



The Senate's National Renewable Energy Standard Benefits Farmers and Rural Economies

America's energy choices affect our national security, our economy, our family budgets, and our environment. UCS examined a national policy to gradually increase the country's use of renewable energy sources to 10% of electricity supplies by 2020 –along with tax credits for renewable energy – as passed in the recent US Senate energy bill. UCS found that by adopting a national standard of 10% – a so-called renewable portfolio standard – America can meet a significant portion of its electricity needs with homegrown renewable energy sources such as wind, bioenergy, and solar power. Doing so will generate substantial economic and environmental benefits for farmers, ranchers, and rural economies.

Much of the nation's renewable energy potential is found on agricultural lands and in rural areas. Wind and bioenergy (or biomass) could become a new cash crop for farmers and ranchers, helping to increase and diversify income and to counteract swings in commodity prices. Renewable energy development would also provide a long-term source of jobs, income, and tax revenues for rural communities. UCS found that over the next 18 years, a 10% national renewable energy standard would do the following:

- ***Stimulate nearly \$17 billion¹ in new capital investment in renewable energy technologies bringing jobs to rural economies.*** This investment would create tens of thousands of new high-paying jobs in construction, manufacturing, and operation and maintenance of renewable energy facilities. UCS found that wind power would provide nearly 4% of the nation's electricity by 2020 under a 10% national standard. The US Department of Energy estimates that generating 5% of the country's electricity with wind by 2020 would create 80,000 new jobs.

A Danish company recently opened a plant to manufacture wind turbine blades in Grand Forks, North Dakota, creating 130 new high-paying jobs. This is equivalent to 20% of the jobs in the state's entire coal industry. New wind turbine manufacturing plants have also opened or been proposed in Illinois and Colorado.

- ***Increase bioenergy use by nearly 60%, providing hundreds of millions of dollars in new income for farmers and rural communities.*** The DOE found that if the nation's use of bioenergy tripled, farmers and rural communities would earn as much as \$20 billion in new income. Much of this new income would come from producing electricity from agricultural residues such as corn stover and animal wastes, and fast-growing energy crops such as switchgrass (a perennial prairie grass native to the Midwest).

In Chariton Valley, Iowa, farmers have planted over 4,000 acres with switch-grass to fuel a large power plant near Ottumwa. If successful, the project plans to scale up to 50,000 acres, with 200 to 500 farmers producing 200,000 tons of switchgrass each year, supplying 5% of the plant's fuel, and earning profits of about \$10 per ton or \$40 per acre.

- ***Generate over \$1 billion in property tax revenues for local communities.*** Increased tax revenues could be used to build new schools, roads, and other public infrastructure.

In Iowa, about 250 MW of wind development is providing \$2 million per year in property tax revenues for local communities. A 35-megawatt wind farm in Texas is providing about \$120,000 per year in revenues for local schools.

- ***Provide \$400 million in lease payments to farmers, ranchers, and rural landowners from wind power development.*** Large wind turbines use only about a quarter acre of land, including access roads, so farmers can continue to plant crops and graze livestock right up to the base of the turbines. In a good year, that same plot of land could yield \$90 worth of corn, \$40 worth of wheat, and \$5 worth of beef.

In the Midwest, wind developers are paying farmers \$2,000 or more per year for each wind turbine installed on their land.

¹Results presented are in 2000 dollars. Cumulative results are in net present value using an 8% real discount rate.