

OVERVIEW OBJECTIVE III: DEVELOP INTEGRATED OIL IMPORT POLICY

The economic and national security implications of dependence on foreign sources of energy supply have been debated for more than 70 years. Discussion of the issue centers on questions of national security, costs and benefits to the economy and environment, reactions to these impacts, and the role of the Federal government in addressing the situation.

At various times this century, concern about rising imports of crude oil has caused the Federal government to encourage domestic production with financial subsidies, and to restrict or otherwise penalize imports. The 1993 Domestic Gas and Oil Initiative takes balanced steps that are positive for the domestic energy industry, but they will not eliminate U.S. oil imports. Therefore, it is appropriate that the Federal government again review the role that oil imports play in our nation's security and economy. In the past, these examinations have taken place in response to dramatic events when objectivity is difficult. For this reason, the issue should be revisited in today's relatively composed environment.

Capital investment is the most important element in ensuring that our domestic gas and oil infrastructure remains financially viable. A dynamic industry will quickly respond to price signals resulting from the highly unpredictable and largely unstable world oil market. The single greatest impediment to capital formation is crude oil price volatility. For this reason, the Domestic Gas and Oil Initiative includes a proposal that would increase the borrowing power of producers by reducing oil price risk during the periods of their production-related projects.

Two options are proposed for establishing national import goals and overall strategy: (1) the establishment of an oil import policy working group, and (2) the stabilization of oil prices with government fuel expenditures.

Establish oil import policy working group

The Domestic Gas and Oil Initiative proposes reopening dialogue on the effects of oil imports. Two alternative approaches for developing an integrated oil import strategy are being considered:

- In the first approach, the process would analyze the impacts of different levels of oil imports on our energy use and balance of trade; analyze the implications of setting a goal for a maximum acceptable dependence on imported oil, and set such a threshold; and further define the set of actions or policies that the Federal government would adopt if the threshold were met. Several questions would be considered by the group:

- How important are oil imports to national security?
 - What are national defense-related costs associated with protecting our international sources of oil?
 - What are the benefits and costs to our economy of obtaining oil from the lowest-cost source, regardless of country or origin?
 - What is the direct and indirect relationship, if any, of dollars spent on oil imports and loss of ownership of U.S. assets? U.S. jobs? Concentration of ownership of our assets in hands of particular countries?
 - How much, if anything, are we willing to pay to reduce imports and deal with the effects?
 - At what point should the Federal government respond? When, or if, it responds, what action should the government take?
- In the second approach, the process would develop a strategy for holding net imports of petroleum consumed in the United States below 50% in any consecutive 12-month period.

The Department of Energy advocates the second alternative.

To address issues common to both approaches, the Administration will establish an interdepartmental working group, coordinated by the National Economic Council and the National Security Council, with the Department of Energy as the lead agency. This working group would analyze costs and benefits, examine approaches and develop recommendations. Policies for reducing the growth of imports would be integrated with other U.S. trade, fiscal, economic, and environmental policies.

Stabilize prices with government fuel expenditures

Investment is key to maintaining a viable petroleum industry. The single greatest impediment to capital formation is crude oil price volatility. For this reason, the Domestic Gas and Oil Initiative includes a proposal aimed specifically at reducing price risk.

The approach would be to employ financial industry risk management techniques to reduce lenders' concerns about price volatility. Under this proposal, a revolving fund would be established within the Federal government that would hedge price risk for both the Federal government and for domestic producers who join the program. In doing so, it would stabilize producers' revenue flows, thereby increasing their abilities to obtain investment capital. For the Federal government, it would reduce the possibility of budget overruns in fuel programs--particularly at the Department of Defense, and perhaps in the Department of Health and Human Services' Low Income Home Energy Assistance Program.

Issue Area 6.0

Establish National Import Goals and Overall Strategy

Option 6.1

Establish Oil Import Policy Working Group

This option proposes reopening the debate on the effect of oil imports on national security. To accomplish this, an interdepartmental working group, coordinated by the National Economic Council and/or the National Security Council, with the Department of Energy as the lead agency, would be convened. The working group would analyze costs and benefits, examine approaches, and develop recommendations.

History

In 1918, concern that a repeat of spot shortages of oil that occurred during World War I, and growing dependence on insecure sources of foreign oil (from Mexico), led the U.S. government to grant substantial depletion-related tax incentives for oil production.¹ The result was a prompt increase in U.S. production activity that led to a glut of oil within a few years. This, in turn, produced prorationing, and, in the 1930s, establishment of the Interstate Oil Compact Commission² to manage it.

After 30 years, during which the prorationing cartel helped to stabilize prices, the 1950s again saw growing dependence on oil imports. This touched off another round of studies and subsequent actions by the Federal government. The underlying problem in the 1950s was much as it is today--low-cost foreign oil was being imported principally by refiners who did not have access to ample supplies of domestic oil.

After several years of attempting voluntary import controls, the Mandatory Oil Imports Program (MOIP) was established. These restrictions inflated U.S. oil prices substantially over foreign supplies and U.S. production increases soon followed.³

¹ The Internal Revenue Act of 1918 allowed the use of "discovery value" in lieu of cost value as a basis for depletion. This stimulated development of several new oil fields which, together with a general downturn in business activity, created oversupply conditions later in the decade. (Source: The Growth of Integrated Oil Companies, John G. McLean and Robert William Haigh, Harvard University, 1954, p. 85.)

² Now referred to as the Interstate Oil and Gas Compact Commission.

³ Interestingly, however, most indicators of exploration activity (seismic counts, exploratory drilling, etc.) did not show sharp upturns. One might conclude that the effect of the program was mainly on known reserves from which production could easily be increased.

The statutory vehicle employed to authorize and to conduct the MOIP was the Trade Agreements Extension Act. In 1962, authorities vested in that Act were incorporated in Section 232 of the Trade Expansion Act.

The MOIP was extensively modified by President Nixon after a 1970 Cabinet-level task force concluded (in part) that the program had been undercut by a number of special exemptions for regional markets. Import limitations were changed and a system of import licensing fees was implemented.

In the aftermath of the 1973 Arab oil embargo, new concerns about domestic energy security arose. In 1975, a Section 232 national security study led President Ford to replace the MOIP totally with a system of import license fees of up to \$3.00 per barrel. At the time, imports supplied about 35% of domestic consumption. The Section 232 study finding of imports' adverse effects on national security was based on:

- Economic and military risks that might arise from another oil supply cutoff;
- Adverse effects of the sharp deterioration in our balance of trade (caused by the four-fold increase in oil prices in 1973-74);
- Reduced foreign policy flexibility associated with dependence on imported oil from sources that might not be reliable.

Section 232 was again employed to authorize a study and remedial actions in 1979. As in the 1974-75 study, the balance of trade and its effect on the value of the dollar were cited as concerns. The fear that the United States was being held hostage by potential oil embargoes or other disruptions in supply also was cited as a risk factor. In contrast with previous actions, however, President Carter used the Section 232 authority to eliminate, rather than raise oil import fees. The overthrow of Iran in 1978 had created sharply rising prices, and imports were needed to fill the supply-demand gap. In November 1979, President Carter also issued a proclamation, authorized under Section 232, to ban imports of crude oil from Iran.⁴

An interesting paradox appears: national security is viewed as being threatened when oil prices rise, or when they fall. Further inspection, however, shows that the supporters of actions to limit, restrict, or otherwise control oil imports vary under these two scenarios. Oil and gas producers support actions when prices fall or new sources of foreign supply threaten them financially. When prices rise, consumers bear the

⁴ This was in retribution for holding U.S. hostages, rather than an action to deal with the problem of imported oil.

brunt of economic dislocation and argue for the Federal government to correct the situation. Finally, the level of dependency on imported oil that is perceived to threaten national security has varied over time. This suggests that factors other than the absolute level of oil imports may precipitate the oil-related national security concerns.

Recent Proposals and Studies

Ten years after the 1975 Section 232 study identified a national security threat in the trade balance implications of rising oil prices, oil prices abruptly dropped by as much as 60%. National security risk was immediately raised as a negative consequence of the oil price deflation. By 1987, the toll that the oil price crash had taken on the domestic industry was evident, production was falling sharply, and consumption was rising. On March 10, 1987, Senator Bentsen, for himself and 24 other senators, introduced S. 694 -- The Energy Security Act of 1987. Its stated purpose was to "...limit United States dependence on foreign oil supplies."

The Act did not grant new authorities for restricting imports; at the time, Presidential powers under Section 232 of the Trade Expansion Act of 1962 were considered to be adequate. Rather, the purpose of S. 694 was to define specifically a point at which actions should be taken. The bill set this as the point at which imports constituted more than 50% of domestic crude oil and petroleum product consumption, i.e., the "peril point."

After S. 694 was narrowly defeated in the summer of 1987, the Texas Independent Producers and Royalty Owners Association (TIPRO) and others petitioned the United States to conduct another Section 232 study. This request was accepted and, in 1988, the Commerce Department's review of the national security implications of rising oil imports concluded:

"There have been substantial improvements in U.S. energy security since the last Section 232 Petroleum finding in 1979. However, declining domestic oil production, rising oil imports, and growing Free World dependence on potentially insecure sources of supply raise a number of concerns, including vulnerability to a major supply disruption. The investigation found that the maintenance of U.S. access to sufficient supplies of petroleum is essential to our economic security, foreign policy flexibility, and defense preparedness. Given the above factors, it was found that petroleum imports threaten to impair the national security (emphasis added).⁵

⁵ The Effect of Crude Oil and Refined Petroleum Product Imports on the National Security, U.S. Department of Commerce, 1988, p. ES-4.

The study recommended several actions drawn from the Administration's current energy policy including:

- Permitting exploration in the Arctic National Wildlife Reserve,
- Licensing reform for nuclear power,
- Increasing depletion allowances by raising the net income limitation and repealing the transfer rule, and
- Filling the SPR to 750 million barrels.

In addition, it specifically concluded that import quotas and fees are not advisable because of their economic impact, which might, in turn, affect national security adversely. This effectively broke the chain of events that linked Section 232 studies to aggressive actions on the imports issue.

The Current Situation

In 1992, net imports were 41% of the nation's net supply of crude oil and natural gas liquids. It is very likely, that, by the end of the first four years of the Clinton Administration, net dependence on foreign oil will approach 50%.

After S. 694 had been defeated, and during deliberation by the Reagan Administration over whether to accept TIPRO's Section 232 petition, Senator Bentsen wrote the Commerce Department on behalf of the request. In his December 23, 1987 letter, he said:

"The cornerstone of our national security is a healthy domestic energy industry that can continue to find and produce a reliable supply of oil. The basic statistics tell us, however, that our country's oil producers are sick and that their disease is getting worse.....If we do not act quickly first to stabilize and then to revitalize the domestic oil sector, the security of our country will be compromised irreparably."

Senator Bentsen and his colleagues were clear about the problem they perceived.

Actions to Be Taken

To address this issue, the Administration should establish an interdepartmental working group coordinated by the National Economic Council and/or the National Security Council, with the Department of Energy as the lead agency. The working group would analyze costs and benefits, examine approaches, and develop recommendations. Two approaches for developing this strategy are being considered:

- In the first approach, the process would analyze the impacts of different levels of oil imports on U.S. energy use and balance of trade, analyze the implications of setting a goal for a maximum dependence on imported oil, and set such a threshold. The process would also define the set of actions or policies that the Federal government would adopt if the threshold were met.
- In the second approach, the process would develop a strategy for holding net imports of petroleum consumed in the United States below 50% in any consecutive 12-month period.

The Development of Energy advocates the second alternative.

In developing a process for determining an import policy, several questions should be considered:

- How important are oil imports to national security?
- What are national defense-related costs associated with protecting our international sources of oil?
- What are the benefits and costs to our economy of obtaining oil from the lowest-cost source, regardless of country of origin?
- What is the direct and indirect relationship, if any, of dollars spent on oil imports and loss of ownership of U.S. assets? U.S. jobs? Concentration of ownership of our assets in hands of particular countries?
- How much, if anything, are we willing to pay to reduce imports and deal with the effects analyzed above?
- At what point should the Federal government respond? When, or if, it responds, what action should the government take?

Policies for reducing the growth of imports would be integrated with other U.S. trade, fiscal, economic, and environmental policies including:

- Promoting and encouraging energy efficiency;
- Transportation initiatives and programs;
- Development of renewable and other energy sources and fuels;
- Diversification of international sources of energy supply, along with maintenance of a Strategic Petroleum Reserve.

Under the second approach, the Department will also hold public meetings for the purpose of developing legislation that addresses appropriate policies and procedures to invoke when the U.S. reaches the point of greater than 50% reliance on imported oil. The policies and procedures the Department proposes to review and consider include:

- (a) Making "automatic" a required finding under Section 232 of the Trade Expansion Act that authorizes the President to order an oil import tariff or other measures appropriate to safeguard national security. Under present law, the President has this authority, but only following an assessment by the Secretary of Commerce concerning the effect of importation on national security.
- (b) Expansion of the Strategic Petroleum Reserve to 1 billion barrels, funded by the imposition of a fee on imported petroleum products.
- (c) Acceleration of the Federal energy efficiency and alternative fuels activities, such as the Federal Fleet Conversion Task Force.

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Issue Area 6.0

Establish National Import Goals and Overall Strategy

Option 6.2

Stabilize Prices with Government Fuel Expenditures

Another way to stabilize domestic oil prices for some producers would be for them to enter the over-the-counter financial derivative market and purchase a swap contract. In a swap, the producer's counter-party (typically an investment bank) pays the producer dollar-for-dollar the amount that a price index falls below an agreed upon swap reference price. For example, if the index is the prompt New York Mercantile Exchange (NYMEX) futures contract for West Texas Intermediate (WTI) crude oil, the swap price is \$20 per barrel, and today's price is \$18, the producer would receive \$2 times the number of barrels in the contract. If the index was higher than the reference price, the producer would pay the bank.

After entering a swap, a producer's net revenue stream is fixed, thereby eliminating price risk.⁶ The bank, however, incurs a risk that prices will fall and it will have to pay producers. This risk usually is temporarily "bridged" by hedging in the futures market, but the bank's longer-term objective is to enter swap contracts with consumers of petroleum products. That way, when prices go down, the bank receives revenues from consumers to offset payments to producers. Swaps up to three years in length are common now, with increasingly longer swaps being written in association with funding of major projects.

The Federal government is a large consumer of petroleum products which it typically purchases at prices indexed to the spot market. Budgets are planned as much as a year before the start of a fiscal year, so there is considerable risk that prices may move adversely in the intervening time. Increasingly, semi-public organizations that are confronted with this problem, such as transit authorities, manage risk with futures, options, or swap contracts to ensure that fuel budgets are met. The States of Delaware and Texas⁷ currently run hedging programs and several other states are very interested (Wyoming, Massachusetts, Pennsylvania, Alaska, Louisiana, etc.). The Federal government does not hedge its fuel purchases.

⁶ There still is a risk that the producer's crude oil price may not move synchronously with WTI prices on the NYMEX.

⁷ Texas hedges severance tax revenues using options.

The Department of Defense (DoD) purchases 350-400 mb/d of products, 75% of which is jet fuel. The \$2 billion per year Low Income Home Energy Assistance Program (LIHEAP), run by the Department of Health and Human Services, is another source of Federal price risk. It disburses funds to States to cover energy costs for low income consumers. Although the LIHEAP budget is fixed in most years, a contingency fund of several hundred million dollars can be tapped to cover emergencies associated with sharp price escalations.

It follows that the Federal government could itself be a swap offerer to producers. Employing the procedures described above, the federal government could greatly reduce its fuel price risk while stabilizing oil producer revenues. Up to 400 mb/d of coverage is available through Defense purchases, and other government agencies offer as much as another 100 mb/d. If LIHEAP procedures were reorganized somewhat, it would add another 100 mb/d.

Commercial swaps are available to producers today, but they are used infrequently by smaller lenders. The reasons probably include lack of familiarity with the instruments, which are relatively new to the oil and gas industry, and mistrust among both local lenders and small producers. To augment the value of the hedging program to producers, it should include a Federal lender outreach program.

Implementation

The program synopsized above is complicated mainly by organizing it within the Federal bureaucracy. Authority may exist to run a program like this one, but it should be clarified with new legislative language similar to that written for the Agriculture Department to employ options to replace crop subsidies. The program should be run from a revolving fund that retains its revenue receipts for a set period of time, rather than sending them back immediately to the Treasury. Initial implementation steps would include:

- Develop an operations plan including accounting, checks and balances, and procedural detail.
- Justify the program
 - Obtain support from the White House and OMB
 - Overcome resistance from the DoD and HHS
 - Generate support in Congress (both the energy and armed services committees).

- Obtain authorizing legislation (a section in authorization and appropriation bills directing that a pilot program be pursued would suffice).
- Establish a revolving fund with procurement and funds transfer authorities; arrange for flows of funds between government agencies and the revolving fund.
- Qualify brokers and swap dealers (financial institutions) for "bridge" hedging of producer swaps.
- Initiate and pursue an outreach program to producers through their lenders.

Measures of Success

The objective of the program is to increase the capital available to producers for production-enhancing projects while, at the same time, provide a measure of budget security for the Federal government in its fuel purchases. The project would not be expected to make a profit; it would be common for the revolving fund to be a net payer to producers in some years. Much of this would be offset by savings in lower fuel costs, but, to the extent that producers receive more than is saved on government fuel, the revenues would go toward stabilizing the industry. That has a positive national security benefit.

Our discussions with lenders indicate that it is common for a producer to be limited to loans of about 50% of net discounted cash flow for production enhancing projects. Discount rates typically are 10%. Removing price risk from the lending equation might raise the lending rate as high as 70% against net cash flow. The effect would be the following:

- At 1992 average wellhead prices, the increase in lending rate translates to about \$1.18 per barrel of existing production.
- Assuming that 400 mb/d could be hedged, this would inject about \$171 million per year of new capital into the industry.
- At a reserve finding rate of about \$5.00 per barrel (assuming that this and existing capital are efficiently allocated), about 34.5 million barrels per year of oil reserve equivalents would be added.

- Using a 9% per year reserve depletion rate, the reserve additions translate to production increases of about:
 - 40 mb/d in the year 2000;
 - 60 mb/d in 2005; and
 - 73 mb/d in 2010.

Public and Private Costs

The five-year cost for a growing program is estimated at \$12-\$15 million -- about 0.1% of the cost of the government petroleum products that would be hedged. Much of this cost is for the broker fees necessary to manage risk on a temporary basis as producers come into and leave the program. These costs probably can be reduced through competitive negotiation.

The following table gives a summary of costs and benefits.

Costs and Benefits of Fuel Price Stabilization Program

	<u>2000</u>	<u>2005</u>	<u>2010</u>
Change in oil and gas production:	40,000 b/d	60,000 b/d	73,000 b/d
Change in oil and gas demand:	None	None	None
Economic costs/benefits			
- Direct and indirect jobs:	2,400	3,600	4,380
- GDP:	\$334 million	\$571 million	\$775 million
- Cost savings to industry:	Generates \$171 million per year in investment capital.		
- Balance of payments:	Improved \$334-\$775 per year.		
- Impacts on other industries/manufacturing:	Indirect jobs in oil and gas production related industries (incorporated above)		

Federal outlays: 5-year cost of program is \$12-\$15 million.

State revenues: Assuming average of 5% revenues in royalties and severance tax, states would receive \$17-\$39 million per year.

Cost effectiveness: Assuming a yearly average program cost of \$3 million, the program generates reserve additions at 8 cents per barrel.

Environmental costs/benefits: Backs out imported oil carried on tankers.

Administrative complexity/improvements: Moderate

Technological advancement: None

Cost Effectiveness

To the extent that such a program would make more capital available to producers for investment in the United States, it would be cheaper than loan guarantees and tax subsidies, and less complicated than many import fee-related programs.

Political Sensitivity/Affected Stakeholders

The strongest resistance to this program probably would come from inside the Federal government. Extensive interviews on price risk management with LIHEAP officials and with fuel purchasers at the Defense Fuel Supply Center (DFSC) indicated that both groups adamantly opposing risk management. DFSC officials believe that unexpectedly large price increases should be addressed with supplemental appropriations and fear being publicly humiliated when they incur a hedging "loss." Those at LIHEAP believe the cost of running a program simply subtracts revenues that might otherwise go to low income families.

Both the Senate and House Energy Committees probably would support a pilot program. The House structured Energy Policy Act language directing the DOE to study the issue of government hedging with the LIHEAP and DFSC programs specifically in mind.

Status of Analysis

Preliminary analysis is complete and documented in a draft technical paper. Examples of a hedge program were run against DFSC fuel outlays during 1988-93 and were estimated to have the potential for large savings. A simple No. 2 oil swap would have saved \$1.1 billion over the period; if the producer swap described above was employed, savings would have been about \$685 million. Although the producers would have been net payers into the program, their prices would have been stable and growing from \$17 to \$21 during the period. In the current market downturn, producers would be receiving \$1-\$3 per barrel from the program.

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OVERVIEW OBJECTIVE IV: IMPROVE COMMUNICATION AND GOVERNMENT DECISION-MAKING

Over the past several decades, environmental policy and regulation has developed as a patchwork with overlaps and gaps. Statutes and regulations were designed to deal with specific problems, rather than as part of a comprehensive scheme for protecting the environment and achieving other national objectives such as energy and economic security. Traditional approaches may no longer be effective. Recent studies by the National Petroleum Council, the Environmental Protection Agency Science Advisory Board, the Department of Energy, and others, have illustrated the need for greater flexibility and innovation in regulating the gas and oil industry as well as for more cost-effective approaches to protecting the environment.

Future environmental regulations and access limitations have the potential to affect adversely industry's ability to explore for and produce domestic gas and oil resources. For end-users, however, this reduces the opportunities to use abundant natural gas resources as a cleaner burning fuel source to solve the nation's air quality problems, and it reduces the nation's ability to decrease its dependence on imported oil. Compared to a more balanced regulatory approach, stringent environmental requirements could reduce U.S. oil production by 380,000 to 460,000 barrels per day by 2010, and U.S. gas production by 2.0 trillion cubic feet per year by 2010.

Gas and oil activities have the potential to affect the environment adversely. A primary challenge is for industry and government to develop and apply more innovative, cost-effective technologies and practices for complying with environmental regulations and protecting the environment. Options related to environmental technology are discussed under Objective I.

Objective IV of the Domestic Gas and Oil Initiative relates to improving the function in government, including its strategies and capabilities for decision-making as well as for communicating with States, the gas and oil industry, the public, and others on regulations and policies affecting U.S. gas and oil supply. Specifically, the strategy consists of five issue areas: (1) simplify regulations without compromising environmental protection; (2) evaluate the effect of access to Federal lands on U.S. energy policy; (3) work cooperatively with States and Tribes; (4) address the issue of removing constraints on West Coast gas and oil production; and (5) improve the level of public awareness of the strategic role of the gas and oil industry.

1. **Simplify regulations** -- Simplifying regulations without compromising environmental protection requires a multi-pronged approach:
 - Streamlining State and Federal regulatory programs to improve their efficiency and effectiveness, and to reduce undue burdens on the domestic gas and oil industry. The core of this effort entails establishing an interagency workgroup at the Federal level to improve coordination on regulatory issues affecting gas and oil supply, and working cooperatively with States through organizations such as the Interstate Oil and Gas Compact Commission to promote regulatory reform at the State level.
 - Expanding the Regulatory Impact Analyses to consider impacts on U.S. gas and oil supply.
 - Enhancing the capability of State and Federal governments to make better regulatory decisions.
 - Providing proactive support to legislative processes by articulating the national energy policy implications of alternative legislative approaches.
 - Working to establish alternative approaches to environmental regulation that balance cost and benefits and promote innovative approaches to achieving environmental objectives. The core of this effort entails undertaking a program to demonstrate the feasibility of innovative, alternative approaches to environmental regulation based on the knowledge and experience gained from National Petroleum Council studies and by the Environmental Protection Agency and Amoco at the Yorktown refinery.
 - Promoting dialogue and building partnerships among industry, States, the public, and other interested parties to resolve disputes and balance competing energy, economic, and environmental objectives necessary for sustainable development.
 - Considering the findings and recommendations of the National Petroleum Council's reports on U.S. petroleum refining.
2. **Evaluate access to Federal lands** -- Much of the land within the United States is public property subject to Federal control. The U.S Federal land inventory consists of some 720 million acres of property onshore, nearly one-third the entire land area of the nation. Approximately 41% of these lands are currently unavailable to the gas and oil industry. In addition, large portions of the outer continental shelf (OCS) are restricted from gas and oil development under executive and legislative moratoria. Certain Federal lands such as the Arctic

National Wildlife Refuge represent valuable national treasures that should be preserved and protected. In assessing the need for access to Federal lands for gas and oil development, the Federal government is challenged to balance competing land uses and national objectives. To address issues of access, the key option in this area is to establish a Federal Lands Task Force.

3. **Work with States and Tribes** -- Valuable opportunities exist for forging partnerships with States and Tribes in implementing the Domestic Gas and Oil Initiative. Partnerships with Tribes have the potential to increase domestic gas and oil production while helping to alleviate poverty among Native Americans. States have a primary role in regulating activities of the gas and oil industry in Alaska and the lower 48 States in the areas of resource conservation, environmental protection, and the use of natural gas. Options under the Domestic Gas and Oil Initiative include strengthening ongoing interactions with State organizations such as the Interstate Oil and Gas Compact Commission, the Ground Water Protection Council, the Energy Council, the National Governors' Association, and the National Association of Regulatory Utility Commissioners. It also involves working cooperatively with individual States to identify and resolve key issues constraining gas and oil supply at the State and regional level.
4. **Address West Coast production constraints** -- Crude oil production from the Alaskan North Slope (ANS) is likely to decline so that, before the year 2000, PADD V will be once again a significant importer. Proposed efforts involve rationalizing an approach for removing some of the market and statutory barriers that inhibit development of California resources. Specifically, the Domestic Gas and Oil Initiative recommends:
 - Establishing an aggressive Federal approach to guaranteeing oil pipeline access for non-integrated producers in California. Most, if not all of the large intrastate oil pipelines should operate as common carriers by virtue of their settlements in long-standing lawsuits, their use of right-of-ways granted under the Mineral Leasing Act, or their shipments of Federal OCS and Naval Petroleum Reserve crude oils. Without free and open access to transportation assets in the State, other production stimuli simply will not reach the most promising producers.
 - Stimulating investment in California refineries to permit refining a greater amount of heavy indigenous crudes. Incremental California crude oil production will be heavy crude oil that requires extensive refinery processing to satisfy California's high demand for light, low-sulfur transportation fuels. Falling ANS supply will make room in refineries upon investment in "upgrading" units for additional California heavy crude.

oil, but, faced with readily available lighter crudes from the Pacific Rim and the Middle East, the ANS falloff itself might not be great enough to promote capital investment in California refineries, resulting in rising imports.

5. **Communicate the strategic importance of the gas and oil industry --**
Energy is central to our nation's economy, and of the \$500 billion spent annually in the U.S. on energy, \$300 billion is spent on oil and gas. Nevertheless, the American public has little understanding of the contributions made by the industry. A public awareness program to increase the level of understanding will require inputs from all segments of the industry. A two-phase program is proposed. The first phase is a short-term effort to develop a campaign around current Domestic Gas and Oil Initiative efforts, and the second is a long-term effort to communicate widely with the public, with an aim of replacing the current negative view of the industry with a positive understanding based on knowledge.

Issue Area 7.0

Simplify Regulations Without Compromising Environmental Protection

Option 7.1

Streamline State and Federal Regulation

This option entails improving the efficiency and effectiveness of State and Federal regulatory programs and reducing undue burdens on the domestic oil and gas industry by improving coordination among regulatory agencies, eliminating redundant or unnecessary regulation, and avoiding duplication in Federal and State regulatory programs. Domestic oil and gas operations are affected by increasingly stringent, complex, and costly environmental regulations, and overlapping or conflicting regulatory requirements issued by different State and/or Federal agencies.

Although some States, e.g., Kentucky and Texas, have begun broad efforts toward more efficient and effective government to support sustainable economic development, regulatory reform efforts focused on oil and gas exploration and production are relatively scarce. In 1992, a California study of the cumulative impact of State and Federal regulations on oil and gas exploration and production operations found that much of the production in California is economically marginal, due in part to the high cost of compliance with environmental regulations.¹ This study highlighted the overlapping jurisdictions of some agencies and regulations whose cost did not appear commensurate with anticipated environmental benefits. At present, the California Division of Oil and Gas and the Bureau of Land Management are taking steps to eliminate duplicate bonding requirements for oil and gas wells on Federal land. Because oil industry jobs in California dropped 35% between 1984 and 1992, a variety of other administrative, regulatory, and legislative actions are also being considered to stem the decline of oil and gas production in California.

Some States, in lieu of consolidating regulatory requirements or jurisdictions, have developed single, user-friendly documents or guidance manuals outlining the regulatory requirements of multiple State agencies which are applicable to oil and gas operations. Some States use consolidated permit application forms and/or general permits to regulate some activities, or have adopted procedures for coordinated permit review. This option will encourage more efforts like these.

¹ Status of Petroleum Production Industry in California: The Cost of Regulatory Compliance, Foster Economics, September 8, 1993.

Implementation

A two-pronged strategy is necessary to accomplish streamlining at the Federal and State levels.

- Establish an **interagency working group** with representatives from the Department of Energy, Environmental Protection Agency, Department of the Interior, Department of Transportation, and other pertinent Federal agencies to improve coordination on regulatory issues affecting oil and gas supply. The first order of business would be to establish a working group charter delineating the scope of activities to be coordinated and a *Statement of Principles*. This *Statement of Principles* would be an agreement among participating agencies to eliminate redundant or unnecessary regulations; ensure that new regulations have a sound scientific basis and address documented harm, as appropriate; expedite the Federal permitting process and utilize uniform reporting formats or shared information, whenever practicable; foster dialogue and partnerships involving the government, industry, and the public; and promote innovative, cost-effective approaches to regulatory compliance and environmental protection.
- Work cooperatively with States, through organizations such as the Interstate Oil and Gas Compact Commission, to: (1) promote regulatory reform and improve the efficiency and effectiveness of State regulatory programs affecting the domestic oil and gas industry, and (2) expand opportunities for improved coordination between State and Federal regulatory agencies.

Measures of Success

Benefits for Combined Options

Benefits are shown only for oil and gas exploration and production, and are combined for Options 7.1 through 7.6, 2.1, and 2.3. They represent negative impacts that can be avoided. To avoid them, the Administration would need to initiate several, if not all, of these options simultaneously.

Cumulative Impact of Environmental Legislation/Regulation on U.S. Oil and Gas Exploration and Production

	Year 2000	Year 2010	Year 2020
Oil production rate (Bbls/d)	630,000 (17%)	380-460,000 (13%)	330-550,000 (14%)
Gas production rate (Tcf/yr)	0.8 (5%)	2.0 (10%)	--
Cumulative oil production (billion Bbls)	1.0 (5%)	2.9-3.0 (9%)	4.1-5.0 (10%)
Cumulative gas production (Tcf)	--	17 (7%)	--
Cumulative oil reserve additions (billion Bbls)	3.5	4.2-4.8	5.4-7.1
Direct jobs (workers/yr)	8,560	25,864-27,464	6,600-11,000 (oil only)
Indirect jobs (workers/yr)	17,120	51,728-54,928	13,200-22,000 (oil only)
Federal revenues (\$ billion)(oil only)			
- Annual	0.8-1.0	0.8-1.0	0.6-1.1
- Cumulative	3.4-3.6	13-14	20-24
State revenues (\$ billion)	0.4	0.6-0.7	0.2-0.3 (oil only)
Cumulative costs to industry (\$ billion)	20.1	54.1-55.7	30.6-39 (oil only)
Gross domestic product (GDP) (\$ billion)	6.3	8.4-9.2	3.5-6.0 (oil only)
Balance of payments (oil only)			
- Annual (\$ billion)	5.3	4.0-4.8	4.0-6.7

Source: DOE 1993 (COPM 6.5.1; 1993 EIA Annual Energy Outlook reference oil price forecast); NPC 1992. Difference between high cost and "balanced," more cost-effective environmental regulation. Numbers in parentheses indicate percentage change due to this initiative.

Additional Measures for Option 7.1 Only

- **Federal outlays:**
 - FY 1994 -- \$400,000 (\$200,000 Federal workgroup; \$200,000 grants to States); 0.5 additional FTE.
 - FY 1995 through 2000 -- \$900,000 (\$200,000 Federal workgroup; \$700,000 grants to States); 0.5 additional FTE.

- **Environmental costs/benefits:** There is significant potential for improved environmental protection through improved coordination among regulatory agencies.
- **Public and private costs:** This option offers potential cost savings for both government and industry in the near and longer term, and has significant potential to provide near-term regulatory relief for oil and gas producers.
- **Administrative complexity/improvements:** Significant potential exists to effect positive change in new and existing Federal and State regulatory programs.
- **Technological advancement:** Positive impact can be achieved if technological advancement is acknowledged as an objective in the *Statement of Principles* and fostered by the interagency working group.

Political Sensitivity/Affected Stakeholders

This option responds to oil and gas industry concerns about redundant or unnecessary regulation; small independent producers, in particular, frequently cite the costs of environmental compliance, excessive paperwork, and inconsistencies in rules and regulations as high priority concerns. It also responds to the concern of States regarding duplication in Federal and State programs.

Some Domestic Gas and Oil Initiative stakeholders have suggested that a moratorium be imposed on the promulgation of new State and Federal regulations affecting the oil and gas industry until existing regulations can be reviewed for duplication and appropriate cost/benefit determinations. The Environmental Protection Agency and the Department of the Interior are currently considering major regulatory actions that will affect the domestic oil and gas industry, related to underground injection control, oil spill prevention and response, coastal discharges, non-road engines, hazardous air pollutants, endangered species, and wetlands. Referring these actions to the interagency working group would be viewed as a very positive step by the industry.

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Issue Area 7.0

Simplify Regulations Without Compromising Environmental Protection

Option 7.2

Expand Regulatory Impact Analyses – E.O. 12291

This option entails revitalizing an earlier initiative to require Federal agencies to consider impacts on energy supply as part of Regulatory Impact Analyses mandated under Executive Order (E.O.) 12291 for proposed legislation and regulations. Such analyses are required for "major" Federal actions, which are defined as those that would exceed \$100 million in cost to the U.S. economy. Current Office of Management and Budget guidelines for implementing E.O. 12291 do not require consideration of energy supply impacts. As part of the Domestic Gas and Oil Initiative, the intent of this option would be to require consideration only of impacts on U.S. oil and gas supply.

An interagency working group co-chaired by the Department of Energy and the Environmental Protection Agency, convened between 1990 and 1992 pursuant to the National Energy Strategy, did not reach consensus on revisions to E.O. 12291 guidelines. This was due in part to the broad scope of its mission, which was to address impacts on energy supply. By limiting this option to impacts on U.S. oil and gas supply, the revisions may be less controversial and less difficult to implement.

Implementation

The Department of Energy, in coordination with other appropriate Federal agencies such as the Environmental Protection Agency and the Department of the Interior, would work with the Office of Management and Budget to revise the Executive Order and/or the implementing guidelines.

Measures of Success

Benefits for Combined Options

Benefits are shown only for oil and gas exploration and production, and are combined for Options 7.1 through 7.6, 2.1, and 2.3. They represent negative impacts that can be avoided. To avoid them, the Administration would need to initiate several, if not all, of these options simultaneously.

Cumulative Impact of Environmental Legislation/Regulation on U.S. Oil and Gas Exploration and Production

	Year 2000	Year 2010	Year 2020
Oil production rate (Bbls/d)	630,000 (17%)	380-460,000 (13%)	330-550,000 (14%)
Gas production rate (Tcf/yr)	0.8 (5%)	2.0 (10%)	--
Cumulative oil production (billion Bbls)	1.0 (5%)	2.9-3.0 (9%)	4.1-5.0 (10%)
Cumulative gas production (Tcf)	--		17 (7%) --
Cumulative oil reserve additions (billion Bbls)	3.5	4.2-4.8	5.4-7.1
Direct jobs (workers/yr)	8,560	25,864-27,464	6,600-11,000 (oil only)
Indirect jobs (workers/yr)	17,120	51,728-54,928	13,200-22,000 (oil only)
Federal revenues (\$ billion) (oil only)			
- Annual	0.8-1.0	0.8-1.0	0.6-1.1
- Cumulative	3.4-3.6	13-14	20-24
State revenues (\$ billion)	0.4	0.6-0.7	0.2-0.3 (oil only)
Cumulative costs to industry (\$ billion)	20.1	54.1-55.7	30.6-39 (oil only)
Gross domestic product (GDP) (\$ billion)	6.3	8.4-9.2	3.5-6.0 (oil only)
Balance of payments (oil only)			
- Annual (\$ billion)	5.3	4.0-4.8	4.0-6.7

Source: DOE 1993 (COPM 6.5.1; 1993 EIA Annual Energy Outlook reference oil price forecast); NPC 1992. Difference between high cost and "balanced," more cost-effective environmental regulation. Numbers in parentheses indicate percentage change due to this initiative.

Additional Measures for Option 7.2 Only

- **Federal outlays:** Not estimated.
- **Environmental costs/benefits:** Not applicable.
- **Public and private costs:** This option provides greater certainty of achieving balance among national economic, energy, and environmental objectives. While it may increase the costs of regulatory development incurred by Federal agencies, these costs may be outweighed by overall benefits to the U.S. economy. It also has significant potential to provide near-term regulatory relief for oil and gas producers.
- **Administrative complexity/improvements:** This option addresses new regulations and legislation proposed by the Federal government, but does not address existing regulations. To avoid undue burdens on Federal agencies, flexibility should be maintained regarding the manner in which they may comply.
- **Technological advancement:** Not applicable.

Political Sensitivity/Affected Stakeholders

Key stakeholders include the oil and gas industry and the public. Industry and States generally support consideration of economic and energy impacts in Federal rulemaking. Some stakeholders advocate a more extreme approach, i.e., that the Department of Energy should have mandatory concurrence on all rulemakings affecting oil and gas supply and demand.

If revisions are made to either E.O. 12291 or its implementing guidelines, some environmental stakeholders would advocate requirements be incorporated to consider multi-media impacts and life-cycle costs (sometimes referred to as "externalities"). This would increase the complexity of implementation.

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Issue Area 7.0

Simplify Regulations Without Compromising Environmental Protection

Option 7.3

Enhance State and Federal Regulatory Decision-Making Capability

This option entails enhancing the capability of State and Federal governments to make better regulatory decisions affecting the domestic oil and gas industry. Adequate, reliable information on the environmental risks associated with oil and gas industry operations, including information on relative risk and on the potential costs and benefits of alternative regulatory approaches, is not always readily available to State and Federal decision-makers. This fosters worst-case decision-making and heightens concern about small or sudden environmental releases. The impact of new regulations on oil and gas supply is rarely considered or quantified.

States have shown significant interest in enhancing their capability to make more informed, risk-based regulatory decisions, but they are constrained by limited resources and antiquated data management and analysis methods. For example, many State regulatory agencies maintain paper-based, rather than computerized, information systems. States are also limited in their ability to perform research and analyses to support regulatory and policy decisions.

Implementation

- Support research and other efforts to increase the availability of sound technical information on the environmental risks associated with oil and gas operations, and the costs and benefits of alternative regulatory approaches.
- Make available and continue to utilize the unique capability of the Department of Energy (DOE) for performing energy impact analyses to assist State and Federal decision-makers in assessing the impact of environmental and other regulatory actions on oil and gas supply.
- Expand ongoing efforts by DOE and other Federal agencies to assist States with research and analysis, and improved data management to support risk-based regulatory decisions affecting the oil and gas industry, e.g., by using geographic information systems (GIS), computerized data management, and other techniques. Work toward linking State data bases that contain regulatory, production, environmental, and resource data, and providing access to oil and gas operators.

Measures of Success

Benefits for Combined Options

Benefits are shown only for oil and gas exploration and production, and are combined for Options 7.1 through 7.6, 2.1, and 2.3. They represent negative impacts that can be avoided. To avoid them, the Administration would need to initiate several, if not all, of these options simultaneously.

Cumulative Impact of Environmental Legislation/Regulation on U.S. Oil and Gas Exploration and Production

	Year 2000	Year 2010	Year 2020
Oil production rate (Bbls/d)	630,000 (17%)	380-460,000 (13%)	330-550,000 (14%)
Gas production rate (Tcf/yr)	0.8 (5%)	2.0 (10%)	--
Cumulative oil production (billion Bbls)	1.0 (5%)	2.9-3.0 (9%)	4.1-5.0 (10%)
Cumulative gas production (Tcf)	--	17 (7%)	--
Cumulative oil reserve additions	3.5	4.2-4.8	5.4-7.1 (billion Bbls)
Direct jobs (workers/yr)	8,560	25,864-27,464	6,600-11,000 (oil only)
Indirect jobs (workers/yr)	17,120	51,728-54,928	13,200-22,000 (oil only)
Federal revenues (\$ billion)(oil only)			
- Annual	0.8-1.0	0.8-1.0	0.6-1.1
- Cumulative	3.4-3.6	13-14	20-24
State revenues (\$ billion)	0.4	0.6-0.7	0.2-0.3 (oil only)
Cumulative costs to industry (\$ billion)	20.1	54.1-55.7	30.6-39 (oil only)
Gross domestic product (GDP) (\$ billion)	6.3	8.4-9.2	3.5-6.0 (oil only)
Balance of payments (oil only)			
- Annual (\$ billion)	5.3	4.0-4.8	4.0-6.7

Source: DOE 1993 (COPM 6.5.1; 1993 EIA Annual Energy Outlook reference oil price forecast); NPC 1992. Difference between high cost and "balanced," more cost-effective environmental regulation. Numbers in parentheses indicate percentage change due to this initiative.

Additional Measures for Option 7.3 Only

- **Federal outlays:**
 - FY 1994 -- \$800,000 (\$500,000 for technical data and analysis; \$300,000 for assistance to States for data management); 1 additional FTE.
 - FY 1995 through 2000 -- \$6.0 million per year with cost sharing/co-funding by States and industry (\$2.0 million for technical data and analysis; \$4.0 to assist States with regulatory research and analysis and data management); 1 additional FTE.

- **Environmental costs/benefits:** This approach would provide greater certainty of achieving a desired level of environmental protection.
- **Public and private costs:** There are potential cost savings for both government and industry.
- **Administrative complexity/improvements:** This option offers significant potential to affect positive change in Federal and State regulatory programs by ensuring more reasonable, predictable, and timely regulatory decisions. It applies to development of new regulations as well as implementation of existing regulations.
- **Technological advancement:** There will be positive impact on government and industry.

Political Sensitivity/Affected Stakeholders

Large and small oil and gas operators, as well as the financial industry, believe that regulatory decisions are neither timely nor predictable. This option addresses those concerns, and is consistent with recommendations of the National Petroleum Council supporting the need for credible technical data and cost-effective solutions to addressing environmental concerns affecting the oil and gas industry.² States, industry, and others have lauded prior DOE efforts to assess the impact of environmental regulations on U.S. oil and gas supply and to increase the availability of sound technical information on the environmental risks associated with oil and gas operations. They are expected to be very positive about this option. In fact, 25 of 33 oil and gas producing States have requested DOE assistance with risk-based data management.

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² See National Petroleum Council reports: The Potential for Natural Gas in the United States, December 1992, and U.S. Petroleum Refining, September 8, 1993.

Issue Area 7.0

Simplify Regulation Without Compromising Environmental Protection

Option 7.4

Provide Proactive Support to Legislative Processes

Under this option, the Administration would provide proactive support to legislative processes, articulating the national energy policy implications of alternative legislative approaches. The focus would be on legislation being considered by Congress, but in some instances it may be appropriate to address actions being considered by State legislatures.

Analysis has shown that the public and industry costs of achieving equivalent levels of environmental protection vary greatly depending on the legislative approach taken. By ensuring that relevant information and analytic capabilities are made available to decision-makers, the Administration would encourage broader cost and benefit considerations in legislative processes.

The nature of the information to be provided is illustrated by an analysis performed by DOE in 1991, in which the potential impacts on U.S. oil and gas supply associated with a Senate Resource Conservation and Recovery Act (RCRA) Reauthorization proposal were examined. In analyzing the impact of regulating oil and gas exploration and production wastes under RCRA Subtitle D, the study revealed the following negative impacts on domestic oil and gas production, tax revenues, industry job opportunities, and industry compliance costs:

- Oil Production Rate by 1995: Down 410,000 Bbls/day (9% drop)
- Gas Production Rate by 1995: Down 3.2 Bcf/year (3% drop)
- Federal and State Tax Revenues (Total U.S.): Down \$27 billion over 1995-2020 time period
- Net Job Loss by 1995: 13,000
- Total Industry Incremental Compliance Costs: \$40 billion initially; \$5 billion annually thereafter

Implementation

Key Federal agencies such as the Environmental Protection Agency, Department of the Interior, and Department of Energy would initiate coordinated, cooperative efforts to:

- Provide Congress with information on the economic, energy, and environmental implications of legislative proposals, including potential impacts on oil and gas production, resource recovery, imports, and stripper oil and other marginally economic wells.
- Support legislation that allows the nation's oil and gas resources to be developed and produced in an environmentally sound manner, while avoiding unnecessary costs or other burdens on industry.
- Foster legislative approaches that allow innovative, more cost-effective solutions to environmental concerns pertaining to the domestic oil and gas industry and recovery of U.S. oil and gas resources.
- Continue to support the exemption for oil and gas exploration and production wastes from regulation as hazardous waste under RCRA Subtitle C, and improve State programs regulating the management of these wastes through Interstate Oil and Gas Compact Commission efforts involving States, industry, environmental groups, the Environmental Protection Agency, the Department of the Interior, and the Department of Energy.
- Assure that energy and economic impacts are considered as part of the reauthorization of key environmental statutes (e.g., RCRA, CERCLA, CWA, SDWA).
- Recognize the important role the States have in regulating the environmental aspects of domestic oil and gas industry operations, and their unique ability to address site-specific conditions and regional public concerns.

Measures of Success

Benefits for Combined Options

Benefits are shown only for oil and gas exploration and production, and are combined for Options 7.1 through 7.6, 2.1, and 2.3. They represent negative impacts that can be avoided. To avoid them, the Administration would need to initiate several, if not all, of these options simultaneously.

Cumulative Impact of Environmental Legislation/Regulation on U.S. Oil and Gas Exploration and Production

	Year 2000	Year 2010	Year 2020
Oil production rate (Bbls/d)	630,000 (17%)	380-460,000 (13%)	330-550,000 (14%)
Gas production rate (Tcf/yr)	0.8 (5%)	2.0 (10%)	--
Cumulative oil production (billion Bbls)	1.0 (5%)	2.9-3.0 (9%)	4.1-5.0 (10%)
Cumulative gas production (Tcf)	--	17 (7%)	--
Cumulative oil reserve additions (billion Bbls)	3.5	4.2-4.8	5.4-7.1
Direct jobs (workers/yr)	8,560	25,864-27,464	6,600-11,000 (oil only)
Indirect jobs (workers/yr)		17,120	51,728-54,928 13,200-22,000 (oil only)
Federal revenues (\$ billion)(oil only)			
Annual	0.8-1.0	0.8-1.0	0.6-1.1
Cumulative	3.4-3.6	13-14	20-24
State revenues (\$ billion)	0.4	0.6-0.7	0.2-0.3 (oil only)
Cumulative costs to industry (\$ billion)	20.1	54.1-55.7	30.6-39 (oil only)
Gross domestic product (GDP) (\$ billion)	6.3	8.4-9.2	3.5-6.0 (oil only)
Balance of payments (oil only)			
Annual (\$ billion)	5.3	4.0-4.8	4.0-6.7

Source: DOE 1993 (COPM 6.5.1; 1993 EIA Annual Energy Outlook reference oil price forecast); NPC 1992. Difference between high cost and "balanced," more cost-effective environmental regulation. Numbers in parentheses indicate percentage change due to this initiative.

Additional Measures for Option 7.4 Only

- Federal outlays:**

FY 1994 -- \$100,000; 1 additional FTE

FY 1995 through FY 2000 -- \$ 300,000 per year; 1 additional FTE

- **Environmental costs/benefits:** This option can provide greater certainty of achieving a balance among national economic, energy, and environmental objectives.
- **Public and private costs:** This option offers potential cost savings to industry and U.S. economy by enabling more cost-effective approaches to achieving equivalent levels of environmental protection.
- **Administrative complexity/improvements:** This option will require coordination/cooperation among Federal agencies, including the Environmental Protection Agency, Department of the Interior, Corps of Engineers, and the Department of Energy.
- **Technological advancement:** This option reduces the potential for legislation that will stifle technological innovation.

Political Sensitivity/Affected Stakeholders

The political sensitivity of this option will depend on the nature and content of input provided to Congress and State legislatures. If successfully implemented, all potential stakeholders -- oil and gas producers, State and Federal agencies, environmental interest groups, and the public -- would benefit.

This option is consistent with recommendations of the National Petroleum Council to create a balance between costs and benefits in legislative and regulatory processes on environmental issues affecting the oil and gas industry.³

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³See National Petroleum Council reports: The Potential for Natural Gas in the United States, December 1992, and U.S. Petroleum Refining, September 8, 1993 draft.

Issue Area 7.0

Simplify Regulation Without Compromising Environmental Protection

Option 7.5

Progress Beyond Command and Control Regulation

This option entails working to establish an alternative approach to environmental regulation that balances the cost of regulation against realistic health and environmental risk, establishes priorities among the various environmental protection programs in achieving goals, and promotes innovative approaches to achieving environmental objectives. A key objective is to hasten the evolution of the current regulatory framework affecting the domestic oil and gas industry from the traditional command-and-control approach to more innovative, cost-effective mechanisms that achieve the same or greater levels of environmental benefit.

Inflexible technology-based regulatory requirements can discourage technological innovation and the use of potentially more cost-effective compliance strategies. The traditional command-and-control regulatory process has been characterized as slow, expensive, focusing primarily on large institutions, and having a tendency to focus on symptoms rather than causes.

Current Federal environmental laws and regulations governing operations in the oil and gas industry are predicated on single-media approaches to issues such as air, water, and land with few mechanisms to coordinate such single-media efforts. Many Federal regulations are technology-based, do not account for the environmental risks posed or the unique solutions available at specific sites, and are uniformly required of all facilities nationwide.

Despite the demonstrable success of past efforts to protect the environment, many national goals still have not been attained. A number of studies have raised concerns about the existing regulatory framework.⁴

⁴ Unfinished Business: A Comparative Assessment of Environmental Problems, US EPA, February 1987; Reducing Risk: Setting Priorities and Strategies for Environmental Protection, EPA Science Advisory Board, September 1990; Double or Nothing: Linking US Economic and Environmental Objectives, World Resources Institute, November 1992; and Effective Environmental Strategies: Opportunities for Innovation and Flexibility under Federal Environmental Laws, Amoco, June 1993.

The following examples illustrate the success of two alternative approaches:

Yorktown Refinery Study -- Experience at Amoco's refinery in Yorktown, Virginia demonstrates the potential benefit of alternative approaches to environmental compliance. This unique effort involved Amoco, the Environmental Protection Agency, and the Commonwealth of Virginia, working together on a pollution prevention project to find cost-effective approaches for reducing refining emissions. The study found that 95% of the required emissions reductions required by current law could be achieved at 20% of the cost of traditional compliance programs, and that the refinery could save \$40 million by using innovative pollution prevention approaches to achieve an equivalent environmental benefit.

Safety and Environmental Management Program (SEMP) -- In 1991, in response the accidents in offshore oil and gas development (e.g., Piper Alpha in the U.K North Sea and South Pass 60 in the Gulf of Mexico), the Minerals Management Service (MMS) of the Department of the Interior announced its intention to require oil and gas lessees and operators in the Outer Continental Shelf (OCS) to develop comprehensive Safety and Environmental Management Programs (SEMP) to improve safety and environmental protection in day-to-day operations. Although, SEMF planning can reduce long-term environmental compliance costs, it may be costly and too complex for small, independent operators, thereby precluding them for operating in the OCS. As an alternative to regulation, the American Petroleum Institute has developed a voluntary industry standard (API RP-75) for SEMF planning and implementation. MMS and DOE are considering the merits of a joint government/industry pilot project to demonstrate the feasibility of voluntary SEMF plans for small operators.

Implementation

This option will require the leadership of the Environmental Protection Agency working at national, regional, and State levels to:

- Revise current Federal regulations to provide greater flexibility in achieving environmental standards. This may entail setting performance-based standards and allowing individual facilities the option of either qualifying for an alternative, site-specific approach to environmental compliance or operating under a command-and-control approach.
- Simplify the approval process for the demonstration of new environmental compliance technologies and practices under Federal regulations and permits, and similarly, encourage State agencies to simplify the procedures for the demonstration of new technologies.

- Educate permit writers on how to expand opportunities for greater flexibility and innovation in protecting the environment.
- Allow States to implement new requirements when possible, since States are often more capable of identifying and adapting regulations to site-specific environmental and operational conditions.

Actions for the Department of Energy, in cooperation with other appropriate Federal agencies, include:

- Encourage traditionally adversarial stakeholders to work cooperatively to develop commonly acceptable solutions to environmental concerns, using innovative approaches that are alternatives to the "one size fits all," command-and-control approach.
- Undertake demonstration projects, e.g., SEMP and spin-offs of the Yorktown Refinery Study, to encourage technology innovation and explore the feasibility of more flexible approaches that can be used by States and Federal agencies to regulate the oil and gas industry, or to achieve equivalent environmental protection through voluntary measures. For wider visibility and public/private acceptance, some of these projects could be conducted under the auspices of the President's Council on Sustainable Development.

Measures of Success

Benefits for Combined Options

Benefits are shown only for oil and gas exploration and production, and are combined for Options 7.1 through 7.6, 2.1, and 2.3. They represent negative impacts that can be avoided. To avoid them, the Administration would need to initiate several, if not all, of these options simultaneously.

Cumulative Impact of Environmental Legislation/Regulation on U.S. Oil and Gas Exploration and Production

	Year 2000	Year 2010	Year 2020
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Cumulative oil production (billion Bbls)	1.0 (5%)	2.9-3.0 (9%)	4.1-5.0 (10%)
Cumulative gas production (Tcf)	--	17 (7%)	--
Cumulative oil reserve additions (billion Bbls)	3.5	4.2-4.8	5.4-7.1
Direct jobs (workers/yr)	8,560	25,864-27,464	6,600-11,000 (oil only)
Indirect jobs (workers/yr)	17,120	51,728-54,928	13,200-22,000 (oil only)
Federal revenues (\$ billion)(oil only)			
- Annual	0.8-1.0	0.8-1.0	0.6-1.1
- Cumulative	3.4-3.6	13-14	20-24
State revenues (\$ billion)	0.4	0.6-0.7	0.2-0.3 (oil only)
Cumulative costs to industry (\$ billion)	20.1	54.1-55.7	30.6-39 (oil only)
Gross domestic product (GDP) (\$ billion)	6.3	8.4-9.2	3.5-6.0 (oil only)
Balance of payments (oil only)			
- Annual (\$ billion)	5.3	4.0-4.8	4.0-6.7

Source: DOE 1993 (COPM 6.5.1; 1993 EIA Annual Energy Outlook reference oil price forecast); NPC 1992. Difference between high cost and "balanced," more cost-effective environmental regulation. Numbers in parentheses indicate percentage change due to this initiative.

Additional Measures for Option 7.5 Only

- **Other cost savings to industry:**

Assuming 10% to 50% of the costs savings estimated for the Yorktown refinery, cumulative cost savings to the petroleum refining industry could amount to \$3.6 to 8.7 billion by the year 2010. Cost savings for large gas processing plants and other industrial facilities that may benefit from this option were not estimated.

Source: DOE 1993; NPC 1993, capital expenditures only.

- **Federal outlays:**

FY 1994 -- \$300,000 (\$250,000, SEMP; \$50,000 data gathering for innovative environmental compliance demonstration program); 1 additional FTE.

FY 1995 and FY 1996 -- \$2.5 million (\$250,000, SEMP; \$2.25 million for innovative environmental compliance demonstration program); 1 additional FTE.

FY 1997 -- \$2.25 million for innovative environmental compliance demonstration program); 1 additional FTE.

- **Environmental costs/benefits:** New alternatives can lead to potential cost savings to industry and U.S. economy, while achieving equivalent or greater levels of environmental protection. The existing regulatory framework, e.g., new source review and other regulatory obstacles, discourages industry from investing in new, more efficient equipment. Improved safety and environmental compliance is expected from implementation of SEMP.
- **Administrative complexity/improvements:** While there is significant potential to affect positive change in Federal and State regulatory programs, compliance with environmental objectives could become more difficult to monitor and evaluate.
- **Technological advancement:** Positive impact.

Political Sensitivity/Affected Stakeholders

Affected stakeholders include oil and gas producers, refiners, environmental interest groups, and government regulators. This option responds to a June 1993 resolution of the Interstate Oil and Gas Compact Commission, comments raised by oil and gas industry stakeholders, and recommendations of the NPC supporting the need for cost-effective solutions to addressing environmental concerns affecting the oil and gas industry.⁵ It builds on EPA "cluster groups" and interest in pollution prevention, and it is consistent with activities contemplated by EPA and others to conduct alternative regulatory compliance demonstration projects under the auspices of the Council on Sustainable Development.

Legislative changes may be necessary to implement this option. The environmental community and some States may oppose voluntary plans, such as the SEMP program, without some mechanism to assure compliance.

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⁵ See National Petroleum Council reports: The Potential for Natural Gas in the United States, December 1992, and U.S. Petroleum Refining, September 8, 1993 draft.

Issue Area 7.0

Simplify Regulation Without Compromising Environmental Protection

Option 7.6

Enhance Dialogue through Industry/Government/Public Partnerships

This option entails promoting dialogue among industry, States, the public, and other interested parties to: (1) address regional environmental issues constraining U.S. oil and gas resource recovery, (2) avoid unnecessary delays in the regulatory permitting process, (3) resolve outstanding disputes concerning oil and gas development, and (4) accomplish dual objectives of environmental protection and energy development.

Examples of prior success include:

- ARCO's Dauphin Island drilling project, where early communication with State and local governments and the fishing community avoided unnecessary project delays and resulted in an environmentally superior and economically viable project.
- Technical advisory committees involving industry, scientists and others that have been used by some States and Federal agencies for regulatory development and improving regulatory program implementation.
- Joint government and industry planning, research, and technology demonstration projects on alternative regulatory approaches and compliance practices to reduce costs for oil and gas operators, e.g., collaborative efforts in California for protection of endangered species and collaborative efforts in Pennsylvania to establish general permits for stripper oil and marginal gas wells.
- Interstate Oil and Gas Compact Commission (IOGCC) projects on oil and gas wastes that have been funded by the Environmental Protection Agency, involving State and Federal agencies, industry, and environmental groups.
- Projects funded by the Department of Energy to promote discussions among State regulatory agencies and with oil and gas operators, e.g., in the Appalachia and Illinois basins (nine States) on environmental and other issues affecting oil and gas resource recovery.
- The Environmental Protection Agency "Gas Star" project, promoting voluntary action by industry to reduce methane emissions from natural gas pipeline and distribution systems.

Implementation

Actions for the Department of Energy (DOE) include:

- Working in cooperation with other Federal agencies to promote and enhance dialogue among industry, States, the public, and other interested parties on key environmental and other regulatory issues affecting U.S. oil and gas resource recovery.
- Expanding ongoing DOE outreach activities related to oil and gas exploration and production under the Office of Fossil Energy oil and gas research program.
- Working in coordination with other Federal agencies to establish a capability for alternative dispute resolution.

Measures of Success

Benefits for Combined Options

Benefits are shown only for oil and gas exploration and production, and are combined for Options 7.1 through 7.6, 2.1, and 2.3. They represent negative impacts that can be avoided. To avoid them, the Administration would need to initiate several, if not all, of these options simultaneously.

Cumulative Impact of Environmental Legislation/Regulation on U.S. Oil and Gas Exploration and Production

	<u>Year 2000</u>	<u>Year 2010</u>	<u>Year 2020</u>
Oil production rate (Bbls/d)	630,000 (17%)	380-460,000 (13%)	330-550,000 (14%)
Gas production rate (Tcf/yr)	0.8 (5%)	2.0 (10%)	--
Cumulative oil production (billion Bbls)	1.0 (5%)	2.9-3.0 (9%)	4.1-5.0 (10%)
Cumulative gas production (Tcf)	--	17 (7%)	--
Cumulative oil reserve additions (billion Bbls)	3.5	4.2-4.8	5.4-7.1
Direct jobs (workers/yr)	8,560	25,864-27,464	6,600-11,000 (oil only)
Indirect jobs (workers/yr)	17,120	51,728-54,928	13,200-22,000 (oil only)
Federal revenues (\$ billion)(oil only)			
- Annual	0.8-1.0	0.8-1.0	0.6-1.1
- Cumulative	3.4-3.6	13-14	20-24
State revenues (\$ billion)	0.4	0.6-0.7	0.2-0.3 (oil only)
Cumulative costs to industry (\$ billion)	20.1	54.1-55.7	30.6-39 (oil only)

	<u>Year 2000</u>	<u>Year 2010</u>	<u>Year 2020</u>
Gross domestic product (GDP) (\$ billion)	6.3	8.4-9.2	3.5-6.0 (oil only)
Balance of payments (oil only) - Annual (\$ billion)	5.3	4.0-4.8	4.0-6.7

Source: DOE 1993 (COPM 6.5.1; 1993 EIA Annual Energy Outlook reference oil price forecast); NPC 1992. Difference between high cost and "balanced," more cost-effective environmental regulation. Numbers in parentheses indicate percentage change due to this initiative.

Additional Measures for Option 7.6 Only

- **Federal outlays:**
 - FY 1994 -- \$200,000; 0.5 additional FTE.
 - FY 1995 through 2000 -- \$1.8 million per year (includes four to eight key projects and capability for dispute resolution); 0.5 additional FTE.
- **Environmental costs/benefits:** A win-win process will acknowledge environmental concerns and yield positive results and responses.
- **Other benefits:** Enhanced Federal credibility and trust-building partnerships with stakeholders.
- **Public and private costs:** Alternative dispute resolution has the potential to achieve solutions to costly and protracted disputes, avoid or minimize litigation, and yield better, more cost-effective regulatory solutions to environmental and safety concerns. As a result, potential cost savings can be realized for government and industry in the near and longer term.
- **Administrative complexity/improvements:** Significant potential exists to affect positive change in Federal and State regulatory programs. In some instances, using a neutral third party to facilitate the effort is likely to be productive. Provisions of the Federal Advisory Committee Act may apply when non-Federal parties are involved in making recommendations to the Federal government.
- **Technological advancement:** There can be positive impact in some instances; for example, where joint projects involve research and technology demonstration.

Political Sensitivity/Affected Stakeholders

Key stakeholders include oil and gas producers, States, and environmental groups. This option will increase the potential for constructive dialogue and consideration of public and environmental group concerns, and facilitate the timely resolution of conflicts. It will be strongly supported by industry and States. This option is consistent with recommendations of the National Petroleum Council in support of dialogue and constructive partnerships among interested stakeholders to address environmental and other societal concerns affecting the oil and gas industry.⁶

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⁶See National Petroleum Council reports: The Potential for Natural Gas in the United States, December 1992, and U.S. Petroleum Refining, September 8, 1993.

Issue Area 7.0

Simplify Regulation Without Compromising Environmental Protection

Option 7.7

Consider the Findings and Recommendations of the National Petroleum Council Report on U.S. Petroleum Refining

This option would entail the Department of Energy (DOE) taking steps to consider the findings and recommendations of a two-and-one-half-year comprehensive study on the future of U.S. petroleum refining that was undertaken by the National Petroleum Council (NPC), an advisory committee to the Secretary of Energy.⁷ The NPC is a federally chartered, privately funded advisory committee established in 1946. Its purpose is to advise, inform, and make recommendations to the Secretary on matters relating to oil and natural gas and the respective industries.

The U.S. refining industry is a vital link in the nation's industrial and economic health. During the 1980s, even though the industry earned a modest profit of about 2.5 cents per gallon and realized an average return on investment of 8.8%, 120 refineries shut down. Profits in 1991 and 1992 have been much lower and refineries have continued to shut down. To comply with environmental regulations, the NPC estimates that the total cost of supplying light products to consumers is projected to increase by 6 and 10 cents per gallon by 1995 and 2000, respectively. These cost increases far exceed the past profitability of the industry and will have to be reflected in the marketplace. Investments in the 1990s to meet environmental requirements on refineries and products are projected by the NPC to be \$37 billion. This is greater than the current \$31 billion book value of the refineries themselves.

Both the DOE Fossil Energy and Energy Efficiency Offices conduct research programs related to the petroleum refining industry and are currently developing a coordinated research and development plan.

Implementation

Actions that should be taken by the Department of Energy include:

- In the near term, host one or more seminars whereby the experts who prepared the NPC report can present the findings of the report, and describe the analytic efforts upon which these findings are based, to other interested stakeholders, government personnel, and Congressional staff.

⁷See U.S. Petroleum Refining, National Petroleum Council, September 8, 1993.

- In the longer term, establish a joint Department of Energy and Environmental Protection Agency working group to review the NPC report and develop a strategy for maintaining a more viable domestic petroleum refining industry. This strategy may include examining the feasibility of more innovative, cost-effective approaches to regulating the refining industry.

Measures of Success

- **Public and private costs:** Benefits include potential cost savings for industry and consumers.
- **Federal outlays:** FY 1994: \$100,000 for strategy development and working group support. Additional costs may be incurred for outyears depending on the content of the strategy and the role of government as perceived by the workgroup.

Political Sensitivity/Affected Stakeholders

These actions would be consistent with other options being proposed under the Domestic Gas and Oil Initiative in Issue Area 7.0, specifically those related to streamlining regulation (Option 7.1); enhancing regulatory decision-making capability (Option 7.3); and promoting dialogue and partnerships to balance energy, economic and environmental objectives necessary for sustainable development (Option 7.6).

Overall, the option supports alternative environmental compliance demonstration projects and other efforts related to more innovative, cost-effective regulation that the Environmental Protection Agency, industry, and other stakeholders are contemplating under the auspices of the President's Council on Sustainable Development, and that the Department of Energy is considering pursuant to the Domestic Gas and Oil Initiative (see Option 7.5). In an August 30, 1993 statement, Secretary O'Leary pledged to use the report in discussions with Environmental Protection Agency Administrator Carol Browner to identify cost-effective ways to meet the Administration's environmental objectives.

Key stakeholders include the refining industry and consumer groups. This option can build on the positive efforts of the Environmental Protection Agency's in-house "cluster group" on petroleum refining, and ongoing efforts of the DOE Fossil Energy and Energy Efficiency Offices to develop a coordinated plan addressing collaborative, cost-shared petroleum refining research plan.

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Issue Area 8.0

Evaluate Access to Federal Lands

Option 8.1

Implement Federal Lands Task Force

The nation's public lands are one of its most precious resources, and it is entirely appropriate to safeguard and preserve these lands for future generations. However, with advanced technologies and careful extraction practices, it is no longer the case that our stewardship obligations are inconsistent with the extraction of subsurface resources.

Federal lands comprise some 727 million acres of property onshore, nearly one-third the entire land area of the United States. Approximately 41% of these lands are currently inaccessible to the gas and oil industry for exploration or production. Today, large portions of the outer continental shelf (OCS) are restricted from gas and oil development under executive and legislative moratoria.

The U.S. leads the world in the development of environmentally effective technologies for exploration and development of gas and oil in frontier areas. We should retain this leadership not only for ourselves, but for the planet we share. This base of knowledge contributes to the tools available internationally for environmentally responsible gas and oil development as other nations push offshore and into the Arctic.

Implementation

As part of the Domestic Gas and Oil Initiative, a Department of Energy/Department of Interior task force will be established to work together to encourage gas production, and to consider questions of access to public lands, lease buybacks, and revenue sharing. Among the issues to be addressed are:

- Achieving adequate consultation with local interests and all affected stakeholders; for example, periodic roundtables with stakeholders may be part of the process.
- Using facilitated conflict resolution mechanisms to resolve questions of access among interested parties.
- Developing specific plans for various offshore regions with natural gas potential.
- Considering how to respond to industry requests for buyback of leases in areas under long-term moratoria.

- Understanding the Administration's position on OCS revenue sharing.
- Recognizing the special nature of Alaska.

Measures of Success

- **Change in oil and gas production:** Would increase oil and gas production. Data available for specific areas only. Summary data not available.
- **Change in oil and gas demand:** Not applicable
- **Economic costs/benefits**
 - **Direct and indirect jobs:** Would create U.S. jobs; number not estimated.
 - **Costs or cost savings to industry:** Not applicable
 - **GDP:** Not estimated
 - **Balance of payments:** Would have a positive effect on the balance of payments, amount not estimated.
 - **Impacts on other industries/manufacturing:** Would have a positive effect on industries that support the gas and oil industry.
- **Federal outlays (FY1994 to FY2000):** Consultation, planning, and process-related outlays required. Not estimated.
- **Federal revenues:** Increased access would increase Federal revenues. Some data available for specific areas only. Lower short-term royalties possible. Summary data not available.
- **State revenues:** Greater access would increase revenues for producing States. Specific data not available.
- **Cost effectiveness:** Not estimated
- **Environmental costs/benefits:** Would help offset some impacts associated with tankering by slowing increases in oil imports. Environmental benefits would be offset by potential environmental costs:
 - Changes in habitat availability and quality.
 - Local change of species abundance and distribution.
 - Conflicts with other land uses
 - Changes in land use and 'lifestyles'
 - Impact on tourism and recreation.
 - Population growth leading to increased in demand for community services.
- **Administrative complexity/improvements:** Not applicable
- **Technological advancement:** Not applicable

Political Sensitivity/Affected Stakeholders

This option has a broad range of affected stakeholders including States, Tribes, industry, and environmental groups. Political sensitivity is high in some areas. Public opposition varies depending on specific locations. Opposition to leasing is strongest in OCS moratoria areas, near National Parks, in roadless and other wilderness areas, and wildlife refuges.

Legislation would be required to lift or avoid OCS moratoria.

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Issue Area 8.0

Evaluate Access to Federal Lands

Option 8.2

Develop Gas and Oil Resources of the Naval Oil Shale Reserves

This option seeks to assess the gas and oil resources of the Naval Oil Shale Reserves and to develop such resources if the assessment is favorable.

The three Naval Oil Shale Reserves, located in Colorado and Utah, cover a combined area of about 145,000 acres. These areas were originally set aside by Congress because they contain large volumes of a substance (Kerogen) trapped in shallow fine-grained rocks called oil shales. This substance can be processed into a synthetic crude oil. Development of this resource will be deferred until crude oil prices are high enough to justify the capital expenditures that will be needed. However, all three of the Reserves are favorably situated in areas of the Rocky Mountain region that produce gas and oil from conventional reservoir rocks. Based upon current and past production from gas and oil fields located in the vicinities of the Naval Oil Shale Reserves, recovery of between one and two trillion cubic feet of gas can be expected from the two Colorado Reserves with the potential for an additional 10 million barrels of oil and 0.5 trillion cubic feet of gas from the Reserve located in Utah. The total value of the conventional, hydrocarbon resource contained in the Reserves is very likely to exceed several **billon dollars**, but the true value has not been determined.

Implementation

The proposed program key activities and costs are summarized in Table 1.

The first phase of the program, begun in January 1993, will consist of (1) reprocessing seismic data that are available in the DOE archive, (2) acquiring additional, commercially available seismic data, and (3) producing an initial assessment of the gas and oil potential of Naval Oil Shale Reserves Nos. 1, 2, and 3. This work will be conducted by the U.S. Geological Survey staff located in Denver, with technical collaboration and procurement provided by the DOE/NPSR-CUW field operations office located in Casper, Wyoming. Candidate sites for confirmation drilling will be identified for further investigation as part of the Phase 1 effort. This phase will be completed in April 1994. The U.S. Geological Survey will continue active involvement in the following phases of the project.

Phase 2 will begin in fiscal year 1994. The principal activity will be to conduct detailed seismic surveys over candidate drill sites to enable selection of specific locations for future drilling. This activity is expected to continue throughout the project until the last of the confirmation wells is completed as each new well adds to the knowledge base available for selection of future drill sites.

The drilling phase of the program (Phase 3) will begin in 1995 with the drilling of two wells, one in NOSR 1 and one in NOSR 2, to provide (1) measurement of rock properties from drill cuttings, well logs and selected core intervals, and (2) seismic wave velocities as a function of depth to enable time-to-depth conversion of the seismic data. If funds permit, these wells will be drilled through the entire sedimentary section in each basin (i.e., they will sample the entire stratigraphic column; hence the term "strat test").

Four additional wells will be drilled during 1996 and 1997 to complete the final phase (Phase 4) of the project. These will be drilled on structures considered prospective for gas and/or oil and will be used to test potential reservoir rocks for the presence of hydrocarbons.

Measures of Success

- **Federal revenues:** Assessment of the gas and oil resources of the Naval Oil Shale Reserves, followed by prudent development of those resources, could add several billion dollars to federal revenues while leaving the oil shale resource in tact for future use.
- **Federal outlays:**

Fiscal Year	Program Elements	Source of Funds	Funding Level*
1993	Begin Phase 1. Reprocess and interpret seismic data.	Use existing funds	\$400,000
1994	Begin Phase 2. Complete detailed seismic surveys and select strat test drill sites.	Use existing funds	\$1,300,000
1995	Drill strat tests at Naval Oil Shale Reserve No. 1 and Naval Oil Shale Reserve No. 2 (1 each).	New budget authority	\$11,000,000
1996	Begin Phase 3. Drill two verification wells.	New budget authority	\$6,000,000
1997	Complete Phase 3. Drill two additional verification wells.	New budget authority	\$6,000,000

* Funding for participation of the U.S. Geological Survey (\$250,000/year) is included in the budget figures.

Political Sensitivities/Affected Stakeholders

Legislation has been introduced to lease the Naval Oil Shale Reserves located in Colorado on terms that are favorable to the state of Colorado and to future lessees, but that are unfavorable to the bulk of U.S. taxpayers.

Native American tribal members who hold mineral rights on lands located near the Utah Naval Oil Shale Reserve could benefit from the resource assessment/development proposed here if the work area were enlarged to include the Native American properties.

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Issue Area 9.0

Work with States and Tribes

Option 9.1

Work with States on the Domestic Gas and Oil Initiative

This option entails the Federal government working cooperatively with States, particularly oil and gas producing States, to develop and implement the Domestic Gas and Oil Initiative. States have a primary role in regulating activities of the oil and gas industry in Alaska and the lower-48 States relative to resource conservation, environmental protection, and the use of natural gas. For more than fifty years, State officials have been leaders in the evolution and execution of America's energy policy. Prior to 1973, the governors of producing States virtually directed the nation's energy policy themselves, in part because of a policy-making vacuum at the Federal level related to energy matters.

In June 1993, the Interstate Oil and Gas Compact Commission (IOGCC), the association of the governors of 29 oil and gas producing States established in 1935, passed a resolution that broadly supports the Domestic Gas and Oil Initiative and urges member States to immediately make available all resources at their disposal to assist the Administration in developing workable energy policies. The resolution responds in part to a challenge of Secretary O'Leary, as presented in remarks by William White, Deputy Secretary of Energy, for the IOGCC to be actively involved in developing energy solutions.

Implementation

Actions that could be taken by the Department of Energy (DOE) include:

- In the near term, investigate opportunities to discuss the Domestic Gas and Oil Initiative with States, and solicit input.
- Strengthening ongoing interactions with States' organizations specific to the Domestic Gas and Oil Initiative. This may include undertaking projects or studies jointly sponsored by DOE and organizations such as the IOGCC, the Energy Council, National Governors Association, and National Association of Regulatory Utility Commissioners.

- Work cooperatively with individual States to identify, and take steps toward resolving, key issues constraining oil and gas supply at the State and regional level. This may include fostering partnerships between diverse groups of stakeholders (e.g., producers, consumers, environmental groups, State regulatory officials, State legislators). Possibilities to explore include conducting a pilot project in Kansas under the leadership of the Governor to address the marginal economics of stripper wells which represent 74% of production within the State.

Measures of Success

- State participation is key to the success of the Domestic Gas and Oil Initiative.
- **Public and private costs:** Potential for cost-sharing and cost-savings if individual States are willing to undertake pilot projects that can serve as models for other States.
- **Federal outlays:**
 - FY 1994 \$100,000
 - FY 1995 \$100,000
 - FY 1996 \$50,000
 - FY 1997-2000 \$0

Political Sensitivity/Affected Stakeholders

Potentially benefits all stakeholders. Responds to interest exhibited by the States in the Domestic Gas and Oil Initiative and national energy policy. Recognizes the key role that States play in regulating the oil and gas industry.

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Issue Area 9.0

Work with States and Tribes

Option 9.2

Decrease Dependence on Oil Imports by Developing Tribal/Government Partnerships

This option seeks to assist Native Americans in the development of oil and gas resources on Tribal lands. Such assistance has the potential for reducing development obstacles and alleviating Native American poverty.

Title XXVI of the National Energy Policy Act (EPACT) authorizes the Department of Energy (DOE) to fund up to \$30 million during each fiscal year from FY 1994 to FY 1997 for (1) grants to Indian Tribes and joint ventures for obtaining the managerial and technical capabilities to develop their fossil and/or renewable energy resources, (2) grants, not to exceed 50% of the project cost, for vertical energy integration projects on reservations, and (3) low-interest loans.

Proposals are already starting to come forward. The Navajo Nation, for example, has made preliminary inquiries about DOE funding for a vertical integration project that would allow them to: (1) develop their own petroleum resources, (2) purchase a refinery, and (3) establish a retail marketing system. It is timely for DOE to develop its policy for carrying out its EPACT obligations and determining whether one or more Tribal projects might be used as a prototype to assist Tribes in managing and developing their energy resources.

Implementation

DOE would work with the Administration for Native Americans, Department of Interior agencies, the Council of Energy Resource Tribes, and other Indian organizations including individual Tribes to facilitate the following:

- Provide internship opportunities for individual Indians to obtain oil and gas production and management skills at the Strategic and Naval Petroleum Reserves and encourage maintenance and operations (M&O) contractors to do likewise.
- Support proposed projects by individual Tribes, such as the vertical integration projects called for by EPACT, while developing appropriate information transfer components that will benefit other Tribes as well.

- **Work with the Council of Energy Resource Tribes to build a management and technical foundation at the Tribal level, including ability to assure compliance with environmental laws and regulations.**
- **Seek opportunities to facilitate and enhance the evolving alliance between Tribes and industry.**
- **Exercise leadership within the Administration to support and encourage an expanded Bureau of Indian Affairs resource assessment program.**
- **Continue to foster basic science and math education for Indian youth to encourage skills that meet the needs of Tribes in areas such as data management.**

Measures of Success

- **Change in oil and gas production:** Increased domestic production will occur. Amount not quantified.
- **Change in oil and gas demand:** Not applicable.
- **Economic costs/benefits**
 - **Direct and indirect jobs:** Significant potential reduction in Indian joblessness.
 - **Costs or cost savings to industry:** Not applicable.
 - **GDP:** Not estimated.
 - **Balance of payments:** Potential for increased production to avoid or offset imports.
 - **Impacts on other industries/manufacturing:** Indirect by improving opportunities for Indians as consumers.
- **Federal outlays (FY1994 to FY2000):** Not yet available.
- **Federal revenues:** Not applicable.
- **State revenues:** Not applicable.
- **Cost effectiveness (\$/barrel):** Not yet available.
- **Environmental costs/benefits:** Increased wealth will permit Tribes to address existing environmental problems in Indian country.
- **Administrative complexity/improvements:** Not applicable.
- **Technological advancement:** Not applicable.

Affected Stakeholders

Partnerships with Tribes have the potential to increase domestic oil and gas production while helping to alleviate Indian poverty. They have the long-term potential to lead to increased Indian health and improved education, and can lead to increasingly self-sufficient citizens.

Political Sensitivity/Legislative Requirements

Fairness in selecting projects will be very important. Because competition among the Tribes for Federal assistance is high, selection criteria must be clearly articulated in advance and equal opportunities must be given to all participants to avoid disputes over selected projects. Any significant reprogramming of DOE funding will require Congressional approval.

Status of Analysis

Ongoing.

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Issue Area 10.0

Increase Production on the West Coast

Option 10.1

Remove California Refining Bottleneck to Domestic Heavy Oil Production

This option would provide incentives for California (PADD V) refineries to increase their heavy oil processing capacities. West Coast refineries now refine about 2.8 million barrels per day (mmbd) of crude oil; about 1.8 mmbd is refined in California. At current Alaskan North Slope (ANS) production levels, ANS 27° gravity oil is the dominant feedstock for California refineries. Despite southern California's huge heavy oil resources, heavy oil ($\pm 13^\circ$) constitutes only a third of California's crude feedstock, or 650,000 barrels per day (bpd). The principal reason for this is a shortage of the extra carbon-reduction and/or hydrogen-addition processing capacity needed to transform heavy oil, with its high residua component (typically 45% to 60%), into modern transportation fuels. Such capacity in California, as measured by "thermal cracking" capacity, approximates 550,000 bpd.

Unless thermal cracking or alternative upgrading capacity is increased, additional heavy oil production and use in California is impossible. This is the case even in the event barriers to ANS oil export are lifted and/or production declines set in, such that surplus ANS oil for West Coast use no longer exists. Under prevailing unrestrictive import conditions, the expedient course of action for many refiners under declining ANS conditions would be to bring in replacement light oil imports.

There is reason to believe, however, that incentives for U.S. refineries to increase their use of domestic heavy oil could tilt refiner industry interest toward equipping themselves to process more heavy crude. In turn, this could lead to a rise in California heavy oil production, and net reduction in oil imports. A beginning target for this production increase would be 100,000 bpd within six years, or by 2000. Known California heavy oil resources are immense, and will support this and additional production increases extending beyond 2030.

To provide some insight into what might be the most stimulative incentive to increase heavy oil processing capacity, a casual telephone survey of managers of several small and large California refiners was made by the Department of Energy's Office of Fossil Energy. It revealed that operators in general:

- Had no firm plans to add upgrading capacity.
- Expressed concern that the significant capital now needed to comply with the new environmental regulations (especially the Clean Air Act Amendments) were inhibiting technical improvements.

- Were comfortable with current upgrading technology options, and intended to principally use conventional coking technology rather than more capital-intensive hydrogenation approaches.
- Believe that with market prices rising to allow recovery of necessary "defensive" investments, they could work with California regulators and meet new product and operating environmental regulations.
- Operate with great sensitivity to the margins between product and crude prices relative to changing their crude feed as their equipment might allow.
- Agree that such margin and configuration sensitivities can be synthesized into a market-clearing "spread" in the price difference between crudes of different quality.
- Subscribe to economics as their principal driver, and if presented with a significant financial incentive, would reevaluate their investment planning.

The proposed incentive would be a Federal tax credit averaging \$1.35 per incremental, domestically produced barrel of 13° API heavy oil equivalent processed over the base period. With a modest accompanying State (and local) tax incentive, the average credit per barrel would approximate 40% of the \$3 to \$4 per barrel price differential between 27° ANS and 13° Kern River crudes. This strawman proposal seeks to:

- Secure upgrade investment for domestic crude feedstock only (not imported heavy oil).
- Accommodate operating risk difference between conventional coking technology and advanced, high-pressure hydrogenation upgrading technology.
- Obtain partial matching incentive through State (and local) participation.
- Provide a readily implementable approach.

It assumes the following:

- No increase in refinery distillation capacities, only upgrading capacity.
- On average, one barrel of upgrading capacity must be added for four barrels of existing capacity. Investment required will approximate \$12,000 per barrel of upgrading capacity.

- Half of investment is current technology, half advanced.
- Investment recovery factors:
 - Current technology: 12% ROI and 20 years, or \$1.05/barrel
 - Advanced technology: 15% ROI and 10 years, or \$1.55/barrel.
- State match @ 10%, or \$0.10 to \$0.15 per barrel.
- Credit only available to refineries with certified investment commitment after date of legislation proposal.
- Credit adjusted annually to insure that oil is (a) domestic, (b) equivalent to 13°, and (c) incremental on overall State basis to present production levels of heavy oil.

Implementation

A four-step implementation process would be followed:

- Establish and activate an interagency team with the Departments of Commerce and Treasury to further examine and refine investment incentive options designed to stimulate construction of additional heavy oil upgrading capacity in California. This examination should take six or fewer months and will include:
 - Verification of option survey results and underpinning of the proposed targeted tax investment credit.
 - Ensuring through follow-up refiner and producer interviews that no insurmountable environmental, production or other barriers relative to reaching the beginning and successive targets have been overlooked.
 - Evaluation of State (and local) support and credit and/or in-kind participation options.
 - Integration of this incentive with other proposed California economic initiatives.
- Select investment incentive option.
- Propose enabling legislation.
- Assist the Internal Revenue Service in implementation.

Note that the proposed incentive would be in addition to the research and development efforts now underway by the Office of Fossil Energy to improve upgrading technology. Those efforts focus on advanced process development, including hydrogen separation, and on techniques to meet environmental operating requirements.

Measures of Success

Target is to secure in six years a net addition in California upgrading capacity sufficient to refine to liquid transportation fuel for California use an additional 100,000 bpd of 13° API (average) domestic heavy oil.

Additions include coker, catalytic cracking unit, desulfurizing, and related unit additions. To achieve comparable product outputs with heavy crude, a refinery now handling only light oil (i.e. Elk Hills) must install the equivalent of half of its capacity in coking/cracking units. If it now is handling only ANS crude, it must install the equivalent of one fourth of its overall capacity in coking/cracking units, or double its present coking/cracking capacity.

	<u>Year 2000</u>	<u>Year 2010+</u>	<u>Year 2020+</u>
Change in oil production:	50,000 bpd	100,000 bpd	100,000 bpd
Change in gas demand:	1 MMcf/day	2 MMcf/day	2 MMcf/day
Economic costs/benefits			
- Direct and Indirect jobs:			
-- Construction (Direct):	1,900 annual	0	0
-- Construction (Indirect):	3,800 annual	0	0
-- Production (Direct):	1,000 annual	2,000 annual	2,000 annual
-- Production (Indirect):	2,000 annual	4,000 annual	4,000 annual
- Cost savings to industry:	NA	NA	NA
- GDP* (billion/yr):	.66	.95	1.10
- Balance of payments (billion/yr):	.42	1.05	1.20
Impact on other industries:	Included	Included	Included
Federal outlays:	0	\$50 million	\$50 million
Federal revenues @ 20% GDP*:	\$133 million	190 million	220 million
State revenues @ 5% Oil Value*:	\$33 million	\$53 million	\$60 million
Cost effectiveness:			
- Federal tax credit/b:	1.35/b	1.35/b	1.35/b
- Federal incremental revenue/b:	7.30/b	5.20/b	6.00/b

* Includes construction impact in 2000.

+ With positive refiner response, production increment could increase to 300,000 bpd or higher.

Political Sensitivity/Affected Stakeholders

There seem to be few negatives to this option. Although some large refiners might not like the additional competition if others expand their capacity and they choose the imported light oil route with any ANS decline, they would not be threatened. If they see investment attractiveness rise with incentive availability, even with the long-term uncertainty of the California transportation fuel market, many will respond. Heavy oil producers will welcome the new market. Oil prices will stabilize. Expanding offshore crude production (i.e. Arguello and San Ynez) will be absorbed more readily into the market without depressing prices.

Status of Analysis

Once screened, this analysis will be further refined as appropriate before review with interagency team. Detailed modelling of the West Coast-Pacific refining and product markets is anticipated to more fully estimate the extent and pace to which this initiative might stimulate California production.

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Issue Area 10.0

Address West Coast Production Constraints

Option 10.2

Open Access to Crude Oil Pipelines in California

This option would promote open access to now-proprietary crude oil pipelines in California and facilitate construction of a new pipeline that would eliminate bottlenecks. Without additional pipeline capacity, it is unlikely that the full production potential of the California Outer Continental Shelf (OCS) will be realized.

Almost 70% of California's crude oil is heavy crude produced in the San Joaquin Valley and from the OCS. Most of the production is several hundred miles from the refining centers and ports of Los Angeles and San Francisco. This heavy oil must be heated or diluted before it can be shipped on pipelines to refineries.

Only one pipeline leaving the San Joaquin Valley, Arco's Line 63, is a common carrier; the rest are operated as proprietary pipelines by the major refiners (Chevron, Mobil, etc.). As a result, the independent producers, who predominate in the valley, cannot market crude in California's refining centers and must accept low prices offered by major refiner/pipeline owners.

Lawsuits by the City of Long Beach, a major California recipient of oil royalty income, have alleged that, by controlling the pipelines, the major refiners have depressed crude oil postings and acted in restraint of free trade. This position was supported by a Federal study chaired by the Commerce Department in 1988 and by a report from the Department of Interior Inspector General in 1991. Although most of the pipeline owners have settled with the City of Long Beach and agreed to operate as common carriers (or have received court rulings to that effect), these pipelines have not yet posted acceptable tariffs for common carriage.

Some relief is offered by the Cajon pipeline project, a common carrier heated line that would connect the valley to Los Angeles. This 180 mb/d capacity pipeline could carry the overflow of new Santa Barbara County heavy OCS crude production that will take place in the next few years. It also would provide common carrier capacity for independent producers in Kern County, relieve pressure on the existing pipelines, and eliminate the need for tankering OCS oil down the California coast. The latter is a strategy that is quite profitable for Chevron and Texaco, but anathema to environmentalists. Chevron's permits for tankering production from the Arguello processing facility are only temporary, and none have been granted for Exxon's scheduled production increase at Santa Ynez 11 miles down the coast from Arguello.

The Arguello partners are also involved with the Southern Pacific pipeline project, which would follow the Southern Pacific Railroad right-of-way down the coast in Santa Barbara and Ventura Counties into Los Angeles. This project is believed to be far behind the Cajon pipeline project due to the permitting difficulties; it may not be feasible because of the sensitivity of the real estate it would transit.

Implementation

The Department of Energy (DOE) would work with the Federal Energy Regulatory Commission and the California Public Utilities Commission to expedite fair and equitable pipeline tariffs for the central California pipelines. One of the pipelines, Mobil's heated M70 line, is subject to the common carrier requirements of the Mineral Leasing Act. DOE would support and encourage the Department of Interior in enforcing this statute.

The Cajon pipeline has received most of the federal permits it needs. In addition, the Arguello partners, under pressure from the terms of their tankering permit, have pledged \$3 million in engineering funds to the project. The permit requires that the Arguello partners sign pipeline throughput agreements by early 1994 that would pave the way for financing and starting construction on the Cajon line. DOE would support the Cajon project by encouraging the California Coastal Commission to adhere to the terms of its current tanker permits so that early construction of the Cajon line can begin. On an as-required basis, DOE would support the project with the Department of Interior and encourage speedy processing of permits and other requirements for construction through Federal lands.

Measures of Success

Creating a competitive crude oil market in California might raise crude oil prices by \$1.50 to \$2.80 per barrel, depending on whether or not ANS crude oil can be exported. California independents produce 25% of California's crude oil, so this option would generate between \$130 million and \$240 million per year more in cash flow for that industry segment in the state, predominantly from higher crude prices. Most of this would be taken from major refiners' margins (see discussion under Option 10.1).

The increased revenues could generate a substantial number of jobs, because independents are more likely to reinvest in the state rather than overseas. Additional temporary employment would result from constructing the Cajon pipeline, as well as from production increases related to higher oil prices (see other California issue discussions). Production increases directly related to higher oil prices might total 18-33 mb/d and a rise in production would back out imports barrel-for-barrel in the late 1990s.

Costs and Benefits of California Pipeline Open Access

Changes in:

- Oil production (California): 18,000-33,000 b/d
- Oil demand: Unchanged
- Economic effects
 - Employment (direct and indirect): 1080-1980
 - Industry cost: Net of zero. Producers would make what refiners pay in higher crude oil prices.
 - GDP (year 2000): \$150-\$275 million
 - Trade effect: \$150-\$275 million
 - Non-petroleum industry costs: None identified
- Federal outlays: None
- Federal revenue (OCS royalties): \$18-\$34 million/year
- State revenue (California): \$7.2-\$13.4 million/year
- Cost/barrel: Initiative is revenue positive (no cost).
- Environmental cost/benefits: Pipelines preferred over tankers by environmentalists.
- Administrative complexity: Negligible
- Technological advancement: Not applicable

Political Sensitivity/Affected Stakeholders

The major refiners in California will object to Federal involvement in California oil industry issues. Independent refiners may also object to actions that might raise their crude oil costs. It is likely that the county of Santa Barbara and the Coastal Commission will remain skeptical about Federal intentions because of actions by the DOE and the Interior Department on the Point Arguello tankering issue in 1990. DOE initially attempted to negotiate an agreement on partial tankering (much like the permit now in effect) with the county. Then, when Chevron refused to negotiate, DOE sided with Chevron against the county, and the Department of the Interior later took a similar approach.

This option would be supported by both environmentalists and the maritime associations and unions. Environmentalists prefer pipeline shipments of crude oil compared to the alternative use of tankers. U.S. maritime representatives would argue that the primary problem causing low crude oil prices in California is that major refiners' control of the pipelines inhibits development of a free and open market.

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Issue Area 11.0

Communicate the Strategic Importance of the Gas and Oil Industry

Option 11.1

Develop and Implement a Public Awareness Program for Gas and Oil

This option examines the role of government in developing a public awareness program to convey the strategic role of the domestic gas and oil industry and to build support for responsible development of domestic resources.

The public does not understand the role that domestic gas and oil resources play in the national economy. The public expects cheap energy supplied in a reliable manner, and any deviation from this leads consumers to characterize the "industry" as gouging the consumer or being environmentally irresponsible. These highly negative public perceptions of the exploration and producing industry create built-in opposition to many positive programs such as exploration and development on public lands and energy project developments, and lead to calls for more regulation and enforcement, costing the economy millions to billions of dollars in compliance. With different public perceptions, many of these prescriptive (command-and-control) regulations could be replaced with less expensive but more effective approaches.

Some local governments have exerted jurisdiction over gas and oil drilling and production operations, imposing fees, bonds, or other restrictive requirements (e.g., \$5,000 zoning certificates for drilling operations). In some parts of the country, citizens have successfully demanded that buffer zones around urban or residential areas be incorporated in State regulations.

Stakeholders have repeatedly suggested that the Department of Energy (DOE) and the President should exercise leadership to set the record straight about the strategic role of the industry, to counter misperceptions, to publicize successes, and to demonstrate that environmental and energy values can be consistent. They suggest that the Secretary of Energy and the President use the "bully pulpit" to convey these messages.

Implementation

Possible alternatives include:

- Developing an Energy Showcase program similar to the Minerals Showcase program of the U.S. Forest Service.

- Expanding government/industry participation in and support for the National Energy Education Development Project and similar efforts to help teachers and students become more knowledgeable about energy issues.
- Developing and distributing educational materials that demonstrate the oil and gas industry's strategic role.
- Developing and distributing materials to facilitate DOE gas and oil technology transfer.
- Establishing facilitated, collaborative regional efforts to address energy and environmental issues:
 - Work with States, professional associations, and others to develop and distribute materials to educate persons directly affected by gas and oil activities.
 - Showcase win-win stories of alternative dispute resolution for disagreements between the energy industry and environmental groups.
 - Create an awards program for industry members who are good environmental or civic citizens.
 - Establish workshops for encouraging dialogue between community and industry representatives.
- Developing an industry/government partnership to recommend practices for small footprint and other low-impact exploration and development processes.
- Considering how DOE could use its "bully pulpit" to encourage and facilitate these approaches.

Measures of Success

- **Change In oil and gas production:** Not quantifiable
- **Change In oil and gas demand:** Not quantifiable
- **Economic costs/benefits**
 - **Direct and Indirect jobs:** Not quantifiable, but likely to lead to long-term job increases assuming successful awareness program
 - **Costs or cost savings to Industry:** Not quantifiable
 - **GDP:** Not quantifiable
 - **Balance of payments:** Not quantifiable
 - **Impacts on other Industries/manufacturing:** Not quantifiable; but likely to support long-term positive impacts assuming successful public awareness program.

- **Federal outlays:** A robust public awareness program can be a costly enterprise. Combining this program with an effort to publicize DOE gas and oil technology transfer can make the combined program quite expensive. For example, one estimate of just the technology transfer publicity program is \$7-10 million annually over five years. A more realistic effort for the entire program is \$5 million total for five years or \$1 million per year for the next five fiscal years.
- **Federal revenues:** Not quantifiable; likely to be zero
- **State revenues:** Not quantifiable; likely to be zero
- **Cost effectiveness:** Not quantifiable
- **Environmental costs/benefits:** Not quantifiable; however, a successful public awareness program could reduce environmental burdens to the extent the public understands present costs and reduces pressure for additional environmental programs and/or allows more effective, less costly alternatives.
- **Administrative complexity/improvements:** A successful public awareness program could lead to reduced administrative costs on the industry by allowing present leasing and regulatory approaches to be streamlined.
- **Technological advancement:** None

Affected Stakeholders

Stakeholders/participants in this process include gas and oil producers; environmental and public interest groups; Congress; State and local governments; Federal, State, and local regulatory agencies; and schools, energy consumer associations, and others.

Political Sensitivity/Legislative Requirements

A public awareness program should not elicit opposition if it is broad-based and encompasses constituencies outside of energy, including environmental and consumer groups. It is possible that a public awareness program initially will be viewed with suspicion by environmental groups and those opposed to energy development, since it could be thought to lead to energy development in environmentally sensitive areas or in a manner unresponsive to local needs and concerns.

Staff Contacts

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Issue Area 11.0

Communicate the Strategic Importance of the Gas and Oil Industry

Option 11.2

Enhance National Petroleum Council Scope

This option would diversify the current membership of the National Petroleum Council (NPC), which functions as the Secretary of Energy's gas and oil advisory panel, and would commission a study by the Council to analyze the significance of gas and oil, and of the domestic gas and oil industry, to the nation and the economy. The study would also analyze public understanding of the industry, and develop appropriate recommendations for improving public understanding to more accurately reflect the significance of the industry. A diversified Council will also be of significant value to the Secretary in building consensus on environmentally sensitive issues such as public lands.

The NPC is chartered for approximately 150 members, with 143 currently on the active roster. The largest number (54) are independent oil/gas producers, with 21 representatives from major or large integrated oil and gas companies, 22 officials of natural gas companies, and 13 independent marketers and refiners. Four members represent the chemical and transportation industry and other oil/gas users. Only nine members are outside of the natural gas and oil industry. All memberships are eligible for renewal in November 1993, concurrent with the renewal of the charter of the Council.

Implementation

In renewing the charter of the NPC for an additional two-year term, DOE would increase the number of members reported in item 11 from 150 to 175, adding 15 to 20 individuals from environmental organizations, public interest and consumer groups, and additional end-user groups (such as manufacturers). Normal attrition and rotation would occur within the traditional member classifications (particularly in the large group of independent operators). Currently, there are nine non-industry members on the NPC. Following implementation of this option, there would be about 30 members who could bring a public/consumer/environmental perspective to the Council.

At the fall/winter meeting of the Council, the Secretary of Energy would formally commission a study of government/industry roles to:

- Disseminate facts about the role of oil/gas industry in U.S. economy;
- Bring industry, government, and interest groups closer together where disagreements have created barriers to domestic production;

- Settle disputes without litigation; and
- Remove the "rape and pillage" image of industry.

Measures of Success

Not available.

Public and Private Costs

The NPC is a self-financing organization, relying on voluntary member contributions to carry out its tasks. The larger organizations carry the majority of the financial burden. Adding non-profit and other representatives who are less likely to make a significant financial contribution would not add significantly to the financial burden on the Council. DOE has previously incurred the travel expenses of non-profit, educational and other non-industry representatives to the semi-annual meetings and would continue to do so.

Political Sensitivity/Affected Stakeholders

Environmental/public interest groups may endorse this option, although in the past, the most active of these organizations have expressed only lukewarm support for participating in industry-dominated advisory panels. Similarly, some industry members may resent what they might consider a dilution of the Council. The couching of the first study request, and the study structure implemented by the Council, will be key in reducing these sensitivities.

Staff Contacts

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Types of Actions Required

Option	Solution Requires:			Comments
	Legislative Action	Regulatory Action	Administrative Action	
OBJECTIVE I: ADVANCE AND DISSEMINATE GAS AND OIL TECHNOLOGY				
1.0 Promote Technology Advancement through Gas and Oil Technology R&D				
1.1 Undertake Advanced Computational Technology Initiative			●	All R&D options would require Congress to provide funds and DOE to implement the programs.
1.2 Develop Natural Gas Advanced Rock Drilling Systems			●	
1.3 Develop a Commercialization Strategy for Natural Gas Technologies			●	
1.4 Stimulate Development of a Nationwide, Regionally Based Gas and Oil Technology Transfer Network and Assistance Program			●	
1.5 Fund Expanded Industry-Driven RD&D for Advanced Oil Recovery Technologies			●	
1.6 Conduct Advanced Geological Basin Analysis to Target Exploration for Bypassed Oil			●	
1.7 Target a Research Program Specifically at the Everyday Problems of Small Gas and Oil Producers			●	
1.8 Promote Expenditures on Advanced Computational Techniques and New Technologies Used in Exploration through Tax Credits	●			
1.9 Utilize the Naval Petroleum and Oil Shale Reserves for Advanced Technology Testing, Evaluation, and Training			●	
2.0 Improve Environmental Technologies and Practices				
2.1 Improve Environmental Compliance Technologies and Practices			●	
2.2 Accelerate Expensing for Capital Equipment Costs Associated with Environmental Compliance	●			
2.3 Establish Environmental Research Advisory Committee(s)			●	
2.4 Explore DOE's Role in Oil Spill R&D			●	
2.5 Study Used Oil Recycling			●	

Types of Actions Required

Option	Solution Requires:			Comments
	Legislative Action	Regulatory Action	Administrative Action	
OBJECTIVE II: STIMULATE MARKETS FOR NATURAL GAS				
3.0 Improve Natural Gas Deliverability				
3.1 Upgrade State Production Data Collection and Reporting			●	Requires budgetary support for fiscal year 1994
3.2 Build a National Deliverability Capacity Model			●	Requires budgetary support
3.3 Enhance Real-Time Monitoring and Automated Systems			●	No regulatory action required due to Order 636 implementation
3.4 Build System for Assessing Underground Storage Operations			●	Requires budgetary support
3.5 Match Gas Storage to End-User Requirements			●	No regulatory action required. Budgetary requirement for full demonstration
3.6 Demonstrate Storage Revitalization Technology			●	No regulatory action required. Project requires budgetary approval with funding by GRI.
3.7 Improve Storage Effectiveness for Problem Fields			●	No regulatory action required, only budgetary
4.0 Encourage Natural Gas Regulatory Reform and a Contract Portfolio Approach				
4.1 Federal Issues				
4.1a Ensure Robust Secondary Markets for Pipeline Capacity		●	●	EBB/EDI essential
4.1b Encourage Open Access to the Electric Transmission Grid		●		
4.1c Expedite Construction of New Natural Gas Facilities		●		
4.1d Develop Incentive-Based Rate Structures for Interstate Natural Gas Pipelines in Noncompetitive Markets		●		
4.1e Take a Leadership Role in Clean Cities Program			●	
4.2 State Issues				

Types of Actions Required

Option	Solution Requires:			Comments
	Legislative Action	Regulatory Action	Administrative Action	
4.2a Encourage Open Access for Gas Transporter through Distributor, to Resolve the Contract Portfolio Issue		●		
4.2b Promote the Use of Efficient Gas Pricing		●		
4.2c Encourage the End of Fuel-Specific Subsidies		●		
4.2d Promote Efficient Pricing of Electricity		●		
4.2e Foster the Use of Incentive Rate Design		●		
4.2f Encourage the Elimination of Regulations that Inhibit the Use of Natural Gas in Vehicles	●	●		States may have safety laws that need to be revised.
5.0 Provide Information Services				
5.1 Develop an Energy and Resources Mapping and Information System (ERMIS)			●	Requires budgetary support
5.2 Enhance Energy Information Administration (EIA) Natural Gas Storage Data Collection			●	Requires OMB approval Requires budgetary support
5.3 Develop Contact Lists Readily Accessible to the Gas and Oil Industry			●	Requires participation by other agencies
OBJECTIVE III: DEVELOP INTEGRATED OIL IMPORT POLICY				
6.0 Establish National Import Goals and Overall Strategy				
6.1 Establish Oil Import Policy Working Group			●	Might be administrative under 232 Authority
6.2 Stabilize Prices with Government Fuel Expenditures	●		●	Authorizing legislation/program development
OBJECTIVE IV: IMPROVE COMMUNICATION AND GOVERNMENT DECISION-MAKING				
7.0 Simplify Regulations Without Compromising Environmental Protection				
7.1 Streamline State and Federal Regulation		●	●	
7.2 Expand Regulatory Impact Analyses – E.O. 12291			●	
7.3 Enhance State and Federal Regulatory Decision-Making Capability			●	

Types of Actions Required

Option	Solution Requires:			Comments
	Legislative Action	Regulatory Action	Administrative Action	
7.4 Provide Proactive Support to Legislative Processes			●	
7.5 Progress beyond Command and Control Regulation	●	●	●	
7.6 Enhance Dialogue through Industry/Government/Public Partnerships			●	
7.7 Consider the Findings and Recommendations of the National Petroleum Council Report on U.S. Petroleum Refining			●	
8.0 Enhance Access to Federal Lands				
8.1 Implement Federal Lands Task Force			●	
8.2 Develop Gas and Oil Resources of the Naval Oil Shale Reserves				
9.0 Work with States and Tribes				
9.1 Work with States on the Domestic Gas and Oil Initiative			●	
9.2 Decrease Dependence on Oil Imports by Developing Tribal/Government Partnerships			●	Requires additional funding
10.0 Address West Coast Production Constraints				
10.1 Remove California Refining Bottleneck to Domestic Heavy Oil Production	●		●	R&D investments; tax credit
10.2 Open Access to Crude Oil Pipelines in California		●	●	Only enforcement required
11.0 Communicate the Strategic Role of the Gas and Oil Industry				
11.1 Develop and Implement a Public Awareness Program for Gas and Oil			●	
11.2 Enhance National Petroleum Council Scope			●	

Support Level by Stakeholder

Option	Integrated majors	Large Independents	Small Independents	Service companies	Refineries	Natural gas pipelines	Natural gas LDCs
OBJECTIVE I: ADVANCE AND DISSEMINATE GAS AND OIL TECHNOLOGY							
1.0 Promote Technology Advancement through Gas and Oil Technology R&D							
1.1 Undertake Advanced Computational Technology Initiative	P	SP	P	P-O	O	O	O
1.2 Develop Natural Gas Advanced Rock Drilling Systems	P	SP	P	SP	O	O	O
1.3 Develop a Commercialization Strategy for Natural Gas Technologies	O	O	O	O	O	P	P
1.4 Stimulate Development of a Nationwide, Regionally-Based Gas and Oil Technology Transfer Network and Assistance Program	P	SP	SP	O	O	O	O
1.5 Fund Expanded Industry-Driven RD&D for Advanced Oil Recovery Technologies	P	SP	SP	SP	O	O	O
1.6 Conduct Advanced Geological Basin Analysis to Target Exploration for Bypassed Oil	P	SP	SP	SP	O	O	O
1.7 Target a Research Program Specifically at the Everyday Problems of Small Gas and Oil Producers	N-O	P	SP	P	O	O	O
1.8 Promote Expenditures on Advanced Computational Techniques and New Technologies Used in Exploration through Tax Credits	SP	SP	SP	SP	O	O	O
1.9 Utilize the Naval Petroleum and Oil Shale Reserves for Advanced Technology Testing, Evaluation, and Training	P	P	P	SP	O	O	O
2.0 Improve Environmental Technologies and Practices							
2.1 Improve Environmental Compliance Technologies and Practices	SP	SP	SP	P	O	O	O
2.2 Accelerate Expensing for Capital Equipment Costs Associated with Environmental Compliance	SP	SP	SP	P	O	O	O
2.3 Establish Environmental Research Advisory Committee(s)	P	P	O	O	O	O	O
2.4 Explore DOE's Role in Oil Spill R&D	P	O	O	P	O	O	O
2.5 Study Used Oil Recycling	P	O	O	O	P	O	O

Key

SP = strong positive position
 P = positive position
 O = neutral
 N = negative position
 SN = strong negative position

Support Level by Stakeholder -- continued

Options	Utilities	Consumers: Residential/ Commercial	Industrial	Non-utility Generators	Producing States	Consuming States	Environ- mentalists	Public Utility Commissions	Public	Other Agencies	Comments	Regional Impact/ Sensitivity
OBJ. 1.												
1.0												
1.1	O	O	O	O	P	O	O	O	O	O	Service companies fear competition	Yes
1.2	O	O	O	O	P	O	O	O	O	O		Yes
1.3	P	P	P	P	P	P	P	P	P	O		No
1.4	O	O	O	O	P	O	N	O	O	O	Service companies fear competition	Yes
1.5	O	O	O	O	P	O	O	O	O	O		Yes
1.6	O	O	O	O	P	O	O	O	O	O		Yes
1.7	O	O	O	O	P	O	O	O	O	O		Yes
1.8	O	O	O	O	P	O	N	O	O	O	Service companies fear competition	Yes
1.9	SP	O	P	SP	P	P	O	P	O	P		Yes
2.0												
2.1	O	O	O	O	SP	O	SP	O	P	P		No
2.2	O	O	O	O	P	O	O	O	O	N-Treas.	For producing states	Yes
2.3	O	O	O	O	P	O	O	O	O	P		No
2.4	O	O	O	O	P	O	P	O	O	Mixed N-P		Yes
2.5	O	N	O	O	O	O	P	O	O	Mixed O-P		No

Key

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 P = positive position
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 N = negative position
 SN = strong negative position

Support Level by Stakeholder

Option	Integrated majors	Large Independents	Small Independents	Service companies	Refineries	Natural gas pipelines	Natural gas LDCs
OBJECTIVE II: STIMULATE MARKETS FOR NATURAL GAS							
3.0 Improve Natural Gas Deliverability							
3.1 Upgrade State Production Data Collection and Reporting	SP	P-Gas Prod.	P-Gas Prod.	O	O	SP	SP
3.2 Build a National Deliverability Capacity Model	P	P-Gas Prod.	P-Gas Prod.	P	O	P	SP
3.3 Enhance Real-Time Monitoring and Automated Systems	P	P	P	P	O	P	SP
3.4 Build System for Assessing Underground Storage Operations	P	P	P	O	O	P	P
3.5 Match Gas Storage to End-User Requirements	P	P	P	P-Gas	O	P	P
3.6 Demonstrate Storage Revitalization Technology	P	P	P	SP-Gas	O	SP	SP
3.7 Improve Storage Effectiveness for Problem Fields	P	SP	P	P-Gas	O	SP	P
4.0 Encourage Natural Gas Regulatory Reform and a Contract Portfolio Approach							
4.1 Federal Issues							
4.1a Ensure Robust Secondary Markets for Pipeline Capacity	P	P	P	-	-	SP	SP
4.1b Encourage Open Access to the Electric Transmission Grid	P	P	P	-	-	SP	P
4.1c Expedite Construction of New Natural Gas Facilities	P	P	P	-	-	See Note 1	SP
4.1d Develop Incentive-Based Rate Structures for Interstate Natural Gas Pipelines in Noncompetitive Markets	P	P	P	-	-	SP	P
4.1e Take a Leadership Role in Clean Cities Program	P	P	P	-	-	P	P
4.2 State Issues							
4.2a Encourage Open Access for Gas Transporter through Distributor, to Resolve the Contract Portfolio Issue	SP	SP	SP	-	-	P	N

Key

SP = strong positive position
 P = positive position
 O = neutral
 N = negative position
 SN = strong negative position

Support Level by Stakeholder -- conti

Options	Utilities	Consumers: Residential/ Commercial	Industrial	Non-utility Generators	Producing States	Consuming States	Environ- mentalists	Public Utility Commissions	Public	Other Agencies	Comments	Regional Impact/ Sensitivity
OBJ. II.												
3.0												
3.1	P	P	P	P	SP	SP	SP	SP	P	P	Strong gas support	No
3.2	SP	O	SP	SP	SP	SP	O	SP	O	O	Congress supportive	Regional data avail.
3.3	P	P	P	P	P	P	P	P	P	P	General support	Yes
3.4	P	O	P	P	P	P	P	P	N	P	Potential LDC sensitivity	Yes
3.5	P	P	P	P-O	P	P	P	P	P	P	Strong R&D support by industry	No
3.6	P	P	P-O	P-O	P	P-O	P-O	P	O	O		Yes
3.7	O	O	O	O	SP	P-O	SP	SP	O	P	States with depleted O&G reserves	Yes
4.0												
4.1												
4.1a	SP	P	SP	SP	SP	SP	O	P	O	N	FERC dislikes PUCs like	-
4.1b	SN	O-P	SP	SP	SP	SP	SP	N	O	O		-
4.1c	SP	P	SP	SP	SP	SP	N	P	P	O	Exp. Pipelines-SP Est. Pipelines-N	-
4.1d	P	O	SP	SP	SP	O	O	P	O	O		-
4.1e	P	P	P	P	O	P	P	SP	P	P-EPA		No
4.2												
4.2a	P	N	SP	SP	SP	O	P	O	O	-	As w/Order 436, small cust. skeptical	No

Key

SP = strong positive position
 P = positive position
 O = neutral
 N = negative position
 SN = strong negative position

Support Level by Stakeholder

Option	Integrated majors	Large independents	Small independents	Service companies	Refineries	Natural gas pipelines	Natural gas LDCs
4.2b Promote the Use of Efficient Gas Pricing	SP	SP	SP	-	-	P	SP
4.2c Encourage the End of Fuel-Specific Subsidies	SP	SP	SP	-	-	P	SP
4.2d Promote Efficient Pricing of Electricity	P	P	P	-	-	P	SP
4.2e Foster the Use of Incentive Rate Design	P	P	P	-	-	P	P
4.2f Encourage the Elimination of Regulations that Inhibit the Use of Natural Gas in Vehicles	P	P	P	-	-	P	P
5.0 Provide Information Services							
5.1 Develop an Energy and Resources Mapping and Information System (ERMIS)	P-O	P-O	P-O	P-O	P-O	P-O	P-O
5.2 Enhance Energy Information Administration (EIA) Natural Gas Storage Data Collection	N	P	O	O	O	SN	SN
5.3 Develop Contact Lists Readily Accessible to the Oil and Gas Industry	P	SP	SP	SP	O	SP	SP
OBJECTIVE III: DEVELOP INTEGRATED OIL IMPORT POLICY							
6.0 Establish National Import Goals and Overall Strategy							
6.1 Establish Oil Import Policy Working Group	P	P-Gas Prod.	P-Gas Prod.	P	O	P	SP
6.2 Stabilize Prices with Government Fuel Expenditures	SP	P-Gas Prod.	P-Gas Prod.	O	O	SP	SP
OBJECTIVE IV: IMPROVE COMMUNICATION AND GOVERNMENT DECISION-MAKING							
7.0 Simplify Regulations Without Compromising Environmental Protection							
7.1 Streamline State and Federal Regulation	SP	SP	SP	P	SP	P	O
7.2 Expand Regulatory Impact Analyses – E.O. 12291	SP	SP	SP	O	O	P	O
7.3 Enhance State and Federal Regulatory Decision-Making Capability	SP	SP	SP	P	P	P	O
7.4 Provide Proactive Support to Legislative Processes	SP	SP	SP	P	P	P	P
7.5 Progress Beyond Command and Control Regulation	SP	SP	P	SP	SP	O	O
7.6 Enhance Dialogue through Industry/Government/Public Partnerships	SP	SP	P	O	P	P	O

Key

SP = strong positive position
 P = positive position
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 N = negative position
 SN = strong negative position

Support Level by Stakeholder -- continued

Options	Utilities	Consumers: Residential/ Commercial	Industrial	Non-utility Generators	Producing States	Consuming States	Environ- mentalists	Public Utility Commissions	Public	Other Agencies	Comments	Regional Impact/ Sensitivity
4.2b	O	N	SP	SP	SP	O	P	O	O	-		No
4.2c	O	O	SP	SP	SP	O	O	O	O	-		No
4.2d	N	N	SP	SP	SP	SP	P	O	O	-		No
4.2e	O	O	P	P	P	P	P	O	O	-	Small cust. skeptical	No
4.2f	O	P	P	O	P	P	SP	O	P	-		No
5.0												
5.1	P	O	O-P	O-P	P	P	P	P-O	O	O		Yes
5.2	P	O	P	P	P	O	O	O	O	O		Yes
5.3	P	O	O-P	O-P	P	P	P	P-O	O	O		Yes
OBJ. III.												
6.0												
6.1												
6.2	O	O	O	O	P	O	O	O	O	O _s		No
OBJ. IV.												
7.0												
7.1	O	O	P	O	SP	O	SN	P	SP	P		No
7.2	O	O	P	O	P	O	SN	P	O	N		No
7.3	O	O	P	O	SP	O	P	P	SP	P		Yes
7.4	O	O	-	O	SP	O	N	P	O	MIXED		No
7.5	O	O	P	O	SP	O	P	P	O	P		No
7.6	O	O	O	O	SP	O	SP	P	SP	P		No

Key

SP = strong positive position
 P = positive position
 O = neutral
 N = negative position
 SN = strong negative position

Support Level by Stakeholder

Option	Integrated majors	Large Independents	Small Independents	Service companies	Refineries	Natural gas pipelines	Natural gas LDCs
7.7 Consider the Findings and Recommendations of the National Petroleum Council Report on U.S. Petroleum Refining							
8.0 Enhance Access to Federal Lands							
8.1 Implement Federal Lands Task Force	P	P	P	P	O	P	O
8.2 Develop Gas and Oil Resources of the Naval Oil Shale Reserves							
9.0 Work with States and Tribes							
9.1 Work with States on the Domestic Gas and Oil Initiative	SP	SP	P	O	O	O	O
9.2 Decrease Dependence on Oil Imports by Developing Tribal/Government Partnerships	O	O	O	O	O	O	O
10.0 Address West Coast Production Constraints							
10.1 Remove California Refining Bottleneck to Domestic Heavy Oil Production	SP	SP	SP	P	SP	O	O
10.2 Open Access to Crude Oil Pipelines in California	SN	O	SP	O	N	O	O
11.0 Communicate the Strategic Role of the Gas and Oil Industry							
11.1 Develop and Implement a Public Awareness Program for Gas and Oil							
11.2 Enhance National Petroleum Council Scope							

Key

SP = strong positive position
 P = positive position
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Support L by Stakeholder -- continued

Options	Utilities	Consumers: Residential/ Commercial	Industrial	Non-utility Generators	Producing States	Consuming States	Environ- mentalists	Public Utility Commissions	Public	Other Agencies	Comments	Regional Impact/ Sensitivity
7.7												
8.0												
8.1	O	O	O	O	P	O	SN	O	N	P-DOI		Yes- Several
8.2												
9.0												
9.1	O	O	O	-	SP	P	P	SP	P	SP		No
9.2	O	O	O	-	P	O	N	O	P	O		Yes
10.0												
10.1	O	O	O	O	P	O	P	O	P	O		No
10.2	O	O	O	O	P	O	SP	P	P	P ^a		Yes
11.0												
11.1												
11.2												

Key

SP = strong positive position
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Interfaces with Other Government Agencies

Options	DOT	Agri	Commerce	Def	EPA	FERC	Int	Justice	OMB	IRS/ Treas	AID/ State Dept.	USTR	Council Econ	State/ Tribe
OBJECTIVE 1. ADVANCE AND DISSEMINATE GAS AND OIL TECHNOLOGIES														
1.0 Promote Technology Advancement through Gas and Oil Technology R&D														
1.1 Undertake Advanced Computational Technology Initiative									•					
1.2 Develop Natural Gas Advanced Rock Drilling Systems									•					
1.3 Develop a Commercialization Strategy for Natural Gas Technologies									•	•				•
1.4 Stimulate Development of a Nationwide, Regionally Based Gas and Oil Technology Transfer Network and Assistance Program					•	•	•		•	•		•		•
1.5 Fund Expanded Industry-Driven RD&D for Advanced Oil Recovery Technologies									•					
1.6 Conduct Advanced Geological Basin Analysis to Target Exploration for Bypassed Oil							•		•					
1.7 Target a Research Program Specifically at the Everyday Problems of Small Gas and Oil Producers									•					•
1.8 Promote Expenditures on Advanced Computational Techniques and New Technologies Used in Exploration through Tax Credits									•	•				
1.9 Utilize the Naval Petroleum and Oil Shale Reserves for Advanced Technology Testing, Evaluation, and Training							•		•					•
2.0 Improve Environmental Technologies and Practices														
2.1 Improve Environmental Compliance Technologies and Practices					•		•							•
2.2 Accelerate Expensing for Capital Equipment Costs Associated with Environmental Compliance									•	•				
2.3 Establish Environmental Research Advisory Committee(s)			•		•		•							•
2.4 Explore DOE's Role in Oil Spill R&D	•		•		•		•		•					•
2.5 Study Used Oil Recycling	•			•	•									•

Interfaces with Other Government Agencies

Options	DOT	Agri	Commerce	Def	EPA	FERC	Int	Justice	OMB	IRS/ Treas	AID/ State Dept.	USTR	Council Econ	State/ Tribe
OVERVIEW STRATEGY II: STIMULATE MARKETS FOR NATURAL GAS														
3.0 Improve Natural Gas Deliverability														
3.1 Upgrade State Data Collection and Reporting						●			●					●
3.2 Build a National Deliverability Capacity Model						●	●							
3.3 Enhance Real-Time Monitoring and Automated Systems						●			●					
3.4 Build System for Assessing Underground Storage Operations						●	●							●
3.5 Match Gas Storage to End-User Requirements									●					●
3.6 Demonstrate Storage Revitalization Technology									●					●
3.7 Improve Storage Effectiveness for Problem Fields									●					●
4.0 Encourage Natural Gas Regulatory Reform and a Contract Portfolio Approach														
4.1 Federal Issues														
4.1a Ensure Robust Secondary Markets for Pipeline Capacity						●								
4.1b Encourage Open Access to the Electric Transmission Grid						●								
4.1c Expedite Construction of New Natural Gas Facilities					●	●								
4.1d Develop Incentive-Based Rate Structures for Interstate Natural Gas Pipelines in Noncompetitive Markets						●								
4.1e Take a Leadership Role in Clean Cities Program					●									
4.2 State Issues														
4.2a Encourage Open Access for Gas Transporter through Distributor, to Resolve the Contract Portfolio Issue														●

Interfaces with Other Government Agencies

Options		DOT	Agri	Commerce	Def	EPA	FERC	Int	Justice	OMB	IRS/ Treas	AID/ State Dept.	USTR	Council Econ	State/ Tribe
4.2b	Promote the Use of Efficient Gas Pricing														•
4.2c	Encourage the End of Fuel-Specific Subsidies														•
4.2d	Promote Efficient Pricing of Electricity														•
4.2e	Foster the Use of Incentive Rate Design														•
4.2f	Encourage the Elimination of Regulations that Inhibit the Use of Natural Gas in Vehicles					•									•
5.0	Provide Information Services														
5.1	Develop an Energy and Resources Mapping and Information System (ERMIS)	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5.2	Enhance Energy Information Administration (EIA) Natural Gas Storage Data Collection						•			•					
5.3	Develop Contact Lists Readily Accessible to the Gas and Oil Industry	•	•	•	•	•	•	•	•	•	•	•	•	•	•
OVERVIEW STRATEGY III: DEVELOP INTEGRATED OIL IMPORT POLICY															
6.0	Establish National Import Goals and Overall Strategy														
6.1	Establish Oil Import Policy Working Group			•	•					•	•	•	•		
6.2	Stabilize Prices with Government Fuel Expenditures				•					•	•			•	
OVERVIEW STRATEGY IV: IMPROVE COMMUNICATION AND GOVERNMENT DECISION-MAKING															
7.0	Reinvent Regulation														
7.1	Streamline State and Federal Regulation	•		•	•	•		•							•
7.2	Expand Regulatory Impact Analyses -- E.O. 12291	•		•	•	•		•		•					
7.3	Enhance State and Federal Regulatory Decision-Making Capability	•		•	•	•		•							•
7.4	Provide Proactive Support to Legislative Processes			•	•	•		•		•					•

Interfaces with Other Government Agencies

Options	DOT	Agri	Commerce	Def	EPA	FERC	Int	Justice	OMB	IRS/ Treas	AID/ State Dept.	USTR	Council Econ	State/ Tribe
7.5 Progress beyond Command and Control Regulation				•	•		•							•
7.6 Enhance Dialogue through Industry/Government/Public Partnerships	•	•	•	•	•		•							•
7.7 Consider the Findings and Recommendations of the National Petroleum Council Report on U.S. Petroleum Refining														
8.0 Enhance Access to Federal Lands														
8.1 Implement Federal Lands Task Force		•			•		•							•
8.2 Develop Gas and Oil Resources of the Naval Oil Shale Reserves														
9.0 Work with States and Tribes														
9.1 Work with States on the Domestic Gas and Oil Initiative			•		•	•	•							•
9.2 Decrease Dependence on Oil Imports by Developing Tribal/Government Partnerships							•							•
10.0 Address West Coast Production Constraints														
10.1 Remove California Refining Bottleneck to Domestic Heavy Oil Production			•							•				•
10.2 Open Access to Crude Oil Pipelines in California			•			•	•							•
10.3 Permit Exports of California Heavy Crude Oil			•											•
11.0 Communicate the Strategic Role of the Gas and Oil Industry														
11.1 Develop and Implement a Public Awareness Program for Gas and Oil														
11.2 Enhance National Petroleum Council Scope					•									