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Resources, Community, and
Economic Development Division

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March 17, 1995

The Honorable Strom Thurmond
Chairman, Armed Services Committee
United States Senate

Dear Mr. Chairman:

As agreed with your office, this correspondence provides background information on the Naval Petroleum and Oil Shale Reserves, the case for changing the current status of the reserves, and a summary of recommendations from our previous reports. It also discusses factors to consider if a government corporation is formed to manage the reserves or if the reserves are sold. (An enclosure to this correspondence lists relevant GAO products.)

BACKGROUND

The Naval Petroleum and Oil Shale Reserves, established in the early 1900s, consist of six oil and gas sites located in California, Colorado, Wyoming, and Utah. Originally intended as a source of fuel for the military, they remained largely undeveloped until the period following the oil embargo of 1973-74. In 1976, the Congress passed the Naval Petroleum Reserves Production Act, requiring that the reserves be fully developed and operated at their maximum efficient rate of production. The act generally requires that production be sold at public sale to the highest bidder and the revenues deposited in the Treasury. From 1976 to 1993, the reserves generated about $15.7 billion in revenues at a cost of $2.9 billion.[1] According to the Department of Energy, the remaining oil and gas could sustain commercial-level production for another 40 years.

The reserves are jointly owned by the U.S. government and private companies. For example, the government owns about 78 percent of the reserves at the Elk Hills site, and

[1]In constant 1993 dollars, revenues were $22.5 billion and costs were $4 billion.

Chevron U.S.A., Inc., owns 22 percent. The Department of Energy administers these reserves for the government, and a contractor, Bechtel Petroleum Operations, Inc., operates the oil and gas field at Elk Hills.

THE CASE FOR CHANGE

Since 1976, the purpose of the Naval Petroleum and Oil Shale Reserves has changed from emphasizing energy security to providing revenue to the U.S. Treasury. In response to the Arab oil embargo, the United States has also established a Strategic Petroleum Reserve designed to soften any negative impacts of disruptions in the oil supply. This evolution in mission, however, has not been accompanied by increased management flexibility to vary production, make investments, and cut costs in order to maximize profits and, therefore, the dividends paid to the Treasury.

OPPORTUNITIES TO ENHANCE PROFITABILITY EXIST NOW

Regardless of whether a decision is made in the future to develop a government corporation or sell the reserves, the Congress and the Department can act now to increase the reserves' profitability in ways that we believe complement any longer-term decisions. For instance, last year the Department, Chevron, and Bechtel cut their operating costs by approximately $10 million. And, in negotiating an extension to Bechtel's contract, which expires in July 1995, the Department is looking for ways to provide Bechtel with more incentives to increase the profitability of the field.

We have recommended[2] that the Congress amend the Naval Petroleum Reserves Production Act of 1976 to do the following:

-- Eliminate the so-called "maximum efficient rate" of production (MER) requirement and allow the Department to produce at a rate that maximizes profits. The production rate of oil and gas is currently set by statutory requirement at the rate that can be achieved "without detriment to the ultimate recovery" of the resource. The

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[2]Naval Petroleum Reserve: Opportunities Exist to Enhance its Profitability (GAO/RCED-95-65, Jan. 12, 1995) and Naval Petroleum Reserve: Limited Opportunities Exist to Increase Revenues From Oil Sales in California (GAO/RCED-94-126, May 24, 1994).

Department has operated the Elk Hills field in a fashion intended to recover the maximum amount of oil. In a commercially operated field, the owners strive to maximize the profitability of oil and gas production rather than simply recover the maximum amount of oil. Recent studies by the Department, Chevron, and Bechtel concluded that selling more natural gas from Elk Hills rather than reinjecting it into the field to increase oil production --as the Department requires to achieve the MER--could increase future profits by as much as $200 million over the next 30 years.[3]

-- Require that ownership or "equity" shares at Elk Hills be finalized. Equity shares determine how each partner shares in the expenses and profits of an oil and gas operation. In a typical commercial operation, the equity shares of the owners are finalized as specific percentages once the operation becomes mature--that is, after a number of years of operation, when good information is available about the size of the field. A statutory requirement and the contract between the Department and Chevron (called the "unit plan contract") preclude the Department from finalizing the equity shares. Moreover, changes to the equity shares are retroactively applied to all production and its related costs since 1942. As long as these equity shares are uncertain, money will be spent on costly redeterminations, and revenues will be deferred and forgone as projects are delayed while each owner determines if individual projects threaten its ownership position.[4] Finalizing the equity shares encourages the partners to focus more on increasing profits for the venture as a whole.

Both of these recommendations are consistent with standard industry practice. Experts in the oil and gas industry that we spoke with and an independent industry panel are also in favor of finalizing the equity shares. Because Elk Hills is now a mature oil and gas field, much of the information needed to finalize equity shares is already available.

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[3]This estimate is the present value of future profits and accounts for any profits forgone as a result of leaving an estimated 7.6 million barrels of oil in the ground.

[4]For example, the Department and Chevron spent about $14 million on studies to support a redetermination of equity shares for two hydrocarbon zones in 1993 and 1994.

We have also recommended that the Department take several actions to increase the profitability of the Elk Hills field, including the following:

-- Amend the unit plan contract to require the addition of a nonconsent clause.[5] The purpose of a nonconsent clause is to share the risks or costs incurred in drilling wells. If these risks or costs are shared, it is likely that drilling ventures expected to be profitable will be more readily agreed to and embarked on. If such a clause is in place and a drilling project proves profitable, the partner that did not consent to the project in the beginning may share in the profit but is penalized, generally about 300 percent of the costs incurred by the partner that bore all the risk. Both Chevron and the Department agree that the lack of such a clause has proved a disincentive to drilling. Including a nonconsent clause in the unit plan contract is standard industry practice.

-- Change the price index the Department currently uses to establish and make monthly price adjustments in its contracts for Elk Hills oil to an alternative price index that reflects enough transactions to yield a reliable price. A more reliable index could result in higher bids to the extent that bidders could more easily predict future movements of the index and, thereby, better predict how much they would be paying for Elk Hills oil over the life of their contracts.

-- Market Elk Hills oil more aggressively by establishing a marketing presence in California and contacting prospective buyers regularly to educate them on the sales process and the logistics of transporting Elk Hills oil.

In addition to the above recommendations, other factors affect the profitability of the reserves, including the following:

-- First, the current ban on exporting Alaska North Slope crude oil results in lower oil prices. In 1990, we examined the implications of lifting the export ban. We--and, more recently, the Department--estimated that if this ban were lifted, higher prices would result for

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[5]Other aspects of the unit plan contract may also have to be reviewed to ensure that it conforms with commercial operating practices.

Alaskan crude oil and crude oils produced on the West Coast, including Elk Hills oil.[6] A bill has recently been introduced to lift the ban on exporting Alaska North Slope crude oil.

-- Second, because of the requirement that no one buyer can purchase more than 20 percent of Elk Hills oil, buyers' transaction costs are increased, which could result in lower bids. Moreover, this requirement restricts the amount of oil that can be sold to the highest bidder.

-- Finally, the preference that the Department grants to small refiners[7] may be invoked unnecessarily in some cases because the Department does not first analyze, as required by statute, whether these refiners have adequate alternative supplies of oil before it makes the second part of the determination--that selling the Elk Hills oil to them under the preference provision is in the public's best interest. Bids may be lower than they would otherwise be as a result of this preference.

While our recommendations and changes to address the above factors are consistent with operating the reserves more as a commercial enterprise, their adoption neither requires nor precludes other options.

FURTHER POSSIBILITIES

Steps that can be taken now to increase the profitability of the Elk Hills field do not fully address the inherent inefficiency of having the government involved in operating and managing what could otherwise be a strictly for-profit enterprise. Two measures to further reduce or eliminate this inefficiency have been suggested recently, namely, forming a government corporation to manage and operate the reserves or selling these assets. How much such a corporation could enhance profitability and revenues to the Treasury would depend on how closely it mirrored a

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[6] Energy Security: Impacts of Lifting Alaskan North Slope Oil Exports Ban (GAO/RCED-91-21, Nov. 8, 1990) and Exporting Alaskan North Slope Crude Oil: Benefits and Costs, U.S. Department of Energy (June 1994).

[7] Small refiners are defined as those with a total input of crude oil of 75,000 barrels or less per day. Invitations for bids state that this preference will be invoked when small refiners do not win 25 percent of the oil being sold.

commercial enterprise's efficiency. In the case of selling the reserves, the return to U.S. taxpayers would depend directly on the price received. A government corporation could also serve as a way station between the situation today and the eventual sale of the reserves. For example, the administration has proposed establishing a government corporation to manage and operate the reserves and then selling Elk Hills by fiscal year 1997.

Factors to Consider in Establishing a Government Corporation

The possible benefits of a government corporation include increased flexibility to reduce costs and allowing more timely investments to achieve greater profits than are currently achieved at the reserves. However, the extent to which these benefits are realized depends on how closely the management and operation of such a corporation mirrors that of an efficient commercial, for-profit oil and gas operation. Consequently, in designing such a corporation, care should be taken to copy as closely as possible the model of a well- managed and -operated private corporation. Deviations from this model are likely to result in lower profits and revenues to the Treasury and, thus, to the taxpayers. In the event of a future sale, another important benefit of managing and operating such a corporation as its private counterpart is the development of better information to assess the fair market value of the reserves. This information would help the government determine an appropriate minimum asking price.

We believe that a number of factors are important in designing a government corporation to efficiently manage and operate the Naval Petroleum and Oil Shale Reserves. Such a corporation should make budgeting decisions based on the goal of maximizing profits, react to changing market conditions, and accomplish its mission with as few layers of management as possible. Accordingly, this corporation should be

-- able to retain and utilize the revenues necessary to maximize profits;

-- headed by a chief executive officer with a solid record of managing oil and gas fields in the private sector;

-- empowered to pay reasonable but competitive salaries to attract and retain employees with the expertise needed to maximize profits; and

-- allowed to borrow funds in the private sector as needed, on the basis of a proven track record of profitability.[8]

Factors to Consider in Selling the Reserves

Selling the reserves could result in a greater return to the Treasury, especially if buyers believe they can operate the reserves more efficiently than the government. In that case, it is likely that the winning bid would exceed the government's minimum asking price, defined as what the government could reasonably earn by continuing to own these reserves.

To protect the interests of U.S. taxpayers, the government's minimum asking price should reflect the present value of the future net revenues that it would expect to earn if it chose not to sell these reserves. This estimate should include reasonable projections of production and costs under continued government operation, given forecast oil and gas prices.[9]

A competitive bidding process would also help protect the interests of U.S. taxpayers to the extent that it encouraged higher bid prices. While resulting bids could be higher or lower than the government's minimum asking price because of differences in prospective buyers' estimates of production, costs, and prices, the government would not have to sell these reserves for less than its minimum asking price. To the extent that bidders believe they can operate the

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[8]Lenders to this corporation could regard such loans as implicitly guaranteed by the federal government, notwithstanding the corporation's actual performance. This likely perception suggests the need for more oversight than is customary in the private sector. In the legislation authorizing such a corporation, the Congress could include, as it has in the past, a statement explaining that bonds issued by the corporation, the payment of the principal, or interest thereon shall not be considered obligations of the United States and explicitly are not guaranteed by the United States.

[9]Two of these variables, production and costs, can be influenced by the way the government manages and operates these reserves. As discussed earlier, steps can be taken to increase the profitability of these reserves by adjusting production and costs.

reserves more efficiently than the government, their bids should exceed the government's estimate of the present value of the future net revenues that it could earn by continuing to operate the reserves.

Beyond these basic principles, a number of other considerations could lower the sales price of these reserves, including a continued ban on exporting Alaska North Slope crude oil and the lack of finalized equity at Elk Hills.[10] If equity shares are not finalized and the U.S. government decides to sell its share of Elk Hills, the price it receives could be discounted to reflect uncertainty about the size of its share.

Administration's Proposal

The administration proposed in its fiscal year 1996 budget to develop a government corporation to manage and operate the Naval Petroleum and Oil Shale Reserves and to sell the Elk Hills field by the end of fiscal year 1997. Under this proposal, the Department would have to develop, set up, and operate a government corporation and then sell the Elk Hills field in less than 2 years' time. It is unclear what benefits can be realized from operating a government corporation for such a short time before selling the Elk Hills field. The Department estimates that developing this government corporation will cost between $3.5 million and $5 million. If the goal is to sell the reserves by the end of fiscal year 1997, emphasis should be placed on preparing these reserves for sale and taking steps to ensure that the government gets a fair and competitive price.

In anticipation of developing such a corporation, the administration has also proposed cutting the budget for operating the reserves by approximately 46 percent from fiscal year 1995 levels. This reduced budget is likely to result in less production of hydrocarbons and lower gross revenues in the short term, according to the Department's estimates. Revenues could decrease because the Department has indicated that no new investments would be made, including the drilling of wells, under the proposed budget. If the Department could set up a government corporation quickly, it is possible that these effects on revenues could

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[10]In addition, buyouts or severance packages for displaced contractor and federal employees could also reduce the proceeds from a sale. These costs could also occur if a corporation were formed to operate the reserves.

be offset. On the other hand, if it takes more time to get such a corporation "up and running," the net effect of this reduced budget for fiscal year 1996 may be to shift some production and revenues to future years. It is unclear what effect delaying production and revenues to future years would have on the sales price of the reserves if they are sold at the end of fiscal year 1997.

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In conclusion, regardless of what alternative is adopted for the Naval Petroleum and Oil Shale Reserves, the goal should be to protect the interests of U.S. taxpayers by getting a reasonable return on this asset. If a decision is made to form a government corporation, care should be taken to establish a financially sound corporate entity with as few government restrictions on earning profits as is possible. If a decision is made to sell the reserves, it is important for the government to ensure that it receives fair market value for them. We believe that steps can be taken now--such as giving the Department more flexibility to set the rate of production in a way that maximizes profits and marketing Elk Hills oil more aggressively--would be compatible with any more fundamental management changes.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this correspondence for 5 days. At that time, we will send copies to the Secretary of Energy and make copies available to others on request. If we can be of further assistance, please feel free to call me at (202) 512-3841.

Sincerely yours,

Victor S. Rezendes
Director, Energy and Science
Issues

Enclosure

RELATED GAO PRODUCTS

Government Corporations: Profiles of Recent Proposals (GAO/GGD-95-57FS, forthcoming).

Naval Petroleum Reserve: Opportunities Exist to Enhance its Profitability (GAO/RCED-95-65, Jan. 12, 1995).

Maritime Industry: Cargo Preference Laws--Estimated Costs and Effects (GAO/RCED-94-34, Nov. 30, 1994).

Government Corporations: CFO Act Management Reporting Could Be Enhanced (GAO/AIMD-94-73, Sept. 19, 1994).

Naval Petroleum Reserve: Limited Opportunities Exist to Increase Revenues From Oil Sales in California (GAO/RCED-94-126, May 24, 1994).

Energy Security: Impacts of Lifting Alaskan North Slope Oil Exports Ban (GAO/RCED-91-21, Nov. 8, 1990).

Naval Petroleum Reserve No. 1: Examination of DOE's Report on Divestiture (GAO/RCED-88-151, Aug. 25, 1988).

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