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COVER: Modern-day crime fighters arm themselves with scientific weapons and methods in the study of evidence found at the scene of crimes. Searching for the unique chemical properties of physical and biological materials often leads them to the secret identities of suspects. See p. 266. (Drawing: Ann Lunsford)

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Science News of the Week

Ford study: Cut energy, increase jobs

The final report of the Ford Foundation-sponsored Energy Policy Project concludes that the United States can most easily reach energy independence by drastically cutting its energy consumption growth rate, and that such a cut would also help the environment and provide more jobs. To implement this policy would require direct Government action to supplement market forces, however, and some industry representatives on the project's advisory board dissented, saying that plans for such intervention are unrealistic and unnecessary.

The study was conducted by an independent professional staff, directed by former Presidential energy adviser S. David Freeman, which drew on some two dozen special commissions and a 20-member advisory board of business and community leaders. An interim report (SN: 4/6/74, p. 223) gloomily concluded that "shortages are here to stay for the next few years," but the final report offers a set of relatively optimistic scenarios for the more distant future. Like the Club of Rome (see p. 269), the Ford researchers emphasize the need for unprecedented international cooperation and government-level planning.

If energy consumption continues to grow by 3.4 percent a year, the average over the last two decades (more recently the rate has climbed to 4.5 percent), the United States will have to aggressively develop all available energy sources, with "very little scope to pick and choose." The project concludes that this "Historical Growth" scenario would be very difficult to achieve and would eventually require massive Government commitments to industry in the form of subsidies and market guarantees.

By cutting the growth rate to 1.9 percent, the nation could postpone for a decade any large increase in oil imports and proceed more cautiously in developing domestic energy sources that threaten environmental damage. Technological advances, such as utilizing now-wasted steam from electricity generation to run industrial processes, would be combined with conservation measures to bring about this "Technical Fix" scenario.

Concerted effort, however, could lead to Zero Energy Growth within a dec-

ade—the "ZEG" scenario. Economic growth would continue, though the gross national product would be somewhat less than in the Historical Growth scenario. Full employment would be encouraged by a shift from energy-intensive industries toward more labor-intensive ones.

Whatever happens, the Federal Government will be intimately involved. To promote energy conservation, the report recommends four specific Governmental policy changes: adopt minimum fuel economy performance standards for new cars, upgrade FHA standards and building codes to encourage more efficient space heating, shift R&D funds toward energy conservation technology, and legislate a different energy price structure to reflect environmental costs (through pollution taxes) and encourage energy saving (through abolishing discounts for the biggest users). Poor people could be protected from price fluctuations by "energy stamps" or other allocation measures and a new, more cautious resource leasing program would protect the public interest.

Applying the suggested policy to a specific case—the breeder reactor—the report concludes the present program is "an outstanding example of the neglect of public participation as well as independent assessment, and of failure to protect the public treasury." The present, open-ended commitment to the breeder should be stopped and the whole program scrutinized by the National Academy of Sciences to assess its potential, the report recommends; cutting back on energy consumption growth would allow time to develop such controversial new sources safely.

All members of the advisory board agreed on the need for a "genuinely integrated policy" of energy research and allocation of energy resources, but several disagreed with specific recommendations of the report. Some felt it leaned too heavily on energy conservation, saying more emphasis should have been given to developing energy supplies, both of existing fossil fuels and of new, renewable sources like solar energy and hydrogen. Others felt the report had an antibusiness bias in places, overly criticizing industry and favoring massive Government intervention. □