



Clean "Homegrown" Energy in the Midwest

A Stronger Economy, Jobs and a Healthier Environment

States and cities across the Midwest are carrying out homegrown clean energy solutions that strengthen our economic prosperity and job creation, improve our energy security, and provide a healthier environment. This paper examines some of the clean energy policies put in place in Illinois, Iowa, Minnesota, and Wisconsin, and associated private sector economic activity. More information on the clean energy economy and jobs in the Midwest is available at *Less Carbon, More Jobs* (www.lesscarbonmorejobs.org).

Midwestern States and Cities Call for Climate Protections and Clean Energy Progress

In 2006, the Illinois Climate Change Advisory Group was created by executive order and proposed a number of recommendations to the governor. Among those recommendations were proposed strategies to reduce climate pollution from the transportation, electricity generation, and agricultural sectors.

In Iowa, the Iowa Climate Change Advisory Council submitted its final report to the state legislature in 2008 presenting scenarios to reduce climate pollution by 50 to 90% by 2050. The largest opportunities for emissions reductions were found in the renewable energy and agriculture sectors.

In Minnesota, the Next Generation Energy Act of 2007 provides for the state to increase energy efficiency and increase renewable energy generation, and calls for climate-destabilizing emissions to be reduced by 80% below 2005 levels by 2050. The Minnesota Climate Mitigation Action Plan was completed in 2008.

The Wisconsin Task Force on Global Warming released its final report in 2008, recommending strategies for reducing greenhouse gas emissions by 75% below 2005 levels by 2050. Specific recommendations included enhancing the state's renewable portfolio standard, adopting cleaner car standards, and increasing the use of renewable biomass.

Many cities in the Midwest are signatories to the U.S. Mayor's Climate Protection Agreement. This Agreement includes a commitment to pursue greenhouse gas emissions reductions in each community. As of 2012, 54 cities from Illinois, 34 from Iowa, 45 from Minnesota, and 20 from Wisconsin have joined the Agreement. Figure 1 provides a snapshot of local governments that have signed the Agreement.

Note: Stratus Consulting provided research and analysis.

Figure 1. Participants in the U.S. Mayor's Climate Protection Agreement



Source: U.S. Conference of Mayors

Red marks are Illinois cities; Blue are Iowa, Yellow are Wisconsin; and Green are Minnesota

Energy Efficiency and Conservation Measures: Saving Consumers Money, Reducing Pollution and Creating Jobs

Midwestern states have adopted a number of energy efficiency and conservation measures. These smart policies are a trifecta for the Midwest in saving consumers money on their electricity bills, creating jobs and reducing pollution.

In Illinois, the Energy Efficiency Trust Fund, established in 1998, provides grants for energy efficiency upgrades, building retrofits, and other energy efficiency initiatives. The Illinois Clean Energy Community Trust, created in 1999, made grants available to non-profits, schools, municipalities and other groups for energy efficiency, renewable energy, and wildlife habitat protection projects. The Trust supports lighting efficiency upgrades, heating, ventilation, and air conditioning improvements, green building projects, and other initiatives. Under the Illinois' Energy Efficiency Portfolio Standard, utility companies are helping their customers invest in energy-saving equipment and technologies, targeting a 25% decrease in the growth of electricity demand by 2015.

Iowa's State Energy Program offers grant funding to municipal organizations to retrofit buildings in order to improve energy efficiency. In addition, the Building Energy Management program provides financing from a low-interest revolving loan fund to finance energy efficiency and renewable energy projects by public organizations in the state. The Building Energy

Management program has produced \$317 million in energy cost savings since 1988. In Minnesota, Senate File 145 – enacted in 2007 – sets an energy savings goal of 1.5% per year for electricity and natural gas utilities. Established by the Next Generation Act of 2007, the state's Conservation Improvement Program encourages utilities to promote the adoption of energy-efficient technology, help households and businesses reduce energy costs, and reduce greenhouse gas emissions. The Conservation Improvement Program requires that electric utilities spend at least 1.5% of annual gross operating revenues on energy efficiency programs. In 2006, Wisconsin set an Energy Efficiency Resource Standard that requires utilities to spend 1.2% of annual operating revenues to fund energy efficiency and renewable energy programs. The Energy Efficiency and Renewables Act, passed in 2006, set a goal of reducing energy use in state buildings by 20% from 2005 levels by 2010.

Clean Energy Generation Policies and Building a Stronger Midwestern Economy

Several states in the Midwest have adopted policies to encourage the development of clean homegrown renewable energy. These policies have strengthened clean energy economic activity across the Midwest while diversifying energy supplies and reducing pollution.

Illinois has a Renewables Portfolio Standard that sets a target of 25% of retail electricity sales from renewable sources by 2026. According to the Energy Information Administration, renewables (primarily wind) made up 4.8% of Illinois' electric capacity in 2010. The state has a number of programs in place to encourage the development of renewable energy resources. The Solar and Wind Energy Rebate Program supports the utilization of small-scale solar and wind energy systems. The Community Solar and Wind Grant Program supports the development of community-scale solar thermal, photovoltaic, and wind energy technologies. The Renewable Energy Business Development Program supports renewable energy businesses and component manufacturers. And the Illinois' Renewable Energy Resources Trust Fund supports the development of renewable projects.

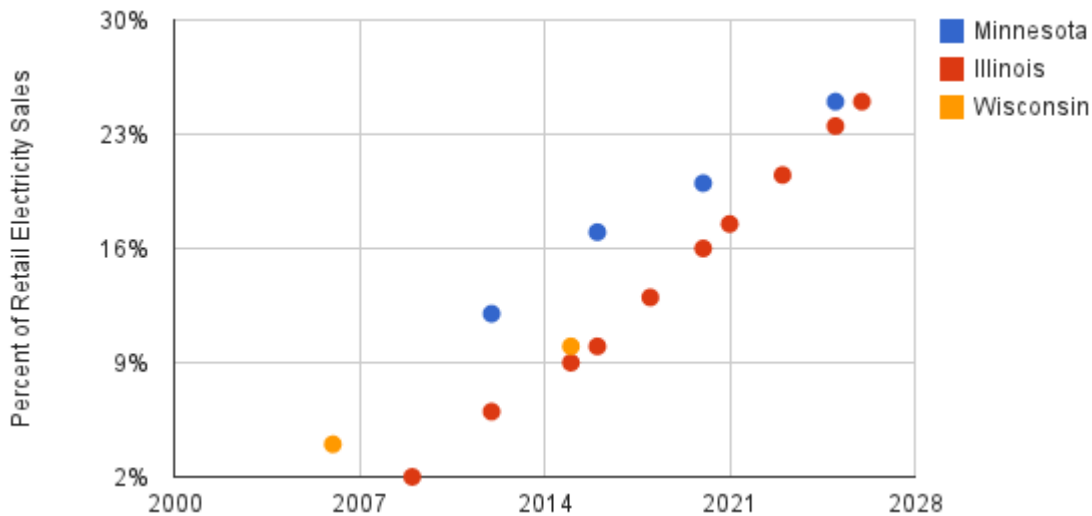
The Iowa Alternative Energy Production Law, enacted in 1983, requires the state's investor-owned utilities to expand renewable energy resources. According to the Energy Information Administration, in 2010, 25.5% of Iowa's electric capacity came from renewables, primarily wind power. The State Energy Program offers grant funding for the installation of renewable energy projects including solar photovoltaic, wind, solar thermal, and biomass technology. The Iowa Power Fund was started in 2007 to invest in renewable energy technology, and has invested in numerous projects including wind turbine manufacturing.

Minnesota law sets a target of 25% renewable energy generation by 2025, with an expansive target for Xcel Energy, the state's largest power company. According to the Energy Information Administration, in 2010 renewables, primarily wind, made up 17.6% of the state's electric capacity. The state's Renewable Development Fund supports wind energy, biogas recovery, and other renewables.

Wisconsin's law calling for cleaner energy, updated in 2006, sets a target of 10% renewable energy generation by 2015. According to the Energy Information Administration, renewables made up 7.1% of Wisconsin's electric capacity in 2010. The state's Focus on Energy program offers grant funding for the deployment of renewable energy projects.

Figure 2 illustrates how state clean energy targets increase over time.

Figure 2. State clean energy standards



Source: Database of state incentives for renewables and efficiency

Economic Opportunity for Midwestern Farmers, Harvesting Carbon Pollution

Given the importance of the agricultural sector in the Midwest, several states have initiated innovative voluntary incentive-based policies to reduce greenhouse gases from agricultural activities. In 2006, Illinois was the first state to offer farmers the opportunity to earn and sell greenhouse gas emissions credits for conservation practices through the Illinois Conservation and Climate Initiative. One of the program sponsors, the Delta Institute, enrolled 1,200 landowners and 300,000 acres in Illinois and Michigan and returned more than \$2 million to program participants in emissions credits. The Illinois Department of Agriculture’s Sustainable Agriculture Grants Program also offers funding for conservation practices.

The Iowa Department of Agriculture and Land Stewardship offers financial assistance to farmers to encourage conservation practices, including tree planting and cover cropping. The department also funds equipment upgrades by retail fuel dispensers to increase the use of renewable fuels. The Minnesota Terrestrial Carbon Sequestration Initiative identified strategies to mitigate climate change and improve farm productivity by increasing soil organic matter. The state Department of Agriculture’s Sustainable Agriculture Loan Program makes loans to farmers to enable the adoption of sustainable farming practices including cover cropping and the use of solar powered equipment. In 2010, the state Department of Agriculture’s Sustainable Agriculture Demonstration Grant Program offered grants to farmers for practices such as cover cropping and renewable energy production.

Clean Energy Business Activity and Jobs

Midwestern states have fostered significant private sector activity in homegrown clean energy resources. The Midwest Renewable Energy Association, based in Wisconsin, has over 3,200 members, including renewable energy equipment manufacturers and installers. The American Wind Energy Association counts at least 75 facilities that manufacture components for the wind energy industry in Illinois, Iowa, Minnesota, and Wisconsin. The Illinois Solar Energy Association has over 100 member businesses state wide. According to the Environmental Law and Policy Center, Wisconsin has 135 solar power supply chain businesses.

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