

II. Overview and Perspective— Policy Panel

Overview and Perspective — Policy Panel

Policy Panel Overview

The Policy Panel is in complete agreement that the United States and all other industrial nations of the world face a serious energy problem. If the United States tries to escape short-term sacrifices that can begin to deal with the problem, it will face real hardships no more than 10 years from now. There are no painless options.

The National Energy Plan correctly diagnoses the basic U.S. problem as a case of domestic demand outstripping domestic supply. The dominant world problem, which the United States shares, is the long-run prospect of running out of oil and natural gas. The National Energy Plan properly focuses on reducing demand for oil and increasing domestic energy supplies to avoid a degree of reliance on imported oil that cannot be sustained. Without immediate action, the growth in world demand for oil could exceed the production capacities of exporting nations by the mid-1980's, if that were to happen, intense competition among importing nations over scarce supplies of oil and gas, that they all need to survive, would begin to set the stage for worldwide economic and social upheaval.

The United States cannot deal with the energy crisis one item at a time, nor can it put off dealing with what now seem to be long-range problems in order to concentrate on more immediate concerns. It must apply its vast resources and technical talents immediately to solving problems in three time frames:

- In the near term, by the mid-1980's, the United States must reduce demand

and increase domestic production to reverse the rising trend of oil imports. The National Energy Plan's oil import goal of 6 million to 7 million barrels a day by 1985 may be arbitrary, but it is reasonable and achievable.

- In the midterm, over a period of about a generation, the United States must restructure energy consumption patterns so that the country depends on oil and natural gas for only a small portion of total supply.
- For the long term, the United States must begin 'now to intensify a search for ways to base its energy systems on renewable and sustainable resources.

The time available to achieve the near-term goal now is so short that strong measures are essential. Without effective leadership, these strong measures may fail to materialize. Many Americans, for example, find it hard to accept the existence of an energy problem, given the fact that there are no lines at gasoline stations and lights still go on at the flick of a switch.

Energy policy in all three time frames must be national in scope. Several aspects of the energy problem involve national security. These include nuclear proliferation, and the possibility of oil embargos or sudden and steep oil price increases. Neither private industry nor State and local governments can deal with energy problems at that level. Energy supplies and energy demands are unevenly distributed, not only in the United States but worldwide, and the questions of equity which this distribution poses can only be addressed from a national perspective. Present national policies have kept energy prices at artificially low levels that are not consistent with world forces of supply and demand. Energy policies must be

Overview and Perspective — Policy Panel

corrected to take fully into account the environmental and health costs of energy production and use and to set prices at levels that encourage efficiency rather than waste.

Such national policies for energy are needed not to dictate individual choices but to provide leadership and a base for shaping public policy to supplement the private market, assure that national security and national welfare are protected, and encourage regional equity.

Because energy policies affect many publics and many problems in many dimensions, they require a mix of instruments for achieving goals. policies that are adopted in 1977 may not match the needs of the United States a decade from now. Procedures must be adopted and ratified as broadly as possible for adjusting policies as the United States gains experience with a way of life in which energy is neither abundant nor cheap and as new information becomes available and new techniques are developed for producing energy.

The Policy Panel endorses several features of the National Energy Plan. It has reservations about several others. Both are addressed directly in this report and are put forward to emphasize areas which the Panel believes deserve special consideration during congressional review of the National Energy Plan,

The Policy Panel generally endorses these features of the National Energy Plan:

- . The Plan underscores the gravity of the world energy problem and suggests a personal commitment by the President to the urgent task of slowing the rate of growth of oil imports before they reach intolerable levels.

- . The Plan focuses on moving away from heavy dependence on oil and natural gas—both domestic and imported—and toward use of more abundant domestic fuels, particularly coal.
- As drafted, the Plan can achieve reductions in energy consumption without creating intolerable problems of unemployment, inflation, or sluggish economic growth.
- The Plan recognizes that the most effective long-range conservation measures are those that lead to improved efficiency in new buildings, new automobiles, new industrial plants and other capital stocks, and concentrates on higher efficiency standards for those areas.
- The Plan emphasizes the importance of setting more realistic prices for energy so that consumers can see total costs more clearly and can make their choices accordingly.
- . The Plan challenges the wisdom of relying solely on plutonium breeders for the next generation of nuclear reactors and seeks to redirect U.S. R&D activities to seek more satisfactory solutions to the problems of nuclear weapon proliferation.
- . The Plan proposes measures to reinforce existing conservation programs such as the Energy Policy and Conservation Act of 1975 where tougher enforcement actions may be necessary to reach the goals of the National Energy Plan.

- . The Plan gives attention to cogeneration, which can provide flexibility in meeting future energy demands because new capacity can be brought online in 2 to 3 years after an order is placed.

The Policy Panel has reservations about the following aspects of the National Energy Plan:

- Domestic supplies of all energy resources are likely to fall below the Plan's projections. Delays in production of oil and natural gas are possible because of postponements of leasing schedules on the Outer Continental Shelf. Regulations may delay the opening of new coal mines. Slippages in construction schedules and below-maximum performance of powerplants may reduce the energy available from nuclear generators, although total generation of electricity probably will meet the Plan's targets.
- Given the seriousness of the energy supply problem, more drastic energy-saving measures than those proposed in the Plan could be justified.
- The Plan probably overestimates future energy demand in industry. However, a slower rate of growth in industrial energy consumption than the Plan anticipates should not be used to justify a relaxation of conservation measures in other sectors.
- The Plan anticipates higher-than-average growth in the gross national product, continued gains in environmental protection, and a pronounced shift toward coal as an energy source. The goals may be commendable, but the case is not made in the Plan that all three can be achieved simultaneously.
- The Plan's goal of expanded coal use is not likely to be reached. Utilities and industries are not likely to convert to coal to the extent the Plan expects because of stringent environmental standards, and uncertainties about the reliability of pollution-control equipment. The consequence of these impediments to coal use may be an expanded use of electricity for many industrial processes.
- . The Plan proposes actions that tend to offset one another. It stresses replacement cost pricing for energy and residential energy conservation. At the same time, it proposes to hold residential natural gas and heating oil prices below replacement cost. While this may be reasonable in the near term, it should be reexamined for its long-term implications.
- . A National Energy Plan must have the support of State and local governments to be effective, In order to assure that support, the Plan should actively engage State and local officials in policymaking, something it does not provide in its present form.
- . The need for creating and supporting a variety of education and public participation programs is not stressed in the Plan. Public involvement can make citizens more aware of energy problems and more aware of the consequences of their energy choices. Programs are needed to expand channels of communication between citizens and Government officials.

Overview and Perspective— Policy Panel

- . The Plan does not discuss the alternative of allowing prices for energy to rise to the level at which supply and demand are balanced. Excessive imports could then be discouraged by imposing a tariff. Excess profits could be taxed. Revenues from both tax and tariff could be used to redress inequities. The end results of this alternative approach should be similar to those of the Plan and might be less cumbersome.

Policy Panel Perspectives

As one phase of its analysis of the National Energy Plan, the Policy Panel addressed five broad-policy questions. The conclusions presented below represent the judgments of the Panel of the effects of the Plan in these areas.

1. Are the National Energy Plan's goals for supply, demand, and conservation reasonable and are the proposals for achieving them likely to be effective?

Under the Plan, the United States will use 1.9 million barrels a day of oil equivalent less in 1985 than it would if there were no changes in Federal energy policy. In that respect, the Plan's overall consumption goals in 1985 are modest, and should be fairly easy to achieve. This is true in large part because the Plan's estimate of 1985 consumption even without policy changes—particularly in the industrial sector—is higher than most other published forecasts.

Given the serious energy problems that the United States faces, more drastic energy-saving measures could be justified. For example, the Plan would not raise the purchase price of domestic crude oil to the world price until January 1, 1980. Existing law would achieve world price levels several months before that by terminating mandatory price controls. The Plan would not raise the average price of natural gas significantly, if at all, because the proposed increase in the price of some interstate gas is offset by a decrease in the price of some in-

trastate gas. The average price of natural gas, therefore, will remain below the price-per-Btu of imported oil indefinitely.

The Plan's overall projection of energy consumption in the residential and commercial, industrial, and transportation sectors will probably be met, but there are a number of uncertainties which could prevent this from happening. The Plan's proposals for new capital stock may lead to larger reductions in energy use in the long-run than is apparent in the projections for 1985.

Problems exist in each consumption sector which suggest consideration of additional measures:

Residential and commercial: Proposed tax credits may not encourage enough homeowners to insulate their homes to meet the Plan's stated goals. Additional measures may be needed, such as a requirement that structures meet specific energy-efficiency standards before they can be put up for sale. More attention is needed on measures to reduce energy waste in commercial buildings.

Industry: The cogeneration of electricity and process heat and steam involves both substantial energy-saving opportunities and difficult problems. Rapid conversion of industries to coal from oil and gas (in line with a major Plan goal) could lead to installation of coal-burning equipment that is either unsuited to cogeneration of electricity or is less efficient than technology now under development. It is likely that a slower rate of growth in industrial energy use than is projected by the Plan will make it possible to stretch out deployment of cogeneration and to take advantage of newer technology.

The Plan relies more on industries shifting from oil to coal than it does on conservation as a means of holding down oil imports. The very large increase in coal production called for in the Plan appears to be physically possible. Transportation for coal should be available, although difficulties may arise in delivering coal in small batches to large numbers of widely dispersed industrial facilities.

A crucial uncertainty is whether the taxes that would be levied on oil and gas burned by utilities and industries would provide a sufficient incentive for investment in coal-burning facilities. Uncertainties about coal supplies, availability of coal-handling and coal-burning equipment, and meeting Federal air pollution standards may lead utilities and companies to keep burning oil or gas and pay the tax or convert from oil and gas to electricity. Some of the oil and gas taxes or the increased costs of electricity could be passed on to consumers in the form of higher prices for goods.

Transportation: There are conflicting forecasts about the effectiveness of the Plan's system of taxes and rebates on new automobiles in reducing gasoline consumption. The tax and rebate system would, however, create a serious foreign trade problem unless rebates similar to those proposed for domestic automobiles were granted for high-performance imported cars.

The Plan's proposed standby tax on gasoline may not affect gasoline consumption significantly by 1985 because it would add a maximum of 35 cents per gallon to the cost of gasoline in 1985 while fuel-efficiency of automobiles would increase substantially. If larger transportation fuel savings are desired, a higher gasoline tax should be considered. More efficient and flexible

Overview and Perspective— Policy Panel

forms of commuter transportation such as vanpools and “jitney” services also might be encouraged.

2. Do the provisions of the National Energy Plan promote or interfere with other national goals?

The success of any energy policy must be measured, at least in part, by its influence on economic well-being, environmental protection, and other goals. Implementing the National Energy Plan will affect all of these goals to some degree, but the influence will be relatively small in each case.

The Plan probably will slow down the growth of the gross national product slightly during the next several years, but the long-term benefits for the economy should justify the short-term costs. An orderly transition to an economy with high energy costs may cushion the United States from severe shocks in later years that could result from living with present energy policies.

The Plan relies heavily on the price mechanism to achieve energy conservation, in some cases in combination with regulatory techniques. Prices of nearly all forms of energy can be expected to rise under the Plan, led by an increase in the purchase price of oil to world market levels. Higher energy prices will be transmitted throughout the economy and will affect prices of all goods and services to some degree. Improved efficiency in the use of energy should mitigate the inflationary impact, but some additional inflation is inevitable as energy prices rise toward replacement cost. It should be easier to absorb that impact with gradual moves to reduce nonessential energy uses than to wait until world competition for oil forces sudden increases in oil prices and abrupt reductions in essential energy uses,

The National Energy Plan does not address its potential impact on employment in detail. This may not be a serious omission, because the net effect of the Plan is likely to be small, with some job losses and some job gains. To the degree that economic growth is reduced, the number of available jobs in some sectors will fall. However, increasing energy costs may also create new jobs that substitute labor for energy.

One of the principles of the Plan is that the United States must solve its energy problems in a manner that is equitable to all income groups and it proposes a program to carry out the principle. Because lower income families spend a far higher proportion of their total income for energy than do those with higher incomes, people least able to afford higher energy prices will be hit hardest. However, the rebate system proposed by the Plan will return energy taxes to the economy and should compensate lower income groups at least partially for increased energy costs. Without the rebate plan, or some alternative, the energy policies proposed in the Plan would cause serious inequities.

The National Energy Plan addresses the need to protect the environment. At the same time, the Plan implicitly recognizes the difficulty of achieving some of its energy goals without further environmental damage. The most important impact of the Plan on the environment will be a shift away from the use of oil and natural gas to the use of coal. While there is doubt that the shift to coal will be achieved on the scale contemplated by 1985, any increase in the use of coal will affect air quality and land use.

The Plan proposes a special Presidential study committee to improve national understanding of health effects and environmental constraints of increased use of coal. With or without the Plan, maintenance of environmental goals—particularly air quality standards—will be difficult without vigorous research and development of technologies to control pollution.

3. is the mix of price increases and regulations proposed by the National Energy Plan the most effective approach to energy policy or should the Plan rely more heavily on decontrol of fuel prices?

Efforts to set new energy policies have revived a debate between advocates of deregulation of fuel prices and advocates of more vigorous Government intervention over which approach will be most effective in changing consumer habits. The National Energy Plan proposes a mix of policies that recognizes the advantages and disadvantages of both approaches. The Plan relies heavily on higher energy prices to change the patterns of energy demand and its proposals reflect an effort to retain as much as possible the flexibility of consumer and producer decisions that is characteristic of a competitive free market. At the same time, it recognizes that a pure market approach probably will not cause changes in energy consumption patterns soon enough to achieve the Plan's goals for 1985. It also recognizes that simply letting energy prices rise without controls would create serious problems of equity among different income groups. This is not to say that the Plan will necessarily be effective in every respect, but its effort to move toward "replacement cost" for energy is a valid starting point.

The Plan probably is correct in its implied judgment that higher prices for fuel alone will not change energy consumption patterns fast enough to achieve the goals it sets for 1985. In transportation, for example, there is reason to believe that, given a choice, consumers would not buy enough fuel-efficient automobiles in time to achieve a 10 percent reduction in gasoline consumption by 1985. Even the fuel-efficiency standards for automobiles set by the Energy Policy and Conservation Act of 1975 may have to be reinforced if 1985 model cars are to average 27.5 miles to the gallon.

As with transportation, higher fuel prices alone probably will not motivate enough homeowners and landlords to reinsulate buildings and take other energy-saving steps to achieve the reduction in energy demand that the Plan envisions. Additional regulations, standards, and incentives may be required.

The cornerstone of the Plan is a proposal to raise energy prices through a crude oil equalization tax, much of which would be refunded to the public. This is an improvement over the present system of price controls that hold domestic purchase prices below world levels and encourage overconsumption of scarce fuels.

Americans today pay about \$11 per barrel for oil, which represents a mix of three prices—\$5.25 per barrel for "old" domestic oil; more than \$11 per barrel for "new" domestic oil; and about \$14 per barrel for imported oil. Domestic producers, whose prices are controlled, in effect subsidize importers to cover the differences between the \$14 world price and the \$11 average domestic sales price.

Overview and Perspective — Policy Panel

The Plan would retain price controls for domestic oil. It also would raise U.S. purchase prices to world prices over a 3-year period by imposing a tax equal to the difference between controlled domestic prices and the world price. Users of oil for home-heating would be shielded from the full tax through a rebate to oil distributors who could demonstrate that they had not passed on the tax to consumers. Revenues from the equalization tax would be rebated on a per-capita basis. The effect on income distribution should be progressive because the per capita rebates generally would more than offset higher costs to families below the median income.

The wellhead tax in the form proposed by the Plan would have a smaller effect on consumer prices and on employment than some other alternatives because it would encourage small adjustments throughout the economy rather than sharply higher costs in a few sectors. One of the most important impacts of the proposal will be to end the subsidy on imports that now exists. Consumers would have to be willing to pay a higher price for all oil before they would be willing to pay a higher price for OPEC oil. This could strengthen consumer resistance to OPEC price increases, help reduce the Nation's staggering oil import bill, and perhaps lead to a reduction of total OPEC revenues.

Oil industry revenues would be lower under the Plan's proposals than they would be if oil and natural gas prices were deregulated. However, an OTA study using a model to simulate future industry response, indicates that, at least in the near term, a higher price for new domestic oil would not create

significant increases in supply except in high-cost production regions off the coast of Alaska.¹

One final equity issue is raised by the plan's proposal to impose different levels of restraint on different energy users. Broadly, the lightest burden is placed on homeowners, while industrial firms and owners of automobiles and trucks will be required to reduce consumption or pay higher costs and taxes. Within the transportation sector, the Plan proposes to shift that burden away from owners of existing cars and on to purchasers of new cars, where higher costs can influence choice.

4. **The important foreign policy questions raised by the Plan are:**

- **Are the Plan's import goals adequate to protect against another Arab embargo?**
- **Is the nonproliferation policy outlined in the plan compatible with the Plan's objectives?**

The need for a national energy plan derives in large part from the fact that the United States now meets about 50 percent of its oil demand through imports and that percentage is growing. This increase is in addition to a very high level of oil imports by Europe and Japan. With the 1973-74 oil embargo and a subsequent four-fold price increase, it became clear that Western energy supplies are fundamentally insecure, both as to price and quantity. As long as the United States depends so heavily on foreign oil supplies, it is vulnerable to the actions of oil exporting nations, including future embargos or disruptive price increases.

¹See appendix II.

The energy problem is as much a global as a national problem, and U.S. energy objectives can be met only in the context of a favorable international environment. Energy waste or conservation by one country affects the supplies available to others. Consequently, the United States has an interest not only in moderating its own demands but in helping other countries develop new energy sources and expand their conservation programs. Because it is the world's largest energy consumer, U.S. energy policies are of major interest to other countries.

The National Energy Plan's proposal to cut oil imports to 7 million barrels a day by 1985 probably is sufficient: (a) to reduce the risk of a shortfall of import availabilities at present (real) prices and a consequent further large increase in the price of oil; and (b) to enable the United States to weather another possible embargo if the emergency oil reserve called for in the Plan is in place and the International Energy Agency's (IEA) automatic oil-sharing arrangements are implemented.

A gradual reduction of U.S. imports of oil to 7 million barrels a day by 1985 would place total world import requirements at about 35 million barrels a day. This would be within the range of forecasts of the capacity of oil producing nations in 1985. However, if U.S. demand were 4.5 million barrels per day higher, as it is estimated to be in 1985 without the National Energy plan, world demand for oil might exceed the capacity of exporting countries and market forces could create a large and disruptive increase in price.

An embargo which cut Arab exports of oil by as much as 50 percent in 1985 would reduce world oil exports by one-third, and total oil supplies in the industrial countries

by roughly 20 percent. If the International Energy Agency could spread this cut evenly, the United States would suffer a reduction of 4 million barrels a day. The planned U.S. emergency oil stockpile of 1 billion barrels could supply this amount for approximately 8 months, if no special conservation measures were undertaken, and if no embargo occurred before 1985, the target year for completing the stockpile.

Concern about the spread of nuclear weapons has led the Administration to propose an indefinite postponement of further steps toward a "plutonium economy." Many countries, particularly those with breeder reactors already under development, view this proposal as a threat to their long-term energy planning. To mitigate foreign concerns about continued reliance upon the present generation of uranium reactors, the Plan offers U.S. uranium enrichment services to any country that shares American nonproliferation objectives. This approach could be augmented by a program to establish an international uranium stockpile, which could be accomplished at less cost than creating a stockpile of the energy equivalent of oil.

Other measures may have to be taken if the Administration position is to be acceptable to most countries. These include creating an international agency that could provide spent-fuel storage facilities under international safeguards, creating multinational and international management of various stages of the nuclear fuel cycle, developing market-sharing agreements among nuclear exporters, and a variety of measures to reduce the incentive to acquire nuclear weapons.

Overview and Perspective— Policy Panel

For the proposed nonproliferation policy to work, it is important that the United States persuade other governments that there are nuclear alternatives to the plutonium breeder which promise to be economical, less conducive to proliferation, and which can be put into operation at least as rapidly as breeders. One such approach may be to operate present-day reactors on a fuel cycle employing denatured uranium-233 and thorium. This technology could be developed through a multinational effort.

Assistance to other governments in the development of alternative energy technologies such as solar, geothermal, synthetic fuels, and biomass conversion would be another part of the effort to lead the world away from the plutonium economy. An international development program for such sources, along with conservation technologies, could be a promising approach.

5. Does the National Energy Plan allow for adequate participation in the shaping and conduct of energy policy by State and local governments and by citizens generally?

The National Energy Plan not only fails to implement an energy partnership with the States, it appears to alter their existing planning and regulatory authority profoundly.

principles of federalism and equity alone would argue for a strong role for States, regions, and communities in fashioning and implementing energy policy. The fact that the Plan will require an extraordinary degree of cooperation from the States makes it even more essential that the Plan contain explicit procedures under which regions can achieve flexibility and resolve inequities and under which day-by-day decisions can be made and enforced in regions and States.

The role of the National Government should be to step in when programs that are in the national interest are rejected or deferred on parochial grounds.

A growing number of States have created organizations whose staffs are capable of addressing energy problems peculiar to their regions. These organizations give many States a capability to work toward achieving the goals of the Plan. If they are involved in developing energy policy at an early stage, cooperation and enthusiasm could be generated which might mean the difference between success and failure in some regions.

The Plan mentions the importance of public participation in energy policy but its proposals do not address procedures and mechanisms for involving the public. Public involvement will provide a means for citizens to communicate concerns or innovations to policy makers and for Government to communicate proposals and technical information to citizens. Experience indicates that in any policy area as complex and important as the energy policies addressed in the Plan, citizens are likely to be cautious about or even opposed to changes in policy unless they are involved in formulating that policy.