

Sustainable Energy

Clean, Safe Energy That's
Renewable and Efficient

in *New Mexico*

Did you know ... that the price of photovoltaic electricity has dropped dramatically from \$15 per kilowatt-hour in 1975 to less than 25¢ per kilowatt-hour today; the cost of wind energy has dropped over 50%?

And... that New Mexico is rich in a number of renewable energy resources, especially solar and wind, and has the potential for a number of other renewable energy technologies including geothermal?

Jobs in Sustainable Energy

The U.S. Department of Energy's (DOE's) National Renewable Energy Laboratory (NREL) leads the nation in research and development and lab-scale demonstration of sustainable energy technologies. In FY 1997, a total of \$93,475 in research contracts, service subcontracts, and procurements was awarded to New Mexico organizations by NREL to develop renewable energy and energy efficiency technologies.

NREL's many programs help facilitate technology development with interested consumers and potential partners from industry, business, academia, and the global community. NREL's technologies, which are clean and green, include:

- Photovoltaics
- Wind
- Biofuels
- Biomass power
- Hydrogen
- Superconductivity
- Solar thermal
- Geothermal
- Hybrid vehicles
- Building energy systems
- Industrial applications of solar power.

DOE's Federal Energy Management Program (FEMP) activities could add 62 jobs each year and save people in New Mexico an estimated \$3.2 million in annual energy costs.

In addition, FEMP helped bring about the New Mexico Initiative, a public and private partnership to reduce energy use in federal facilities in the state by 30 percent and water and sewage usage by 50 percent while creating jobs in energy and water conservation.

Clean Energy = Clean Environment

The clean electricity generated from renewable energy sources in New Mexico from both utility and nonutility generators displaces about 63 tons of carbon dioxide per year (measured in carbon units) that would be emitted by coal-fired power plants.

Between March 1996 and March 1997, the U.S. Environmental Protection Agency's Green Lights and Energy Star programs helped save 125 million kilowatt-hours of energy in New Mexico. This saved consumers in the state at least \$10 million in energy bills and prevented more than 225 million pounds of carbon dioxide from entering the atmosphere. Projected savings through the year 2000 resulting from energy investments already made is \$33 million.

Economic Benefits

In FY 1996, DOE's Office of Energy Efficiency and Renewable Energy (EE) invested \$42.4 million in New Mexico. New Mexico's consumer energy cost savings from EE research and development products are estimated to be more than \$180 million.¹

- Over forty businesses in New Mexico specialize in renewable energy-related products and services.
- State weatherization programs, aided by federal funding from DOE, helped at least 529 low-income and other disadvantaged New Mexico families last year.
- In 1996, EE invested more than \$50 million in New Mexico at Sandia and Los Alamos National Laboratories, bringing worldwide recognition to New Mexico

Did you know... that 88.6% of New Mexico's electricity is generated from coal, 10.5% from natural gas, and 0.9% from other sources, including petroleum and hydroelectric?

And... that New Mexico is a net energy exporter, meaning that more electricity goes out of the state than comes in?

as a result of award-winning technology development and deployment, a unique mix of skills, and early involvement of the private sector. Employing more than 15,000 New Mexicans in multidisciplinary teams from academia, business, and industry enables EE to tackle large, complex problems through unique and world-class user facilities and then swiftly transfer the technologies developed into new energy sources and energy-saving commercial applications.

- Sandia works together in an alliance with the National Renewable Energy Laboratory as the National Center for Photovoltaics (NCPV). The NCPV is a focal point for technology development and information about photovoltaics in the United States. It helps to enhance communications and catalyze strategic partnerships, and it provides a place to access the wealth of knowledge offered by these DOE laboratories. The alliance also includes the Utility Photovoltaic Group, a government/industry partnership to increase the use of photovoltaics by utilities.
- New Mexico has established a \$5 million loan fund for vehicle conversions and has deregulated the use of compressed natural gas.
- In 1995 (latest figures available), the Energy Information Administration estimated that 9,238 kilowatt-hours of electricity were generated in New Mexico from municipal solid waste landfill gas—a clean and renewable energy source.

Want More Information?

**Office of Energy Conservation
Consumer Hotline**
800-OEC-6662

**Energy Efficiency and Renewable
Energy Clearinghouse (EREC)**
800-363-3732
<http://www.eren.doe.gov>

**National Renewable Energy
Laboratory (NREL)**
800-644-NREL
<http://www.nrel.gov>

**Federal Energy Management
Program (FEMP)**
<http://www.eren.doe.gov/femp/>

**National Association of State
Energy Officials**
<http://www.naseo.org/>

**U.S. Environmental Protection Agency's
(EPA) Green Lights and Energy Star**
<http://www.epa.gov/energystar.html>

¹Based on a GAO review and validation of the energy savings of EE research and development success stories.

Questions?

*Call Katherine Hamilton, Manager, Government Relations
202-651-7521*



National Renewable Energy Laboratory

NREL is a national laboratory of the U.S. Department of Energy (DOE), managed for DOE by Midwest Research Institute