



Real Energy Solutions: The Renewable Energy Standard

Renewable energy can help solve multiple problems: increasing and volatile fossil fuel prices, energy supply shortages and disruptions, a growing dependence on natural gas, a need for more domestic energy supplies, and harmful air pollution. A national renewable energy standard for electricity, also called a Renewable Portfolio Standard (RPS), can diversify our energy supply with clean, domestic resources. It will help stabilize electricity prices, reduce natural gas prices, reduce emissions of carbon dioxide and other harmful air pollutants, create jobs—especially in rural areas—and bring new income to farmers and ranchers.

What is a Renewable Energy Standard?

The RPS is a market-based mechanism that requires utilities to gradually increase the portion of electricity produced from renewable resources such as wind, biomass, geothermal, and solar energy. Twelve states—including Texas—have enacted minimum renewable energy requirements. But energy production creates national economic and environmental problems that need national solutions.

The RPS Relies on Market Forces

By using tradable "renewable energy credits" to achieve compliance at the lowest cost, the RPS would function much like the Clean Air Act credit-trading system, which permits lower-cost, market-based compliance with air pollution regulations. This market-based approach creates competition among renewable generators, providing the greatest amount of clean power for the lowest price, and creates an ongoing incentive to drive down costs.

Benefits of the Renewable Energy Standard

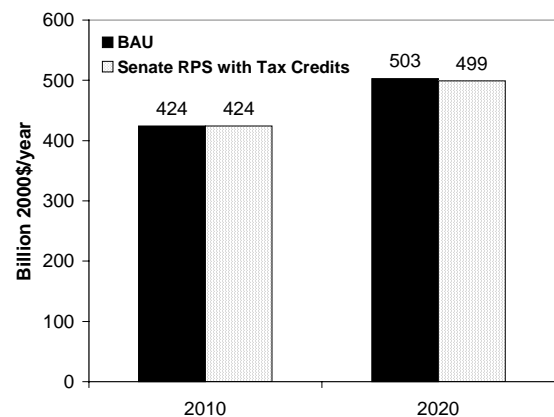
Keep electricity bills low

Diversifying the power supply by developing America's homegrown renewable energy resources shields consumers from the price volatility that can plague energy markets. Renewable energy is not subject to the price volatility that plagues fossil fuel-fired power plants.

A report done by the five national energy labs for the Department of Energy in November of 2000 found that renewables could supply at least 7.5 percent of US electricity by 2010. When combined with energy efficiency improvements, energy costs to consumers would decline.¹

A recent UCS analysis found that the 10% national RPS and renewable energy tax credits passed by the US Senate in April 2002 would save consumers nearly \$3 billion on energy bills through 2020.^{2,3} A stronger national renewable standard, combined with incentives and standards to improve energy efficiency, would significantly increase savings and other benefits even more.

Total Consumer Energy Bills, United States^a



^aExcludes Transportation.

Reduce dependence on fossil fuels and lower fossil fuel prices

Studies by UCS, the Department of Energy, and others show that a national standard can create healthy competition for fossil fuel power plants, which are increasingly fueled by natural gas. By reducing the heavy demand for natural gas, the RPS will reduce natural gas prices to homes and businesses.

“The benefit of wind and solar energy is a predictable price path...your variable costs will be zero.”

Pat Wood

former Chair of the Texas Public Utilities Commission, which implemented the nation's most successful RPS to date, and current Chair of the Federal Energy Regulatory Commission

Foster economic development

This RPS will stimulate domestic investment in new renewable energy throughout the nation, creating jobs and income in rural areas as well as in the high tech and manufacturing sectors. Wind energy could provide \$1.2 billion in new income for farmers and rural landowners by 2020 and 80,000 new jobs, according to the US Department of Energy. Tripling US use of biomass energy could provide as much as \$20 billion in new income for farmers and rural communities. With a strong domestic renewable energy industry, the US economy would benefit from the large export potential of this industry.

Reduce emissions and environmental impacts

Adopting a strong national renewable energy standard can reduce US carbon dioxide emissions—the primary greenhouse gas—from electricity generation. Combined with energy efficiency improvements, power plant carbon emissions can be significantly reduced. Electricity generation is the leading source of US carbon emissions, accounting for over 40 percent of the total. An RPS will also significantly reduce emissions of nitrogen oxides, sulfur dioxide, and mercury, which are linked to acid rain, smog, respiratory illness, and water contamination. A recent study by the Energy Information Administration shows that the RPS can reduce the cost of controlling power plant emissions by reducing pressure on natural gas prices.

An RPS would reduce the need to drill for natural gas, build new pipelines and power lines, and reduce the need to mine, transport and burn coal. Energy efficiency and renewable energy can be increased faster than developing new fossil and nuclear energy supplies.

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.

¹ Interlaboratory Working Group, *Scenarios for a Clean Energy Future* (Oak Ridge, TN; Oak Ridge National Laboratory and Berkeley, CA; Lawrence Berkeley National Laboratory), ORNL/CON-476 and LBNL-44029, November 2000.

http://www.ornl.gov/ORNL/Energy_Eff/CEF.htm

² Net present value result in 2000 dollars using an 8% real discount rate.

³ Union of Concerned Scientists, *Renewing Where We Live Update: The Senate's National Renewable Energy Standard Will Benefit America's Economy*, Union of Concerned Scientists, Cambridge, Mass. August 2002.