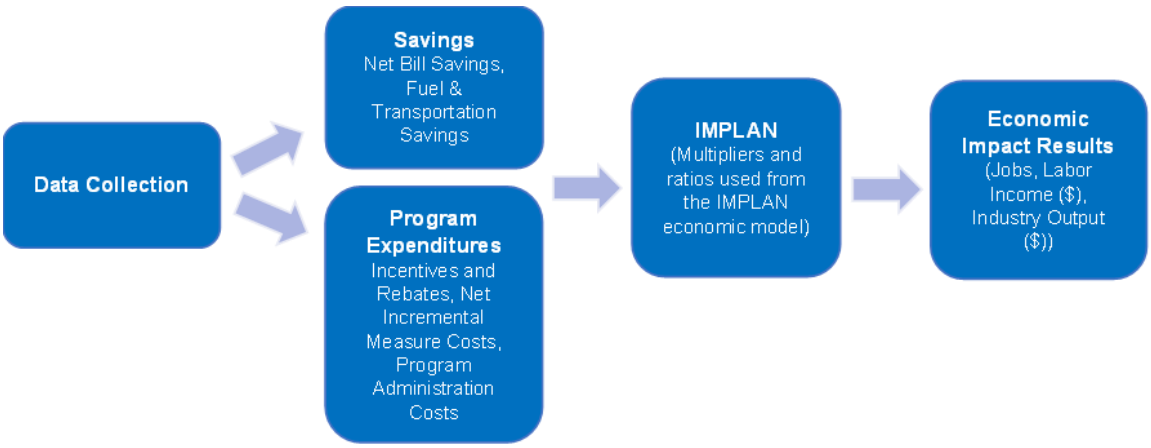
Source: Guidehouse analysis of Nicor Gas Tracking data (2022).
Note: Market Transformation programs do not have Net Incremental Measure Costs.
Totals may not sum due to rounding.

3.3 Economic Impact Assessment Methodology

The economic impact assessment for energy efficiency programs follows a three-step process (depicted in **Error! Reference source not found.**):

1) Data collection of the economic activities of the energy efficiency programs
2) Economic modeling of these activities using IMPLAN[2]
3) Analysis of the results – summarizing and assessing the economic measures (e.g. industry output, labor income, and jobs)

Figure 4. Economic Impact Assessment Methodology



Source: Guidehouse

[2] IMPLAN is an economic analysis software used to estimate the impact of an economic activity on a specific geographic area. The analysis uses IMPLAN 2021 data for Illinois to capture the effect of program spending on the Illinois economy. For more information, see https://implan.com/