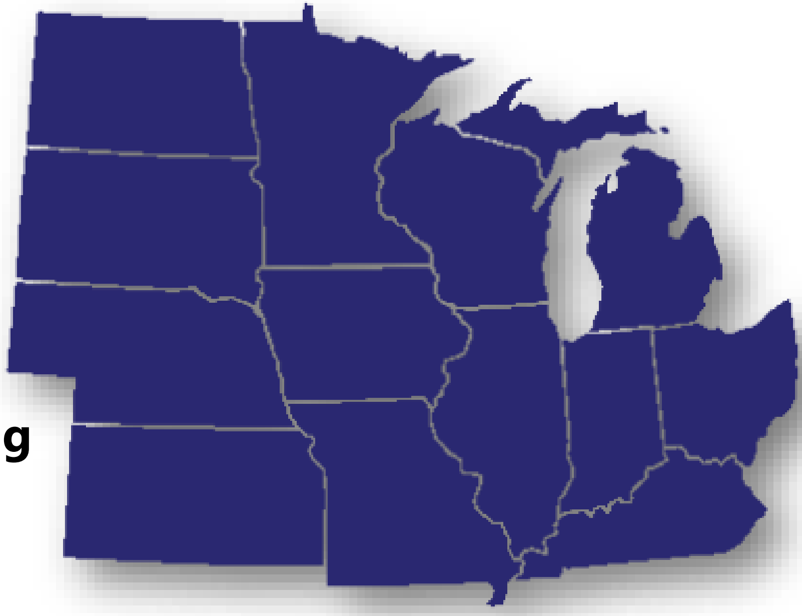
EERS vs. IRP: Why States Should Not Eliminate their Energy Efficiency Resource Standards

Nicholas Dreher

Presented at the 2015 ACEEE National Conference on Energy Efficiency as a Resource

Midwest Energy Efficiency Alliance (MEEA)

- **MEEA is a nonprofit membership organization with 150+ members, including:**
  - Electric and Gas Utilities
  - State and local governments
  - Manufacturers and retailers
  - Academic and research institutions
  - Energy service companies and contractors



- **Since 2000, MEEA has been the leading source for raising awareness and advancing sound energy efficiency policies and programs in the Midwest**

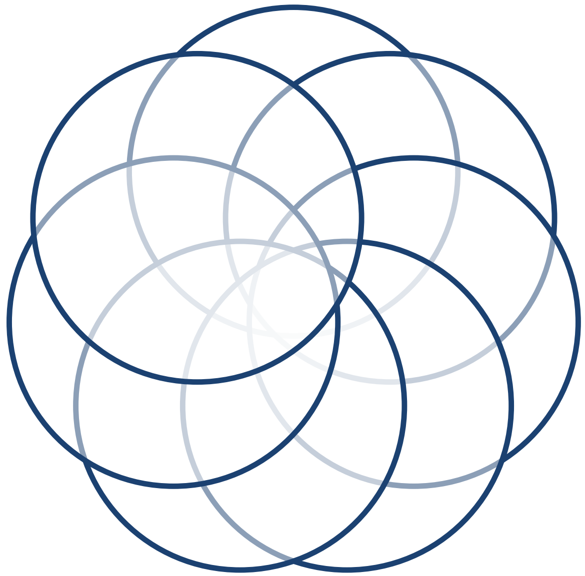
- **MEEA balances the diverse interests of its members and network** across the public and private sectors, creating a common ground to affect positive change for energy efficiency in the Midwest.

MEEA's Role as a Resource

Advancing Energy Efficiency Policy

Delivering Training and Workshops

Facilitating Energy Efficiency Programs



Evaluating & Promoting Emerging Technology

Regional Representation in National Dialogues

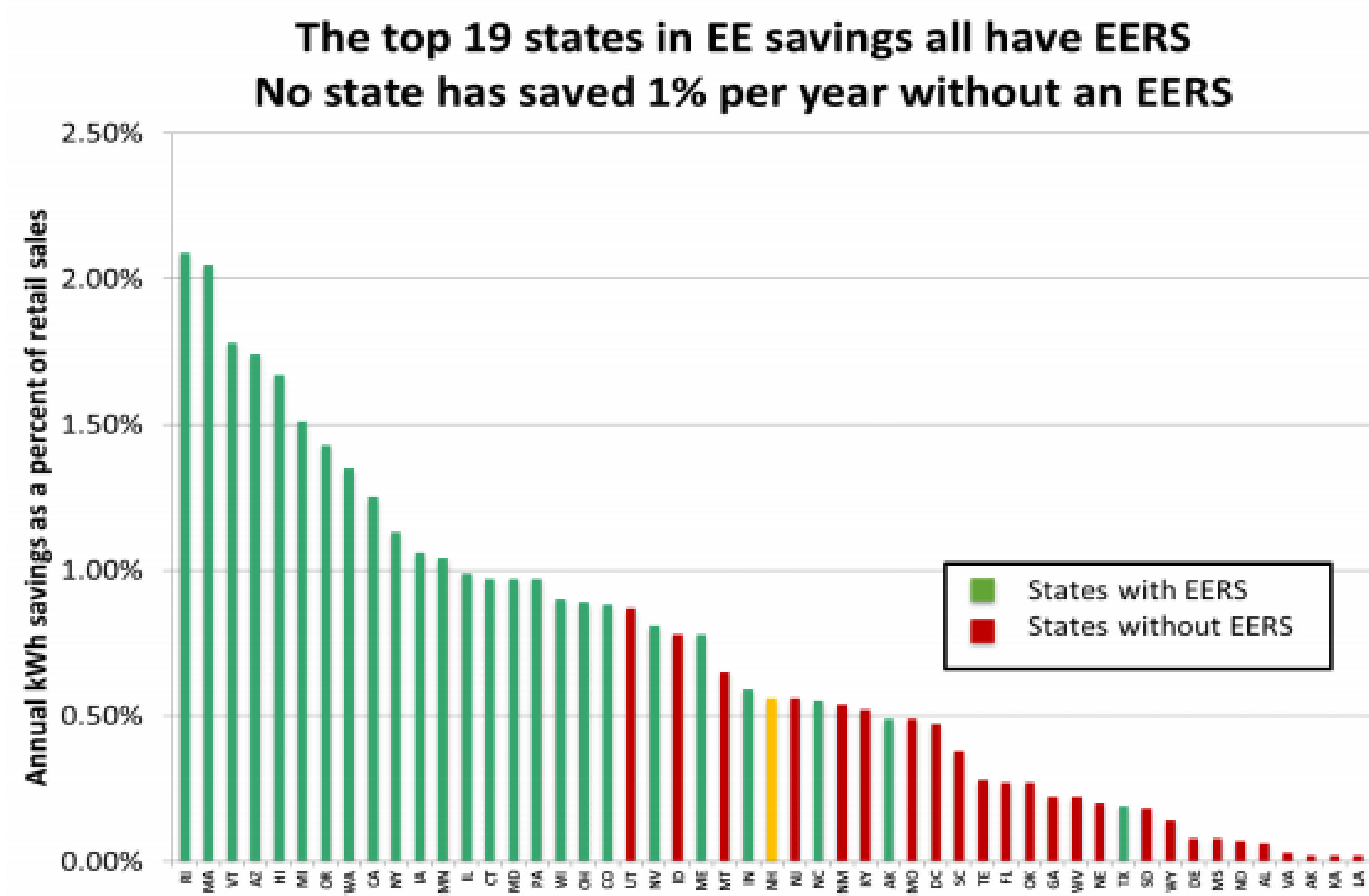
Coordinating Utility Programs Efforts

Promoting Best Practices

What is an Energy Efficiency Resource Standard (EERS)?

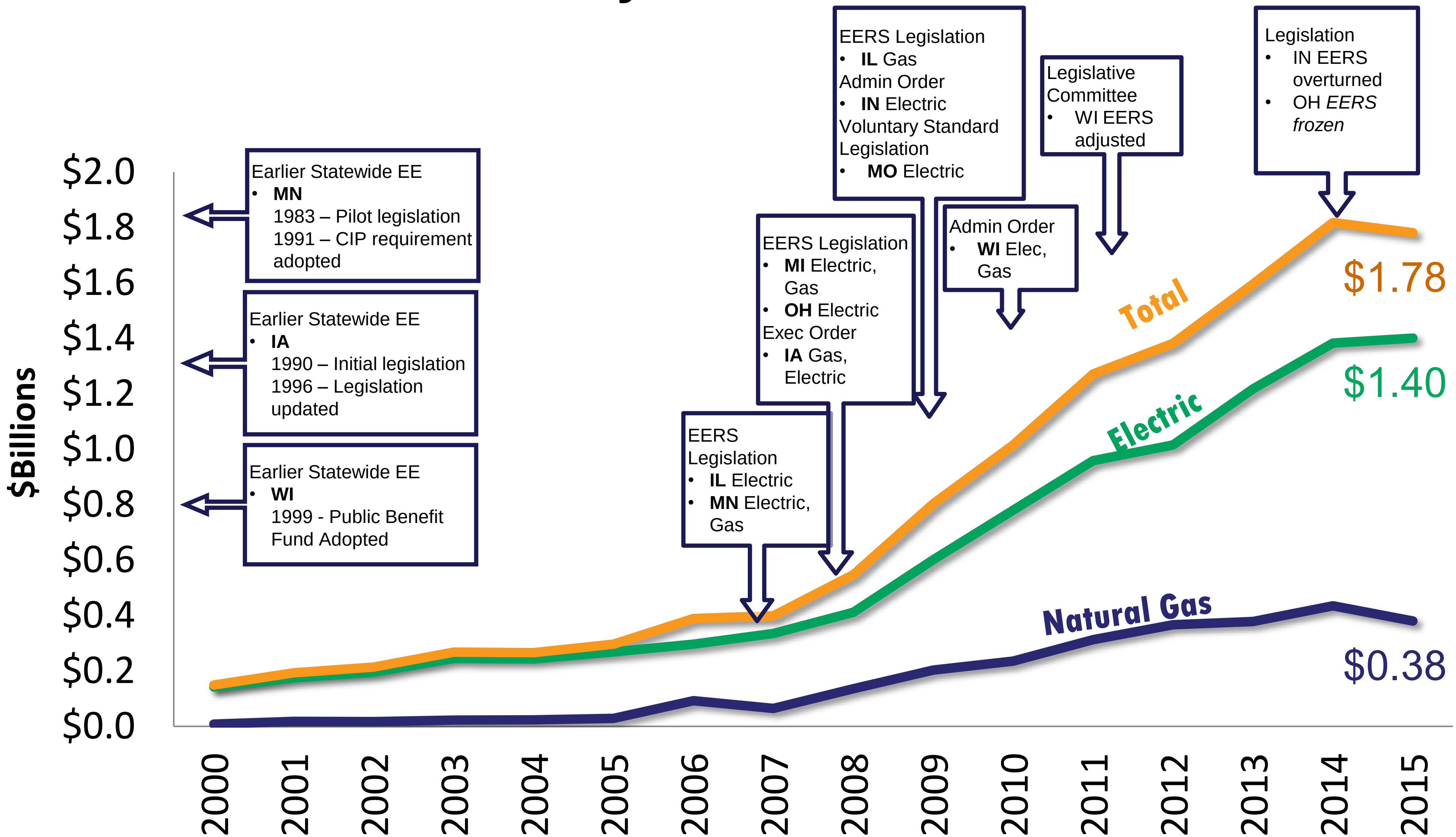
Source: American Council for an Energy Efficiency Economy (ACEEE)

Energy Savings for States with an EERS vs. those Without



Source: ACEEE

Estimated Annual Utility Investment in Energy Efficiency in the Midwest



Midwest Efficiency Targets and Funding Levels

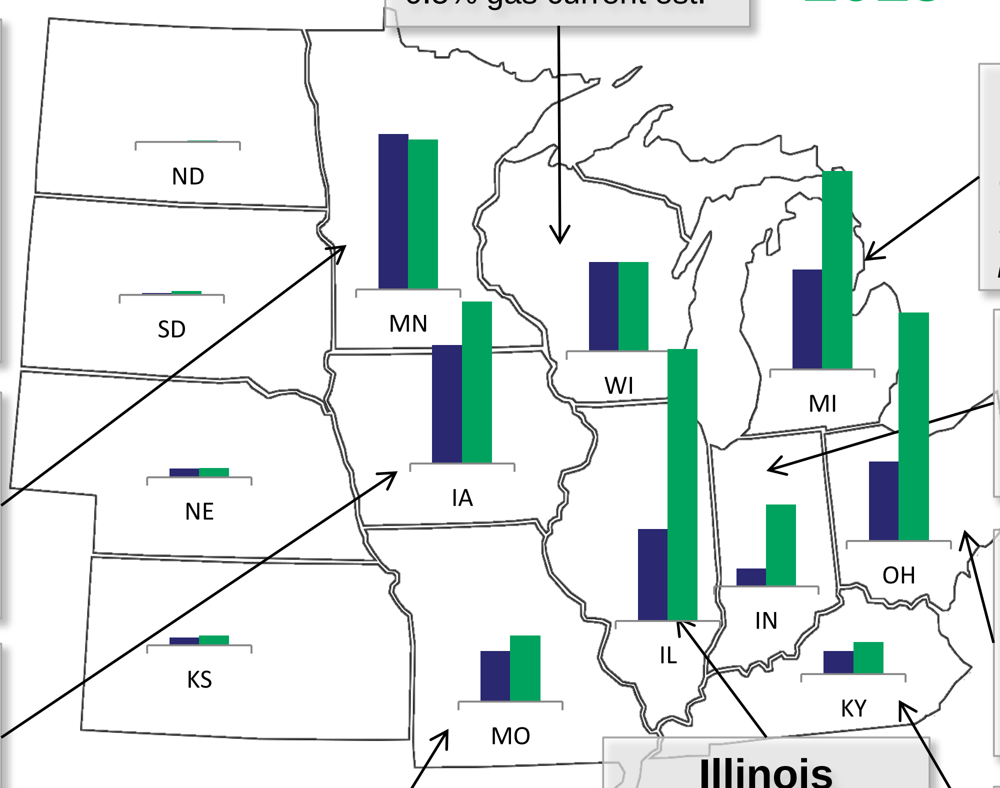
Wisconsin
No specific targets
0.6% elec current est.
0.5% gas current est.

2010 $1.01 billion
2015 $1.78 billion

North Dakota
South Dakota
Nebraska
Kansas
Voluntary energy efficiency only

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

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



Michigan
1% elec by 2012
0.75% gas by 2012
Legislative rollback proposed

Indiana
Overturned 2014
Future legislation & funding unclear

Ohio
Two-year “freeze” after 2014.
Future legislation & funding unclear.

Missouri
IRP process;
Voluntary electric

Illinois
2% elec by 2015
1.5% gas by 2017
Fund sweep of State program proposed

Kentucky
Voluntary electric and gas

MEEA
Midwest Energy Efficiency Alliance

The Source On Energy Efficiency

Midwest Efficiency Savings - Electric

2010 5.4 million MWh
2015 7.0 million MWh

Wisconsin
No specific targets
0.6% elec current est.

North Dakota
South Dakota
Nebraska
Kansas
Voluntary electric efficiency only

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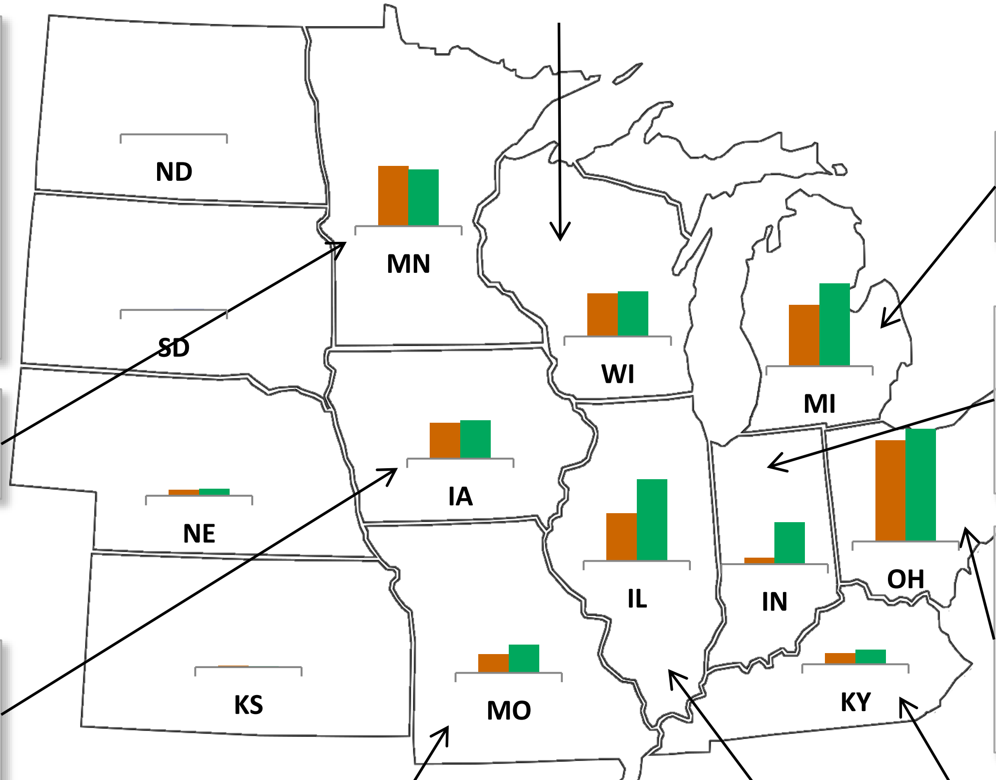

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1% elec by 2012

Indiana
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Future legislation & funding uncertain

Ohio
Two-year “freeze” after 2014.
Future legislation & funding uncertain

Missouri
IRP process;
Voluntary electric

Illinois
2% elec by 2015

Kentucky
Voluntary electric efficiency only

As of August 2015

Midwest Efficiency Savings – Natural Gas

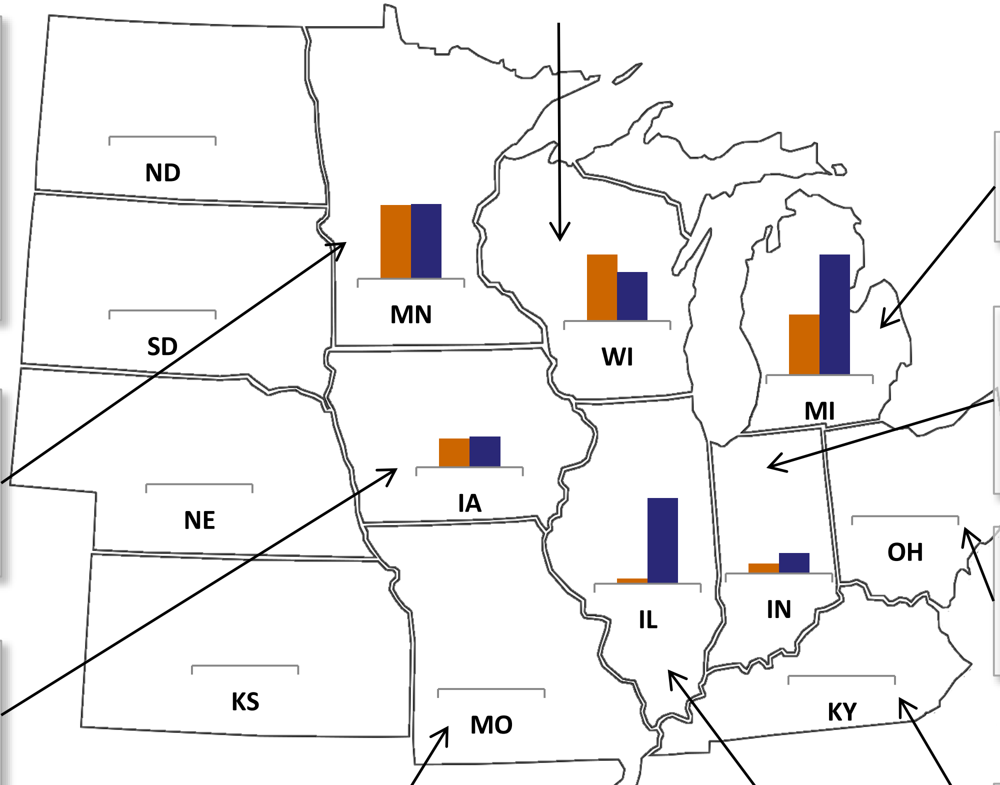
Wisconsin
No specific targets
0.5% gas current est.

2010 87 million therms
2015 136 million therms

North Dakota
South Dakota
Nebraska
Kansas
Voluntary gas efficiency only

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

Iowa
Set on a utility basis
0.85% gas current plans



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Kentucky
Voluntary gas efficiency only

Missouri
Voluntary gas efficiency only

Illinois
1.5% gas by 2017

As of August 2015

Indiana

2009: Administrative order creates Energizing Indiana

2012: Energizing Indiana Program Implemented

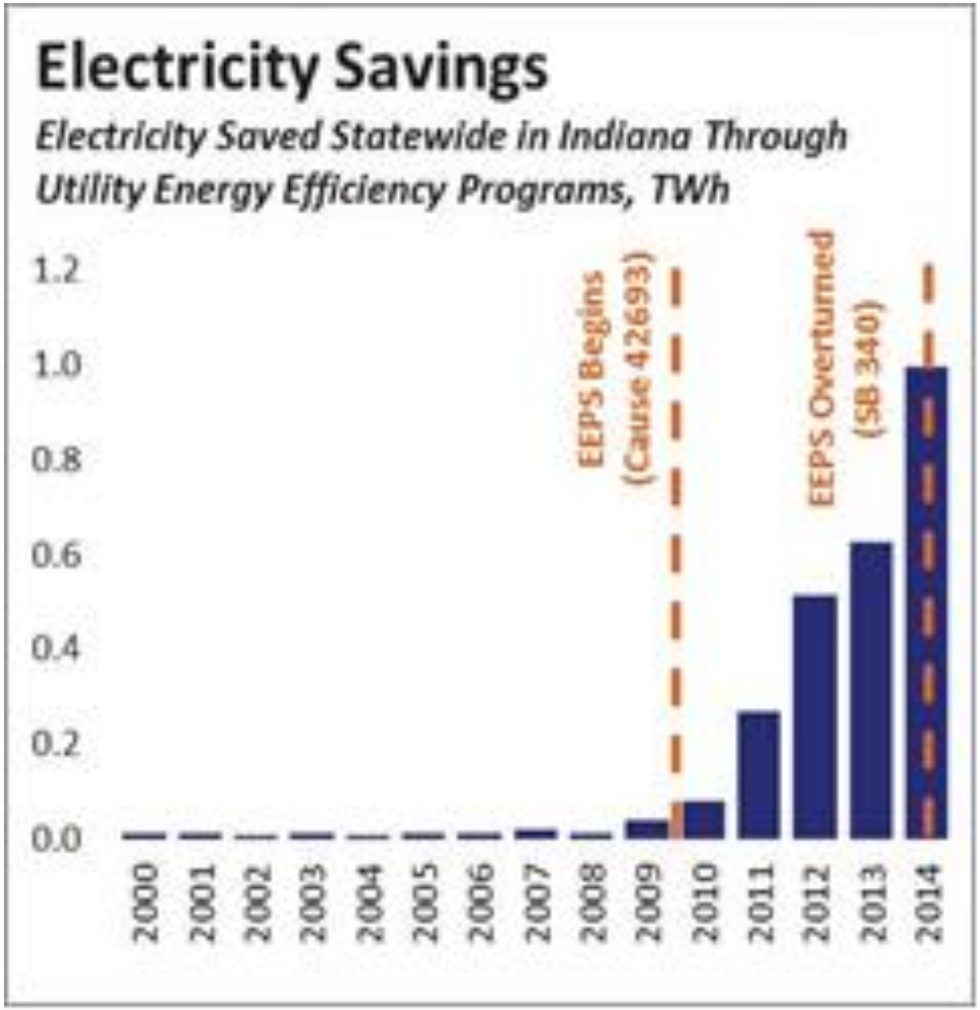
2014: Legislature repeals EERS. All investor owned utilities file DSM plans with IN Utility Regulatory Commission

2015: DSM plan and IRP rule making process begins

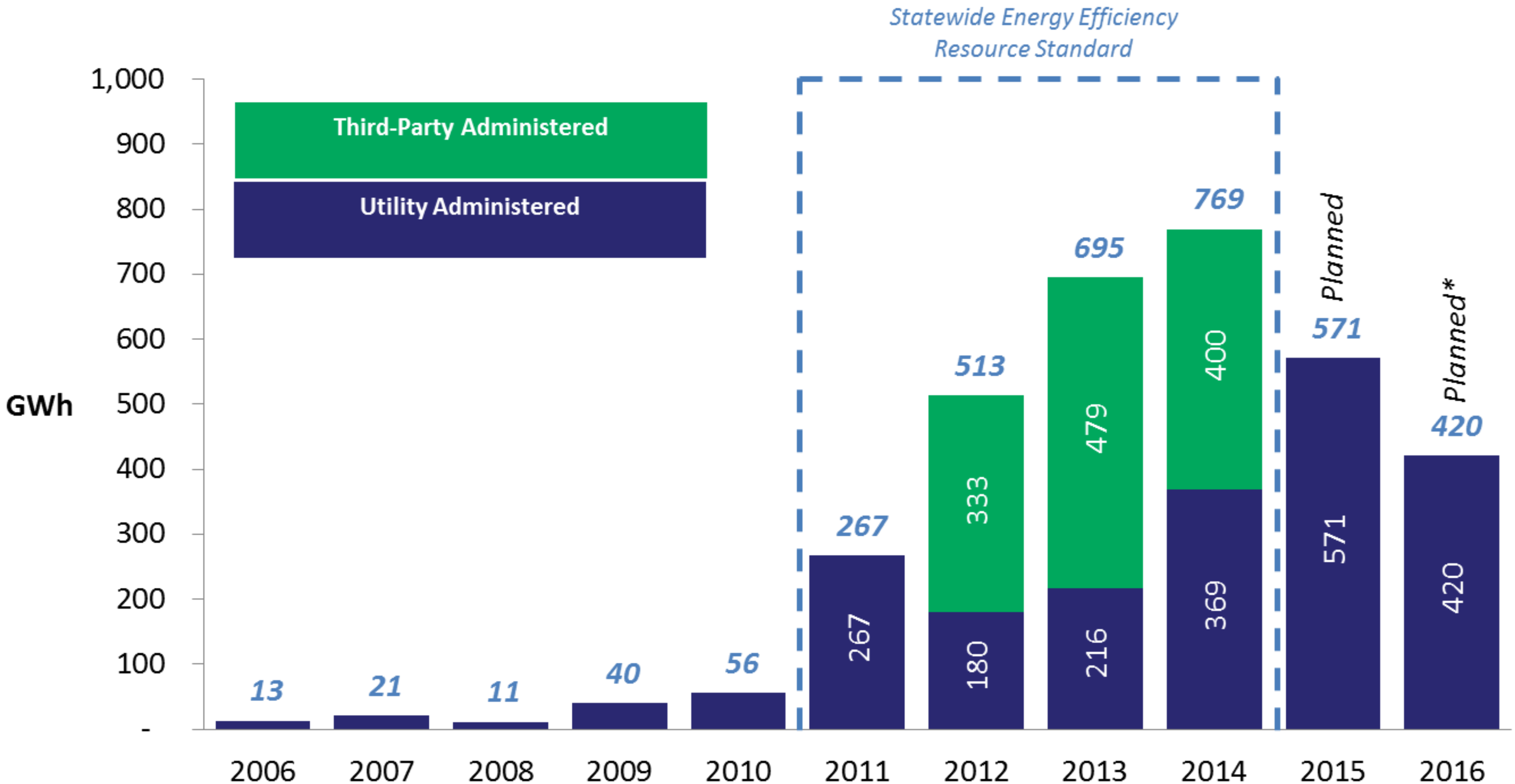
Energizing Indiana

- From 2012-2013**, for every $1 spent** on the Energizing Indiana programs, residents and businesses reaped **$3.02 in benefits**.

- Effective policy increased Indiana's electricity savings over 25-fold from 2009 levels, the year before electric energy efficiency was required under the EERS.

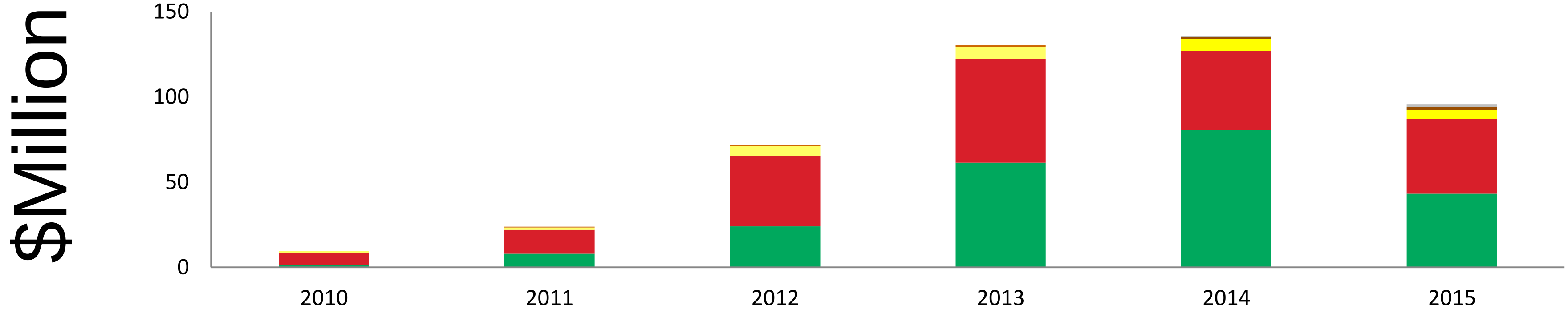


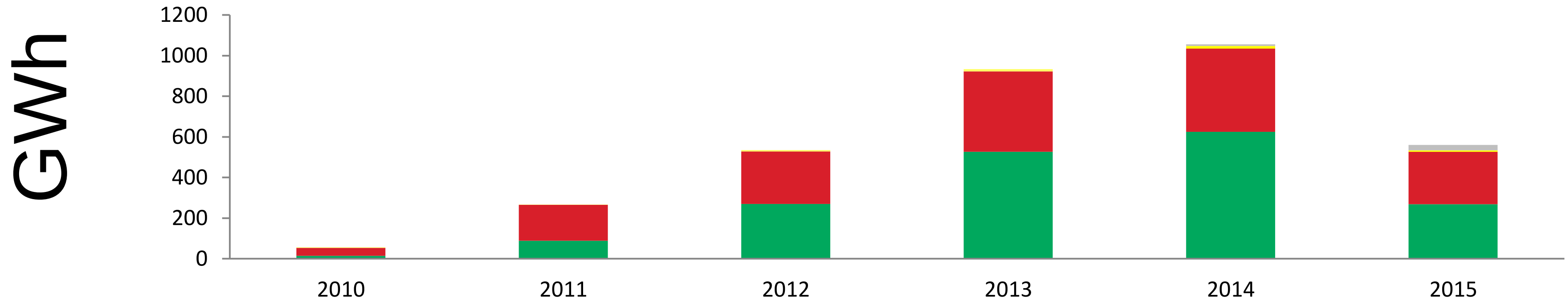
Energy Savings Reduced in Indiana after the Repeal of their Energy Efficiency Resource Standard



*Indiana & Michigan Power has not yet filed a plan for 2016

Indiana Electric Efficiency Spending and Savings by Customer Class

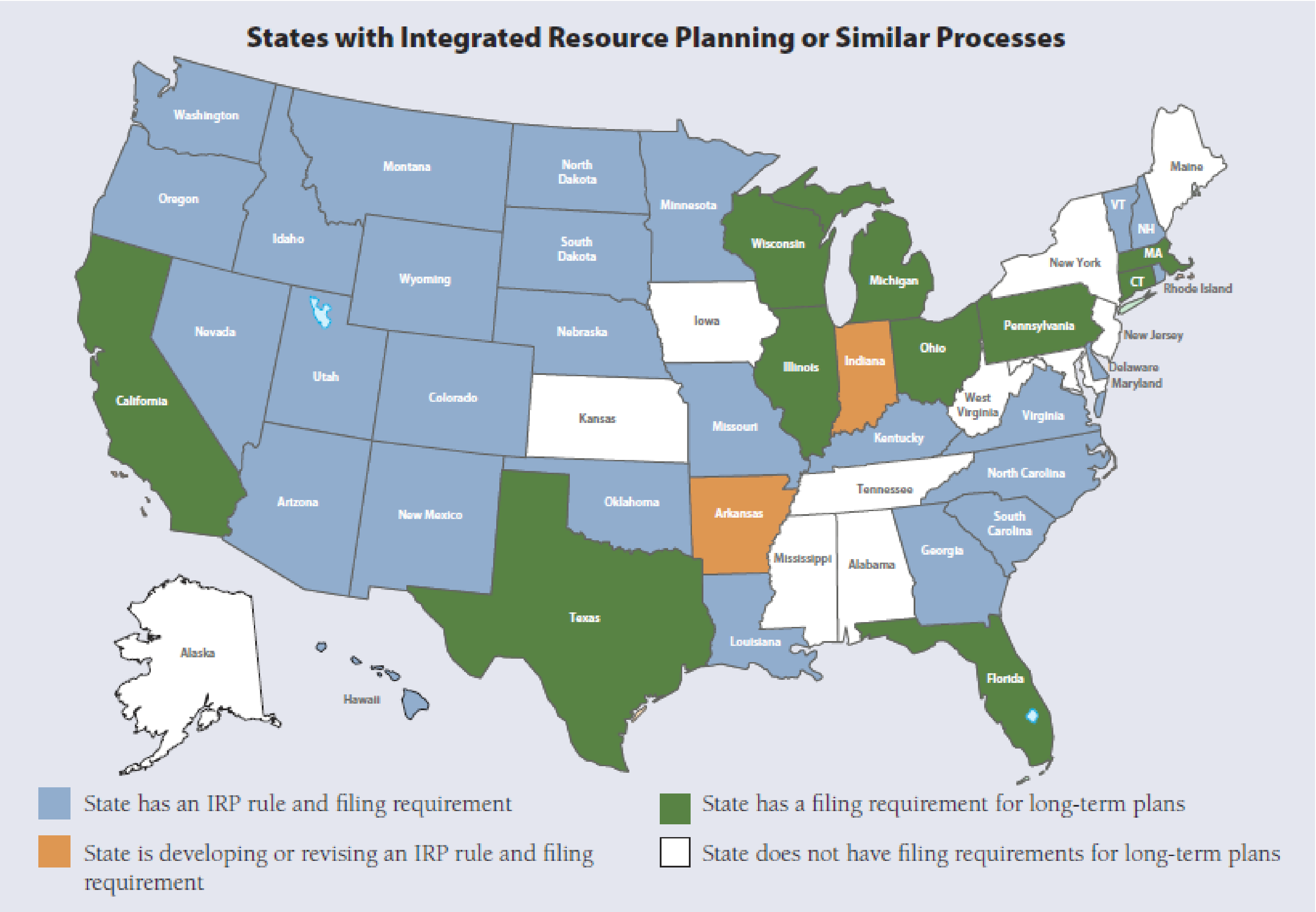




C&I | Residential | Low Income | T&D | Indirect Costs

Source: Utility Filings in IURC Causes 42693-S1, 43955-DSM 02, 44486, 44495, 44497, and 44501.

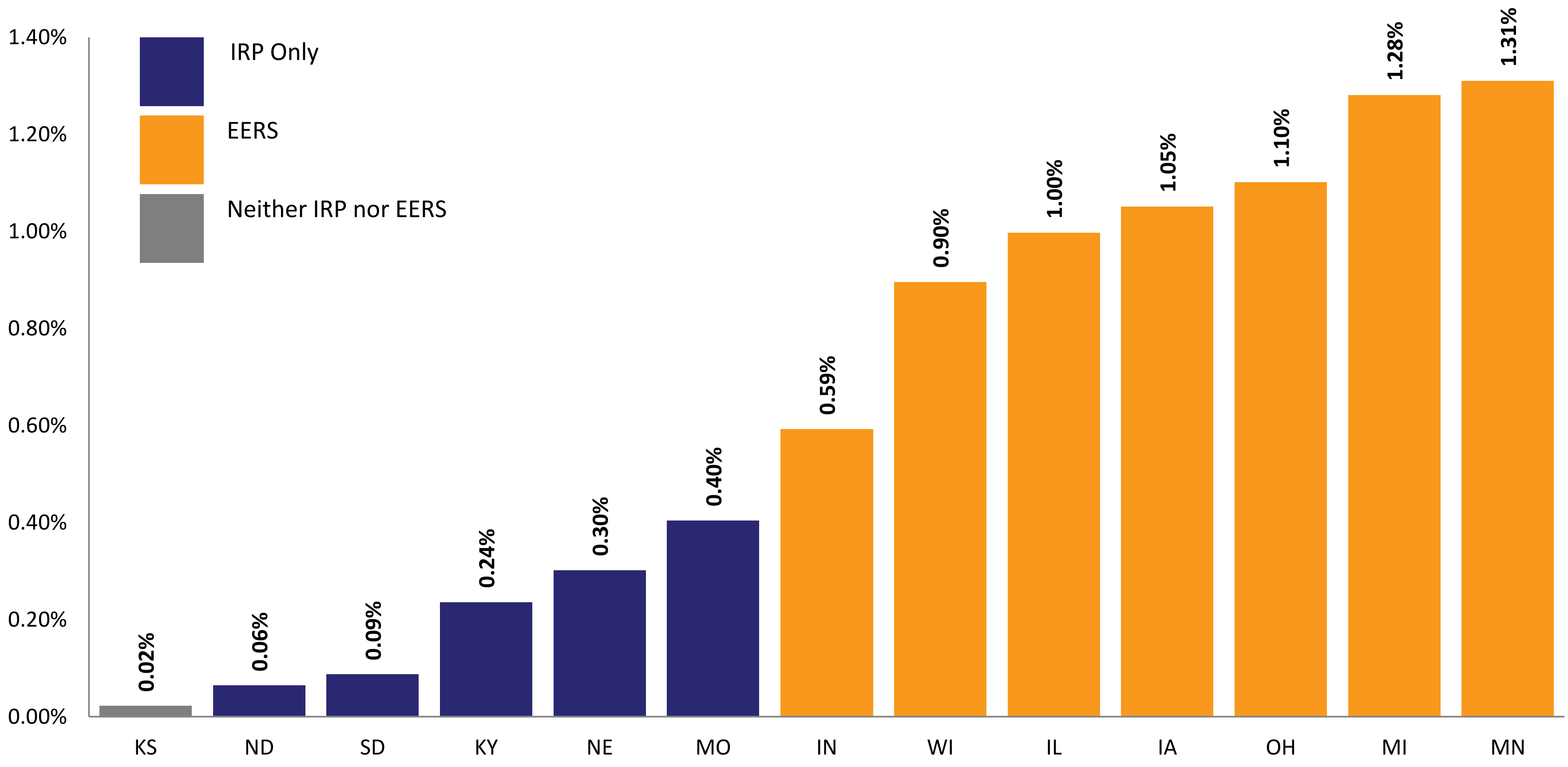
What is an Integrated Resource Plan (IRP)?



Source: Bruce Biewald and Rachel Wilson, Regulatory Assistance Project (RAP), 2013.

Energy Efficiency in Midwest States

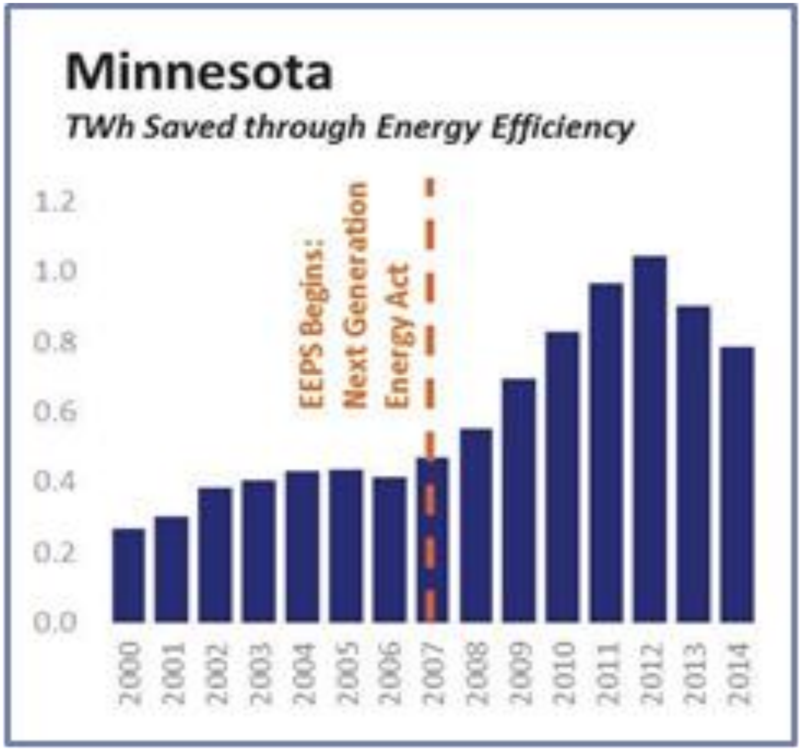
Saved electricity as percent of total retail electricity sales, 2013



Sources: MEEA, 2015; EIA, 2015

Minnesota

- Minnesota has adopted both an IRP model as well as a Conservation Improvement Plan standard plus other goals
- MN incorporates existing 1.5% energy efficiency standard goal as an input within each utility's IRP
- Electric savings more than doubled between 2007 and 2012



IRP Best Practices: Lessons from Minnesota and Beyond

- Existing Methodology: if a state already uses resources such as a technical reference manual, utilities should use values reflected in the technical reference manual in their IRP inputs.

- Commission Authority: the state utility regulatory commission should have the authority to approve, reject, request more information, and modify utilities' IRPs.

- Energy Efficiency Resource Standards: incorporate existing or future energy efficiency resource standards as a load reduction input to IRP modeling.

A good electric system IRP should include…

- ✓ Load forecast
- ✓ Reserves and reliability
- ✓ Demand side management
- ✓ Supply options
- ✓ Fuel prices
- ✓ Environmental costs and constraints
- ✓ Uncertainty
- ✓ Existing Resources
- ✓ Valuing and selecting plans
- ✓ Action plan
- ✓ Documentation
- ✓ Time frame

IRP Challenge: Maximization of Energy Efficiency Savings

- In 2013, the 26 states with EERS policies in place, showed more than 3.5 times as much program spending (2.63% vs. 0.76%) and savings (1.11% vs. 0.30%) as the 24 states without an EERS policy, regardless of whether the state had an IRP policy.
- The states with an IRP or other long-term planning requirement that also had an EERS spent and saved over 3 times as much as states that had an IRP requirement but no EERS requirement (2.66% of revenues vs. 0.76%; and 1.16% of sales vs. 0.35%).
- For states without IRP process, those with EERS spent over 3 times as much and saved nearly five times as much (0.90% vs. 0.19%) as states with no IRP/planning requirement and no EERS.

Conclusions

- EERS produce more cost-effective savings than an IRP
- IRP is a planning framework used to evaluate supply-side and demand-side resources
- IRP only as strong as the targets/standards incorporated
- If a state moves toward IRP, it should incorporate an EERS as a load reduction measure so the plan includes targets
- The good news – they can work together to achieve significant savings in a cost-effective, thoughtful way.

Questions and Contact Information

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