

## Energy Efficiency and Conservation

Energy efficiency and energy conservation encourage the prudent use of existing energy resources, reduce energy imports and help limit the impact of energy production and consumption on the environment. They also contribute to energy security.

Policy makers can promote energy efficiency through long-term energy research and development, improved information dissemination, establishing realistic efficiency standards and by taking the lead in reducing energy consumption in government operations.

The United States has made significant improvements in energy efficiency. Since 1973 the U.S. economy has grown by 124 percent and energy consumption has grown by only 26 percent. Technology exists that will allow even greater energy efficiency gains if financial investment will be available.

Price signals are fundamental to consumer choice and improved efficiency. Consumers will make rational economic decisions when they are supplied with accurate and timely price signals

Advances in technology are often the key to substantial energy efficiency gains. For example, on-board computers regulate the flow of fuel into most automobile engines. Similar gains have been realized in industrial processes, manufacturing, bulk transport, electric generation efficiency, and many other economic activities.

Long term, the U.S. Energy Information Administration projects continuing efficiency gains. Advanced electronic controls, for example, are expected to offer even greater operational gains in the residential, commercial and industrial sectors. Hybrid vehicles and hydrogen fuel cells may also significantly improve transportation efficiency. Moreover, cogeneration of electricity and the productive use of waste heat from electricity generation are also expected to be two big energy savers in the decades ahead.

Federal government programs that require energy efficiency labeling on various products and appliances and minimum efficiency standards will contribute to future gains.

The government can and has led by example. The Federal Energy Management Program (FEMP) has reduced energy and water use to help manage utility costs and promote renewable energy. By 1999 the federal government had reduced its energy use in buildings by some 28 percent compared to 1985 levels, primarily through the use of improved energy technologies.

Price signals and access to specific technologies are equally important in the industrial and agricultural sectors of the economy. More efficient motors and the increased use of cogeneration to create electricity are two examples of this approach. Increased research and development in industrial technologies produced greater efficiencies in motors. Government officials and the private sector should work together to ensure the widespread use of these new motors.

## **POLICY RECOMMENDATIONS**

- Expand and Strengthen the Energy Star Program.
- Congress should adequately fund the Low Income Heating Energy Assistance Program (LIHEAP) and weatherization programs.
- Expand and strengthen public education programs relating to energy efficiency.
- Expand the appliance standards program where technologically feasible and economically justified.
- Extend the Federal Energy Management Program to government facilities operated globally.
- Provide tax incentives for highly efficient vehicles, advanced clean coal technologies and other energy efficiency investments.

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