

F.A.S. PUBLIC INTEREST REPORT

Journal of the Federation of American Scientists (FAS)

REAGAN ENERGY
POLICY

Volume 34, No. 9

November 1981

THE REAGAN ENERGY POLICY: INCOMPLETE, INCONSISTENT, AND INCOHERENT

The Reagan Administration's approach to energy is inconsistent and alarming at a time when, more than ever, what is needed is a coherent energy policy. The assassination of Anwar Sadat has once again revealed the instability of the Middle East and the vulnerability of our oil dependence on that region. The fragility of our Nation's economy, plagued by an inflation that is aggravated by high energy prices, is becoming clearer with every passing day. Yet, the Administration has put forth energy proposals which at best answer these problems simplistically, and often are counterproductive.

Energy Subsidies Should Be Removed

A coherent energy policy should be built upon the following fundamental premises. First, such a policy should seek to deliver energy services to American consumers at their least real cost. To this end, federal subsidies for the commercialization of all energy technologies, whether new or existing, should be removed. Not only will the resultant higher energy prices encourage consumers to use their energy more efficiently, thereby reducing non-productive expenditures of capital, but also the use of market prices will allow consumers to better judge which energy technologies—be they fossil fuels, nuclear power, solar energy, or energy conservation—make the most economic sense.

Of course, many of the energy decisions of American consumers are made in their choice of energy-using devices: buildings, appliances, cars, industrial equipment. While consumers can (in an unsubsidized environment) see which *forms* of energy are least costly, they cannot as easily see how energy-guzzling—and therefore how expensive—such energy-using devices will ultimately be. This can only be remedied through information programs which may, for example, label the energy efficiencies of these devices. Such programs must therefore be an integral part of any energy policy.

In addition, the energy technologies of today in all likelihood will not be the technologies of the future.

New energy resources and ways of using them will appear while others fade away. In order to plan for that energy future, research must be undertaken now. But there is normally no real "market" for this research: it may not be patentable; the rewards may pay off too far in the future; or capital may not be available, particularly for small firms. Therefore, the federal government must step in to support and supplement such "basic" research.

A workable energy policy should also ensure that energy is delivered to consumers without sacrificing the "general welfare" alluded to in the Constitution: the health of our citizens and the integrity of our national environment. The market by itself will not accomplish this end—those who breathe the air polluted by an energy technology cannot vote against that technology in the marketplace. The only way for a government to protect the "general welfare" is by judicious use of its regulatory power.

Emergency Energy Planning Needed

Another premise of a responsible energy policy is that it should enhance the security of our nation, of our allies, and of the entire international order. At home, our vulnerability to disruptions in energy supply must be reduced by discouraging consumers from using foreign energy resources, and by adequately developing plans for energy emergencies which go beyond simply stockpiling oil. Abroad, it is vital that we decrease our demands on world energy supplies to reduce the energy strains on other nations.

Finally, an energy policy based on the market, because it means rising energy prices, is obligated to devote special attention to the needs of the Nation's poor. To reduce the burden of energy costs on these individuals, programs that weatherize low income homes should be strengthened and expanded, and a base level of fuel assistance should be guaranteed.

(Continued on page 2)

FAS CALLS FOR A DEMOCRATIC ALTERNATIVE

The November Report does more than criticize the Reagan absence of an energy policy; it also supplies some of the essential elements which a well-designed energy plan should contain. But, obviously, even were FAS to design a complete energy plan, we could not, by ourselves, secure its implementation.

The essential problem here is political. Probably only a well thought-out "Democratic alternative" can provide the political pressure needed to induce the Reagan Ad-

ministration to amend its own program.

Therefore, FAS calls upon the Democratic Party to design such an alternative. Why not formally convene a task force to provide a counterpart to the legislatively mandated annual "National Energy Plan" which has recently become so innocuous and vague? FAS offers its own experts to consult with the Democrats—even as these experts try, as they do continually try, to influence the Administration in power.

(Continued from page 1)

The Reagan energy plan, formally announced in July of this year, meets none of these criteria for a rational energy policy. Though it purports to be a market-based policy—and, to its credit, it accelerated the oil decontrol program of Jimmy Carter—"free market" has otherwise turned out to be a code word for slashing the federal budgets for energy conservation and renewable energy programs while padding and/or maintaining the federal budgets for nuclear and synthetic fuels programs. Instead of removing the subsidies for all energy technologies, only the rather limited subsidies for conservation and renewables have been proposed to be eliminated. At the same time, funding has been provided for the commercial-scale Clinch River breeder reactor, the Synthetic Fuels Corporation has remained funded, and tax subsidies for utilities for investment in new power plants have been increased. In addition, information and research programs in the conservation and renewables areas have virtually been eliminated.

The Administration has also failed to protect the "general welfare" in crafting its energy policy. Environmental and public health regulations have been proposed to be dropped right and left without any serious review, and the regulated industries have come to dictate the actions of the overseeing federal agencies.

The Reagan policy has been just as remiss in its regard for national and international security. Reducing this Nation's dependence on imported oil is not even a top priority. It does, however, propose a means of reducing that dependence, naively suggesting the substitution of nuclear power for oil through an all-electric future. And, aside from continuing to fill the Strategic Petroleum Reserve, there has been no long-range planning in the event of a disruption in energy supplies; the Administration is simply relying, even in the worst crises, on the market mechanism. On the international front, energy security is also being ignored—the White House has recently vetoed the creation of both an international energy agency and an energy branch of the World Bank.

As for providing for the poor, a need recognized in the Republican party platform, the Administration has demonstrated, by its proposals to eliminate the low income weatherization program and to reduce federal fuel assistance, that the only way it knows to deal with poverty is to ignore it.

The Reagan energy policy is a policy blinded by ideology. It purports to rely on a free market which is in truth not now free and which is proposed to become less free. And even were the market a perfect one, it would not address—as the Administration claims it does—the other dimensions of an energy policy: national security, environmental protection, protecting public health, and providing for the poor. Clothed only in the rhetoric of the free market, the Administration is increasingly revealed as abdicating its responsibility to govern.

—Reviewed and approved by the
National FAS Council

FAS

Chairman: FRANK VON HIPPEL
Vice Chairman: JOHN HOLDREN
Secretary: GEORGE A. SILVER
Treasurer: ROBERT M. SOLOW
Director: JEREMY J. STONE

The Federation of American Scientists is a unique, non-profit, civic organization, licensed to lobby in the public interest, and composed of 5,000 natural and social scientists and engineers who are concerned with problems of science and society. Democratically organized with an elected National Council of 24 members, FAS was first organized in 1945 as the Federation of Atomic Scientists and has functioned as a conscience of the scientific community for more than a quarter century.

SPONSORS

- *Philip W. Anderson (Physics)
- *Christian B. Anfinsen (Biochemistry)
- *Kenneth J. Arrow (Economics)
- *Julius Axelrod (Biochemistry)
- *David Baltimore (Biochemistry)
- *Norman E. Borlaug (Wheat)
- *Anne Pitts Carter (Economics)
- *Owen Chamberlain (—ysics)
- *Abram Chayes (Law)
- *Morris Cohen (Engineering)
- *Mildred Cohn (Biochemistry)
- *Leon N. Cooper (Physics)
- *Carl F. Cori (Biochemistry)
- *Paul B. Corneily (Medicine)
- *Andre Cournand (Medicine)
- *Carl Djerassi (Organic Chem.)
- *Renato Dulbecco (Microbiology)
- *John T. Edsall (Biology)
- *Paul R. Ehrlich (Biology)
- *John F. Enders (Biochemistry)
- *Adrian Fisher (Law)
- *Val L. Fitch (Physics)
- *Paul J. Flory (Chemistry)
- *Jerome D. Frank (Psychology)
- *John Kenneth Galbraith (Economics)
- *Richard L. Garwin (Physics)
- *Walter Gilbert (Biochemistry)
- *Edward I. Ginztan (Engineering)
- *Marvin L. Goldberger (Physics)
- *Donald A. Glaser (Physics-Biology)
- *Sheldon L. Glashow (Physics)
- *H.K. Hartline (Physiology)
- *Walter W. Heller (Economics)
- *Alfred D. Hershey (Biology)
- *Hudson Hoagland (Biology)
- *Robert W. Holley (Biochemistry)
- *Marc Kac (Mathematics)
- *Henry S. Kaplan (Medicine)
- *Carl Kaysen (Economics)
- *H. Gobind Khorana (Biochemistry)
- *George B. Kistiakowsky (Chemistry)
- *Arthur Kornberg (Biochemistry)
- *Polykarp Kusch (Physics)
- *Willis E. Lamb, Jr. (Physics)
- *Wassily W. Lontief (Economics)
- *Fritz Lipmann (Biochemistry)
- *S.E. Luria (Biology)
- *Roy Meninger (Psychiatry)
- *Robert Merton (Sociology)
- *Matthew S. Meselson (Biology)
- *Neal E. Miller (Psychology)
- *Philip Morrison (Physics)
- *Robert S. Mulliken (Chemistry)
- *Daniel Nathans (Biochemistry)
- *Franklin A. Neva (Medicine)
- *Marshall Nirenberg (Biochemistry)
- *Robert N. Noyce (Indust. Exec.)
- *Severo Ochoa (Biochemistry)
- *Charles E. Osgood (Psychology)
- *Linus Pauling (Chemistry)
- *Gerard Piel (Sci. Publisher)
- *George Polva (Mathematics)
- *Mark Prashne (Molecular Biology)
- *Edward M. Purcell (Physics)
- *George W. Rathjens (Def. Policy)
- *Burton Richter (Physics)
- *David Riesman, Jr. (Sociology)
- *Walter Orr Roberts (Solar Astron.)
- *J. Robert Schrieffer (Physics)
- *Julian Schwinger (Physics)
- *Herbert Scoville, Jr. (Def Policy)
- *Glenn T. Seaborg (Chemistry)
- *Stanley K. Sheinbaum (Economics)
- *Herbert A. Simon (Psychology)
- *Alice Kimball Smith (History)
- *Cyril S. Smith (Metallurgy)
- *Robert M. Solow (Economics)
- *Albert Szent-Gyorgyi (Biochemistry)
- *Howard M. Temin (Microbiology)
- *James Tobin (Economics)
- *Charles H. Townes (Physics)
- *George Wald (Biology)
- *Myron E. Wegman (Medicine)
- *Victor F. Weisskopf (Physics)
- *Jerome B. Wiesner (Engineering)
- *Robert R. Wilson (Physics)
- *C.S. Wu (Physics)
- *Alfred Yankauer (Medicine)
- *Herbert F. York (Physics)

NATIONAL COUNCIL MEMBERS (elected)

- Harrison Brown (Chemistry)
- Earl Callen (Physics)
- Barry M. Casper (Physics)
- Rosemary A. Chalk (Pol. Science)
- Britton Chance (Chemistry)
- Hugh F. DeWitt (Physics)
- Herman Feshbach (Physics)
- Lee Grodzins (Physics)
- Morton H. Halperin (Pol. Science)
- Denis Hayes (Environ. Policy)
- John P. Holdren (Energy Policy)
- Henry C. Kelly (Energy Policy)
- Leonard Mecker (Law)
- Robert Pindyck (Economics)
- Victor Rabinowitch (World Devel.)
- Peter Raven-Hansen (Law)
- Patricia Rosenfield (Environ. Health)
- Andrew M. Sessler (Physics)
- Martin L. Sherwin (History)
- George A. Silver (Medicine)
- Eugene B. Skolnikoff (Pol. Science)
- Robert H. Socolow (Energy Policy)
- Archie L. Wood (Defense)
- Dorothy S. Zimberg (Biology)

*Nobel Laureate

FAS FUND

The Federation of American Scientists Fund, founded in 1971, is the 501(c)(3) tax-deductible research and educational arm of FAS. It is governed by eight trustees, of whom six are appointed by the FAS Chairman.

Moshe Alafi
David Baltimore
Mathew Meselson
Stanley Sheinbaum

*Jeremy J. Stone (ex officio)
*Martin Stone (Chairman)
Martin S. Thaler
Frank von Hippel (ex officio)

*No relation.

The FAS Public Interest Report (USPS 188-100) is published monthly except July and August at 307 Mass. Ave., NE, Washington, D.C. 20002. Annual subscription \$25/year. Copyright © 1981 by the Federation of American Scientists.

ENERGY SUBSIDIES—FURTHER DISTORTING THE MARKET

One of the greatest ironies of this Administration is that despite its very vocal endorsement of free market policies, it has proposed to *increase*, rather than decrease, federal subsidization of both existing and new energy technologies.

Rather than recognize that the existing energy market is fraught with distortions from federal subsidies on both the production and conservation sides, the Administration has chosen to focus on—and eliminate—only the rather small subsidies now flowing to energy conservation and renewable energies; estimates place these subsidies at about \$1.5 billion. In so doing, tacit approval has been given to the expenditure of federal funds for the routine provision of energy through oil and gas depletion allowances, exemption of publicly-owned utilities from federal income taxes, and liberalized depreciation allowances for privately-owned utilities, to name a few. These subsidies are estimated to amount to \$10 to \$13 billion annually. And with the passage of the President's tax program earlier this year, the expenditure of federal funds for energy, particularly for the construction of new power plants, is expected to grow even larger.

Nuclear Subsidies to Increase Substantially

If the Administration has not been very vocal about its actions to subsidize the routine provision of energy, it has been much more open in its support for development of new energy technologies. This has been especially true for nuclear power technologies. To quote DOE spokesman Philip Garon, "...the nuclear industry is weak and requires a government presence to put it on a stronger footing." This government presence includes support for the commercial-scale Clinch River Breeder Reactor and a general increase in the nuclear energy budget at the very time that all other technologies are being cut.

To a lesser degree, the Administration has also supported federal expenditures for synthetic fuels, even though its rhetoric has indicated otherwise. While it is true that much of the Department of Energy funding for demonstration synthetic fuel plants has been cut, it is equally true that the \$18 billion that was appropriated during the Carter years for the Synthetic Fuels Corporation has remained untouched to date. In comparison, the federal funds appropriated at the same time for energy conservation and renewable energies have long been rescinded.

Unfortunately, the effects of the Administration straying from its own free market principles are more than academic. To begin with, subsidization distorts the energy market, preventing consumers from seeing which energy strategies are truly cost-effective to invest in. At the same time, government subsidization removes many of the natural market pressures on energy producers to provide energy at least cost—after all, if the federal government is picking up the tab, what difference does it make if the fuel costs \$30 a barrel or \$60?

Second, subsidization of energy strategies, particularly new strategies, often locks in particular technologies which may be neither efficient nor economic. Private industry, by

its very nature, is much more motivated than government bureaucracy to assure that such technologies will indeed work. Thus when industry is unwilling to pick up the tab for commercializing certain technologies, the government should view this as evidence of the non-viability of the technology rather than as a signal to step in and provide support.

Subsidization Drains the Economy

Third, subsidization of energy technologies has a detrimental effect on our economy by draining capital from other more desirable investments. Instead of investing in projects yielding greater productivity which might ultimately reinvigorate the economy, the federal government ends up propping up technologies that would not survive on their own.

Fourth, subsidization artificially inflates energy consumption by giving the wrong price message to consumers, thereby exacerbating the problem of non-productive expenditures of money. At the same time, and through the same means, it hides the message to society to diversify its energy technologies that a true free market would give.

Finally, in subsidizing an energy technology, the federal government may ultimately be obligating itself to continue that subsidization forever. Once the subsidized technology is well entrenched in our domestic economy, the effects of removing its federal support would be substantial—one need only look at the present controversy surrounding attempts to eliminate tobacco, dairy, and peanut price supports to substantiate this fear.

During the presidential campaign, Ronald Reagan provided a great service to this country by pointing out the evils of energy subsidies. Unfortunately, as President, he seems intent on compounding these evils rather than eliminating them. □



Secretary of Energy James Edwards has been the leading Administration proponent for increasing federal subsidies for nuclear power and synthetic fuels.

THE REAGAN VENDETTA— CONSERVATION AND RENEWABLES

When Ronald Reagan characterized energy conservation as "being too hot in the summer and too cold in the winter," most dismissed that statement as campaign rhetoric. But nine months into his Administration, we have come to see how accurately it reflected his views on the matter. The April 1981 Public Interest Report decried the Reagan 1982 budget ax in which conservation was to be cut a disproportionate 80 percent. Yet this figure is a princely sum when compared with the 1983 budget—an additional 85 percent reduction is proposed.

Under this Administration, the energy conservation budget is slated to be reduced from close to \$1 billion in 1980 to a mere \$35 million in 1983, and the solar energy budget from close to \$500 million to less than \$100 million. In addition, the tax credits for these energy strategies, whose existence was used to justify the first round of budget cuts, have been proposed to be eliminated. Other energy technologies have not suffered the same fate.

What has been the effect of these actions? They have been felt throughout the country at all levels of government. Information programs which—to name a few—have informed consumers about how to weatherize their homes; businesses about new energy efficient equipment and processes; and communities and individuals about how to reduce energy consumption for transportation have been shut down.

Research Programs at a Standstill

Research programs in conservation and renewables have come to a standstill. Such highly celebrated laboratories as Lawrence Berkeley, Oak Ridge, Los Alamos, Sandia, Princeton University's Center for Energy and Environmental Studies, and the Solar Energy Research Institute have all been told to expect almost no funding in these areas beyond 1982.

The Low Income Weatherization Program, which pro-

vides grants for weatherization of low income homes, has been slated for elimination, as has the Schools and Hospitals Program, which provides technical assistance on conservation improvements to those non-profit institutions which do not otherwise have funds to pay for such information.

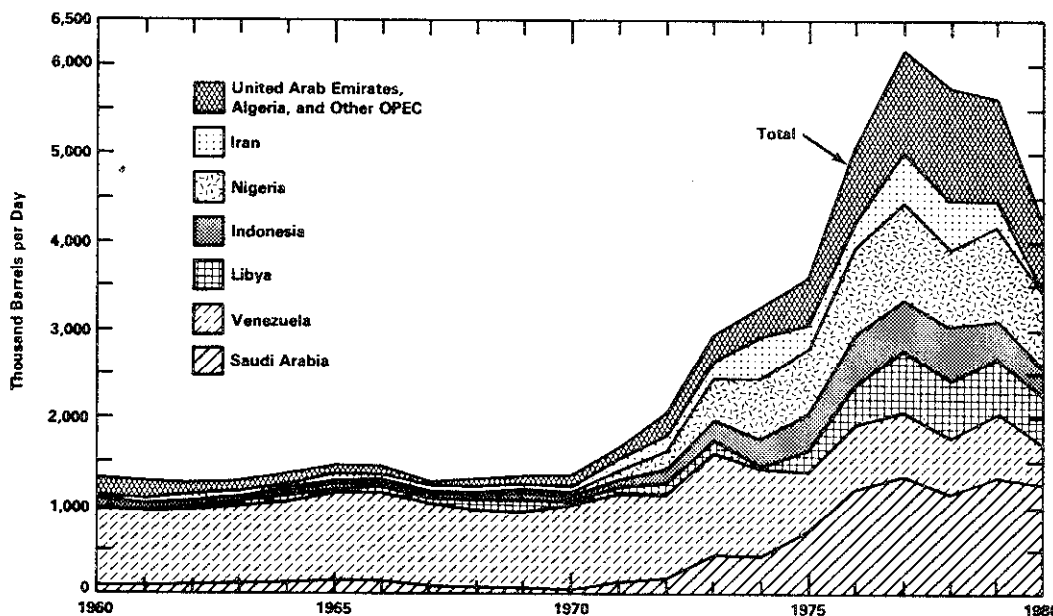
Feeding on its anti-regulatory rhetoric, the Administration has slowed down the implementation of previously legislated energy efficiency standards. Appliance efficiency standards, enacted in 1978, have not been put into effect despite internal DOE studies which conclude they are needed. And the successful automobile efficiency standards program has little chance of being extended beyond 1985, even though the Administration has authority to do so.

States Unlikely to Pick Up Programs

Of course, in an effort to appear even-handed in its approach to energy, the Reagan Administration has suggested that many of these programs will be picked up by states and localities through the block grants that they will receive from the federal government. However, these block grants are not for energy alone; they are for a wide range of programs. And the total funding for these grants is significantly less than what states and localities were receiving in directed grants from the Carter Administration. It is hardly surprising, then, that when money is allocated for various programs, energy does not rank high. As a result, state and local energy offices have been or are being closed and the few technical and policy experts in energy conservation and renewables they employed are being given their pink slips.

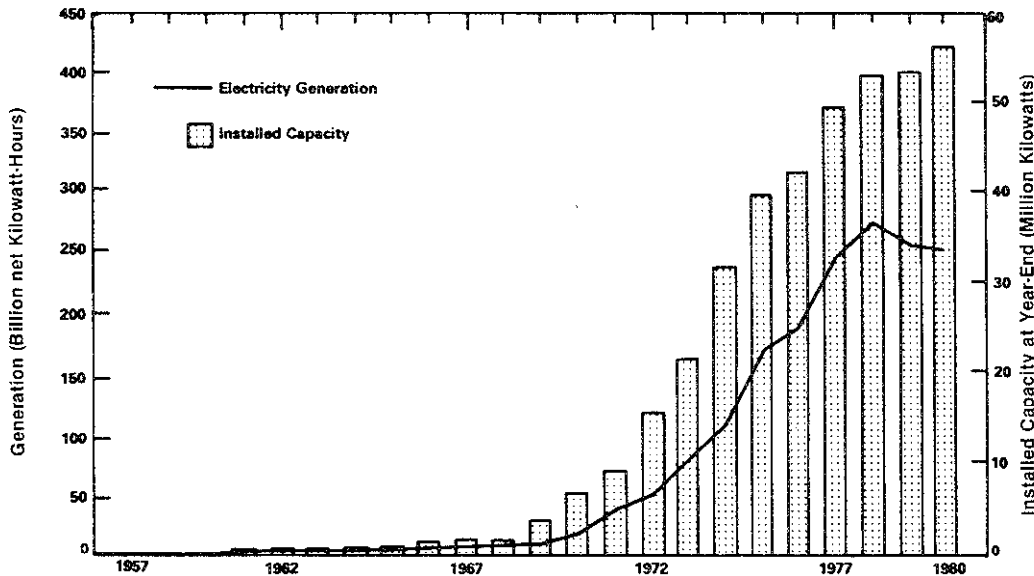
There is no doubt that the Reagan actions with regard to energy conservation and renewable energy resources will be pervasive. The infrastructure that supports these technologies—the energy experts, the research facilities, the knowledge gained over the past few years—is being systematically dismantled. It will be painfully slow to build up again. □

Petroleum Imported Directly from OPEC Countries



This graph shows that the energy crisis is far from over. Though substantial progress has been made in the last few years to reduce oil imports from their high in the mid-1970s, the U.S. still depends on OPEC for more oil than it did at the time of the 1973 Arab oil embargo. In particular, oil imports from Saudi Arabia are more than twice their 1973 level, and imports from Khaddafi's Libya are over three times as great.

Nuclear Powerplant Capacity and Annual Generation



To underscore the nonviability of the Reagan nuclear program, this graph shows that while the number of operating nuclear plants has increased in the last few years, the amount of electricity generated by them has actually decreased.

DOES MASS NUCLEAR ELECTRIFICATION MAKE SENSE?

A cornerstone of the Reagan energy program is that nuclear power will dramatically outpace other energy technologies in growth in the next two decades, rising from 2.7 quads in 1980 to between 7.6 and 14 quads in 2000. (For comparison's sake, total U.S. energy consumption in 1980 was 78 quads.) This premise is justified on two grounds. First, the Administration points to its projections of growth in electrical demand which show that it will far exceed the growth of other energy end-uses, and will at the very least keep pace with, but more likely exceed, the rate of growth of GNP. Second, the Administration claims that its nuclear power program will wean this country of its dangerous dependence on imported oil.

Is there any basis for these claims? It is interesting to note with regard to the first statement that projecting energy demand has always involved aiming at a moving target, a target that has consistently moved lower. As recently as seven years ago, the Atomic Energy Commission was projecting nuclear capacity figures that were more than five times the figures now being projected by the Reagan Administration! Thus, it is important not to ascribe too much reliability to present energy projections—time has shown that they are likely to drop.

Electric Growth Patterns Have Changed

This observation aside, though, the Reagan projections are based to a large extent on historical patterns. Before 1970, electrical demand grew in this country at twice the rate of GNP growth. But this booming rate was explained by several factors that have since changed. Dramatic increases were made in the efficiency with which power plants converted fuel to electricity. Similar increases were made in the size of the central station power plants which tended to lower the costs of the plant per unit output. These and other factors caused the price of energy actually to decline—in 1970, 4 kilowatt-hours of electricity could be purchased in real dollars for the same price that only one

kilowatt-hour could have been purchased in 1930.

Since 1970, however, these patterns have reversed; power plant efficiencies and sizes have tended to stabilize, and electricity costs have begun to rise in real terms. And with the reversal of price signals to consumers, the growth rate in electricity consumption has slowed—the consumer electricity demand per unit of GNP has actually decreased in the last few years. As electricity prices continue to increase, it is likely that consumers will be more and more motivated to increase the efficiency of their electrical use by weatherizing homes, investing in more energy-efficient appliances, et cetera. In view of this trend, the Administration's assumptions that electrical growth will keep pace or even exceed GNP growth do not seem well-founded. (It is ironic, indeed, that a Reagan program of increasing the building of power plants will only cause electricity prices to rise that much faster, and thereby further depress the growth in electricity demand.)

Uncertain Future for Electric Vehicles

The second reason that the Administration advocates a move to nuclear electrification is because it claims our dependence on imported oil will be reduced. Since over half of the oil consumed in this country is used for transportation, the only way nuclear energy can substantially substitute for oil is by shifting to electric vehicles. Yet electric vehicles are neither approaching commercial availability, nor are they cost-competitive with today's oil-based transportation vehicles.

Of all domestic automobile manufacturers, only General Motors has ever made a commitment, albeit limited, to production of electric cars by the end of this decade, and in recent years it has backed away from that commitment. But even if all manufacturers had new car lines that were entirely electric by 1990, it would take at least another ten years before such vehicles could completely replace the existing oil-based vehicles in this country.

As for economic viability, even the most optimistic

(Continued on page 6)

(Continued from page 5)

reports place electric vehicles as costing \$3000 more than similar oil-burning vehicles, as well as requiring replacement of the batteries every 10,000 miles (roughly once a year) at an additional cost of \$1500 per battery. And these figures do not consider that there are other alternatives to oil-based cars, namely vehicles that burn methanol, made from either coal or plant material. Such vehicles will be at least as competitive as electric cars for the consumer market. Thus the rosy Administration projections for nuclear power substituting for oil cannot be ascribed to use of electric vehicles.

Of course, a large fraction of oil is not used for transportation—20 percent is used in buildings for space and hot water heating. Electricity could substitute for this oil and might even be economically attractive in parts of the country by using heat pumps. But the substitution for oil here would increase the demand for peak electricity, usually provided by oil or gas, rather than the baseload electricity that nuclear energy generates.

Thus, the massive increase in nuclear power commitment planned by this Administration does not appear at all warranted. And it seems almost ridiculous considering the history of nuclear power to date—since 1976 total commitments to nuclear capacity have actually declined. Moreover, the nuclear industry has yet to solve some of its most plaguing problems: safety, waste disposal, and nuclear weapons proliferation. □

REAGAN'S EMERGENCY ENERGY PLANNING—IS IT RESPONSIBLE?

The Reagan Administration's free market rhetoric has even been carried to its program for dealing with energy emergencies. The Administration contends that in the event of a cutoff in energy supplies, regardless of how large, "the free market will do the best job of allocation"—energy prices will rise, and those who can and want to pay those higher prices will gain access to the remaining energy supplies. This approach is to be supplemented by stockpiling oil in the Strategic Petroleum Reserve.

Likelihood of Oil Cutoff Still High

Despite the appealing simplicity of this policy, it is important to realize that the last time the market had an opportunity to work during an energy supply cutoff was in the Arab oil embargo of 1973. At that time, this country depended on the Middle East for only 7 percent of our oil supply. Yet, the level of disruption was so great that the federal government felt compelled to devise both price control and allocation programs to mitigate the undesired effects. Today, our level of dependence on that unstable region is more than twice as great.

The Administration justifies its free market approach to emergency energy preparedness by pointing to the problems with the allocations and controls programs of previous Administrations. And, to a great extent, it is right. The oil price control program enacted by President Nixon confused the message to conserve that high oil prices have given to American energy consumers. The highly complex regional allocation programs of President Carter often only

DOE'S PROPOSED DEMISE

To underscore how unimportant the Reagan Administration views energy as a national issue, it has recently put together a blueprint for the elimination of the Department of Energy. This has been proposed under the rubric of saving money, even though the estimate of savings, "upwards of \$1.5 billion," is only a small fraction of DOE's total \$13.8 billion budget.

What does the blueprint, authored by OMB director David Stockman, propose? It would establish a new Federal Nuclear Administration to handle "the inter-related nuclear weapons, fission and fusion programs, and funding for high energy and nuclear physics." Administration of the Strategic Petroleum Reserve would be transferred to the Department of Interior, while the Energy Information Agency would move to the Department of Commerce. What about the remnants of the conservation and solar programs? In an act of true genius, any remaining effectiveness they might have will be doomed when their administration is split between such unlike agencies as the Department of Housing and Urban Development and the National Science Foundation.

aggravated the gasoline shortages that resulted from the oil cutoff following the Iranian revolution. And many have doubted that the equally complex state emergency planning and gasoline rationing programs of the Carter Administration would have worked in a major supply disruption.

Reliance on the Market Only a Beginning

However, these failures do not, by themselves, justify the Reagan approach to energy emergencies. Basing emergency energy planning on the market is a good first step, but it is *only* a first step. A sound program, particularly for large disruptions in energy supply, must also include some other features:

1. PROVIDING FOR THE POOR—Those who suffer the most in energy emergencies, however great, are always the poor. They are the least able to respond to the high energy prices resulting from a market policy. And since many of the poor are also elderly, their inability to buy expensive energy may ultimately result in their ill health, or even worse, death. An emergency energy policy must make assurances that the poor are adequately cared for.

2. ADEQUATE LOCAL PLANNING—Even in the limited supply curtailments in 1973 and 1978, certain regions of the country suffered badly because of their heavy reliance on oil. During future oil cutoffs, though the country as a whole may not suffer significantly, these regions may have to limit transportation, to close schools, to reduce working hours for many businesses, or even temporarily to combine households. Undue hardship can only result if these contingencies are not planned for on a local level in advance.

3. ALLOCATING SUPPLIES DURING A MA-

JOR DISRUPTION—Despite the bad reputation energy supply allocation schemes gained under Jimmy Carter, a sound emergency energy policy cannot ignore that a base level of energy supplies must be guaranteed to certain sectors in the event of a major supply disruption to keep our economy running. Farmers must continue to farm. Police and firemen must carry on their duties. Hospitals must still treat the sick. National defense capabilities must be maintained. Learning from past experience, the rules for these allocations must be as simple as possible, but the allocations must be guaranteed nonetheless.

Emergency Plans Must Work

Recent events have demonstrated the vulnerability of the Middle East to which we now look for fully 15 percent of our present oil supply. The possibility of a war in this region, a blockade of major waterways, or even a coup in a major oil-supplying nation such as Saudi Arabia cannot be ignored. Thus emergency energy planning is not simply an academic exercise. It must work effectively. The Reagan program as currently outlined will not accomplish this. □

THE STRATEGIC FORCE MODERNIZATION PACKAGE: WHAT DOES IT MEAN FOR ARMS CONTROL?

In the 1979 State of the Union Address, President Carter said that:

“Without the SALT II limits, the Soviet Union could build so many warheads that any land-based system, fixed or mobile could be jeopardized.”

He was right. And President Reagan has agreed. Unwilling to engage in a potential race of new holes against unlimited Soviet warheads, the Reagan Administration wisely opted out of a no-win contest.

In so doing, it took much pressure off the existing tacit agreement to observe the negotiated but unratified SALT II limits. Had Reagan gone ahead, the Soviet temptation to lay on more warheads would have been much greater and, hence, the likelihood of their exceeding the existing limits much higher.

The Reagan decision also relieved the pressure on the existing, and extremely valuable, treaty prohibiting anti-ballistic missiles. ABM systems are still being talked about for defending ICBM holes, and their use would still require some kind of difficult-to-define amendments to the existing treaty which might cause it to unravel. But, in fact, the ABM systems are not likely to be effective without a basing system that uses some kind of shell-game deployment. It is with the empty holes of a shell game that the defending ABM has a great advantage over the attacker since it knows which hole to defend while the attacker must spend warheads attacking all holes. This “preferential defense” has been the key to the revival of hopes for ABM defense. Thus, even if the MX missiles finally end up in the Minuteman or Titan holes, ABM systems are unlikely soon to be deemed effective in defending them.

The rising arms control danger is, of course, the possibility that the evolving U.S. strategy will be one of

“firing on warning.” Here control over the missiles would degenerate to lower level officers and/or much shorter warning times. The Reagan Administration will find, in this regard, that it cannot get consensus from its officials on the desirability of such a strategy. Leading Administration officials (e.g., DOD’s Undersecretary for Policy, Fred Ikle) have expressed themselves against this policy in the past—a policy opposed, in fact, on quite an across-the-board spectrum of political views. Richard Perle, Assistant Secretary for Defense for International Security Policy, was quoted recently as saying that the Administration did not favor firing-on-warning.

Nevertheless, *Aviation Week* reports that a “safety valve system” for living with firing on warning is “gaining in popularity among high-level Pentagon officials.” The safety valve is firing reentry vehicles into orbit where they could be drawn down, on later command or if the warned-of strike actually materialized!

A bizarre concern appears to be abroad in the strategic community. For example, the number of warheads which can be “recalled, reenter the atmosphere, and be recovered or be picked up in space by the NASA space shuttle” is, after all, very limited in number—even if one took this maneuver seriously and at face value. Similarly, the talk of “placing one or two missiles in holes up to 3,000 feet deep” which would “float in the water table until signaled to launch” assumes that we have to worry about being so completely disarmed that a few hundred warheads from 64 such holes could make an important difference. But this is a Nation with 10,000 warheads at the ready of which half are placed on highly invulnerable submarines; why this effort, at such cost, to squirrel away a handful in outer space or in the water table below?

Freeze Encouraged

One major effect of these far-out plans—even of active discussion of them—will be to raise enormously the number of American citizens who support a freeze on the arms race. The Strangelovian character of firing warheads into orbit on warning, and bringing them back with the Space shuttle, is quite enough to get the Freeze on the California referendum ballot.

On the other hand, a freeze is clearly not enough to grapple with the emerging strategic context if it is perceived as unstable. For reasons which are more political than military, negotiated reductions may be required before either side is willing to reduce its reliance on land-based missiles. And with or without the MX, the Soviet land-based missiles will be seen as vulnerable in the 1990’s if the Trident II is emplaced on Trident submarines (24 missiles x 10 warheads = 240 warheads per boat; 12 such boats would provide about two silo-killing warheads for each Soviet ICBM).

Of course, when and if the Reagan Administration does turn to arms control, it will find that its proliferation of cruise missiles with nuclear warheads on U.S. attack submarines will have vastly complicated the problem of limiting overall numbers of warheads.

The Reagan Administration modernization package also

(Continued on page 8)

includes a number of items which appear to lead the U.S. into war-fighting strategies. The emphasis on command and control appears, at least rhetorically, to go beyond ensuring communication with retaliatory forces, and seems to permit protracted war. The interest in IONDS satellite surveillance, in particular, appears to be one of keeping track of how the counterforce war is going (e.g., which Soviet targets were successfully attacked) so that forces could be retargeted appropriately. Again, the more the Administration engages in this, the more it will find popular resistance to its program.

Viewed in perspective the arms race is taking a strange turn. Most observers have been awaiting, since the early sixties, a period in which the nuclear arms race would saturate for lack of further meaningful targets. But the taste for warheads simply increased until—wonder of wonders—the two adversaries began to worry about the use of all this weaponry for very esoteric partially disarming attacks. Rather than be reassured by the sheer numbers available to themselves, they have begun to worry about the survivability of even these enormous armories under attack from the other. To the extent this is so, arms control seems the only alternative—short of a change of consciousness—to an ever escalating arms race. □



Deborah Bleviss

FAS TESTIFIES ON ENERGY CONSERVATION

On September 29, 1981, FAS staffer Deborah Bleviss appeared before the Senate Committee on Energy and Natural Resources, chaired by James McClure of Idaho. The subject of her testimony was S. 1544, "The State and Local Energy Block Grant Act of 1981," which proposes to rescind most of the major federal conservation programs and substitute for them a minimally funded, open-ended, general energy block grant for states. As a result of considerable opposition both from witnesses and Committee members, it was decided to postpone consideration of the bill until at least one more day of hearings could be held.

NEXT ISSUE: EUROPEAN DISARMAMENT MOVEMENT

The December issue of the *Public Interest Report* will be a few days late in order to permit FAS to provide a trip report on the British disarmament movement in particular and, through it, to give some insight into the European disarmament movement.

FAS PUBLIC INTEREST REPORT (202) 546-3300
 307 Mass. Ave., N.E., Washington, D.C. 20002
Return Postage Guaranteed
 November 1981, Vol. 34, No. 9

**Second Class Postage
 Paid at
 Washington, D.C.**

I wish to renew membership for the calendar year 1981.

I wish to join FAS and receive the newsletter as a full member.

Enclosed is my check for 1981 calendar year dues. (I am not a natural or social scientist, lawyer, doctor or engineer, but wish to become a non-voting associate member.)

\$25 Member \$50 Supporting \$100 Patron \$500 Life \$12.50 Under \$12,000

Subscription only: I do not wish to become a member but would like a subscription to:

FAS Public Interest Report — \$25 for calendar year

Enclosed is my tax deductible contribution of _____ to the FAS Fund.

NAME AND TITLE _____
 Please Print

ADDRESS _____

CITY AND STATE _____ Zip _____

PRIMARY PROFESSIONAL DISCIPLINE _____