

Memorandum

2020 AIC Portfolio Job Reporting

To: Fernando Morales and Matt Armstrong, AIC and Jennifer Morris, ICC Staff
From: Zach Ross and Tyler Sellner, Opinion Dynamics and Bryan Montes and Christian Bergland, Guidehouse
Date: January 25, 2022
Re: 2020 Ameren Illinois Economic and Employment Impact Analysis

This memo presents results of the Opinion Dynamics evaluation team's analysis of the 2020 economic and employment impacts produced by the 2020 Ameren Illinois Company (AIC) energy efficiency portfolio. This analysis was conducted in alignment with the Illinois Energy Efficiency Policy Manual ("the Policy Manual") Version 2.0's requirement that each program administrator in Illinois must annually report estimates of the economic development and employment impacts of its energy efficiency programs.^{1,2}

Methodology used in this analysis is consistent with that developed by consensus with the Illinois Stakeholder Advisory Group Non-Energy Impacts Working Group and used in the previously prepared 2018 and 2019 analyses.³ The evaluation team made minor refinements to the analysis as process improvements from the prior analyses. In addition, we limited the scope of this analysis from 2020-2046, in order to simplify the model and the interpretation of the results.⁴

¹ Illinois Energy Efficiency Policy Manual Version 2.0, Section 6.8.

² We note that the new Illinois legislation and the newly revised Illinois Energy Efficiency Policy Manual Version 2.1 institutes new requirements on the timing of job and macroeconomic impact reporting. As a result, these results for AIC evaluations will be included in the annual Integrated Impact Evaluation Report each year beginning with the 2021 evaluation.

³ Guidehouse and Opinion Dynamics. "Illinois DSM Portfolio Non-Energy Impacts Economic Analysis." July 10, 2020. Available online: https://ilsag.s3.amazonaws.com/IL_NEI_Economic_Analysis_July-2020-Final-Revised-Sept.pdf

⁴ A very small amount of persisting savings related to the 2020 AIC portfolio, and therefore economic and employment impacts, continue from 2047-2075 as a result of one unusual Custom Initiative project. To decrease model complexity, we have omitted impacts in those years from this analysis. The impact on overall results should be negligible.

Results

Summary of Input Data

Table 1 presents a summary of input data used for the 2020 economic and employment impact analysis. All data was sourced from the evaluation team's 2020 evaluation of the AIC energy efficiency portfolio.

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

Impact Category	Amount (Million Dollars)	Description of Impact	Time Period
Bill Savings	\$1,127M	Positive economic effect on ratepayers	2020-2046
Program Funding	-\$113M	Negative economic effect on ratepayers	Over WAML period (Electric: 2020-2032, Gas: 2020)
Net Ratepayer Bill Savings	\$1,014M	Net economic effect on ratepayers	2020-2046
Lost Utility Fuel & Transp. Expenditures	-\$47M	Negative economic impact on fuel production and transportation	2020-2046
Incentives and Rebates	\$65M	Positive economic effect on ratepayers	2020
Net Incremental Measure Costs	\$85M	Negative economic effect on ratepayers; positive economic effect on retailers and suppliers	2020
Program Administration Costs	\$48M	Positive economic effect on utilities	2020
Voltage Optimization	\$21M	Positive economic effect for utilities	2019 (capital) & 2020-2034 (O&M)

Each impact category is described in more depth below.

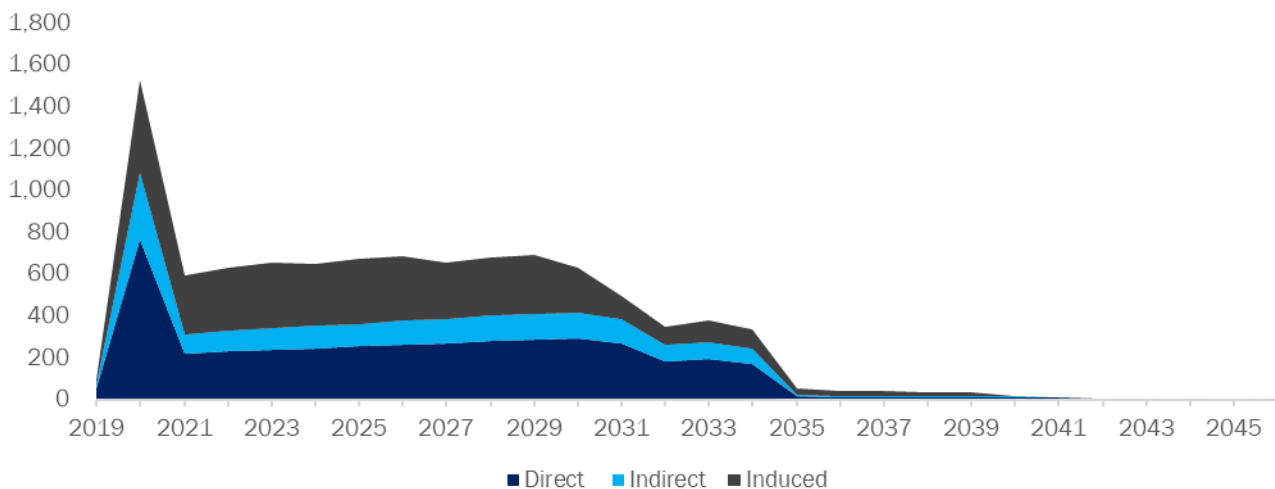
- Bill Savings:** This flow represents the monetized savings program participants realize from their energy efficiency improvements through the utility program. Bill savings are monetized by multiplying the net verified savings values by each customers' applicable unit energy cost. Bill savings are realized through the lifetime of the measure as a positive cash flow to the participants.
- Program Funding:** This flow represents the bill surcharges realized by participants to fund the utility programs. This flow occurs over the weighted average measure life (WAML) of the measure for traditional electric energy efficiency measures and in the year the measures are implemented for gas energy efficiency measures.
- Net Ratepayer Bill Savings:** This is the net positive bill savings realized by all ratepayers: bill savings less program funding charges.
- Lost Utility Fuel and Transportation Expenditures:** This flow represents decreased expenditures on fuel and transportation (and therefore decreased job creation) due to decreased electric generation as a result of energy efficiency measures.
- Incentives and Rebates:** These flows represent payments made by the utility to program allies and contractors as part of the installation of energy efficiency measures in 2020 and rebate payments made by the utility to program participants in 2020.

- **Net Incremental Measure Costs:** This flow is the sum of all incremental measure costs that program participants expend on energy efficiency projects through the utility’s programs in 2020. As in verified cost-effectiveness analysis, incremental measure costs used in this analysis are net costs calculated using SAG-approved NTG values. From the perspective of the participants this is a negative flow as they expend money implementing a project. From the perspective of contractors, trade allies, and equipment providers this is a positive cash flow as they receive income from sales of energy efficiency products and services.
- **Program Administration Costs:** This flow models program administration expenditures incurred as part of portfolio operations.
- **Voltage Optimization:** This flow represents utility expenditures on voltage optimization measures; costs are reported in the year circuits are constructed for voltage optimization measures and on an ongoing basis for operations and maintenance.

Employment Impacts

Figure 1 presents a visual summary of the employment impacts of the 2020 energy efficiency portfolio investments over time, separated into direct, indirect, and induced impacts.^{5,6} 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 2019-2046 time period.

Figure 1. AIC Portfolio Employment Impacts (2019-2046)



⁵ Direct effects may include but are not limited to the initial changes in employment and demand for regional production triggered by the implementation and management of utility Energy Efficiency Programs. Indirect effects may include but are not limited to secondary impacts generated from business to business spending as firms and households directly impacted by the Energy Efficiency Programs increase purchases from their suppliers who must in turn increase purchases from their suppliers and so forth as the initial expenditure ripples through interconnected industries. Induced effects may include but are not limited to secondary impacts generated from household to business spending as labor income changes that result from both direct and indirect activity affect the local economy. Direct, indirect, and induced effects are defined more fully in Section 6.8 of the Illinois Energy Efficiency Policy Manual Version 2.0.

⁶ Backup data for this figure is provided in the Appendix to this memo.

The large spike in impacts seen in 2020 results from initial spending triggered by the implementation and management of AIC's portfolio in calendar year 2020, including but not limited to program incentives and administrative spending and incremental measure spending resulting from the effects of the portfolio. The impacts beyond 2020 are derived almost entirely from the persisting effects of AIC's portfolio in the form of net ratepayer bill savings realized by those who were treated by or participated in AIC's 2020 programs. Impacts persist over a similar period as the cumulative persisting annual savings (CPAS) produced by the AIC portfolio.

Industry Labor Income and Business Sales

Figure 2 presents direct, indirect, and induced effects on labor income and industry output from the 2020 AIC portfolio. The figure also separates these effects into those resulting from 1) program spending and program-induced spending (incentives, rebates, net incremental costs, program administration, fuel/transportation expenditures etc.) and 2) net ratepayer bill savings.

Figure 2. AIC Portfolio Labor Income and Industry Output Impacts (2019-2046)

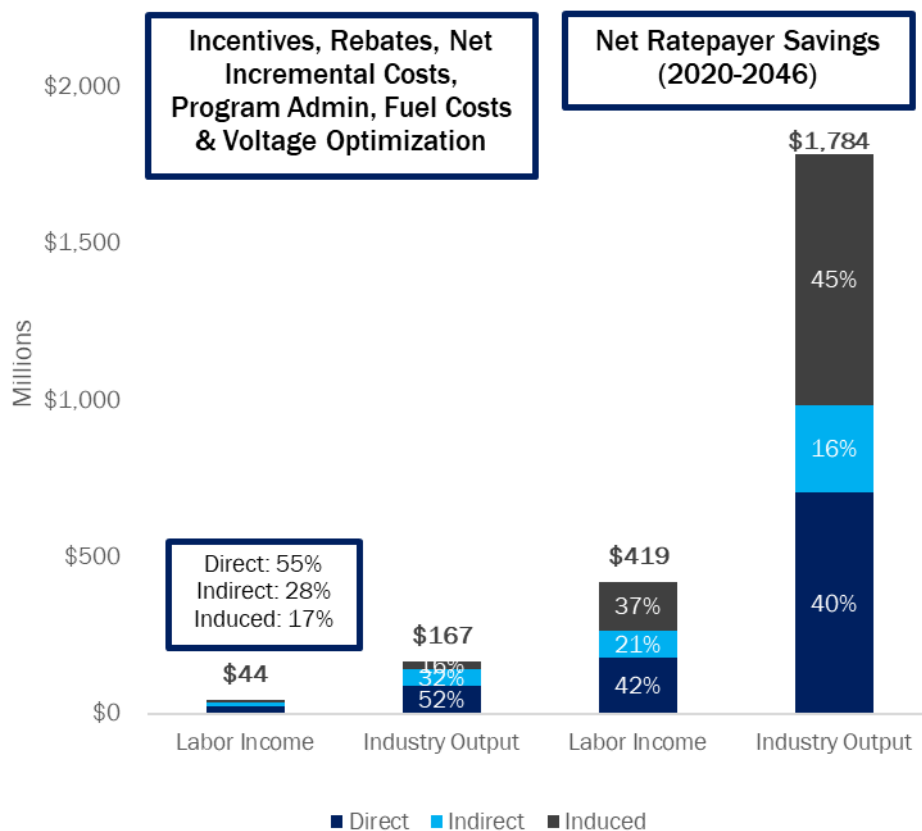


Table 2 presents a summary of the cumulative industry labor income and industry output impacts (“economic impacts”) of the 2020 energy efficiency portfolio investments (2019-2046).

Table 2. Cumulative 2019-2046 Industry Labor Income and Industry Output Impacts of 2020 AIC Energy Efficiency Portfolio Investments

Impact Type	Labor Income	Industry Output
Direct	\$201M	\$794M
Indirect	\$100M	\$331M
Induced	\$162M	\$827M
Total	\$463M	\$1,951M

Appendix

Table 3 and Table 4 provide cumulative economic impacts and employment impacts in a format similar to that presented in the 2018 analysis for the purpose of comparison. 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.

Table 3. Cumulative Economic Impacts (2019-2046)

Impact Category	Utility Territory	Rest of State	Statewide Total
Job-Years	9,138 Job Years	803 Job Years	9,940 Job Years
Labor Income	\$405 M	\$58 M	\$463 M
Economic Output	\$1,795 M	\$156 M	\$1,951 M

Table 4. Job-Year Impacts by Category (2019-2046)

Impact Type	Utility Territory	Rest of State	Statewide Total
Direct	4,275 Job Years	0 Job Years	4,275 Job Years
Indirect	1,473 Job Years	365 Job Years	1,838 Job Years
Induced	3,390 Job Years	438 Job Years	3,828 Job Years
Total	9,138 Job Years	803 Job Years	9,940 Job Years

Table 5 provides the supporting data for Figure 1 in tabular format.

Table 5. AIC Portfolio Employment Impacts (2019-2046)

Year	Direct	Induced	Indirect	Total
2019	52	19	22	93
2020	762	321	442	1525
2021	216	94	283	593
2022	229	99	298	626
2023	238	103	314	654
2024	245	106	297	648
2025	252	109	309	671
2026	261	113	310	685
2027	270	117	267	653
2028	278	120	278	677
2029	284	123	285	693
2030	291	126	210	627
2031	268	116	110	494
2032	183	79	83	345
2033	192	83	105	380
2034	169	73	95	337
2035	17	7	29	53
2036	12	5	23	40
2037	10	4	23	37
2038	11	5	19	34
2039	11	5	18	33
2040	9	4	3	16
2041	7	3	3	12
2042	3	1	1	6
2043	2	1	1	3
2044	2	1	1	3
2045	0	0	0	1
2046	0	0	0	1