

# Midwest Energy Efficiency Investment Economic Impact

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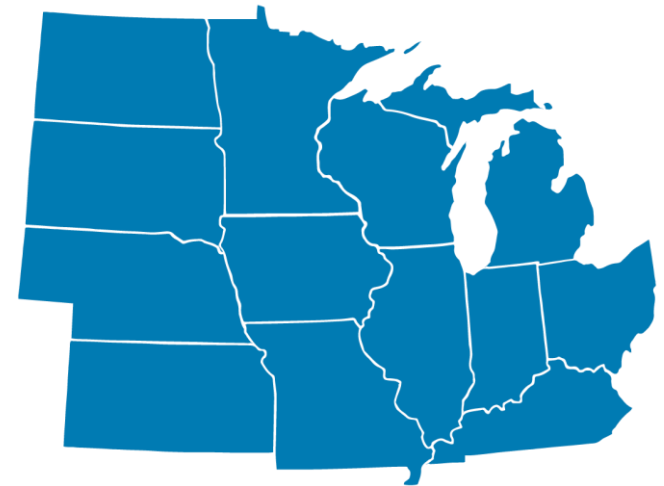
# About MEEA

## *The Trusted Source on Energy Efficiency*

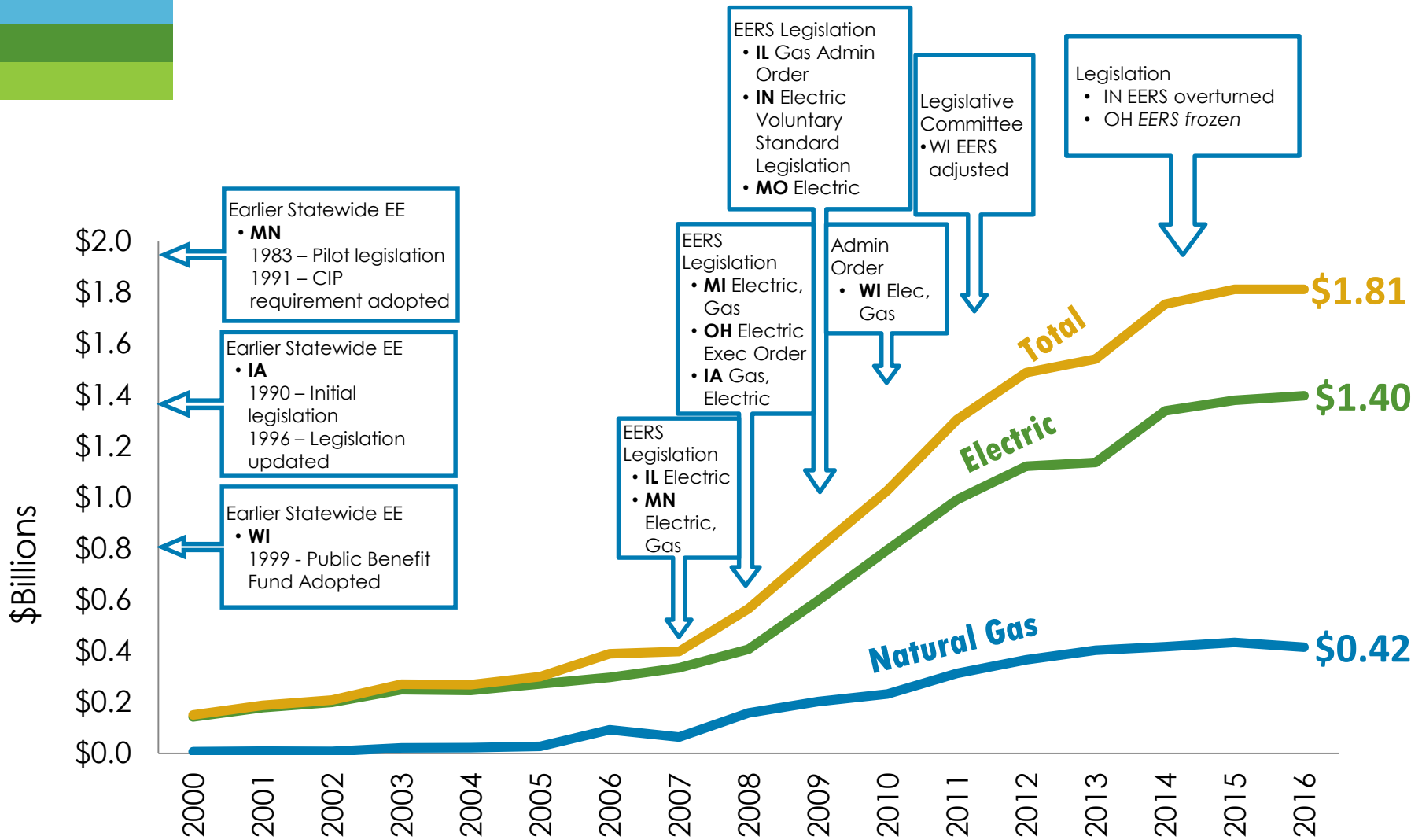
We are a nonprofit membership organization with **160+ members**, including:

- Utilities
- Research institutions
- State and local governments
- Energy efficiency-related businesses

As the key resource and champion for energy efficiency in the Midwest, MEEA helps a diverse range of stakeholders understand and implement cost-effective energy efficiency strategies that provide economic and environmental benefits.



# Estimated Annual Utility Investment in EE



# Timeline of Midwest EE Policy

- |      |  |      |  |
|------|--|------|--|
| 1983 | ● <b>MN:</b> Pilot Legislation   | 2008 | ● <b>MI:</b> EERS Legislation (elec & gas)<br>● <b>OH:</b> EERS Legislation (elec)<br>● <b>IA:</b> EE Executive Order (elec & gas) |
| 1990 | ● <b>IA:</b> Initial Legislation   |      |  |
| 1991 | ● <b>MN:</b> CIP Requirement Adopted   | 2009 | ● <b>IL:</b> EERS Legislation (gas)<br>● <b>IN:</b> EERS Regulatory Order (elec)<br>● <b>MO:</b> Voluntary EE Legislation (elec)   |
| 1996 | ● <b>IA:</b> Legislation Updated   | 2010 | ● <b>WI:</b> EERS Regulatory Order (elec & gas)  |
| 2005 | ● <b>WI:</b> Public Benefit Fund Restructured                                      | 2011 | ● <b>WI:</b> EERS Adjusted by Legislation  |
| 2007 | ● <b>MN:</b> EERS Legislation (elec & gas)<br>● <b>IL:</b> EERS Legislation (elec) | 2014 | ● <b>IN:</b> EERS Overturned by Legislation<br>● <b>OH:</b> EERS “Frozen” by Legislation   |

● Legislative

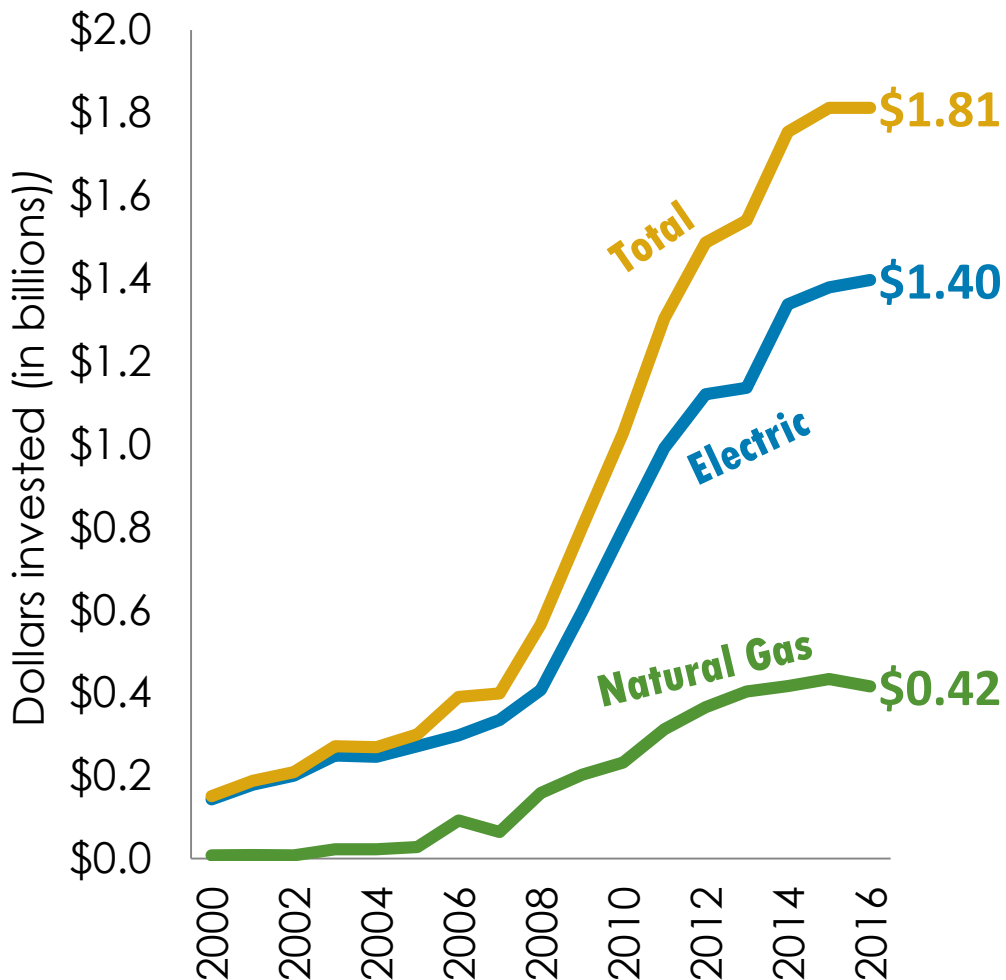
● Executive/Regulatory Order

● Rollback

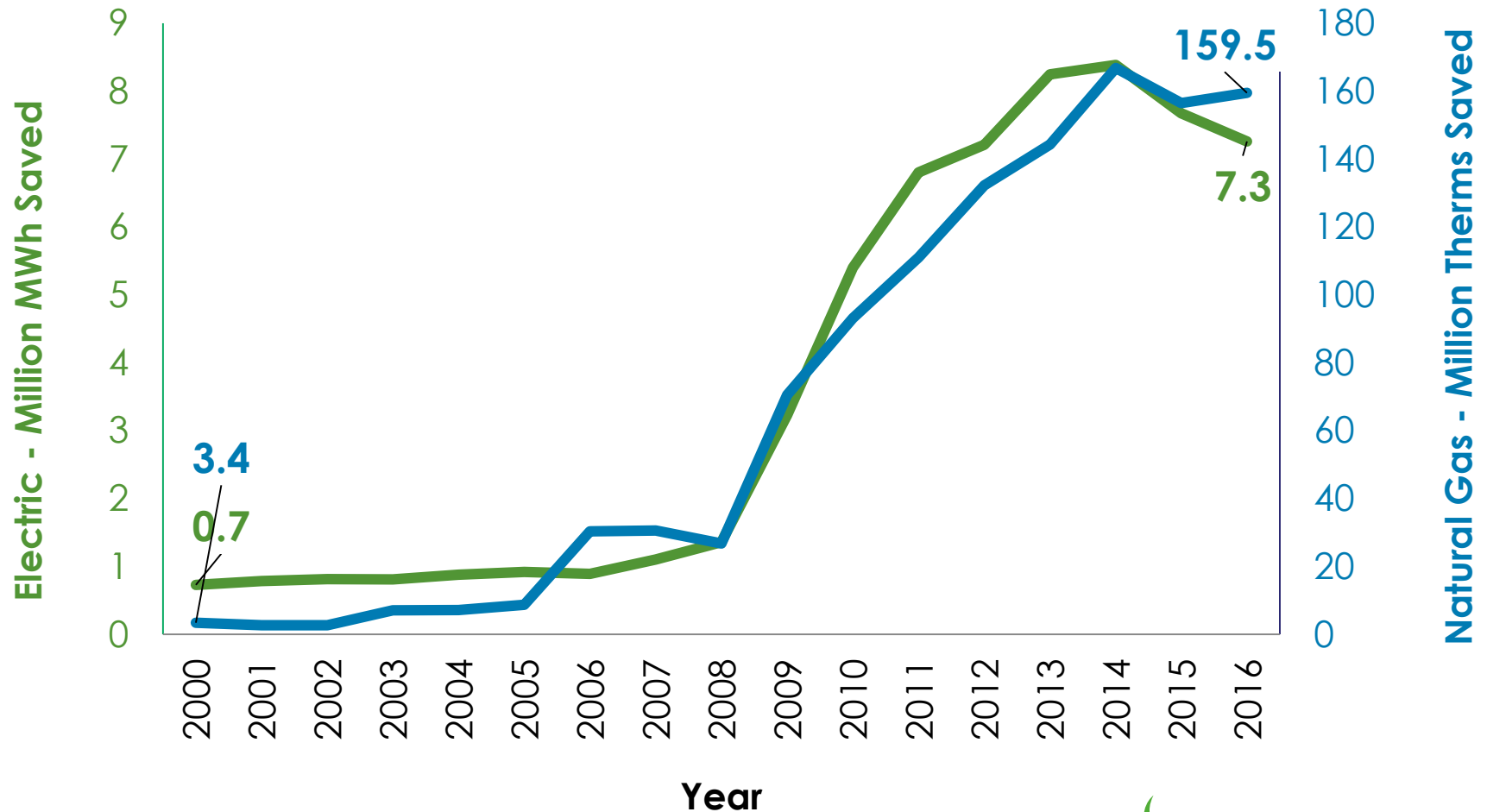
# Energy Efficiency Policies and Investment in the Midwest

## Timeline of Midwest EE Policies

|      |    |  |
|------|----|--|
| 1983 | MN | Pilot legislation                                    |
| 1990 | IA | Initial legislation                                  |
| 1991 | MN | CIP requirement adopted                              |
| 1996 | IA | Legislation updated                                  |
| 1999 | WI | Public Benefit Fund adopted (electric & gas)         |
| 2007 | IL | EERS legislation adopted (electric)                  |
| 2007 | MN | EERS legislation adopted (electric & gas)            |
| 2008 | MI | EERS legislation adopted (electric & gas)            |
| 2008 | OH | EERS legislation adopted (electric)                  |
| 2008 | IA | EE mandated by Executive Order (electric & gas)      |
| 2009 | IL | EERS legislation adopted (gas)                       |
| 2009 | IN | EERS implemented by regulatory order                 |
| 2009 | MO | Voluntary EE standard legislation adopted (electric) |
| 2010 | WI | EERS implemented by regulatory order                 |
| 2011 | WI | EERS adjusted by legislation                         |
| 2014 | IN | EERS overturned by legislation                       |
| 2014 | OH | EERS 'paused' by legislation                         |



# Midwest **Energy** Savings through Utility Energy Efficiency



What is the economic impact  
that results after this level of  
investment?



CADMUS



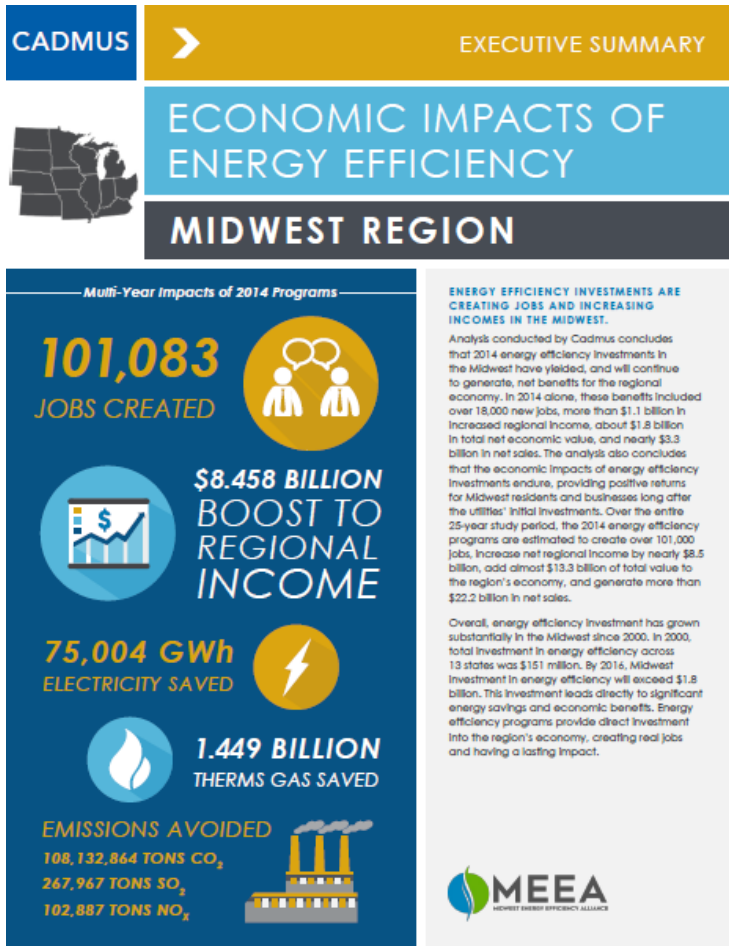
# Economic Impacts of Energy Efficiency

Analyzing the Effects of Regional and  
State-Level Investments

July 2016



# Study Overview



MEEA commissioned a study of the economic impacts of energy efficiency investments

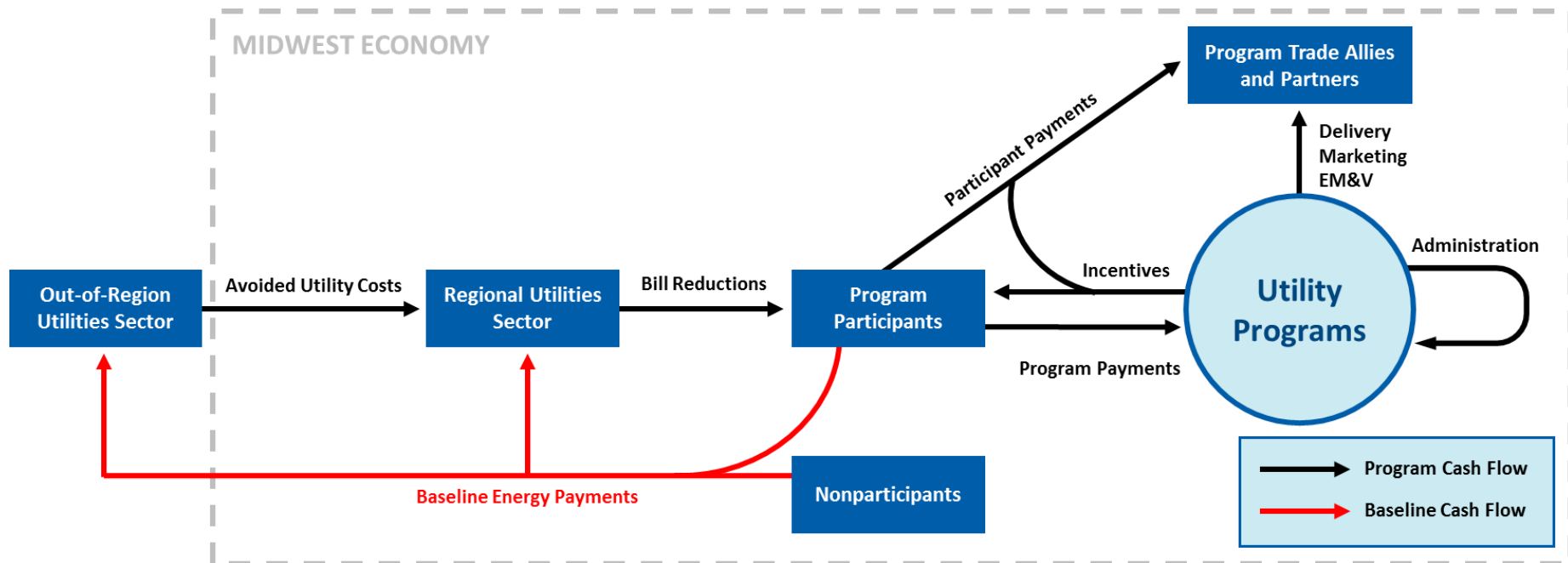
- Analyzed regional program activities
  - Midwest Region
- Estimated impacts on four economic indicators
  - Employment
  - Income
  - Economic Value Added
  - Sales



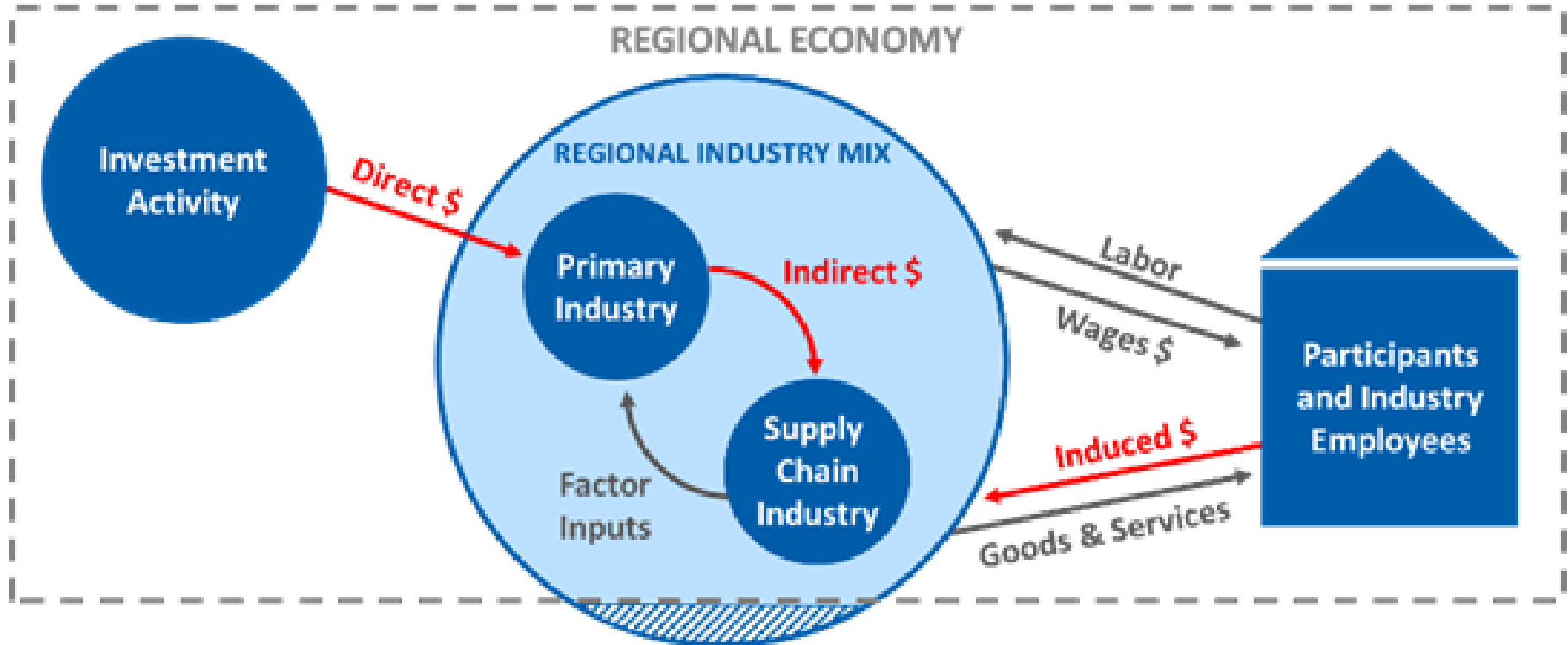
# Why Dynamic Forecast Modeling?

# Analysis Method

Used REMI PI+ to model annual impacts on employment, income, economic value added, and sales from energy efficiency program-related cash flows:



# Analysis Method



# Midwest Region

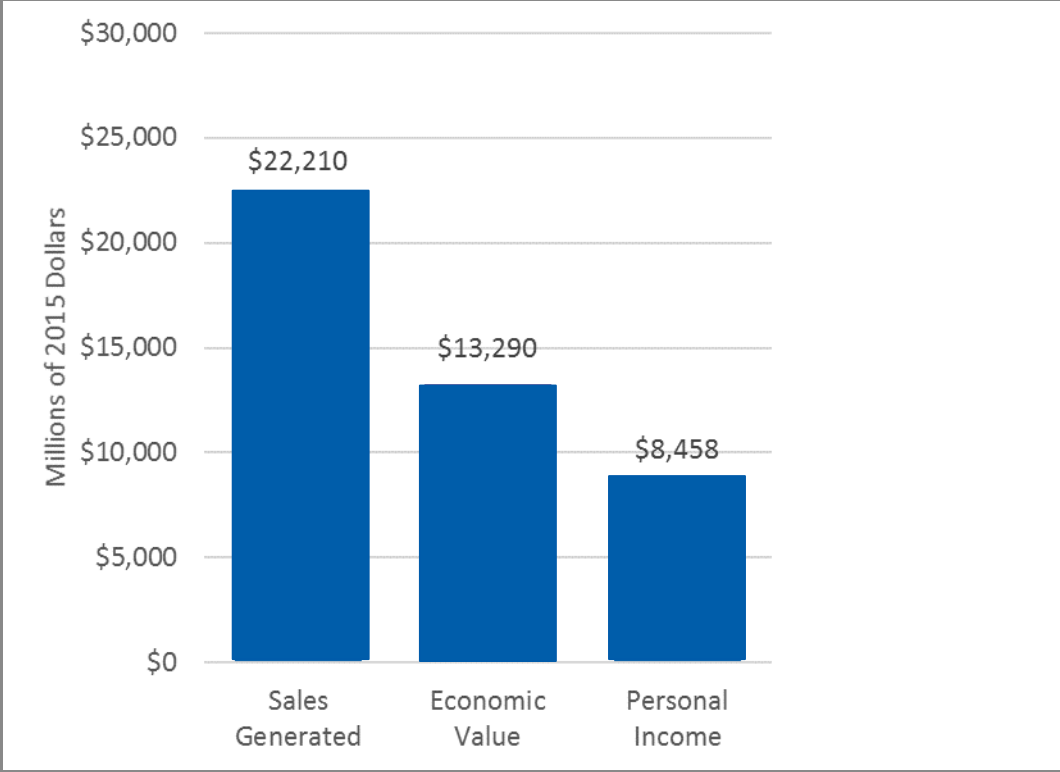
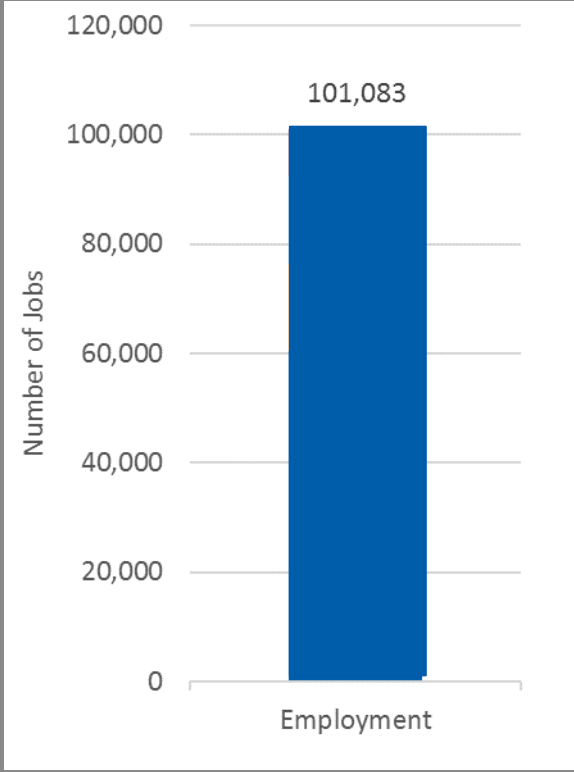
| State        | Spending (\$2015)      | GWh Savings   | therm Savings*       | Avoided CO <sub>2</sub> (tons) | Avoided SO <sub>2</sub> (tons) | Avoided NO <sub>x</sub> (tons) |
|--------------|------------------------|---------------|----------------------|--------------------------------|--------------------------------|--------------------------------|
| Illinois     | \$346,397,221          | 8,737         | 310,881,694          | 18,013,384                     | 31,185                         | 10,208                         |
| Indiana      | \$126,920,331          | 6,894         | 21,437,150           | 7,481,057                      | 23,281                         | 7,266                          |
| Iowa         | \$184,502,608          | 7,098         | 97,547,514           | 9,980,063                      | 30,442                         | 10,953                         |
| Kansas       | \$510,605              | 9             | NR                   | 10,493                         | 8                              | 10                             |
| Kentucky     | \$48,073,549           | 3,767         | 15,519,685           | 4,142,658                      | 9,195                          | 3,858                          |
| Michigan     | \$203,832,401          | 10,731        | 376,847,434          | 20,371,031                     | 61,712                         | 20,996                         |
| Minnesota    | \$134,717,250          | 8,543         | 403,698,727          | 16,534,313                     | 17,873                         | 19,617                         |
| Missouri     | \$36,957,959           | 4,415         | NR                   | 4,333,918                      | 9,841                          | 4,718                          |
| Nebraska     | \$20,281,045           | 2,351         | NR                   | 2,722,321                      | 6,203                          | 3,771                          |
| North Dakota | \$385,457              | 25            | NR                   | 31,119                         | 190                            | 66                             |
| Ohio         | \$210,872,860          | 16,212        | NR                   | 13,029,988                     | 62,886                         | 13,863                         |
| South Dakota | \$5,328,317            | 167           | NR                   | 166,709                        | 504                            | 470                            |
| Wisconsin    | \$92,937,455           | 6,055         | 222,781,830          | 11,315,810                     | 14,647                         | 7,091                          |
| <b>Total</b> | <b>\$1,411,717,058</b> | <b>75,004</b> | <b>1,448,714,034</b> | <b>108,132,864</b>             | <b>267,967</b>                 | <b>102,887</b>                 |

\*Kansas, Missouri, Nebraska, North Dakota, Ohio, and South Dakota utilities do not report gas savings.

# Midwest Region

| Economic Indicator             | Net Study Period Impacts: Midwest Region |
|--------------------------------|--|
| Employment (jobs)              | <b>101,083</b>                           |
| Income (2015 dollars (M))      | <b>\$8,458</b>                           |
| Value Added (2015 dollars (M)) | <b>\$13,290</b>                          |
| Sales (2015 dollars (M))       | <b>\$22,210</b>                          |

# Midwest Region



# Policy/Economics Correlation

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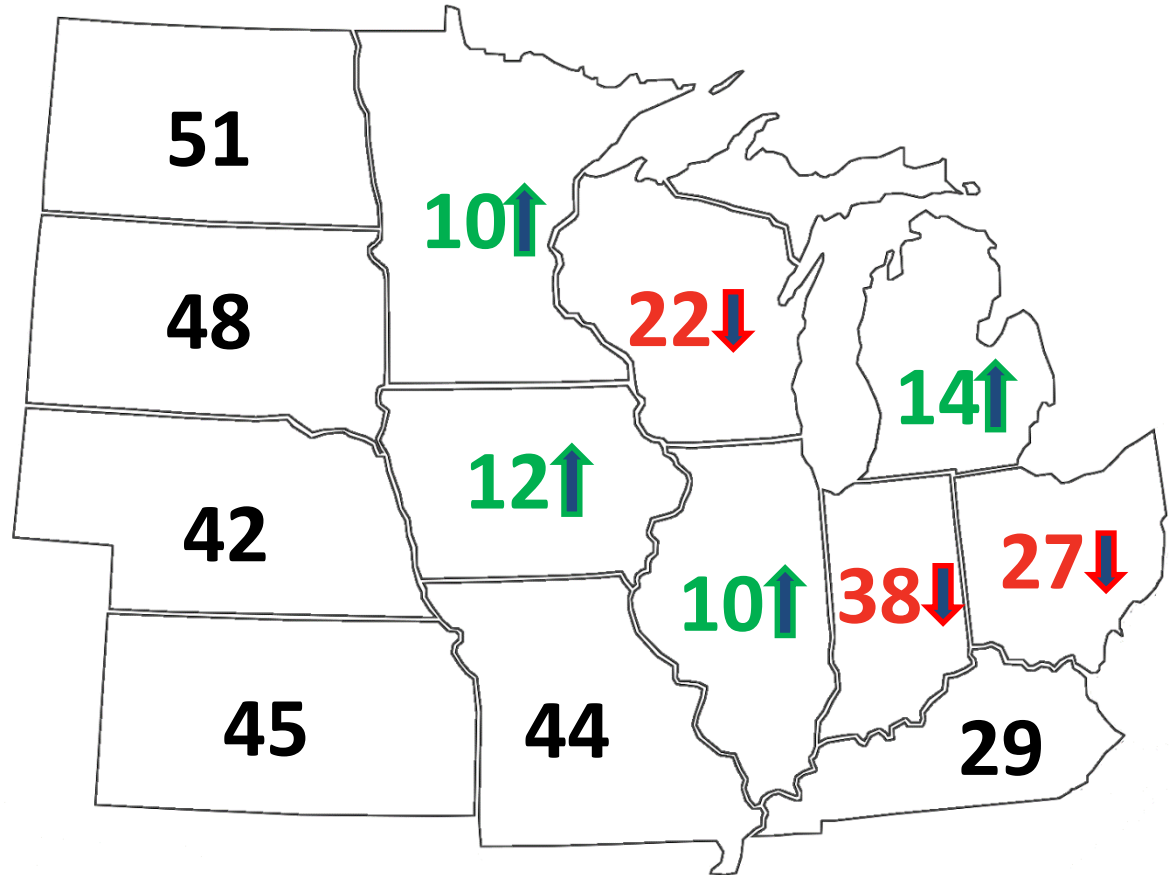
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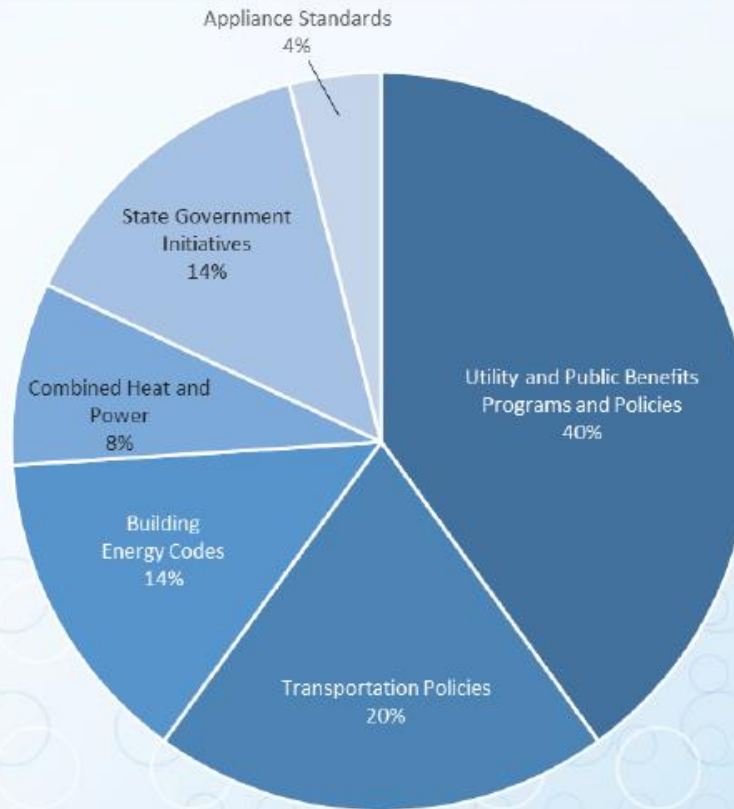


# 2015 ACEEE State Scorecard



# 2015 ACEEE State Scorecard

## Policy Categories



# Outlook

## *Upcoming Energy Policy Debates Across the Region*

- Illinois Energy Bills
- Indiana Rulemaking
- Michigan House and Senate Energy Packages
- Ohio House and Senate Energy Bills

# Questions?

Contact

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