

AAAS Seminars Examine National Energy Plan, Indian Resources

Energy policy continues to be a major focus of AAAS activities. The Association cosponsored two regional seminars in late September on "The National Energy Plan: Regional Implications" and "Energy Resource Development and Indian Lands." A brief description of some conference highlights follows. Those interested in learning more about the seminars are invited to contact the AAAS Office of Public Sector Programs.

What many Americans see as an energy crisis is viewed by Pennsylvania Governor Milton J. Shapp as a "golden opportunity . . . to begin a new industrial revolution that will create numerous new industries, many thousands of new companies, and millions of new jobs."

The revolution will take place only after America corrects its mismanagement of energy resources, predicted the Governor during his address at a seminar held in Philadelphia on 23 September on the subject of regional implications of the national energy plan.

The meeting was cosponsored by AAAS and Sigma Xi, the Scientific Research Society of North America, with the cooperation of the Franklin Institute. Funding was provided by the Energy Research and Development Administration (ERDA) and AAAS.

Shapp said that "vested interests in industry and in government" have resulted in the withholding of research and development funds for alternative energy sources. He emphasized the need to rebuild and electrify the nation's rail system and to improve mass transit systems. Increased use of coal would be of "enormous benefit" to Pennsylvania as well as the rest of the nation, according to the Governor, but he decried the present ownership conditions of coal resources, calling it "highly unlikely that [the] giant conglomerates will pioneer the development of cheaper fuels unless forced to do so."

In reviewing the impact of the national energy plan on technology development, speaker Roland Schmitt of the General Electric Company warned that government policies must be applied consistently over a long period of time in order to be effective. "In the energy area," he said, "technology is having a hard time keeping up with legislation." For ex-

ample, the national energy plan mandates 90 percent removal of sulfur dioxide in coal production, because some stack gas scrubbers are capable of this removal. Schmitt contended that less expensive alternative technologies could be applied to present air quality standards and that as a result of the proposed environmental control, research on new ways of cleaning or refining coal could be "strongly inhibited" or "even . . . unduly penalized." Schmitt said that a consistent interpretation of environmental standards is essential if new technologies are to be effective in reversing the decreasing efficiency of coal production in this country. Regarding solar energy, Schmitt expressed concern at the federal government's emphasis on "massive solar electric projects" that may be premature and counterproductive, while small scale projects are being neglected. In the long run, he said, solar energy will not have an impact until after the year 2000; the focus on energy production for the next generation or more must be on increasing our reliance on coal and nuclear energy.

Congressmen Robert W. Edgar (D-Pa.) and Edwin B. Forsythe (D-N.J.), the seminar's keynote speakers, presented strongly pro- and anti- overviews of the Carter plan, Edgar saying that it will protect the poor and avoid inflation, loss

of jobs, and harm to the environment. Forsythe called the Carter proposal a "good try" which "ultimately misses the point."

Other speakers on the program represented Sigma Xi, ERDA, the Environmental Protection Agency, the Federal Energy Administration, the Pennsylvania Governor's Energy Council, Brown, Carnegie-Mellon, and Drexel Universities, and the University of Pennsylvania.

In Billings, Montana, on 28-29 September, representatives of American Indian tribes, industry, the federal government, and academia met to review the problems and potential faced by Native Americans whose lands are rich in energy resources. Sponsored by the AAAS, the Montana Intertribal Policy Board, and Montana State University, the seminar provided a rare opportunity for interaction among Indian leaders, industrial leaders, and government officials. A number of speakers stressed the importance of ongoing tribal research into the development of new energy technologies, such as geothermal technology.

The 150 attendees at the Billings seminar heard varying opinions on the complex issues involved in Indian energy resource development, especially in the areas of self-determination for the tribes, the past and future roles of the federal government, the need for new forms of contracts to replace those now in existence, the need for education among Indian people in fields related to energy management, and other topics.

Charles Lohah, former secretary of the Council of Energy Resource Tribes (CERT), was a featured speaker at the seminar. He described CERT as a coalition of some 22 to 25 tribes which came together "in self-defense" during the Arab oil embargo. Despite "rumblings in the Eastern press about anti-trust movements against the Indians," Lohah maintained that the primary goal of CERT is to serve as an information exchange center which can help tribes to formulate common policies regarding development of their energy resources. When pressed by an audience member to compare CERT to OPEC, Lohah demurred, saying "We're not looking for price-fixing . . . we're not that big now."

Ellen Brown of the Federal Energy Administration outlined four major ini-

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tatives geared toward assisting Indians in energy resource management, including a handbook now in preparation describing new forms of contractual arrangements, tribal energy management models, and other factors to be considered by tribes who have to make energy development decisions. She also reported that FEA has before Congress a request for \$1 million to establish a fund within the new Department of Energy that would provide technical assistance to tribal governments. Later, Barney Old Coyote of the Crow Coal Authority cautioned the federal bureaucracy to take into account the Indian way of life in its dealings with the tribes. Regulating the environment, he said, could pose a threat to "vestiges of a lifestyle . . . that was centuries on this continent."

Seminar participants also heard Charles Lipton, an attorney specializing in international energy resource agreements, compare existing Indian contracts with those being negotiated with developing countries. He told the audience that many arrangements binding Indian tribes today are no more equitable than agreements made in the colonial era. Lipton urged Indian leaders to overcome political disunity within their tribes in order to form new contractual policies, and to look beyond agreements that simply offer more "front money." In terms of the future development of Indian coal, oil, uranium, and water, said Lipton, "we are not talking about millions of dollars; we are talking about billions."

NGO's Review Roles in 1979 U.N. Conference

Planners for the 1979 United Nations Conference on Science and Technology for Development (UNCSTD) met with representatives of nongovernmental organizations (NGO's) at the American Forestry Association in Washington, D.C., on 20 September.

The purpose of the gathering, sponsored by AAAS and three other groups (*Science*, 7 October 1977, page 38), was to define a role for NGO's in the preparation of the U.S. position paper for the Conference. Representatives of 80 groups, including the World Bank, Organization of American States, Phillips Petroleum, Indian Development Service, and International Institute for Environment and Development, were present at the planning meeting.

Observers of the Conference's progress have been worried about previous

CSFR to Hear Azbel

The AAAS Committee on Scientific Freedom and Responsibility (CSFR) will cosponsor a visit by Mark Azbel, a Russian "refusenik" physicist who recently emigrated to Israel. Azbel was the leader of the Moscow Seminar on Collective Phenomena for "refusenik" scientists, also called the "Sunday Seminar," which served as a gathering place for those scientists denied employment in their professions on the basis of their request for an emigration visa.

Azbel will meet with various scientific groups in several American cities during his visit, including a meeting in Washington, D.C., with members of the CSFR Clearinghouse on Persecuted Foreign Scientists. This meeting will be scheduled in mid-November; anyone interested in attending should contact Thomas Johnston, Committee on Scientific Freedom and Responsibility, at the AAAS address.

statements that the Conference would focus primarily on transfer of existing technology, perhaps excluding discussion of scientific/technological applications on a broader basis. At the NGO meeting, Jean Wilkowski, U.S. Coordinator from the Department of State, emphasized the U.S. commitment to utilizing science and technology to supply basic human needs in less-developed countries (LDC's).

Wilkowski revealed that the U.S. position paper would address five major issues: population, food, and health; energy, resources, and environment; climate, soil, and water; employment, trade, and industrialization; and urban and rural development.

Participants discussed integrating Conference proceedings with the concept of the New International Economic Order; the need for attention to appropriate technology and the involvement of people at all levels; the strengthening of science and technology infrastructures within LDC's; protection of technology proprietary rights by industry; the effects of technology transfer on employment; the "brain-drain" problem; and a number of other issues.

The conferees were unable to reach a consensus on issues and procedures to be adopted by NGO groups relevant to their participation in the preparatory

process for UNCSTD. One recommendation that emerged, however, was that a separate meeting should be organized by NGO groups, either to be held prior to or in conjunction with the U.N. Conference. AAAS has traditionally, over the past 5 years, sponsored such complementary meetings in conjunction with major U.N. conferences.

Annual Meeting Notes

Nutrition and Agriculture: Strategies for Latin America is the theme of the fifth Interiencia Symposium, to be held 13-14 February 1978 in conjunction with the AAAS Annual Meeting in Washington, D.C. The symposium, one of a series being sponsored by the Interiencia Association, will be cosponsored by AAAS Section O (Agriculture). Some 30 scientists from North and Latin America will participate in the four panels of the symposium on changing strategies for food production; the role of agroindustries in agricultural development; integrating nutritional planning into development planning; and strengthening hemispheric collaboration in applying science and technology to food and nutrition problems. Further information on the symposium is available from the executive secretary, Interiencia Association, at the AAAS address.

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Foreign graduate students studying in the United States are invited to apply for grants of up to \$200 toward covering the expense of attending the Annual Meeting. Up to 20 grants are available through the AAAS Office of International Science, which is planning activities for foreign graduate students in cooperation with several organizations in Washington, D.C. Applicants should send a curriculum vitae and a short statement (250 to 300 words) describing focus of current research, career plans (how training is expected to be applied on return to home country), and interest in attending the Annual Meeting, to the AAAS Office of International Science. Applications must be received no later than 15 December 1977.

AAAS People

Herbert W. Hoffman, a meteorological technician for the National Weather Service in Chicago and a member of the AAAS Project on the Handicapped in Science Resource Group, received one of ten outstanding handicapped federal employee awards for 1977. The awards