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A Lost Opportunity

The moment of the oil embargo provided a great opportunity for giant strides toward energy self-sufficiency, but that opportunity has been lost. The American public is resuming its earlier habits of energy wastage. Sales of the heavier automobiles are moving up. Gasoline consumption is already about even with that of a year ago. The signs point to a resumption of the trends of last September when we were sharply increasing our dependence on imports of oil.

Visible motion in government of a useful kind is not now apparent. On the contrary, the replacement of Mr. Simon as Energy Czar by Mr. Sawhill marks a resumption of a debilitating pattern of rapid change in the top administration of energy matters (*Science*, 28 December 1973). Useful political action on energy is unlikely as long as impeachment looms. But even after that matter is disposed of, decisive action may be long in coming.

There are many impediments to moving toward long-term solutions of our energy problems. One of these is inability to arrive at a judicious means of balancing environmental concerns and energy needs. Most everyone would agree that it is necessary to have food, to keep warm in winter, to have convenient means of transportation, and to have electricity in the home. To provide these requires the use of large amounts of energy and accordingly some disruption of the environment. But most people still seem to feel that they can have unlimited energy while enjoying a perfect environment.

Another handicap in moving toward a solution to energy problems is that we seem to have innumerable options.

According to the ancient fable, there was once a jackass who found himself exactly midway between two haystacks. The animal looked first one way and then the other, but could not make up his mind which way to go. Alas, he starved to death.

This country is in something of the same situation with respect to its choices regarding energy. Only this time there are many more options. It's as if we were the animal in the center of a field surrounded by a circle of haystacks. They are marked, for example, geothermal energy, solar energy, thermonuclear energy, breeder reactors, energy from the Gulf Stream, energy from coal, oil from the continental shelves, boiling water reactors. But the rules of the game for us are complicated. Whenever we start thinking of moving toward one of the options, someone yells "Environmental Impact." Whereupon, we must return to our starting point and reevaluate all the possibilities.

Given innumerable options, how do we proceed? First, we can simplify the choice somewhat if we recognize that there are different solutions for different time periods. For the long run, we should move vigorously to utilize solar energy in its direct and indirect forms. For the next decade or more, the key problem is hydrocarbons.

Our government functioned rather well in meeting the emergency, but the steps taken so far toward solving the hydrocarbon problems of the next decade have not been effective. The increase in the price of domestic oil has not brought forth additional supplies. Indeed, production of crude oil is about 2 percent below that of a year ago. Moreover, higher prices for gasoline are enriching someone, but they have had almost no effect on consumption. It would probably require a tax of about $1 a gallon to bring about the kind of conservation we must have if we are to move toward a true energy independence within the next decade.—PHILIP H. ABELSON

This editorial was in part derived from a talk delivered to the American Geophysical Union in Washington, D.C., 10 April 1974.