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## Energy Conservation

Conservation was discussed in considerable detail in background material accompanying President Carter's energy message of 5 April. The White House release identified progress since 1973 in saving energy: (i) industrial use of energy has dropped by 6 percent although output has increased by 12 percent, (ii) energy efficiency in residential buildings has increased by 5 to 10 percent, (iii) half of U.S. homeowners have added insulation while living in the houses they now occupy, (iv) the efficiency of home appliances has increased 5 percent and the annual growth rate in home electricity use has been halved (from 6 to 3 percent), and (v) the average fuel efficiency of a new car under EPA tests will be 20 miles per gallon in the 1980 model year compared to 14.4 miles per gallon in 1974.

Many individuals have been conscientious about turning back their thermostats, getting insulation, taking public transportation, buying smaller cars, and cycling or walking to work. Most people have done about as much as they can do or are inclined to do about conservation. Despite the efforts, consumption of oil has increased steadily.

If the United States is to reduce consumption, it must take more drastic measures than have hitherto been employed. In a meeting on 1 and 2 March, the Carter Administration made a commitment to the 17-member governing board of the International Energy Agency to reduce U.S. consumption of oil up to 5 percent. Were such savings to be achieved, price increases by the oil-producing countries might be delayed. The White House enumerated measures that might lead to the promised reduction.

One of the savings proposed is to hold thermostats at no more than 65°F in nonresidential buildings during winter and no less than 80°F in summer. But in almost any building, temperatures vary widely from that at the thermostat. If the regulations are implemented, tens of millions of office workers will suffer.

Although consumption of gasoline is the largest source of demand for oil, the message touched only lightly on conservation of gasoline. The implied hope is that higher prices will discourage auto use. But as others have pointed out, gasoline costs \$2.50 per gallon in some countries and consumption has not dropped. Recently, I added up the costs of owning and driving my small car. Use of it saves me considerable precious time and uncertainty. I found that fixed costs including depreciation, insurance, parking, and taxes accounted for 90 percent of the total, gasoline 10 percent. If the price of gasoline were to increase two- to fivefold I would growl, but there would be no change in my driving. At a tenfold increase, I would begin to emulate Senator Proxmire who runs to the office. The fixed costs and miles driven by individuals vary greatly, but it is likely that for the majority, the cost of gasoline is today only a minor fraction of total transportation expenses.

This nation may soon be forced to consider how to cut consumption of gasoline without causing undue hardships and even disruptions in the economy. One target should be the waste that occurs when highways are converted into miles of parking lots (often one notes that a modest decrease in traffic volume results in a greatly enhanced speed). Another target should be joyriding teenagers. Raising the age for a driver's license would also save many lives. Still another target is those heavy old autos that get about 8 miles to the gallon. Taking them off the road would also cut pollution. One move that would really bring conservation is gasoline rationing. The thought is unpleasant, but were rationing to occur there would suddenly be more car pooling, use of public transportation, walking, and more cars in better mechanical adjustment.

Greater conservation could be achieved but it would not be easy or gladly accepted. Sooner or later we may be forced to implement stringent measures, but for the present, conservation is mainly something to talk about.

—PHILIP H. ABELSON