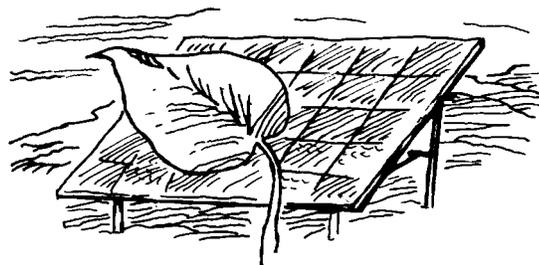




# Green Power



**E**PA's State and Local Climate Change Program helps build awareness of the risks of climate change at the state and local levels, and the expertise and capacity to address those risks. By emphasizing the many economic and environmental benefits of greenhouse gas reductions, the program encourages state and local decisionmakers to implement voluntary measures to reduce their greenhouse gas emissions.

## Green Power for States and Municipalities

**L**ocal and state governments can use "green power"—electricity produced from renewable energy sources such as solar, wind, geothermal, hydro, and biomass—to reduce greenhouse gas emissions and air pollution from energy use in their offices and facilities. By purchasing or generating green power, governments can lead the way toward wider support of clean energy sources.

In states that have created a competitive market for electricity, state and local agencies may buy green power from utilities and other electricity providers. In California, for example, 60 of the 78 city governments, school districts, and other public agencies in the San Diego Association of Governments currently purchase green power for their electricity needs.

In states with traditional regulated electricity systems, governments may participate in green pricing programs if they are offered by utilities. A green pricing program is a voluntary utility-sponsored program that enables customers to support the development of renewable resources. Participating customers may pay a premium on their electric bills to cover the incremental cost of the renewable energy. When customers purchase green electricity, they ensure that the power provider will add that amount of renewable power into the grid, offsetting the need for the same amount of conventional power. The power provider may do this by maintaining existing

renewable resources, or by purchasing or generating additional renewable electricity. Other than its source, the electricity that powers the building of a green pricing customer is no different from the electricity received by other customers on the grid.

Although green energy often carries a premium price, some electricity providers "package" it with other products that include services to improve energy efficiency. These services can keep monthly electricity bills from increasing despite the higher fee per kilowatt-hour (kWh) for green power.

## The Federal Role

Nationwide, the federal government has more than 500,000 buildings, and federal agencies spend more than \$8 billion dollars per year on energy. The federal government is the largest single energy user in the nation. The potential for the use of renewable energy by federal agencies and facilities is substantial.

The Bush Administration included funding for renewable energy-related programs in its fiscal year 2003 budget. The plan seeks \$555 million in clean energy tax incentives as the first part of a \$4.6 billion commitment over the next five years. These tax credits will spur investments in renewable energy (solar, wind, and biomass), hybrid and fuel cell vehicles, cogeneration, and landfill gas conversion. The budget calls for a major effort by the federal Bureau of Land Management to increase its renewable energy activities by encouraging the study, exploration, and development of renewable energy resources from public lands. The U.S. Department of Energy is also supporting renewable energy with its plans to purchase 3 percent of its electricity from non-hydro renewable energy sources by 2005 and 7.5 percent by 2010.

### BENEFITS OF PURCHASING GREEN POWER

- Raises public awareness of renewable energy.
- Promotes development of new renewable energy resources.
- Creates jobs in renewable energy industry.
- Reduces emissions of greenhouse gases and air pollution.

Consistent with the National Energy Policy, President Bush also directed the Secretary of the Treasury to work with Congress to extend and expand the production tax credit for electricity generation from wind and biomass, develop a new residential solar energy tax credit, and encourage cogeneration projects through investment tax credits.

## State Experiences with Purchasing Green Power

Multiple states have realized the benefits and cost savings of supporting green energy purchases for government facilities. As some states restructure their electricity markets, an increasing number of state consumers want to reduce the pollution caused by generating electricity, and in many cases they are calling for state governmental bodies to support further green power distribution. At least five states (Arizona, Colorado, Maryland, Nebraska, and New York) have executive orders or legislation requiring state agencies to obtain a portion of their electricity needs from renewable energy sources.

States can support green power purchases within their state through four mechanisms: direct purchase, direct investment, green power option requirements, and education and outreach. Direct purchase means that the state or state agencies are buying green power directly for their energy needs. Direct investment involves supporting research into green power, or purchasing green power "credits," i.e., buying green power to put into the general electrical grid. Several states (e.g., Iowa, Minnesota, Montana, Washington) require regulated utilities to offer customers a green power option, thus providing electricity consumers in their states a voluntary option to choose green power. States also can support green power by educating businesses, homeowners, municipalities, and the public on the benefits of green power through emissions disclosure on utility bills.

### **Colorado Wind Power Options**

Through the cooperation of multiple agencies, wind power is an option for the majority of Colorado electricity consumers today. Ponnequin Wind Facility, located in northeastern Colorado, provides up to 20 MW of power to more than 15,000 customers, including 300-plus commercial customers and four wholesale customers, making it the largest utility green-pricing program in the country. Furthermore, advocacy and community-based marketing efforts by the state's Land and Water Fund resulted in investments of nearly \$500 million in clean energy technologies in Colorado and 241 MW of wind power coming online by 2003, preventing emissions of more than 600,000 tons of carbon dioxide each year.

### **Pennsylvania Buys Green Power**

The Pennsylvania Department of General Services will purchase 50,000 megawatt-hours of green power this year for a number of government facilities, including the Capitol complex in Harrisburg and the Commonwealth's 14 universities. Green power will account for five percent of the department's aggregated power purchases in 2002. Community Energy, Inc., will

supply the power under contract, and it will be a mix of wind power, landfill gas, hydroelectric, and solar energy.

## Municipality Experiences with Purchasing Green Power

Municipal utilities across the United States are instituting green pricing programs as a low-cost way to promote wind and other renewable energy resources. Approximately 40 municipal utilities provide renewable electricity to their customers, and many more community utilities offer renewable incentive programs.

### **Los Angeles, California**

The Green Power for a Green L.A. program gives Los Angeles customers the option to receive 100 percent renewable energy at an additional cost of \$3 per month for the average residential customer. The Los Angeles Department of Water and Power will supply 20 percent of the power from new renewable sources. In March 2001, the Los Angeles City Council approved the purchase of green power from Green L.A. for 10 percent of the city government's electricity acquisitions. This action represents one of the largest municipal green power purchases in the country.

### **Austin, Texas**

Austin Energy, the municipal utility for the City of Austin, offers its customers the option of choosing electricity from renewable sources through its GreenChoice program. This program provides customers with 100 percent renewable energy from four new landfill methane gas projects and 59 new wind turbines on King Mountain in West Texas. As of 2002, about 6,000 residential customers and 100 businesses have signed up for GreenChoice. On a kilowatt-hour basis, GreenChoice customers pay about one-sixth of a cent more on their monthly electric bill than traditional customers. Austin Energy has signed 10-year contracts for electricity from the wind and methane gas projects outlined above. The price for that electricity will remain the same for the life of those contracts.

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## For More Information

### **EPA's State and Local Climate Change Program**

Web site: <http://www.epa.gov/globalwarming/> and click on "Public Officials" under the "Visitors Center."

### **EPA's Green Power Partnership**

Web site: <http://www.epa.gov/greenpower>

### **EPA's Green Power Site**

Web site: <http://www.epa.gov/globalwarming/actions/solar> and click on "Green Power."

### **U.S. Department of Energy's Green Power Network**

Web site: <http://www.eren.doe.gov/greenpower>

### **The Environmental Resources Trust**

Web site: <http://www.utilityguide.com/1common/gpower.html>

### **The Green-e Renewable Electricity Certification Program**

Web site: <http://www.green-e.org>

This fact sheet is one of a series compiled by EPA's State and Local Capacity Building Branch. The series can be found at <http://www.epa.gov/globalwarming/publications/outreach/statekit.html>. Each sheet highlights successful actions undertaken by state and local governments to mitigate climate change.