BOOK REVIEW
MAKING THE SOLAR TRANSITION

THE POLITICS OF ENERGY. By Barry Commoner. Alfred A. Knopf, Inc., New York, 1979. Pp. 101.

ENERGY FUTURE. Edited by Robert Stobaugh and Daniel Yergin. Random House, Inc., New York, 1979. Pp. 353.

*Reviewed by Richard Munson**

Barry Commoner is not a professor at the Harvard Business School. A long-time social critic, Commoner's lack of respect for the profit motive and marketplace economics would not make him welcome within the hallowed halls of the West Point of American business.

Yet Commoner and the Harvard Business School's Energy Project have several things in common. Both have completed popular books about energy issues after the Three Mile Island nuclear accident. Both favor a transition to solar energy resources. And both recognize that the solar transition will require political action. Despite these broad-brush agreements, Commoner and the Harvard Project split on why solar development is important and how it can be achieved.

Commoner's *The Politics of Energy* is a critique of President Carter's energy plan. By concentrating on raising energy prices to promote conservation, Carter earns Commoner's accusation of playing "the politics of deceit." Comparing Carter's actions to those of presidents who avoided the slavery issue before the Civil War, Commoner states that no candidate is discussing the transition to renewable sources of energy. This transition, according to Commoner, will cause an "unavoidable clash" between the special interests of the

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major oil companies and the electric utilities. His solution is "to embrace economic democracy as a national goal," to make the giant oil firms into public utilities, and to abandon the profit motive for "social governance." Commoner believes these changes could occur during the historic passage to a solar society (comparable to the abolition of slavery) that the energy crisis is making necessary.

The Harvard Business School's Energy Project, as you would guess, avoids such heady social reform. It is concerned with "self-interest." With clear, logical arguments, Robert Stobaugh, Daniel Yergin and their colleagues illustrate the economic and social dangers of our current dependence on imported oil. After reviewing the problems associated with the conventional fuels — natural gas, coal, and nuclear power — *Energy Future* outlines government policies that promote conservation and solar measures. Unlike Commoner's advocacy of social reform, Stobaugh and Yergin "favor reliance on the marketplace" and "do not think an evermore-regulated system is the answer to the problems posed by energy."

Oddly enough, Commoner and the Harvard researchers concur that solar technologies will provide approximately 20 percent of the U.S. energy by the year 2000. The means necessary to achieve that goal, on the other hand, are a matter of debate. Commoner notes that to facilitate the entry of new renewable sources of energy, we must develop "bridging fuels." He claims that the Carter plan — focusing on coal and uranium — will encourage the development of centralized electric generating facilities, and eventually the breeder reactor. Citing the environmental, social, and economic problems with nuclear power, Commoner advocates the use of cogeneration (the combined generation of heat and electricity) and natural gas to make the transition to decentralized solar technologies. By developing unconventional and geopressurized methane, Commoner believes, the U.S. must double natural gas production within the next 25 years. The rapid development of solar methane (a gas similar to natural gas produced from wastes and plants) will then slowly replace the natural gas.

The Harvard researchers dispute Commoner's calculations. According to Stobaugh and Yergin, "[t]he nation should not plan on greater quantities of natural gas to stop the rise in oil imports. Indeed, it will be a challenge to find enough new gas reserves to maintain production at current levels." The Energy Project also dismisses the short-term potential for solar methane, stating the only viable biomass sources are wood and wood waste.

Energy conservation is the best bet, they wager. "The U.S. can use 30 to 40 percent less energy than it now does and still enjoy the same or an even higher standard of living." Although Commoner, Stobaugh, and Yergin all advocate cogenerators and other measures to increase energy efficiency, Commoner holds that conservation will delay—rather than advance—transition to renewable sources of energy.

The authors disagree on other tactical issues. While Commoner believes deregulating oil and gas will hurt poor people and benefit the giant oil firms, Stobaugh and Yergin think it is necessary to correct the distortions placed by the government on the energy marketplace. The assertion that nuclear power will undergo an absolute decline within the next ten years is shared, but Commoner favors shutting down reactors for safety, social and environmental reasons, while Stobaugh and Yergin do not want to foreclose any energy opportunity. And while Commoner believes the oil companies and electric utilities should be further regulated to serve the public interest, the Harvard team believes the government should provide additional incentives to the energy firms, including the leasing of offshore oil lands, the subsidization of coal gasification and liquification, and the financing of nuclear waste storage.

Commoner and the Harvard team believe the federal government must facilitate the solar transition. The Harvard team advocates short-term financial incentives (i.e., tax credits) and programs to eliminate institutional barriers (i.e., zoning regulations) to give solar technologies a fair chance against conventional fuels. Commoner, on the other hand, believes public funds should help develop, test, and introduce solar technologies "in keeping with the national interest in a smooth, rapid solar transition, rather than conforming only to the narrow criterion of private profitability."

Who would have guessed that a critique of Carter's energy plan and a six-year energy study by the Harvard Business School would have been anything but dull? Yet both books are best sellers.

The popularity of these publications demonstrates the growing acceptance of solar energy as a viable energy solution. They clarify the goal of moving toward renewable energy resources, but neither offers a blueprint for that transition. Although Commoner accurately outlines the need for an appropriate bridging fuel, his calculations are open to question. And although Stobaugh and Yergin outline a convincing case for conservation and solar energy development, they fail to appreciate the dramatic social and economic

changes necessary to make that transition.

This lack of consensus about policies to promote solar energy should come as no surprise. Consumers, environmentalists, oil companies, and government officials all have separate self-interests and billions of dollars at stake. But we now do have two views that allow both policy-makers and lay people to visualize the options and decide for themselves which views, or which parts of these views, best fit their needs. This in mind, read both books.