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THE CARTER ENERGY PLAN: ANALYSIS AND ALTERNATIVES

INTRODUCTION

On July 5, 1979, President Carter was scheduled to address the nation on the subject of energy, in the aftermath of the Tokyo economic summit. Instead, the President abruptly cancelled the speech, and entered into a marathon round of consultations at Camp David. The consultations were reported to cover all aspects of domestic policy, and took a total of ten days. There were apparently two purposes to the hastily called meetings. First, they represented an attempt to achieve some sort of consensus among his advisors as to what the most appropriate means of addressing the nation's problems were. Secondly, it was thought that they could serve to focus national attention on the energy crisis, and the President's solutions to it. On Saturday, July 14, the White House announced that the President would reveal the results of the Camp David deliberations in a series of three speeches taking place over a period of two days, commencing with an address to the nation the following evening.

What unfolded over the next two days was in some ways unsurprising. The "new" proposal consisted largely of an amalgam of previous Administation initiatives, some even then pending in congressional committees, and the recommendations of a Department of Energy Task Force. The centerpiece of the plan was the creation of an Energy Security Corporation, which would promote and develop the establishment of a domestic synthetic fuels industry. This proposal was closely patterned after a Synthetic Fuels Authority which had been conceived by the Department of Energy, and which had received considerable attention in the media in the preceding weeks. It also closely followed legislation introduced by Senator Henry Jackson (D-Wash.) some weeks before.

In addition to the Energy Security Corporation, the President's proposal included an Energy Mobilization Board, in some ways similar to the one proposed by Senator Jackson, and an import quota for oil. The import quota, though, would be based on 1977 levels, the highest our nation has experienced to date.

While many of the proposals emanating from Camp David did not originate there, they still represent a marked change in the Administration's approach to the energy problem. Until this most recent set of initiatives, their sole concern appeared to be conservation. Many observers had been highly critical of this strictly demand-limiting approach and, in some ways, the Camp David proposals might have represented an attempt to answer such comments. What remains to be determined is whether the change of direction is genuine or cosmetic.

Initial reaction to what one wag has dubbed NEP 3½ has been mixed. A major concern appears to be the fact that with the establishment of the Energy Security Corporation, a precedent is set for an unparalleled federal intervention in the marketplace, and, for the first time, direct federal competition with private industry. Other concerns have included the degree to which the proposal's goals are realistic, and the wisdom of diverting such significant amounts of capital from domestic oil exploration and development to the fostering of a massive synthetic fuels industry run largely by the government.

The President's proposals are complex, being comprised of multiple elements. There appear to be varying degrees of merit to each, and therefore the only way to assess them fairly is to examine each in turn.

THE ENERGY SECURITY CORPORATION

Perhaps the most important and most controversial of the President's proposals is his Energy Security Corporation. The corporation would initially have a twelve-year congressional charter, and would exist outside the executive branch. It would be managed by a seven-member board of directors. Four of the Board members, including the Chairman, would be appointed by the President and confirmed by the Senate. The remaining three seats would go to the Secretary of Energy, the Secretary of the Treasury, and the Secretary of the Interior.

The corporation's stated mandate would be to direct investments, totalling some $88 billion according to the Administration's estimates, aimed at the creation of domestic synthetic fuel capacity in the range of 2.5 mbd by 1990. The primary financial resources of the corporation would be generated by the President's proposed windfall profits tax on oil, the income tax receipts stemming from any additional profits resulting from increased oil production.

The way in which these funds would flow, though, is somewhat complex. The Energy Security Corporation would be allowed to borrow up to $88 billion from the Treasury. This money would be broken into $22 billion increments at eighteen month intervals. They would not, however, be carried as budget items. The Energy Security Trust Fund would be created from receipts from the windfall profits tax on decontrolled oil, and the added income taxes generated by spurred production of domestic petroleum. The repayments would be shown as revenues to the General Treasury Fund. Up to $5 billion of the monies required by the corporation may be generated through the public sale of so-called energy bonds which would be in small denominations, and carry the same interest rate as U.S. Savings Bonds.

The corporation would be able to either make investments in, or develop directly, production capacity from coal liquids, coal gasses, peat, biomass, shale oil, and unconventional gasses. Its financial tools would include price guarantees, federal purchase agreements, direct loans, loan guarantees, and, most importantly, the authority to construct and operate plants either directly, or through concessions. These types of plants would be designated as Government Owned-Government Operated (GOGO) or Government Owned-Company Operated (GOCO) respectively.

Analysis

As noted earlier, one of the most frequently voiced criticisms is that with the establishment of the Energy Security Corporation, the federal government would be embarking on an intervention in the marketplace unprecedented in peacetime. While the Administration draws an analogy between its synthetic fuels proposal and the development of a synthetic rubber industry during the Second World War, the cases are not really analogous either in scope or magnitude. During World War II, the nation was in a mass mobilization, and the Japanese had shut off our only supplies of rubber. There were no other alternatives, and no domestic industry to compete with. Further, while the production of rubber was essential to the war effort, the size of the industry bore no resemblance to the size of the petroleum industry today.

One particular concern frequently expressed is that the Energy Security Corporation would act to siphon funds from the exploration for and development of domestic petroleum reserves, as it would be financed by a windfall profits tax on oil. Also, there are questions as to whether the diversion of such massive amounts of capital would result in the hindrance of the development of other energy technologies which might hold more promise in the short-to-intermediate term. For example, Frank Zarb, former Federal Energy Administrator, indicated in testimony before the Senate Energy Committee that a similar investment in tertiary recovery techniques for oil would result in a net gain of at least one million barrels of oil per day more than synfuels by 1985.

A second criticism of the financing machanism stems from the complex financial manipulations through which the Energy Security Corporation is funded. Since the loans made to the corporation are carried outside the budget, they would give the appearance of a balanced budget when there was actually a deficit. Secondly, the fact that the monies which are repaid will not be trated as being outside the budget, could make it appear that the ESC was making a profit when in fact it was not. This might encourage the continuation of the project when its continuation was not really warranted.

Other critics have questioned the ability to meet the goals set forth for the Energy Security Corporation. In testimony before the Senate Energy Committee, Richard Manderbach, Vice President of the Bank of America indicated that a goal of 500,000 to 1 million barrels per day for 1990 would be far more realistic. Manderbach and Zarb both indicated that the rush to develop a synthetic fuels industry was fraught with the potential for "White-elephant building and scandal."

Another criticism which rapidly surfaced was that the types of incentives provided in the package assembled at Camp David were not the type likely to produce the desired result. Rather than loan guarantees, direct loans, and subsidies from the federal treasury, most of the companies currently working to develop synthetic fuels would apparently prefer so-called "balance sheet" incentives such as accelerated depreciation or tax credits. A notable example of how these can be effective is found in the Canadian experience with the Syncrude project which produces oil from tar sands.

Rather than providing a massive subsidy to the Syncrude project, the Canadians took two relatively simple steps. First, they guaranteed that the output of the plant would be totally free of any price controls, and secondly, they allowed the company to write off the plant in three years instead of the conventional thirteen. The result is that there is currently an operating plant in Canada which is producing 100,000 barrels of oil per day from tar sands, at a profit, and in the private sector. At present, plans are underway to further expand the facility.

A final point raised frequently is that the Administration, while indicating that it intends to move ahead rapidly with its synthetic fuels program, heavily emphasizing the use of coal liquefaction and gassifaction as the main sources of supply, has ignored both the burning of coal, and the problems associated with extracting it. For each million barrels per day of oil equivalent produced from coal, 292 million tons of additional coal would have to be mined each year. This would mean that the upper range of the target for coal-based fuel would require the mining of an additional 438 million tons annually. While this may not be an impossible target, other requirements for increased coal production already incorporated in the previous Administration submissions do not take this additional requirement into

account, and there are doubts that even those goals can be reached. For example, previous goals would have mandated production increases on the order of 4 percent annually, but the annual rate of increase for coal production for the past several years has been only 2 percent. There are also problems associated with transporting the fuels once they are produced, assuming that the synfuels plants will be located at the site of the coal deposits producing their raw materials.

THE ENERGY MOBILIZATION BOARD

Another cornerstone of the Administration proposal is the establishment of an Energy Mobilization Board, closely patterned after the War Mobilization Board established to meet the nation's defense needs during the Second World War. The Board would have three members, appointed by the President and confirmed by the Senate. It would be part of the Executive Office of the President.

The Board would have the power to designate "certain non-nuclear facilities as critical to achieving the nation's import reduction goals." It would then be able to establish binding schedules for federal, state, and local decision making on those projects. Judicial review of the Board's decisions would take place in the Appeals court for the circuit in which the facility is located.

If an agency failed to make a decision on the facility in question within the specified time frame, the Board would have the power to make the decision for them. It would also be able to waive some procedural requirements to expedite the construction and development of a designated facility, and could exempt such facilities from changes in regulations which occurred after their construction was intitiated. The President could veto the Board's exercise of waiver authority.

Analysis

As described in the President's proposal, the Energy Mobilization Board bears a strong resemblance to the proposals Senator Henry Jackson has set forth in S.1308. There are some differences, primarily in that the board would exist outside the Department of Energy, and would be able to waive certain environmental regulations. There remains some question as to the exact nature of these waivers and the number of projects to which they would be applied. While the board is to be empowered to waive certain procedural requirements, it must do so within the framework of the appropriate state, federal, or local law. This may make the ability to grant waivers meaningless.

One of the most significant criticisms of the manner in which the Energy Mobilization Board is organized is that it specifically does not have the authority to grant waivers to, or to expedite the construction of, nuclear facilities. The nuclear

industry in particular has been beset with problems in siting and licensing similar to those the board is purported to eliminate. Further, nuclear plants are anticipated to play a major role in the nation's future electric generation capacity, even using the Department of Energy's own estimates. It therefore seems inconsistent to totally ignore the problems associated with the construction of such plants.

A second major criticism of the Energy Mobilization Board is that its function may be to merely expedite negative decisions. Since there is no authority to exempt facilities from environmental regulations and standards, related to emissions, or from federal land use regulations limiting the access to certain areas, the same barriers currently preventing the development of domestic energy resources remain in existence. With this being the case, there would be little apparent benefit derived from the board's existence. In fact, in recent congressional testimony, Michael Jackson, managing director of Lehman Brothers-Huhn Loeb, indicated that the energy industry might be worse off than it is because the creation of an Energy Mobilization Board as an entity separate from the Energy Security Corporation separates the financing and expediting functions of the President's proposal. He called the idea of separating the financing of such facilities from the mechanism to grant them regulatory clearance "ludicrous."

As with the case of the Energy Security Corporation, some observers are questioning whether the creation of yet another federal board will really serve to solve the problem. One noted the irony of creating a federal agency to cut the red tape of federal agencies, suggesting that the elimination of the sources of the impediments themselves might be a better approach - especially since the creation of the EMB does not signal any change in the policies which created the impediments to energy development in the first place.

Perhaps the most crucial policy omission in reference to the expediting of the development of domestic energy resources is the question of federal land management. At present, there are several proposals before the Congress which would remove many of our most promising areas for energy exploration and development. Included among these are vast areas of Alaska which are thought to contain undiscovered deposits of oil amounting to some 70 billion barrels, or seven times the "massive" Prudhoe Bay find. Similarly large deposits may also be lost to recovery in the Overthrust Belt of the Rocky Mountains. Yet another aspect of the land use problem relates to the development of the Outer Continental Shelf, which has been hindered by environmental litigation and federal leasing policies.

It should be emphasized that the problems associated with the elimination of potentially promising mineral deposits from exploitation through federal land use restrictions are not limited to oil and natural gas. Hard rock mining and coal mining are experiencing similar constraints. To totally ignore these policies

while addressing constraints on energy development is a major oversight. In short, it appears that the Energy Mobilization Board may in the end be more cosmetic than substantial. Morris Udall, Chairman of the House Interior Committee has already indicated his opposition to the Board, expressing a desire to limit its authority to grant exemptions to a maximum of six projects per year. Other House Members have expressed similar views, so even the relatively modest authority it has may be further limited.

OIL IMPORT QUOTAS AND TARGETS

A third key segment of the President's plan was a series of quotas and targets for imported oil. The import ceiling established for 1979 would be 8.2 million barrels per day, and at no time should it exceed the level achieved in 1977. In that year, "net imports" were 8.564 mbd. The net import figure is derived by subtracting oil exports from gross imports.

Analysis

While perhaps the most dramatic of the President's proposals, the imposition of quotas will have little effect in the immediate future. This is largely due to the fact that the year chosen is the highest level ever achieved. Most experts estimate that it will be 1981 or 1982 before the effect of the quotas will be felt. At that point, their effect could be significant.

One problem which would occur when the effects of the import quotas begin to evidence themselves would be the allocation of supplies. In the past, when import quotas acted to restrain available supplies, allocation generally took place on the basis of historical use. The problem is that our experience with the allocation of petroleum supplies, as demonstrated during the recent gas shortage, is that such allocation tends to be inefficient, and tends to create spot shortages. If the nation is coming out of a recession at about the same time the impact of the imposition of quotas surfaces, there is a chance that they may serve to delay any recovery which is taking place at that time. It should be noted that the President's goal of limiting imports to the range of around 4.5 mbd by 1990 actually would represent a reduction of from 7.5 mbd to 11.5 mbd down from the 12 mbd to 16 mbd which we would be importing at that time if there were no quotas.

UNCONVENTIONAL GAS INITIATIVES

The President would direct the Federal Energy Regulatory Commission to establish a special incentive price for natural gas from tight sands comparable to the deregulated oil price. There would also be a 50¢ per mcf tax credit granted to all production

of natural gas from unconventional sources. The tax credit would phase out when the world price of oil reached $28 per barrel. The Energy Security Corporation would be authorized to provide assistance to producers of such gas, but if they received help from the corporation, they would not be eligible for the tax credit. The production target for 1990 is the equivalent of from 500,000 b/d to one million b/d of oil.

Analysis

While there is little doubt that there are significant deposits of natural gas to be found in the form of geopressurized methane, and in tight sands, there is some question as to whether the President's approach is the proper one. As with oil exploration and development, land use and coastal zone management questions are ignored. So is the fact that the technology to develop such deposits is a long way from being commercial. Again, some observers suggest that the President's goals are overly optimistic.

One major criticism of the natural gas provision of the President's plan, which actually applies across the board, is that they favor one form of energy over another. The natural gas price established for gas from unconventional sources would be equal to around $5 per thousand cubic feet, and would be eligible for either federal assistance or a 50¢ tax credit as well. This is 2.6 times the price currently allowed for conventional natural gas. Some observers suggest that if the price for natural gas were decontrolled completely, instead of the highly complex system of multi-tiered pricing now in effect, it might be unnecessary to encourage the development of gas from esoteric sources. Since a relatively limited increase in the price of new domestic gas did result in significant additions to supply (What the Administration terms the "natural gas bubble") there is considerable credibility to this line of argument.

HEAVY OIL

The President has directed the Department of Energy to decontrol the price of heavy oil, and to exempt it from the windfall profits tax. Steps are to be taken to insure that natural gas is made available for heavy oil production, and a goal of producing 500,000 b/d by 1990 has been established.

Analysis

The lifting of price controls on heavy oil is considered by most observers to be one of more positive acts included in the President's proposals, but like the so-called unconventional gas initiatives, it shows a marked favoritism for an esoteric energy source, while penalizing a more conventional one. For example, the President's goal for heavy oil is the production of 500,000 b/d by 1990, yet several models of immediate oil decontrol without a windfall profits tax, or with such a tax coupled with a "plowback" provision, indicate that there could readily be an increase

of domestic oil production in that amount by 1981, and an increase of as much as 2.5 mbd by 1985.

REDUCTION OF OIL USE IN UTILITY BOILERS

The President is proposing that the nation's utilities reduce their use of oil by half by 1990. In order to help achieve this goal, incentives for the construction of non-oil fired plants would be created, to include grants and loan guarantees.

The mechanics of the program are based on so-called tickets, which are in effect ration coupons for utilities. These tickets would represent the right to burn oil. They could be exchanged among utilities functioning in much the same fashion as the proposed white market for gasoline ration coupons.

Analysis

To a large degree, the proposed reduction in use of oil by the utility industry will be a self-fulfilling prophecy. Many utilities, concerned over rising costs and interruptions of supply, are already looking to alternatives for oil.

Of greater concern to many observers, however, is the imposition of a de facto rationing system on these companies. The use of "tickets" will create a valuable commodity, especially for those utilities which are located in areas which are not in compliance with the Clean Air Act. The ticket system will also be heavily biased against the New England Region and California, areas where a disproportionate share of electricity is generated by electricity.

As is the case with other Administration proposals, the question of the advisibility of intervening in the market, when the marketplace might solve the problem, must be raised. As the price of oil rises, the incentive to look for other means of providing electrical generation capacity increases. It would seem that the removal of constraints on the development of such capacity, and on the price of oil, would serve to produce the same effect without the creation of a large bureaucracy to administer yet another federal program.

A present, nuclear energy, for example, enjoys a 15 percent cost advantage over coal-fired electricity generation, and an even more significant advantage over oil. The problem is that environmental regulations prevent the construction of nuclear plants. Many utilities would order such plants should these constraints be removed, or even reduced. Such action would be far preferable and in the long run more advantageous to the customer than the use of some arbitrary rationing plan.

It should also be noted that the creation of the system of "tickets" would in effect create a valuable commodity which a company would be hesitant to give up without compensation.

Customers of utilities, forced to purchase these tickets, would then have to bear whatever premium is ultimately attached to them. If these utilities are located in areas where the use of coal or nuclear power has been hampered by environmental regulation, then their customers would be unfairly penalized for the effects of federal regulation.

RESIDENTIAL COMMERCIAL CONSERVATION AND CONVERSION

The President would require that all utilities provide their commercial customers with energy audits. Utilities would also be required to offer their customers long-term financing for conservation improvements. The loans made under this program would be included in the utilities rate base, and would be repaid when the building is sold. The requirement to offer loans would apply only to those buildings which were heated or cooled by gas or electricity. Gas utilities could offer similar loans to convert oil heated homes to natural gas, although they will not be required to do so. There would also be subsidized loans made available to the owners of oil-heated residential or commercial buildings with which to pay the cost of converting to natural gas.

Analysis

While the conversion of oil-fired boilers in commercial and residential buildings might be desirable, given the brighter supply picture for natural gas, and the installation of conservation improvements laudable, many observers question the validity of mandating that the utility industry and its customers finance such conversions. In effect, it will be the ratepayers who are bearing the cost of these commercial conversions, since they are to be added to the utility's rate base, and will therefore be eligible for the utility's standard return on investment. Since this return on investment is reflected in the rates paid by utility customers, the subsidy is apparent. In effect, they will pay higher electric and gas rates, while the commercial or residential property owner garners the benefits of lower bills for energy use stemming from the improvement.

As noted so frequently with the President's proposal, the residential and commercial conservation provisions again represent an intervention in the marketplace where one might not be necessary. In the years following the Arab oil embargo, the industrial and commercial sectors have been among the leaders in conservation. There has been a very obvious reason for this: energy is a cost of doing business, and as the cost has risen, efforts have been made to minimize it. The gains in energy efficiency demonstrated over the last five years are a clear indication that the results of the market forces at play in the energy arena are dramatic. There is a real question as to whether any gains in excess of those which will occur regardless of the President's program will actually occur as a result of it.

LOW INCOME ASSISTANCE

The President is asking Congress to enact special legislation creating a program of low income assistance from the Energy Security Trust Fund. The program would be funded to the extent of $2.4 billion the first year, and a portion of it would be made available to states in the form of matching grants. For the most part, it would be made available to those persons designated as needy on a cash-grant basis.

Analysis

While the needs of the poor must be addressed, it is the contention of many observers that existing programs have enough flexibility to address energy-related problems. Since states establish their own needs criteria through their existing welfare programs, it is thought that these criteria would likely be adjusted to account for any changes in energy-related expenses. At the same time, the diversion of additional capital from oil exploration and development to the Energy Security Trust Fund may in the end be counter productive, as it may have the effect of further increasing energy costs.

TRANSPORTATION EFFICIENCY

Over the 10 years between 1980 and 1990, the President is proposing that $16.5 billion be expended for improvements in automobile efficiency and in upgrading the nation's mass transit system. Specifically, slightly over $10 billion will be earmarked for mass transit, and the balance for auto efficiency improvements.

Analysis

One of the more striking features of the President's proposals related to mass transit and auto efficiency is their cost: $66,000 per daily barrel of oil equivalent. This is significantly above what would be required to add the same amount of supply through either broader efforts in exploration, or through enhanced recovery of marginal deposits. Again, there is a question in some minds as to the necessity of the initiative. Auto efficiency has already demonstrated a marked increase as the price of gasoline has risen. Full decontrol of gasoline prices would provide even greater incentive. Similarly, reduction of emission control devices, known to reduce automobile mileage would also provide far less expensive short-term improvements in mileage, and subsequent reductions in consumption.

OTHER PROVISIONS

Among the other proposals included in the President's package are the creation of a Presidential Advisory Committee on Energy Security, the mandating of state-by-state targets for conservation

of gasoline and other fuels, and the power to impose federally-mandated conservation plans on each state, the establishment of a Solar Bank to make loans for solar heating and cooling units, and other solar devices, a solar energy tax credit, and standby authority for gasoline rationing.

Analysis

Among these other provisions, there are two which warrant special attention: the authority to impose federally-mandated conservation plans, and the standby authority to impose gasoline rationing. It should be noted that the House of Representatives is currently considering the rationing authority.

The right to impose federal conservation plans on states is one which is certain to generate substantial opposition. The experience of the states with the federal allocation system has left many doubting the federal government's ability to understand and adequately address their unique needs. Also, they are certain to view such federal action as a serious challenge to state sovereignty.

On a more basic level, the question again arises whether or not a special provision of this nature is necessary. At present, the President has the authority to allocate supplies and is doing so through the Department of Energy. The experience to date with this allocation system has been wholly unsatisfactory, with even some DOE officials admitting that the task might be beyond their competence. There is no reason to believe that a federally-imposed conservation plan would be any more effectively administered, or any more efficient or equitable than the present allocation system has been.

As to the standby authority for gasoline rationing, again, the experience with the federal allocation system must be taken into consideration. Further, all indications are that the system the Administration would develop would not be substantially different than the one already disapproved by the Congress. The shortcomings of that system were significant. In capsule, it would have used coupons for a specified number of gallons of gasoline, issued to automobiles on the basis of the number of vehicles owned up to a limit of three. Subsequent changes imposed by the Congress would have issued the coupons on the basis of licensed drivers rather than on the basis of vehicles.

Qualified individuals would receive certificates which they would redeem at a local bank for coupons representing a three month ration. An estimate made by the American Bankers Association indicated that banks would have to hire an additional 152,380 persons for one week each three months to handle the redemptions. No one has estimated the amount of gasoline which would be consumed in lines waiting to redeem the coupon checks.

The white market in the coupons would require the establishment of an entire new body of law, because they would in effect be negotiable instruments, albeit ones backed by gasoline rather than gold or silver. One DOE estimate indicates that they would have a cash value of $1.27.

There is also the possibility that hoarding or unexpected interruptions of supply could result in more coupons being in circulation than there are supplies of gasoline available, leading to coupon inflation.

While the concerns over the implementation of coupon rationing may seem premature, there is a marked tendency to use authority if it is granted. While it may be that some sort of rationing authority could be necessary, in the event of another Arab oil embargo, or under some similar circumstance, the likelihood of such an eventuality in the near term is small, and many observers feel that granting of standby authority at this time is as yet unwarranted.

A RATIONAL ALTERNATIVE

Defenders of the President's energy program are quick to point out that, regardless of its faults, it does represent an attempt to come to grips with our nation's energy dilemma. They contend that the program is the product of a process which considered all available options, and selected the best mix from among them. Others, however, disagree. They note that the President's package gives little consideration to the short-run, other than to request standby authority to ration gasoline, and as one member of Congress noted "no one to date has designed a truck or automobile that runs on a ration coupon." Similarly, critics contend that the program outlined over the two days following the Camp David consultations would not maximize the production of existing domestic resources, but rather would embark on a massive program to create a new industry in their place. It may be that a program based on a stronger reliance on existing, proven technologies, coupled with adequate incentives for the development of new and emerging technologies would in the end go further towards solving the critical problems facing our nation. An outline of such a program might be summarized as follows:

1) The immediate decontrol of oil, natural gas, and gasoline prices, without the imposition of a windfall profits tax. While estimates may vary, even those considered conservative indicate that within six months of a total decontrol of oil prices, additions to supply in the range of 150,000 b/d should occur. After one year to eighteen months, 250,000 b/d of new supplies should be added, and by 1985, at least one million b/d would be added from tertiary recovery alone. Relatively conservative estimates place the total amount of additions to supply at from 2 mbd to 2.5 mbd during the same period and up to 5 mbd by the 1990s.

More optimistic estimates place the additions as high as 8 mbd for that period.

In addition to decontrolling oil and gasoline prices, the allocation system now in place should be abolished. By all accounts, it was largely responsible for some areas experiencing shortages of as much as 25 percent at the gas pump while the actual shortage of crude oil was only around 5 percent. Further, supply dislocations associated with the implementation of the allocation system were apparently responsible for the waste of as much as 5 percent of our nation's oil supplies, in effect doubling the shortage resulting from the Iranian shutdown.

For natural gas, decontrol would bring about even more startling immediate results. According to surveys conducted separately by the Department of Energy and the American Gas Association, natural gas could offset from 1.3 mbd to 1.7 mbd within twelve months. Over the long run, even larger amounts would be offset. In the utility sector alone, at least 750,000 b/d of oil could be replaced with natural gas by the mid-1980s, and in the industrial sector, if proper incentives to cover the cost of conversion are enacted, similar gains would be possible.

Decontrol of gasoline prices would also have dramatic immediate impacts, especially if coupled with a tax credit for the purchase of fuel-efficient vehicles. Under such conditions, fuel consumption in the transportation sector could be reduced from 1.4 mbd to 1.7 mbd.

2) The establishment of a special category of lands designated "priority energy preserves." These lands would include those areas known to have special promise for energy development. Some typical example of lands which would be so categorized would be the Overthrust Belt of the Rocky Mountains, areas of the North Slope of Alaska, and the Outer Continental Shelf.

Energy exploration and development activities in priority energy preserves would take place on an expedited basis, and would be exempt from the provisions of the National Environmental Policy Act. The designation of an area as a priority energy preserve would take precedence over any previous land-use designation.

3) A revision of the Clean Air Act requiring that state standards for pollutants be the same as the federal standard, coupled with an express prohibition on states imposing standards stricter than those imposed by the federal government in their state implementation plans, a credit towards attainment of the federal standards for any gains realized through the use of cleaner western coal in utility or industrial boilers, and a provision allowing the use of intermittant controls, such as tall stacks, in lieu of scrubbers.

4) The creation of a special Emergency Exemption which the President would allow utilities to burn residual fuel oil instead

of #2 or #6 oil, if such action were necessary to insure homeowners of adequate supplies of such fuels and at the same time maintain adequate generating capacity for electricity.

5) The creation of a special authority within the Executive Office of the President which would be allowed to exempt facilities from the provisions of the National Environmental Policy Act, regardless of location, if it is determined that said facility is essential to the production of adequate energy to meet our nation's needs. Facilities eligible for such a designation would include pipelines, ports, refineries, electrical generating plants, including nuclear power plants, and hydroelectric stations.

6) Allowing producers to take either a 20 percent investment tax credit, or an accelerated 5 year write-off for any energy production facility which could serve to reduce our dependence on imports. Such facilities would include conventional operations such as oil wells, and non-conventional ones such as synthetic fuel plants. A recent study by the Electric Power Research Institute indicated that such an incentive would allow the costs of synthetic fuels to be roughly the same as the costs for petroleum-derived fuels for the first five to ten years of operations. The same study indicated that by the mid-to-late 1990s, the price of crude oil would be such that unsubsidized synthetic fuel plants would be competitive with petroleum-derived products. The conclusion of the EPRI study was that tax incentives of this nature "result in low-cost synthetic fuels, and will require a minimum direct capital outlay from the federal government."

The production level projected by the EPRI study was 2.5 mbd by 1995. This would follow closely the conclusions of a number of financial analysts who recently testified before the Senate Energy Committee hearings on synthetic fuels, indicating that a realistic goal for production of synthetics would be in the range of 500,000 b/d to one million b/d in 1990.

CONCLUSION

An examination of the available options seems to support the contention that there is a more expeditious way in which to meet our nation's energy needs than the one presented by the President. The decontrol of natural gas, oil, and gasoline prices would result in additions to domestic supply far greater than the goals set forth in the President's program, and in a shorter period of time. The actions outlined above would have the added benefit of doing something about the short-term crisis as well as the long-run problem, rather than merely attempting to share the shortage.

Under these steps, 6.7 to 7 mbd of additional supplies or savings would be realized by 1985, and 11 mbd of additional supplies or savings realized by 1990. The President's proposals, by comparison, would have no real impact until the 1990s. Further, estimates of the cost of the market approach indicate that it

would be in the range of $40 billion, as opposed to the $146 billion the President would spend.

Most importantly, the market alternative will provide the American public with more energy at a lower cost than the Carter Package. The total savings and additions to supplies envisioned by the Carter program by 1990 total 8.5 mbd. Little of this will be evident before that time. By contrast, just four actions contained within the market alternative - decontrol of oil prices, decontrol of natural gas prices, decontrol of gasoline prices, and some modest tax incentives to energy production - result in savings and additions to production amounting to nearly 2 mbd in 1980, possibly as much as 7 mbd in 1985, and 11 mbd by 1990. Further, this would be accomplished without massive federal intervention or the creation of a new bureaucracy.

PRODUCTION AND CONSERVATION EFFECTS OF VARIOUS ACTIONS

ACTION	1980	1985	1990
Oil Decontrol	250,000 b/d	2.5 mbd	5 mbd
Natural Gas Deregulation	1.3 mbd-1.95 mbd	2.8 mbd	2.8 mbd
Gasoline Decontrol	----	1.4 mbd-1.7 mbd	2.2 mbd
Synthetic Fuel Incentives	----	----	1 mbd
TOTALS	1.55 mbd-1.95 mbd	6.7 mbd-7 mbd	11 mbd

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