Report of
Committee on Energy Policies to Avert
Future Energy Crises:
Outer Continental Shelf Policy Advisory Committee

prepared by

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Resolution on Fisher Committee Report

Whereas, The Policy committee received the report of its Committee on Energy Policies to Avert Future Energy Crises at its last meeting in San Francisco, and,

Whereas, that report was fully discussed and modified at that meeting; and,

Whereas, the recommendations of the Fisher Committee failed by one vote to achieve the stringent two-thirds approval requirement imposed upon it by the Chairman, and,

Whereas, the recommendations were the logical outgrowth of the Findings of the Fisher Committee report;

Now, Therefore, be it resolved; that the Report, Findings and recommendations of the Fisher Committee, as modified by the Policy Committee at its San Francisco meeting, be and hereby are approved by the Policy Committee to be forwarded to the Secretary of Interior.

(The recommendations, as modified in San Francisco are attached)

CONSISTENT WITH THESE FINDINGS, THE COMMITTEE RECOMMENDS THE FOLLOWING:

1. That the U.S. government should examine the various alternatives to attain stability in petroleum prices including the establishment of a floor price, enlargement of import fees or establishment of import quotas and pursue through executive order or legislation those actions that would accomplish the goal of price stability of such level that would maintain existing domestic production.

2. That U.S. through its tax code eliminate disincentives and provide targeted incentives for the development of critical, but higher cost portions of the U.S. resource base. Such provision should provide cost reductions equivalent to receipt of effective prices 15 to 20 percent above the base price. Such incentives would be limited to oil and gas production from new field discovery and enhanced recovery. Such incentives would provide the balance of additions necessary to maintain 1985 levels of production.

3. That the U.S. government enlarge it fundings of oil and gas discovery and recovery research to a level at least in balance with research and development funding for other energy sources, further that the U.S. enlarge and maintain research and development supporting increased conservation and efficiency in energy use.

4. That the U.S. increase the total volume of the Strategic Petroleum Reserve to 1 billion barrels and do so within the next five years.

5. That the U.S. concentrate efforts to improve access to federal lands, both onland and offshore, that contain the highest potential for oil and gas discovery. Such efforts can be and must be consistent with sound environmental protection.

6. That standards for energy efficiency be strengthened and not relaxed.

7. That natural gas prices be completed decontrolled so that gas can move uniformly at market prices equivalent to the base prices set for oil, thus aiding thorough development of lower cost resources.

8. And finally, the consumption taxes on energy use, more specifically a gasoline tax, be considered to fund recommendations for research, the differential between any future U.S. base price for oil and world prices and the recommended additional filling of the Strategic Petroleum Reserve.

Report of

Committee on Policies to Avert

Future Energy Crises:

Outer Continental Shelf Policy Advisory Committee

BACKGROUND, OPTIONS, FINDINGS AND RECOMMENDATIONS

I.

A decade ago this nation was seeing declining domestic production of oil, natural gas, and total energy, and increasing reliance and dependence on foreign imports. The nation had lived through one OPEC price shock and the inflation and economic destabilization it induced and was in store for another of even greater magnitude. In 1977, net imports of energy had hit an all-time high, nearly a quarter of total consumption and up more than 50 percent in just two years; net imports of petroleum were nearly half of total petroleum supply.

Views differed, and differed substantially, on what to do, but not on whether something should be done. There was universal agreement that increasing levels of import dependence were not in the national interest. Extensive and expensive legislation was enacted; the commitment to provide for domestic sufficiency of energy supply and a constraint on imports was real. The ultimate results were nothing less than dramatic. Alaskan oil production from the largest oil field ever discovered in the U.S. came on stream. The severe declines in lower 48 oil and gas production were arrested, and by 1985, intensive drilling had actually increased oil production even in the onland lower 48.

Coal production was a third greater in the middle 1980's than in the middle 1970's. By the middle of the 1980 decade, electricity generated from geothermal, wood, wind, photovoltaic, and solar thermal energy was 2.5 times greater than the 1977 level and was expanding. Pilot plants and technologic development of synthetic fuels were advancing.

As the U.S. produced more energy it was used more efficiently. The amount of energy consumed per real dollar of GNP dropped 22 percent from 1977 to 1985, and the consumption of petroleum liquids per GNP unit dropped 30 percent in the same period.

Net imports of energy fell from the record level of more than 20 quads in 1977 to about 12 quads by 1985. Net petroleum imports that made up 46.5 percent of petroleum supply in 1977 dropped to 27.3 percent in 1985. Dependence on OPEC imports fell from 6.2 mmb/d in 1977 to 1.8 mmb/d in 1985, a better than 70-percent decline. Arab OPEC imports were virtually eliminated, and options available in U.S. Middle East policy were vastly increased. The energy trade balance deficit was reduced by more than $30 billion from 1979 to 1985, a real dollar drop by half. The threat to national security posed by high levels of imports and vulnerability to supply disruptions and the reality of economic destabilization caused by oil-price shocks were seemingly conce.'.s of the past. A dramatic change in the national energy position had been effected in less than a decade. The negative trends of the 1970's had been reversed.

II.

The events of 1986, however, have drastically changed the world and U.S. energy outlook, and if the current situation is not altered substantially and soon, the energy problems of the 1970's are likely to be repeated in the next half decade.

The effect of higher oil prices in the non-Communist world during the late 1970's and early 1980's was to reduce demand by almost 7 mmb/d and to increase production capacity by 6 mmb/d. The U.S. lower 48 in 1985 was producing 2 mmb/d of crude oil more than it would have had the declines of the 1970's not been arrested, and nearly 2 mmb/d of Alaskan production was in place.

The substantial excess capacity thus generated in the non-Communist world was absorbed through rather severe production cutbacks by OPEC and particularly the Saudis in an effort to maintain higher world prices. Saudi production at year-end 1985 was less than one-fifth the level of the early 1980's and was directionally heading to zero. In an attempt to recapture market share, the Saudis more than doubled production, flooding the market. This action led in very short order to a fall in oil prices from $27 per barrel in December 1985 to as low as $8 per barrel in the middle of 1986. Since the fall in January of 1986, yearly average prices have been a little less than $15 per barrel.

The impact of reduced oil and, correspondingly, natural gas prices has been dramatic. Exploration and development expenditures have been reduced substantially. The U.S. rotary rig count in the last half of 1986 was only 40 percent of its 1985 count and less than 20 percent of the level of the early 1980's. Seismic activity in 1986 ran less than half the level of 1985 and a bare one-third the level of the early 1980's. The loss in oil production capacity has been swift and deep, with a loss of liquid production capacity of 900,000 b/d, 10 percent of the total.

Along with declines in oil production, low oil prices have resulted in substantial substitution of imported oil for domestic natural gas; gas demand, already falling, dropped 3 percent in 1986; drilling for gas was reduced by half, worsening already declining gas deliverability. Development of alternative energy sources stalled and collapsed. Consumption of petroleum, in steady decline since 1977, increased 3 percent. Net imports of petroleum assumed trends of the 1970's; total net imports

averaged 6 mmb/d in 1986, 40 percent greater than in 1985. OPEC imports more than doubled, and Arab OPEC imports nearly tripled. Trends in U.S. production, consumption, and imports returned to those of the 1970's.

Trained professionals are making a dramatic exodus from oil and gas exploration and development. Cost of retraining will be severe.

III.

On the assumption that oil prices stay in the range of $15 to $20 per barrel (1986 dollars) but volatile in the upper part of the range, and hence discounted for the next two to three years, and then stay in the $22 range (1986 dollars) for the next four to five years, U.S. production of crude oil will be 6.3 mmb/d by 1990 and 5.5 mmb/d by 1995. Projections made by DOE in the recent report to the President, assuming comparable low prices, show crude production of 7.0 mmb/d in 1990 and 5.2 mmb/d in 1995. U.S. lower 48 production is estimated to be 4.8 mmb/d in 1990 and 4.5 in 1995. Federal OCS production of oil was steady in 1986, but development drilling in 1986 was cut in half, a certain sign of future production decline.

Under prices assumed, successful oil completions will fall to about 15,000 in 1987, from an annual average of 19,000 in 1986 and an annual average of about 38,000 in the first half of the 1980 decade. Some rebound in drilling is expected, with annual completions reaching about 20,000 in 1990 and about 22,000 in 1995. Annual reserve additions will average slightly more than 1.6 billion barrels, or about 60 percent of the average levels achieved in the first half of the 1980 decade. At least 80 percent of additions will come from recovery of additional producible oil by infill drilling in existing reservoirs, the lowest cost part of the U.S. oil resource base. About 1.6 mmb/d, or 80 percent of the 2 mmb/d of lower 48 production loss from

1986 through 1990, will come from drilling foregone at lower prices. Virtually all the loss from 1990 through 1995 will be from foregone drilling.

The production outlook in Alaska must be considered separately. Average annual production in Alaska during 1986 was about the level of 1985. However, the supergiant Prudhoe Bay field is expected to go into normal production decline sometime during 1988. That decline is expected to be at an annual rate of 12 percent, so that through 1990 some 400,000 b/d of current capacity will be lost. Continued decline through 1995 will reduce Prudhoe Bay production to about 780,000 b/d. Under prices assumed, about 200,000 b/d of capacity is expected to be developed from currently discovered but undeveloped reservoirs, giving a 1995 Alaskan production of just under 1 mmb/d. It is critical to appreciate the significance of Alaskan production. As the U.S. faced declining production in the 1970's, Alaskan production was set to come on stream and to increase U.S. production by 20 percent. As the U.S. faces current production decline, there is no equivalent big field on the horizon; rather, Alaskan production is scheduled to decline.

IV.

Various projections of demand for petroleum made during 1986 showed about 1-percent annual increase through the balance of the 1980's and into the 1990's. These projected modest increases in the face of lower prices assume that most energy efficiencies effected by higher prices are structural, that U.S. trends away from heavy industry will continue, and that overall economic growth will be modest. However, it should be noted that U.S. demand for petroleum in 1986 was 16.2 mmb/d, 3 percent greater than in 1985. This along with production declines puts 1986 average imports at just slightly under 6 mmb/d, or nearly 37 percent of supply. If increases in demand in 1987 and beyond run only 1 percent, and if natural gas liquid production

declines only 4 percent annually (less than the expected natural gas production decline), imports will reach 50 percent of supply during 1989, exceeding the all-time historic high reached in 1977; imports will reach 65 percent of supply in the early 1990's, assuming import supply of such volume is available. Not only does our reliance on imports become great, our reliance on oil also becomes high, reducing or eliminating essential diversification.

V.

The pattern of increased consumption, decreased production, and increased importation was firmly established in 1986. If prices stay low, the trends will continue.

What should the U.S. do? The groups answering this question divide on whether anything should, or can, be done. Even among those who believe it is essential for the U.S. to act, there is substantial difference in views.

Some argue that the energy world is now different from that of the 1970's and that high levels of import dependence in the future would not be a significant threat to national security nor to economic stability; the following issues are commonly debated.

1. Countries should do and will do only what they do most efficiently. The low-cost oil producer should thus produce oil; higher cost development and production of the kind so prevalent in the U.S. should be avoided. Oil has no value unless it is produced and sold, and such will assure that the oil-exporting countries will be reliable suppliers. A world of global interdependency is rapidly evolving, and the free market should be allowed to operate. The counterarguments are that factors other than monetary ones are and have always been involved in trade, that most international trade now involves markets controlled by and in intimate partnership with governments, and that governments may be presumed to act in

their own interest. The uneven distribution of oil historically has meant and will continue to mean that governments will or will attempt to administer prices. The question is: Which government and in whose interest? Indeed, stable prices can exist only if administered, but administration does not necessarily imply stability if intent is otherwise.

2. To the extent that the U.S. increases its dependence on foreign sources of oil, those sources are now diversified well outside of OPEC and particularly the Middle East OPEC and hence are more reliable. Notably cited are sources from Canada, Mexico, and the North Sea. The counterarguments are that most of these current sources were developed in response to higher prices and are relatively high cost and that they are nearly as vulnerable to lower prices as the higher cost exploration prospects and production of the U.S. are. Their ability to expand to meet rising demand and to offset U.S. production declines is very limited.

3. The U.S. now has a Strategic Petroleum Reserve (SPR) with 500 million barrels in stock and incremental additions being made. However, the SPR is limited at present to less than 90 days' supply at current levels of imports and to no more than half that level of supply with imports at their expected 1990 level. It is expensive and can be justified only as a strategic, not an economic, stockpile.

4. The U.S. through much greater efficiencies in energy use is less intensive of energy use now than in the 1970's, and future oil price shocks would not result in the economic problems created by the price shocks of the 1970's. The counterargument is that whereas energy consumption, especially oil, is less now, relative to real GNP, than in the 1970's, oil use is still pervasive and transportation-intensive and that the structure of the U.S. economy with high debt loads makes it as susceptible to price shocks now as in the past, if not more so.

5. The lessons of the 1970's resulted in the introduction of extensive fuel-switching capability, especially between oil and gas in the industrial and utility sectors. Indications are that between 2 and 3 mmb/d of capacity is now switchable, and future switching capacity might be greater. The counterargument is that the entire volume cannot be realized because some gas can and will always compete with even very low cost oil, but more specifically that the buffeting effect of reversible use assumes that gas, now in ready supply, would also be so in the future. Those looking at underlying deliverabilities of gas and current and recent levels of gas drilling see, with low prices, trends for longer term future gas supply as dismal as those for oil.

6. There is the position that low prices are good for the overall economy and that although prices may rise in the future, their benefits should be enjoyed in the short term. U.S. reserves and potential supplies can be tapped later. The counterargument is that the longer the U.S. foregoes efforts to maintain domestic sufficiency in energy, the lower the level of production will fall and the sharper future oil prices will rise. The costs of inefficiencies in a buildup of production capacity and the costs of a destabilization and an inflated economy substantially outweigh the shorter term benefits of lower prices.

7. Finally the finite character of oil and gas and the inevitable ultimate decline in production are commonly cited as reasons not to pursue the maturely explored oil and gas basins of the U.S. The counterargument is that there is substantial geologic evidence, as well as reserve addition and production experience in the first half of this decade, to indicate that the U.S. oil and gas resource base could provide relatively stable production levels for the next 40 years and do so at prices on the order of those prevailing in the first half of this decade. The reasonable price necessary for such oil and gas production is also the necessary

stimulus for development of alternative fuel sources, including renewable energy sources.

VI.

Several options have been discussed or presented to encourage domestic energy development and conservation. As the price of oil is yet the principal benchmark for overall energy development, many of the options involve actions directly or indirectly to increase oil price or to reduce costs, or both. Most of the options listed herein are for avoiding or at least mitigating vulnerability to future energy crises through reducing dependence on imports by supporting domestic energy production and constraining demand. The options outlined are essentially those treated in the recent report of the National Petroleum Council and the recent Energy Security report to the President by the U.S. Department of Energy. Options are grouped in five main categories:

A. Price administration and stabilization

B. Cost reduction

C. Consumption reduction and use efficiency

D. Domestic source diversification

E. Mitigating supply interruptions.

A. Price Administration and Stabilization

1. **Impose Oil Import Fees**

A basic approach to reducing U.S. dependence on imported oil is through imposition of an oil import fee--a tariff on imports of crude oil and petroleum products. An oil import fee would stimulate domestic energy production while simultaneously reducing energy demand, in particular oil demand. But the fee would also impose short-term economic costs on the U.S. economy.

in terms of increased inflation and reduced economic growth and international competitiveness.

An import fee could be either a fixed fee or a variable fee that phases out when world oil prices reach a target price. A fixed fee would be set at a specific amount per barrel. A variable fee would equal the difference between a target crude oil price and the price of imported oil, thus raising the import price to the target level.

An oil import fee would raise the U.S. price of imported oil, and with it the price of domestic oil. Natural gas prices and, to a lesser extent, the prices of other U.S. energy supplies also would rise.

Any import fee would need to be imposed on both crude oil and refined petroleum product imports; otherwise import patterns would immediately shift toward products only. Such a shift would not only be detrimental to the domestic refining industry, but could also completely negate the objectives sought by the tariff on crude oil.

2. **Establish Floor Price**

To provide price stability, a floor, or base, price could be established by the U.S. Government. Prices at varying levels have been indicated, and some proposals call for real-term escalation over time. Arguments for and against a floor price are fundamentally those for and against import fees.

3. **Establish Import Quotas**

In general, arguments for or against an oil import fee also apply to quotas. This is because a quota can be constructed to yield the same impact on price as a tariff. The government could set oil import rights after determining an import level deemed acceptable from a national security and an economic point of view. U.S. oil and natural gas prices would rise above world prices. The import rights would become valuable and could be traded among oil importers.

B. Cost Reduction

1. **Remove Existing Tax Disincentives**

   a. Allow the immediate expensing of 100 percent of intangible drilling costs in calculating federal income tax liability and extend definition to include geological and geophysical costs and unrecovered surface casing.

   b. Relax or remove the 50-percent-of-net-income limitation on percentage depletion. Percentage depletion deductions, which are still available to independent oil companies but not to majors, may not exceed 50 percent of a company's net income. In times of low prices and earnings, this limitation substantially reduces the intended cash flow benefit from percentage depletion.

   c. Remove oil and gas preference items from alternative minimum tax computation.

   d. Reduce or suspend state severance taxes on certain kinds of petroleum extraction.

   e. Repeal the Windfall Profit Tax.

2. **Provide New Incentives**

   a. Provide an Investment Tax Credit (ITC) including credits for research and development activity

   b. Restore industry-wide percentage depletion to a 27.5-percent rate.

   c. Enact more rapid asset depreciation schedules.

   d. Provide a price guarantee for domestic oil and gas discovered and produced after a specified date. The price guarantee, possibly financed by a consumption tax, would have to be high enough to make exploratory drilling attractive. The price could be guaranteed for oil and gas produced in the future from new fields discovered after the legislation is passed.

Many of the actions noted above could be specifically targeted to sustain marginal production. Other measures that could be considered include outright grants per barrel of production and non-interest-bearing, volume-related loans with repayment obligation and timing tied to escalation of oil prices.

3. **Encourage Research and Development Activities**

Efficiencies in exploration and development as well as increased recoverability historically have been and can continue to be aided through targeted research and development. Research and development can be supported and encouraged by the government in both the public and the private sectors through direct grants and appropriate tax incentives.

The amount of publicly supported oil and gas research is very small relative to public research support in other energy areas; oil and gas research constitutes less than 1 percent of the U.S. Department of Energy's research and development budget. The current low oil and gas prices have resulted in a reduction of private research and development in areas of oil and gas supply, with little likelihood of restoration of increases in the near future. The majority of oil and gas wells drilled in the U.S. are by companies with little or no internal research capability. As research and development activities are investments in the future, the impact of lessened activity today will compound problems later.

The U.S. resource base in oil and natural gas is substantial, both from new discoveries and from increased recovery from existing reservoirs. But, converting the resource base to reserves is a moderate- to high-cost proposition. Most reserves in the U.S. must be developed in small increments or from remote frontier areas. However, the U.S. oil and gas

resource base whether through exploration or extended development is particularly amenable to cost reductions arising from research activities.

The experiences of the past decade have shown that substantial savings can be achieved through conservative and efficient use of energy. Efforts in these areas have also suffered from low oil prices and reduction in funding in the federal budget. Continued and expanded end-use research and development could maintain and enlarge these historic achievements.

4. **Modify Federal Leasing Policies**

The leasing, exploration, and development of federal oil and gas lands could be facilitated by changes in the lease terms. Among the possible changes are reducing minimum bonus bids and rentals, extending lease terms, reducing royalties, and exploring alternative methods to awarding leases, such as work commitments and royalty or profit-share bidding. At current oil price levels, reduced minimum bids and alternative methods of awarding leases may be appropriate measures to enhance the economic viability of exploration on the Outer Continental Shelf (OCS). Reducing rentals and lengthening lease terms would prevent premature abandonment of federal leases and would allow drilling schedules to be determined by economic considerations. Reducing royalties would prolong the life of existing fields, lower the threshold volumes required to justify development of new fields, and thereby increase oil and gas production.

Reduced bonus bids, royalties, and rentals would, however, reduce federal revenues to the extent that they would not be offset by higher tax revenues from increased or extended production.

5. **Enlarge Access to Federal Lands**

U.S. oil and gas exploration and production can be increased if the federal government takes action to facilitate access to federal lands, onshore and

offshore, and to eliminate moratoria and other delays in OCS leasing. The potential for oil and gas reserves on federal lands is considerable.

In 1985, Congress enacted a moratorium on the leasing for oil and gas development for large portions of the OCS off California. This moratorium prohibited the leasing of millions of prospective acres.

In U.S. onshore areas, 90 million acres of federal wilderness areas and 71 million acres of national parks and wildlife refuges have been closed to mineral leasing. Congressional leasing moratoria have placed an additional 95 million acres being considered for wilderness designation off-limits to leasing and exploration. In total, 256 million acres of federal lands have been closed to oil and gas leasing. Leasing of high-potential areas of the Arctic National Wildlife Refuge (ANWR) is an immediate issue.

Only small areas of offshore California, the Rocky Mountains, and ANWR are highly prospective, and exploratory drilling would be largely confined to those areas. In allowing increased access to federal lands, onshore and offshore, the benefits of and national need for domestic oil and gas production must be weighed against the possible environmental risks. Improved technology and careful attention to environmental considerations make it possible to develop oil and gas production in a way that is compatible with multiple uses of areas both onshore and offshore.

C. Consumption Reduction and Use Efficiency

1. **Impose Energy Consumption and Excise Taxes**

A tax on energy consumption would raise the price of energy and stimulate conservation. Such a tax would also raise general revenue or could be used to finance incentives for exploration, development, and production of domestic energy resources.

Among options are a consumption tax, or BTU tax, on all energy supplies, an excise tax on all oil supplies or refined petroleum products, and an increase in the motor fuels excise tax.

A broad-based energy consumption tax could be applied to most domestic and imported energy supplies, including oil, natural gas, coal, and nuclear power. Renewable resources, such as wood, solar, and hydroelectric power, could be exempted. The tax could be assessed as a percentage of the cost of energy or at a flat rate per BTU. The tax could be collected at the point of production or importation, or at the wholesale level.

A per-barrel tax could be imposed on all crude oil (foreign and domestic) used by refineries, with a similar tax applicable to imported petroleum products. The crude oil tax could be collected at the refinery gate. The tax on imported products could be collected at the time of importation when U.S. Customs tariffs are collected.

The federal excise tax on motor fuels (gasoline and diesel) could be raised. The additional annual revenue is projected to be more than $1 billion for every 1-cent-per-gallon increase. However, unless current laws are changed, the additional revenue will flow into the Highway Trust Fund.

2. **Provide Incentives and Mandates for Conservation**

Peacetime energy conservation was never an issue of national importance until the 1973 Arab oil crisis exposed the nation's vulnerability to disruptions of its major energy source. The crisis triggered a wide-ranging response by public officials aimed at reducing energy consumption, especially oil. Many of the incentives and mandates are still in place, but it is generally accepted that price and mandated standards have been the principal driving forces for conservation. The decline in oil prices that began in 1982 has led to a reduced commitment to conservation, and

mandated standards are now being ignored or moderated. A renewed commitment to such standards and incentives is one of the policy options to reduce the nation's vulnerability to future energy crises.

D. Domestic Source Diversification

1. **Encourage Greater Use of Alternative Fuels to Oil and Gas**

The U.S. possesses 283 billion short tons of coal, 29 percent of the world's total recoverable coal reserves. In 1985, coal provided 23 percent of U.S. total energy consumption, primarily in the generation of electricity. In 1985, 56 percent of U.S. electricity was generated from coal, up from 46 percent in 1970. Nuclear energy has shown the most dramatic growth over the past 25 years, increasing from zero in 1960 to almost 16 percent of all U.S. electricity generated in 1985.

Policy options to encourage diversified energy sources, such as coal, nuclear, and co-generation, as well as conservation could be developed.

2. **Decontrol Natural Gas Prices and Markets**

Decontrol of natural gas field prices, repeal of the incremental pricing provisions of the Natural Gas Policy Act of 1978, and repeal of the provisions of the Fuel Use Act prohibiting the use of natural gas as a primary fuel for new powerplants and major fuel-burning installations would promote the development and production of gas that would not otherwise be available and would create a more efficient energy market.

Higher prices for old gas would permit wells in existing fields to produce longer by lowering abandonment pressures, by improving the economics of well stimulations and workovers, and by encouraging infill well drilling in old fields--the drilling of additional wells for greater recovery. Experience from

extended conventional development of existing oil reservoirs suggests significant volumes of moderate-cost gas could be recovered.

E. *Mitigating Supply Interruptions*

1. **Expand Strategic Petroleum Reserves**

In response to the Arab oil embargo in 1973-74, the U.S. Congress authorized the creation of the Strategic Petroleum Reserve (SPR), to be used in times of oil disruptions to mitigate the effects of physical shortages and to restrain the oil-price increases associated with such supply/demand imbalances. The SPR currently contains about 530 million barrels of oil and could be expanded substantially. U.S. allies, trade partners, and other consuming nations could also be encouraged to establish and maintain strategic petroleum stockpiles of their own.

2. **Pursue Diversified Import Sources**

There have been six major oil supply disruptions since World War II, not all of which precipitated a world oil supply crisis. All of these disruptions were caused by events in the Middle East: the Iranian nationalization of the BP concessions in 1951, the Suez crisis in 1956-57, the June War in 1967, the Arab Oil Embargo in 1973, the Iranian Revolution in 1978, and the Iran/Iraq War beginning in 1979. The disruptions had a minimal impact when surplus productive capacity existed outside of OPEC. A useful goal is the diversification of the supply sources of oil for the world as a whole. This would diminish the impact of all disruption in any single source of supply and would decrease the ability of some oil exporters to use oil as a political weapon.

3. **Pursue Diplomatic Options**

The Middle East has almost two-thirds of the non-Communist world's proven oil reserves and is the world's lowest cost oil producer. Should the U.S. elect to rely on lower cost resources, it will have increasing dependency on these resources. One option to reduce the likelihood of an oil crisis in the event of future high imports is to pursue diplomatic policies that promote greater stability in the Middle East and Africa and greater interdependence with the U.S. Substantial economic interdependence could possibly reduce the likelihood of price shocks and the attractiveness of using oil as a political weapon.

FINDINGS AND RECOMMENDATIONS

THE COMMITTEE MAKES THE FOLLOWING FINDINGS:

1. The record of the late 1970's and early 1980's shows clearly the ability of the U.S., through energy production and use efficiency, to constrain imports of energy to modest levels.
2. The effect of current low prices is and will continue to be lost production capability and increased consumption for the U.S. This is leading in the short term to levels of imports equaling and likely exceeding levels of the previous decade.
3. While the energy world today is different from the energy world of the 1970's, that difference is largely due to high prices of energy and associated policies put into place during the late 1970's and early 1980's. With higher levels of imports this Nation is now no less vulnerable to supply distributions and the economic destabilization of price shocks than in the 1970's.

4. History clearly shows that stability of prices of commodities as pervasively used as oil are in the inherent interest of both consumer and producer, importer and exporter. Given the uneven distribution of oil in volumes and cost of production, history also shows, and the future strongly suggests, that price stability can only be achieved through price administration, direct or indirect, by government. The basic question is: Which government and in whose interest? Absent the willingness of OPEC collectively to set and enforce, that is to administer, a stable price, the U.S., as consumer of 40 percent of the world's petroleum and producer of 30 percent, is the only governmental entity with ability to administer a long-term, stable price.

5. It is in the essential interest of the U.S. to control its energy and industrial destiny. The U.S. should take control of oil prices, providing stability in the national and world interest.

CONSISTENT WITH THESE FINDINGS, THE COMMITTEE RECOMMENDS THE FOLLOWING:

1. That the U.S. government establish and guarantee to U.S. production a base price of $18 (1986 dollars) immediately, with such base increasing to $22 (1986 dollars) in five, six-month intervals. Such prices will access a large portion of the U.S. resource base yielding reserve additions equal to about 70 percent of 1985 levels of production. The recommended base prices start at levels currently existing and increase only to a modest level. As such the recommended base prices would not be inflationary but would provide critical stability as opposed to expected volatility. A volatile price averaging $18 costs the consumer just as much as a stable $18; a volatile price is discounted for purpose of oil and gas financing, and the consumer receives less benefit in additional supply for the price paid.

2. That the U.S. through its tax code eliminate disincentives and provide targeted incentives for the development of critical, but higher cost portions of the U.S. resource base. Such provision should provide cost reductions equivalent to receipt of effective prices 15 to 20 percent above the base price. Such incentives would be limited to oil and gas production from new field discovery and enhanced recovery. Such incentives would provide the balance of additions necessary to maintain 1985 levels of production.

3. That the U.S. government enlarge its funding of oil and gas discovery and recovery research to a level at least in balance with research and development funding for other energy sources, and further that the U.S. enlarge and maintain research and development supporting increased conservation and efficiency in energy use.

4. That the U.S. increase the total volume of the Strategic Petroleum Reserve to 1 billion barrels and do so within the next five years.

5. That the U.S. improve access to federal lands, both onland and offshore, that hold high potential for oil and gas discovery. Such access can be and must be consistent with sound environmental protection.

6. That standards for energy efficiency be maintained and not relaxed.

7. That natural gas prices be completely decontrolled so that gas can move uniformly at market prices equivalent to the base prices set for oil, thus aiding thorough development of lower cost resources.

8. And finally, that consumption taxes on energy use, more specifically a gasoline tax, be imposed to fund recommendations for research, the differential between the recommended U.S. base price for oil and world prices and the recommended additional filling of the Strategic Petroleum Reserve. The Committee judges that the U.S. base price would rapidly become the world price, but to the extent a differential might exist it should be supported through consumption taxes. The

tax-paying consumer is the ultimate benefactor of the increased supply the base price and research and development would provide.

Respectfully submitted:

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Chairman