

# Electric Breakout: Can't We All Just Get Along?

## The Case for Consistently Treating and Incorporating Energy Efficiency into the Regional Planning Process

June 6, 2011

*The Source On Energy Efficiency*

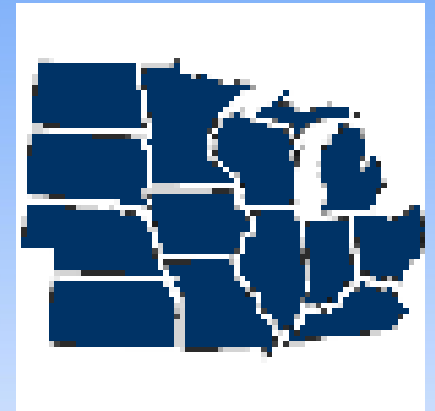


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Midwest Energy Efficiency Alliance

# MEEEA's Role in the Midwest

- Nonprofit serving 13 Midwest states
- 10 years serving utilities, states and communities
- Staff of 23 in Chicago
- Actions
  - Advancing Energy Efficiency Policy
  - Designing & Administering EE Programs
  - Delivering Training & Workshops
  - Coordinating Utility Program Efforts
  - Regional Voice for DOE/EPA & ENERGY STAR
  - Evaluating & Promoting Emerging Technologies



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# Transmission

- More than 160,000 miles of high voltage transmission lines in the U.S.
- The system can be strained for a variety of reasons, including
  - High growing population centers
  - Renewable resources not near existing lines
  - The need to incorporate intermittent power sources
  - Serving functions for which it may not have been designed to serve
- Grid is designed to take supply but how can Energy Efficiency be treated as a dispatched energy supply?

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# Role of Efficiency and the Grid

- EE Can Help Relieve the Grid Strain
  - Moderates growing energy demand
  - Reduce peak energy demand
  - Savings can be quantified and forecasted
- EE can help reduce the future demand and the need to build new power plants and transmission lines
- Make utilities whole for *losing* energy sales
  - Slowed demand defers generation and T&D investments
  - Allow for lost revenue recovery
  - Reward utilities for exceeding EE goals

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# Why EE vs. Just New Transmission?

- Cheaper than renewables or supply side options
  - $< 3\text{¢}/\text{kWh}$
- Create local jobs and keeps money in local economy
  - Clean-energy investments create **16.7 jobs for every \$1 million in spending**. Spending on fossil fuels, by contrast, generates 5.3 jobs per \$1 million in spending
- No NIMBY or BANANA issues (often opposite effect)
- Great PR/Customer satisfaction with EE and utilities
- Potential for integration of EE into RPS or Clean Energy Portfolio Standards

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# Efficiency Combats Dollar Drain

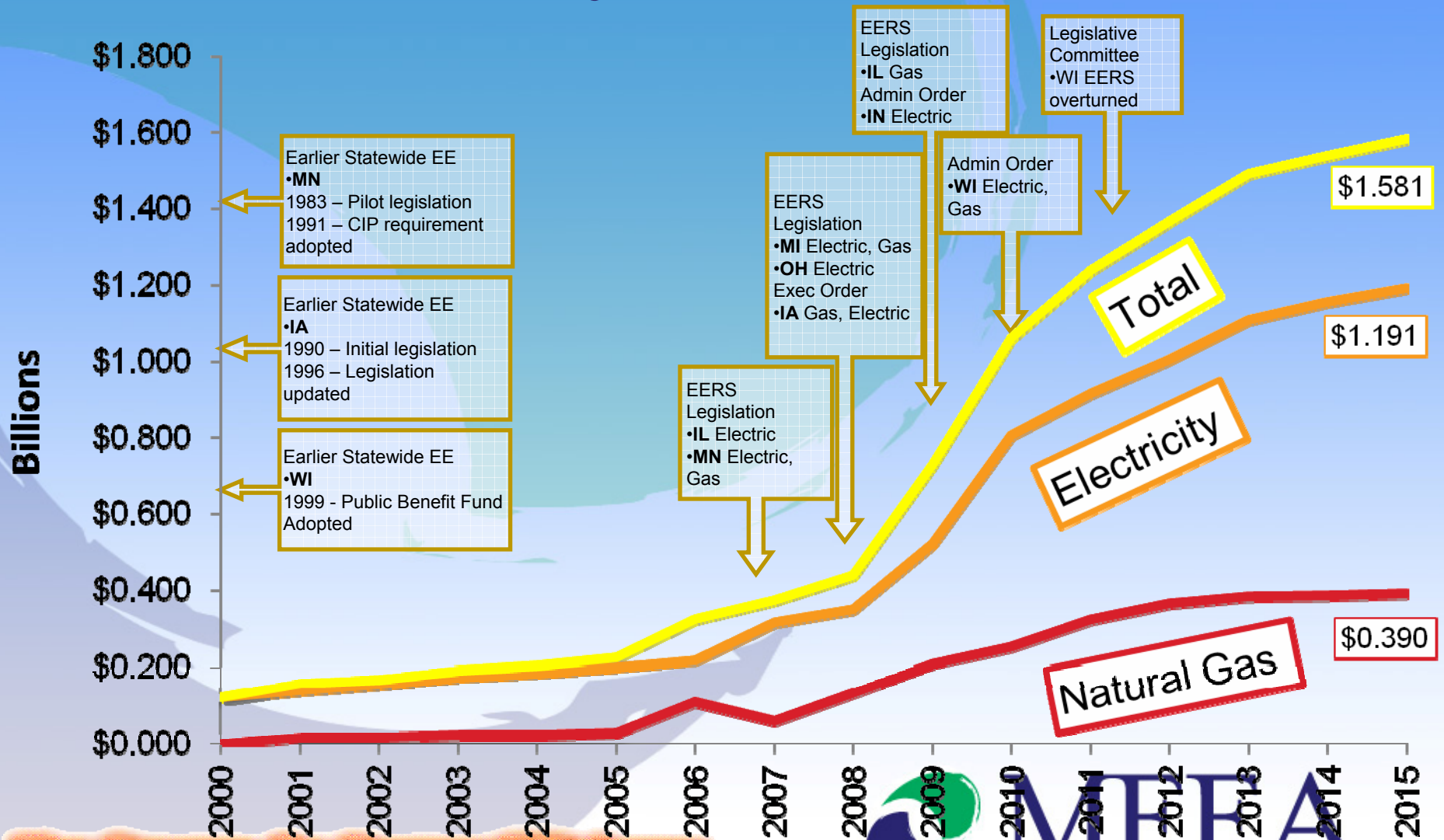
- Midwest region - \$40 billion per year leaves the economy to pay for imported fossil fuels
- Savings potential comes from a combination of EE programs:
  - Natural gas EE
  - Electricity EE
  - Price drop through demand reduction
  - Reduction of amount and cost of NG used in electric generation
- Potential Annual Savings for MW Region
  - 2010: \$4.4 billion
  - 2015: \$7.9 billion
  - 2020: \$10.4 billion

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# Estimated Annual Investment in Energy Efficiency in the Midwest



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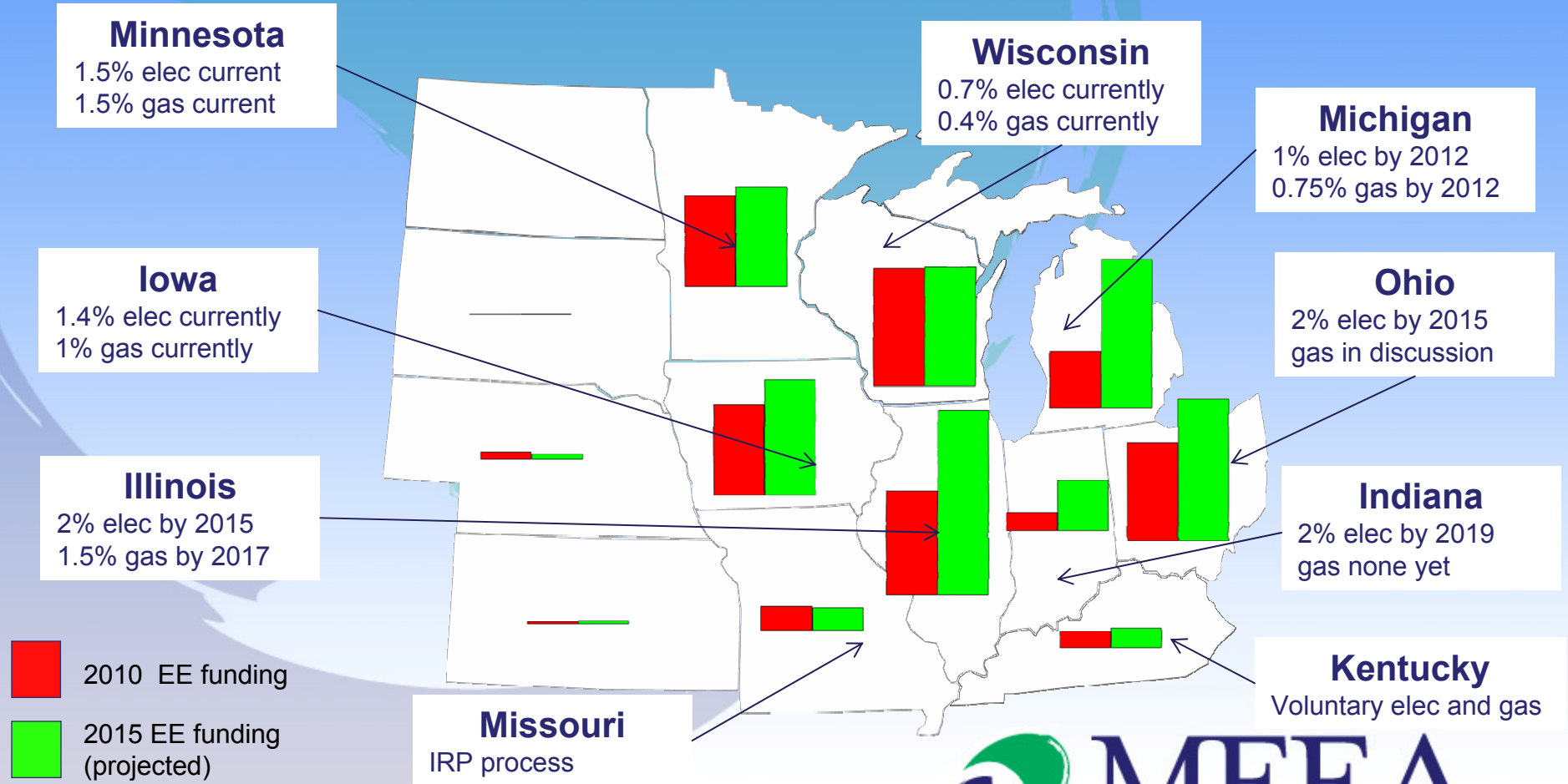


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# Future Midwest Efficiency Targets and Funding

2010 \$1.06 billion  
2015 \$1.58 billion



**2010 EE funding** (Red)  
**2015 EE funding (projected)** (Green)

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# What's Keeping EE from Being Treated as Generation?

- No pure measuring of kWh/therm generation and so need way to count energy NOT used!
- Need consistent valuing of EE across state/utility boundaries
  - A way to determine kWh savings from a CFL should be the same no matter the state (even if kWh savings are different)!
  - EM&V results in the region (and nation) are divergent, even on the same EE program implemented by the same company
- A kWh/therm of EE needs to become commoditized in case of tradable Clean Energy Port Stds or sale to the Grid.

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# Solution: Midwest EM&V Forum

- Create a Forum for utilities and regulators to discuss and agree upon the valuation and evaluation of EE
- Current Regional Issues Around Evaluation
  - Different definitions of savings and reporting periods make comparisons across programs or states difficult
  - Different methods to measure savings making it difficult to address program attribution, define metrics for policy objectives, assess broader market impacts
  - Different levels of Commission review leads to a large range of uncertainty and lack of confidence in claimed energy savings and use of deemed savings
  - Aggregation of program savings into load forecasting frameworks is limited by the uncertainty
  - Efficiency and demand savings cannot be utilized in regional markets without some consistency in approach
- Evaluation, Measurement and Verification is already a part of all regulated EE programs, so bring together and streamline

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# Why Midwest EM&V Forum?

- Reason for a Midwest EM&V Forum at this time
  - Efficiency programs, spending and savings goals have been growing significantly in the region
  - Credibility of savings estimates can be enhanced if there is some agreement on a regional evaluation, monitoring and verification model
  - Needed for instituting a forward capacity market
  - Efficiency savings and demand response in regional markets can be monetized if there is standardization and consistency
  - Mass market research for program development and incremental costs can be leveraged with regional information
  - Money can be saved on estimating savings, and developing load shape studies
  - EE program designs across the region can be improved
  - Leverage knowledge and lessons of regulators and staff across the region

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# Next Steps for Midwest EM&V Forum

- *Needed Actions for advancing the Forum*
  - Secure support for the concept
  - Some future commitment of staff time to participate
  - Prepare Midwest as roll out area for U.S. DOE EM&V actions
  - Utilize some EM&V funding for regional support
- *MEEA is coordinating with US DOE and regional stakeholders*
  - MEEA has the regional footprint, credibility and staff resources to implement this project
  - Bring US DOE messaging and goals to be consistent with Midwest activities

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# Why Advance the Forum Now?

- Impact of November 2010 Elections
  - Need to Educate on EE – What is EE & What are the current statutes and regulations
    - 9 new Governors (8 Republican/1 Democrat)
    - State Senates (11 Republican Majorities)
    - State Houses (10 Republican Majorities)
    - 519 New Legislators out of 1595
  - New PSC Chairs and change to Commissioners and staff
    - Delays with program review and approval
    - Need to educate on value of energy efficiency
    - Need consistency of EM&V
- EEPS requirements continue to increase
- Difficult Economic Climate – state budgets tight

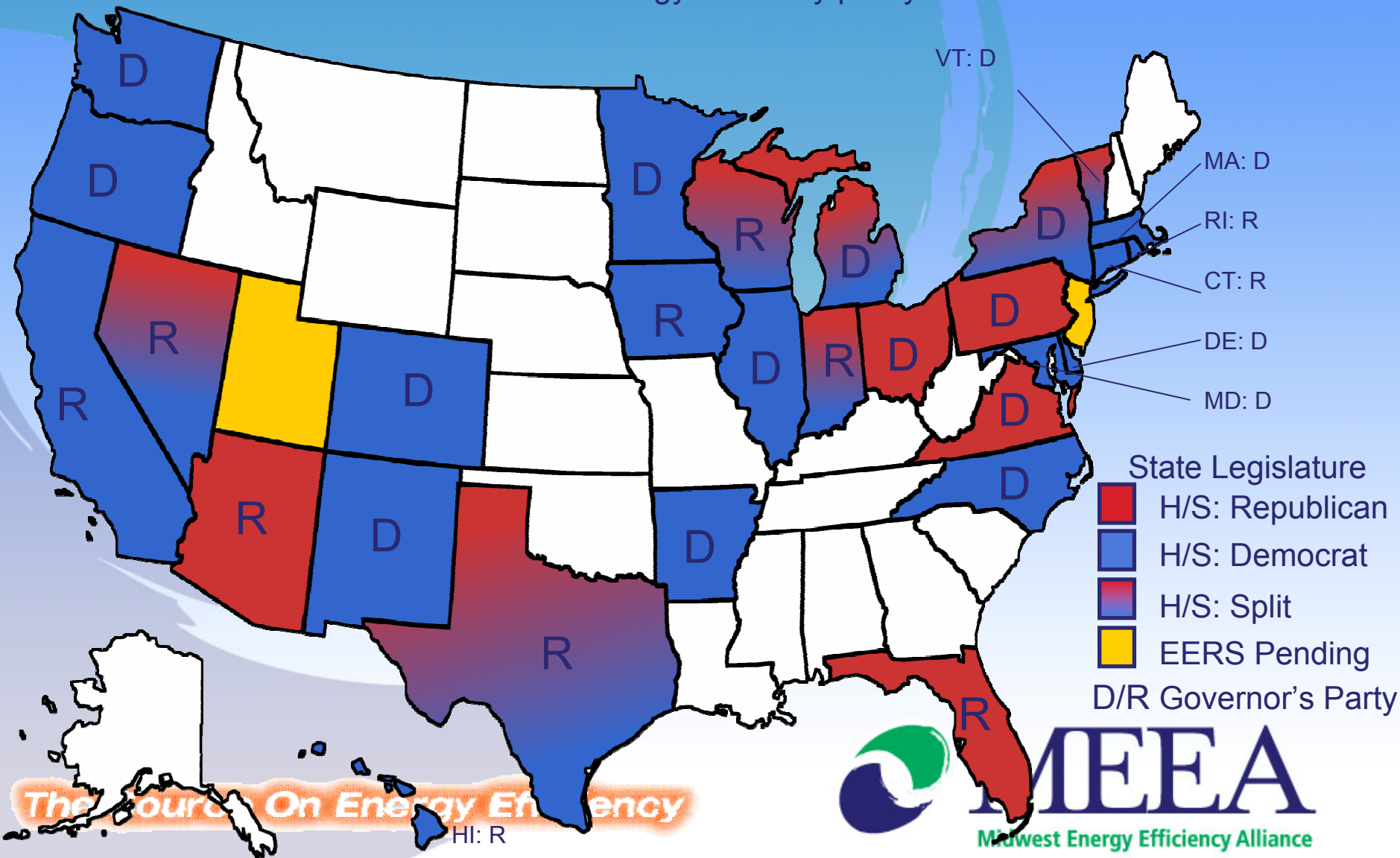
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# Energy Efficiency is a Bipartisan Issue

State House/Senate and Governor party affiliation at the time of the first enactment of statewide energy efficiency policy



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# Contact Info

## Kevin Cullather

### Senior Policy Manager

Midwest Energy Efficiency Alliance  
20 North Wacker Drive, Suite 1301  
Chicago, IL 60606

312-784-7265

[kcullather@mwalliance.org](mailto:kcullather@mwalliance.org)

[www.mwalliance.org](http://www.mwalliance.org)

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