



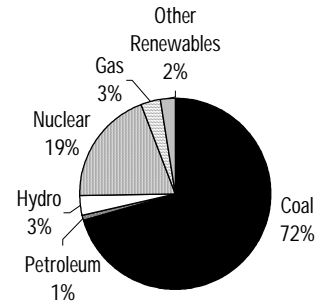
Renewing Wisconsin

A National Renewable Energy Standard Will Benefit Wisconsin's Economy

America's energy choices affect our national security, our economy, our family budgets, and our environment. UCS examined a national policy to increase the United States' use of renewable energy to 20% of electricity supplies by 2020, called a renewable portfolio standard (RPS). This fact sheet shows that under a national RPS of 20%, Wisconsin has the potential to meet a significant portion of its electricity needs with renewable energy while generating substantial economic and environmental benefits for the state. See our briefing *Renewing Where We Live* for more information on the benefits of a renewable energy standard for the Midwest.

Current Electricity Mix. Wisconsin is heavily reliant on coal and nuclear power to generate its electricity. All of the coal, nuclear fuel, and natural gas is imported into the state, exporting dollars and jobs in the process. Hydroelectric power and other renewable energy sources such as wind and bioenergy currently provide about 5% of the state's electricity. In 2000, Wisconsin imported about 8% of the electricity used in the state.

Wisconsin's Electricity Mix, 2000



Wisconsin's Renewable Energy Potential

Resource	Generation (billion kWh)	% of 2000 Electricity Sales
Wind	90.4	140%
Bioenergy	21.6	33%
Landfill Gas	0.8	1%
Total	112.8	174%

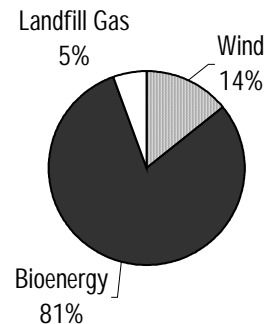
Renewable Energy Potential. Wisconsin has the technical potential to generate over 1.7 times its current electricity needs from renewable energy. The resources with the greatest potential in Wisconsin are wind and bioenergy. Emerging renewable technologies such as solar photovoltaics also have the potential to play a smaller but important part in the state's electricity supply. Not all of Wisconsin's renewable potential will be developed due to economic, physical, and other limitations.

Renewable Energy Development. The UCS analysis found that under the 20% national standard, Wisconsin would produce the equivalent of 9% of its electricity use from renewable energy (not including hydro) in 2010 and 24% in 2020. By 2020, renewable generation in Wisconsin would exceed the national standard. If electricity generation grows at the same rate as electricity use in the state, renewable energy would provide 27% of Wisconsin's electricity generation in 2020.

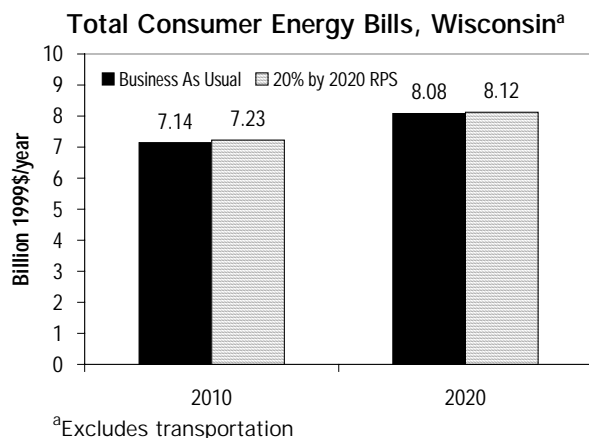
Economic Development. Renewable energy development would bring significant economic benefits to Wisconsin. Between 2002 and 2020, a 20% national standard would produce

- \$1.6 billion in new capital investment in Wisconsin
- \$81 million in new property tax revenues for local communities
- \$10 million in lease payments to farmers, ranchers, and rural landowners from wind power
- \$285 million in additional revenues from the export of renewable energy credits¹

Renewable Energy Mix in Wisconsin under 20% RPS



Consumer Costs and Benefits. A national standard of 20% would be affordable to Wisconsin consumers. Total annual consumer energy bills (not including transportation) would be 1% higher than under business as usual in 2010 and 0.5% higher in 2020. The present value of total consumer costs would be just 0.4% higher between 2002 and 2020. Revenues from renewable energy credit exports and a reduction in natural gas prices offset a significant portion of the incremental costs of meeting the renewable energy standard in the state.



Environmental Benefits. The increased use of renewable energy in Wisconsin would help reduce air pollution in the state and surrounding region. Power plant emissions of carbon dioxide, which is fueling global warming, would be 16% lower in the Midwest region by 2020 than without the renewable energy standard. Other pollutants that harm human health would also be reduced by a national standard of 20% by 2020.

Additional Renewable Energy and Energy Efficiency Policies Increase Benefits

UCS examined the impact of increasing energy efficiency along with a renewable energy standard. The Renewable Energy and Energy Efficiency Act of 2001 (S. 1333) combines a 20% standard, net metering, and a public benefits fund. Combining these policies turns consumer costs into consumer savings, greatly increases economic development and environmental benefits, significantly reduces natural gas prices, and provides additional diversity benefits compared to the 20% standard alone. Increasing both energy efficiency and renewable energy is the best option for Wisconsin.

A 10% Renewable Energy Standard Would Have Fewer Benefits

UCS also looked at what would happen under a renewable energy standard of 10% by 2020, similar to a provision in the Senate's Energy Policy Act of 2002 (S. 1766), introduced by Senators Daschle (D-SD) and Bingaman (D-NM). Under a 10% standard, Wisconsin would achieve savings on consumer energy bills, but would also achieve less diversity, capital investment, and fewer environmental benefits than under a 20% standard alone. The added diversity, economic development, and environmental benefits make the 20% renewable energy standard the preferred option for Wisconsin.

Impact of National RPS Proposals in Wisconsin

In 2020:	20% RPS	Combined Policies of S. 1333 ^a	10% RPS
Cumulative New Capital Investment	\$1.6 billion ^b	\$3.1 billion ^c	\$0.3 billion
Cumulative Consumer Energy Bill Savings ^d	-\$0.4 billion	\$1.5 billion	\$0.4 billion
Changes in Annual Consumer Energy Bills ^d	\$43 million 0.5%	-\$696 million -9%	-\$188 million -2%
Changes in Annual CO ₂ Emissions from regional power plants	-16%	-25%	-5%

Notes

- a. Includes 20% RPS, 2 c/kWh public benefits fund charge, and net metering.
- b. All dollars presented in 1999\$.
- c. Includes investments in energy efficiency.
- d. Excludes transportation.

The Union of Concerned Scientists is a nonprofit partnership of scientists and citizens combining rigorous scientific analysis, innovative policy development, and effective citizen advocacy to achieve practical environmental solutions. For more information, visit our web site at www.ucsusa.org/energy.

¹ Results presented are in 1999\$. Cumulative results are in net present value using a 5% real discount rate.