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Policy for Energy

The recent (13-17 February) Annual Meeting of the American Association for the Advancement of Science in Washington, D.C., included 139 symposia with some 180 half-day sessions. Many of these were policy-oriented and especially appropriate for the locale. One major theme was energy, which was addressed in 12 sessions. Conservation and renewable energy sources were strongly represented. Of particular interest was a session on "New Batteries in Energy Use of the Future." Substantial progress is being made in the development of batteries which have higher energy storage per unit weight than those employing lead and which utilize cheap, abundant materials. But the path from laboratory to large-scale use will require a decade or more. It is also clear that major practical effects from conservation and from renewable energy sources will only come slowly.

While it is essential that great efforts be made to achieve distant goals, the nation must also meet the day-to-day demands of the next 10 years. A number of speakers emphasized that for the next decade the major sources of energy will be oil, natural gas, coal, and nuclear reactors. Of these, oil will continue to be the most important.

Considerable apprehension was expressed as to whether sufficient supplies of petroleum will be available during the coming years. It was noted that about 75 percent of the oil that is exported by producers comes from the Middle East. An Arab-Israeli conflict is only one of many potential developments that might lead to interruption of supplies.

The present weakness of the dollar was also mentioned, though perhaps without as much emphasis as the matter warrants. During the past 6 months the dollar has declined about 17 percent with respect to strong currencies, while the price of gold has increased nearly 25 percent. Most of these changes have occurred in the past 3 months. This weakness attests to a loss of confidence in the dollar occasioned by a huge trade deficit arising out of soaring oil imports. As foreigners continue to convert their holdings into stronger currencies, they place further pressure on the dollar. The ingredients for a damaging panic are present. Even should this not occur, weakness of the dollar is likely to persist while the value of oil reserves is likely to increase. The Arabs may decide to conserve their nonrenewable wealth.

It is possible that adverse political and financial developments will not occur. However, another cloud has appeared in the form of questions concerning the volume of supplies that might be obtained from Saudi Arabia, which has the largest reserves. Optimists had assumed that the Saudis would be willing to more than double their current production. Several sources now take the view, on technical grounds, that such an increase is unlikely. But if current trends continue the United States will be seeking substantially increased imports. The Carter Energy Plan projected imports of as little as 6 million barrels per day in 1985, but experts now predict imports of 11 to 12 million barrels per day at that time.

Because of increased world demand without commensurate increase in supplies, a number of speakers at the AAAS predicted that there will be another "oil crisis." Accordingly, it was repeatedly recommended that ways be found to construct and operate a few full-scale plants designed to produce oil from shale, liquids from coal, and methane from lignite or coal.

Neither the Congress nor events have been kind to the Carter Energy Plan. The Administration has recently stated that it will be coming up with a comprehensive plan for production of synthetic fuels. The probable time scale for action though is slow. After a years' study, recommendations will be made to Congress where time-consuming maneuvers will follow. In contrast, were the Administration to move urgently to expedite off-shore drilling and to clear up environmental uncertainties for shale oil, it could cut several years from the time needed to obtain substantial new supplies.

—PHILIP H. ABELSON

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