United States Air Force
Energy Program

Energy Vision: Make Energy a Consideration in All We Do
Energy Strategy: Reduce Demand, Increase Supply, Change the Culture

Commanders and energy managers work to minimize energy consumption and cost while meeting mission objectives and provide quality working and living conditions for Airmen and their families …a responsibility the Air Force does not take lightly.

Facilities Facts
- The Air Force operates and maintains over 616 million square feet of facilities at 166 major and minor installations around the world
- In 2006, the Air Force purchased enough renewable power—about 990 gigawatt hours—to power over 100,000 average-sized homes for a year
- 37 Air Force Bases (AFBs) in the United States procure green power
- Dyess AFB, Texas and Fairchild AFB, Washington purchase nearly 100% of their electrical energy from renewable power sources provided by utility companies

Harnessing the Power of Wind
Wind energy is renewable, widely distributed, clean, and produces no toxic atmospheric and greenhouse gases. The Air Force is a leading purchaser and user of wind energy.
- 2.7 megawatt wind farm on the Ascension Island in the South Atlantic Ocean provides about 4,600 megawatt hours of electrical power per year for the installation
- The 1.3 megawatt wind farm at F.E. Warren AFB in Wyoming is capable of generating 4.4 million kilowatt hours per year, enough to power about 520 households

Converting the Energy of the Sun
Through the technologies of photovoltaics and solar collection, energy from the sun is converted into electrical power.
- Through a public-private partnership, America's largest photovoltaic solar farm is in operation at Nellis AFB, Nevada. This solar farm will generate about 14 megawatts and will also save the Air Force $1M a year
- A 170 kilowatt photovoltaic is planned for Fresno Air National Guard Base, California
- March Air Reserve Base, located in California, recently completed a 413 kilowatt photovoltaic array project and began using it May 17, 2007
- A 374 kilowatt photovoltaic roof on the base exchange at Luke AFB, Arizona is operational

Generating Power from Below the Earth
The geothermal process is based on the simple premise that, below the surface, the earth is a constant temperature all year long. During the winter, the warmer temperature below the surface is used to warm the air in your home, while the process is reversed during the summer. The Air Force has already begun use this technology.
- Whiteman AFB, Missouri, is installing ground-source heat pumps for 10 buildings, a savings of 20,400 megawatt hours per year
- Three dormitories at Offutt AFB, Nebraska, are heated through ground-source heat pumps. An estimated 2,760 megawatt hours of energy is saved per year

Gathering Energy from Plants
Biomass, such as plant matter or biodegradable waste, can be broken down and burnt as fuel. This valuable source of energy is already generating power for Airmen and their families.
- A 1.3 megawatt landfill gas project has been in operation at Hill AFB, Utah since 2004

Renewable Energy Initiatives

Current as of 12 December 2007

For more information on the Air Force Energy Program visit:
http://www.safie.hq.af.mil