

STATEMENT OF ALICE M. RIVLIN
DIRECTOR, CONGRESSIONAL BUDGET OFFICE
BEFORE THE
AD HOC COMMITTEE ON ENERGY
UNITED STATES HOUSE OF REPRESENTATIVES
June 7, 1977

Mr. Chairman: I am happy to be with you today to comment on President Carter's energy proposals. In response to requests from committees in both houses of Congress, the Congressional Budget Office has begun to examine and evaluate these proposals. Last week we released a staff working paper that provided a preliminary analysis of the proposed legislation. More detailed analyses of the President's proposals and alternatives will be made available to the Congress as soon as they can be completed.

Today I would like to touch briefly on five points: (1) the need for an energy plan; (2) the general orientation of the Carter plan; (3) the preliminary results of our analysis of the impact of the President's proposals on energy consumption; (4) the impact of the proposed plan on the economy; and (5) the distributional effects of the plan across households.

The Need for an Energy Plan

The need for a national energy plan arises from both immediate and long-run problems. The long-run problem is simply that the growth in oil and gas consumption exceeds the growth in proven reserves -- both domestic and foreign. Before long we will have to shift to new energy sources or face drastic reductions in our standard of living. The more immediate problem is that our imports of oil have increased substantially -- from 3.5 to 7.3 million barrels per day between 1970 and 1977. The fact that almost one-half of the oil consumed in the United States is now imported creates national security risks and makes our economy highly vulnerable to outside shocks, especially because the supply and price of oil is largely dictated by an international cartel.

A major reason for the substantial increase in our import dependence is the current system of price controls on oil and gas that have kept the domestic price of these fuels artificially below world levels. Over the past four years, this regulatory system has served to cushion Americans from the dramatic adjustments in consumption and lifestyles that might otherwise have taken place due to the abrupt quadrupling of world oil prices by the OPEC cartel in 1973-1974. It has also tended to encourage energy consumption and discourage the search for and production of new domestic resources -- thereby further increasing our dependence on potentially unreliable foreign suppliers.

To reduce import dependence the President has proposed three major strategies:

- o Reduce the long term growth in energy demand by imposing various excise taxes that would serve to raise the price of petroleum and related products to world or near world levels. New regulatory standards are also proposed and special efforts are taken to reduce the growth in demand for gasoline.
- o Increase large industries' and utilities' use of coal instead of oil or natural gas by taxing their use of oil and natural gas. Regulations are designed to prohibit most new industrial and utility use of oil and natural gas.
- o Increase domestic supplies by reintroducing market pricing, or near market pricing, for truly new energy supplies. Accelerated development of new energy sources is not, however, stressed.

In evaluating these overall strategies and the goals of the President's program, it is important to keep in mind several points. First, an important theme of the proposed program is that the transition to a less energy intensive economy is a long and complex process. Incentives established now to alter consumption and investment decisions regarding energy use will begin to yield significant savings within the next few years, but large scale savings will not show up until the middle of the next decade and beyond. Of critical importance is the fact that most of the costs of such a program will be paid between now and 1985, while most of the benefits will occur beyond 1985.

A second major point is that the goals and energy savings incorporated into the National Energy Plan may not be fully achieved by the National Energy Act as introduced. While the Administration hopes that the act will attain the stated goals, it recognizes that the hope may not be realized and that additional legislation or regulations will be required. Indeed, the Administration seems to be viewing the energy plan in two steps, that is, this initiative and then more severe measures if this legislation does not reach the specified goals. Many of these more severe measures are included in the plan, but are not incorporated into the act.

This potential gap between the energy savings of the plan and the act depend significantly on a number of additional regulatory decisions, such as exemptions from mandatory coal conversion, over which the Administration would have control. Strict enforcement would increase the

probability that the goals will be attained. Consequently, the commitment of the Administration to the goals is critical in determining the efficacy of the overall plan.

Finally, the Presidents' proposals are highly interdependent. To a large degree there is a "carrot and stick" philosophy. For example, the tax credits given to industry to encourage investments are made more effective by the increase in petroleum and natural gas prices. Either of these two proposals independently might exhibit only marginal energy savings, but combined the effect might be substantial.

CONCLUSIONS OF THE CBO STUDY

The CBO analyses to date has concentrated on five major sets of proposals in the Administration's plan:

- o Pricing of crude oil,
- o Pricing of natural gas,
- o Conversion to coal,
- o Automobile-related proposals, and
- o Tax credits for home insulation and solar heating equipment.

The Administration estimates that altogether, these proposals would achieve a reduction in oil imports of approximately 3.2 million barrels a day by 1985. The analysis conducted by the Congressional Budget Office, however, indicates that this estimate of the savings is over-optimistic; and that the proposals would be likely to save closer to 2.3 million barrels a day. About 0.6 of the 0.9-million-barrel discrepancy is due to different estimates on the coal conversion potential while the remaining results from different estimates from the home insulation and solar equipment tax credits. The Administration asserts that an additional savings

of 1.3 million barrels a day (over and above the savings from the five main proposals) can be expected to result from various proposals such as new building standards; these have not been analyzed by CBO. On the assumption that these unanalyzed savings will be realized, however, the total oil import savings achieved by the Administration's plan are estimated by CBO to be about 3.6 million barrels a day, rather than the Administration's estimated 4.5 million barrels. The Administration's plan leaves open the possibility of future measures not included in the present proposed legislation that could help close this gap.

Crude Oil Pricing

The Administration's plan would retain controls on prices received by domestic oil producers, but it would allow the controlled price of newly discovered oil to rise over three years to the 1977 world price with subsequent adjustments for domestic inflation. This price would offer substantial incentives to increase production of domestic oil, but actual increases in production are likely to be relatively small. CBO estimates that the rise in price for newly discovered oil would increase production by about 100,000 barrels a day by 1985; the Administration's estimate of increased production is slightly higher.

To discourage consumption of oil, the plan would raise prices paid by domestic consumers to world levels by imposing a "crude oil equalization tax" equal to the difference between world and domestic prices. This tax would capture for the public the windfall profits associated with higher prices on already discovered oil and would return those profits to consumers in the form of rebates.

The equalization tax on crude oil will increase the price of petroleum products by an estimated 4 to 5 cents per gallon (in current dollars) by 1980; this amount is in addition to the increase of 4 to 5 cents per gallon projected under existing legislation. The tax would also lead to the elimination of the so-called "entitlements program," and would thereby reduce some of the regulatory burden on the industry. The equalization tax appears to be an effective mechanism for equalizing foreign and domestic oil prices and capturing windfall profits. It would provide a slight incentive for consumers to reduce consumption or convert to alternative sources. Proposed user taxes on oil provide additional incentives for industry and utilities to convert to coal.

Natural Gas Pricing

The pricing proposal for natural gas eliminates the current distinction between interstate and intrastate markets by placing all gas under federal jurisdiction; it places a cap on the price of new gas at \$1.75 per thousand cubic feet. In addition, a special excise tax is placed on use of natural gas by industries and public utilities. The purpose of these proposals is three-fold:

- o To protect residential consumers against high prices and shortages,
- o To make gas expensive for industries that can convert to coal, and
- o To increase new supplies but reduce the possibilities of producers' gaining excessive profits on previously discovered gas.

With the exception of the extent of coal conversion by industry, CBO finds that the natural gas proposals are likely to attain the stated objectives. The proposals would generally reallocate the existing supplies of natural gas; no energy savings would therefore be attributable to this proposal according to either the Administration or CBO.

Coal Conversion

Since the goal for conversion of utilities from oil and gas to coal is generally consistent with current trends, CBO concurs with the Administration's conversion estimates in this area. A major discrepancy exists, however, in estimates of the likelihood of attaining the goal for industrial conversion. If present policy were continued to 1985, only 12 percent of new industrial demand would burn coal. The President's plan envisions that industrial consumption of coal would more than double by 1985. Accomplishing the Administration's goal would require that 10 percent of all existing oil and gas used for industry be converted to coal and that 44 percent of all new potential users would convert to coal. The CBO analysis agrees with the President's 10 percent conversion of existing industrial use but projects only 33 percent of new uses to be converted to coal. (The reasons for this lower estimate include the logistics of transporting coal, concerns about protecting the environment, and problems of scheduling new coal facilities to maximize the benefits of rebates, all of which will impede new conversion.) This

would result in total coal consumption by industry of 360 million tons by 1985--50 million tons below the Administration's estimate.

In terms of equivalents in barrels of crude oil, CBO's estimate translates into a savings in imported oil of 1.8 million barrels a day, which is 0.6 million below the Administration's figure. To some extent, however, the attainment of the goal would depend upon the future actions of the Administration since it could control both the specification of coal regulations and their subsequent enforcement.

Auto-Related Proposals

The automobile-related provisions of the President's energy package are aimed at reducing gasoline consumption through production and sales of vehicles with greater fuel efficiencies, and through price-induced reductions in the number of miles driven. The goal of the plan is to reduce total gasoline consumption by 10 percent from current levels by 1985. This is an ambitious goal, considering that motor gasoline consumption has increased at 4.5 percent per year between 1965 and 1975, but its attainment would be aided substantially by existing legislation. In particular, the Energy Policy and Conservation Act of 1975 set fuel economy standards for new cars under the threat of civil penalties. While CBO does not expect these standards to be met in every year, it does anticipate that they would have significant effects on automobile gasoline use. In 1985, these standards would hold consumption within

one percent of the present level. CBO estimates that adoption of the President's plan would reduce automotive gasoline consumption further, but to 5 percent beneath its present level, not 10 percent below which is the goal of the Administration.

Three programs in the President's plan contribute to gasoline savings. More than half of the savings come from the President's proposed "gas-guzzler" taxes and rebates based upon new car fuel economy. This program is estimated to yield fuel savings of 215,000 barrels a day in 1985. Second, standby gasoline tax could be triggered as early as 1982 according to CBO projections, and assuming that it is triggered then, it would produce gasoline savings of 65,000 barrels per day in 1985. Finally, the crude oil equalization tax is expected to contribute an additional 25,000 barrels a day of gasoline savings in 1985. Taken together, these three programs would yield total gasoline savings of 305,000 barrels a day in 1985, less than a tenth of the energy savings produced by the President's plan as a whole.

CBO's estimate of the fuel savings for the gas-guzzler excise tax and rebate program is slightly higher than the Administration's, and the Administration has not yet computed comparable estimates for the standby gasoline tax and crude oil equalization tax. The Administration has

indicated, however, that without the standby gasoline tax, 1985 gasoline consumption would be 350,000 barrels per day above target. While CBO expects that 1985 gas consumption would most likely exceed the target by more than this, the excess above target in both sets of projections is greater than the estimated 65,000-barrel savings of the standby gasoline tax, implying that the President's goal of a 10 percent gasoline reduction by 1985 appears unlikely.

Future gasoline consumption by trucks introduces considerable uncertainty as to whether or when the President's goal would be met. At present, trucks account for more than 20 percent of the nation's gasoline consumption, and their future share of gasoline use could rise if their fuel economy improvement does not keep pace with that of autos. The fuel economy of light trucks is expected to improve as a result of existing legislation as well as through the President's gas-guzzler proposal as it would apply to light trucks. But both existing and proposed legislation in this area are keyed to a set of standards that have not yet been specified, so that assessment of their conservation impact is impossible at this stage. CBO analysis indicates that these future developments in the fuel economy of trucks would have a major effect on the triggering of the standby gasoline tax, and could delay it from 1982, as projected above, to 1983 or 1984. Policies related to trucks play a key role in shaping an effective and even-handed policy for transportation fuel conservation.

Insulation Tax Credit

The proposed insulation tax credit is likely to encourage some additional homeowners to upgrade the insulation in their homes. With sharp rises in fuel prices since 1973, however, many homeowners have already reinsulated or have decided to do so in the future. For example, about 3 million homeowners chose to upgrade their insulation in 1976. With current energy prices, insulation is already a good investment since the savings in fuel bills average about three times the cost of the insulation. The proposed credit would increase this ratio of savings to cost to 4 to 1.

Between now and 1985, an estimated 24 million homeowners and renters are likely to reinsulate their dwellings. CBO estimates that nearly 8 million of the 24 million would be attributable to the tax credit. The 24 million translates into a total of 70 percent of all residential homeowners as opposed to the 90 percent projected by the President. CBO estimates the energy savings attributable to these nearly 8 million households would be approximately 120,000 barrels of oil a day.

The Administration, on the other hand, estimates that a savings of 480,000 barrels would be due to the credit and related programs. The major difference is that CBO estimates that an additional 280,000 barrels a day will be saved by reinsulation that people would do anyway without the Carter plan, adding up to a total of 400,000 barrels per day from all insulation. The Administration assumes that a total of 480,000 barrels a day savings would be induced by the plan.

Short-Run Impacts on the Economy

President Carter's package would have a major impact on energy markets, a noticeable but small impact on the overall rate of inflation, and only a minor impact on total output and employment. CBO estimates that the President's plan would add about 1.6 percent of the level of consumer prices by 1980 or about half a percentage point a year to the rate of inflation from 1978 through 1980. The output effect is estimated to reduce constant-dollar Gross National Product by no more than 0.7 percent by the end of 1980, thus adding 0.2 percent to the unemployment rate. These estimates do, however, assume that there will be no new investment for conversion during the next two years. The total impacts on unemployment and real growth could therefore be partially offset if additional investment is forthcoming.

Distribution Effects

A final issue I would like to address is the combined impact that the energy proposals and tax rebates will have on consumers. Assuming that the crude equalization and natural gas and oil excise taxes are almost entirely passed on to consumers, approximately \$15 billion will be paid in 1980 (in 1977 price levels) in terms of higher energy prices and this will increase to about \$25 billion in 1985. While the rebate provisions of the President's plan would refund almost all of these additional energy payments back to the American people, the energy proposals will generally redistribute purchasing power from persons at upper income levels to persons at lower levels of income. Other trans-

fers are likely to take place. For example, nonautomobile owners will gain at the expense of automobile owners. Homeowners will gain at the expense of renters and persons living in cities within access to public transportation will gain at the expense of persons in suburbs and rural areas.

