



Testimony

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FEDERAL OIL VALUATION

Efforts to Revise Regulations and an Analysis of Royalties in Kind

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Mr. Chairman and Members of the Subcommittee:

We are here today to testify on the valuation of federal oil. In fiscal year 1998, the Department of Interior's Minerals Management Service (MMS) collected \$3.6 billion in royalties from oil and gas leases on federal lands. States in which federal leases are located received a share of the royalties collected. The value of these royalties depended upon the price of oil. As an alternative to accepting cash royalty payments, the federal government could have taken a percentage of the actual oil and gas produced and then arranged for its sale, taking what are known as royalties in kind.

Historically, the value of much of the oil from federal leases has been based on posted prices which are offers by purchasers to buy oil from a specific area. However, recent evidence indicates that oil is now often sold for more than the posted prices, suggesting that the value of the oil from federal leases and the amount of federal royalties should both be higher. On the basis of this evidence, in 1995 MMS began revising its oil valuation regulations so that they rely less on posted prices and more on other, and oftentimes, higher prices. These revised regulations are still pending.

Most of my statement will summarize the results of a report that we issued in August 1998 on the Department of Interior's attempts to revise the federal oil valuation regulations and the feasibility of the government's taking its oil and gas royalties in kind.¹ Specifically, I will discuss three issues: (1) the information MMS used to justify the need for revising its regulations; (2) how MMS addressed concerns expressed by the oil industry and the states in developing these regulations; and (3) the feasibility of the government's taking its oil and gas royalties in kind, instead of in cash.

In summary, Mr. Chairman, MMS relied heavily on the findings of an interagency task force to revise its oil valuation regulations. This task force concluded that the major oil companies' use of posted prices in California to calculate federal royalties was inappropriate and recommended that the federal oil valuation regulations be revised. MMS also relied on contracted studies of oil markets and on valuation disputes between the states and oil companies that the oil companies agreed to settle for more than \$1 billion. To address concerns of the oil industry and the states, MMS solicited public comments on the proposed regulations in seven Federal Register notices, held 17 public meetings, and revised its regulations five times. Proposed changes to the regulations are still

¹Federal Oil Valuation: Efforts to Revise Regulations and an Analysis of Royalties in Kind (GAO/RCED-98-242, Aug. 19, 1998).

pending. Concerning the government's taking of its royalties in kind, we concluded that this would not be feasible except under certain conditions. These conditions include having easy access to pipelines, leases that produce large volumes of oil and gas, competitive arrangements for processing gas, and expertise in marketing oil and gas. However, these conditions are currently lacking for the federal government and for most federal leases.

Background

In fiscal year 1998, MMS collected about \$2.4 billion in royalties for gas sold from leases on federal lands and about \$1.2 billion in royalties for oil sold from leases on federal lands. Oil and gas royalties are calculated as a percentage (usually 12-1/2 percent for onshore federal leases and 16-2/3 percent for offshore federal leases) of the value of production less certain allowable adjustments (such as the cost of transporting oil to markets). The value of production is determined by multiplying the volume produced (which is measured in barrels of oil and in cubic feet of gas) by the sales price.

MMS promulgated the oil valuation regulations that are currently in effect in 1988. These regulations differentiate between oil sold "at arm's length" and oil that is not sold at arm's length. "At arm's length" refers to oil that is bought and sold by parties with competing economic interests, and the price paid establishes a market value for the oil. However, roughly two-thirds of the oil from federal leases is not sold at arm's length; it is exchanged between parties that do not have competing economic interests under terms that do not establish a price or market value. For example, oil companies that both produce and refine oil may transport the oil they produce to their own refineries. These oil companies may also exchange similar quantities of oil with other oil companies to physically place oil closer to their refineries and thereby reduce their costs of transporting it.

The 1988 regulations define the price of oil sold in arm's-length transactions, for the purpose of determining federal royalties, as all financial compensation accruing to the seller. This compensation, known as gross proceeds, includes the quoted sales price and any premiums the buyer receives. For other transactions (i.e., those not at arm's length), the price of the oil is defined as the higher of either the gross proceeds or the amount arrived at by the first applicable valuation method from the following list of five alternatives: (1) the lessee's posted or contract prices, (2) others' posted prices, (3) others' arm's-length contract prices,

(4) arm's-length spot sales² or other relevant matters, and (5) a netback³ or any other reasonable method. The first two alternatives, and to a lesser extent the third, can rely on posted prices in establishing value.

Under the revised oil valuation regulations that are currently proposed, MMS would continue to require, for federal royalty purposes, that gross proceeds be used to establish the price of oil sold in arm's-length transactions, except in certain circumstances involving multiple exchanges or sales. For transactions that are not at arm's length, however, the proposed regulations substantially change the means for determining the price of the oil, no longer relying on the use of posted prices and instead relying on spot prices.

To determine federal royalties, the proposed regulations define the price of oil not sold in arm's-length transactions differently in each of three domestic oil markets: (1) Alaska and California (including leases off the shore of California); (2) the six Rocky Mountain states of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; and (3) the rest of the country, including the Gulf of Mexico.

In Alaska and California, the price of oil not sold in arm's-length transactions is defined in the proposed regulations as the Alaska North Slope spot price, adjusted for the location of the lease and the quality of the oil. In the six Rocky Mountain states, this price is proposed to be the first applicable valuation method from the following list of four alternatives: (1) the highest bid in an MMS-approved tendering program (akin to an auction) conducted by the lessee; (2) the weighted average of the lessee's arm's-length purchases and sales from the same oil field, when they exceed 50 percent of the lessee's purchases and sales in that specific oil field; (3) the spot price for West Texas Intermediate crude oil at Cushing, Oklahoma, (where several major oil pipelines intersect and storage facilities exist) adjusted for the location of the lease and the quality of the oil; or (4) a method established by the MMS Director. For the rest of the country, the price of oil is defined by local spot prices, adjusted for the location of the lease and the quality of the oil.

While oil and gas royalties are most often paid in cash, they may instead be paid with a portion of the actual oil and gas that is produced—referred to

²Under spot sales, the buyer and seller agree to the delivery of a specific quantity of oil in the following month.

³A "netback" involves adjusting a price that is established for a sale occurring away from the lease site to approximate a sales price that would have been paid at the lease, by taking deductions reflecting the transportation costs and the quality of the oil sold.

as paying royalties in kind. Paying royalties in kind rather than in cash eliminates the need to determine the sales price of the production because royalties in kind are calculated only on the basis of the volume of oil or gas that is produced.

Information Used by MMS to Justify Revised Regulations

MMS' decision to revise the oil valuation regulations relied on the findings of an interagency task force that examined whether the use of posted prices for the purpose of determining federal royalties in California was appropriate. By 1991, the City of Long Beach, California, reached agreement with six of seven major oil companies to accept \$345 million to settle a lawsuit it had filed years earlier. Although the lawsuit and settlement included issues other than the valuation of oil, one of the major issues was whether the companies' use of posted prices represented the market value of oil produced from leases owned by the city and the state. After conducting a preliminary assessment of the implication of the settlement for federal oil leases in California and consulting with state officials, in June 1994 Interior assembled an interagency task force with representatives from MMS, Interior's Office of the Solicitor, the departments of Commerce and Energy, and the Department of Justice's Antitrust Division. The purpose of the task force was to examine whether the use of posted prices was appropriate for the purpose of determining federal royalties in California. MMS also initiated audits of two of the seven major oil companies that produced oil from federal leases in California.

The task force examined documents submitted by the companies in the lawsuit, reviewed the results of MMS' audits, and employed consultants to analyze the market for oil in California. The market studies noted that the seven major oil companies dominated the oil market in California by controlling most of the facilities that produce, refine, and transport oil in the state—that is, most of these transactions were not at arm's length—and that this domination in turn suppressed posted prices. According to one of the studies, transactions involving Alaska North Slope crude, an oil that is transported into the state by a company that does not own any California refineries and that is actively traded at arm's length, commanded substantial premiums over California oil that was comparable in quality. The task force concluded that the major oil companies in California inappropriately calculated federal royalties on the basis of posted prices, rather than include the premiums over posted prices that they paid or received. The task force estimated that the companies should have paid between \$31 million and \$856 million in additional royalties (the wide range reflects the use of different methodologies and different

treatments of accrued interest) to the federal government for the period 1978 through 1993. In its final report issued in 1996, the task force recommended that MMS revise its oil valuation regulations to reduce reliance on the use of posted prices for valuing oil for royalty purposes.

MMS also relied on additional studies, for which it had contracted, that examined oil pricing in other areas of the country. These studies provided MMS with information on how oil is exchanged, marketed, and sold, as well as information on the relevance of posted prices, spot markets, and NYMEX (New York Mercantile Exchange)⁴ futures prices in oil markets. The studies concluded that posted prices do not represent the market value of oil, citing situations in which oil is bought and sold at premiums above posted prices throughout the country. The studies cited the common practice of oil traders' and purchasers' quoting a posted price plus a premium, in what is known as the P-plus market, as additional evidence that posted prices are less than market value.

In addition, various states supplied MMS with information on legal settlements they had reached with major oil companies concerning the undervaluation of oil from leases on state lands. In general, the states disputed the oil companies' use of posted prices as the basis for determining royalties paid to the states. For example:

- Alaska reported settling a lawsuit filed against three major oil companies for about \$1 billion. These companies produced oil and transported it directly to their refineries, paying state royalties based on prices the companies had themselves calculated. The state contended that these transactions from 1977 through 1990 were not at arm's length and that the calculated prices were less than the market value of the oil.
- A major oil company agreed to pay Texas \$17.5 million to settle allegations that from 1986 through 1995 it had paid royalties on prices for oil from state leases that were less than market value.
- Louisiana reported it settled 10 disputes involving oil companies that owned their own refineries and paid state royalties on posted prices from 1987 through 1998. These companies agreed to collectively pay about \$6 million to settle these claims and to make future royalty payments based on average spot prices in the Louisiana oil market.
- New Mexico reported two settlements with a major oil company that used its own posted prices as a basis for state royalties from 1985 through 1995. The company paid the state about \$2 million.

⁴Each NYMEX futures contract establishes a price for the future delivery of 1,000 barrels of sweet crude oil (similar in quality to West Texas Intermediate) at Cushing, Oklahoma.

How MMS Has Addressed Industry's and States' Concerns

From December 1995 through April 1999, MMS solicited public comments on its proposal to change the way oil from federal leases is valued for royalty purposes in seven Federal Register notices and in 17 public meetings throughout the country, and it has revised the proposed regulations five times in response to the comments received. Comments submitted by states were often at odds with comments provided by the oil industry. States generally support the proposed regulations because MMS anticipates that royalty revenues—which are shared with the states—will increase. MMS estimates that its proposed regulations will increase federal royalties by \$66 million annually. The oil industry generally opposes the proposed regulations because they would increase oil companies' royalty payments and administrative burden.

In its first Federal Register notice, published in December 1995, MMS announced that it was considering revising its oil valuation regulations because it had acquired evidence indicating that posted prices no longer represented market value. In response, representatives of the oil industry generally commented that they opposed any changes to the current regulations but that pending litigation prevented them from offering specific comments on the issues identified by MMS. Several states commented that they believed that posted prices no longer reflected market value, provided evidence supporting their position, and recommended that MMS adopt spot prices or NYMEX futures prices for valuing oil from federal leases that was not sold at arm's length.

MMS' second Federal Register notice, published in January 1997, proposed retaining the use of gross proceeds for valuing federal oil sold at arm's length—but reduced the number of oil companies that could use this method by restricting its applicability to those companies that had not sold oil in the past 2 years. It also eliminated the use of posted prices for oil not sold at arm's length. For these sales, MMS proposed that the value of oil from federal leases in Alaska and California would be based on Alaska North Slope spot prices and that the value of oil from other federal leases would be based on NYMEX futures prices. Both the Alaska North Slope and NYMEX prices would be adjusted for differences in the location of the leases and the quality of the oil.

In its third through seventh Federal Register notices, published from July 1997 through March 1999, MMS responded to comments and modified its regulations in response to these comments. For example, in response primarily to the oil industry's comments, MMS eliminated the use of NYMEX for establishing the value of oil not sold at arm's length, proposed a

separate system for valuing oil not sold at arm's length in the Rocky Mountain states, and modified the definition of "affiliate." In response primarily to the states' comments, MMS proposed the use of spot prices in valuing oil not sold at arms' length and proposed certain price adjustments for location and quality. As suggested by the oil industry and the states, MMS also deleted a proposed 2-year limitation on the use of a valuation methodology relying on gross proceeds. When MMS disagreed with a comment received, the agency provided reasons for not revising the proposed regulations as suggested. For example, MMS disagreed with and dismissed the oil industry's suggestion to initiate a royalty-in-kind program as an alternative to the proposed regulations, stating that the agency would seek input on this issue through other avenues.

Feasibility of a Royalty-In-Kind Program

Although most oil and gas lessors take their royalties in cash, several limited programs exist in the United States and Canada under which lessors accept their royalties in kind. Oil royalty-in-kind programs are currently operated by MMS,⁵ the Canadian Province of Alberta, the City of Long Beach, the University of Texas, and the states of Alaska, California, and Texas. Gas royalty-in-kind programs are also currently operated by Texas and the University of Texas. According to information from studies and the programs themselves, royalty-in-kind programs are feasible if certain conditions are present. In particular, the programs are workable if the lessors have (1) relatively easy access to pipelines to transport the oil or gas to market centers or refineries, (2) leases that produce relatively large volumes of oil or gas, (3) competitive arrangements for processing gas, and (4) expertise in marketing oil or gas. However, these conditions do not exist for the federal government or for most federal leases.

Several of the entities operating royalty-in-kind programs told us that having relative ease of access to pipelines is a key component of their programs because it assures them that they can transport oil and gas to where they need it at a relatively low cost. However, the federal government does not currently have the statutory or regulatory authority over pipelines that would ensure relative ease of access for transporting oil and gas from federal leases. In addition, some pipelines are privately owned and the owners are free to set their own transportation fees. In some areas of the country, oil from federal leases can be transported on just a single pipeline, and the owner of that pipeline may charge substantial fees. Oil and gas marketers we contacted confirmed that the

⁵The purpose of MMS' royalty-in-kind program is to supply oil to small refineries that may otherwise not be able to obtain oil at competitive prices.

federal government would need to transport any royalty-in-kind production it received to market centers or refineries in order to increase its revenues.

To be cost-effective, royalty-in-kind programs must have volumes of oil and gas that are high enough for the revenues made from selling these volumes to exceed the programs' administrative costs. The majority of oil and gas leases on federal lands, however, produce relatively small volumes and are geographically scattered—particularly federal leases located in the western states. For example, MMS estimates that about 65 percent of the wells on federal oil leases in Wyoming produce less than 6 barrels of oil daily, which would result in less than 1 barrel per day in oil royalties in kind. Most federal leases in the San Juan Basin of New Mexico also produce low volumes.

Because natural gas may need to be processed before it can be sold, arranging for processing is a critical consideration in operating a gas royalty-in-kind program. Many federal leases produce small volumes of gas that need to be processed. In certain areas, there is only a single plant to process the gas from many of these leases. In these circumstances, the lack of competition might allow the plants to charge high fees. For example, MMS estimates that the federal government could lose up to \$4.3 million annually if the agency accepted royalties in kind from federal leases in Wyoming for which there is access to only a single gas-processing plant.

Lessors who accept royalties in kind must sell the oil or gas to realize revenues, and they are likely to receive higher prices if they move it away from the lease and closer to marketing centers or refineries. Storing, transporting, marketing, and selling oil or gas can be complicated processes. Profit margins are often thin, and there may be little room for error. The nonfederal royalty-in-kind programs have generally been in existence for years, and the entities running these programs have gained both experience and expertise. In contrast, the federal government has limited experience in marketing oil or gas royalties in kind.

Mr. Chairman, this concludes our prepared statement. We will be pleased to respond to any questions that you or Members of the Subcommittee may have.

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