

The Economic Impacts of Repealing Indiana's Energy Efficiency Resource Standard: Lost Jobs and Higher Electric Bills

Commissioned by Citizens Action Coalition of Indiana, Applied Economics Clinic (AEC) compared energy efficiency savings, saved energy costs and job impacts since the repeal of Indiana's energy efficiency resource standard (EERS) in 2015 with what would have been achieved had the program not been repealed. We find that:

- 1) Had Indiana's EERS not been repealed, Indiana utilities would have saved an additional 136 GWh on average over the 2015 to 2019 period;
- 2) Ratepayers would have saved millions of dollars—from \$16 million in 2015 to \$44 million in 2019; and
- 3) During the program's lifetime from 2012 to 2014, Indiana's EERS directly created 19,000 jobs, a number that has declined dramatically since its repeal.

This policy brief serves as a companion to another AEC policy brief, entitled [*The Performance of Indiana Utilities' Energy Efficiency Programs*](#), that compares utility sales, energy efficiency savings and program costs over the period 2012 to 2019 across Indiana's five investor-owned electric utilities.

Missed Opportunities for Energy Savings, Cost Savings and Job Creation

Following the repeal of Indiana's Energy Efficiency Resource Standard (EERS), Indiana's utilities saved less energy than they had been saving prior to the repeal. The repeal resulted in higher costs and fewer new jobs for Indiana residents.

Year	Dollar Savings Lost (\$ millions, nominal)	Average "Missed" Energy Savings (GWh)
2015	\$16.2	72
2016	\$20.2	93
2017	\$21.5	93
2018	\$37.9	194
2019	\$44.3	229

Electric energy efficiency in Indiana

In December 2009, the Indiana Utility Regulatory Commission passed an EERS that required the state's electric utilities to achieve an annual energy savings goal of 2 percent of weather-normalized average electric sales within

ten years (by 2019). Utilities were also required to offer five core energy efficiency programs for delivery by a statewide independent administrator, as well as joint or utility-specific program delivery offerings to meet the annual energy savings goal in the order. Indiana officially launched its statewide energy efficiency program in January 2012 providing residential home energy assessments, residential lighting, commercial and industrial prescriptive rebates, residential low-income weatherization, and energy efficient school programs. However, Indiana's EERS and statewide program were short-lived. The EERS was repealed and statewide delivery of energy efficiency programs was halted in March 2014 through the passage of Senate Enrolled Act 340 (SEA 340), an action that made Indiana the first state in the nation to roll back its energy savings goals. In May 2014, Senate Enrolled Act 412 (SEA 412) was passed, intended as replacement legislation. SEA 412 still required utilities to draft energy efficiency plans, but allowed utilities to set their own energy savings goals and design their own programs.

In addition, both SEA 340 and SEA 412 allowed customers using more than 1 megawatt (MW) to opt out of participating or paying into the energy efficiency programs. This was based on the rationale that larger customers are already pursuing these savings on their own and do not need utility-sponsored energy efficiency program support. However, no monitoring mechanisms were established that

Bryndis Woods and Nina Schlegel

July 2018

would allow tracking of the energy efficiency savings of opt-out customers.

For a more detailed history of Indiana's energy efficiency legislation, please refer to our companion policy brief, [The Performance of Indiana Utilities' Energy Efficiency Programs](#).

Energy savings have fallen

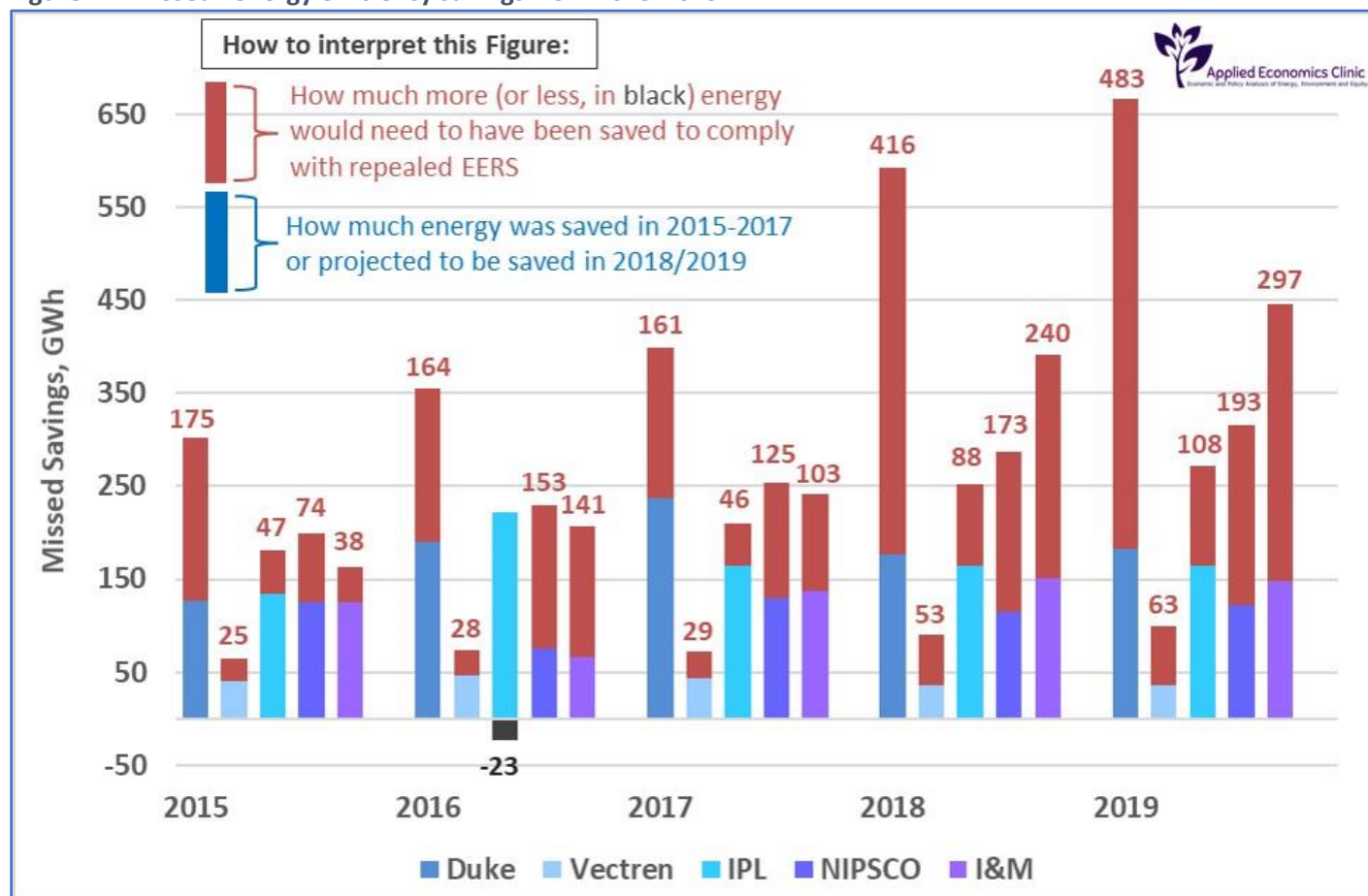
In this brief, "missed savings" means the energy savings that would have been achieved if the EERS had remained in place (and no customers were allowed to "opt out") minus the actual energy savings that occurred since the repeal of the EERS and the introduction of the ability to "opt out".

Figure 1 (below) shows the actual savings achieved in shades of blue while "missed savings" that would have

been achieved had the EERS not been repealed and had customers not been allowed to "opt out" are shown in red.

Since the repeal of Indiana's EERS and the option for customers larger than 1 MW to opt out, Indiana's five investor-owned electric utilities have not achieved energy savings that reach the level previously mandated under the EERS.¹ In terms of total gigawatt-hour (GWh) savings, the utility that "missed" out on the smallest amount of savings between 2015 and 2019 was the smallest investor-owned electric utility, Vectren, with an average of 40 GWh each year, while the largest, Duke, "missed" the largest amount of savings with an average of 280 GWh per year.

Figure 1. "Missed" energy efficiency savings from 2015-2019



Bryndis Woods and Nina Schlegel

July 2018

Between 2015 and 2019, Indiana utilities’ “missed savings” totaled an average of 136 GWh per year, growing from 72 GWh in 2015 to 229 GWh in 2019.

Cost impacts of “missed savings”

Estimating the cost of energy efficiency programs entails taking into account the administrative and program costs for a utility to run the programs, as well as the benefits of avoiding the costs of generation that is no longer needed because the demand for electricity is lower. (Energy efficiency program cost accounting often includes some costs paid by the household or business to buy and install the efficiency measures. Those “participant” costs are not included in the discussion and analysis here.) Avoided costs due to decreased demand include avoided fuel costs, avoided operations and maintenance costs at existing power plants, and eliminating the need to build new power plants or transmission lines.

The net cost effect of energy savings can be either positive or negative, depending on the relative size of energy efficiency program costs versus avoided costs. Program costs are passed onto customers through a charge on their electric bill. Cost savings (or avoided costs) are passed onto efficiency participants through lower usage at participants’ own homes and businesses, as well as to all customers through the avoided costs from not needing as much generation and capacity.

To calculate the net cost to consumers of the “missed savings” represented in

Figure 1 (what we refer to as the “cost of missed savings”), we subtract the avoided costs of energy efficiency measures from the energy efficiency program cost and multiply that value by the “missed savings” in kWh. Our data sources were as follows:

Program costs: All five investor-owned utilities report their annual energy efficiency program costs, which we gathered from a combination of self-reported utility

scorecards, settlements, and filed energy efficiency and demand-side management plans.

Avoided costs: Only NIPSCO publicly reports the annual avoided costs that result from implementing energy efficiency programs (see Table 1 below). We used NIPSCO’s dollars per kWh as a proxy for avoided costs for all five utilities.

Table 1. NIPSCO avoided cost data

	Avoided Costs (Millions \$)	Savings (GWh)	Avoided Costs (\$ per kWh)
2015	\$7.7	120	\$0.06
2016	\$7.0	73	\$0.10
2017	\$22.4	127	\$0.18
2018	\$30.9	173	\$0.18
2019	\$40.0	219	\$0.18

Source: NIPSCO 2014
IRP, p. 51 (2015 only)
and NIPSCO 2016 IRP,
p. 860 (2016-2019)

Source: NIPSCO 2014
IRP, p. 51 (2015 only)
and NIPSCO 2016 IRP,
p. 871 (2016-2019)

Source: AEC
calculations

“Missed Savings”: In their annual scorecards, energy efficiency and demand-side management plans, and settlements, all five investor-owned utilities publish their annual energy efficiency savings. The savings mandated under the EERS were given as an incremental percentage of each utility’s weather-normalized average electric sales. Since sales data for all five utilities is available through Federal Energy Regulatory Commission (FERC) filings and/or in the utilities’ Integrated Resource Plans (IRPs), we were able to calculate the difference between the energy savings achieved, and those that would have been achieved had each utility met its mandated amount of energy savings under the now-repealed EERS.

For all utilities in all years, we found negative net costs (that is, program costs were smaller than avoided costs). In other words, every kWh of energy efficiency saved money for consumers.

Figure 2 shows each utility’s “cost of missed savings”, which is the negative net costs multiplied by the “missed savings.”

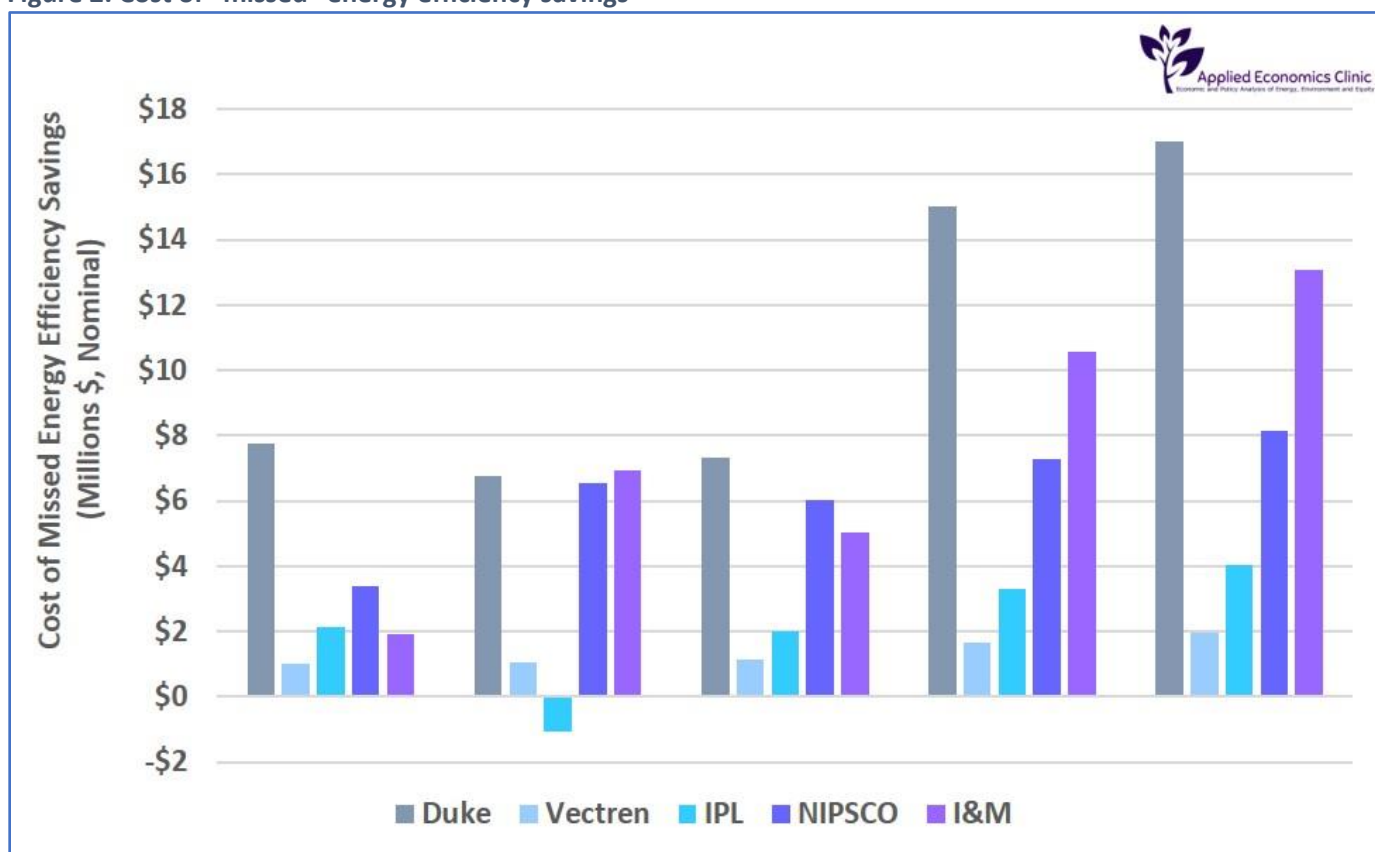
Bryndis Woods and Nina Schlegel

July 2018

In 2015, Indiana's investor owned electric utility customers missed out on total savings of \$16.2 million, a figure which grew every year to reach \$44.3 million in 2019. Customers of Duke, the largest electric utility in Indiana, missed out on the greatest savings amounting to

approximately \$54 million over the 2015 to 2019 period. Even customers of Vectren, the smallest investor owned electric utility, missed out on approximately \$7 million in energy savings.

Figure 2. Cost of "missed" energy efficiency savings



Job impacts of Indiana's EERS repeal

Recent independent studies, which were overseen by the utilities and several consumer parties, have shown that Indiana's EERS and statewide program delivery resulted in the creation of 19,000 jobs and that, since its repeal, job creation has decreased dramatically.

In 2015, the Indiana Statewide Core Program Evaluation Team released an **EERS evaluation report** that presented the impacts of Indiana's EERS and statewide program delivery as of 2014—the final year of its existence. It found that from 2012 to 2014, Indiana's EERS resulted in

11 million megawatt hours of energy savings across the state and the creation of 19,000 jobs (in job years, which means the net number of jobs created in that year). The report also found that the program was a good investment—for every 1 dollar spent, ratepayers saved nearly 3 dollars. The report also found that the program increased the demand for energy efficient products, which also helped boost employment in the state, including in the manufacturing sector.

The Midwest Energy Efficiency Alliance (MEEA) released a 2016 report on the **economic impacts of energy**

Bryndis Woods and Nina Schlegel

July 2018

efficiency investments in Indiana and found that the 1,039 jobs (in job years) created in 2015 was a 37 percent decrease from the 1,662 jobs (again, in job years) in 2014. The report also found that the utilities' 2015 energy efficiency programs will create 3,726 jobs in the 2016 to 2039 period, a decrease of 19 percent from the 2014 plans.

According to **Clean Jobs Midwest's** 2017 report, between 2015 and 2016, the state only added 1,785

energy efficiency jobs. The report estimates that there are approximately 38,000 total energy efficiency jobs in Indiana which account for over 80 percent of the state's total clean energy employment.

The 2017 **U.S. Energy and Jobs Report** presents a higher figure, estimating that Indiana has approximately 50,000 energy efficiency jobs.

Notes

¹ With the exception of IPL in 2016.

Works Cited

Citizens Action Coalition. Energizing Indiana: Home Energy Audits Can Help You Save Energy And Save Money!, <http://www.citact.org/energy-policy-renewable-energy-and-efficiency/campaign/energizing-indiana>

Clean Jobs Midwest. 2017. Indiana Toplines. <https://www.cleanjobsmidwest.com/state/indiana>

Duke Energy Scorecards. 2012-2014. Indiana Utility Regulatory Commission (IURC) Cause No. 43955 DSM 3. Response to CAC Data Request 1.4.

Duke Energy Scorecards. 2015-2019. Indiana Utility Regulatory Commission (IURC) Cause No. 43955 DSM 4. Response to CAC Data Request 3.3.

Duke Energy Scorecard. 2017. Indiana Utility Regulatory Commission (IURC) Cause No. 43955 DSM 4. Submission of 2017 Scorecard.

General Assembly of the State of Indiana. 2014. Second Regular Session 118th General Assembly, Senate Enrolled Act No. 340. https://www.in.gov/iurc/files/SEA_340.pdf

General Assembly of the State of Indiana. 2015. First Regular Session 119th General Assembly, Senate Enrolled Act No. 412. <http://www.in.gov/iurc/files/SEA412.pdf>

GoodCents. March 2012. The State Energy Advisory Board. https://www.energy.gov/sites/prod/files/2015/07/f25/william_rodgers.pdf

Indiana Economic Digest. September 28, 2014. EDITORIAL: Energizing Indiana a successful program that was killed anyway, <http://indianaeconomicdigest.com/main.asp?SectionID=31&subjectID=135&articleID=76572>

Indiana Michigan Power (I&M) Scorecards. 2012-2016. Indiana Utility Regulatory Commission (IURC) Cause No. 44841. Response to CAC Data Request 1-29.

I&M Scorecard. 2017. Indiana Utility Regulatory Commission (IURC) Cause No. 43827. Submission of 2017 Scorecard.

I&M Scorecards. 2018-19. Indiana Utility Regulatory Commission (IURC) Cause No. 44841. Final Order, pp.27.

Indiana Statewide Core Program Evaluation Team. May 1, 2015. 2014 Energizing Indiana Evaluation Report. Cause No. 42693-S1. <https://www.scribd.com/document/268402714/Energizing-Indiana-2014-Report>

Indiana Utility Regulatory Commission (IURC). Demand Side Management Programs: Background. <http://www.in.gov/iurc/2571.htm>

Indiana Utility Regulatory Commission. December 9, 2009. Phase II Order, Cause No. 42693. http://www.in.gov/iurc/files/Phase_II_decision_in_Cause_No._42693.pdf

Indianapolis Power & Light Company (IPL) Scorecards. 2012-2016. Indiana Utility Regulatory Commission (IURC) Cause No. 44945. Response to CAC Data Request 1-21.

IPL Scorecard. 2017. Indiana Utility Regulatory Commission (IURC) Cause No. 43623. Submission of 2017 Scorecard.

IPL Scorecards. 2018-19. Indiana Utility Regulatory Commission (IURC) Cause No. 44945. Final Order and Approved Settlement.

Institute for Electric Innovation (IEI). December 2017. Energy Efficiency Trends in the Electric Power Industry. http://www.edisonfoundation.net/iei/publications/Documents/IEI_Energy%20Efficiency%20Report_Dec2017.pdf

John Finnigan, Environmental Defense Fund. April 15, 2014. Indiana Governor's Inaction Results in First Rollback of Energy Efficiency Standards in the Nation. <http://blogs.edf.org/energyexchange/2014/04/15/indiana-governors-inaction-results-in-first-rollback-of-energy-efficiency-standards-in-the-nation/>

Midwest Energy Efficiency Alliance. January 2017. Economic Impact Analyses of Energy Efficiency in the Midwest.

Bryndis Woods and Nina Schlegel

July 2018

<https://cadmusgroup.com/papers-reports/economic-impact-analyses-midwest/>

Midwest Energy Efficiency Alliance. March 21, 2017. Testimony on Behalf of the Midwest Energy Efficiency Alliance related to HB 114. <http://www.mwalliance.org/sites/default/files/media/MEEA-Testimony-HB-114.pdf>

Northern Indiana Public Service Company (NIPSCO). November 1, 2014. Integrated Resource Plan. <https://www.nipsco.com/docs/default-source/about-nipsco-docs/2014-nipsco-irp.pdf>

NIPSCO. November 1, 2016. Integrated Resource Plan. <https://www.nipsco.com/docs/default-source/about-nipsco-docs/2016-irp.pdf>

NIPSCO. December 30, 2015. 2016-2018 Energy Efficiency Plan. Indiana Utility Regulatory Commission (IURC) Cause No. 44634. <https://www.nipsco.com/docs/default-source/efficiency-docs/2016-18-energy-efficiency-plan.pdf>

NIPSCO. November 22, 2017. Proposed 2018-2021 Energy Efficiency Plan. Indiana Utility Regulatory Commission (IURC) Cause No. 45011. <https://www.nipsco.com/docs/default-source/efficiency-docs/energy-efficiency-petition-nov-22-2017.pdf>

NIPSCO Scorecards. 2012-2016. Indiana Utility Regulatory Commission (IURC) Cause No. 44634. Response to CAC Data Request 1-16.

NIPSCO Scorecard. 2017. Indiana Utility Regulatory Commission (IURC) Cause No. 44634. Submission of 2017 Scorecard.

State Utility Forecasting Group. Purpose of the State Utility Forecasting Group. <http://www.purdue.edu/discoverypark/sufg/about/purpose.php>

U.S. Department of Energy. 2017. U.S. Energy and Employment Report. <https://www.energy.gov/downloads/2017-us-energy-and-employment-report>

Vectren Energy. April 7, 2017. Vectren South 2018-2020 Electric Energy Efficiency Plan. <https://www.vectren.com/assets/downloads/rates/in-ee-plan-2018-2020.pdf>

Vectren Energy Scorecards. 2012-2016. Indiana Utility Regulatory Commission (IURC) Cause No. 44927. Response to CAC Data Request 1.4.

Vectren Energy Scorecard. 2017. Indiana Utility Regulatory Commission (IURC) Cause No. 43405-DSMA15. Submission of 2017 Scorecard.