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FEBRUARY 26, 1976

OFFICE OF THE WHITE HOUSE PRESS SECRETARY

THE WHITE HOUSE

REMARKS OF THE PRESIDENT
UPON SIGNING THE ENERGY MESSAGE

THE CABINET ROOM

2:11 P.M. EST

Secretary Richardson, Secretary Kleppe, distinguished members of the Administration:

Just over two years ago the Arab embargo taught us that the United States had become far, far too dependent upon other countries for our oil supplies. We learned the high price of excessive dependence in dollars as well as in jobs.

Today, there is a very real danger that present conditions may lull us into a false sense of security. The long lines at the gasoline stations have faded from most of people's memories. But we still have a very, very serious energy problem.

The problem is that we are still far too dependent on foreign sources of oil. This problem will get worse if we don't act quickly and effectively.

During the past year I have placed before the Congress a comprehensive set of legislative proposals designed to help us achieve our goal of energy independence. My budget for fiscal year 1977 provides for a 30 percent increase in funding for energy research and development. I have taken the steps necessary and possible within existing authority. The need now is for Congressional action.

I am announcing today a significant new legislative proposal which would establish a clear procedure, as well as a timetable, for bringing needed natural gas supplies from the North Slope of Alaska to the lower 48 States.

After months of debate on energy, the Congress has completed action on only one major piece of energy legislation. My 18 other major legislative proposals which are absolutely essential to achieve our national energy goals still await action by the Congress. Legislative action to deregulate the price of new natural gas is the most essential of these legislative proposals if we are to achieve energy independence.

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The bill passed by the Senate would increase 1985 production by over 25 percent -- 25 percent more, I emphasize -- than under current regulations, cutting oil imports by almost three million barrels per day.

Unfortunately, the House of Representatives has not shown the same foresight and the legislation it has passed would further speed the decline in domestic natural gas production.

In the long run, the American people will pay more under current regulations than if we act to stimulate domestic production in natural gas.

Naturally, I hope that the Congress will show some wisdom and do some affirmative action in trying to increase our domestic production, and the best way they can do it is to pass the bill that I recommended, or the version passed by the United States Senate.

At this time, I will sign the message which will go to the Congress urging the Congress to act, and act promptly.

END (AT 2:15 P.M. EST)

February 26, 1976

Office of the White House Press Secretary

THE WHITE HOUSE

SUMMARY FACT SHEET
THE PRESIDENT'S ENERGY MESSAGE

The President today sent to the Congress a comprehensive message reiterating the importance of energy independence, outlining actions he has taken to achieve our energy goals, and urging prompt Congressional action on legislative proposals needed to achieve these goals.

BACKGROUND

- . In his 1975 State of the Union address, the President announced specific goals and legislative measures for achieving energy independence.
- . During the past year, the President has:
 - Initiated major programs, to the extent possible within available authority, to conserve energy and increase domestic production.
 - Placed before the Congress additional bills needed to deal with the energy problem.
 - Signed the Energy Policy and Conservation Act -- the only major piece of energy legislation passed by the Congress -- which includes four of his original proposals.
- . In his Fiscal Year 1977 Budget, the President proposed major increases in funding for Federal energy programs, including a 30 percent increase for energy research and development.

SUMMARY OF THE PRESIDENT'S MESSAGE

- . The President:
 - Reiterated the importance of achieving the Nation's energy independence goals.
 - Summarized his programs now underway to stimulate energy conservation, to increase the domestic supply of natural gas, nuclear energy, coal, and oil; and to develop a broad range of advanced technology to obtain energy from solar, geothermal, fusion and other sources.
- . The President announced the following new actions:
 - Legislation to expedite the delivery of natural gas from the north slope of Alaska.

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- A new policy for encouraging necessary liquefied natural gas imports that do not cause excessive dependence in total or from any particular source of supply.
- A special contribution of up to \$5 million over the next five years to strengthen the safeguards program of the International Atomic Energy Agency (IAEA).
- A \$1 billion program of financial assistance to areas affected by the development of Federally-owned energy resources (bill submitted February 4, 1976).

The President reiterated the need for passage of eighteen major energy proposals still awaiting final Congressional action. These 18 proposals would:

- Deregulate the price of new natural gas.
- Provide the added short-term authorities needed to deal with natural gas shortages that may occur next winter.
- Reform the nuclear facilities licensing process by providing for early site review and approval, and encouraging nuclear facilities design standardization.
- Assure the availability of enriched uranium fuel for nuclear power plants and foster the creation of a private, competitive enrichment industry in the U.S.
- Allow commercial oil production from the Naval Petroleum Reserves.
- Modify automobile and stationary source pollution control requirements in the Clean Air Act to achieve a balance between air quality and energy needs.
- Create a new Energy Independence Authority -- a government corporation to assist private sector financing of critical new facilities which would not otherwise obtain financing.
- Authorize the financial assistance to assure construction of plants to provide at least 350,000 barrels per day of synthetic fuels production by 1985.
- Develop State plans and procedures to assure sites for necessary energy facilities, consistent with proper land use considerations.
- Reform the utility rate-setting practices of State regulatory commissions.
- Provide tax incentives to stimulate investment in the construction of new power plants, primarily coal and nuclear.

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- Provide financial impact assistance to areas affected by new Federal energy resource development projects over the next 15 years.
- Provide for minimum thermal efficiency standards for new buildings.
- Provide for a \$55 million weatherization assistance program for low-income and elderly persons to insulate their homes.
- Provide a 15 percent tax credit for energy conservation improvements in existing residential buildings.
- Provide authorities to assure that a large drop in world oil prices does not jeopardize needed domestic energy investments.
- Provide a comprehensive system of liability and compensation for oil spill damages and removal costs.
- Revise the basis for establishing the charges for uranium enrichment services from Government-owned plants.

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February 26, 1976

Office of the White House Press Secretary

THE WHITE HOUSE

TO THE CONGRESS OF THE UNITED STATES:

A little over two years ago, the Arab embargo proved that our Nation had become excessively dependent upon others for our oil supplies. We now realize how critical energy is to the defense of our country, to the strength of our economy, and to the quality of our lives.

We must reduce our vulnerability to the economic disruption which a few foreign countries can cause by cutting off our energy supplies or by arbitrarily raising prices. We must regain our energy independence.

During the past year, we have made some progress toward achieving our energy independence goals, but the fact remains that we have a long way to go. However, we cannot take the steps required to solve our energy problems until the Congress provides the necessary additional authority that I have requested. If we do not take these steps, our vulnerability will increase dramatically.

In my first State of the Union Address last year, I pointed out that our vulnerability would continue to grow unless a comprehensive energy policy and program were implemented. I outlined these goals for regaining our energy independence:

- First, to halt our growing dependence on imported oil during the next few critical years.
- Second, to attain energy independence by 1985 by achieving invulnerability to disruptions caused by oil import embargoes. Specifically, we must reduce oil imports to between 3 and 5 million barrels a day, with an accompanying ability to offset any future embargo with stored petroleum reserves and emergency standby measures.
- Third, to mobilize our technology and resources to supply a significant share of the free world's energy needs beyond 1985.

In pursuing these goals, we have sought to provide energy at the lowest cost consistent with our need for adequate and secure supplies. We should rely upon the private sector and market forces since it is the most efficient means of achieving these goals. We must also achieve a balance between our environmental and energy objectives.

These goals were reasonable and sound a year ago and they remain so today.

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Since January of 1975, this Administration has initiated the most comprehensive set of energy programs possible under current authority. This includes actions to conserve energy, to increase the production of domestic energy resources, and to develop technology necessary to produce energy from newer sources.

During this time, I have also placed before the Congress a major set of legislative proposals that would provide the additional authority that is needed to achieve our energy independence goals.

Thus far, the Congress has completed action on only one major piece of energy legislation -- the Energy Policy and Conservation Act -- which I signed into law on December 22, 1975. That law includes four of the original proposals I submitted to the Congress over a year ago. Eighteen other major legislative proposals still await final action by the Congress.

Natural Gas

The need for Congressional action is most critical in the area of natural gas. We must reverse the decline in natural gas production and deal effectively with the growing shortages that face us each winter.

Deregulating the price of new natural gas remains the most important action that can be taken by the Congress to improve our future gas supply situation. If the price of natural gas remains under current regulation, total domestic production will decline to less than 18 trillion cubic feet in 1985. However, if deregulation is enacted, production would be about 25 percent higher by 1985. Natural gas shortages mean higher costs for consumers who are forced to switch to more expensive alternative fuels and mean, inevitably, an increasing dependence on imported oil. Curtailment of natural gas to industrial users in the winters ahead means more unemployment and further economic hardships.

Therefore, I again urge the Congress to approve legislation that will remove Federal price regulation from new natural gas supplies and will provide the added short-term authorities needed to deal with any severe shortages forecast for next winter.

I also urge prompt action by the Congress on a bill I will be submitting shortly which is designed to expedite the selection of a route and the construction of a transportation system to bring the vast supplies of natural gas from the north slope of Alaska to the "lower 48" markets. This legislation would make possible production of about 1 trillion cubic feet of additional natural gas each year by the early 1980s.

We expect imports of liquefied natural gas (LNG) to grow in the next several years to supplement our declining domestic supply of natural gas. We must balance these supply needs against the risk of becoming overly dependent on any particular source of supply.

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Recognizing these concerns, I have directed the Energy Resources Council to establish procedures for reviewing proposed contracts within the Executive Branch, balancing the need for supplies with the need to avoid excessive dependence, and encouraging new imports where this is appropriate. By 1985, we should be able to import 1 trillion cubic feet of LNG to help meet our needs without becoming overly dependent upon foreign sources.

Nuclear Power

Greater utilization must be made of nuclear energy in order to achieve energy independence and maintain a strong economy. It is likewise vital that we continue our world leadership as a reliable supplier of nuclear technology in order to assure that worldwide growth in nuclear power is achieved with responsible and effective controls.

At present 57 commercial nuclear power plants are on line, providing more than 9 percent of our electrical requirements, and a total of 179 additional plants are planned or committed. If the electrical power supplied by the 57 existing nuclear power plants were supplied by oil-fired plants, an additional one million barrels of oil would be consumed each day.

On January 19, 1975, I activated the independent Nuclear Regulatory Commission (NRC) which has the responsibility for assuring the safety, reliability, and environmental acceptability of commercial nuclear power. The safety record for nuclear power plants is outstanding. Nevertheless, we must continue our efforts to assure that it will remain so in the years ahead. The NRC has taken a number of steps to reduce unnecessary regulatory delays and is continually alert to the need to review its policies and procedures for carrying out its assigned responsibilities.

I have requested greatly increased funding in my 1977 budget to accelerate research and development efforts that will meet our short-term needs to:

- . make the safety of commercial nuclear power plants even more certain;
- . develop further domestic safeguards technologies to assure against the theft and misuse of nuclear materials as the use of nuclear-generated electric power grows;
- . provide for safe and secure long-term storage of radioactive wastes;
- . and encourage industry to improve the reliability and reduce the construction time of commercial nuclear power plants.

I have also requested additional funds to identify new uranium resources and have directed ERDA to work with private industry to determine what additional actions are needed to bring capacity on-line to reprocess and recycle nuclear fuels.

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Internationally, the United States in consultation with other nations which supply nuclear technology has decided to follow stringent export principles to ensure that international sharing of the benefits of nuclear energy does not lead to the proliferation of nuclear weapons. I have also decided that the U.S. should make a special contribution of up to \$5 million in the next five years to strengthen the safeguards program of the International Atomic Energy Agency.

It is essential that the Congress act if we are to take timely advantage of our nuclear energy potential. I urge enactment of the Nuclear Licensing Act to streamline the licensing procedures for the construction of new power plants.

I again strongly urge the Congress to give high priority to my Nuclear Fuel Assurance Act to provide enriched uranium needed for commercial nuclear power plants here and abroad. This proposed legislation which I submitted in June 1975, would provide the basis for transition to a private competitive uranium enrichment industry and prevent the heavy drain on the Federal budget. If the Federal Government were required to finance the necessary additional uranium enrichment capacity, it would have to commit more than \$8 billion over the next 2 to 3 years and \$2 billion annually thereafter. The taxpayers would eventually be repaid for these expenditures but not until sometime in the 1990's. Federal expenditures are not necessary under the provisions of this Act since industry is prepared to assume this responsibility with limited government cooperation and some temporary assurances. Furthermore, a commitment to new Federal expenditures for uranium enrichment could interfere with efforts to increase funding for other critical energy programs.

Coal

Coal is the most abundant energy resource available in the United States, yet production is at the same level as in the 1920's and accounts for only about 17 percent of the Nation's energy consumption. Coal must be used increasingly as an alternative to scarce, expensive or insecure oil and natural gas supplies. We must act to remove unnecessary constraints on coal so that production can grow from the 1975 level of 640 million tons to over 1 billion tons by 1985 in order to help achieve energy independence.

We are moving ahead where legislative authority is available.

The Secretary of the Interior has recently adopted a new coal leasing policy for the leasing and development of more coal on Federal lands. To implement this policy, regulations will be issued governing coal mining operations on Federal lands, providing for timely development, and requiring effective surface mining controls which will minimize adverse environmental impacts and require that mined lands be reclaimed. As a reflection of the States' interests, the Department proposes to allow application on Federal lands of State coal mine reclamation standards which are more stringent than Federal standards, unless overriding National interests are involved.

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I have directed the Federal Energy Administration and the Environmental Protection Agency to work toward the conversion of the maximum number of utilities and major industrial facilities from gas or oil to coal as permitted under recently extended authorities.

We are also stepping up research and development efforts to find better ways of extracting, producing and using coal.

Again, however, the actions we can take are not enough to meet our goals. Action by the Congress is essential.

I urge the Congress to enact the Clean Air Act amendments I proposed which will provide the balance we need between air quality and energy goals. These amendments would permit greater use of coal without sacrificing the air quality standards necessary to protect public health.

Oil

We must reverse the decline in the Nation's oil production. I intend to implement the maximum production incentives that can be justified under the new Energy Policy and Conservation Act. In addition, the Department of the Interior will continue its aggressive Outer Continental Shelf development program while giving careful attention to environmental considerations.

But these actions are not enough. We need prompt action by the Congress on my proposals to allow production from the Naval Petroleum Reserves. This legislation is now awaiting action by a House-Senate Conference Committee.

Production from the Reserves could provide almost one million barrels of oil per day by 1985 and will provide both the funding and the oil for our strategic oil reserves.

I also urge the Congress to act quickly on amending the Clean Air Act auto emission standards that I proposed last June to achieve a balance between objectives for improving air quality, increasing gasoline mileage, and avoiding unnecessary increases in costs to consumers.

Building Energy Facilities

In order to attain energy independence for the United States, the construction of numerous nuclear power plants, coal-fired power plants, oil refineries, synthetic fuel plants, and other facilities will be required over the next two decades.

Again, action by the Congress is needed.

I urge Congress to approve my October, 1975 proposal to create an Energy Independence Authority, a new government corporation to assist private sector financing of new energy facilities.

This legislation will help assure that capital is available for the massive investment that must be made over the next few years in energy facilities, but will not be forthcoming otherwise. The legislation also provides for expediting the regulatory process at the Federal level for critical energy projects.

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I also urge Congressional action on legislation needed to authorize loan guarantees to aid in the construction of commercial facilities to produce synthetic fuels so that they may make a significant contribution by 1985.

Commercial facilities eligible for funding under this program include those for synthetic gas, coal liquefaction and oil shale, which are not now economically competitive. Management of this program would initially reside with the Energy Research and Development Administration but would be transferred to the proposed Energy Independence Authority.

My proposed energy facilities siting legislation and utility rate reform legislation, as well as the Electric Utilities Construction Incentives Act complete the legislation which would provide the incentives, assistance and new procedures needed to assure that facilities are available to provide additional domestic energy supplies.

Energy Development Impact Assistance

Some areas of the country will experience rapid growth and change because of the development of Federally-owned energy resources. We must provide special help to heavily impacted areas where this development will occur.

I urge the Congress to act quickly on my proposed new, comprehensive, Federal Energy Impact Assistance Act which was submitted to the Congress on February 4, 1976.

This legislation would establish a \$1 billion program of financial assistance to areas affected by new Federal energy resource development over the next 15 years. It would provide loans, loan guarantees and planning grants for energy-related public facilities. Funds would be repaid from future energy development. Repayment of loans could be forgiven if development did not occur as expected.

This legislation is the only approach which assures that communities that need assistance will get it where it is needed, when it is needed.

Energy Conservation

The Nation has made major progress in reducing energy consumption in the last two years but greatly increased savings can yet be realized in all sectors.

I have directed that the Executive Branch continue a strong energy management program. This program has already reduced energy consumption by 24 percent in the past two years, saving the equivalent of over 250,000 barrels of oil per day.

We are moving to implement the conservation authorities of the new Energy Policy and Conservation Act, including those calling for State energy conservation programs, and labeling of appliances to provide consumers with energy efficiency information.

I have asked for a 63 percent increase in funding for energy conservation research and development in my 1977 budget.

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If the Congress will provide needed legislation, we will make more progress. I urge the Congress to pass legislation to provide for thermal efficiency standards for new buildings, to enact my proposed \$55 million weatherization assistance program for low-income and elderly persons, and to provide a 15 percent tax credit for energy conservation improvements in existing residential buildings. Together, these conservation proposals can save 450,000 barrels of oil per day by 1985.

International Energy Activities

We have also made significant progress in establishing an international energy policy. The U.S. and other major oil consuming nations have established a comprehensive long-term energy program through the International Energy Agency (IEA), committing ourselves to continuing cooperation to reduce dependence on imported oil. By reducing demand for imported oil, consuming nations can, over time, regain their influence over oil prices and end vulnerability to abrupt supply cut-offs and unilateral price increases.

The International Energy Agency has established a framework for cooperative efforts to accelerate the development of alternative energy sources. The Department of State, in cooperation with FEA, ERDA, and other Federal agencies, will continue to work closely with the IEA.

While domestic energy independence is an essential and attainable goal, we must recognize that this is an interdependent world. There is a link between economic growth and the availability of energy at reasonable prices. The U.S. will need some energy imports in the years ahead. Many of the other consuming nations will not be energy independent. Therefore, we must continue to search for solutions to the problems of both the world's energy producers and consumers.

The U.S. delegation to the new Energy Commission will pursue these solutions, including the U.S. proposal to create an International Energy Institute. This Institute will mobilize the technical and financial resources of the industrialized and oil producing countries to assist developing countries in meeting their energy problems.

1985 and Beyond

As our easily recoverable domestic fuel reserves are depleted, the need for advancing the technologies of nuclear energy, synthetic fuels, solar energy, and geothermal energy will become paramount to sustaining our energy achievements beyond 1985. I have therefore proposed an increase in the Federal budget for energy research and development from \$2.2 billion in 1976 to \$2.9 billion in the proposed 1977 budget. This 30 percent increase represents a major expansion of activities directed at accelerating programs for achieving long-term energy independence.

These funds are slated for increased work on nuclear fusion and fission power development, particularly for demonstrating the commercial viability of breeder reactors; new technology development for coal mining and coal use; enhanced recovery of oil from current reserves; advanced power conversion systems; solar and geothermal energy development; and conservation research and development.

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It is only through greater research and development efforts today that we will be in a position beyond 1985 to supply a significant share of the free world's energy needs and technology.

Summary

I envision an energy future for the United States free of the threat of embargoes and arbitrary price increases by foreign governments. I see a world in which all nations strengthen their cooperative efforts to solve critical energy problems. I envision a major expansion in the production and use of coal, aggressive exploration for domestic oil and gas, a strong commitment to nuclear power, significant technological breakthroughs in harnessing the unlimited potential of solar energy and fusion power, and a strengthened conservation ethic in our use of energy.

I am convinced that the United States has the ability to achieve energy independence.

I urge the Congress to provide the needed legislative authority without further delay.

GERALD R. FORD

THE WHITE HOUSE,

February 26, 1976.

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Office of the White House Press Secretary

THE WHITE HOUSE

Detailed Fact Sheet

The President's Energy Message

- Contents -

The President's Action Today.....	1
I. BACKGROUND.....	1
II. CURRENT ENERGY SITUATION.....	2
III. FUTURE ENERGY OUTLOOK.....	2
. Near-Term (1976-1978).....	2
. Mid-Term (1976-1985).....	2
. Long-Term (Beyond 1985).....	3
IV. THE PRESIDENT'S ENERGY PROGRAM.....	3
A. Natural Gas.....	3
1. Short-Term Emergency Measures (legislative)...	3
2. Long-Term.....	4
. Natural Gas Deregulation (legislative).....	4
. Expediting delivery of natural gas from Alaskan North Slope (legislative).....	4
. Liquefied Natural Gas (administrative).....	4
B. Nuclear Energy.....	4
1. Uranium Resources (1977 Budget).....	5
2. Uranium Enrichment (legislative).....	5
3. Reactor Safety (1977 Budget).....	5
4. Improved Licensing (administrative/ legislative).....	6
5. Availability of Commercial Nuclear Power Plants (1977 Budget).....	6
6. Plutonium and Uranium Reprocessing (administrative/1977 Budget).....	6
7. Commercial Nuclear Waste Management.....	7
8. Domestic Safeguards (1977 Budget).....	7
9. International Safeguards and Non-Proliferation (administrative).....	7
10. Advanced Nuclear Energy R&D (1977 Budget).....	7
C. Coal.....	8
1. Production.....	8
. Resumption of coal leasing (administrative)...	8
2. Transportation.....	8
. Coal Slurry Pipeline (legislative).....	8
. Rail Transportation - Omnibus Rail Legislation (administrative).....	9
3. Coal Use.....	9
. Clean Air Act Amendments (legislative).....	9
. Coal Conversion (administrative/ legislative).....	9
4. Coal Research and Development (1977 Budget).....	9

D. Oil.....	10
1. Naval Petroleum Reserves (legislative).....	10
2. Auto Emission Standards (legislative).....	10
3. OCS Lease Sales (administrative).....	10
4. Strategic Petroleum Reserve (administrative)..	10
5. Standby Authorities (administrative).....	11
6. Enhanced Recovery (1977 Budget).....	11
7. Oil Spill Liability (legislative).....	11
E. Energy Development Impact Assistance (legislative).....	11
F. Building Energy Facilities.....	11
1. Energy Independence Authority (EIA) (legislative).....	12
2. Synthetic Fuels Commercialization Program (legislative/1977 Budget).....	12
3. Energy Facility Siting (legislative).....	12
4. Utility Rate Reform (legislative).....	13
5. Electric Utilities Construction Incentives Act (legislative).....	13
G. Solar Energy.....	13
1. Solar Energy Development (1977 Budget).....	13
2. Solar Energy Research Institute (administrative).....	13
H. Geothermal Energy.....	14
1. Geothermal Development (1977 Budget).....	14
2. Geothermal Loan Guarantee Program (1977 Budget).....	14
3. Geothermal Leasing (administrative).....	14
I. Energy Conservation.....	14
1. Federal Energy Management Program (administrative).....	14
2. Conservation in Buildings.....	15
. Appliance Labeling (administrative).....	15
. Thermal Efficiency Standards (legislative).....	15
. Insulation Tax Credit (legislative).....	15
. Weatherization (legislative).....	15
3. Conservation in Industry.....	15
. Industrial Energy Conservation (administrative).....	15
4. Conservation in Automobiles.....	15
. Automobile Fuel Efficiency Standards (administrative).....	15
. Automobile Labeling (administrative).....	15
5. Aircraft Fuel Conservation (1977 Budget).....	16
6. Conservation R&D (1977 Budget).....	16
7. State Energy Conservation Programs (administrative).....	16
J. International Energy Activities.....	16
1. Consumer Cooperation (administrative).....	16
2. Producer/Consumer Cooperation (administrative).....	16

K. President's Energy Budget.....	17
FIGURE 1 - Effect of President's Program by 1978.....	18
FIGURE 2 - Effect of President's Program by 1985.....	19
TABLE 1 - Impact of President's Short-Term Energy Program.....	20
TABLE 2 - Impact of President's program by 1985.....	21
TABLE 3 - Current status of President's Legislative Program.....	22
TABLE 4 - Breakdown of Federal Energy Outlays - 1976 and 1977.....	23
TABLE 5 - President's 1976 - 1977 Energy R&D Budget	24

The President today sent to Congress a comprehensive message summarizing progress made in moving the Nation toward energy independence, outlining actions he has taken to achieve our goals, listing legislation which awaits action by the Congress, and urging the Congress to act promptly on all the proposals that are needed to achieve the Nation's energy goals.

I. BACKGROUND

- . In his January 1975 State of the Union Message, the President announced the following energy independence goals:
 - In the near-term, 1975-77, halt our growing oil import dependence.
 - In the mid-term, 1975-1985, attain energy independence by achieving invulnerability to disruption from another oil import embargo; i.e., a 1985 import range of 3-5 million barrels per day (MMB/D), replaceable by stored supply and emergency measures.
 - In the long-term, beyond 1985, mobilize U.S. technology and resources to supply a significant share of the Free World's energy needs.
- . Subsequently, during 1975, the President:
 - Proposed to Congress the Energy Independence Act of 1975, containing a comprehensive set of measures to conserve energy, increase domestic energy production, provide strategic reserves, provide standby authorities in the event of another embargo, and pursue a vigorous energy program consistent with appropriate environmental safeguards.
 - Took administrative actions to impose an import fee on crude oil to encourage conservation and reduce dependency.
 - Launched major programs, to the extent possible within available authority, to conserve energy and increase domestic production.
 - Proposed additional legislation to deal with energy requirements such as handling natural gas shortages, and expanding capacity for enriching uranium for nuclear power plants.
 - Signed (December 1975) the Energy Policy and Conservation Act (EPCA) which contains several of his proposals including:
 - .. A national strategic petroleum reserve to provide a stockpile for future embargoes.
 - .. Standby allocation, rationing and other authorities for use in the event of another embargo.

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- .. Conservation measures to improve energy efficiency by affixing energy labels on appliances and autos.
- .. Extension of the Federal Government's authority to require utility and industrial conversions to coal from oil and gas.

The Act also contains automobile efficiency standards and an oil pricing formula that provides for decontrol after 40 months.

- . In his January 1976 State of the Union Message, the President briefly summarized the energy situation and underscored the need for Congressional action.
- . In his 1977 Budget, the President proposed major increases in funding for the Federal share of programs to achieve the Nation's energy independence goals.

II. CURRENT ENERGY SITUATION

- . Domestic oil production continues to decline. Production in 1975 averaged about 8.4 million barrels per day (MMB/D) -- a decline of about 0.7 MMB/D from the time of the embargo and about 13 percent from peak production in 1970. The United States is no longer the world's leading producer of crude oil.
- . The United States paid about 27 billion dollars for foreign oil last year -- over \$125 for every American.
- . Petroleum imports averaged about 6 MMB/D, about the same as 1974, but crude oil imports increased by almost 20 percent.
- . Natural gas production declined for the second straight year. About 20.1 trillion cubic feet (Tcf) were produced in 1975, as compared to 21.6 Tcf in 1974 and 22.6 Tcf in 1973. Curtailments have grown from 0.1 Tcf in 1970 to about 3 Tcf this year.
- . Coal production was about 640 million tons in 1975, an increase of only 6 percent from 1974.
- . The contribution of nuclear power to the generation of electricity increased from 6 percent in 1974 to about 8.5 percent in 1975 and will continue to rise.

III. FUTURE ENERGY OUTLOOK

- . Near-Term (1976-1978): In the next 2-3 years, oil imports will increase unless rapid action is taken on conservation measures, Naval Petroleum Reserve legislation, Clean Air Act Amendments, and domestic production incentives which could be allowed under current price controls. Without legislative and administrative action, imports would have been about 8 MMB/D in 1978; with action, imports can be held to about 6.5 MMB/D and vulnerability to an embargo can be reduced by 1.0 MMB/D (see Figure 1 and Table I). Vulnerability is defined as the amount of oil imports that could not be offset by use of standby measures and oil, from strategic reserves in the event of another embargo.
- . Mid-Term (1976-1985): There is considerable flexibility to improve our energy situation in the next ten years. Under assumptions of continued high imported oil prices, the

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Nation's vulnerability to an embargo could be reduced to zero if the President's programs are enacted. Imports would have risen to about 10-15 MMB/D if none of his programs were enacted. Under the program already enacted and administrative actions being taken, about two-thirds of our potential vulnerability reductions will be achieved (see Figure 2 and Table 2). Further, the role of coal and nuclear power will be significantly expanded in the next ten years. The updated FEA National Energy Outlook to be released shortly will discuss in detail the mid-term energy situation.

- . Long-Term (beyond 1985): The results of the U.S. energy research and development program will have an important effect on our long-term supply and demand situation. ERDA will soon issue an updated energy R&D plan describing Federal programs to develop advanced technology for energy conservation and for using solar, fossil, nuclear fission and fusion power, and geothermal energy sources.

IV. THE PRESIDENT'S ENERGY PROGRAM

To meet the Nation's critical energy challenges, the President's comprehensive energy program includes:

- . Clear energy independence policy objectives and principles.
- . Energy programs that have been started with the authorities and resources now available.
- . Proposals to the Congress for additional authority and resources that are needed to meet the Nation's goals.

The principal elements of the total program are summarized in the pages that follow. The current status of the President's legislative program is shown in Table 3.

A. NATURAL GAS

- . Natural gas accounts for 30 percent of total U.S. energy consumption and over 40 percent of non-transportation needs. Domestic production peaked in 1973 at 22.6 trillion cubic feet and has declined since then. Domestic proved reserves (excluding Alaska) have steadily declined since 1965. Due to the scarcity of supply, curtailments have been increasing steadily.
- . To assure adequate supply, the President reiterated his support for deregulating the price of new natural gas, and for development of all secure sources of additional gas supply, including Alaskan natural gas, synthetic gas from coal, and imported liquefied natural gas (LNG).
- . The elements of the President's natural gas policy include:
 1. Short-term Emergency Measures (legislative): The President urged enactment of legislation providing short-term emergency measures to provide temporary authority to deal with current natural gas shortages and dislocations in the national distribution system. This legislation would allow high-priority customers and curtailed interstate pipelines to purchase temporarily uncommitted intrastate natural gas at unregulated prices.

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2. Long-Term

- . Natural Gas Deregulation (legislative): The President urged prompt action to remove the Federal price regulation on new interstate natural gas production. Such action would increase domestic production by over 4 trillion cubic feet in 1985 (about 25 percent higher than with continued regulations) and more importantly, the interstate market share could double. The President indicated support for a bill which immediately deregulates new natural gas onshore and phases out offshore controls in five years.
- . Expediting Delivery of Natural Gas from Alaskan North Slope (legislative): The President announced a new legislative proposal to develop expeditiously the 24 trillion cubic feet of estimated gas reserves on the North Slope of Alaska. This legislation would require that the Federal Power Commission complete its ongoing regulatory proceedings with respect to this issue on or before February 1, 1977. It also directs other designated Federal agencies (including the Environmental Protection Agency, the Departments of the Interior, State, Defense, Treasury, Transportation, and the Federal Energy Administration) to make assessments by February 1977, regarding proposals to transport the Alaskan gas to the Lower 48 States. After reviewing the assessments, the President would select a route subject to review by the Congress, which would have the right to disapprove his selection. If the President's selection were not disapproved by the Congress, judicial review thereafter would be limited. Over one trillion cubic feet of Alaskan natural gas could be delivered per year by the early 1980's.
- . Liquefied Natural Gas (administrative): The President directed the Energy Resources Council (ERC) to implement a new national policy regarding imported liquefied natural gas (LNG). Each proposed new project would be subject to a careful national security and economic review, but it appears that about one trillion cubic feet per year of LNG by 1985 would be acceptable. A major factor in reviewing proposed projects will be diversification of sources. An ERC task force will establish procedures for Executive branch consideration of such issues as pricing, government financial assistance, regional import dependence, source of supply, and possible reassessment of the target if deregulation is not achieved.

B. NUCLEAR ENERGY

- . Progress toward a sufficient energy supply requires expanded use of both nuclear energy and the vast domestic reserves of coal. At present, 57 commercial nuclear power plants with a capacity of almost 40,000 megawatts are on line, and a total of 179 power plants are planned or committed with a capacity of about 196,000 megawatts.

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- . If the electrical power supplied today by existing nuclear plants were provided by oil-fired plants, it would require over one million barrels of oil per day. The oil equivalent of 236,000 megawatts of nuclear powered electric generating capacity would be almost seven million barrels of oil per day. Further, the coal equivalent of 236,000 megawatts is almost 700 million tons.
- . Elements of the President's comprehensive nuclear program include:
 1. Uranium Resources (1977 Budget): The President's 1977 Budget provides for \$30 million in outlays (an increase of \$15 million over the FY 1976 Budget) to expand the ERDA program to provide more complete information on the extent of the Nation's uranium resources and \$5 million for the Department of the Interior's uranium assessment program. Even without this more complete information, domestic uranium resources known to be available plus those projected with a high degree of certainty, are sufficient to provide fuel for all reactors that are expected to be on line by 1990 over their entire lifetime. Uranium resources, together with the future market for nuclear energy, provide the basis for significant investment by industry in expanded capacity for mining, milling, and uranium conversion.
 2. Uranium Enrichment (legislative):
 - . The President urged the Congress to complete action quickly on the Nuclear Fuel Assurance Act to assure the availability of enriched uranium fuel for nuclear power plants and to foster the creation of a private, competitive enrichment industry in the U.S. Action on the legislation is needed soon because existing U.S. uranium enrichment capacity is fully committed. The Act would provide the basis for ERDA to enter into cooperative agreements with industrial firms wishing to finance, build, own, and operate uranium enrichment facilities. Thus, it permits a transition from the current Government monopoly to a private competitive industry, relieving taxpayers of the financial burden of constructing additional uranium enrichment capacity.
 - . ERDA has proposals from four firms wishing to finance, build, own and operate uranium enrichment plants. One would use the gaseous diffusion technology; the others propose to use the gas centrifuge process. ERDA expects to submit firm contracts to the Congress this session for anticipated approval under provisions of the pending Nuclear Fuel Assurance Act.
 - . Another important Administration legislative proposal awaiting Congressional action is the bill proposed in June, 1975, which would increase the price of uranium enrichment from ERDA's existing production plants. This legislation will assure a fair return to the taxpayers for their investment, place the government's pricing of this service on a basis more comparable to that of the private sector, and end the unjustifiable subsidy by the taxpayer of both foreign and domestic customers.
 3. Reactor Safety (1977 Budget): The President's FY 1977 Budget provides \$89 million in outlays in NRC and ERDA

(an increase of 49% over FY 1976) to assure the safety of commercial light water reactor nuclear power plants even beyond their present levels of safety.

4. Improved Licensing(administrative/legislative):

- . The President urged passage of legislation to reform the nuclear facilities licensing process by providing for early site review and approval, and encouraging nuclear facilities design standardization.
- . The Nuclear Regulatory Commission (NRC) has taken a number of steps to reduce regulatory delays, including issuing standardized review procedures for license applications so that applicants can have available detailed information on how NRC requirements can be met, and developing procedures to coordinate environmental siting reviews by other Federal agencies and the States.

5. Availability of Commercial Nuclear Power Plants (1977 Budget): Increasing the on-line availability of commercial nuclear power plants and reducing the time required to construct these plants can lower significantly electric generating costs. Primary responsibility for reliability improvements rests with industry which spends about \$100 million per year to improve nuclear plant technologies. The President's 1977 Budget for ERDA provides \$10 million in outlays for research on basic technologies to be used by industry in its program to improve plant reliability.

6. Plutonium and Uranium Recovery and Recycle (administrative/1977 Budget):

- . The President's FY 1977 Budget provides \$31 million for ERDA (an increase of 138% over 1976) for R&D to permit the recovery and reuse of plutonium and uranium from nuclear fuel elements (called "spent" fuel) used in commercial nuclear power plants. The recovery and reuse of this plutonium and uranium fuel can reduce the consumption of this Nation's uranium resources and hold down the costs of nuclear power. The increased R&D program in 1977 will cover light water reactor fuel reprocessing (recovery) and recycle (reuse) technologies and reprocessing plant design concepts. It will provide a basis for converting plutonium to a safe form for transportation back to nuclear power plants. It will provide additional data useful for licensing reprocessing plants and encourage the establishment of a competitive reprocessing industry at the earliest practicable date.
- . ERDA is also obtaining suggestions from industry on what steps by industry or minimum actions by ERDA in cooperation with industry could overcome specific obstacles to commercial reprocessing and recycle.
- . The NRC has announced procedures that are expected, by mid-1977, to resolve the regulatory issues concerning the security and safety of the reprocessing and recycling of nuclear fuel discharged from commercial nuclear power plants.

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7. Commercial Nuclear Waste Management (administrative/1977 Budget):

- . The President's 1977 Budget contains \$63 million in outlays for ERDA (an increase of \$51 million over 1976 funding levels of \$12 million) for greatly accelerating research and development on, and for investigating the suitability of several sites for long-term storage of radioactive wastes. The research and development will also focus upon improved methods for processing and packaging wastes for transportation and storage.

8. Domestic Safeguards (1977 Budget):

- . The President's FY 1977 Budget contains \$27 million for ERDA (an increase of 80% over the FY 1976 funding level of \$15 million) for further development of technology to prevent the theft and misuse of nuclear materials in future years. These funds will be used to design and test overall security systems and to develop the more comprehensive methods of accounting for nuclear materials that will be needed as the amounts of these materials in use increase substantially in the future.
- . The President's 1977 Budget also contains \$26 million in outlays (an increase of \$12 million over FY 1976 Budget) for NRC to accelerate efforts to develop more integrated material control and accounting measures, and physical protection measures.

9. International Safeguards and Non-Proliferation (administrative):

- . Agreement has been reached between the United States and other major nuclear supplier nations to follow certain stringent export principles to assure that the provision of nuclear power does not lead to the proliferation of nuclear weapons.
- . The President has also decided that the U.S. make a special contribution of up to \$5 million in the next five years to the International Atomic Energy Agency (IAEA) to strengthen its safeguards program, by providing training or personnel, research and development of improved techniques and services of expert consultants, specialized equipment and other appropriate support.

10. Advanced Nuclear Energy R&D (1977 Budget):

- . Fission Reactors: The President's FY 1977 Budget contains \$674 million for ERDA (an increase of 30% over FY 1976 levels of \$519 million) for research and development on improved nuclear power reactors. Most of the funds (85% in FY 1977) are for development of the Liquid Metal Fast Breeder Reactor (LMFBR), which is a proven technological concept for greatly extending supplies of fuel for nuclear power plants. The increase in FY 1977 is primarily for the continued construction of the \$2 billion LMFBR demonstration project near Oak Ridge, Tennessee.

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- . Fusion: The President's FY 1977 Budget provides \$304 million of outlays for ERDA (an increase of 36% over FY 1976 level of \$224 million in outlays) for research on determining the scientific feasibility of obtaining a virtually inexhaustible source of energy for the long-term (beyond the year 2000) from controlled thermonuclear fusion reaction. The budget permits the continued construction of the \$215 million Tokamak Fusion Test Reactor, near Princeton, N.J., which will represent a major milestone for the fusion development program.

C. COAL

- . Coal is the most abundant energy resource available to the United States, yet production is at about the same level as it was 50 years ago. Coal now accounts for only about 17 percent of the Nation's energy consumption, and long-term production is hampered by uncertainty about environmental standards, electricity growth, utility financial conditions and possible transportation constraints.
- . The President reaffirmed the necessity for a strong national coal policy as an alternative to using scarce, expensive oil and natural gas resources.
- . The following comprehensive measures will assure that coal production exceeds one billion tons in 1985:

1. Production

- . Resumption of coal leasing (administrative): The Secretary of the Interior has announced a new coal leasing policy for Federal lands designed to assure that coal development in the West occurs in an orderly and environmentally prudent manner. It is designed to assure the leasing of only that coal which is needed and only when it is needed, and that the taxpayer receives a fair market return on the sale of this public resource. The leasing process will make certain that adequate planning takes place before the leasing occurs and that the public and the States have full opportunity to make their views known prior to leasing decisions. Regulations have been proposed and will be issued governing coal mining operations on Federal lands, including stringent surface-mining controls. These will minimize the adverse environmental effects of mining operations and require that the mined lands be reclaimed. The proposed regulations provide for greatly expanded public participation and would allow application of State reclamation standards on Federal coal lands where those standards are more stringent than Federal standards, and there is no overriding national interest.

2. Transportation

- . Coal Slurry Pipeline (legislative): Legislation currently in Congress which would allow the right of eminent domain to coal slurry pipelines is

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supported by the Administration. This legislation would authorize the Secretary of the Interior to issue certificates of public convenience and necessity to expedite the construction of slurry pipelines which transport coal as a liquid slurry.

- . Rail Transportation -- Omnibus Rail Legislation (administrative): The President has signed omnibus rail legislation, which has far-reaching implications for conservation of petroleum and development of new energy sources. For many commodities, railroads provide the most energy-efficient mode of transport, and by helping the rail industry through financial assistance and regulatory reform, the energy impact will be significant. In addition, through new and improved electrification of rail lines, such as the Boston-to-Washington passenger corridor, the Nation will be less dependent on petroleum supplies.

3. Coal Use

- . Clean Air Act Amendments (legislative): The President again urged the Congress to enact responsible Clean Air Act Amendments to allow for full use of America's coal supplies. The Administration requested Congressional guidance on alternatives to significant deterioration policies and has suggested, as one alternative, deletion of the concept from the Clean Air Act. In addition, these Amendments would extend air quality compliance deadlines for some plants through 1985 to allow time to develop permanent pollution control systems. Enactment of these Amendments would strike a realistic balance between air quality and energy needs.
- . Coal Conversion (administrative/legislative): The President indicated his intention to have FEA and EPA continue aggressively the recently extended coal conversion program. Under this program, FEA can issue orders to utilities and major fuel-burning installations to convert from gas and oil to coal, and order plants under construction to burn coal instead of oil or natural gas. In addition, the President called for amendments to these authorities to remove the regional limitation provision and authorize intermittent control systems.

4. Coal Research and Development (1977 Budget): The President's 1977 Budget includes a 28 percent funding increase over the 1976 levels throughout the spectrum of coal extraction and utilization technologies. The following programs are covered:

- . The Bureau of Mines (Department of Interior) will increase its outlays to \$56 million in 1977 from \$47 million in 1976 for developing new coal mining techniques that will increase production.
- . The Bureau of Mines and Environmental Protection Agency are jointly supporting research on removing the sulfur in coal prior to burning and the development of reliable stack gas cleanup equipment. Outlays for this program will be \$31 million in 1977.

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- . The Energy Research and Development Administration's budget outlays for coal will exceed \$390 million in 1977, up from \$288 million in 1976, including efforts on converting coal into clean-burning liquid and gaseous fuels, the development of clean-burning coal fired boilers (fluidized bed combustion), and re-search on developing high efficiency techniques for obtaining electric power from coal combustion through topping cycles and magnetohydrodynamics.

D. Oil

- . Domestic oil production peaked in 1970 and declined by about 5 percent last year. Exploration activity reached record levels in 1957. Further, while petroleum consumption has been reduced since the embargo, demand is likely to increase in 1976 as the economy recovers.
- . The Nation's declining oil production must be reversed. The President has reaffirmed his intention to implement the maximum production incentives that can be justified under the EPCA and to remove price and allocation controls from petroleum products downstream as quickly as possible.
- . The other aspects of his petroleum policy include:
 1. Naval Petroleum Reserves (legislative): The President indicated his support for the basic compromise reached by the House-Senate Conference Committee considering Naval Petroleum Reserves legislation which would authorize full production of NPR's 1, 2, and 3, and would transfer NPR-4 (in Alaska) to the Department of the Interior. Development of NPR-4 would take place after Congressional consideration of a proposed development plan. NPR production could reach about 300,000 barrels a day in 2-3 years, and NPR-4 could produce almost one million barrels per day by 1985. Resources from the sale or exchange of NPR production will be used for continued exploration and development of the reserves and for the strategic petroleum reserve program.
 2. Auto Emission Standards (legislative): In June 1975 the President asked the Congress to amend the Clean Air Act to continue standards applicable to 1975-76 model cars through 1981 models. This proposal was designed to achieve the best possible balance among objectives for improving air quality, increasing gasoline mileage, and avoiding unnecessary increases in costs to consumers.
 3. OCS Lease Sales (administrative): The Department of Interior will pursue aggressively lease sales in the Outer Continental Shelf, and has scheduled eight sales in 1976. The OCS, particularly in the frontier areas, provides a crucial new potential source of energy for the Nation and could produce almost 3 MMB/D by 1985.
 4. Strategic Petroleum Reserve (administrative): The FEA will implement the Strategic Petroleum Reserve Program authorized in the EPCA. The Reserve will be similar in concept to the program proposed by the President last year. The Reserve will consist of at least 150 million barrels of petroleum within three years and authorizes about 500 million barrels ultimately. It would significantly decrease our vulnerability to any future supply interruption.

5. Standby Authorities (administrative): The FEA will submit plans to the Congress establishing procedures and policies for temporarily reducing consumption and allocating products to end-users in the event of another embargo. The President's basic legislative proposal in this area was incorporated in the EPCA.
6. Enhanced Recovery (1977 Budget): The President's 1977 Budget contains \$33 million in outlays to continue the substantial R&D program on new techniques to recover large amounts of oil that remain in existing depleting oil fields. The research and demonstration projects in fluid injection, thermal procedures, and chemical methods to enhance recovery are an important supplement to the hundreds of millions of dollars being spent annually by private industry, and should accelerate adoption by industry. The FEA also intends to provide price incentives under the EPCA to optimize enhanced recovery production.
7. Oil Spill Liability (legislative): The President is asking the Congress to pass the Oil Spill Liability Act submitted last year. This Act provides a comprehensive system of liability and compensation for oil spill damages and removal costs. It would institute a procedure for fixing liability and settling claims for oil pollution damages from all sources in U.S. waters and coastlines, and implement international conventions dealing with oil pollution caused by tankers.

E. ENERGY DEVELOPMENT IMPACT ASSISTANCE (legislative):

- . The President asked Congress to consider quickly his major new comprehensive Federal Energy Impact Assistance Program legislation. This \$1 billion program will provide financial assistance to all areas affected by new Federal energy resource development over the next 15 years. The assistance will utilize loans, loan guarantees and planning grants to plan and finance energy related public facilities prior to production. Financial assistance would be repaid from future State and local taxes and revenues from development. Repayment of loans could be forgiven if development did not occur as expected. The assistance will be available for impacts related to the development of Federally-owned energy reserves, including OCS, onshore oil and gas, coal, oil shale, and geothermal reserves. Other approaches for impact assistance now being considered by the Congress would give too much money to areas that are unlikely to have fiscal impacts and not enough money to areas that will need assistance; and some approaches would distribute funds without regard to either the timing or magnitude of actual need.

F. BUILDING ENERGY FACILITIES

- . In the next 10-20 years, American industry will have to build numerous nuclear power plants, coal-fired power plants, oil refineries, synthetic fuel plants, transportation systems, and other facilities to attain energy independence for the United States. The

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construction of these facilities has been delayed by lengthy licensing processes and difficulties in obtaining financing.

- . The President has proposed a number of measures to deal with this matter, including:

1. Energy Independence Authority (EIA) (legislative): The President urged passage of the Energy Independence Authority (EIA) -- a new government corporation to assist private sector financing of new facilities. It would be able to provide up to \$100 billion for financial assistance to projects to develop, transport, or conserve energy; for commercializing new technologies; for technologies essential to the production of nuclear power; for conventional technologies involving production and distribution of electric power generated by sources other than oil or gas; and for conventional technologies involving projects of unusual size or scope, or projects which represent novel institutional or regulatory arrangements, in the production or transportation of energy.

EIA would also expedite the regulatory process at the Federal level for projects deemed critical for energy development. It would establish the FEA as the coordinator of a streamlined permit process for all new facilities which require Federal licensing.

2. Synthetic Fuels Commercialization Program (legislative/1977 Budget): The President again supported enactment of authorities to guarantee at least 350,000 barrels per day of synthetic fuels production by 1985. The synthetic fuels program would provide \$2 billion of assistance to commercial facilities for synthetic gas, coal liquefaction and oil shale, which are not now proven to be economically competitive. This program would be carried forward in ERDA until such time as the EIA is enacted and the program can be incorporated under that Authority. As a first step in implementing this program, supplemental 1976 budget funding will provide for \$503 million in budget authority to cover \$2 billion in loan guarantees for the remainder of 1976. A total of \$6 billion in loan guarantees is expected to be needed over the 1976-78 period to reach the 1985 objectives.
3. Energy Facility Siting (legislative): The President has asked the Congress to pass his Energy Facilities Planning and Development Act to assure sites for necessary energy facilities with proper land use considerations. This legislation would encourage States to develop and apply a comprehensive and coordinated process for expeditious review and approval of energy facility siting applications.

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4. Utility Rate Reform (legislative/administrative): The President has asked for enactment of his Utilities Act to reform rate setting practices. The legislation would reform utility commission practices selectively by: setting a maximum limit of five months for rate proceedings; requiring fuel adjustment pass-throughs, including taxes; requiring that construction work in progress be included in a utility's rate base; removing any rules prohibiting a utility from charging lower rates for electric power during off-peak hours and allowing the cost of pollution control equipment to be included in the rate base.

The FEA will also continue to fund demonstration programs on a state and local level to analyze the effects of different utility rate structures and load leveling techniques.

5. Electric Utilities Construction Incentives Act (legislative): The Administration continues to support these proposals which have yet to be acted upon by Congress. They include measures to: increase the investment tax credit to 12 percent for all electric utility property except oil or gas-fired generating facilities; extend (until December 1981) rapid amortization (five years) of pollution control equipment, and apply rapid amortization to converting or replacing oil-fired generating facilities; allow depreciation of construction expenses for non-oil or gas-fired facilities prior to the completion of the project if such expenses are included in the utility rate base; and allow deferral of taxes on dividends, if they are reinvested in the utility.

G. SOLAR ENERGY

- . Energy from the sun presents a potentially inexhaustible and non-polluting resource. Although the basic principles for most solar energy systems have been understood for many years, solar energy has not been widely utilized because of its high cost and the abundance of inexpensive alternative fuel sources.
- . The President reaffirmed his desire to encourage the development of practical and economical ways to use solar energy through the following actions:
 1. Solar Energy Development (1977 Budget): The President's FY 1977 Budget contains \$116 million for ERDA (an increase of 35% over an FY 1976 level of \$86 million) for increasing the research, development, and demonstration of solar energy applications. This program includes 228 projects to demonstrate solar heating and cooling in residential and commercial buildings and acceleration of the technology for the conversion of solar energy to electricity.
 2. Solar Energy Research Institute (administrative): ERDA will soon be issuing a solicitation for proposals to initiate the Solar Energy Research Institute (SERI). This Institute will lend important analytical and research support to ERDA in carrying forward the solar energy technology program.

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H. GEOTHERMAL ENERGY

- . Utilization of energy from the natural heat contained in the earth's crust has been hindered by resource uncertainties, reliability problems, economics, and the institutional, legal and environmental problems associated with its development.
- . The President's major actions with respect to this energy source include:
 1. Geothermal Development (1977 Budget): The President's FY 1977 Budget contains \$53 million for ERDA and the U.S. Geological Survey (an increase of 35% over an FY 1976 level of \$40 million) to develop technology to identify, evaluate, extract, and convert geothermal energy resources to useful energy forms. Technical applications include the recovery of useful heat from hot dry rock and geopressured resources, the early utilization of high temperature brine reservoirs to produce electricity, and the direct heating of buildings using geothermal energy.
 2. Geothermal Loan Guarantee Program (1977 Budget): For this program's first full year of operation, the President's FY 1977 Budget includes \$4.4 million of outlays for ERDA to guarantee loans for projects showing promise for early production of useful geothermal energy. The loan guarantee program will support technology development by helping to make funds available during the initial period of uncertain financial risks.
 3. Geothermal Leasing (administrative): The Department of the Interior will continue its leasing in known geothermal resource areas. It is expected that 15-20 lease sales will be held in both 1976 and 1977.

I. ENERGY CONSERVATION

- . The American people have responded to higher energy prices and heightened awareness of our energy problem by conserving scarce energy resources. Some of the President's conservation program has already been enacted or implemented, but other aspects remain to be started.
- . The President's comprehensive energy conservation program includes the following actions:
 1. Federal Energy Management Program (administrative): The President has directed that all Federal agencies continue a strong energy management program. This program has already reduced energy consumption by 24 percent in the past two years, which has saved over 250,000 barrels per day.

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2. Conservation in Buildings

- . Appliance Labeling (administrative): The FEA, Commerce Department, and Federal Trade Commission will implement the President's appliance labeling program which was enacted into law in the EPCA. It requires that energy efficiency labels be placed on major appliances so that consumers can compare operating costs of appliances at the point of purchase. Appliance efficiency targets will also be placed on major appliances to improve efficiency by 1980. These programs will save about 200,000 barrels per day by 1985.
- . Thermal Efficiency Standards (legislative): The President urged enactment of his legislation establishing mandatory thermal efficiency standards for all new homes and commercial buildings. This program could save 300,000 barrels per day by 1985.
- . Insulation Tax Credit (legislative): The President urged Congress to enact his proposed insulation tax credit for homes. This program could save over 100,000 barrels per day by 1985.
- . Weatherization (legislative): The President again asked Congress to pass his proposed Weatherization Assistance Act under which grants would be available to States to help low-income and elderly persons improve the thermal efficiency of their dwellings.

3. Conservation in Industry (administrative): The FEA and Department of Commerce will implement the EPCA voluntary industrial energy conservation program. The program requires the setting of energy efficiency improvement goals for the top ten energy consumptive industries, and a new system to compile annual reports from industry on the progress towards achieving these goals. It is expected that the equivalent of 300,000 barrels per day could be saved by 1985 under this program.

4. Conservation in Automobiles

- . Automobile Fuel Efficiency Standards (administrative): The Administration will implement the mandatory automobile fuel efficiency standards of 20 miles per gallon (mpg.) in 1980 and 27.5 mpg. in 1985 established in the EPCA. The standards could save 1 MMB/D by 1985. However, the 1985 fuel efficiency standards may be modified if auto emission standards impose too stringent a fuel penalty on new automobiles.
- . Automobile Labeling (administrative): The Environmental Protection Agency will implement a program to require gasoline mileage efficiency labeling on all new automobiles.

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5. Aircraft Fuel Conservation (1977 Budget): The President's FY 1977 Budget calls for a major increase (\$25 million in outlays vs. \$7 million in FY 1976) for NASA program to work with the aerospace industry on an R&D program to produce significant savings in transport aircraft fuel use. Improvements in aircraft propulsion, structures, and streamlining could make it possible to design new airplanes that would use 50 percent less fuel than today's transports.
6. Conservation R&D (1977 Budget): The President's FY 1977 Budget provides ERDA \$91 million (an increase of 63% over the FY 1976 funding level of \$56 million) for an expanded program to improve technology and encourage conservation of energy in buildings, industry, and transportation.
7. State Energy Conservation Programs (administrative): As provided for in the Energy Policy and Conservation Act (EPCA), the FEA will work with and assist States in planning and implementing energy conservation programs.

J. INTERNATIONAL ENERGY ACTIVITIES

- . U.S. international energy policy supports and reinforces our domestic objective to end energy vulnerability. The U.S. and other major oil consuming nations have now established a comprehensive long-term energy program in the International Energy Agency (IEA) committing ourselves to continuing cooperation to reduce dependence on imported oil. By reducing over time their demand for imported oil, nations can regain influence over oil prices and end vulnerability to abrupt and unilateral OPEC price increases.
- . Actions by the Administration include:
 1. Consumer Cooperation (administrative): The President has welcomed the decision by the IEA establishing a framework for cooperative efforts to accelerate the development of alternative energy sources. Implementation of the long-term energy cooperation program will focus on the establishment of large IEA energy production projects, cooperative efforts to eliminate obstacles to increased production from various energy sectors, e.g., coal and nuclear and the expansion of R&D cooperation, including the establishment of additional joint projects.
 2. Producer/Consumer Cooperation (administrative): The U.S. has proposed the creation of an International Energy Institute to mobilize the technical and financial resources of the industrialized and oil producing countries to assist developing countries in meeting their energy problems. The U.S. delegation to the new Energy Commission will pursue this proposal actively in the discussions now underway in that forum.

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K. PRESIDENT'S ENERGY BUDGET

The President's 1977 Budget outlay estimates reflect his strong emphasis on domestic energy production, conservation and storage programs, and a substantial commitment to energy research and development. The Budget requests for energy programs are summarized in Table 4.

The President's Budget requests for energy research, development and demonstration will:

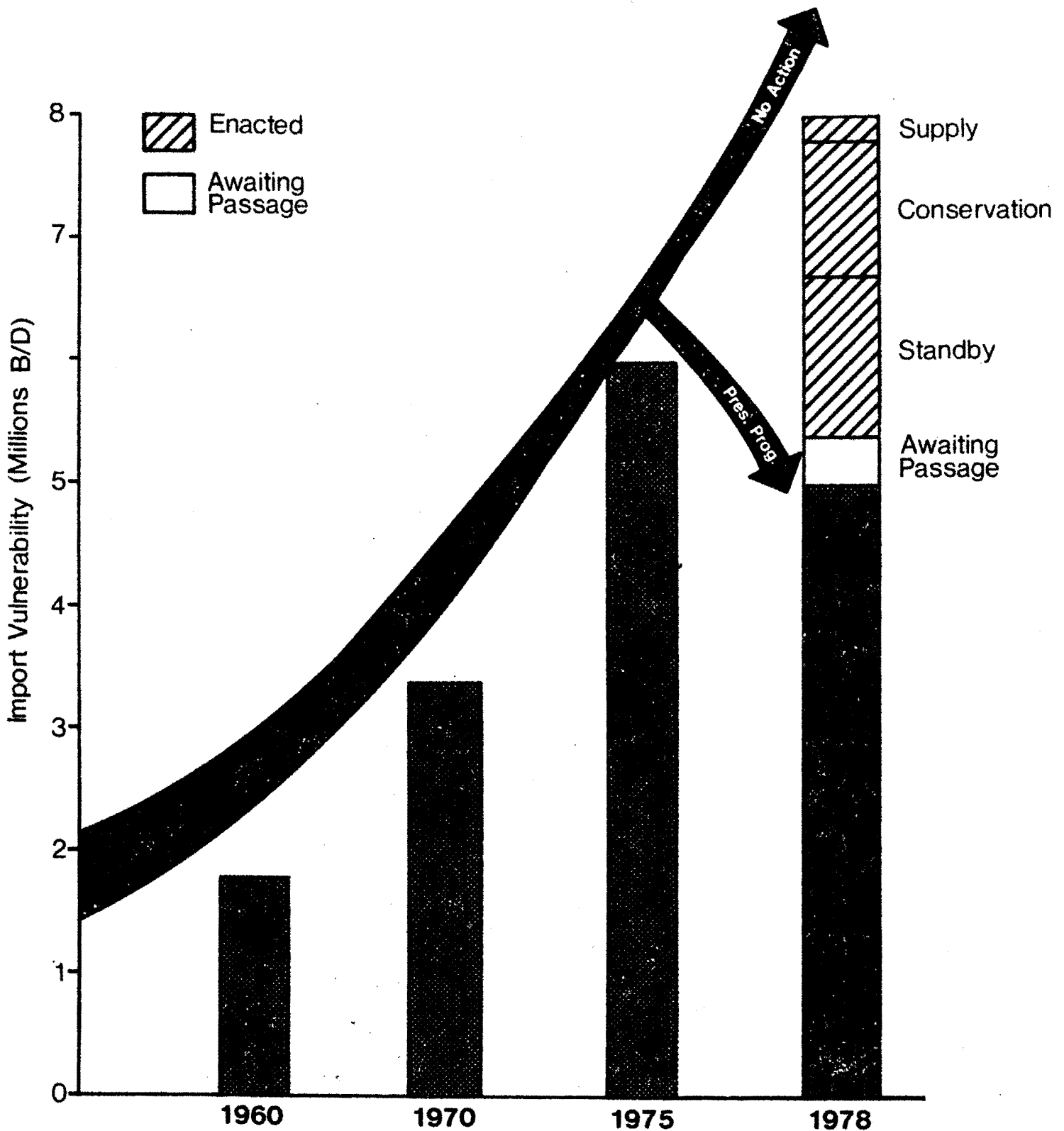
- . Fund expanded efforts to assure the continuing safety, and to improve the reliability and availability of commercial nuclear power plants;
- . Place greatest emphasis on technologies with the highest potential payoff (i.e., nuclear and fossil);
- . Increase funding of other technologies where significant long-term contributions can be made (i.e., solar, geothermal, and conservation);
- . Encourage cost-sharing with private industry;
- . Support commercial demonstration of synthetic fuel production from coal, oil shale, and other domestic resources.

The Budget requests for energy R&D are summarized in Table 5.

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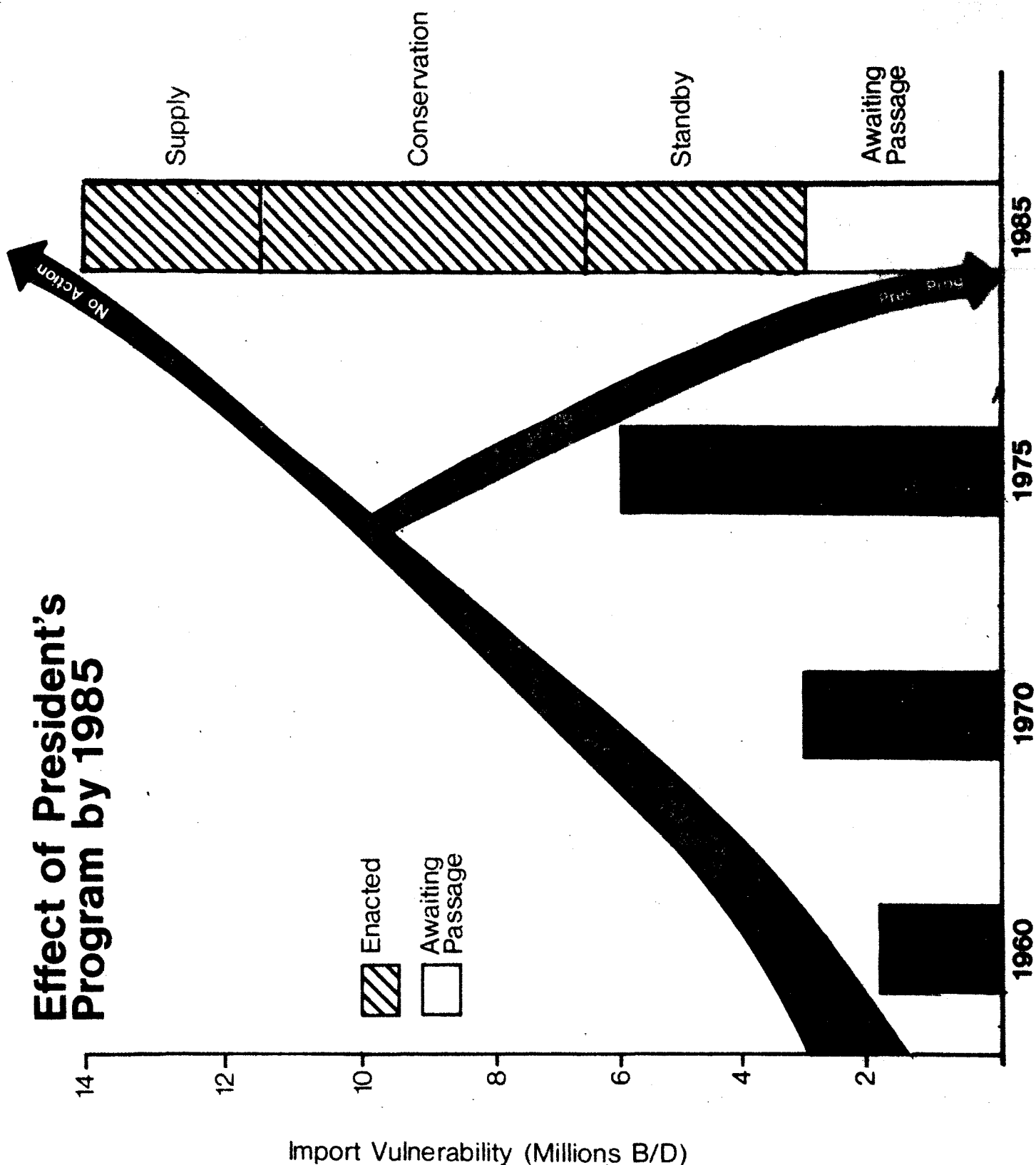
FIGURE 1

Effect of President's Program



- Imports grew from less than 2 MMB/D in 1960 to about 6 MMB/D last year.
- If no actions were taken to conserve energy, increase supply or provide standby authorities, imports would grow to about 8 MMB/D by 1978, as shown by the arrow labelled "No Action."
- However, the 1978 bar shows that supply, conservation and standby measures already enacted could reduce vulnerability to an embargo to about 5.5 MMB/D. Actually, imports would be about 6 MMB/D, but strategic reserves and standby measures could reduce vulnerability to about 5.5 MMB/D.
- Actions awaiting passage could further reduce imports by another 400,000 barrels per day by 1978, as indicated by the arrow labelled "Pres. Prog."

FIGURE 2



- If no conservation, domestic supply, or standby measures were enacted, imports could be over 13 MMB/D by 1985 (as indicated by the arrow labelled "No Action.")
- However, the 1985 bar shows that supply, conservation and standby measures already enacted could reduce vulnerability to about 5 MMB/D. Actually, imports would be over 8 MMB/D, but strategic reserves and standby measures could reduce vulnerability to an embargo to about 5 MMB/D.
- If all the President's proposals are enacted, vulnerability could be reduced to essentially zero by 1985 (as indicated by the arrow labelled "Pres. Prog.")

TABLE 1

IMPACT OF PRESIDENT'S
SHORT-TERM ENERGY PROGRAM

	<u>1978</u> <u>Reductions in</u> <u>Vulnerability</u> <u>(000 bbls/Day)</u>
<u>Import Reduction</u>	
- Gradual Phase-out of Oil Price Controls**	220
- Legislation to Permit Production from the Naval Petroleum Reserves*	300
- Insulation Tax Credit Weatherization, and Building Standards*	135
- Improved auto fuel efficiency**	100
- Federal Energy Management Program**	225
- Industrial Conservation Program**	200
- State/Federal Conservation Program**	200
- Appliance labeling/efficiency goals**	10
- Conversion of power plants from oil and gas to coal**	160
 <u>Reduced Vulnerability</u>	
- Standby authorities to deal with an embargo**	500
- Strategic Storage***	<u>830</u>
TOTAL REDUCTION IN VULNERABILITY	2880

*Passed one House or in Conference.

**Enacted

***Strategic storage figures are based on achievement of 150 million barrels of petroleum reserves by the end of 1978.

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TABLE 2

IMPACT OF PRESIDENT'S PROGRAM BY 1985

	<u>Import Vulnerability Reductions (000 B/D)</u>
<u>Energy Supply</u>	
- OCS Leasing*	900
- NPR Production	935
- Decontrol of Oil**	1,600
- Deregulation of Natural Gas***	2,760
- Synthetic Fuels Commercialization	350
<u>Energy Conservation</u>	
- Federal Energy Management Program**	260
- Appliance Labeling/efficiency goals**	220
- Insulation Tax Credit, Weatherization, and Building Standards***	450
- Industrial Conservation Program**	290
- Auto Fuel Efficiency**	1,000
- State Conservation Plans**	250
- Decontrol of Oil**	480
- Utility Load Management**	300
<u>Emergency Measures to Reduce Vulnerability</u>	
- Standby Authorities**	1,000
- Strategic Storage System**	2,700
 TOTAL VULNERABILITY REDUCTION	 13,495

*Administrative Program

**Enacted

***Passed at least one House

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Current Status of
President's Legislative Program

Bills that have been enacted:

- Strategic Petroleum Reserve System
- Energy Supply and Environmental Coordination Act (ESECA) Extension
- Energy Efficiency Labeling
- Standby Authorities
- Extension of Price-Anderson Indemnification for nuclear power plants and contractors

Bills that have passed at least one House:

- Naval Petroleum Reserves (in conference)
- Winterization Assistance (passed House)
- Building Energy Conservation Standards (passed House)
- New Natural Gas Deregulation (passed both Houses)
- Emergency Natural Gas Legislation (passed both Houses; awaits conference)
- Insulation Tax Credit (passed House)

Bills that have not passed either House:

- Clean Air Act Amendments
- Utilities Act
- Energy Facilities Planning and Development Act
- Energy Development Security
- Nuclear Fuel Assurance Act
- Nuclear Licensing
- Energy Independence Authority
- Synthetic Fuels Loan Guarantees
- Electric Utilities Construction Incentives Act
- Oil Spill Liability Act
- Legislation to revise the basis for establishing the Government's charge for uranium enrichment services
- Energy Development Impact Assistance Act

New Bill:

- Legislation to expedite delivery of gas from Alaskan North Slope

more

TABLE 4

BREAKDOWN OF FEDERAL ENERGY OUTLAYS - 1976 AND 1977

(outlays in millions of dollars)

	<u>FY 1976</u>	<u>FY 1977</u>
<u>Domestic energy resource development conservation, and petroleum storage</u>		
Energy Independence Authority	-	650
Uranium enrichment (ERDA)	874	1,216
Naval Petroleum Reserves/ strategic petroleum storage	11	304
TVA and power administrations:		
capital	1,778	1,956
operating	<u>1,772</u>	<u>1,918</u>
subtotal	3,550	3,874
Rural electrification loans (REA)	737	849
Department of the Interior support for Outer Continental Shelf and on-shore leasing of oil, gas, and energy minerals	162	185
FEA non-regulatory programs	169	168
Other	<u>13</u>	<u>13</u>
	5,516	7,259
<u>Energy research, development, and demonstration</u>		
Direct energy R&D	1,659	2,239
Supporting energy R&D	506	589
Department of the Interior research for coal mine health and safety	<u>29</u>	<u>30</u>
	2,194	2,858
<u>Regulation of the industry</u>		
Nuclear Regulatory Commission	106	120
Federal Power Commission	37	41
FEA regulatory programs	29	17
Department of the Interior regulation of coal mines	<u>62</u>	<u>66</u>
	234	244
	=====	=====
	=====	=====
TOTAL OUTLAYS	7,944	10,361

more

(OVER)

TABLE 5

PRESIDENT'S 1976-1977 ENERGY R&D BUDGET

<u>Program Activities</u>	(outlays in millions of dollars)				<u>Percent Change</u>
	<u>FY 1976</u>		<u>FY 1977</u>		
	<u>\$</u>	<u>%</u>	<u>\$</u>	<u>%</u>	
ERDA, total	<u>1412</u>	<u>64</u>	<u>1975</u>	<u>69</u>	<u>+ 40</u>
Non-Nuclear, total	(<u>519</u>)	(<u>24</u>)	(<u>710</u>)	(<u>25</u>)	(<u>+ 37</u>)
Fossil <u>1/</u>	<u>333</u>	<u>15</u>	<u>442</u>	<u>15</u>	<u>+ 33</u>
Solar	<u>86</u>	<u>4</u>	<u>116</u>	<u>4</u>	<u>+ 35</u>
Geothermal <u>2/</u>	<u>32</u>	<u>2</u>	<u>46</u>	<u>2</u>	<u>+ 44</u>
Conservation	<u>56</u>	<u>2</u>	<u>91</u>	<u>3</u>	<u>+ 63</u>
Environmental Control	<u>12</u>	<u>1</u>	<u>15</u>	<u>1</u>	<u>+ 25</u>
Nuclear, total	(<u>893</u>)	(<u>40</u>)	(<u>1265</u>)	(<u>44</u>)	(<u>+ 42</u>)
Fusion	<u>224</u>	<u>10</u>	<u>304</u>	<u>11</u>	<u>+ 36</u>
Fission	<u>521</u>	<u>23</u>	<u>709</u>	<u>24</u>	<u>+ 36</u>
Fuel Cycle/Safeguards	<u>59</u>	<u>3</u>	<u>144</u>	<u>5</u>	<u>+144</u>
Enrichment R&D	<u>89</u>	<u>4</u>	<u>108</u>	<u>4</u>	<u>+ 21</u>
EPA (Environmental Control) <u>3/</u>	<u>80</u>	<u>4</u>	<u>73</u>	<u>3</u>	<u>- 14</u>
NRC (eg., Safety Research)	<u>94</u>	<u>4</u>	<u>116</u>	<u>4</u>	<u>+ 23</u>
DOI (Coal and Oil Shale Mining)	<u>52</u>	<u>2</u>	<u>64</u>	<u>2</u>	<u>+ 23</u>
Other	<u>14</u>	<u>1</u>	<u>9</u>	<u>--</u>	<u>- 36</u>
<u>Total Direct Energy R&D</u>	<u>1652</u>	<u>75</u>	<u>2237</u>	<u>78</u>	<u>+ 35</u>
<u>Supporting R&D</u>					
ERDA	<u>373</u>	<u>17</u>	<u>403</u>	<u>14</u>	<u>+ 8</u>
EPA	<u>40</u>	<u>2</u>	<u>47</u>	<u>2</u>	<u>+ 18</u>
NSF	<u>93</u>	<u>4</u>	<u>139</u>	<u>5</u>	<u>+ 50</u>
Total Supporting R&D	<u>506</u>	<u>23</u>	<u>589</u>	<u>21</u>	<u>+ 16</u>
<u>Energy Related</u>					
DOI (Coal Mine Health/Safety Research)	<u>29</u>	<u>2</u>	<u>30</u>	<u>1</u>	<u>+ 3</u>
<u>GRAND TOTAL 4/</u>	<u>2187</u>	<u>100</u>	<u>2856</u>	<u>100</u>	<u>+ 30</u>

- 1/ This category includes R&D on coal, oil, gas, and oil shale.
- 2/ This category does not include the resource assessment activities of the Department of the Interior.
- 3/ This category includes programs for coal cleaning and stack-gas cleanup.
- 4/ In addition, the FY 1977 Budget identifies funds to accelerate the commercialization and demonstration of energy technologies through loan guarantees: Geothermal Resources Development Fund, FY 1977 outlays of \$4.4 million; and Synthetic fuels Commercial Demonstration Fund, FY 1976 outlays of \$3.0 million.

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