

ENERGY SUPPLY AND DEMAND ISSUES--**A GAO PERSPECTIVE****Speech by****P. Kevin Boland****Senior Associate Director****Resources, Community and Economic Development Division****U.S. General Accounting Office****at****The International Energy Conference****of****The International Research Center for Energy and
Economic Development****March 23, 1983**

Thank you for the kind introduction, Dr. Mead, and good morning ladies and gentlemen. It's a pleasure for me to participate in this very excellent conference and to have this opportunity to discuss energy supply and demand issues from a GAO perspective.

The U.S. General Accounting Office may not be a "household word" to all of you. With this in mind, I thought I would take a few minutes to discuss who we are and what we do, before discussing some of our recently completed and ongoing work.

GAO was established as an independent, nonpartisan legislative agency by the Budget and Accounting Act of 1921 to help the Congress ensure economy and efficiency in the Federal Government. Today, it is headed by Comptroller General Charles A. Bowsher. Our major responsibility is to assist the Congress by auditing and evaluating Federal programs, activities, and financial operations. We also provide legal opinions and frequently comment on proposed legislation.

We employ 5,000 people. Half of them work in Washington, D.C. The other half are located across the United States and at three locations abroad. In fiscal year 1982, we issued about 1,000 reports to the Congress and Federal agency officials, testified about 200 times before congressional committees, and assisted the Congress in many other ways.

This work comes to us in several ways. Our fundamental mandate is to evaluate Government programs. We also have responsibilities assigned to us by specific legislation, such as review of the Nuclear Waste Policy Act of 1982, the Tennessee Valley Authority, and the Great Plains Coal Gasification System. This law requires

that we monitor Federal efforts to develop underground facilities for permanent nuclear waste disposal. In addition, we frequently respond to congressional requests to look into specific problems and to evaluate legislative options.

Energy is one of our major areas of activity. Our energy work is organized along certain broad lines reflecting the Federal role in energy. These include Federal resources and power, energy technology and nuclear issues, regulation and management, and energy policy and national security. We are specifically responsible for the audit and evaluation of programs at the Department of Energy, the Federal Energy Regulatory Commission, the Nuclear Regulatory Commission, the Tennessee Valley Authority, the energy-related portions of the Department of the Interior, and the Synthetic Fuels Corporation. Our reports are made public.

GAC PLANNING AND PRIORITIES

I do not need to emphasize to this audience that this area is complex and far reaching. Energy provides all aspects of modern life. Our work in this area represents a major effort in terms of time and human resources. We make every effort to prioritize the use of our efforts to meet the pressing needs of our audience.

We realize that energy is a "real world" issue, not simply one dominated by Government programs, and that supply and demand operating in the marketplace is the most important determining factor. Furthermore, the market does not stop at the border of the United States. It is probably no exaggeration to say that the international price of oil is the most important single

driving force shaping energy decisions here in the United States. Recent events, such as the slackening of world oil demand, reduction of OPEC prices, and lessening of U.S. imports from the Middle East, have tended to diminish the visibility of energy. Nevertheless, all of you remember the 1970's. Acute shortages were followed by periods of abundance only to be once again replaced by short supplies and rising prices. Energy put the U.S. economy on a roller coaster, and the problems of the 1970's have not gone away. The United States continues to import 14 percent of all its energy and to consume about 25 percent of the world's energy supply.

Within this context we have identified 13 strategic and major target areas for our work. Six of the 13 issues in which we anticipate high congressional interest and areas for which a series of "building block" efforts and a broad summary report within the next 2 years or so would be timely are:

- the Strategic Petroleum Reserve,
- Emergency preparedness,
- Electricity supply and demand,
- Nuclear power regulation in the post Three Mile Island era,
- the Synthetic Fuels Corporation, and
- the Pacific Northwest Power Act.

Other major areas, for which we expect to commit substantial resources, include energy research and development; Federal leasing and resource development; and Federal regulation of natural gas and nuclear power, including nuclear waste. Congressional interest in energy remains high, and we must continue

to respond to growing numbers of specific congressional inquiries. I might mention that currently over 70 percent of our work in energy responds to congressional requests. To the extent that our planning is successful, we will have anticipated much of the Congress' interests and timely and responsive replies will flow from our ongoing work.

You may be interested in the analytical basis or rationale by which we prioritize our work. Even in an atmosphere which emphasizes the free market, the Federal Government retains a major role in energy. We at GAO follow the Government. Let me cite a few examples of the specific work we have planned in the target areas. Electricity supply and demand, as I have mentioned, is one of our strategic target areas. The Nation's utility industry is faced with a unique situation. Historically, high levels of demand growth have given way to static and, in some cases, declining demand. Several of our reports dating from 1978 have highlighted the imbalance between supply and demand.

In our future work, we will address this issue in several stages. First, we plan to develop an inventory of the Nation's power generating capacity by subregion. Second, we will look at ways regional imbalances can be matched and at impediments to this improvement. Third, we will examine the need for future resource development, including the role of nuclear power. At this point we expect to be able to analyze the utility industry, public and private, and to comment on the traditional roles of Federal, State, and local governments.

In the case of the Synthetic Fuels Corporation, we know that the Congress will have to make a decision in the 1984 time frame on future funding. Market forces and energy prices have delayed if not killed many synfuels projects. We have congressionally requested work underway addressing the Corporation's process for selecting and funding projects and environmental considerations given Corporation projects. Also, we plan to review the Corporation's overall effect on the development of the synthetic fuels industry.

The Pacific Northwest Power Act, which has been in place for about 4 years, is another piece of legislation that we have targeted specifically for evaluation. We intend to put together a report card on how the act has worked to meet electricity needs and use within the region. We will evaluate each major component of the act in terms of regional supply and demand planning and of the effectiveness with which conservation and renewable energy resources are being applied. We will also look at how the act has worked to meet its other objectives of maintaining fisheries and ecological systems.

RECENTLY COMPLETED AND ONGOING GAO WORK

Natural gas pricing

Let me turn to some examples of recent reports which may be of particular interest to you. Natural gas has been in the headlines lately. The President has just submitted a complex and controversial proposal for decontrol. Earlier this year we released two reports, "An Analysis of Natural Gas Pricing Alternatives" and "Information on Contracts Between Natural Gas Producers

and Pipeline Companies." We analyzed the energy and economic impacts of the continued operation of the Natural Gas Policy Act and other alternatives. Not surprisingly we found that "there is no free lunch." All the options involved trade-offs.

Two possibilities stood out: immediate price decontrol and continuation of the Natural Gas Policy Act. They were not only the most likely alternatives but also, on balance, seemed more favorable for industry and consumers than the other options we analyzed. Both, however, have pluses and minuses. Price decontrol in 1983 promises to alleviate many of the disadvantages caused by intrastate pipelines' inability to compete with interstate pipelines. It also promotes economic efficiency. However, provisions of existing contracts create the potential for a huge price fly-up. We estimate that such price increases could range anywhere from 18 percent to over 100 percent--with about 90 percent being "most likely." This contrasts with increases of about 20 percent per year over the past few years. Most of the increase would be attributable to the contract terms negotiated when natural gas was scarce in the 1970's. In fact, in our "most likely" case we estimated that under total decontrol, these contract terms could raise prices about 60 percent above present market clearing prices.

The Natural Gas Policy Act, on the other hand, offers a smoother transition to price decontrol and lower consumer costs overall. Moreover, the contract problem appears less severe under the act than under decontrol. Under the act, however, price control will remain on a portion of old interstate gas

after 1985. This low cost gas will enable interstate pipelines to bid above market prices for new decontrolled supplies, average the two prices, and still maintain a competitive market price. Intrastate pipelines fear they will lose access to these new supplies after 1985. We found that this problem, though real, was likely to be short lived. Our reports concluded that there isn't a clearly "correct" choice. Both have their own advantages and disadvantages, but if total decontrol is chosen, the contract problem will have to be dealt with.

Our reports were released before the President made his recent proposals. As you know, he called for the total decontrol of prices accompanied by complex provisions for abrogating contracts while holding price increases at or near the rate of inflation. Recently, both the Senate and House have requested that we review the administration's plan. Senator McClure and Representative Markey have asked us to assess the plan's energy and economic impacts on both a national and regional basis. Representative Sharp has requested that we look at the plan's effect on the Federal Energy Regulatory Commission's resource requirements to fulfill its regulatory responsibilities.

Development of energy
resources on Federal lands
and on the Outer Continental
Shelf

The accelerated leasing of Federal lands for energy exploration and development was, and remains today, one of the Reagan administration's key energy initiatives. Rapid inventorying of Federal lands for energy resources; the development of any new-found resources to reduce U.S. dependence on foreign sources

of energy; and, although not specifically highlighted, the additional revenues to the Treasury from an accelerated leasing program were strong motivating factors.

We have followed the administration's program closely. For example, we have issued three reports on the accelerated 5-year Outer Continental Shelf leasing program. In our initial report, we doubted the Interior Department's ability to accommodate an accelerated program--particularly in Alaska where sales were to be increased by 60 percent during the 5-year period. We also noted that the success of the new program would hinge on (1) industry's ability and willingness to increase its development activities and (2) public acceptance of the program. I have in mind the absence of litigation which, in the past, has slowed offshore activities. In followon reports we have questioned the administration's estimated budgetary receipts for the offshore leasing program and have suggested that increased royalty rates be used to protect the public's financial interest.

We have also looked at the administration's plans for leasing of onshore Federal lands--both for oil and gas and coal. In a February 1982 report we noted that while some progress had been made in opening up Alaska lands, administrative and procedural problems had to be overcome before accelerated leasing could come about.

A related issue in the development of Federal resources--particularly coal--is the "checkerboard" problem common in the west. Federal and railroad holdings are so small and intermingled that economic development of resources contained on those lands

is precluded. On March 7 of this year, we issued a report to Representative Williams of Montana on a Department of Interior proposal. The Government and a railroad--in this case Burlington Northern--would realign some of their holdings in Montana to give each a tract of land large enough for economic leasing and/or development. Although railroads are generally not permitted to participate in Federal coal leasing, they can acquire Federal coal by exchange. We took the position that Interior should proceed with its consideration of the exchange, but we offered some recommendations to Interior for consideration in future exchanges.

Currently, we are reviewing the Powder River Basin coal lease sale held last April--the first large sale in over a decade and the largest sale in America's history. A great deal of controversy surfaced after the sale. Representative Markey and Senator Baucus have asked us to review the sale. Some of the issues they asked us to review include

- the basis for the Interior Department's late decision to change bidding systems,
- Interior's use of lease valuation methods, and
- whether or not the public received fair market value for its coal in the April and October sales.

We support the administration's attempts to increase the leasing of Federal lands for energy development, but we are also concerned that it be done in such a way that the public's overall interest is protected. Legislation governing the leasing of Federal lands provides that a number of factors be considered in leasing decisions and that a balance be struck to assure that no one consideration is given short shrift.

One of our major concerns at this time is the question of a fair and equitable return to the Government for leased lands. Under this administration the Government's bid acceptance processes are being revised in the Outer Continental Shelf program and in the case of the Powder River sale. This approach relies more on company competition and other marketplace factors--rather than on Interior's independently developed evaluations which are based on its economic, geologic, and engineering analyses. It has led to lower royalty rates. Reliance on the marketplace is fine, but this reliance must be tempered by marketplace trends. For example, today the economy is weak and the outlook and future demand for all energy resources, including coal, is uncertain. Under these conditions, we question whether the administration's current marketplace approach to leasing--especially when it is offering far more land for lease than ever before--will ensure that the Government gets "fair market value."

The administration is concerned, and rightly so, that the Government receive a fair return for the development of Federal mineral resources. We have issued a number of reports over the past several years pointing out management problems with Interior's oil and gas royalty collection process. The Department is making a concerted effort to correct these problems; it has established the Minerals Management Service and is working on a new royalty accounting system.

We are continuing to monitor and report periodically on Interior's progress in this regard, and are examining other financial and accounting issues as well. For example, we recently

issued a report to Interior pointing out that more timely deposit of the application fees for noncompetitive oil and gas leases could result in interest savings of several hundred thousand dollars a year.

Emergency preparedness and
the Strategic Petroleum Reserve

Emergency preparedness for imported oil interruptions is an area where I feel GAO has made an important positive contribution.

We are well aware, as you are, that at the present time there is a glut of oil and prices have come down. Nevertheless, the United States and other industrialized nations remain dependent on imported oil, including substantial amounts from the Persian Gulf area.

We have been following two main tracks in this area. First, since mid-1980, at the request of the Senate Energy Committee, we have monitored the Strategic Petroleum Reserve. We are required to file quarterly reports on Reserve activities through fiscal year 1985. Our other effort is more wide ranging. In 1981 we published a report, "The United States Remains Unprepared for Oil Import Disruptions." It reviewed then-current emergency programs as well as alternative approaches. We concluded that the Federal Government was unprepared to cope with emergencies. Since then we have released many reports and testified before several congressional committees.

The administration has announced that in an emergency it intends to rely on the free market and the Strategic Petroleum Reserve. It has abandoned price controls, demand restraint, and other measures. As a result of these policy changes, the

Strategic Petroleum Reserve is virtually all we have. We recently reported to the Senate Energy Committee on the administration's Strategic Petroleum Reserve drawdown plans and overall emergency preparedness program. Like the old testament prophet Daniel, "we weighed them in the balance and found them wanting."

A current controversy swirls around the Strategic Petroleum Reserve fill rate. Two problems that plagued its early development were delay in construction and oil acquisition. Over the past 2 years, the administration made good progress in filling and expanding the Reserve. Today it contains about 300 million barrels of crude oil. The administration, however, intends to reduce its fill effort on the grounds of the need to reduce Government spending and the improved energy supply situation. Of course, from a contrasting point of view, the time to buy oil is when it is cheap and available.

The situation today is this: The Energy Emergency Preparedness Act requires a minimum average annual fill rate of 300,000 barrels per day until the total reaches 500 million barrels. The President has an escape clause from the 300,000-barrel-a-day rate. If for any fiscal year he finds that this rate is not in the national interest, the minimum becomes 220,000 barrels per day or the highest practicable rate subject to the availability of funds.

During the first quarter of this fiscal year, the administration filled the Reserve at an average rate of 173,000 barrels per day. The administration has stated that over the entire year, however, it intends to revise the rate to 220,000 per day. The problem arises

for fiscal years 1984-1986. The proposed fill rate will fall to 100,000 to 145,000 barrels per day and delay the achievement of a 500-million-barrel reserve by at least 2 years.

What goes in, must come out. Let me turn to the problem of Strategic Petroleum Reserve drawdown. Protection from the adverse effects of supply disruptions is, in large part, determined by how and when the Government can distribute Reserve oil. Advance planning is critical to effective use in an emergency. It can also contribute to public confidence and deter panic buying at home and facilitate cooperation among other major oil importing nations abroad.

I have already hinted at our reaction to the administration's Strategic Petroleum Reserve drawdown plans. In our view more analysis and policy decisions are needed on such questions as timing of drawdowns, strategies in various types of disruptions, and coordination with our allies.

A LOOK AT SOME FUTURE GAO WORK

Before I conclude my remarks, let me look ahead a bit. Nuclear power once seemed to be the wave of the future. A number of factors, including escalating costs, shrinking demand, Three Mile Island, and others, have led to a virtual nuclear moratorium. Nevertheless, nuclear power is the object of intense public and congressional interest. The administration has emphasized it. We regard the current hiatus as a window of opportunity, a time to learn from what has happened to the industry and make whatever changes or mid-term corrections are necessary. We plan to address several issues:

- Nuclear interface with the electric utility industry.
- Nuclear power infrastructure.
- Regulation.
- International implications.
- Nuclear waste disposal and storage.

Research and development is another area that looks to the future. The administration has adopted a policy of limiting Federal support to "long-term, high-risk projects" with potentially high energy or efficiency payoffs. This approach will rely on industry to manage and finance demonstration and commercialization projects.

The administration's policy not only reverses those of its predecessors but is at variance with much of congressional sentiment. We, therefore, expect a heavy load of congressional requests. We plan to address this issue in a number of reviews on specific energy technologies. We plan to build toward a comprehensive report on the Nation's ability to develop and deploy appropriate energy technology.

CONCLUSIONS

Again, it has been a pleasure for me to address a group such as this. At GAO, we welcome inquiries at any time. I would be glad to answer your questions.