CHAPTER 5

ENERGY POLICY AND MANAGEMENT
How energy decisions affect our lives

TERMS IN GLOSSARY

active solar
blackout (brownout)
Clean Air Act
direct use geothermal
disclosure
distributed generation
ecological
energy efficiency
"green" pricing
incandescent light bulb
indirect (hidden) costs
net metering
passive solar
peak load
policy
rebate
Renewable Portfolio Standards
system efficiency
U.S. Environmental Protection Agency (EPA)
true-cost pricing

REMINDER

W = watt
kW = kilowatt = 1,000 watts
MW = megawatt = 1,000 kilowatts
1 megawatt can serve about 1,000 homes in the United States.

WHEN IT COMES TO ENERGY, you can make your mark — whether you are a student or the president of a country. Each individual counts when it comes to energy use. If five million of us turned off just one unneeded light all at the same time, for instance, we would reduce the demand for electricity by about 500 MW. This is the size of a typical power plant. And during the summer, if only one family or small business adjusted its air conditioning thermostat up by 3°F, or about 1°C, it would keep about 470 pounds (213 kilograms) of carbon dioxide from being emitted into the air every year.

In many ways we are all connected to each other and to the environment in which we live. Our energy decisions affect our own quality of life and the lives of others. As individuals and collectively, we can pursue energy choices that benefit everyone.

ENERGY POLICIES: WHAT'S IMPORTANT TO US?

Policies are the guidelines or principles that we use when we make choices. They can be simple or complex.

Our personal policies reflect our individual beliefs and goals; they are relatively simple. Policies for groups are more complicated. They must reflect shared goals arrived at from differing interests and points of view. Whether for a family, a business, a school, a community, or a nation, policy-making requires balance and compromise.

Individuals, businesses, and governments can all have energy policies, but it is the energy policies of state and national governments that affect our lives the most. Governments have a big say in which energy sources are developed, how much energy is imported, and even how much we pay for energy. Thus, energy policies affect public health, the environment, the economy of a region, the security of a nation, and the energy choices available to future generations.

PUTTING POLICIES INTO ACTION

Energy policies are implemented by an energy management plan — a plan of action, or set of strategies. In the following sections you will find examples of energy management strategies, some of which can be pursued or are already being implemented by you, your family, business, school, or local, state and federal governments.

ECOLOGICAL FOOTPRINTS

When we walk on a beach or in the snow we leave footprints. Less visible, but much more important, are the ecological footprints we leave when our activities alter the environment or result in the overuse of our natural resources. An ecological footprint is a measure of how much of nature's resources we use to sustain ourselves. We all have footprints; however, some are far bigger than others.

Our footprints grow as the economy, the world's population, and our use of natural resources grow. Sometimes the resources we use are renewable — like the trees that supply the wood for building houses or for biomass energy. In other cases — for instance, the consumption of oil — the resources decline with use. Either way, our footprints may become permanent if we exceed nature's ability to regenerate itself.