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## National Energy Strategy

With a successful conclusion to the Gulf War, the developed world has achieved a respite from immediate concerns about petroleum supplies. But experience of the last two decades should warn us not to be complacent. The major oil reserves are located in a region characterized by fanatical animosities. Moreover, in the fluid domain of global politics, today's adversary may become tomorrow's ally, and vice versa.

For our long-term security, the sequelae of this easy triumph may be detrimental rather than helpful. Many experts predict that in the immediate future crude oil prices will be below those of early last August, and in the range of \$15 to \$20 per barrel. That is low enough to lead to increasing consumption, lessened exploration and drilling, and enhanced dependence on imports of oil. Low prices would also discourage exploitation of marginal known oil in place and research efforts to develop means of producing synthetic liquid fuels. Activities directed to increase energy efficiency would seem less urgent.

A number of organizations, including the Office of Technology Assessment (OTA), the Electric Power Research Institute (EPRI), the National Academy of Engineering, and the Department of Energy (DOE), have made studies of U.S. energy prospects. All have agreed that the United States faces a need to improve efficiency of energy use and to avoid importation of excessive levels of oil. EPRI emphasizes the long lead times required to change the capital equipment involved in energy generation and use. Modes of producing electricity will be affected by concerns about environmental effects of burning fossil fuels.

Many organizations seek to influence energy policy, but two that are close to levers of power are OTA and the DOE. OTA is an arm of Congress. At the request of relevant congressional committees it prepares scholarly, defensible documents. It produced a steady stream of them touching on aspects of energy at a time when most people had lost interest in the topic. The reports are supplemented by testimony to congressional committees. In a recent appearance, OTA director John Gibbons pointed to the need to address national goals of economic health, environmental quality, and national security. He stated, "Major changes in energy systems—and major changes are what must occur—require decades and unwavering commitment from citizens, political leaders, and industry." He pointed out that a goal of achieving improvement in energy efficiency of 2% per year is realistic. Achieving such a goal would be beneficial to policy interests of economic health, environmental quality, and energy security. OTA has particularly targeted motor vehicles, which are big consumers of petroleum products and emitters of pollution. Reports have discussed the benefits of mileage standards ranging up to 50 miles per gallon. OTA reports often lead to legislation.

A 264-page report recently issued by DOE, entitled *National Energy Strategy*, is not an impressive document. The amount of text devoted to each of scores of items bears little relation to their relative importance. The need to limit oil imports from insecure sources is recognized, but commitment to improving mileage standards on automobiles is avoided. Higher prices for gasoline are rejected as a means for reducing consumption and hence oil imports. Proportionately little attention is devoted to other means of improving energy efficiency or of taking steps to avoid ozone problems or a greenhouse effect. The report contains useful historical information, including a graph that depicts the large drop in oil imports that occurred soon after prices were raised in 1979. Simultaneously there was a substantial improvement in energy efficiency. The report also contains a table entitled "Enhanced research and development for energy security." The sum provided for new transportation fuels in the enacted 1991 budget was \$89 million. The 1992 proposed budget calls for \$113 million. Fuels from biomass are targeted to receive \$44 million in 1992. These are small sums in comparison to the stakes involved. A one-cent per gallon tax on gasoline would produce more than \$1 billion per year.

Recent remarks by Energy secretary James D. Watkins indicate why both the Administration and Congress are hesitant to take measures such as a tax increase, which have been proven to be effective in reducing oil consumption. They are afraid of the wrath of the voters. But perhaps if the electorate was convinced that its money would be devoted to research on enhancing energy security and minimizing environmental effects, increased gasoline taxes would be acceptable.—PHILIP H. ABELSON

# Science

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PHILIP H. ABELSON

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