Zero Energy Growth: Ford Study Says It's Feasible

That economic growth and higher energy consumption go hand in hand has been a well-advertised tenet of the energy industry for so long that to question the relationship is to risk being labeled a crackpot. Now the Energy Policy Project, the Ford Foundation's ambitious and well-financed venture into energy policy, has released a preliminary report which suggests that energy growth can be divorced from economic growth.* The report considers a range of scenarios for the future, including zero energy growth and the phasing out of nuclear power plants, along with more conventional visions of the next 25 years. No preferences are stated among the scenarios, but the mere suggestion of such heresies was apparently enough to evoke vigorous dissent from energy industry representatives on the project's advisory board.

The Ford report does not contain detailed data to back up its discussion of energy choices and policies for achieving them. Rather, it is in essence a talking piece, with the basis for its deliberations to be published as a separate series of book-length reports. But the preliminary report nonetheless hints at findings in the way of expanded estimates of oil and gas production and a sharply lessened demand for energy in the face of higher prices which are markedly at variance with the established wisdom and are sure to be controversial.

The core of the report consists of three scenarios, which, it is emphasized, are not predictions, but gedanken experiments for comparing alternative policy choices and consequences:

► Historical growth: The use of energy will continue to increase at about 3.4 percent per year, the average rate of the past 20 years, and would amount to 185 quadrillion Btu's (British thermal units) in the year 2000. The scenario assumes no deliberate conservation policies and would require the aggressive development of all possible supplies—off-shore oil and gas, coal, oil shale, and nuclear power. High energy prices or government subsidies will be needed, as well as other policies favoring expansion of energy supplies, but oil imports could be kept to a modest level and the remaining increases in production obtained from domestic resources, possibly at a high environmental cost.

► Technical fix: The use of energy will increase at only half the historical rate, amounting to 118 quadrillion Btu's in the year 2000. The scenario assumes sweeping application of energy-saving technologies and other conservation policies designed to reduce demand, but would not affect economic growth or restrict consumer choices. Major savings would come from the use of heat pumps and better insulation; smaller, more efficient cars; and more efficient production of process steam in industry. In consequence, only one major domestic source of energy would have to be aggressively developed. (Again, no preference is expressed; several options are explored.) The resulting flexibility could be used to severely limit, for environmental or security reasons, the role of nuclear energy, or of coal, or of imported fuels in the national energy mix. Adjustments in tax and subsidy policies, federal research and development efforts, and new regulatory policies will all be needed.

► Zero energy growth: The use of energy will grow only slightly, leveling off at about 100 quadrillion Btu's per year in 2000. The scenario assumes widespread concern with the social and environmental costs of energy growth, adoption of an "enough is best" ethic, and a switch to production of more durable items. Cities and transportation systems would be redesigned, and economic growth, although not stopped, would be concentrated in the provision of services rather than in manufacturing. While some changes in life-style are foreseen in this scenario, it does not assume austerity—air conditioners, automobiles, and other appliances would be available to all consumers. The report does not spell out the full list of policies to accomplish this goal, but it does suggest that high prices and government actions to maintain full employment will be needed.

Four members of the project's advisory board filed dissents that are included in the report—D. C. Burnham of Westinghouse, J. Harris Ward of Commonwealth Edison, John D. Harper of Alcoa Aluminum, and W. P. Tavoulareas of Mobil Oil. Burnham and Tavoulareas both objected strenuously to the suggestion that energy needs might be so low as to mitigate the necessity for greatly expanded supplies (both, of course, represent companies that profit from higher energy consumption). Ward objected to the suggestion that nuclear power might be risky and opposed even the consideration of a nonnuclear future as dangerous to national security (Comm. Ed. is heavily committed to nuclear power). And Harper opposed consideration of policies that would lead to what he described as "government interference with the efficient operation of our competitive private enterprise system." The battle lines were also clearly drawn on the question of whether electricity or liquid and gaseous fuels will dominate—Burnham, an outspoken advocate of the electric economy, disputes the report's contention that domestic oil and gas reserves are sufficient to provide the mainstay of the country's energy supply for the rest of the century.

In a press conference, Ford energy project director S. David Freeman defended the plausibility of all three scenarios, pointing out that it is much easier to improve the efficiency of aluminum processing, for example, than to develop new sources of energy. All three scenarios are achievable, he believes, and do not represent utopian or wishful thinking.

The report is, by choice, not long on answers. But it is a competent summary of energy issues and has not hesitated to raise important and controversial questions. It boldly argues that the country has options, utopian or not, which are considerably broader than those posed by, for example, last year's report on U.S. energy outlook by the industry-dominated National Petroleum Council. At last, it seems, the notion that energy growth can be uncoupled from economic growth has found a forceful advocate.—ALLEN L. HAMMOND

* *Exploring Energy Choices*, published by the Energy Policy Project of the Ford Foundation. Copies are available from P.O. Box 23212, Washington, D.C. 20024; 75¢ prepaid.