



# A Midwest Review of the ACEEE 2016 State Energy Efficiency Scorecard

November 16, 2016



# Agenda

- 10:30-10:50 Weston Berg, American Council for an Energy Efficient Economy
- 10:50-11:05 Kristy Manning, Missouri Department of Economic Development
- 11:05-11:20 Sarah Mullkoff, Michigan Environmental Council
- 11:20- 11:30 Question and Answer

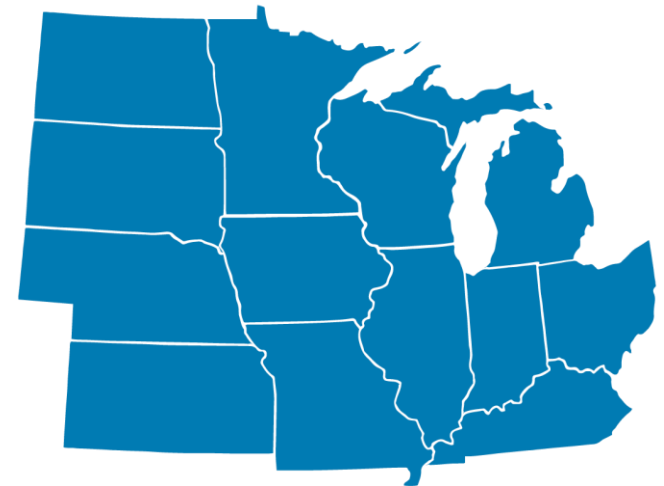
# About MEEA

## *The Trusted Source on Energy Efficiency*

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

- Utilities
- Research institutions and manufacturers
- 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.



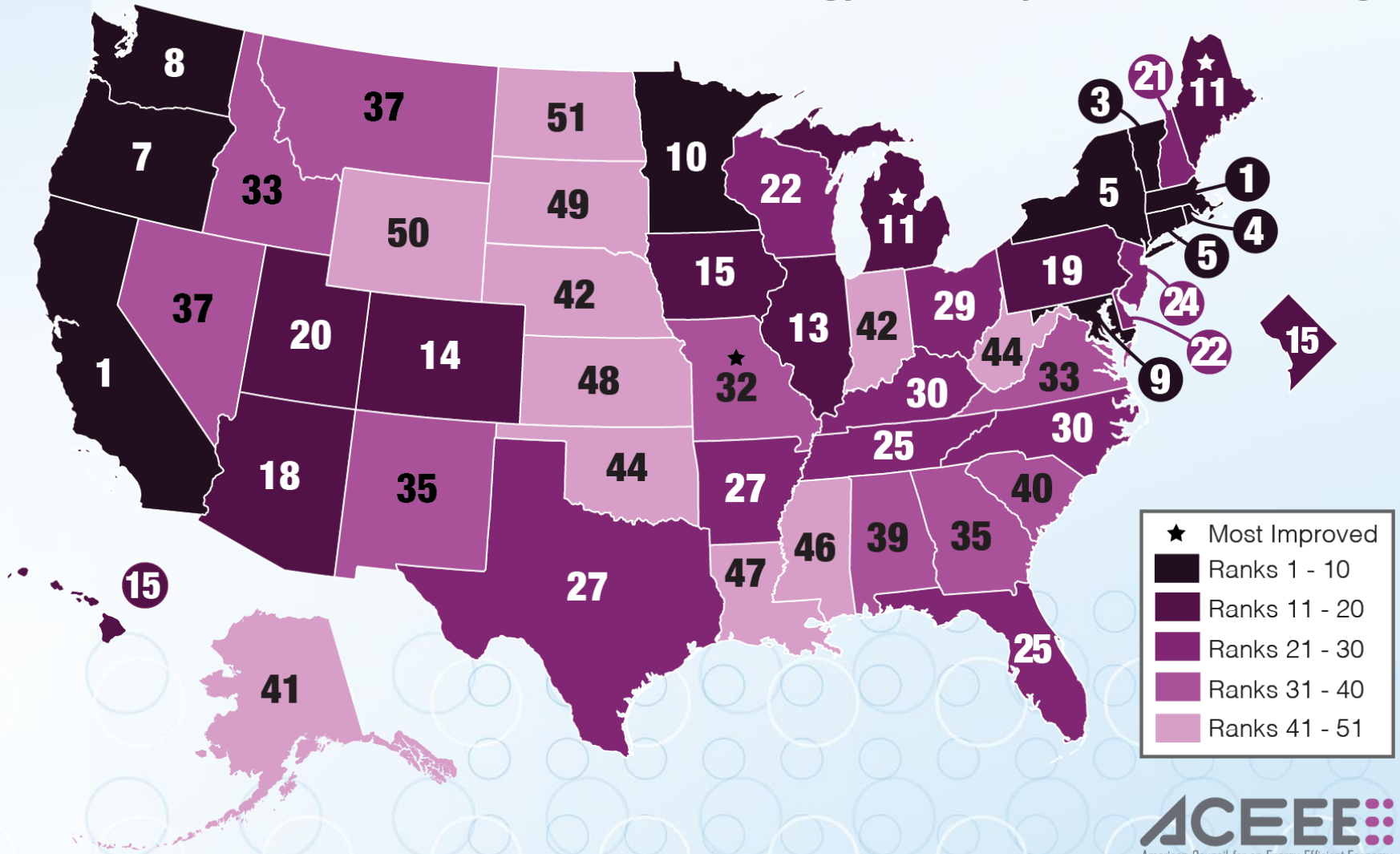


# *A Midwest Review of the ACEEE 2016 State Energy Efficiency Scorecard*

MEEA Webinar

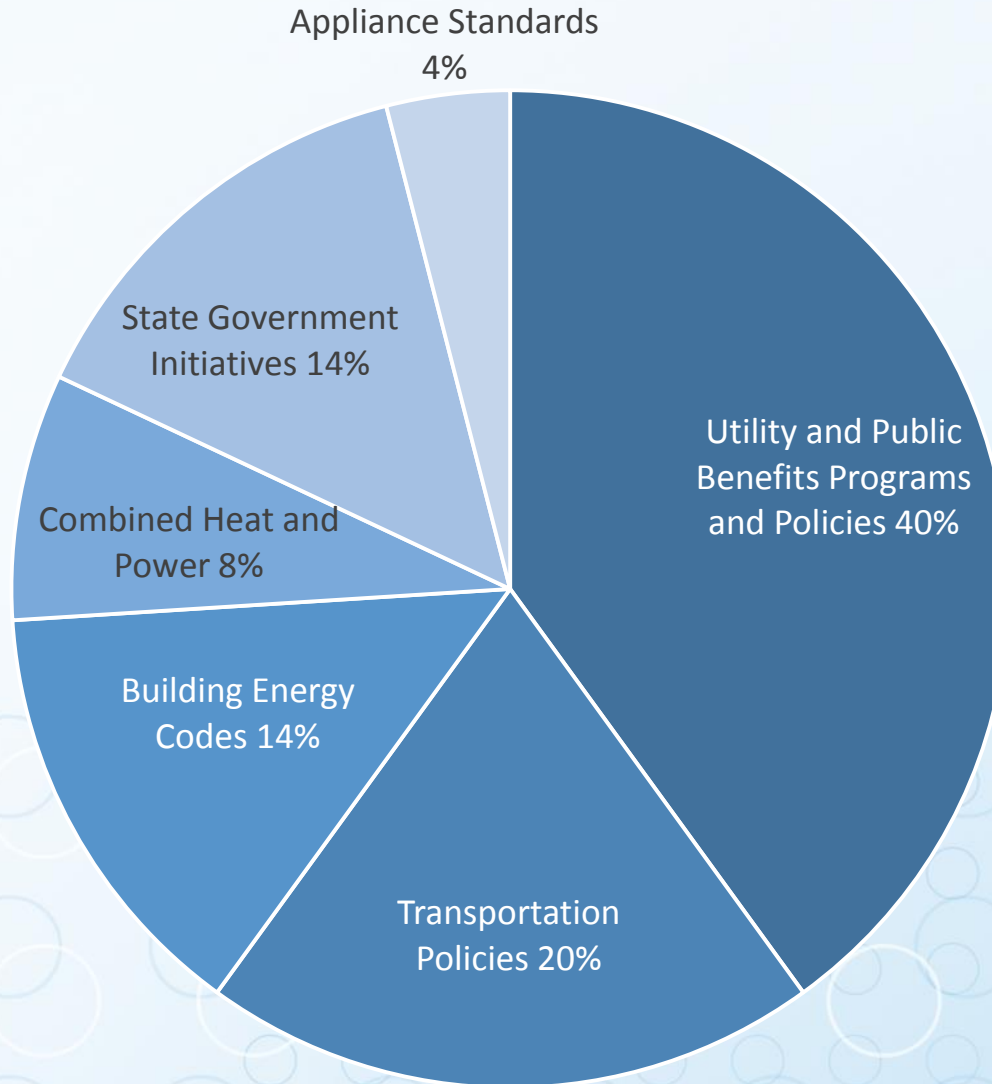
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# 2016 State Energy Efficiency Scorecard Rankings



- ★ Most Improved
- Ranks 1 - 10
- Ranks 11 - 20
- Ranks 21 - 30
- Ranks 31 - 40
- Ranks 41 - 51

# Policy Categories



# Point Breakdown

Policy areas and metrics	Maximum score	% of total points
Utility and public benefits programs and policies	20	40%
Incremental savings from electricity efficiency programs	7	14%
Incremental savings from natural gas efficiency programs	3	6%
Spending on electricity efficiency programs	3	6%
Spending on natural gas efficiency programs	2	4%
Large customer opt-out programs*	(-1)	NA
Energy efficiency resource standards (EERs)	3	6%
Performance incentives and fixed cost recovery	2	4%
Transportation policies	10	20%
Greenhouse gas (GHG) tailpipe emissions standards	1.5	3%
Electric vehicle (EV) registrations	1	2%
High-efficiency vehicle consumer incentives	0.5	1%
Targets to reduce vehicle miles traveled (VMT)	1	2%
Change in VMT	1	2%
Integration of transportation and land use planning	1	2%
Complete streets policies	1	2%
Transit funding	1	2%
Transit legislation	1	2%
Freight system efficiency goals	1	2%
Building energy codes	7	14%
Level of code stringency	4	8%
Code compliance study	1	2%
Code enforcement activities	2	4%
Combined heat and power	4	8%
Interconnection standards	0.5	1%
Policies to encourage CHP as a resource	2	4%
Additional incentives for CHP	0.5	1%
Additional policy support	1	2%
State government initiatives	7	14%
Financial incentives	3	6%
Energy disclosure policies	1	2%
Lead-by-example efforts in state facilities and fleets	2	4%
Research and development	1	2%
Appliance and equipment efficiency standards	2	4%
Maximum total score	50	100%

# Top Ten

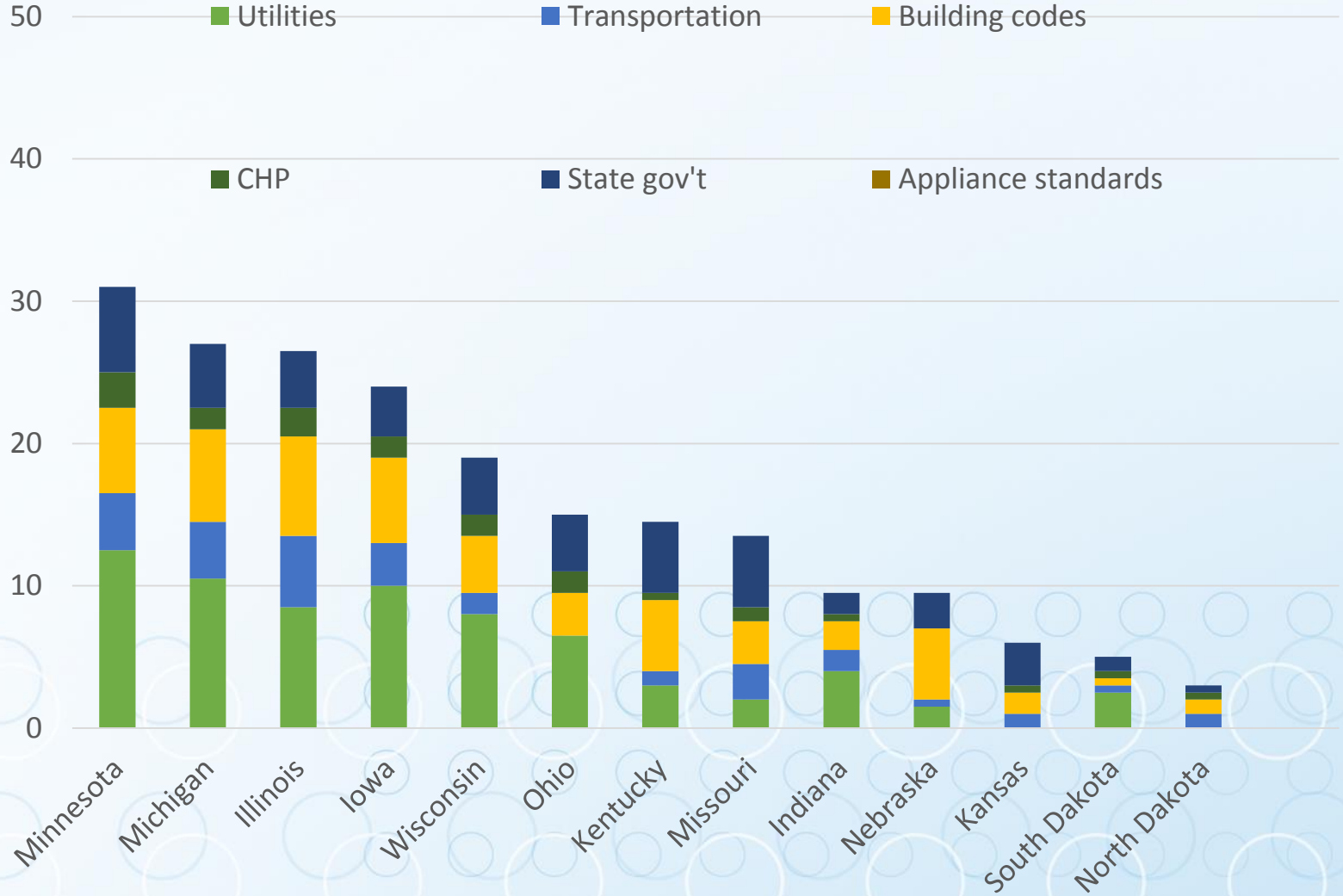
Rank	State	Utility & public benefits programs & policies (20 pts.)	Transportation policies (10 pts.)	Building energy codes (7 pts.)	Combined heat & power (4 pts.)	State government initiatives (7 pts.)	Appliance efficiency standards (2 pts.)	TOTAL SCORE (50 pts.)	Change in rank from 2015	Change in score from 2015
1	California	15	10	7	4	7	2	45	1	1.5
1	Massachusetts	19.5	8.5	7	4	6	0	45	0	1
3	Vermont	19	7	7	2	5	0	40	0	0.5
4	Rhode Island	20	6	5	3.5	5	0	39.5	0	3
5	Connecticut	14.5	6.5	5.5	2.5	6	0.5	35.5	1	0
5	New York	10.5	8.5	7	3.5	6	0	35.5	4	3
7	Oregon	11.5	8	6.5	2.5	5.5	1	35	-3	-1.5
8	Washington	10.5	8	7	2.5	6.5	0	34.5	0	1
9	Maryland	9.5	6.5	6.5	4	5.5	0	32	-2	-3
10	Minnesota	12.5	4	6	2.5	6	0	31	0	0



# MEEA States

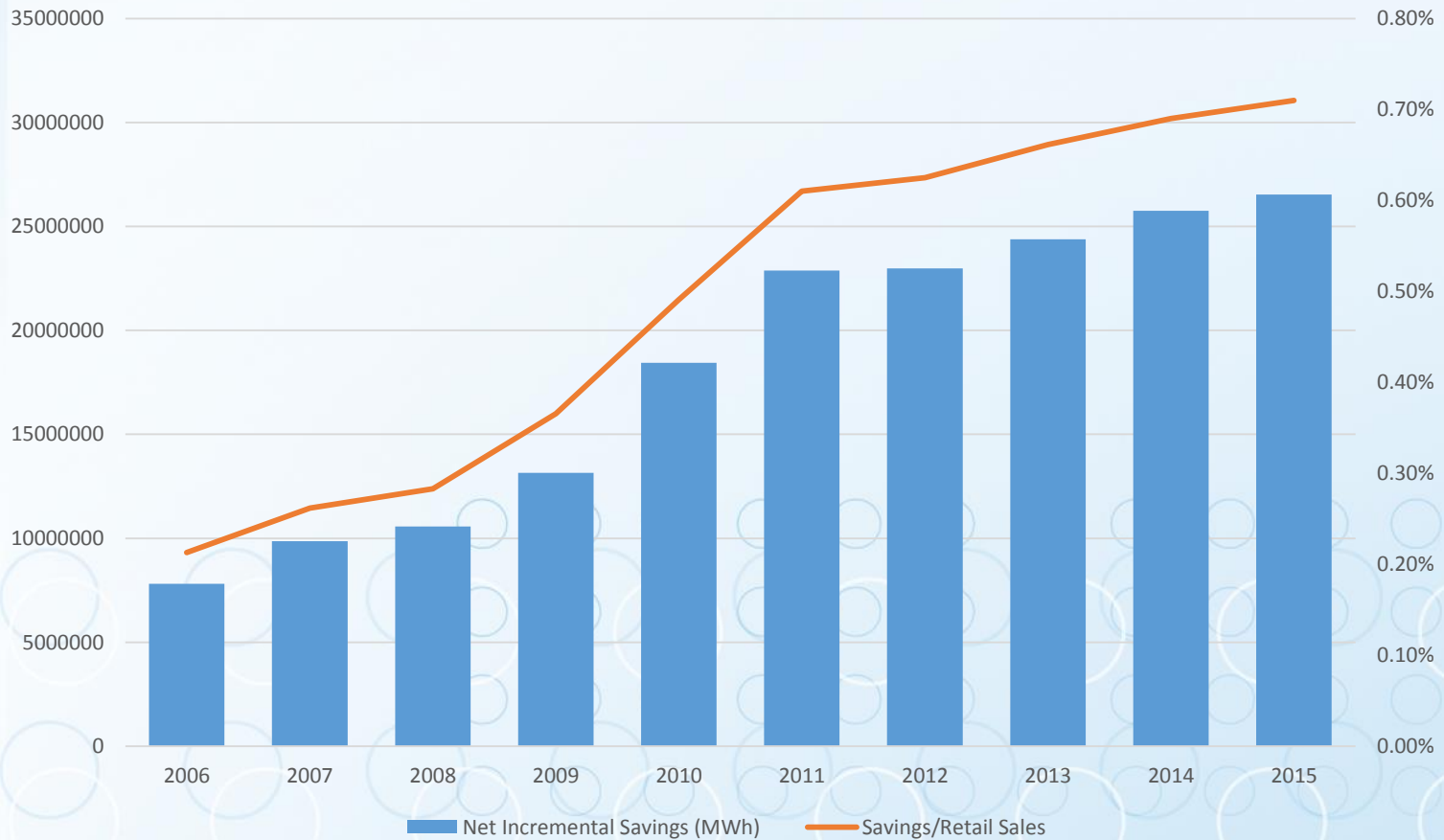
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10	Minnesota	12.5	4	6	2.5	6	0	<b>31</b>	0	0
11	Michigan	10.5	4	6.5	1.5	4.5	0	<b>27</b>	3	3.5
13	Illinois	8.5	5	7	2	4	0	<b>26.5</b>	-3	-4.5
15	Iowa	10	3	6	1.5	3.5	0	<b>24</b>	-3	-0.5
22	Wisconsin	8	1.5	4	1.5	4	0	<b>19</b>	0	1
29	Ohio	6.5	0	3	1.5	4	0	<b>15</b>	-2	-0.5
30	Kentucky	3	1	5	0.5	5	0	<b>14.5</b>	-1	0.5
32	Missouri	2	2.5	3	1	5	0	<b>13.5</b>	12	5
42	Indiana	4	1.5	2	0.5	1.5	0	<b>9.5</b>	-4	-1.5
42	Nebraska	1.5	0.5	5	0	2.5	0	<b>9.5</b>	0	0.5
48	Kansas	0	1	1.5	0.5	3	0	<b>6</b>	-3	-2
49	South Dakota	2.5	0.5	0.5	0.5	1	0	<b>5</b>	-1	-1
51	North Dakota	0	1	1	0.5	0.5	0	<b>3</b>	0	-1

# MEEA States

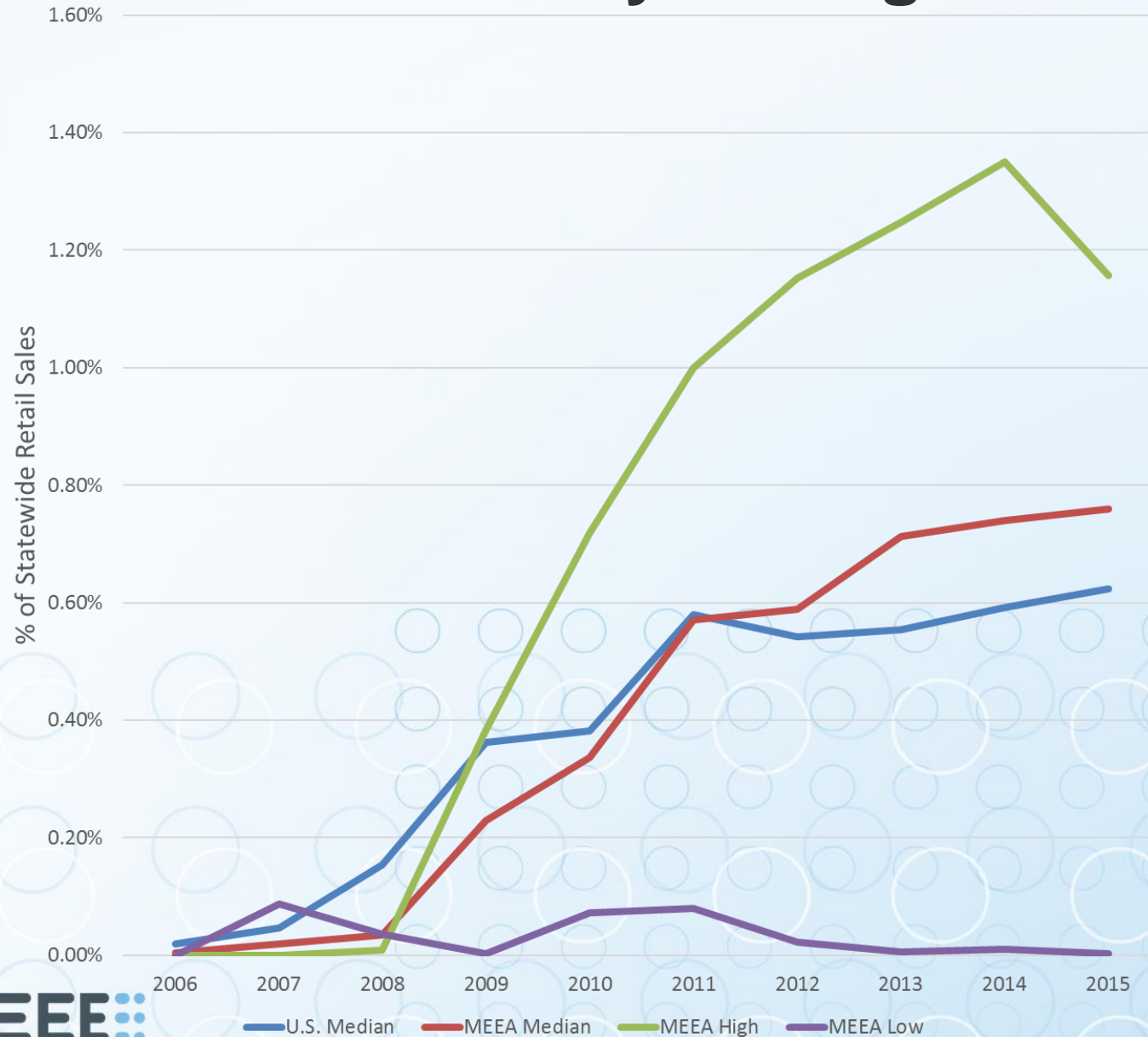


# Key Findings: Electricity Savings

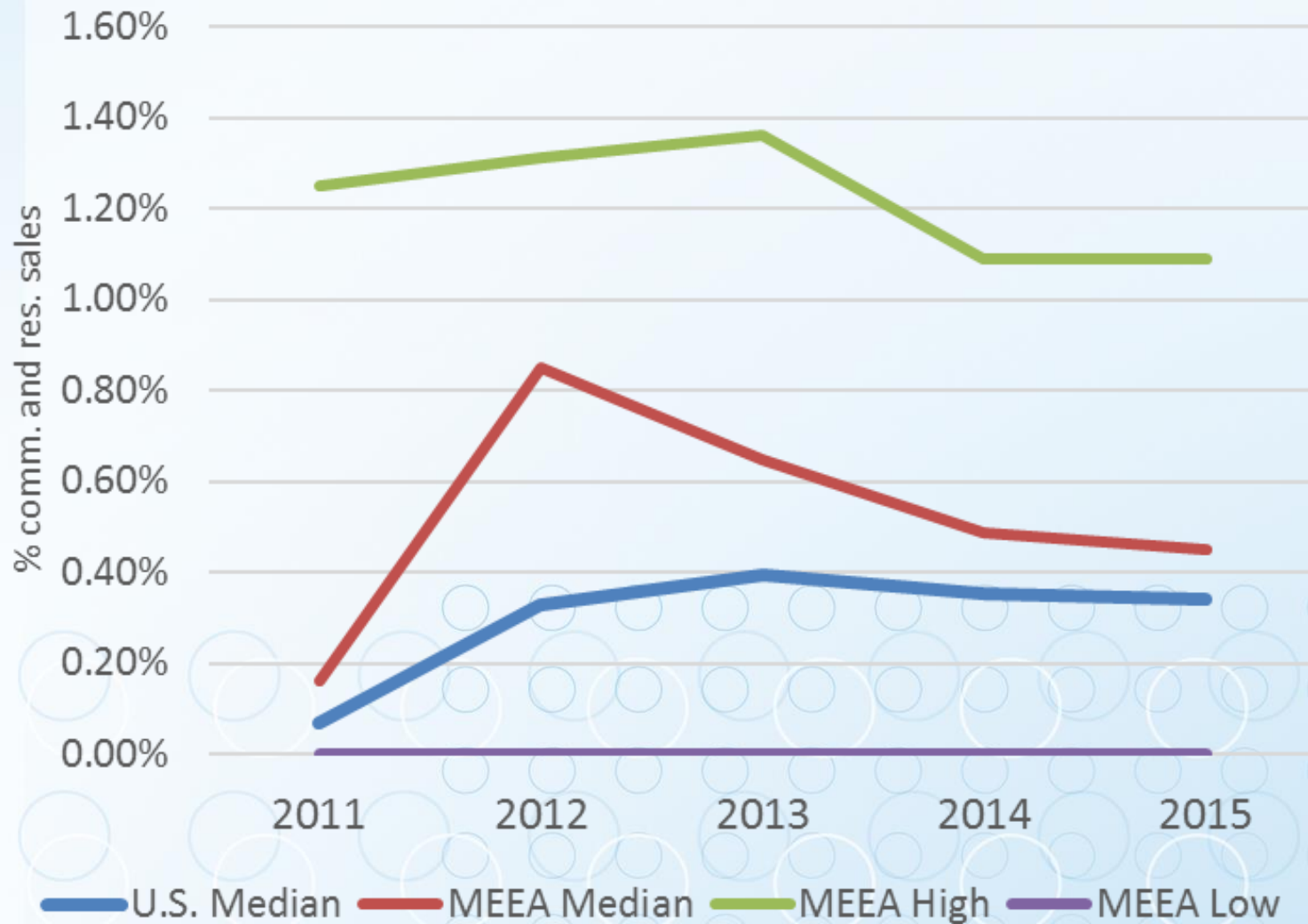
Net incremental savings (2015) = 26.5 million MWh (+3%)



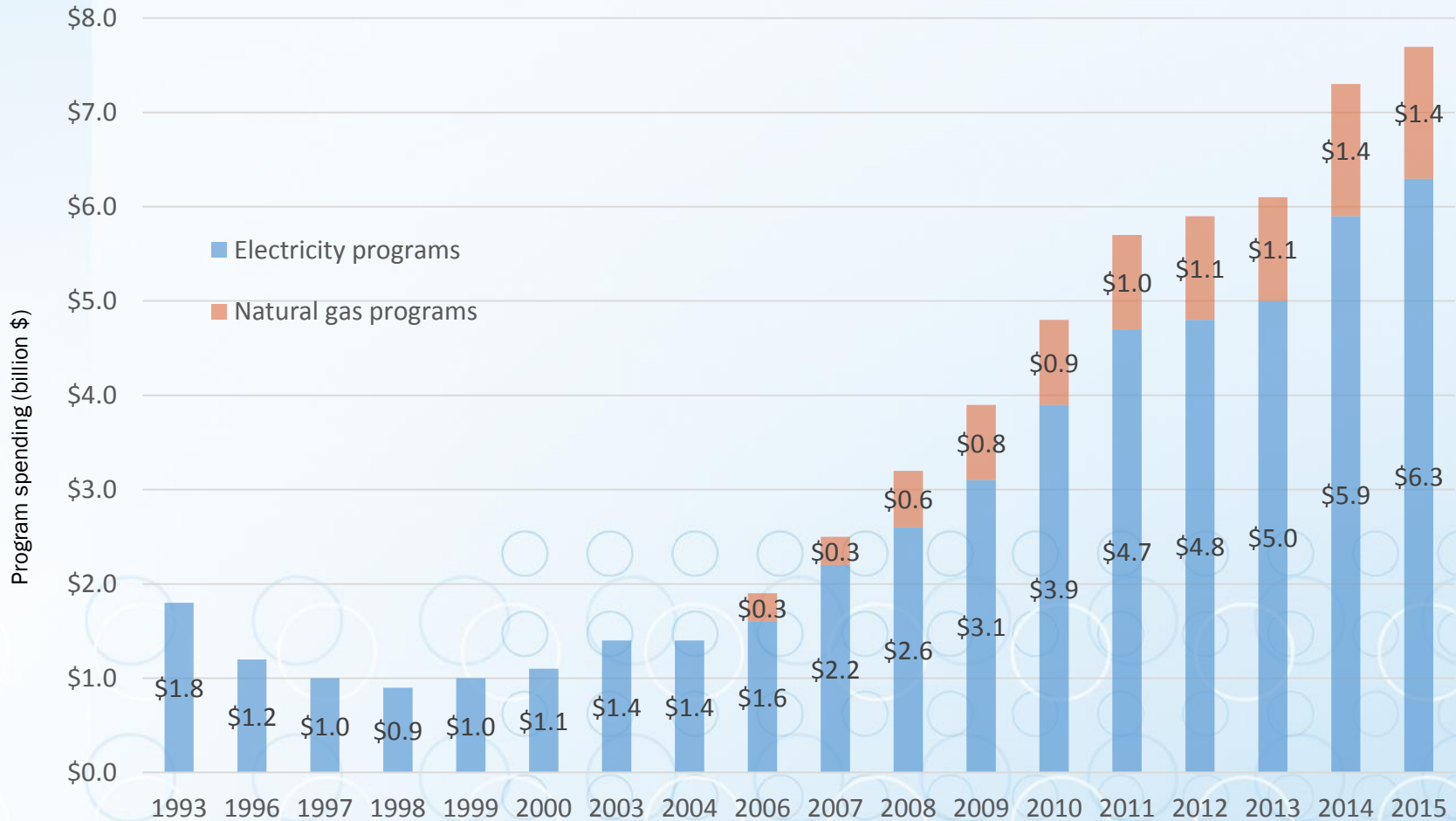
# Midwest Electricity Savings



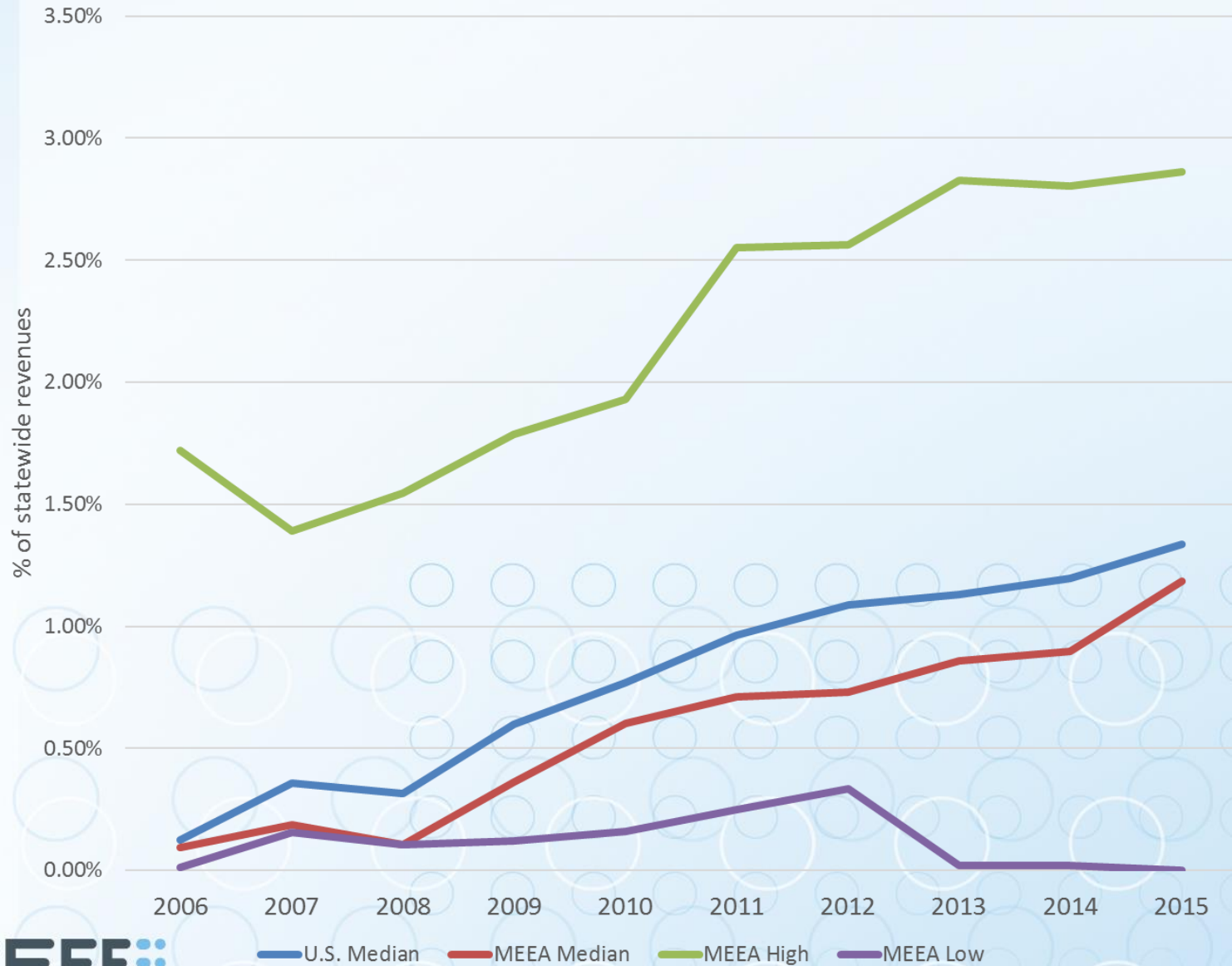
# Midwest Gas Savings



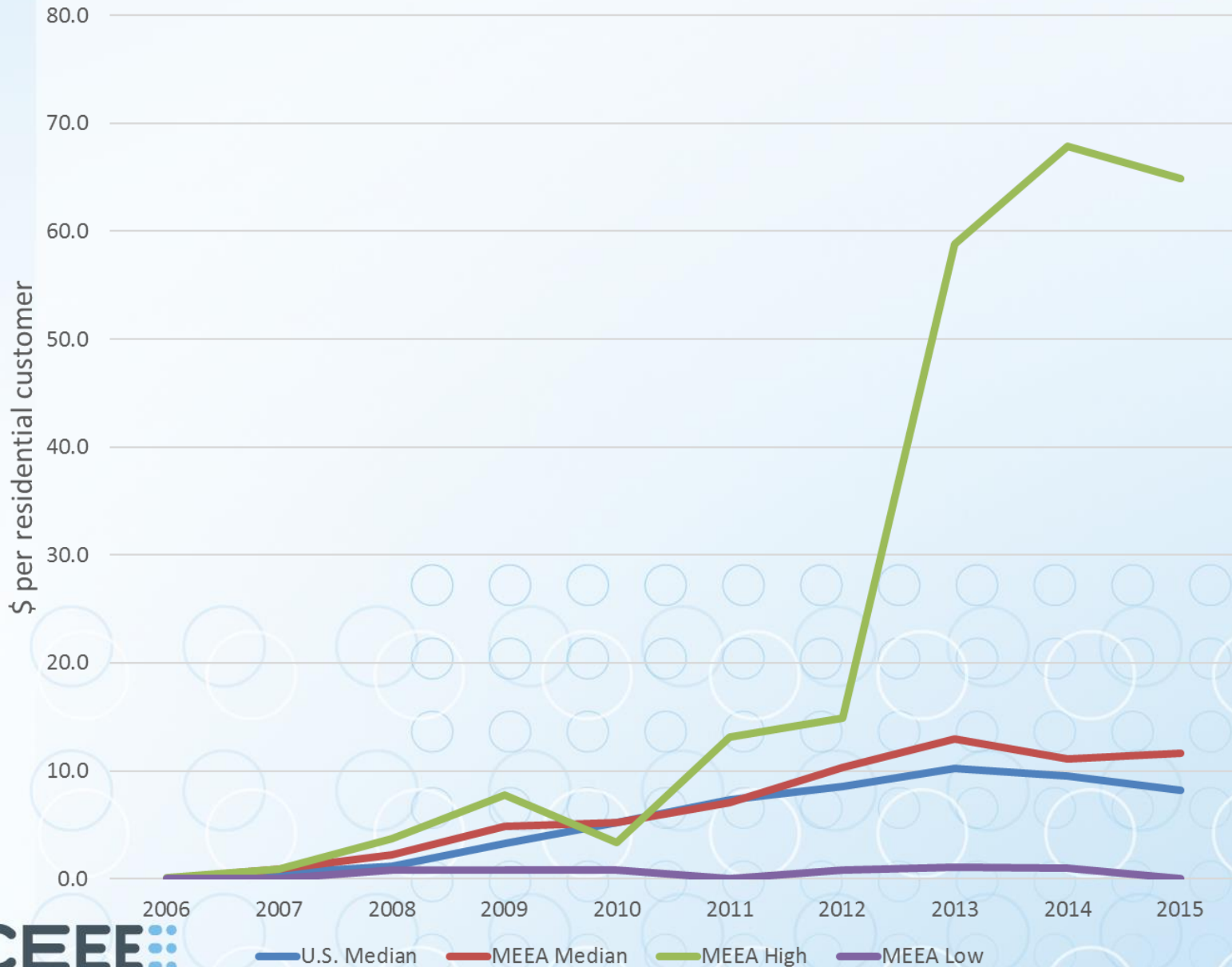
# Key Findings: Utility Spending



# Midwest Electric Efficiency Spending



# Midwest Gas Efficiency Spending









# Building Energy Codes

State	Residential	Commercial	Compliance		Score
	Code Stringency (2 pts.)	Code Stringency (2 pts.)	study (1 pt.)	Compliance (2 pts.)	
Illinois	2	2	1	2	7
Iowa	1.5	1.5	1	2	6
Minnesota	1.5	1.5	1	2	6
Michigan	2	2	1	1.5	6.5
Kentucky	1	1.5	1	1.5	5
Nebraska	1	1	1	2	5
Wisconsin	1	2	0.5	0.5	4
Missouri	0.5	0.5	1	1	3
Ohio	1	1.5	0	0.5	3
Indiana	1	1	0	0	2
Kansas	0.5	0.5	0	0.5	1.5
North Dakota	0.5	0.5	0	0	1
South Dakota	0	0	0	0.5	0.5

# Ensuring Compliance



Compliance study	Score (1 pt.)
Compliance study has been completed in the past five years, follows standardized protocols, and includes statistically significant sample.	1
Compliance study has been completed in the past five years but does not follow standardized protocols or is not statistically significant.	0.5
No compliance study has been completed in the past five years.	0

Additional metrics for state compliance efforts	Score (2 pts.)
Assessments, gap analysis, or strategic compliance plan	0.5
Stakeholder advisory group or compliance collaborative	0.5
Utility involvement	0.5
Training and outreach	0.5

# Ensuring Compliance

State	Compliance		Stakeholder	Utility	Training
	Study	Gap Analysis	Group	Involvement	
Illinois	•	•	•	•	•
Iowa	•	•	•	•	•
Minnesota	•	•	•	•	•
Nebraska	•	•	•	•	•
Kentucky	•	•	•		•
Michigan	•	•		•	•
Missouri	•	•	•		
Wisconsin	○				•
Kansas			•		
Ohio		•			
South Dakota		•			
Indiana					
North Dakota					

# State Initiatives

State	Financial incentives (3 pts.)	Building energy disclosure (1 pts.)	Lead by example (2 pts.)	R&D (1 pt.)	Total score (7 pts.)
Minnesota	3	0	2	1	6
Kentucky	3	0	1.5	0.5	5
Missouri	2.5	0	1.5	1	5
Michigan	3	0	1.5	0	4.5
Illinois	1	0	2	1	4
Ohio	2.5	0	1	0.5	4
Wisconsin	1.5	0	1.5	1	4
Iowa	1.5	0	1	1	3.5
Kansas	0	0.5	1.5	1	3
Nebraska	1	0	0.5	1	2.5
Indiana	0.5	0	0.5	0.5	1.5
South Dakota	0	0.5	0.5	0	1
North Dakota	0.5	0	0	0	0.5

# Other Key Findings

- Building codes: ~20% states have officially adopted the latest commercial *and* residential building codes. CA, MA, TX, VT, WA, IL, NY lead in this category.
  - Midwest leaders: IL, MI, IA, MN
- Transportation: California, Massachusetts and New York continue to lead the way in energy-efficient transportation policies.
  - Midwest leaders: IL, MI, MN
- Combined Heat and Power: Limited policy support for CHP in most states. California, Massachusetts, and Maryland, and score at the top.
  - Midwest leaders: Minnesota

# Why Are States Falling in the Ranks?

1. Outdated building energy codes
2. Large customers opt-out
3. Other states are ramping up



# Strategies for Improving Efficiency

**Put in place, and adequately fund, an energy efficiency resource standard or similar energy savings target.**

*Examples:* Massachusetts, Maine, Arizona, Hawaii, Rhode Island

**Adopt updated, more stringent building energy codes, improve code compliance, and enable the involvement of efficiency program administrators in code support.**

*Examples:* California, Maryland, Illinois, Texas

**Adopt stringent tailpipe emissions standards for cars and trucks, and set quantitative targets for reducing vehicle miles traveled.**

*Examples:* California, New York, Massachusetts, Oregon

**Treat CHP as an energy efficiency resource equivalent to other forms of energy efficiency.**

*Example:* Massachusetts

**Expand state-led efforts and make them visible.**

*Examples:* New York, Connecticut, Alaska

**Explore and promote innovative financing mechanisms to leverage private capital and lower upfront costs of energy efficiency measures**

*Examples:* Missouri, New York, Rhode Island

# Looking Forward

- Uncertain future of savings targets in OH, MI
- The role of efficiency in the 'utility of the future'
- State/Local Green Banks and PACE financing efforts
- Enabling of data access to support efficiency
- Energy efficiency in low-income households

# Resources & Tools

2016 State Energy Efficiency Scorecard &  
State Score Sheets

<http://www.aceee.org/state-policy/scorecard>

State Technical Assistance Toolkit

<http://aceee.org/sector/state-policy/toolkit>

State & Local Policy Database

<http://database.aceee.org/>

# Thank you!

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# MISSOURI:

*Slow Rise to 32<sup>nd</sup>*

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**M I S S O U R I**

**Department of Economic Development**

“Among U.S. states, Missouri has perennially been an underperformer in terms of energy efficiency, at least according to annual scorecards issued by the [American Council for an Energy-Efficient Economy](#).

That may be changing, however, as the organization’s recently released 2016 scorecard showed Missouri as the most-improved state in the nation, leaping 12 positions into the No. 32 ranking. In the previous nine-year history of the report, the state ranked consistently in the bottom 10.”

- [Bryce Gray of the St. Louis Post-Dispatch](#)

# WHAT CHANGED?

The Scorecard is a lagging indicator.

- Financing – [PACE](#), [QECCBs](#), [Energy Loan Program](#), WHEEL (soon)
- [Combined Heat & Power \(CHP\)](#)
- [Missouri Energy Efficiency Investment Act](#)
- [Comprehensive State Energy Plan](#)
- [Code Compliance Study](#) with MEEA
- Transportation efforts
- Lead by Example efforts – Interagency Collaborations
  
- DOE Grant
  - Buildings
  - TRM
  - EMPRESS
  - Energy Investment Partnerships (EIPs, a.k.a. Greenbanks)

# NOW WHAT?

## Can we maintain our ranking?

- Will we lose ground? ex. utility spending, MEEIA cycle 2 delay, codes
- Other state catch up?

## Opportunities for progress?

- CHP – interconnection, MEEIA, program, incentives?
- Utility model discussion
- MEEIA modifications
- Transportation – electrification and funding
- PACE investments
- Codes – utility involvement and training
- Benchmarking?



# A Midwest Review of ACEEE's 2016 Scorecard: MICHIGAN

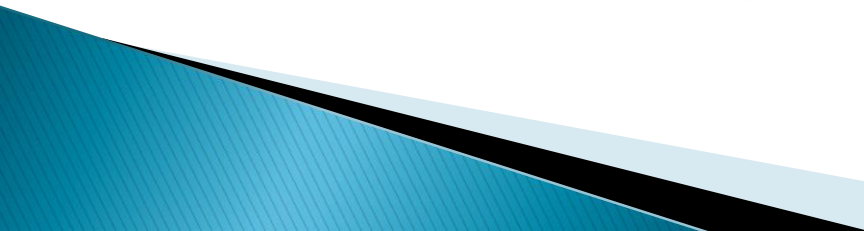
Sarah Mullkoff  
Michigan Environmental Council  
November 16<sup>th</sup>, 2016



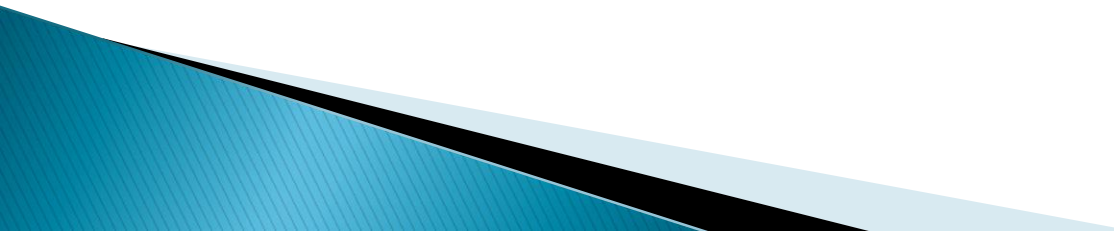
# Michigan's Scorecard

YEAR	Utility & Public Benefits Programs and Policies (20Pt)	Transportation Policies	Building Codes Points (7Pt)	Combined Heat and Power (4Pt)	State Government Initiatives (7pt)	Appliance efficiency standards (2pts)	Total Score 50
2016	10.5	4	6.5	1.5	4	0	27

# Improvements in Building Codes

- ▶ Michigan had been practicing under 2009 building code standards until recently
  - ▶ The 2015 Part 10. Michigan Energy Code was filed with the Secretary of State on October 9, 2015, and becomes effective on February 8, 2016.
  - ▶ Department of Licensing and Regulatory Affairs (LARA) held a public hearing on Oct 25<sup>th</sup>, 2016 taking comment on section 10A– Michigan Energy Code
  - ▶ Part 10a will be effective 120 days after filing with the Secretary of State
- 

# Improvements in Building Codes

- ▶ 1) Requires air leakage testing of building thermal envelope. Takes away the claim of craftsmanship.
  - ▶ 2) Now required that houses are more air tight, 4 or less Air Changes per Hour (ACH)
  - ▶ 3) Mechanical ventilation is required. HVAC contractors know the best ventilation is filtered and controlled via mechanical means.
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# PACE Programs

- ▶ <https://youtu.be/R3Ota3uvM1E>

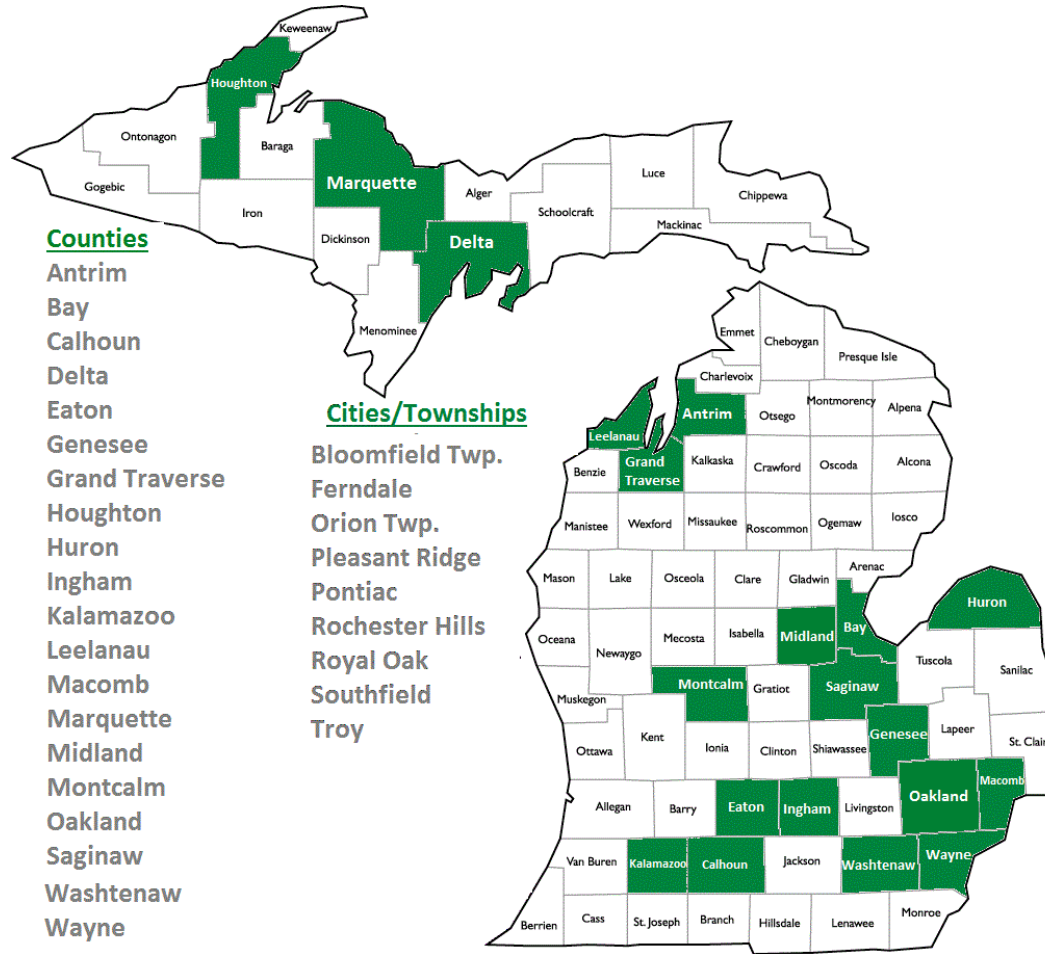
# PACE Programs

- ▶ Case study #1: [MAE/MPSC](#) — first Lean & Green MI PACE project; first PACE project by a govt agency leasing a private building in USA. Here is a [project video](#) made by PACENation and circulated to the PACE community throughout the U.S.
- ▶ Case study #2: [Powers Distributing](#) — first PACE project in Oakland County and first by a beer distributor in USA. Here is an article from [Crain's Detroit Business](#) and an article from the [Oakland Press](#) about the project.
- ▶ Case study #3: [Cambridge Court](#) — rural apartments in West Michigan; first multifamily PACE project in MI; first PACE project in West MI; first USDA consent for PACE project in USA. Here is a [Midwest Energy News article](#) about the project.

# PACE Programs

- ▶ Michigan's PACE statute (PA 270 of 2010) defines "energy efficiency improvements" finance-able under the Act as "equipment, devices, or materials intended to decrease energy consumption."
- ▶ Opportunity: Seeking a Michigan company with substantial experience and expertise in the sale and installation of advanced equipment that significantly reduces energy and/or water use in the manufacturing process. Please [click here](#) to view the RFP. Submissions are due by 4:00 PM EST on December 9, 2016.

# PACE communities in Michigan





# State Energy Legislation

## Senate Bills 437–438

- ▶ **Renewable energy standard revisions**– The bill was amended to include the following provisions:
  - Requirement that the facility contribute to meeting the local capacity requirement
  - The standard rises to 12.5% by 2019 and 15% by 2021
- ▶ **Energy Efficiency**– The bill was amended to:
  - Increase incentives for energy providers which meet or exceed a reduction in demand of more than 1% per year
    - Continues the energy efficiency programs through the end of 2021
    - Lifts the 2% spending cap

# State Energy Legislation

## Senate Bills 437–438

- ▶ **Net Metering**– language was added that allows new customers to be controlled in the current net metering program (terms not changed for 10 years), until such time the Commission makes a determination regarding amending the program to add a new grid access charge
- ▶ **Utility Consumer Participation Board**– UCPB grants will be available for CON and IRP proceedings

# State Energy Legislation

## Senate Bills 437–438

- ▶ What we still need:
  - Increase incremental improvements for energy providers which meet or exceed a reduction in demand of more than 1.5%/year
- ▶ Continue the energy efficiency programs beyond 2021
- ▶ Clarify the standard requires an energy provider to reduce energy demand by at least 1% for electricity and 0.75% for natural gas through the life of the programs
- ▶ Commission should authorize symmetrical decoupling
- ▶ Next Steps: House reconvenes November 28<sup>th</sup> for remainder of Lame Duck

# Question and Answer