Things you can do to save energy

Wash clothes in cold water

Most modern laundry detergents are designed to work in both cold and hot water. Hot water is generally necessary only for heavily stained clothes. Approximately 90 percent of the energy involved in washing clothes by machine goes to heating water, not in running the machine. Switch to an energy-efficient front-loading machine.

Use the microwave

A microwave uses only one-third the energy used by a conventional oven. Because it heats the kitchen less, the kitchen will be cooler, and you will save on summer air conditioning costs.

Install a low-flow showerhead

Showerheads are available that use half the water of older shower heads. A family of five can save about 32,000 gallons of hot water a year.

Weatherstrip, caulk, and insulate

Seal gaps around doors and windows. Explore rebates for installing insulation.

Switch to more efficient lighting

Compact fluorescent lights and Light-emitting diodes (LEDs) are many times more efficient than ordinary incandescent lights and thus reduce CO_2 emissions. Also, they now have more appealing light quality and come in many shapes and light strengths. Consider installing sensors that turn lights on only when they are needed.

Adjust the thermostat

Many people will barely notice a small adjustment in their home's temperature. Lower or raise the thermostat one degree at a time until you reach a temperature you find comfortable. Think sweaters and sweatshirts. Have your heating and cooling systems tuned-up. Consider installing a programmable setback thermostat.

Use shade to help with cooling

Use drapes and awnings to keep out unwanted solar heat gain. If you must use an air conditioner, place it in a shady location away from the summer sun. Cut back shrubbery to ensure good air flow around the air conditioner.

Reduce "phantom loads"

Many appliances, such as clock radios, computers and televisions, continuously use small amounts of electricity. Reduce these "phantom loads" by putting appliances on power strips and turning them off when they're not needed.

Turn off the computer

Shutting down computers at night and on weekends saves significant amounts of energy without affecting performance. Make sure any power management features are activated, such as having the screen go dark after 15 minutes of nonuse.

Choose energy-efficient appliances

As a minimum, choose appliances with the Energy Star™ label. Savings on your energy bills will quickly recoup higher purchase costs. Buy appliances that are sized to your needs, and discard old appliances.

Reduce car use and fuel waste

Walk, bike, carpool, and use public transportation whenever possible. Keep you car engine tuned and tires properly inflated. Avoid unnecessary idling and rapid acceleration.

Queries

* How do energy issues affect your appliance purchases and lifestyle choices?
* How do you see the relationship between your habits of energy use and the "spirit that takes away the occasion for all wars and outward strife?"
* How has your life been changed by applying your knowledge of energy issues to daily life?
* How does the Spirit call you to witness to society for needed changes in energy use?

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Quaker Earthcare Witness
P. O. Box 6787, Albany, CA 94706
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<www.QuakerEarthcare.org>

QEW's Vision and Witness

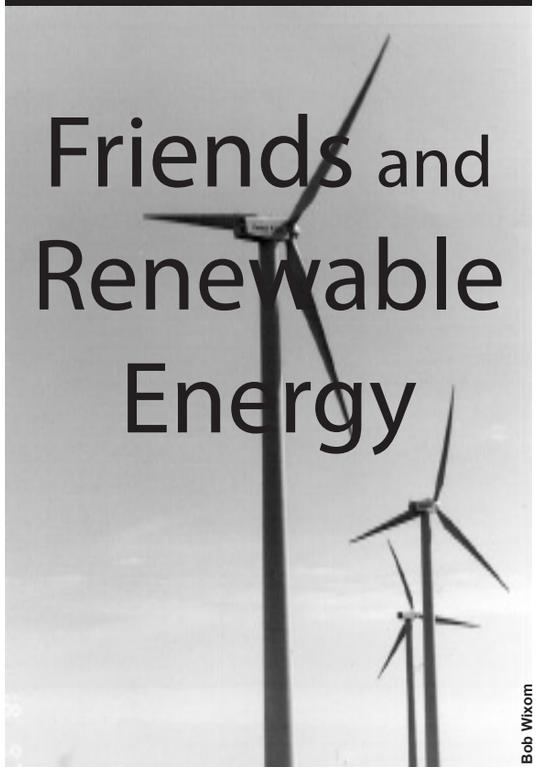
WE ARE CALLED to live in right relationship with all Creation, recognizing that the entire world is interconnected and is a manifestation of God.

WE WORK to integrate into the beliefs and practices of the Religious Society of Friends the Truth that God's Creation is to be respected, protected, and held in reverence in its own right and the Truth that human aspirations for peace and justice depend upon restoring the earth's ecological integrity.

WE PROMOTE these Truths by being patterns and examples, by communicating our message, and by providing spiritual and material support to those engaged in the compelling task of transforming our relationship with the earth.

Simplicity as Spiritual Exercise Series

Friends and Renewable Energy



Bob Wixom

Only when we see that we are part of the totality of the planet, not a superior part with special privileges, can we seek effectively to bring about an earth restored to wholeness.

—Elizabeth Watson
"Your God Is Too Small," 1996

Friends and Renewable Energy

IN God's marvelous creation, our planet is continually bathed in new energy from the sun. Winds blow, clouds form, rain falls, plants grow, and all life exists because of this ongoing infusion of energy into the earth's natural systems.

Until the industrial revolution of the last two centuries, civilization operated almost entirely on the "daily bread" of solar energy, which in one form or another renews itself regularly. Now, however, we seem locked into a way of life that is dependent on nonrenewable fossil fuels. John Woolman asked us to see whether the seeds of war are in our possessions. The drive for control of petroleum resources is clearly at the root of much deadly conflict today. Global petroleum extraction will peak soon (some experts say as early as 2012); if demand is not restrained, oil prices will soar and wars will continue.

World food production is likely to drop as fossil fuel prices rise. The burning of fossil fuels also leads to environmental problems—particularly climate-changing carbon dioxide (CO_2) emissions—that threaten the long-term future of civilization itself.

Our historic testimonies of simplicity, integrity, equality, and peace call us to reexamine our patterns of energy consumption and see what changes are required of us. We can, in fact, live richly, justly, and simply without the heavy reliance on fossil fuels that upset the balance of nature and will soon be used up. When we bring the necessary changes to our homes and places of worship, to our communities, our nation, and the world, we are helping to preserve God's creation for future generations.

Choosing renewable electricity

The electric utility industry is responsible for about the same amount of atmospheric pollution as transportation. Choosing renewable sources of electricity for our homes and businesses that generate less pollution is a good way to act locally to solve a global problem.

Renewable energy sources reduce air pollution, slow global warming, lessen dependence on imported oil, and strengthen local economies. Unfortunately, for a number of economic and regulatory reasons, alternative electricity options have been slow in coming to market.

In some states that have introduced electric retail competition you can buy renewable energy directly from electric companies or utilities. If you live in a state without electric competition, you can purchase tradable renewable electricity certificates (TRCs) from renewable sources for specified amounts of electricity. Check out the May-June 2004 Quaker Eco-Bulletin, "Renewable Electricity is Something Everyone Can Buy," by Ed Dreby <www.quakerearthcare.org/publications>.

What goals might we set?

* Efficiency and sustainability. By 2020, at least one-third of all energy could come from renewable sources and the efficiency of energy use could be doubled.
* Cleaner power generation. We need to tighten limits on all power plant pollutants, and nuclear power should be phased out.
* Cleaner transportation. SUVs, pick-ups, and minivans should run as cleanly and efficiently as the cleanest cars. Incentives should promote public transportation and increase the market share of clean, efficient hybrid and fuel-cell vehicles.
* Investments and subsidies. Taxpayer subsidies of the coal, oil, and nuclear industries must stop. We must invest instead in renewables, taking care that the transition is also fair and just to affected workers and communities.

Types of renewable energy

Biomass (organic matter from agriculture and forestry waste, municipal and industrial solid waste, and energy crops) can be used to generate electricity. Since plants absorb CO_2 during growth, there is no net release of greenhouse gases when they are processed as biomass fuel.

Photovoltaics. Solar cells convert sunlight directly to electricity. The current system for pricing energy largely ignores environmental impacts. This gives the impression that solar is not competitive with electricity from fossil fuels. But given that the global demand for energy will soon exceed global fossil fuel production, photovoltaic systems are expected to play an increasing role in meeting the energy needs of homes, businesses, and other markets.

Solar heating. Capturing and storing solar energy to heat buildings and water has great potential for reducing the world's dependence on fossil fuels. The technology is simple and cost-competitive with conventional heating systems.

Wind power. Of all the renewable energy technologies, wind power is currently the most cost-competitive and the fastest growing energy source when compared to fossil-fuel-based electricity generation. Possible dangers to migrating birds and other impacts on wildlife need to be considered in locating wind turbine facilities.

Hydroelectric. Electricity can be generated from flowing water in rivers, or from dams or sluices where water passes through turbines. There is good potential for small, low-head dams, which tend to have lower impacts on ecosystems and human livelihoods than large dams.

Geothermal. Heat from the earth can be used to produce electricity or to heat water for space heating. Geothermal energy is an especially valuable resource in the western United States.

Hydrogen. Vehicles powered by fuel cells can run very efficiently and cleanly on compressed hydrogen. However, hydrogen can only be extracted from hydrogen compounds, such as water (H_2O) or methane (CH_4). That process consumes more energy than the hydrogen fuel contains, but it may also help increase the supply of portable fuels needed for transportation systems. Using wind and solar for extraction avoids the many environmental problems of fossil fuels.

Systemic problems need systemic solutions

IN ADDITION TO making personal lifestyle changes, we are called to work for changes in energy policy.

Currently, for each dollar the U.S. spends on renewable energy research and development, $5.50 is spent on research and development for fossil and nuclear energy. This ratio should be reversed, to support a transition to renewable energy sources.

Also, government subsidies to the fossil fuel and nuclear power industries make those mask the true costs of these energy sources. The public pays twice, once through taxes and again as consumers. We must work for policies that:

1. Get renewable energy on the grid.
2. Create tax incentives for renewable energy technology and eliminate subsidies for coal and nuclear power.
3. Require that a certain percentage of electricity be generated from renewable energy sources.
4. Plan for a percentage of transportation fuels to be derived from biofuels.
5. Increase public funding of renewable energy development and rapid rail transit.
6. Require renewable energy for government facilities and transportation fleets.
7. Increase federal investment in research and development of clean-energy technologies.