



Great Plains Institute

MidwesternGovernors , Energy Efficiency Recommendations

Energy Efficiency Best Practices Tour
and Briefing
Great River Energy
September 22, 2009



MGA



Midwestern Governors Association



Great Plains Institute

What is the Great Plains Institute?

Regional nonprofit organization that works with public and private stakeholders to:

1. Develop & advance win-win policies

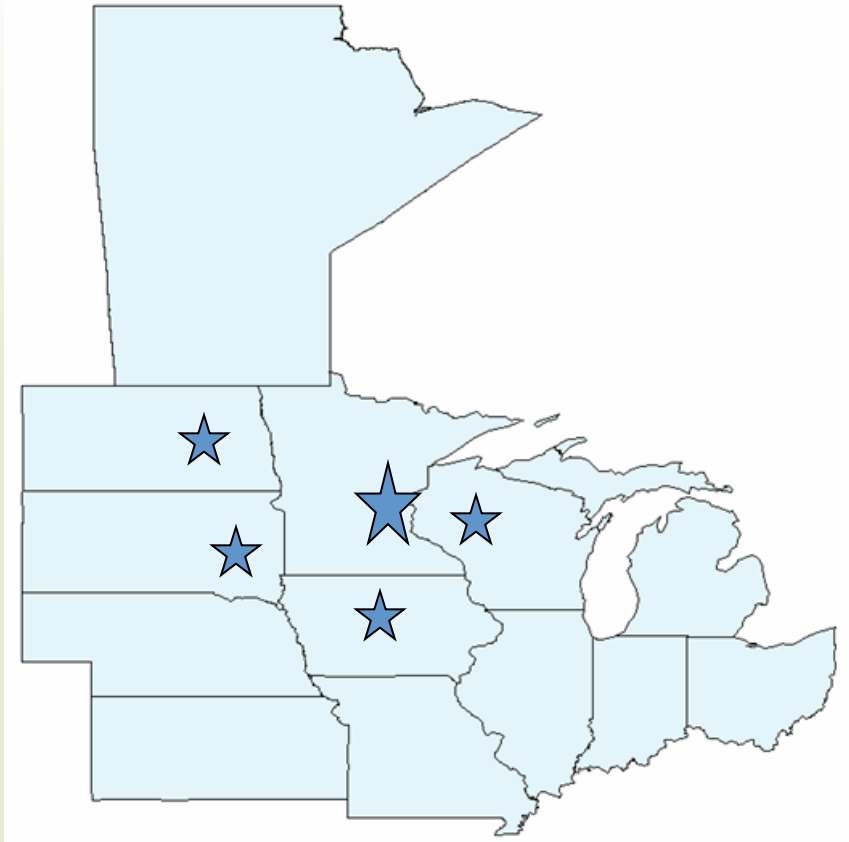
2. Demonstrate promising energy technologies

3. Identify research critical to their commercialization

4. Educate key audiences about their benefits & costs.

www.gpisd.net

The region we serve



★ = States in which we are incorporated

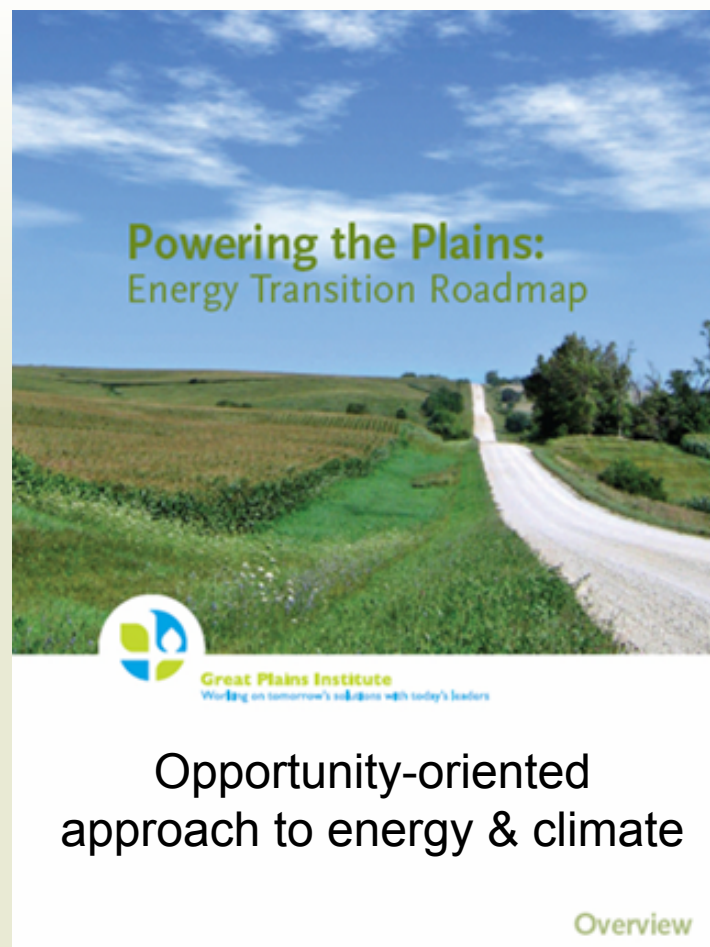


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Consensus Upper Midwest Energy Roadmap Released 2007

- **Consensus on an “Energy Transition Roadmap” among diverse Upper Midwest stakeholders.**
 - **Efficiency**
 - **Coal with CCS***
 - **Wind**
 - **Biomass**
 - **Hydropower**
 - **Nuclear Power**
 - **Hydrogen & Fuel Cells**
- **Starting point for work of Midwestern Governors Association**

*CCS = CO2 capture & sequestration

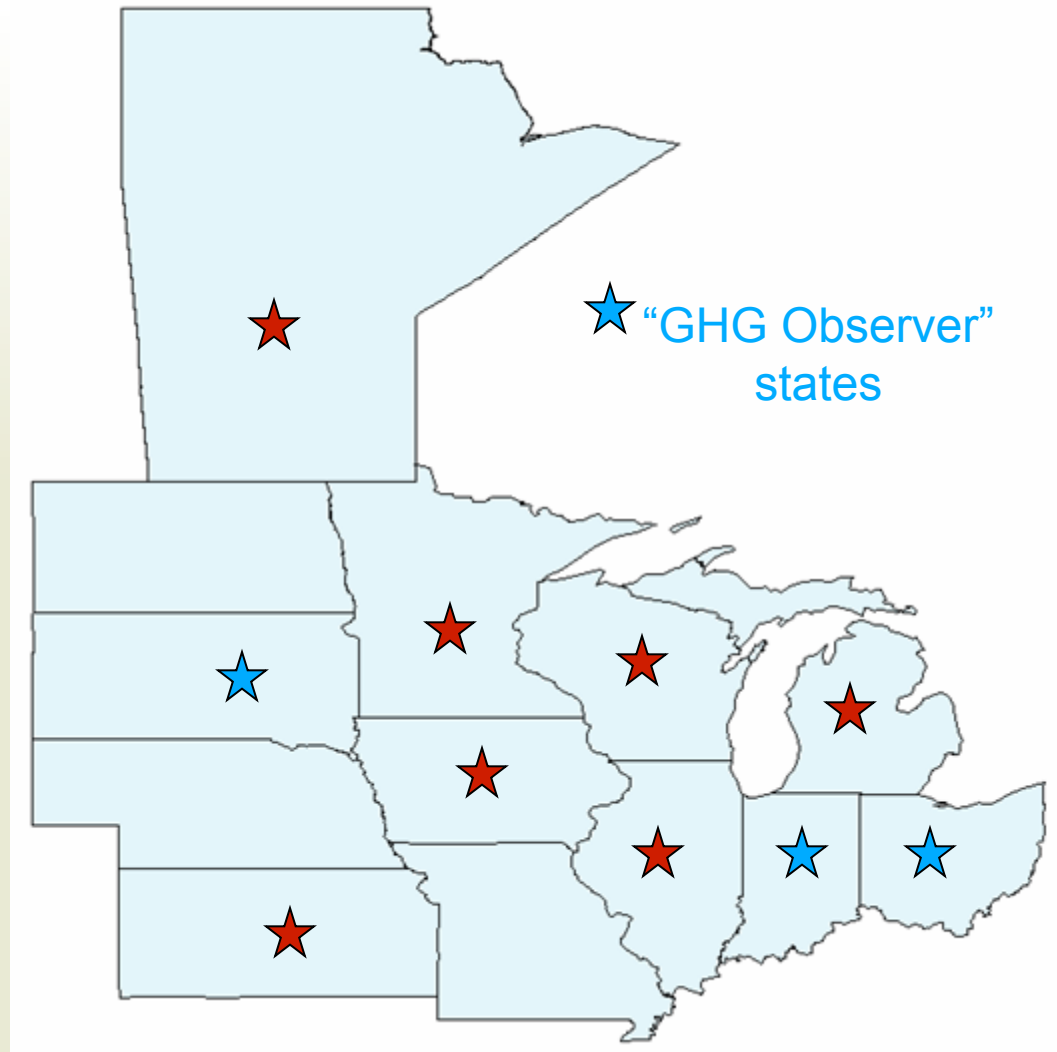




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11 States + Manitoba

1. Illinois
2. Indiana
3. Iowa
4. Kansas
5. Michigan
6. Minnesota
7. Missouri
8. North Dakota
9. Ohio
10. South Dakota
11. Wisconsin



★ States that signed the Midwest GHG Reduction Accord



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Elements of Summit Platform that Governors Signed in '07

- 1. Efficiency goal:** 2% annually by 2015, and every year thereafter
- 2. Renewable electricity goal:** 30% by 2030
- 3. Advanced coal with CCS goals:**
 - a) By 2012: A multi-jurisdiction CO₂ pipeline sited and permitted.
 - b) By 2015: Commercial IGCC with CCS using eastern & western coals
 - c) By 2020: all *new* coal plants have CCS
 - d) By 2050: entire coal fleet is transitioned to CCS.
- 4. Bioeconomy and Transportation**
 - a) Increase availability of low-carbon fuels by 10-fold.
 - b) Reduce fossil fuel inputs to biofuels 50%.
 - c) Meet half the region's transportation demand with biofuels and other low-carbon fuels.
- 5. Six Cooperative Regional Initiatives** (e.g., transmission)
- 6. GHG Reduction Accord to develop Cap & Trade system**



Governors' Energy Efficiency Goal

“Meet at least 2% of regional annual retail sales of natural gas and electricity through energy efficiency improvements by 2015, and continue to achieve an additional 2% in energy improvements every year thereafter”



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MGA EE Advisory Group Participants

- **Gary Connett , Great River Energy**
- **W. Stuart Crine, Iowa Department of Public Safety Building Code Bureau**
- **Jeff Daugherty, CenterPoint Energy Minnegasco**
- **Kristine Euclide, Madison Gas & Electric Company**
- **David Gard, Michigan Environmental Council**
- **Bob Haug, Iowa Association of Municipal Utilities**
- **Charlie Higley, Citizens Utility Board - Wisconsin**
- **Val Jensen, ComEd**
- **Bob Jones, WISCAP**
- **Rob Kelter, Environment Law and Policy Center**
- **Kelly Kissock, University of Dayton**
- **Dave Kolata, Citizens Utility Board**
- **Lloyd Kuczek, Manitoba Hydro**
- **Jim Ludwig, Westar Energy**
- **Chuck McGinnis, Johnson Controls, Inc.**
- **Lisa Nelson, Wal-Mart Stores, Inc.**
- **Rob Ozar, Michigan Public Service Commission**
- **Susanne Parent, Manitoba Energy Development Initiative**
- **Stacey Paradis, Midwest Energy Efficiency Alliance**
- **Phyllis Reha, Minnesota Public Utilities Commission**
- **John Rohlf, Medtronic, Inc.**
- **Mary Schlaefter, Wisconsin Energy Conservation Corp.**
- **Susan Stratton, Energy Center of Wisconsin**
- **Sheldon Strom, Center for Energy & Environment**
- **Paul Tucker, International Paper**
- **Pamela Weaver, Builders Association of Minnesota**
- **Jim Weeks, Michigan Municipal Electric Association**
- **Dan York, American Council for an Energy-Efficient Economy**



Outcomes of MGA EE Advisory Group

- **Consensus on policy recommendations to achieve Governors' EE goal**
 - **Policies directly reducing energy use**
 - **Enabling policies**
 - **Regulatory reforms**
 - **Best practices**
- **Quantification of estimated greenhouse gas reductions and of cost to economy from implementation of recommendations**



Key Policy Recommendations

Reducing Energy Use

- **Require retail energy providers to make energy efficiency (EE) a priority in order to meet a region-wide energy-efficiency standard of 2 percent annual savings for electric utilities and 1.5 percent annual reductions for natural gas-utilities. EE standards should be applied consistently to investor-owned, cooperative and municipal utilities, while recognizing regulatory and other differences in customers served and service territories, making appropriate adjustments to individual goals.**



Key Recommendations cont.

- **Implement changes in regulatory practices and rate designs to remove financial disincentives and provide appropriate incentives for prudent expenditures on energy efficiency by regulated utilities, including providing cost recovery for EE programs and services and providing new opportunities for utility earnings associated with the successful achievement of energy-efficiency goals.**



Key Recommendations

cont.

- **Adopt residential and commercial building codes that meet or exceed the national model energy codes, with an automatic, statutorily required increase to coincide with the national model code review process.**



Key Recommendations cont

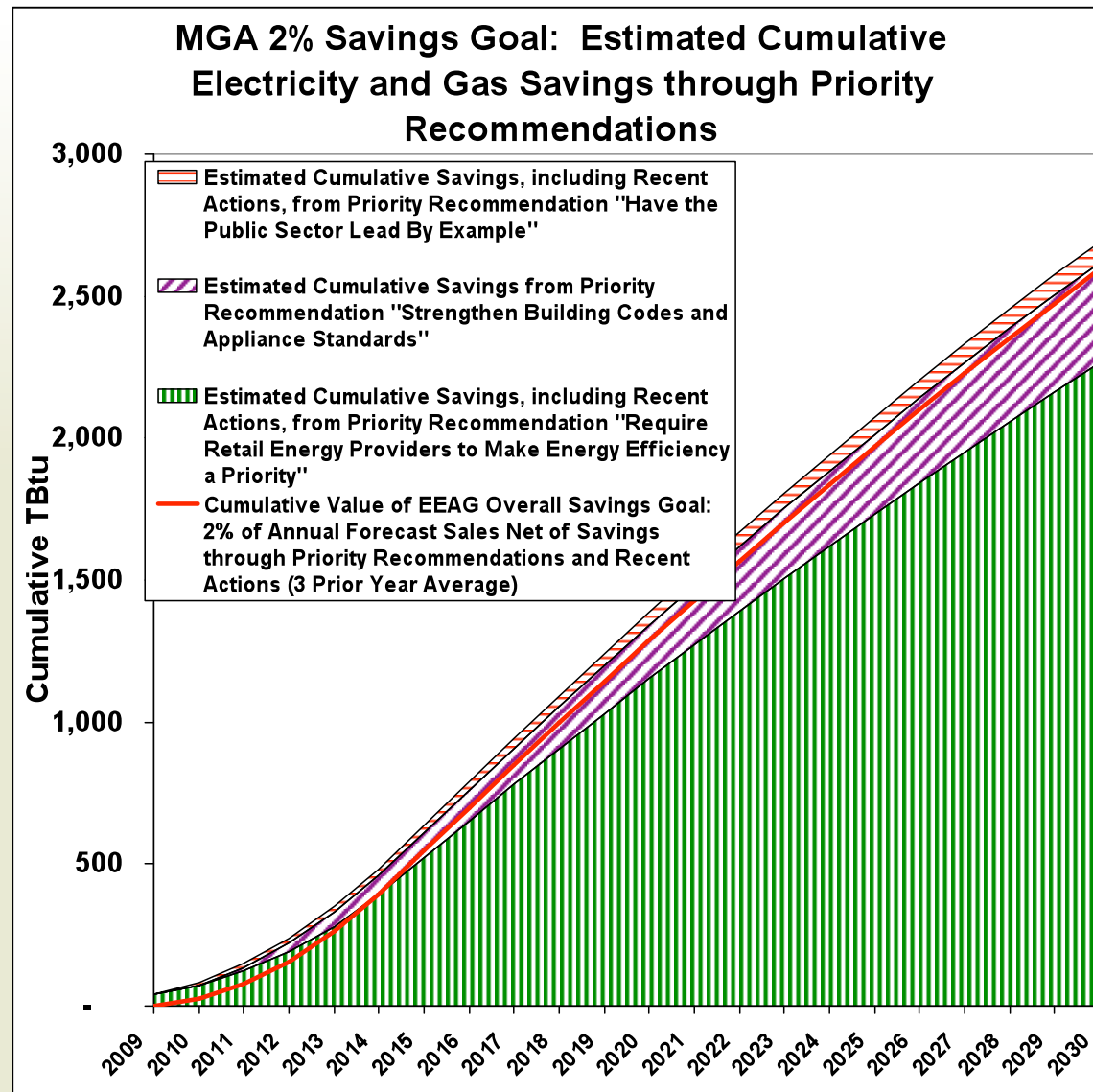
- **Demonstrate public sector leadership in applying energy efficiency technologies by reducing energy consumption in existing and new government buildings by 15 percent by 2015, 20 percent by 2020 and 25 percent by 2025, relative to forecasted levels. Furthermore, 20 percent of all government buildings should be recommissioned and improved to meet or exceed current energy codes by 2015, with an additional 3 percent of buildings improved annually in each subsequent year.**



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White Paper on Energy Efficiency Potential Studies

- **The MGA goal of 2.0% savings per year is aggressive, but supportable**
- **Using conservative assumptions, 9 of 20 ‘non-Midwest’ electric studies had either an achievable or economic potential of 1.9% per year or above.**
- **Natural Gas savings may be smaller due to range of measures available.**
- **MGA goals were established in a time of new awareness – energy, climate, cost and social context much more favorable to EE— past EE potential studies and impacts of prior programs provide a guide, but shouldn’t limit these goals.**
- **Achieving goal will put Midwest in top tier of states**



Estimated Costs of Energy Efficiency Policies Per Ton of CO_{2e} Emissions Reduced

Policy Option		GHG Reductions* (MMtCO _{2e})			Net Present Value 2009–2025 (Million \$)	Cost-Effective-ness (\$/tCO _{2e})
		2012	2025	Total 2009– 2025		
EE-1	Undertake State Assessments that Quantify the Amount of Energy Efficiency that Would Cost Less on a Unit Cost Basis than New Generation	<i>Not Quantified</i>				
EE-2	Require Retail Energy Providers to Make Energy Efficiency a Priority	9.6	157.9	1200	-\$33,096	-\$28
EE-3	Remove Utility Financial Disincentives and Enable Investment Recovery for Energy Efficiency Program Costs	<i>Not Quantified</i>				
EE-4	Strengthen Building Codes and Appliance Standards and Requisite Training, Quality Assurance and Enforcement	6.2	97.8	684	-\$13,291	-\$19
EE-5	Have the Public Sector Lead by Example	8.0	29.5	292	-\$1,900	-\$6
EE-6	Accelerate Adoption of Energy Efficiency Technologies and Best Practices by Residential, Commercial, and Industrial Customers	<i>Not Quantified</i>				
	Total After Adjusting for Overlaps	16.4	209.7	1640	-\$43,433	-\$27

GHG = greenhouse gas; MMt = million metric tons; t = metric ton; CO_{2e} = carbon dioxide equivalent; VMT = vehicle miles traveled; UC = unanimous consent



Governors' Summit: October 6-7 in Detroit

Key deliverables:

- 1. Midwestern Energy Transition Roadmap with EE recommendations**
- 2. Energy Infrastructure Accord, including smart grid initiative**
- 3. Jobs & Investment Platform, including focus on workforce aspects of EE implementation**



www.midwesterngovernors.org/summit.htm



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Thank You

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