



# Challenges and Opportunities in the Midwest

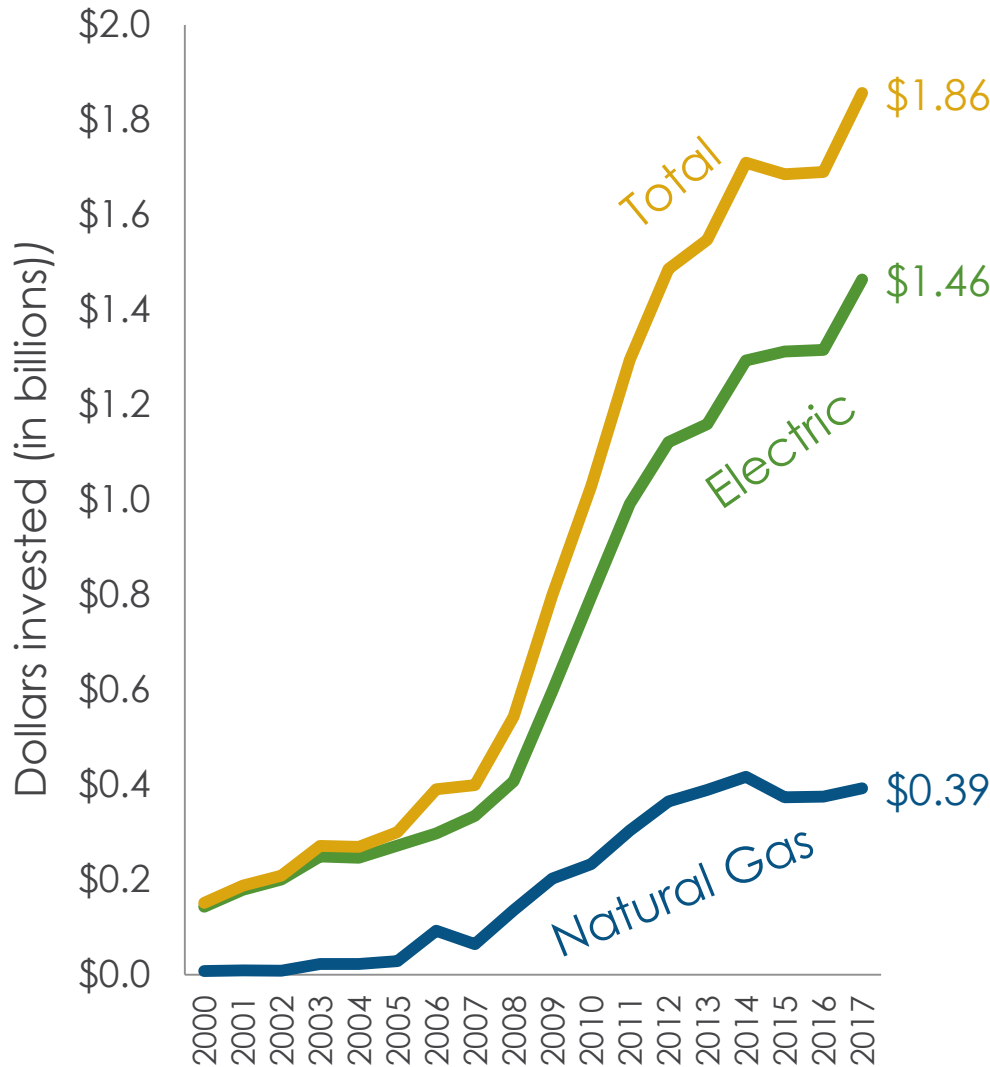
May 2017



# MEEA Policy Activities

Quarterly Update

# Energy Efficiency Investment & Policies in the Midwest

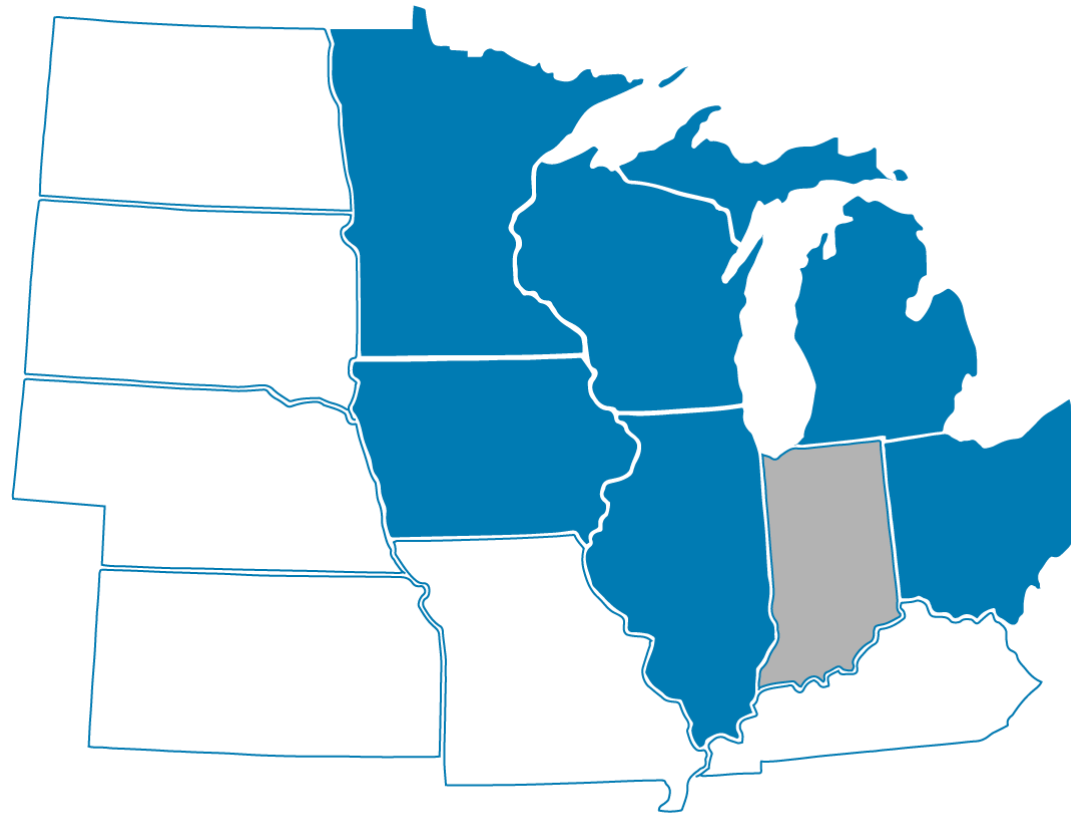


1983	MN	Pilot legislation
1990	IA	Initial legislation
1991	MN	CIP requirement adopted
1996	IA	Legislation updated
1999	WI	Public Benefit Fund adopted (electric & gas)
2007	IL	EERS legislation adopted (electric)
2007	MN	EERS legislation adopted (electric & gas)
2008	MI	EERS legislation adopted (electric & 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 'frozen' by legislation
2016	IL	EERS Updated by legislation
2016	MI	EERS amended, PSC authority increased
2016	OH	EERS freeze extension vetoed, EERS restored

TIMELINE OF ENERGY EFFICIENCY POLICIES IN THE MIDWEST

# Energy Efficiency Resource Standards

## *Mandated*



■ Long term target

■ EERS recently rolled back

# Efficiency Targets & Investment

## Electric



### Minnesota

1.5% elec by 2010

### Wisconsin

No specific targets;  
0.6% elec current est.

### Michigan

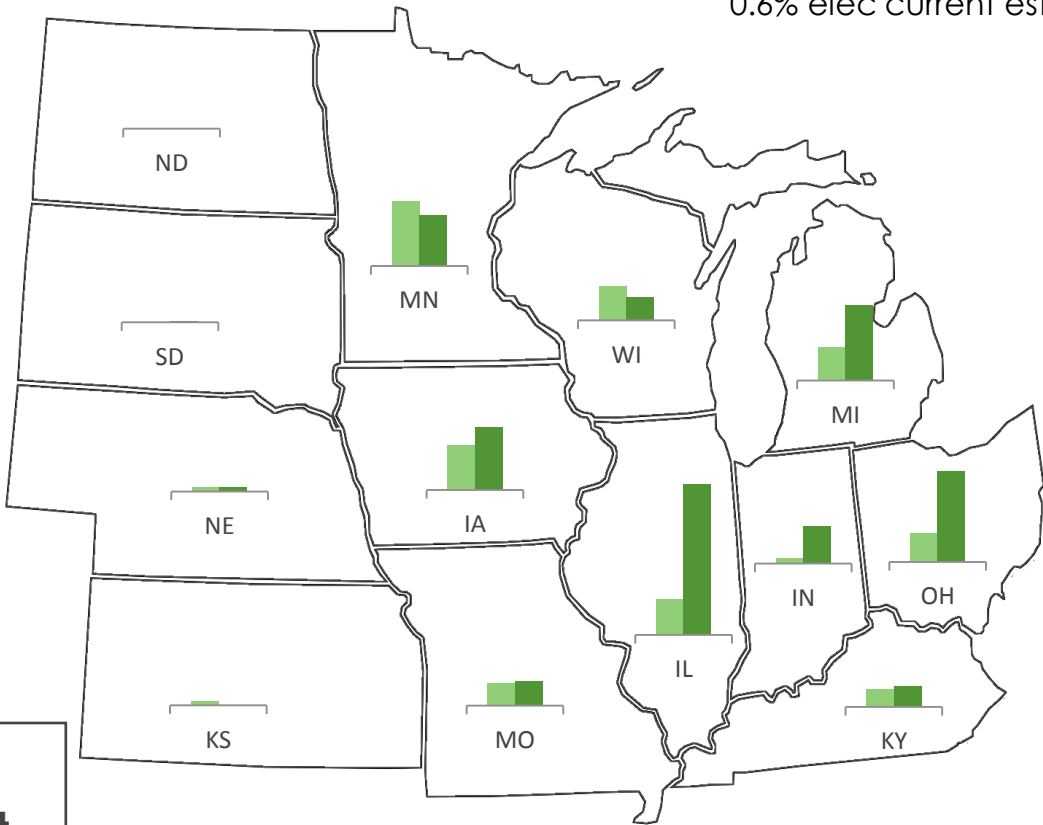
1% elec by 2012

### North Dakota South Dakota Nebraska Kansas

Voluntary electric  
efficiency only

### Iowa

Set on a utility basis;  
1.2% elec current  
plans



### Indiana

Overtaken 2014;  
Future legislation &  
funding uncertain

### Ohio

"Freeze" over, but  
future policy  
uncertain

### Kentucky

Voluntary electric  
efficiency only

### Missouri

IRP process;  
Voluntary electric

### Illinois

2% elec by 2015

### Total Regional Elec Investment

2010: \$795 million

2017: \$1.46 billion



# Efficiency Targets & Investment

## Natural Gas

### Minnesota

1.0% gas by 2010  
(gas goal reduced by  
commission)

### Wisconsin

No specific targets  
0.5% gas current est.

### Michigan

0.75% gas by 2012

### Indiana

Voluntary gas  
efficiency only

### Ohio

Voluntary gas  
efficiency only

### Kentucky

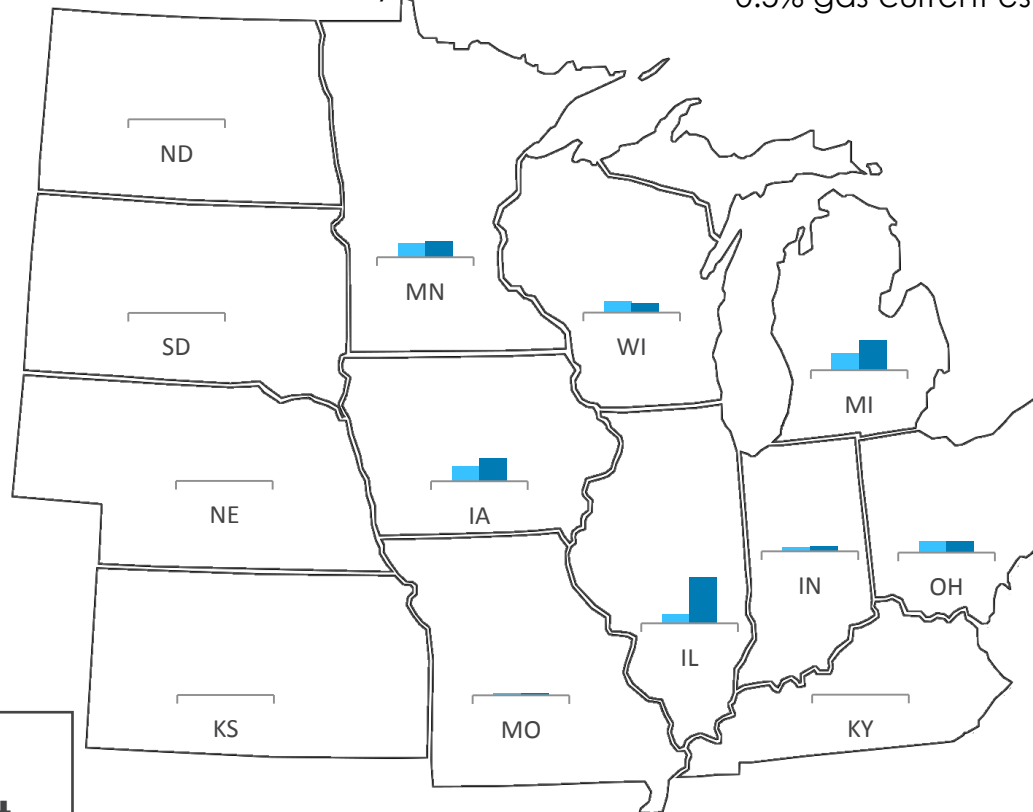
Voluntary gas  
efficiency only

### North Dakota South Dakota Nebraska Kansas

Voluntary gas  
efficiency only

### Iowa

Set on a utility basis  
0.85% gas current  
plans



### Missouri

Voluntary gas  
efficiency only

### Illinois

1.5% gas by 2017

### Total Regional Gas Investment

2010: \$232 million

2017: \$392 million

# Efficiency Targets & Investment

## Electric & Natural Gas



### North Dakota South Dakota Nebraska

**Kansas**  
Voluntary energy efficiency only

### Iowa

Set on a utility basis  
1.2% elec current plans  
0.85% gas current plans

### Total Regional Investment

**2010: \$1.03 billion**

**2017: \$1.86 billion**

### Minnesota

1.5% elec by 2010;  
1.0% gas by 2010 (gas goal reduced by commission)

### Wisconsin

No specific targets  
0.6% elec current est.  
0.5% gas current est.

### Michigan

1% elec by 2012  
0.75% gas by 2012

### Indiana

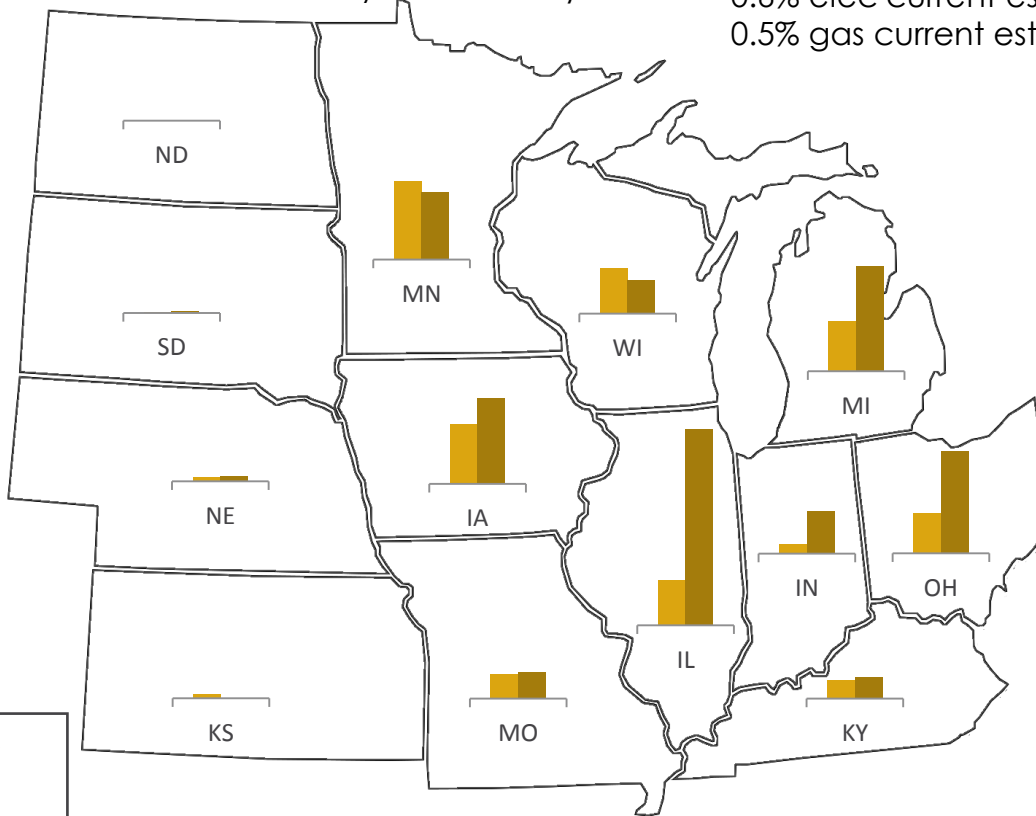
Electric overturned 2014  
Gas voluntary

### Ohio

Electric "freeze over, but future policy uncertain."  
Gas voluntary

### Kentucky

Voluntary electric and gas



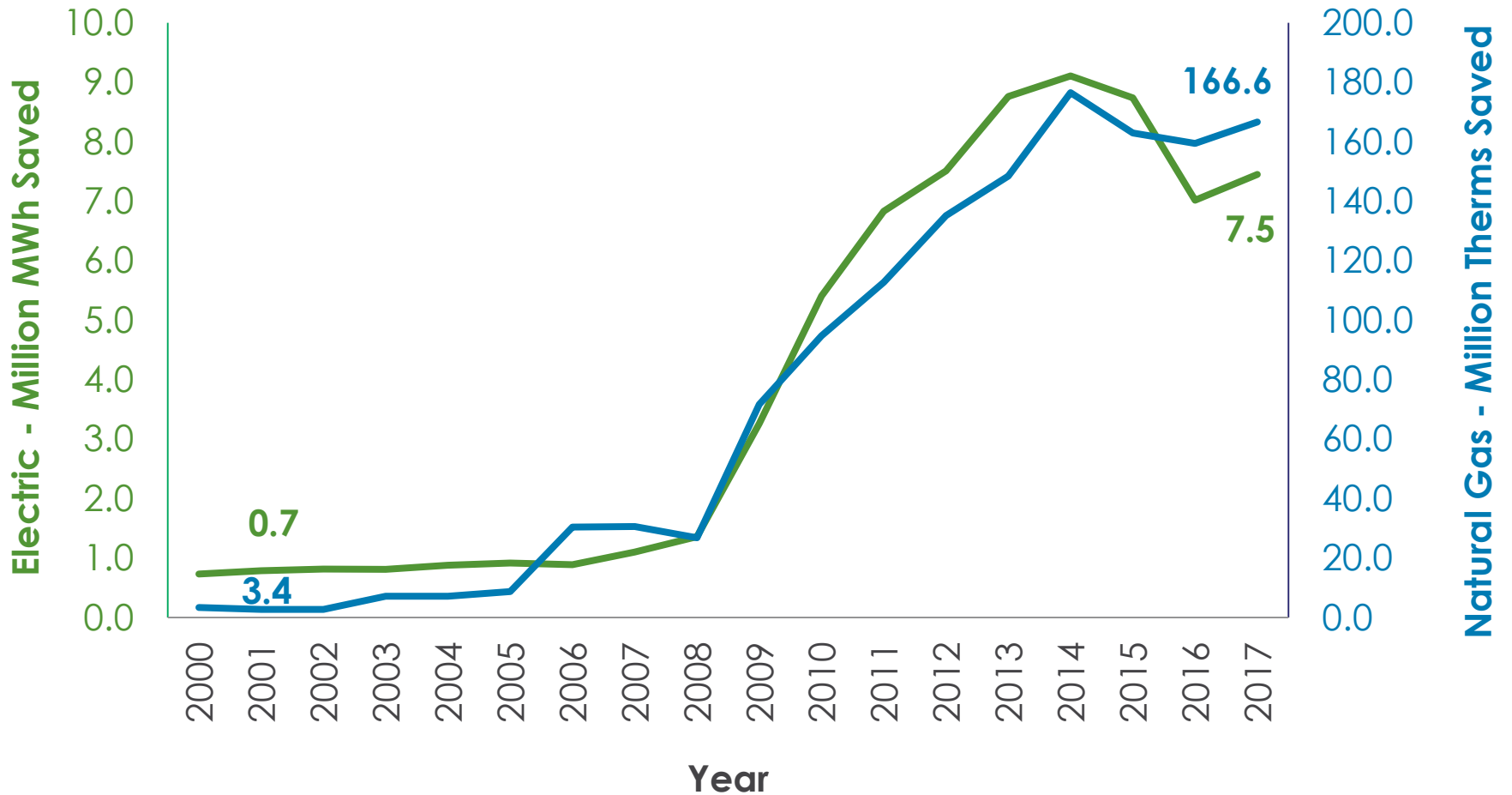
### Missouri

IRP process;  
Voluntary electric

### Illinois

2% elec by 2015  
1.5% gas by 2017

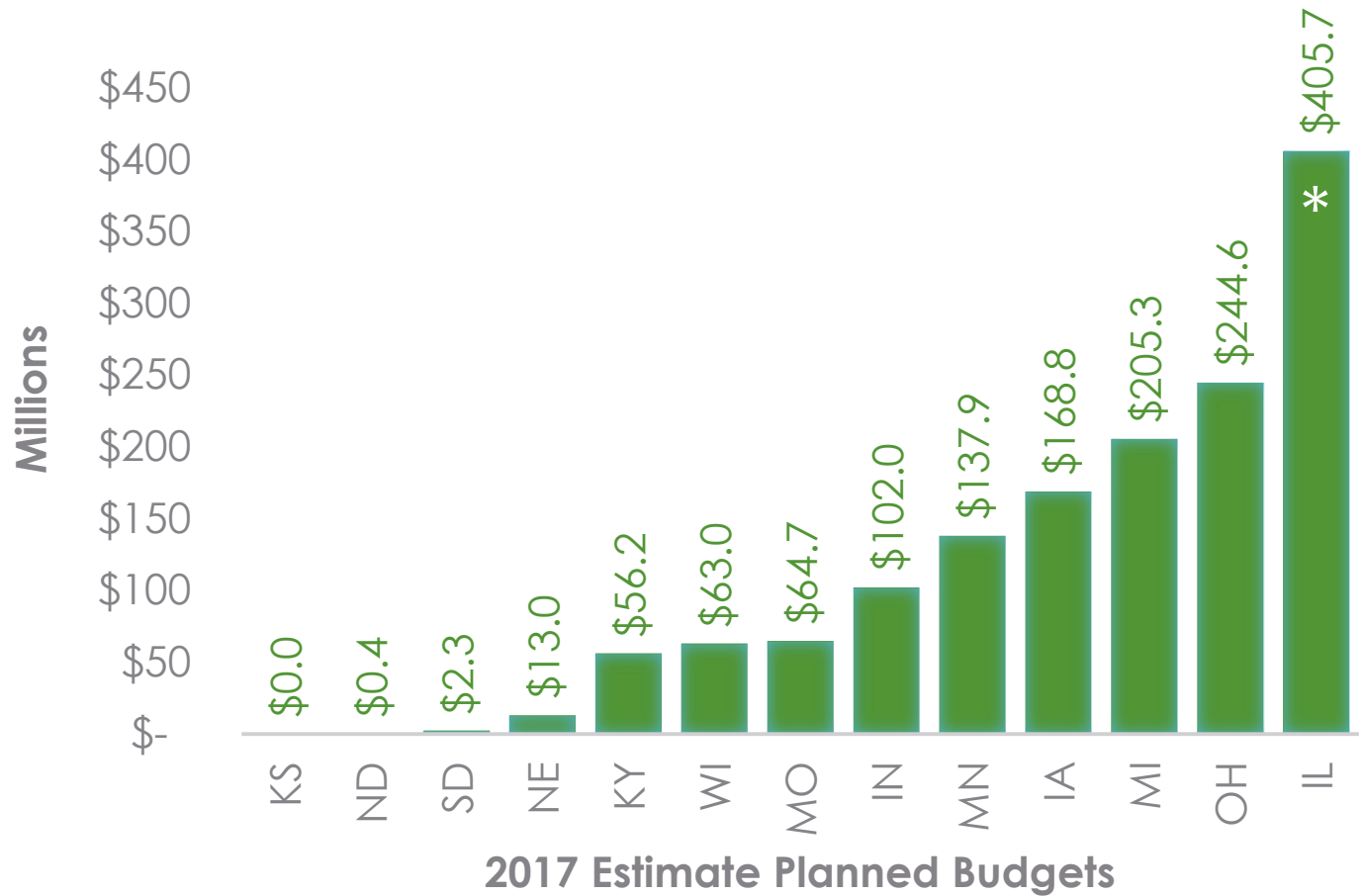
# Midwest **Energy** Savings through Utility Energy Efficiency





# Statewide Energy Efficiency Budget

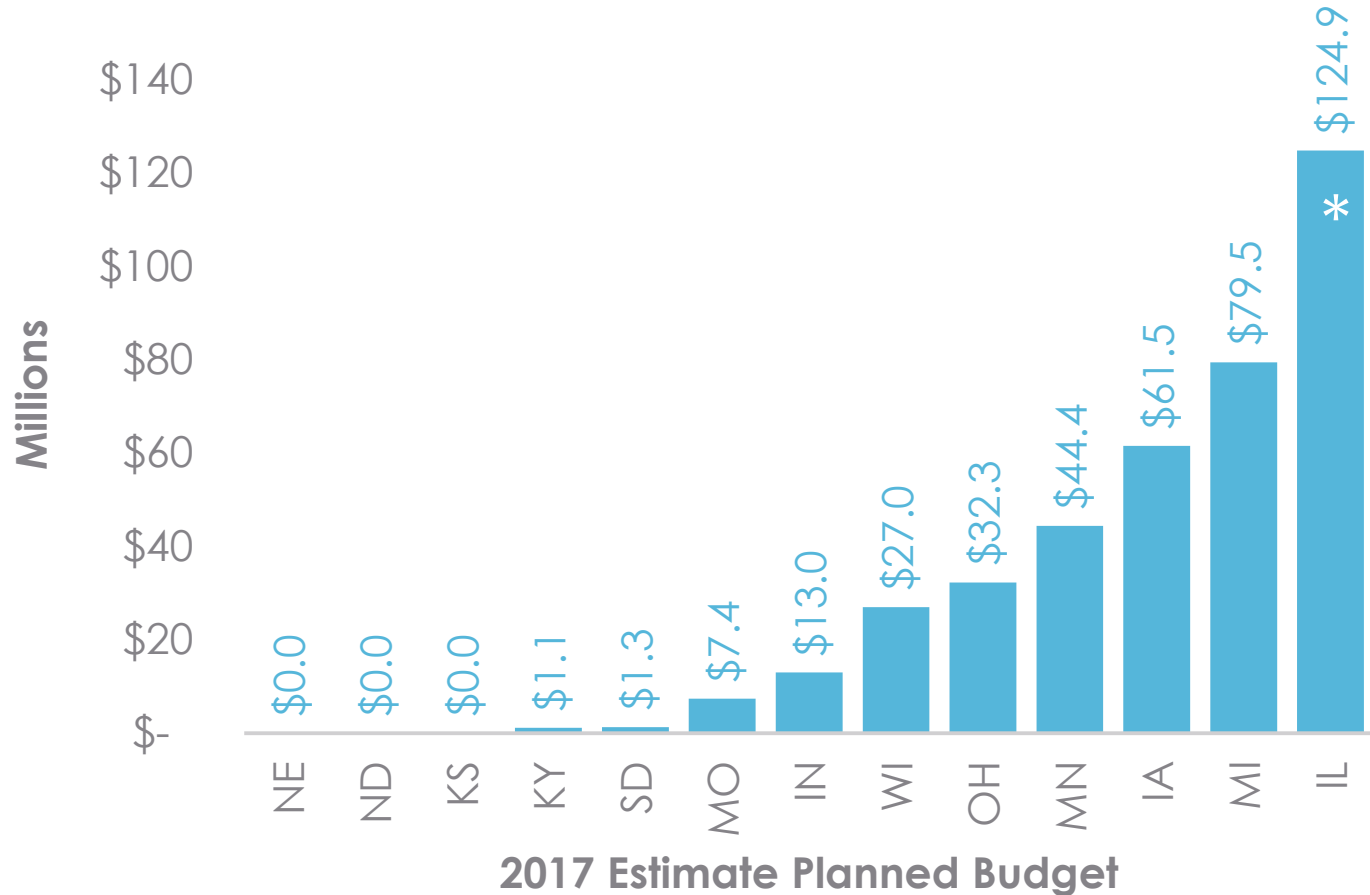
## Electricity



*\*Includes interim period as program year shifts to calendar year starting 2018*

# Statewide Energy Efficiency Budget

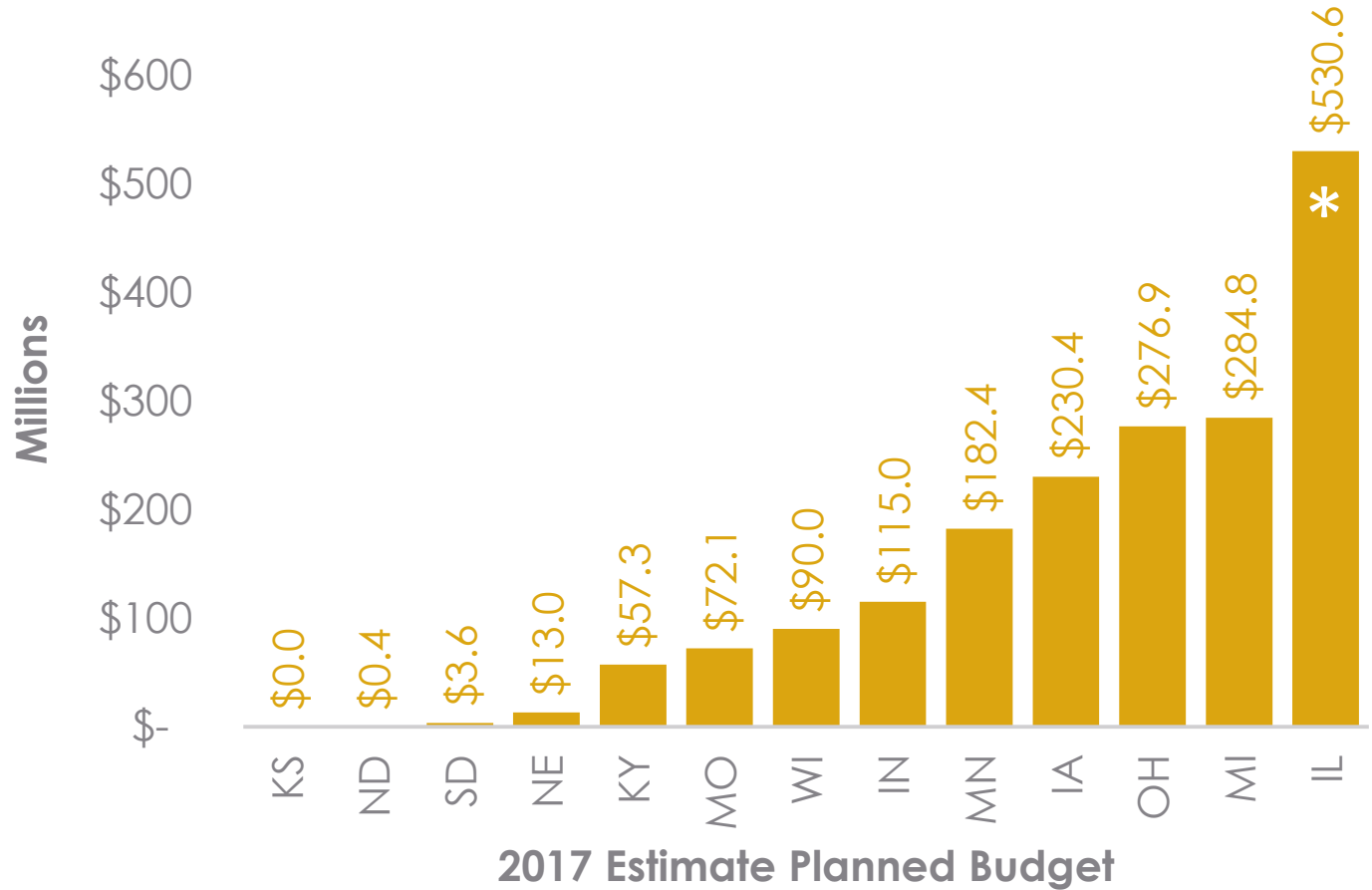
## Natural Gas



*\*Includes interim period as program year shifts to calendar year starting 2018*

# Statewide Energy Efficiency Budget

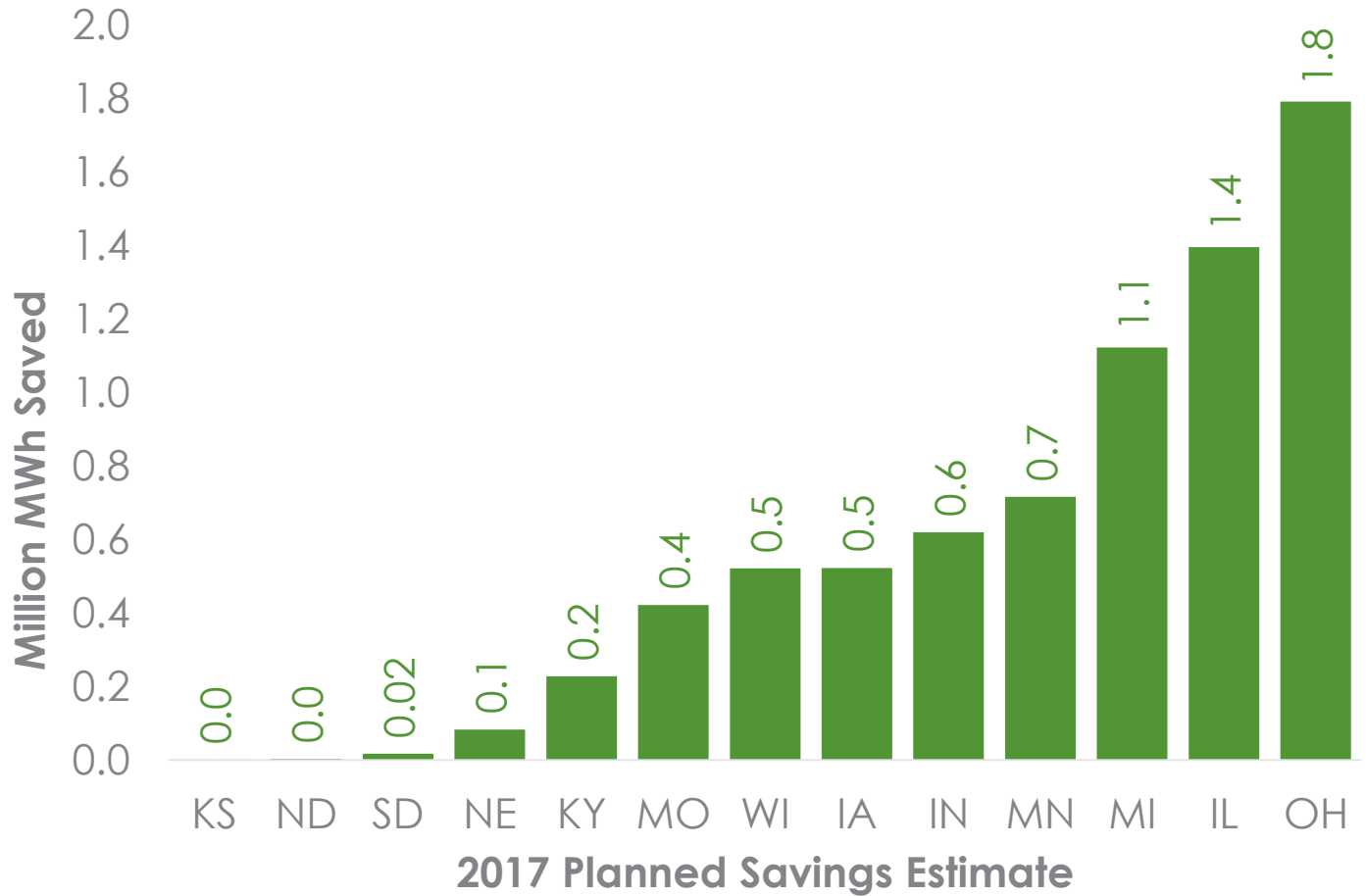
## Total Electricity & Natural Gas



\*Includes interim period as program year shifts to calendar year starting 2018

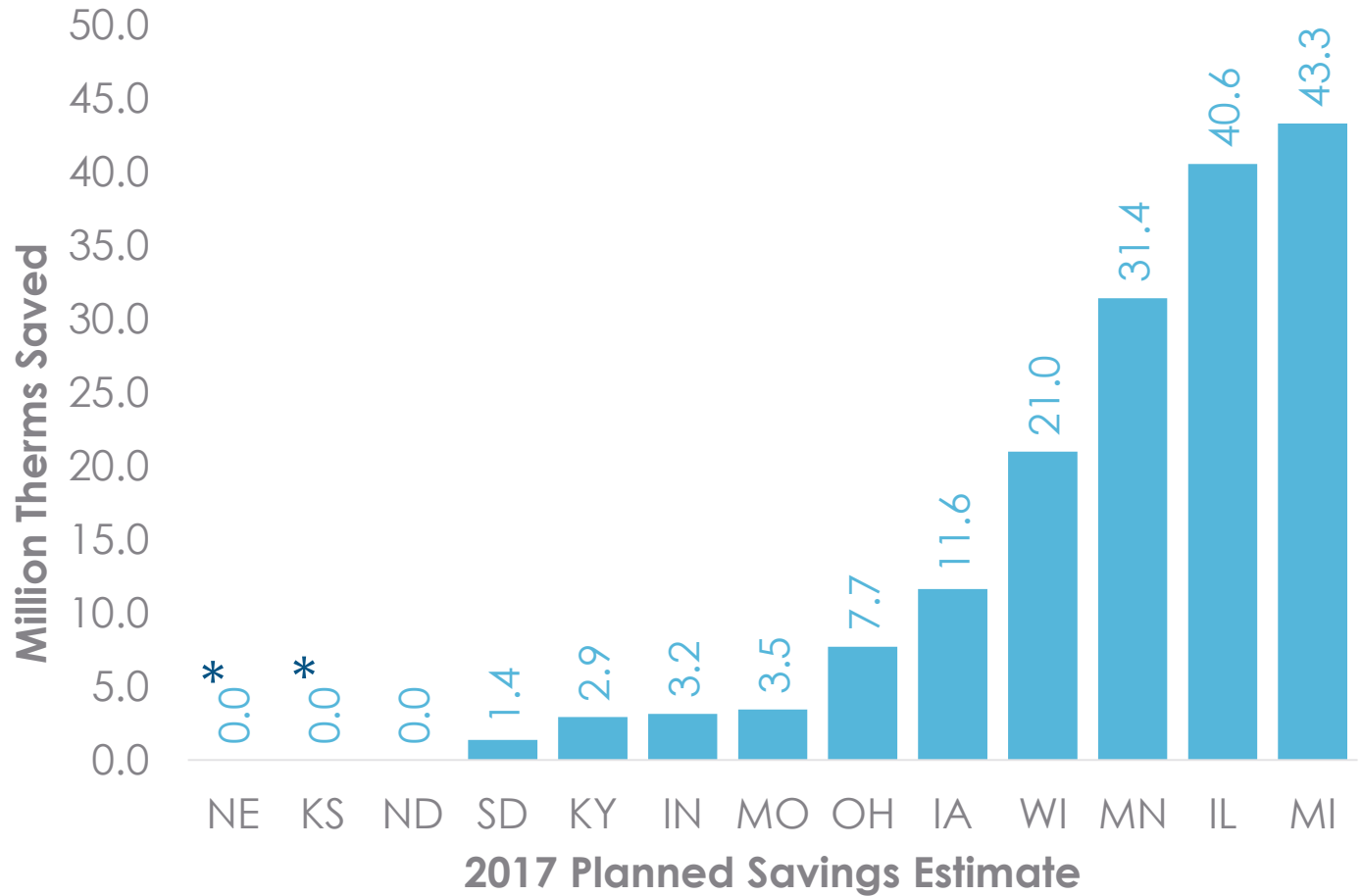
# Energy Savings in Midwest States

## Electricity



# Energy Savings in Midwest States

## Natural Gas



\* Natural Gas savings data not available

# State Energy Efficiency *Policy Update*

- **Indiana**
  - Met with Governor Holcomb's Director of Policy and with the IURC's Chairman Atterholt and Commissioner Freeman
  - IRP/DSM Process Continues
    - IRP rules revised re: benefit-cost tests for DSM
    - DSM treated as selectable resource in utilities' IRPs
    - MEEA submitted comments on Vectren, NIPSCO, and IPL IRPs
- **Kansas**
  - KCC continuing consideration of KCP&L DSM plan
- **Minnesota**
  - Department of Commerce Avoided T&D Cost Study

# State Energy Efficiency

## *Policy Update*

- **Missouri**

- MO Public Service Commission issued a proposed rulemaking for MEEEA regulations. Hearing is May 4. MEEEA submitted comments
- Emerging Regulatory Issues working case. Took comments on EVs, solar, rate design, AMI, and financing (on-bill and PACE). Hearing is May 18.

- **Illinois**

- First meeting of the Economically Disadvantaged Advisory Group. Next meeting on May 22 in Springfield
- 4-year DSM plans due is June 30
- ICC passed NextGrid resolution. MEEEA submitted comments

# State Energy Efficiency *Policy Update*

- **Iowa** ([MEEA's IA Fact Sheet](#))
  - Final [Iowa State Energy plan](#) released on December 21, 2016
  - [2016 Energy Efficiency Annual Report](#)
    - Stakeholder meeting June 29 in Des Moines



# State Energy Efficiency *Policy Update*

- **Ohio** ([MEEA's OH Fact Sheet](#))
  - On Dec 27, Gov. Kasich vetoed HB 554, a bill that would have imposed an unenforced 1% annual savings target through 2018
  - Similar bill, HB 114, which would freeze Ohio's EERS at 1% through 2025 passed the House on March 23, 2017
    - Assigned to Senate Energy and Natural Resources Committee
  - PUCO Power Forward Initiative

# State Energy Efficiency *Policy Update*

- **Michigan** ([MEEA's MI Fact Sheet](#))
  - Recently enacted energy package requires MPSC to initiate a process to establish modeling assumptions and scenarios utilities will need to incorporate into their integrated resource plans
    - PA 341 and PA 342 effective April 20, 2017
  - The MPSC formed several working groups to shape the eventual utility IRP filing process.
    - MEEA is participating in the EWR and DR Working Groups - **Next stakeholder meeting on May 24**
  - MEEA submitted comments related to energy efficiency potential study scenarios and sensitivities

# MEEA Research

## *Economic Impacts of EE*

- [The Economic Impacts of Energy Efficiency Investments in the Midwest](#)
  - 2014 energy efficiency programs are estimated to create...
    - Nearly 105,000 jobs,
    - Increase net regional income by almost \$8.8 billion
    - Add over \$13.7 billion of total value to the region's economy
    - Generate about \$23 billion in net sales
- [The Economic Impacts of Energy Efficiency Investments in Indiana](#)
  - 2014 energy efficiency programs are estimated to create...
    - Create over 6,200 jobs, increase net statewide
    - Income by more than \$510 million
    - Add over \$800 million of total value to the economy
    - Generate nearly \$1.4 billion in net sales

# MEEA Research

## *Economic Impacts of EE*

- [The Economic Impacts of Energy Efficiency Investments in Michigan](#)
  - 2014 energy efficiency programs are estimated to create...
    - More than 15,200 jobs,
    - Increase net statewide income by almost \$1.4 billion
    - Add nearly \$2 billion of total value to the economy
    - Generate approximately \$3.2 billion in net sales
- [The Economic Impacts of Energy Efficiency Investments in Ohio](#)
  - 2014 energy efficiency programs are estimated to create...
    - Over 14,000 jobs
    - Increase net statewide income by more than \$1.2 billion
    - Add almost \$1.9 billion of total value to the economy
    - Generate nearly \$3.3 billion in net sales

# Energy Efficiency Policies

## *Issues Update*

- **Multifamily:**
  - Well-Suited Energy Efficiency: Tailoring Programs to Multifamily Buildings, released February 2017
  - Non-energy benefits factsheet
  - Meetings with commissioners in Missouri, Indiana, Illinois, Michigan (upcoming)
  - Michigan Low-Income Efficiency Collaborative
  - PACEmakers workshop held prior to MES
- **EM&V**
  - ICC Policy Session
  - MO EM&V 2.0 Roadmap
  - KY Power case and MEEA comments

# MEEA Building Policy Activities

Codes and Benchmarking  
Quarterly Update

# Building Policy

## *Savings Associated with Code Update*

- Residential
  - 2006 IECC to 2009 IECC – 14%
  - 2009 IECC to 2012 IECC – 24%
  - 2012 IECC to 2015 IECC – .8%
  - 2015 IECC to 2018 IECC – ??
- Commercial
  - 2006 IECC to 2009 IECC – 4.5%
  - 2009 IECC to 2012 IECC – 18.5%
  - 2012 IECC to 2015 IECC – 7.6%
  - 2015 IECC to 2018 IECC – ??

# Building Policy

## *State Code Adoption*

### Nearly Completed:

- Michigan (90.1- 2007 to 2013 - Commercial)
- Wisconsin (2009 IECC to 2015 IECC - Commercial)
- Missouri – St. Louis County (2009 IECC to 2015 IECC - Residential & Commercial)

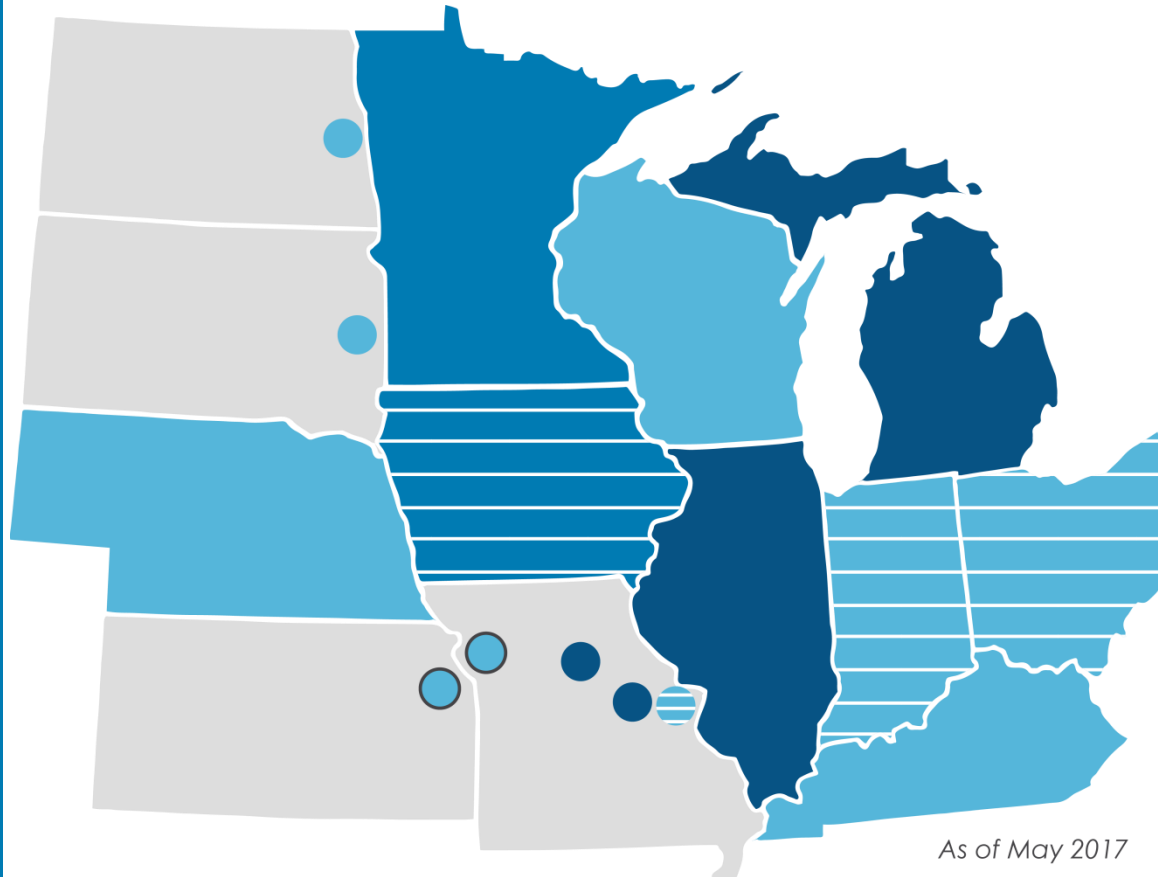
### Early In Process:

- Indiana (ASHRAE 90.1 -2007 to ?? Commercial)
- Indiana (2009 IECC to ?? Residential)
- Iowa (2012 IECC to 2018 IECC - Residential & Commercial)
- Ohio (2009 IECC to 2015 IECC - Residential)








# Midwest Energy Code Adoption

## *Residential Code Update*



### Code Level / Equivalence

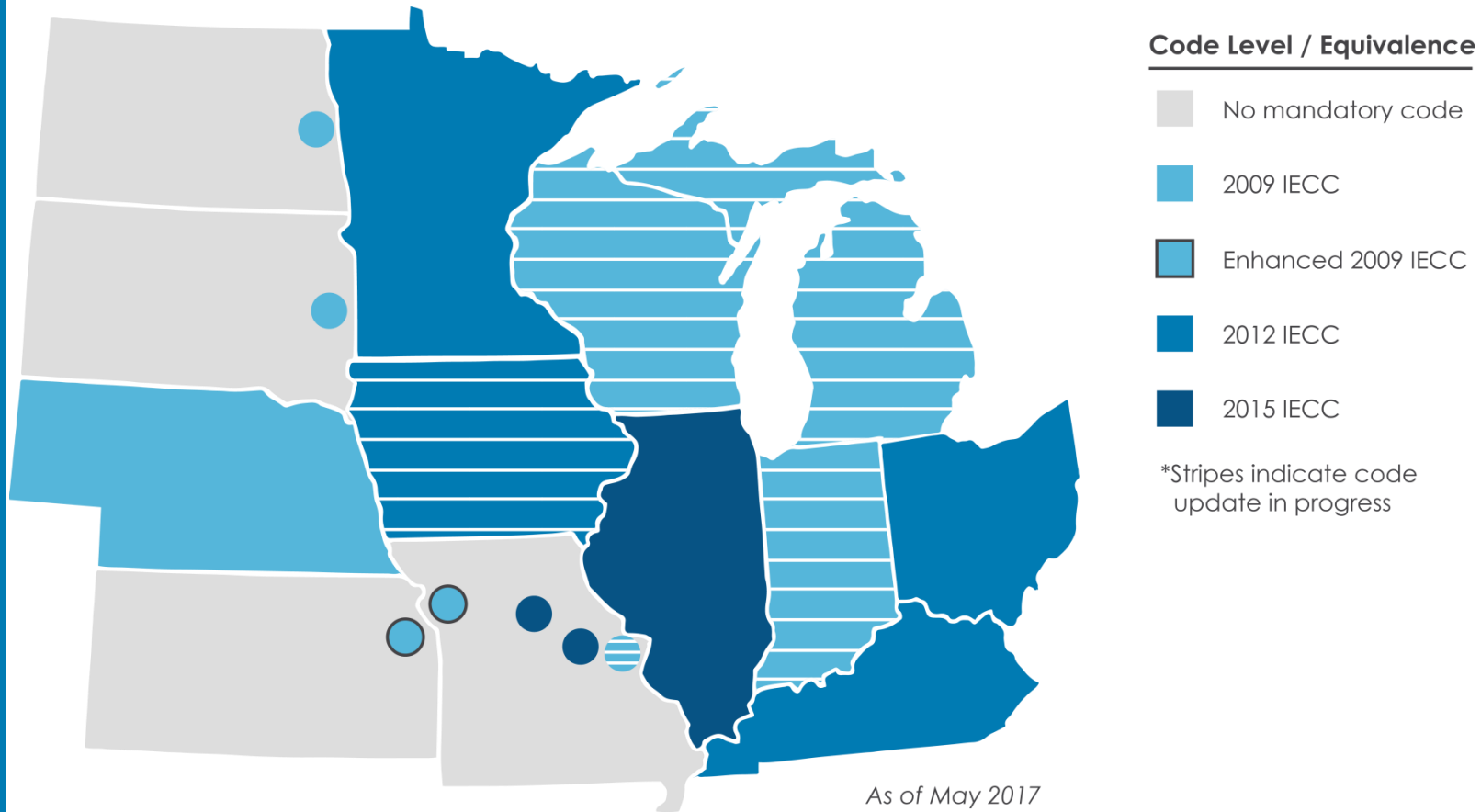
-  No mandatory code
-  2009 IECC
-  Enhanced 2009 IECC
-  2012 IECC
-  2015 IECC

\*Stripes indicate code update in progress

As of May 2017

# Midwest Energy Code Adoption

## Commercial Code Update



# Building Policy

## Code Adoption Update

- **Michigan**

- The proposed 2015 Michigan Commercial Energy Code, based on ASHRAE 90.1-2013 is currently being review by JCAR. Once approved, the rules will be filed with the Secretary of State and go into effect 120 days after. **Anticipated effective date is fall 2017.**

- **Wisconsin**

- MEEA testified at a DSPS public hearing on February 2 in support of adopting the unamended 2015 IECC for commercial buildings. [The proposed code](#) includes several weakening amendments which will reduce its level of efficiency and cost-effectiveness.
- The DSPS is currently considering comments and will send a final set of rules to various legislative committees and governor for approval. **Anticipated to be effective late summer or early fall 2017.**

# Building Policy

## *Code Adoption Update*

- **St. Louis County, Missouri**
  - MEEA testified at the Building Commission hearing on February 8, 2017. Despite opposition from an overwhelming majority of attendees, the commission voted unanimously to approve the proposed building code.
  - The rules now go to the St. Louis County Council for final approval. **The council has yet to set a date to review the rules.**

# Building Policy

## Legislative Update

- **Minnesota**

- Bills [HF 1001](#) and [SF 745](#) require legislative oversight for residential code adoption for changes over \$1,000. The bill only factors in the costs—not the benefits—of each rule and adds an additional hurdle to updating future state energy codes.
- ***Bill is currently in conference committee for two different omnibus bills and moving as a standalone bill.***

- **Iowa**

- [SF 388](#) was introduced February 2017 and would have allowed municipalities to use the 2009 IECC to comply with state energy code requirements for residential buildings, instead of the stronger statewide energy code, the 2012 IECC. ***On Friday, March 31, SF 388 was sent back its original committee of reference, which effectively killed the bill this legislative session.***

# Building Policy

## Code Compliance Update

- Managing Kentucky Energy Code Compliance study for the U.S. Department of Energy
  - Phase 3 (post-study survey) will start May 22
  - In-person trainings are completed. 28 full-day trainings/424 attendees
  - The Circuit Rider will continue through September
  - Over 570 views of online training videos ([bit.ly/KYcodes](http://bit.ly/KYcodes))
- Managing Missouri Residential Energy Code Compliance Study
  - Energy use (kWh) analysis has been completed. Over \$3 million in annual savings from improved compliance
  - A preliminary demand (kW) analysis has also been completed showing 5.5 MW – 7.5 MW in potential savings

# Building Policy

## *Code Compliance Update*

- Research on Potential Energy Savings
  - Right Sizing HVAC Equipment and Properly Designing Ducts in KY (ongoing)
  - Right Sizing HVAC Equipment in MO (ongoing)
- Compliance Collaboratives (next meeting)
  - Nebraska (June), and Kentucky (June)
- Baseline Studies
  - NE Residential Study
  - Commercial Baseline Study
  - Draft of DOE KY Phase 1 Report under review
  - Possible Residential Study in MN

# Local Energy Data and Benchmarking Legislation

## *Current Status of Midwest States*



### Public and Private Commercial Building Benchmarking Ordinance

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#### Mandatory Program

- Minneapolis, MN
- Chicago, IL
- Evanston, IL
- Kansas City, MO
- St. Louis, MO



#### Voluntary Program

- Columbus, OH
- Grand Rapids, MI
- Madison, WI

The Trusted Source on **Energy Efficiency**





# Building Policy

## *Benchmarking Update*

- Evanston – ordinance passed
  - December 12, 2016
  - City-owned buildings and buildings over 20,000 square feet (besides small condos)
- St. Louis, MO – ordinance passed
  - January 30, 2016
  - City-owned buildings and privately-owned buildings 50,000 sq.ft. and larger
- Kansas City – reporting requirement
  - Multifamily residential of at least 100,000 sq.ft. must submit their data by May 1, 2017
- Lincoln, NE – City Buildings Data Jam
  - May 2017

**Thank You!**

