BY THE US GENERAL ACCOUNTING OFFICE

Report To The Subcommittee On Environment, Energy, And Natural Resources Committee On Government Operations House Of Representatives

Interior Should Continue Use Of Higher Royalty Rates For Offshore Oil And Gas Leases

Over the past few years, State governments, and in a few cases the Interior Department, have increased the royalty rate for offshore oil and gas production. GAO examined the basis for Interior's traditional use of a 16-2/3 percent royalty rate, the results of Interior's and States' leasing experiences in using higher royalties, and the implications of using higher royalty rates for Federal offshore leasing.

GAO believes that increased royalties, on a selective basis, appear appropriate and supports continued use of higher royalty rates by the Interior Department in leasing offshore lands.

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-207556

The Honorable Toby Moffett
Chairman, Subcommittee on Environment,
Energy, and Natural Resources
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

This report was prepared in response to your March 8, 1982, letter requesting that we investigate the Interior Department's rationale and practices in setting royalty rates for offshore oil and gas leases under the bonus bid, fixed royalty leasing arrangement. The report highlights Interior's experiences in using higher royalty rates for offshore leases, State government experiences with higher royalties, the practices of a number of foreign governments in establishing offshore oil and gas royalties, and the views of Interior, industry, and some States on the likely outcomes of increasing OCS royalty rates.

In your letter you also requested that we analyze the Department's use of alternative bidding systems mandated by the OCS Lands Act Amendments of 1978--alternatives to the cash bonus, fixed royalty system--and whether the alternative systems have significantly reduced cash bonuses. This review, as agreed to by your staff, is being done as a separate study and a report should be available to you in February 1983.

As arranged with your office, unless this report is publicly announced by you, we plan no further report distribution until 30 days from the date of the report. At that time, copies will be sent to the Director, Office of Management and Budget; the Secretary of the Interior; other House and Senate committees and subcommittees having oversight and appropriation responsibilities for the offshore leasing and development program; and other interested parties.

Sincerely yours,

J. Dexter Peach

J. Dexter Peach
Director

GENERAL ACCOUNTING OFFICE REPORT TO THE SUBCOMMITTEE ON ENVIRONMENT, ENERGY, AND NATURAL RESOURCES COMMITTEE ON GOVERNMENT OPERATIONS HOUSE OF REPRESENTATIVES

INTERIOR SHOULD CONTINUE USE OF HIGHER ROYALTY RATES FOR OFFSHORE OIL AND GAS LEASES

D I G E S T

Since 1954, the Federal Government has been leasing Outer Continental Shelf (OCS) oil and gas acreage under what is known as the cash bonus bid, fixed royalty leasing method. Under this leasing arrangement, industry participants offer competitive cash bonuses for the right to explore and develop designated offshore areas and, if production occurs, pay the Federal Government a fixed percentage of gross production revenue. Historically, the fixed percentage, known as the royalty rate, has been 16-2/3 percent. In recent years, State governments have begun to charge significantly higher royalty rates for oil and gas production.

Chairman Toby Moffett, Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations, asked GAO to review the Department of the Interior's rationale and practices in setting royalty rates for offshore oil and gas production. The Chairman requested that GAO compare Interior's approaches in setting royalty rates with those of various States and foreign countries with offshore leasing programs, addressing the revenue implications of the differing practices. (See app. I.)

HISTORY AND RATIONALE FOR USE OF 16-2/3 PERCENT ROYALTY RATE

Historically, over 85 percent of the leased OCS tracts have been leased under the cash bonus bid, fixed 16-2/3 percent royalty rate leasing arrangement. The original basis for using the 16-2/3 percent royalty rate is unclear. Most observers believe the rate stemmed from the State of Louisiana's use of that rate at the time the Department of the Interior began leasing offshore areas. Two 1980 studies have shown that the 16-2/3 percent rate has fostered competition for offshore leasing and has afforded the Government an appropriate return on offshore lands. Recently, the Department of the Interior has used alternative fixed royalty rates and alternative leasing methods provided in the OCS Lands Act Amendments of 1978 in addition to the traditional fixed 16-2/3 percent royalty rate. In two instances, the Department has used a 12-1/2 percent fixed royalty rate and, in five instances, a 33-1/3 percent fixed royalty rate. Since 1978, 54 percent of the OCS tracts leased have been leased under the traditional 16-2/3 percent fixed royalty rate--a sharp decline from the 85 percent experienced for all sales since offshore leasing started in 1954. (See pp. 6, 9, and 27.)

HIGHER ROYALTY RATES HAVE HAD FAVORABLE IMPACTS

Higher royalty rates have been used selectively by Interior for tracts estimated to have high resource levels and low development costs. Although the recency of Federal sales employing a higher royalty rate precludes comprehensive analysis of the higher rate's effect on total revenue, other measurable factors, such as competition and bonuses, do not appear to have lessened as a result of the higher royalty rate. Because the high royalty tracts offered were considered high value prospects, competition and bonuses were greater than on tracts offered simultaneously at the 16-2/3 percent rate.

Furthermore, industry appears diligent in drilling exploration wells on the higher royalty rate tracts. For the five OCS sales compared, industry so far has drilled within 2 years of lease acquisition, an average of 0.25 wells per lease on 16-2/3 percent tracts and 1.07 wells per lease on 33-1/3 percent tracts. Because of the recency of the five sales, there has been very little production as yet. Thus, production activities could not be compared. (See pp. 9 and 10.)

STATE AND FOREIGN GOVERNMENTS OPERATE IN DIFFERENT LEASING ENVIRONMENTS

States employ different methods in leasing their offshore oil and gas acreage. Although royalty rates charged by States for offshore production are generally higher--ranging from 16-2/3 to 25 percent--than the Federal rate, significant differences in leasing methods and leasing environments render a comparison of State and Federal practices inappropriate. States generally do not employ a fixed royalty rate but instead use variable rates and net profit share arrangements.

In the few instances where States utilize fixed rates higher than the 16-2/3 percent Federal rate, the total impact of the higher rate is unclear. Although revenue increased, production and industry participation declined. It is uncertain whether the declines are attributable to the higher royalty rates or to weakened economic conditions and lower demand. Also, State offshore leasing areas differ significantly from Federal OCS areas in that State leases are located in shallower water, are closer to transportation and refining facilities, and are thus, generally less costly to develop. This appears to account, according to State and industry officials, for the higher State rates companies are willing to pay. Further, States rely more heavily on royalties as an income source than does the Federal Government which relies more on bonuses. (See p. 14.)

Some foreign governments, like the United States, use fixed royalty rates to ensure receipt of a share of offshore oil and gas produced. However, there is no basis for comparison with the rate used by the United States because most foreign countries have or are moving toward government oil and gas operations, either in full or in partnership with private companies. (See p. 22.)

INTERIOR AND INDUSTRY VIEWS

The Department of the Interior and industry officials generally believe the cash bonus bid, 16-2/3 percent royalty method has afforded the Federal Government a fair return, has been appropriate, and should be continued in traditionally leased, shallow-water areas having medium-range-estimated reserves. A number of federally sponsored studies tend to confirm that the Government has fared well in leasing offshore lands. Interior and industry officials also believe that too high a royalty rate might reduce the amount of cash bonuses received and decrease ultimate maximum recovery of oil and gas resources. Further, these officials believe a 12-1/2 percent royalty rate in deepwater and frontier leasing areas is appropriate due to added risks, more costly operations, and the lack of a well established infrastructure more readily available in traditionally leased shallow-water areas. Conversely, Interior officials also believe it is appropriate to charge a 33-1/3 percent rate in some cases. (See pp. 26 and 27.)

CONCLUSIONS

GAO supports Interior's continued use of royalty rates in excess of 16-2/3 percent in leasing offshore lands. Preliminary results from sales where higher rates were used appear encouraging. An across-the-board increase in the offshore royalty rate may not be appropriate at this time, but continued use of higher royalty rates in selective instances, based on resource potential estimates and experience with industry responses, would seem desirable.

It is difficult at this time to predict the impact Interior's new accelerated leasing program will have on the future leasing environment. Under the new program (1) Interior will be offering more land for lease, but with less pre-sale information; (2) industry will be extending its financial resources over more sales and tracts than in the past, presumably with a lesser amount of resources per tract; and (3) industry may be offered second sales in leasing areas before it has information from prior sales to define its interest. These and other possible impacts suggest that Interior should maintain a flexible approach in selecting bidding systems for future sales. Higher royalty rates may prove to be advantageous to the Government in a number of these situations, just as lower rates or one of the alternative bidding systems provided for under the OCS Lands Act Amendments of 1978 may prove to be the better option.

AGENCY COMMENTS AND GAO'S EVALUATION

GAO was told that the Department will continue to consider the use of the higher rates in future sales, but in all likelihood higher rates will not be used. According to Interior officials, the Department has no written policy on the use of higher royalty rates. Interior generally agrees that a modest increase in royalty rates, on a selective basis, could possibly be accommodated without unfavorably impacting OCS revenues and production. Interior currently opposes increasing royalty rates; however, maintaining that the risks of not leasing tracts under a higher royalty rate and possibly realizing lesser amounts of development and production outweigh possible gains. Interior also believes that as the quality of its pre-sale resource information declines, which will be the case under the accelerated leasing program, higher royalty rates become less appropriate because it will have a lesser amount of information upon which to base its leasing decisions.

GAO agrees that Interior should be guided by its pre-lease analyses when establishing royalty rates for proposed sales. GAO's conclusion addresses those selective instances where these analyses suggest a higher royalty rate is appropriate. Generally higher rates would seem more appropriate when the estimated resources and development costs are relatively well defined--for example, in later sales in an OCS area, when drilling information is available from already existing leases. However, given the unpredictable impact of Interior's new accelerated leasing program, it is possible that other situations may arise in which the use of higher royalty rates may be the Government's better leasing alternative. Because of these unknowns we believe that Interior should maintain a flexible approach in establishing royalty rates for future sales and not prejudge any options at this time.

C o n t e n t s

ABBREVIATIONS

BNOC	British National Oil Corporation
DOE	Department of Energy
GAO	General Accounting Office
MMS	Minerals Management Service
OCS	Outer Continental Shelf
UK	United Kingdom

CHAPTER 1

INTRODUCTION

THE ISSUE

The oil and gas resources of the Outer Continental Shelf (OCS) represent one of the Nation's largest publicly owned assets. Since 1954, the Federal Government has accrued billions of dollars in revenue from its offshore leasing program. Federal offshore revenue has stemmed mainly from bonuses or up-front monies paid by industry to explore and develop offshore areas and from a share in production revenue realized downstream. Traditionally, the Federal Government, through the Department of the Interior, has leased its offshore acreage under what is known as the cash bonus bid, fixed royalty method. Under this leasing arrangement, industry participants offer competitive cash bonuses for the right to explore and develop designated offshore areas and, if production occurs, pay the Federal Government a fixed percentage of gross production revenue. Historically, the fixed percentage, known as a royalty rate, has been 16-2/3 percent. Under most bidding systems, the minimum royalty rate allowed by law is 12-1/2 percent.

In recent years, State governments with offshore resource areas have begun to charge significantly higher royalty rates for oil and gas production. A question has been raised as to whether these higher royalties have resulted in higher overall receipts to the States without less oil and gas production or involvement by the industry. Recently, Interior Secretary Watt has indicated interest in the approaches taken by some States. Further, a January 1982 Interior-sponsored study by the Linowes Commission recommended an increase of the minimum royalty rate on new onshore leases from 12-1/2 percent to 16-2/3 percent.

The question of whether the Federal Government receives a fair return from OCS resources has been studied for quite some time. The recent use of bidding systems other than the traditional cash bonus, fixed royalty method has sought to increase company participation and competition in the offshore leasing program, thus enhancing Federal revenues. However, the recency of such alternative methods renders comprehensive evaluation of their revenue impacts difficult. Given that from 1954 to 1981, the cash bonus, fixed 16-2/3 percent royalty method had been employed in leasing the majority of OCS tracts and further use is planned, a question arises as to whether 16-2/3 percent is an appropriate rate to charge.

LEGISLATIVE PROVISIONS AND FEDERAL RESPONSIBILITIES FOR OFFSHORE LEASING AND DEVELOPMENT

The 1953 OCS Lands Act (Public Law 82-212) and its 1978 Amendments (Public Law 95-372) are the central pieces of legislation governing OCS hydrocarbon exploration and development activities.

One of the purposes of the OCS Lands Act Amendments is to develop OCS oil and gas resources in a manner consistent with a need to ensure the public a fair and equitable return on oil and gas development.

The 1953 OCS Lands Act authorized the Secretary of the Interior to grant leases through competitive bidding. The Act directed that the bidding be on the basis of a cash bonus with the royalty fixed by the Secretary at not less than 12-1/2 percent. The Interior Department has used two methods of leasing under this authority--a variable bonus bid with a fixed royalty rate and a fixed bonus bid with a variable royalty rate.

The 1978 OCS Lands Act Amendments expanded Interior's authority to use different bidding systems. It directed Interior to experiment with various alternatives to the cash bonus bid, fixed royalty system which had been used almost exclusively up until that time. The Act provided for the use of alternatives in at least 20 percent of the OCS tracts offered for sale, but for not more than 60 percent, unless the Secretary determined the alternatives to be inconsistent with the Act's purposes and policies. Although many of the alternative bidding systems have been employed since 1978, the cash bonus bid system continues to be the predominant system used in OCS leasing--employed for 60 percent of the OCS tracts leased since 1978.

The Department of the Interior has primary responsibility within the Federal Government for OCS activities. Interior is responsible for setting the terms and conditions for acquiring and developing OCS leases. Within the Interior Department, the Minerals Management Service (MMS) 1/ is responsible for OCS day-to-day management. MMS is responsible for pre-lease activities, which includes the planning and holding of sales, as well as post-lease activities, which include managing exploration, development, and production activities. MMS offices in Los Angeles, California; Anchorage, Alaska; New Orleans, Louisiana; New York, New York; and in Washington, D.C., are responsible for coordinating OCS activities among the regional Federal agencies and with the various State and local governments in their respective regions. Interior's regional offices are also the focal point for inputs from regional private interest groups concerned with OCS activities.

1/On January 19, 1982, the Secretary of the Interior established the Minerals Management Service (MMS). At that time, the Conservation Division of the U.S. Geological Survey was abolished and all its functions transferred to MMS. On May 10, 1982, all other functions in direct support of the OCS program were transferred to MMS, including the Bureau of Land Management's OCS functions.

Other Federal agencies such as the Departments of Energy, Commerce, Justice, and State; the Environmental Protection Agency, Coast Guard; and the U.S. Army Corps of Engineers also have mission-specific OCS responsibilities. The Secretary of the Interior is responsible for coordinating OCS responsibilities of all Federal agencies.

OBJECTIVES, SCOPE, AND METHODOLOGY

Chairman Toby Moffett, Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations, by a letter dated March 8, 1982, asked us to review the Department of the Interior's rationale and practices in setting royalty rates for offshore oil and gas production (see appendix I). 1/ The Chairman requested that we compare Interior's approaches in setting royalty rates with those of various States leasing offshore lands and also those of foreign governments with offshore development programs. Also, the Chairman asked that we address the revenue implications associated with the differing practices.

In addressing the Chairman's request, we focused our review on five issues. These were

- --determining the prevalence and rationale for employing the bonus bid, 16-2/3 percent royalty rate;
- --assessing the impacts of the predominant use of the 16-2/3 percent royalty rate on revenue from OCS production;
- --identifying approaches being taken by States in leasing their offshore lands;
- --identifying approaches being taken by some foreign governments in leasing their offshore lands; and
- --identifying and assessing Interior and industry efforts in evaluating the 16-2/3 percent royalty rate and in considering possible alternative rates.

In this review, we addressed only those bidding systems employed by Interior that used the cash bonus bid, fixed royalty rate system. For purposes of overall comparative statistics, we obtained some data on alternative bidding systems used by Interior. A related ongoing GAO review is making a comprehensive assessment of the impacts of the alternative bidding systems authorized under the 1978 OCS Lands Act Amendments. For State and foreign countries, we

1/Our report "Possible Effects of Increased Royalty Rate for Federal Onshore Oil and Gas Leases," GAO/EMD-82-124, Sept. 3, 1982, discusses the potential effect of increased royalty rates on leasing onshore lands under the noncompetitive leasing system.

obtained information on all offshore leasing methods employed so as to identify and assess whether comparable leasing systems exist.

We conducted our review at Interior's headquarters in Washington, D.C., and at Interior's field offices in Anchorage, Alaska; Los Angeles, California; and New Orleans, Louisiana. In obtaining information regarding State leasing programs, we visited State minerals resource offices in Anchorage, Alaska; Los Angeles, California; Baton Rouge, Louisiana; and Austin, Texas. These States were chosen because they are the only States currently with offshore oil and gas production. At both Interior and State offices, we (1) interviewed agency officials, (2) reviewed agency files and documents, and (3) obtained data concerning bidding methods employed in offshore lease sales. Of particular interest were the revenue implications associated with particular bidding methods, the exploration and production impacts of particular bidding methods, and agency efforts in considering different levels of fixed royalty rates.

We obtained information on offshore leasing approaches employed by Canada, Denmark, Norway, and the United Kingdom. These countries were selected because of the significance of their offshore development as compared to other oil and gas producing nations. Our review of foreign countries' programs was limited to data gathered through previous studies concerning foreign oil and gas practices; Department of Energy (DOE) compilations of foreign leasing, development, and production practices; documentation of current world petroleum arrangements and taxation structures; and discussions with State Department officials knowledgeable about current foreign petroleum arrangements, and with Barrows, Inc., a private foreign petroleum research organization located in New York, New York.

We discussed the appropriateness of the Federal, as well as certain State, royalty rates with four oil companies. Through these discussions, we attempted to obtain views concerning the impact of royalty rates on revenue from OCS development and production and to identify studies and analyses of the effects of fixed royalty rates. We obtained and reviewed recent studies addressing industry participation, rates of return, and production revenue share on OCS leasing and production.

In addressing the revenue implications of the cash bonus, fixed royalty method of leasing, our analyses were limited to data on leases awarded at the 16-2/3 percent royalty rate. Federal leases awarded at fixed royalty rates other than 16-2/3 percent have only been awarded recently and therefore have either not yet produced or are just beginning production. Accordingly, revenue data on such leases was limited primarily to lease bonuses.

We conducted our review in accordance with generally accepted government audit standards.

Chapter 2 of this report describes Interior's practices and rationale in setting OCS royalty rates. Chapter 3 discusses current leasing approaches by States and some foreign countries. Chapter 4 presents views by Interior and industry, as well as information on recent studies addressing OCS revenue implications. Chapter 5 contains our conclusions, agency comments, and our evaluation.

CHAPTER 2

PRACTICES AND RATIONALE

IN SETTING OCS ROYALTY RATES

Since 1954, Interior has used the cash bonus bid, fixed 16-2/3 percent royalty rate in leasing over 85 percent of the tracts on the OCS. Since 1978, 54 percent of OCS tracts leased have been leased under the cash bonus bid, fixed 16-2/3 percent royalty method. No one knows for certain and we were unable to determine how the 16-2/3 percent rate emerged--only that at the start of Federal OCS leasing in 1954, Louisiana, which had previously begun an offshore leasing program, was charging 16-2/3 percent royalty. The minimum royalty rate allowed in Federal OCS legislation is 12-1/2 percent--no maximum rate is prescribed. In instances where a fixed royalty rate was used, Interior has diverted from the 16-2/3 percent rate in only 7 of 61 OCS sales. Comparative statistics show that in the few instances Interior has charged a fixed rate higher than the traditional 16-2/3 percent rate, there were no apparent adverse effects on bidding and bonuses received. The higher royalty rate was employed for tracts considered as high value prospects with substantial estimated reserves. As such, the tracts, although offered at a 33-1/3 percent royalty rate, generated more competition and significantly higher bonuses. Although, in most cases, the high royalty tracts are not yet producing, exploration efforts appear as diligent as on tracts leased under the traditional 16-2/3 percent fixed royalty rate.

THE 16-2/3 PERCENT RATE HAS BEEN THE PREDOMINANT RATE EMPLOYED FOR OCS LEASES

Interior began leasing OCS areas for oil and gas exploration in 1954. Through 1981, it had conducted 61 OCS lease sales in all four geographical offshore areas--the Gulf of Mexico, the Pacific, the Atlantic, and the Alaskan OCS. While sales have been conducted in all four OCS areas, the Gulf of Mexico sales have predominated. Of the 61 OCS sales, 43 sales have been in the Gulf of Mexico, 7 in the Pacific, 6 in the Atlantic, and 5 in the Alaskan OCS areas. Within the 61 sales, Interior has offered about 10,000 tracts, received bids on about 5,000 tracts, and leased over 4,000 tracts.

From the first OCS sale in 1954 through OCS Sale 59 in December 1981, Interior employed the cash bonus bid, fixed 16-2/3 percent royalty bidding method in all but one sale. Over 85 percent of the OCS tracts leased since 1954 have been leased under the cash bonus bid, fixed 16-2/3 percent royalty bidding method. Since 1978, 54 percent of the OCS tracts leased have been leased under the fixed 16-2/3 percent royalty method. Interior's first departure from the 16-2/3 percent royalty rate under the cash bonus bid, fixed royalty system, occurred in the December 1975 Sale 35. In that particular sale, Interior leased three tracts at a fixed royalty rate of 33-1/3 percent--double the traditional rate--on the basis that these were high value tracts containing substantial estimated reserves. Since then, Interior has used the 33-1/3 percent rate, for similar reasons, in four other OCS sales. (See table 1.)

Table 1

Comparative Statistics Demonstrating the Predominant Use of the 16-2/3 Percent Royalty Rate, through December 1981

Royalty	Tracts offered	Tracts bid on	Tracts leased	Percent leased
16-2/3%	8,260	4,161	3,680	44.6
33-1/3%	67	58	41	61.2
12-1/2%	251	95	56	22.3
Other a/	1,274	599	514	40.3
Total all sales	9,852	4,913	4,291	43.6

a/The "other" category includes those bidding methods other than the cash bonus, fixed royalty method, i.e., the royalty bidding, the sliding scale royalty, and the net profit sharing methods.

Source: Department of the Interior.

Federal revenue from OCS lease sales has been generated mostly from sales utilizing the cash bonus bid, fixed 16-2/3 percent royalty method. Because of the recency of sales employing other bidding methods, most of the royalties collected have stemmed from sales under the traditional bid method. Through December 1981, the Federal Government received a total revenue of about $51.2 billion from OCS leasing and production. The $51.2 billion included about $37.4 billion from bonuses and $13.5 billion in royalties. 1/ As a percentage of the total production value of oil and gas, the Federal share, $51.2 billion, represented about 61 percent of the accumulated production or market value from 1953 through 1981. Overall statistics on Federal OCS revenue are presented in table 2.

1/In addition to bonuses and royalties, total OCS revenue includes rentals, minimum royalties, and shut-in gas payments. Rentals are per acre fees paid by lessees prior to discoveries on leases. Minimum royalties are per acre fees paid in lieu of actual production royalties when a discovery has been made but production has not yet occurred or has been interrupted. Shut-in gas payments are fees charged for certain gas leases which have produced but for varied reasons have discontinued production.

Table 2

Federal OCS Revenue (note a) and Production Value
Calendar Years 1953 Through 1980

Calendar year	Bonuses	Rentals	Royalties	Total revenue (note b)	Total cumulative revenue	Total production value	Total cumulative production value	Percentage accumulated revenue of accumulated production value (percent)
1953 through 1969	$3,431.3	$ 92.3	$ 1,227.0	$ 4,763.2	$ 4,763.2	$ 7,169.9	$ 7,169.9	66
1970	945.1	8.6	283.5	1,239.0	6,002.2	1,707.6	8,877.5	68
1971	96.3	7.7	350.0	456.0	6,458.2	2,135.7	11,013.1	59
1972	2,251.3	8.0	363.6	2,625.0	9,083.1	2,229.2	13,242.3	69
1973	3,082.5	8.9	401.1	3,495.0	12,578.1	2,486.9	15,729.2	80
1974	5,022.9	13.5	560.3	5,598.8	18,176.9	3,570.1	19,299.2	94
1975	1,088.1	17.5	615.5	1,723.3	19,900.2	3,924.9	23,224.1	86
1976	2,242.9	23.4	699.4	2,967.9	22,868.1	4,402.4	27,626.6	83
1977	1,568.6	19.8	919.6	2,509.7	25,377.8	5,774.1	33,400.6	76
1978	1,767.0	21.5	1,150.3	2,941.1	28,319.0	7,096.5	40,497.1	70
1979	5,078.9	20.3	1,515.3	6,616.6	34,935.5	9,273.3	49,770.4	71
1980	4,204.6	19.1	2,136.7	6,362.7	41,298.2	13,055.5	62,825.9	65
1981	6,599.4	23.0 (EST)	3,273.6	9,896.0	51,196.1	20,116.4	82,942.3	61
Total	$37,378.9	$283.7	$13,496.1	$51,196.1	$51,196.1	$82,942.3	$82,942.3	

a/All revenue figures expressed in millions.

b/Total revenue includes, in addition to bonuses, rentals, and royalties, shut-in gas payments and minimum royalties.

Source: Department of Interior

HISTORY AND RATIONALE FOR THE 16-2/3 PERCENT RATE

In its first OCS sale in October 1954, Interior leased 90 tracts in the Gulf of Mexico for $116 million in bonuses and a fixed 16-2/3 percent royalty. Interior officials told us they did not know specifically how the 16-2/3 percent royalty rate was first determined. They believe it was probably adopted because the State of Louisiana was then using that rate in its offshore leasing program. Interior officials were unaware of how Louisiana decided on a 16-2/3 percent rate. Louisiana officials also were uncertain as to the specific basis for the 16-2/3 percent rate. They told us the State charged a 12-1/2 percent rate from the 1920s, when oil and gas leasing began, until the early 1950s when the State increased its rate to 16-2/3 percent. In our review. we found no quantitative basis for the 16-2/3 percent royalty--nor for the 12-1/2 percent minimum rate provided for in the 1953 OCS Lands Act.

Currently, Interior officials believe the 16-2/3 percent is an appropriate rate to charge in the more traditionally leased areas, i.e., medium-valued tracts located within 200 meters of water depth. They indicated that recent studies have shown the 16-2/3 percent rate as having fostered competition and a fair return to the Federal Government. They also point out that under a cash bonus, fixed royalty method, a lower royalty rate, i.e., 12-1/2 percent, might be more appropriate in deepwater, high cost lease areas, and a higher rate, i.e., 33-1/3 percent, might be more appropriate for high-value, less costly to develop areas.

USE OF OTHER THAN THE 16-2/3 PERCENT RATE

Interior has used a fixed royalty rate other than 16-2/3 percent in seven OCS sales. In five sales, Interior has employed a fixed royalty rate of 33-1/3 percent for 41 OCS tracts leased. The five sales included two in the Pacific, two in the Gulf of Mexico, and one in the Atlantic OCS. In 1981, Interior employed a fixed royalty rate of 12-1/2 percent for 56 tracts leased in OCS Sales 56 and 59, both in the Atlantic.

According to Interior, the 33-1/3 percent rate was used in instances involving high-value tracts containing substantial estimated reserves and thereby less risk to developers. At the time of the lease sales, it was anticipated that the 33-1/3 percent tracts would reduce bonus bids, but due to estimated higher reserves, it would slightly increase total Government receipts. Conversely, the 12-1/2 percent rate was employed by Interior in sales involving deepwater tracts where development costs were estimated as substantially more than in the traditionally leased shallow water areas. Because it is assumed more tracts could be economically developed at a lower rate, total Government receipts from the 12-1/2 percent deepwater tracts were expected to increase slightly over receipts stemming from a 16-2/3 percent rate. Comparative statistics indicate that for the five OCS sales in which both the 16-2/3 and the

33-1/3 percent rates were used during the same sale, industry interest was higher for tracts offered at the 33-1/3 percent rate. In the two OCS sales that employed both the 16-2/3 and the 12-1/2 percent royalty rates, industry interest was higher for tracts offered at the 12-1/2 percent rate. In those two sales, industry did not submit any bids on the 108 tracts offered at 16-2/3 percent. (See table 3.)

Table 3

Selected Bidding Results for OCS Sales Employing a Fixed 16-2/3 Percent and Either a 33-1/3 or 12-1/2 Percent Fixed Royalty Rate

Royalty rate	Tracts leased	Percent tracts bid on	Average no. bids per tract	Average bid for tracts bid on (millions)
16-2/3% a/	246	55	3.4	$10.7
33-1/3%	41	87	4.7	13.7
12-1/2%	56	38	2.4	3.5

a/Statistics shown for the 16-2/3 percent rate are from the five OCS sales in which tracts were offered under both the 16-2/3 percent and the 33-1/3 percent rates. Although a total of 108 tracts were offered under a fixed 16-2/3 percent rate during the two OCS sales that employed the 12-1/2 percent rate, there were no bids on the tracts offered at the 16-2/3 percent rate.

Source: Department of the Interior.

Although Interior assumed the high royalty tracts would receive reduced bonuses, industry apparently considered the tracts worthy of substantial bonus offerings due to their assumed high value and estimated reserve levels. Interior's assumption concerning the higher cost, deep water tracts appeared appropriate in that industry offered bids only on the lower 12-1/2 percent royalty tracts.

To further analyze the effects of higher fixed royalty rates on competition and bonuses, we compared bidding behavior for the five OCS sales that employed both a 16-2/3 percent and a 33-1/3 percent fixed rate for tracts offered. As indicated in table 4, tracts offered at the 33-1/3 percent rate generated more interest, 4.7 bids per tract as compared to 3.4 for 16-2/3 percent tracts, and garnered significantly higher bonuses, $28.6 million per tract as compared to $17.8 million per tract for the 16-2/3 percent tracts.

While it is too soon to determine whether the Federal Government will ultimately receive more revenue from tracts leased at the 33-1/3 percent royalty rate--i.e., more total revenues over the life of the lease--it appears, from early indications, that industry has

Table 4

Comparative Bidding Statistics on 16-2/3 and 33-1/3 Percent Tracts Offered During Five Selected OCS Sales

OCS Sale number	(percent)	Tracts offered	Tracts bid on	Percentage tracts bid on (percent)	Total number of bidders	Average number of bids/tract	Number of tracts leased	Total accepted high bids ($ millions)	Average high bid per tract leased ($ millions)
Sale 35 (12/11/75)	16-2/3	228	67	29	150	2.2	53	240.9	4.5
	33-1/3	3	3	100	16	5.3	3	176.4	58.8
Sale 40 (8/17/76)	16-2/3	139	86	62	301	3.5	80	590.9	7.4
	33-1/3	15	15	100	109	7.3	13	537.0	41.3
Sale A62 (9/30/80)	16-2/3	71	61	86	217	3.6	51	1,397.4	27.4
	33-1/3	22	16	73	81	5.1	14	200.1	14.3
Sale 62 (11/18/80)	16-2/3	38	34	89	138	4.1	29	463.0	16.0
	33-1/3	11	10	91	32	3.2	8	204.9	25.6
Sale 53 (5/28/81)	16-2/3	59	45	76	177	3.9	a/ 33	1,681.2	50.9
	33-1/3	16	14	87	35	2.5	a/ 3	53.9	18.0
Total for all five sales	16-2/3	535	293	55	983	3.4	246	4,373.4	17.8
	33-1/3	67	58	87	273	4.7	41	1,172.3	28.6

a/As of July 29, 1982, 19 tracts receiving bids in Sale 53 were in litigation. The 19 tracts included 8 tracts offered under the cash bonus, fixed 16-2/3% royalty method and 11 tracts offered under the cash bonus, fixed 33-1/3% royalty method. Since the 19 tracts were bid on but not leased yet, they are not included in our statistics on leased tract. For informational purposes, the total and average high bids on the 19 tracts were as follows: 8 tracts @ 16-2/3% - total high bids, 48.6M, average high bid/tract, $6.1M, 11 tracts @ 33-1/3% - total high bids, $184.4M, average high bid/tract, $16.7M.

Source: Department of Interior.

been very receptive in acquiring and exploring high royalty leases. Exploration efforts on tracts leased at the 33-1/3 percent rate appear more active than on tracts leased at the traditional royalty rate. For example, as indicated in table 5, during the 24 month period following lease acquisition, tracts leased at the 33-1/3 percent rate had an average of about 4 times the number of exploration wells drilled as the tracts leased at the 16-2/3 percent rate. This indicates that the higher royalty rate did not adversely affect company initiatives to explore the prospective high value tracts.

Table 5

Exploration Activities on 16-2/3 and 33-1/3 Percent Tracts Leased During Five Selected OCS Sales

OCS sale	Number of 16-2/3% tracts leased	Number of 33-1/3% tracts leased	Number of exploration wells drilled within 24 months on 16-2/3% tracts	Number of exploration wells drilled within 24 months on 33-1/3% tracts	Average number of exploration wells drilled on 16-2/3% tracts	Average mumber of exploration wells drilled on 33-1/3% tracts
Sale 35 (12/11/75)	53	3	11	21	.21	7.00
Sale 40 (08/17/76)	80	13	14	5	.18	.36
Sale A62 (09/30/80)	51	14	24	13	.47	.93
Sale 62 (11/18/80)	29	8	8	5	.28	.63
Sale 40 (5/28/81)	33	3	4	0	.12	0
Total	246	41	61	44	.25	1.07

Source: Department of Interior.

CHAPTER 3

PRACTICES OF STATES AND FOREIGN COUNTRIES

ARE NOT COMPARABLE TO FEDERAL OFFSHORE PRACTICES

Offshore leasing methods of States and foreign governments are not comparable to the cash bonus, fixed royalty leasing method employed for Federal offshore leases. States employ different leasing methods in leasing their offshore oil and gas acreage. Although the States generally require an up-front bonus and a subsequent share in production, the actual form of the bonus and percentage share varies within each State. While it is true that States generally require a higher royalty rate than does the Federal Government, significant differences in State and Federal offshore leasing environments account for the higher rates States obtain. State offshore areas are generally less costly to develop due to shallower water, better known geology, and proximity to transportation and refining facilities. Further, States rely more on royalty revenue than does the Federal Government which relies more on bonus revenue. Some foreign governments, as does the United States, use fixed royalty rates to ensure receipt of a share of offshore oil and gas produced. Although some foreign governments use a fixed royalty rate, there is no basis for comparison with the rate used by the United States because most foreign countries have or are moving toward nationalized resources or a nationalized industry. Further, the free market competitive leasing environment under which domestic companies operate is not necessarily congruent with the leasing environment in foreign countries, which occasionally favors foreign national companies.

STATE OFFSHORE PROGRAMS

Through 1980, State offshore oil and gas leases accounted for 41 percent of the total oil and 21 percent of the total gas produced offshore for the entire United States. The four States with offshore production activities--California, Alaska, Louisiana, and Texas--use different leasing methods in leasing their offshore acreage. Although most States require a combination bonus payment and royalty share, the type of bonus and royalty varies within each State. For example, some States award leases based on a competitively bid bonus and either a fixed or sliding scale royalty and a net profit share arrangement. In other instances, States employ a fixed bonus and a variable royalty or net profit share rate on production. In one instance, a State uses a competitively bid bonus, as well as a competitively bid royalty rate, to determine recipients of offshore leases.

Although the States differ in their leasing methods, all four States charge a higher percentage share of production than that normally charged by Interior for Federal offshore leases. Overall, States rely more on royalties than on bonuses for oil and gas revenue. For example, in three of the four 1/ States, royalties accounted for between 59 and 76 percent of the combined royalty and bonus revenue. For Federal leases, 2/ royalties accounted for approximately 25 percent of the combined royalty and bonus revenue. These differences are largely due to the differences in State and Federal offshore leasing environments. State offshore areas are generally located in shallower water than Federal offshore tracts. As a result, drilling, development, and transportation costs are not as high. Also, State offshore areas are closer to existing pipelines and refining facilities. These factors account, according to State and industry officials, for the higher State royalty rates companies are willing to pay.

Although the States' royalty rates are higher than the Federal rate, not all of the States employ a cash bonus, fixed royalty rate leasing method. Neither California nor Louisiana currently uses a fixed royalty rate. California employs a cash bonus, sliding scale royalty rate which, according to State officials, has resulted in an overall effective royalty rate of 25 percent. Louisiana uses a variable bonus, variable royalty bid method. The average royalty bid currently accepted by the State is approximately 25 percent. In the two States that employ a cash bonus, fixed royalty leasing method--Alaska and Texas--the royalty rates charged are significantly higher--20 and 25 percent, respectively--than the 16-2/3 percent rate charged for OCS leases. In Texas, which has employed a 25-percent rate since 1979, offshore revenue has increased by 118 percent, from 1979 through 1981, while oil production has declined by approximately 34 percent. Similarly, from 1980 to 1981, industry participation, as measured by the number of bidders and the total bonus bid amounts received, has declined by 18 and 43 percent, respectively. These declining trends are attributed by State officials to recent declines in market conditions rather than to the increased royalty rate the State employs. We could not meaningfully assess the impacts of Alaska's 20 percent fixed rate since the State has used it only in one sale in 1979.

Detailed information on each of the four States' leasing program is presented below.

California

California began offshore production in 1894 and continued offshore leasing through 1973, the year the last offshore lease was awarded. From 1929 through 1973, the State issued 62 offshore leases. As of December 30, 1980, the State produced approximately

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1/State statistics include Alaska (cumulative through December 1980), California (royalties cumulative through June 1981, bonuses cumulative from 1956 to 1981), Texas (combined fiscal years 1979 and 1980). Information was unavailable for Louisiana.

2/Federal statistics cumulative through December 1981.

1.8 billion barrels of oil and 650 billion cubic feet of gas. As compared to Federal OCS production off the California coast, the State's offshore production represented 90 percent of the total oil and 89 percent of the total gas produced in California coastal waters.

California's offshore oil and gas leasing program has, from inception, generally used some type of sliding scale royalty. Under current regulations, the State is authorized to use the following types of bidding methods.

--On oil, a sliding scale royalty of not less than 16-2/3 percent up to a maximum of 50 percent plus the highest cash bonus.

--On oil, a sliding scale royalty of not less than 16-2/3 percent up to the maximum specified in the invitation to bid. The tracts are awarded to the bidder who bids the highest factor to be applied to the scale of oil royalties set forth in the invitation to bid.

--On oil and gas, the highest flat rate of royalty of not less than 16-2/3 percent.

--On oil and gas, the highest percentage of net profits.

Under the first three options, the royalty on natural gas and products derived from the gas, is as specified in the invitation to bid, but not less than 16-2/3 percent.

From 1929 through 1955, the State issued 22 leases, 21 of which were awarded under a sliding scale bid method employing a minimum 16-2/3 percent royalty rate and a maximum rate of no more than was specified in the bid invitation. The one exception was a lease with a negotiated 16-2/3 percent flat royalty rate issued to compensate the State for drainage of the tract by wells on an adjoining tract. From 1956 through 1973, the State issued 40 offshore leases. For 39 of the 40 leases, the State employed a cash bonus, sliding scale royalty method with a 16-2/3 percent minimum royalty rate and a 50-percent maximum rate. The exception was a tract considered as wildcat acreage and leased under a flat 12-1/2 percent royalty rate in order to encourage exploration.

California State officials believe the sliding scale royalty method with a 16-2/3 percent minimum rate ensures the State a fair return. According to the officials, the sliding scale system has been in place for many years and has not adversely affected competition or development of leases. One official estimates that the sliding scale royalty system has resulted in an overall effective royalty rate of 25 percent. Currently, the State is planning to resume lease sales in the latter part of 1982 and is evaluating the various approved leasing schemes to decide on the most appropriate one for future sales.

Alaska

Alaska began offshore leasing in 1959 and through August 25, 1981, had held 32 oil and gas lease sales. Through December 1980, the State produced approximately 735 million barrels of oil and approximately 833 billion cubic feet of gas. All offshore oil and gas production in Alaska, to date, has stemmed from State leases. Although there have been five Federal OCS sales along the Alaskan coast, there has been no production yet from the Federal offshore leases.

Alaska's present oil and gas leasing law was established in 1978 when major amendments were made to the pertinent State law. Alaska officials told us the amendments were promulgated because the State became concerned that it was not getting a fair return on its oil and gas leases. Prior to the amendments, the State used a cash bonus, fixed royalty method with a 12-1/2 percent or a 16-2/3 percent royalty rate. The State's 1978 amendments provided for the following leasing methods:

--Cash bonus bid, with a fixed 12-1/2 percent minimum royalty rate.

--Cash bonus bid, with a fixed 12-1/2 percent minimum royalty rate, and net profit share.

--Fixed cash bonus with a variable 12-1/2 percent minimum royalty bid.

--Fixed cash bonus with a variable net profit share bid.

--Fixed cash bonus, with a fixed 12-1/2 percent minimum royalty, and a variable net profit share bid.

--Cash bonus bid, with a 12-1/2 percent minimum sliding scale royalty.

--Fixed cash bonus, with a variable 12-1/2 percent minimum sliding scale royalty.

From the first sale in December 1959 through the 25th sale in May 1973, the State used the traditional cash bonus plus 12-1/2 percent royalty rate. The next two sales held in December 1973 and October 1974 used a cash bonus plus 16-2/3 percent royalty rate. The following schedule shows the types of bidding schemes used on the five sales after the adoption of the lease law amendments.

Sale number	Date of sale	Type of bidding
29B	7/24/79	Cash bonus plus 20 percent fixed royalty rate.
30	12/12/79	8 tracts--fixed bonus of $1,750 per acre plus 20 percent fixed royalty rate plus variable net profit share.
		18 tracts--fixed bonus of $875 per acre plus 20 percent fixed royalty rate plus variable net profit share.
		41 tracts--cash bonus plus fixed sliding scale royalty rate (royalty ranges from 16-2/3 to 65 percent).
31	9/16/80	Cash bonus plus 20 percent fixed royalty rate plus 30 percent net profit share.
32	5/13/81	Fixed bonus of $10 per acre plus variable royalty rate of not less than 20 percent.
33	8/25/81	Fixed bonus of $10 per acre plus variable royalty rate of not less than 20 percent.

Source: State of Alaska.

As shown above, subsequent to the new leasing law, State policy shifted sharply from the traditional cash bonus plus fixed royalty rate to one of increased or variable royalty and net profit sharing. This resulted because of the requirements in the State's 1978 amendments for presale tract analysis and projections of future State needs. For example, the State reportedly has ample cash to meet present needs and is trying to adjust future revenue to mitigate fiscal problems anticipated when the Prudhoe Bay oil revenues decline. Thus, many high potential tracts in the Beaufort Sea oil and gas lease sale were offered on a fixed bonus plus 20 percent royalty rate plus a variable net profit share. According to State officials, these contingency payments, provided there is future commercial production, will defer income to meet future projected needs and will provide a fair return to the State. State officials told us that had all Beaufort Sea tracts been offered under a cash bonus plus 16-2/3 percent royalty, the State would have received an estimated $1 to $2 billion more in immediate income from increased bonuses.

We could not determine specifically the revenue implications of the State's offshore leasing methods. Income from oil and gas is reported annually and cumulatively from 1959. The reports are summary totals and do not provide cumulative information for individual tracts nor distinguish between onshore and offshore revenue.

The accumulated value of Alaska's oil and gas income as of December 31, 1980, was as follows:

Total Oil and Gas Income to State
Cumulative as of December 31, 1980

	(000 omitted)	Percent
Royalty payments to State	$2,548,356	32
Bonuses and rentals	1,714,573	21
Oil and gas taxes	3,816,749	47
Total income to State	$8,079,678	100

As shown, the royalty payments, bonuses, and rental provided only about half of the State oil and gas revenues. The biggest contributors to State revenues were the oil and gas taxes. These taxes were comprised generally of a severance tax, conservation tax, property tax, and a State petroleum corporate income tax. The royalty rate for all production reported through 1980 was 12-1/2 percent. The reported cumulative value of oil and gas produced in this period was about $21.7 billion. Thus, through royalties, bonuses, rentals, and taxes, the State collected about 37 percent of the total of all oil and gas produced.

Louisiana

Louisiana's offshore leasing program began in the 1920s. Through calendar year 1980, the State's offshore acreage produced 1.2 billion barrels of oil and condensate 1/ and 9.4 billion cubic feet of gas. Approximately 80 to 85 percent of the State's oil and gas activity is located offshore within State waters. The State conducts lease sales monthly.

Louisiana uses a completely open bidding system in advertising and awarding its oil and gas leases. Under the open bidding system, the bonus, the royalty rate, and the number of bids are variables that are competitively offered to interested participants. For example, under Louisiana's bidding format, a company may submit several bids on the same tract. Each bid could consist of a different bonus amount and a different royalty rate. Each bid is considered provided it meets the minimum royalty rate of 12-1/2 percent and any specified minimum bonus amount. When the State began leasing in the 1920s, the effective royalty rate was 12-1/2 percent.

1/Condensate is high quality crude oil extracted along with liquified gas from a gas well. The condensate is subsequently separated and produced as oil.

The average royalty rate accepted on leases awarded during 1980 and 1981 ranged from 21.2 to 26.2 percent.

According to State officials, Louisiana's total revenue is heavily dependent on revenue received from oil and gas activity. In recent years, oil and gas revenues have accounted for almost 50 percent of all revenue received by the State. State officials told us that it was assumed that deregulation of oil and gas prices would bring about increases in prices and revenue for the State. While this held true for prices and State revenue derived from oil and gas, offshore production levels between 1978 and 1981 decreased by approximately 19 percent for oil and 24 percent for gas. Further, in 1981, prices began decreasing partly because of declining demand and increasing worldwide supplies. State officials indicated that as a result of the recent decline in prices and production, the State's oil and gas revenues and acreage leased are decreasing.

Texas

Texas offshore leasing began in the 1940s and through calendar year 1980 the State's offshore acreage produced 22.3 million barrels of oil and condensate and approximately 2.3 billion cubic feet of gas. When offshore leasing began, Texas charged a minimum royalty rate of 12-1/2 percent. Over the years, it has gradually increased its minimum royalty rate to 16-2/3 percent in 1968, 20 percent in 1973, and 25 percent in 1979. Texas holds two lease sales per year.

In leasing offshore acreage, the State employs two bidding methods--a variable cash bonus, fixed royalty rate method, and a fixed cash bonus, variable royalty rate method. Under the cash bonus, fixed royalty rate method, the State currently charges a 25-percent royalty rate on offshore oil and gas produced. Under the second bidding method, the fixed cash bonus, variable royalty rate method, the State charges a pre-determined fixed bonus amount, and a variable minimum royalty of 25 percent. Leases are awarded based either on the highest royalty rate bid or the highest bonus bid offered.

Recent production and revenue experiences have indicated mixed trends. As shown in the table below, although oil and gas production declined during 1979 to 1981, State revenue increased, particularly revenue received from royalties. The dramatic increase in royalty revenue is probably due to earlier increases in the royalty rate.

Texas Offshore Production and Revenue
1979 through 1981 (note a)

Calendar year	Production: Crude oil/ condensate production (barrels)	Production: Gas well/ casinghead gas production (billion cubic feet)
1979	2,544,099	208
1980	1,962,571	254
1981	1,678,906	219

Revenue ($ millions)

Fiscal year	Bonuses	Rentals	Royalties
1979	34.6	7.3	58.6
1980	34.7	10.3	155.3
1981 b/	37.5	13.0	168.6

a/Because Texas production and revenue information are maintained by two separate State agencies, reporting periods differ. Production information is maintained and reported on a calendar year basis, whereas revenue is maintained and reported on a fiscal year basis.

b/Information for 1981 is only through November 1981.

Source: State of Texas.

A State official told us that the State's increase in its royalty rate was based on the need for additional revenue to finance public educational services and on what the State believed lessees could bear in view of higher oil and gas prices. According to the State official, increases in oil and gas prices from the mid to late 1970s increased oil and gas industry profits and, in turn, its ability to pay higher royalties. Although it may be too early to determine whether the increased royalty rate has had a major impact on production, recent sales employing the 25-percent rate indicate a significant decline in the number of tracts bid, the number of bidders, and the amount of bonus money offered. These declines, as well as declines in production, are attributed by the State officials to declining oil and gas prices, dwindling financial resources of oil companies because of profit losses and a tight money market, and higher cost of offshore operations. The officials further indicated that while the royalty rate may have had some impact, generally larger companies are willing to pay a higher rate if reasonably assured of making a profit.

States' views on Federal 16-2/3 percent royalty rate

Most State officials we interviewed believe the Federal Government's traditional fixed 16-2/3 percent royalty rate charged for offshore leases is too low and should be raised. Officials from one of the four States felt the Federal rate should remain at 16-2/3 percent because of slackening demand and declining prices. Although most State officials believe the Federal rate is too low, they do not believe it should be raised to a 25-percent rate charged by some States. According to the officials, Federal OCS development is more costly because of greater water depth and distance from pipeline and refining facilities. Nonetheless, the State officials generally believed a modest increase in the Federal offshore rate would not significantly affect competition and cash bonuses. Some indicated that a fixed rate of about 20 percent would ensure cash "up front" money, reduce risk to the Government, promote timely exploration and maximum efficient recovery of resources, and require minimal oversight and administration.

FOREIGN OFFSHORE PROGRAMS

Foreign governments, as does the United States, use royalty rates as a means of ensuring a share of revenue generated from oil and gas production. Although many foreign governments use royalty rates, because of differences in leasing arrangements and resource ownership, there is no basis for comparing foreign royalty rates with those of the United States. Many foreign governments have or are moving toward nationalization of their resources or have a nationalized oil and gas industry. While the degree of nationalization varies by country, countries that have nationalized are gradually assuming more responsibility for developing their resources and are requiring a greater share of revenue from those allowed to participate in resource development.

Two types of leasing arrangements

Basically, there are two types of leasing arrangements used worldwide in developing offshore areas--the concessionary and the contractual arrangements. The concessionary arrangement consists of an agreement, referred to as a lease or license, that grants a company the right to explore for, produce, transport, and sell hydrocarbons within specified boundaries for a fixed period of time. Usually, the time period granted for production is 20 to 30 years. Under a concessionary arrangement, the lease is granted by the Government in return for payments in the form of bonuses, royalties, rentals, and taxes. The royalty rate, which is usually stipulated prior to awarding the lease, can be either fixed or variable. In either case, if production occurs, the royalty provides income or a share of production to the Government regardless of a company's profitability. Further, the company bears the initial costs and risks involved because it pays bonuses and exploration expenses which might not be recovered since there is no guarantee of making a producible discovery.

The application of a royalty rate on offshore production generally exists when a concessionary type of arrangement is used. The amount of the royalty rate varies by country. For example, royalty rates range from 6 percent to 20 percent for countries that currently use offshore royalty rates under concessionary arrangements. 1/ A few countries do not charge a royalty rate on offshore production. Other countries negotiate the royalty rate. In either event, the rate is used for determination of the Government's share of any produced oil and gas from offshore territory.

The second worldwide leasing arrangement, the contractual arrangement, is used in various forms--production sharing contracts, risk service contracts, and non-risk service contracts. Under these leasing methods, companies, or contractors, agree to provide specific services for either a share in production or a fee. The foreign governments utilizing these arrangements either share or control all resulting production. The risks associated with exploration are generally borne by the contractor, although reimbursement is often made if production occurs. Under non-risk service contracts, however, all risks are borne by the government.

Selected countries' leasing methods

We intended to compare some foreign countries' fixed royalty rates with that of the United States; however, because of the trend toward nationalization of many foreign countries' natural resources or the nationalization of the countries' oil and gas industry, comparison with the United States is impractical. Also, many of the countries with significant offshore production do not operate under a total free market environment as exists in the United States. Foreign national companies are sometimes favored in foreign governments' granting exploration and development rights. In lieu of a comparison, we describe (for informational purposes) some familiar foreign countries' leasing arrangements.

Canada

Canada's natural resources, as provided by the Canadian Constitution, are owned by the individual Canadian provinces. Offshore territory, however, is under the jurisdiction of Canada's federal government. In 1975, Canada established Petro-Canada, the Canadian national oil company. In 1980, Canada established a national goal to increase Canadian interest in the oil and gas industry from 28 percent to 50 percent by 1990. Most of Canada's oil and gas is produced by the province of Alberta in which the royalty rates range from 8 to 16-2/3 percent on oil production and a flat 16-2/3 percent on natural gas production.

1/The royalty rate for one country under the concessionary arrangement and with offshore production was not available.

Canadian taxes, both provincial and federal, total about 50 percent of producers' net profit. Recent government proposals recommend the government's retaining a 25-percent interest in all Canadian lands. Another significant change calls for shuffling the distribution of energy revenues for the Federal, province, and energy industry to approximate a ratio of 24:43:33 percentage mix, respectively. This shift departs from the current 10:45:45 percentage share for the federal province and energy industry.

Denmark

In 1962, Denmark granted a sole concession for exploration and recovery of hydrocarbons to A.P. Moller Company. In June 1963, the Danish government included the offshore area in the concession. The concession was granted for a 50-year period, provided production occurred within 10 years. Commercial quantities of oil and natural gas were discovered in 1967, and oil was first produced in 1972.

In January 1982, Denmark's Parliament passed an oil and gas production tax bill that provides for an 8-1/2 percent royalty fee for all production, a 70-percent tax on production income, and a 40-percent corporation tax. In total, the bill provides for about an 83.5-percent maximum share of production revenue for the Danish government.

Norway

Norway's offshore exploration and development are regulated by the Continental Shelf Act of 1963 and the Royal Decree of December 8, 1972, as amended. In 1972, Norway established its national oil company, Den Norsk Stats Olijeselskapals (Statoil), to hold the government's ownership interest in all petroleum operations.

Norway charges an 8- to 16-percent royalty rate, depending on the amount of production, for crude oil and a 12-1/2 percent rate for natural gas. Royalties can be obtained either in cash or in kind. Norway's petroleum income tax amounts to 50.8 percent, consisting of a general corporate, a municipal, and a lesser capital tax. In addition, Norway charges a Special Petroleum Tax which is levied against production in offshore areas. The tax was raised in 1980 to 35 percent from 25 percent of taxable income. The government's estimated share of gross revenue from offshore production is 85 percent after applying royalty, ordinary taxes, and the special tax.

United Kingdom

Prior to 1975, nearly all of the United Kingdom's (UK) petroleum program operated under a free economy system. In 1975, the UK created the British National Oil Corporation (BNOC). Since BNOC's creation, the UK has achieved energy self-sufficiency by producing enough energy from indigenous sources and nuclear power to meet national needs.

The UK's Continental Shelf Act of 1964 extended the principle of Crown property to the offshore areas and set the royalty rate at 12-1/2 percent of the wellhead value of oil/gas. Although the UK leases under the concessionary type of arrangement, it issues its leases in a discretionary manner. This system allows the UK to occasionally favor BNOC when granting a lease. By doing so, BNOC can provide the government with a greater share of any production. Offshore oil and gas licenses are granted only to resident UK citizens or companies incorporated, controlled, and managed in the UK. There are basically four kinds of payments attached to a production license: (1) initial payment on the application for and granting of the license; (2) periodic payments (rentals) on an escalated basis; (3) royalties; and (4) petroleum revenue tax, gross tax, and corporate income tax. The UK's tax receipts vary according to the size of reserves within a field and the costs required for development. The UK Offshore Operators Association estimated that the marginal North Sea tax rate (government's share of total revenue) ranged from 80 to 92 percent for North Sea operations depending on a company's tax position. The UK estimated it would raise an additional $2.4 billion in revenues from North Sea operations in fiscal year 1981 to 1982.

CHAPTER 4

VIEWS AND IMPLICATIONS

OF THE FEDERAL ROYALTY RATE

Interior and industry officials generally believe the cash bonus bid fixed 16-2/3 percent royalty rate leasing method has been appropriate and has afforded the Federal Government a fair return on its OCS resources. Both point to studies indicating that leases awarded at the 16-2/3 percent rate during 1954-69 have not resulted in excessive industry rates of return. Interior and industry officials caution that assigning too high a royalty rate might impede downstream production, reduce the level of bonus money offered by prospective lessees, and ultimately decrease the Government's total revenue. In recent years, high royalty rates have been used selectively by Interior for tracts estimated to have high resource levels and low development costs. Although the recency of Federal sales employing a higher royalty precludes comprehensive analysis of the higher rate's effect on total revenue, other measurable factors, such as competition and bonuses, do not appear to have lessened as a result of a higher royalty rate. Because the high royalty tracts offered were considered high value prospects, competition and bonuses were greater than on tracts offered simultaneously at the 16-2/3 percent rate.

Some recent studies conclude that higher royalty rates could enhance Government revenue; however, any increases would be slight due to offsetting production losses. Several industry officials believe a modest increase in the royalty rate would not significantly affect competition and bonuses. The question of higher royalties is especially important in view of recent domestic energy projections through the year 2000 which estimate future increases in prices without corresponding increases in production. Also, the unpredictable impacts of Interior's recently established accelerated leasing program could possibly result in leasing situations in which higher royalty rates, or some other leasing alternative, may be preferable. Because of these uncertainties, Interior should maintain a flexible approach in setting royalty rates.

FAIR AND EQUITABLE RETURN-- A DIFFICULT QUESTION

One of the purposes of the OCS Lands Act Amendments is to lease OCS resources in a manner that ensures the public a fair and equitable return on oil and gas development. While it is extremely difficult to specifically define what constitutes a fair and equitable return to the public, it is even more difficult to design and evaluate a bidding system that clearly achieves this goal. One measure of fair return to the public is the Government's ultimate share in revenue from OCS leasing and production activities. Another measure is industry's willingness to commit resources and accept risks in order to achieve profits. In attempting to achieve this goal, the Federal Government has sought to design bidding systems that provide an equitable amount of revenue to the public and yet offer sufficient financial incentives to industry for exploring, developing, and producing leases. Although under present leasing arrangements, some Federal revenue, i.e., bonuses, can be measured immediately following a lease sale, other revenues, such as royalties and taxes, are realized downstream and are not immediately measurable. Similarly, while industry interest is immediately evident at the time of the sale, the question of whether sufficient financial incentives are provided is not fully answerable until exploration, development, and production activities are completed--usually several years after a lease is awarded.

INTERIOR AND INDUSTRY VIEWS ON 16-2/3 PERCENT RATE

While recognizing the difficulties involved in determining the effectiveness of a bidding system in ensuring the public a fair and equitable return, Interior and industry officials generally believe that the cash bonus, fixed 16-2/3 percent bidding method has been an appropriate leasing arrangement that has provided the Federal Government a fair return on its resources. According to the officials, the cash bonus bid method is the only leasing method that has been used over a long enough period of time to acquire sufficient data to judge its effects. The officials indicated that past performances under the traditional leasing method have demonstrated sufficient competition for leases and overall modest profitability for industry. In presenting this view, the officials identified two studies on OCS competition and profitability--a 1980 Interior-sponsored study by Walter Mead and Philip E. Sorensen and a 1980 DOE-sponsored study by the Cabot Consulting Group. 1/

The Mead/Sorensen study addressed the questions of whether, under the cash bonus bidding system, the Federal Government has received fair market value for OCS leases, and whether the OCS lease sale market is effectively competitive. The study analyzed 1,223 leases issued in the Gulf of Mexico from 1954 through 1969. By estimating the costs of drilling and development and projecting past production into the future, the study estimated industry's average internal rate of return on OCS leases at 11.4 percent before taxes. In a followup study Mead and Sorensen estimated the after tax internal rate of return at 9.0 percent. 2/ The original study concluded that the Federal Government received more than

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1/The two studies were entitled: "Competition and Performance in OCS Oil and Gas Lease Sales and Lease Development, 1954-1969" by Walter J. Mead and Philip Sorensen, dated Mar. 1, 1980; and "Competition on the Outer Continental Shelf and its Implications for Competition in Downstream Markets" by Cabot Consulting Group, dated July 14, 1980.

2/The followup study was entitled: "Additional Studies of Competition and Performance in OCS Oil and Gas Sales, 1954-1975" by Walter J. Mead and Philip Sorensen, dated Nov. 30, 1980.

fair market value, and that the lease sale market is intensely competitive under the cash bonus bidding system. Similarly, the Cabot study concluded that based on estimates of profitability, OCS profits, on the average, have been at competitive levels, and the Federal Government has been receiving fair market value for its resource rights. Both studies indicated that the rates of return on investments for OCS development were below the range earned by most U.S. manufacturing corporations.

TOO HIGH A ROYALTY RATE MIGHT DISCOURAGE PRODUCTION

Both Interior and industry officials expressed concern that too high a royalty rate might ultimately reduce Federal revenue and lease production. According to the officials, a higher royalty rate could serve as a disincentive to explore and develop, and produce small fields or would lead to early termination of production. In accepting a high royalty rate, industry would anticipate substantial resources so as not to reduce estimated revenues to the point that a tract would not be developed. Secondly, the officials felt that a high fixed royalty rate would affect the timing of Government revenues and the amount of risks borne by the Government. The officials indicated that as the royalty rate increases, the amount of bonus money would decline. Industry officials stated that companies are willing to pay only so much for a lease. Accordingly, if a greater share of the costs is paid in royalty, then a lesser share will be paid in bonus money. Further, by trading-off the up-front bonus payment for a larger contingent downstream royalty payment, the Government assumes a greater proportion of the risk that the lease may either prove unproductive or less productive than expected.

As stated previously in chapter 2, our analysis of lease sales in which leases were offered under a 33-1/3 percent royalty rate instead of the traditional 16-2/3 percent rate showed that the level of competition and the amount of bonuses received was greater on the high royalty tracts, indicating the higher royalty rates did not deter industry interest in tracts apparently perceived as having high resource recovery potential. In the five OCS sales in which both royalty rates were used, 33-1/3 percent tracts leased attracted an average of 4.7 bidders per tract as compared to 3.4 bidders per tract for 16-2/3 percent tracts. Similarly, bonus amounts accepted for 33-1/3 percent tracts exceeded those of 16-2/3 percent tracts--$28.6 million per tract to $17.8 million per tract, respectively. Although there has been very little production yet on the 33-1/3 percent tracts leased, exploration efforts appear even more diligent than efforts on 16-2/3 percent tracts.

While we realize that the total impacts of higher fixed royalty tracts are not completely measurable at this point, preliminary indicators concerning competition and industry's willingness to offer substantial amounts to explore such tracts are encouraging.

STUDIES INDICATE SLIGHT REVENUE INCREASE POSSIBLE USING HIGHER ROYALTY RATES

Although the specific impact of increasing the rate cannot be completely measured, there is some indication that increased rates could have a slight positive effect on Government revenue.

In 1975 and 1976, three studies 1/ analyzed the effects of increasing the royalty rate under the traditional leasing system. Although we did not independently assess the methodology employed in the three studies and cannot account for any shortcomings that may exist, we believe that since the studies were significant simulated analyses of the issue of increased royalty, some discussion of their findings is warranted.

Each of the three studies--the 1975 Kalter study, the 1976 Rooney study, and the 1976 Townsend study--assessed the impacts of increased royalty rates on Federal revenue and ultimate production on OCS leases. The impacts were expressed in terms of gains or losses in revenue and production. The 1975 Kalter study suggested that the expected present value of Government receipts and production losses are substantially insensitive to changes in the royalty rate up to approximately 40 percent. The Rooney study found that, compared to a 16-2/3 percent royalty rate, a leasing system having a 50-percent royalty rate would generate production losses under 10 percent, while the present value of Government receipts would increase by more than 10 percent. The Townsend study found that production losses are less than 10 percent at a 40-percent royalty rate for average-cost tracts and at a 30-percent royalty rate for high-cost tracts. Using the Townsend study data, Interior estimated that the expected present value of Government receipts increased by 10 percent. Although the average increase in Government receipts was modest in size, there were several tracts in which the increase was substantial. All three studies indicated an apparent broad range of royalty rates over which production losses are small.

Although industry officials with whom we spoke believed that too high a royalty rate would result in lower bonus and less production, several of the officials did not believe a modest increase would significantly affect competition or bonus levels. According to these officials, when a company seriously wants a tract, for whatever reasons, it will bid high enough to be reasonably sure

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1/The three studies were: "Alternative Energy Leasing Strategies and Schedules for the Outer Continental Shelf" by R. Kalter, et al., Cornell University, Dec. 1975; "Royalty Rate Policy for OCS Petroleum Leases: An Empirical Simulation Study" by R. Rooney, California State University, July 1976; and "An Analysis of Alternative Bidding Systems for OCS Oil and Gas Leases" by R. Townsend and K. Witt, U.S. Department of the Interior, Feb. 1976.

of obtaining it. In these instances, the officials said the cash bonus would probably be the same whether the fixed royalty rate was 16-2/3 percent or 20 percent. However, industry officials believe a 12-1/2 percent royalty rate in deepwater and frontier leasing areas is appropriate due to added risks, more costly operations, and the lack of a well established infrastructure more readily available in traditionally leased shallow-water areas.

ENERGY TRENDS AND PROJECTIONS AND ACCELEREATED OFFSHORE LEASING MAKE ROYALTY ISSUE IMPORTANT

The importance of employing leasing methods that ensure the public a fair and equitable return on the OCS resources is further heightened by current projected trends in domestic oil and gas production and by newly established accelerated leasing procedures. According to 1981 Department of Energy domestic energy projections to the year 2000, domestic petroleum prices will increase by approximately 4 percent per year while losses in conventional recovery techniques and offsetting gains in unconventional techniques will keep overall production at about its 1980 level. Recent declines in energy consumption and production, as well as unfavorable economic conditions, have contributed to overall declines in oil and gas exploration and development activities. In recent offshore lease sales, bonus revenues have been less than originally anticipated. For example, about $3 billion was originally anticipated from the October 1982 Beaufort Sea lease sale in Alaska. The sale yielded about $2 billion in bonuses--a sizable amount but still less than anticipated. While it is extremely difficult to precisely forecast the effects a particular leasing method or royalty rate may have on the public's share of oil and gas revenue, it is important to employ methods that provide sufficient flexibility to enhance the public's chances of acquiring a fair return on its resources.

Another factor highlighting the importance of royalty considerations is Interior's recently established accelerated leasing program. Under the program, a new procedure for evaluating and accepting bids on offshore tracts will be employed that provides for post-sale detailed evaluations of a sample of tracts receiving bids. Bids on non-sampled tracts will be accepted without a detailed evaluation--thus, the marketplace will be relied on to determine the fair value of a large percentage of the tracts receiving bids. Interior has not yet defined the approximate percentage of tracts that will be evaluated in detail. In the past, Interior has relied on its own tract-by-tract evaluations of all tracts offered as the basis for evaluating and accepting industry bids to ensure receipt of fair value. Although Interior's new bid acceptance approach will allow for more land to be placed under lease, it may be lessening the assurance that the Government will receive revenue as high as in the past for its offshore acreage. Recent declines in industry interest, capital levels, and bonuses coupled with upcoming broadened offshore offerings, suggest consideration of higher royalty rates as one means of ensuring adequate protection of the public's interests.

CHAPTER 5

CONCLUSIONS, AGENCY COMMENTS,

AND OUR EVALUATION

CONCLUSIONS

The question of what royalty rate is most appropriate for OCS leasing is, at best, a difficult and complicated one to answer. Federal offshore oil and gas resources represent a vital economic and social asset to the Nation. The need to ensure the receipt of a fair and equitable return to the public for resources extracted from the OCS is critical, but so too is the need to expeditiously explore for and recover oil and gas from offshore areas. Until recent years, the Federal Government's only method for leasing offshore acreage was the cash bonus bid, fixed 16-2/3 percent royalty rate method. Over 85 percent of the OCS tracts that have been leased since 1954 have been leased under that method. Since 1978, 54 percent of OCS tracts leased have been leased under the fixed 16-2/3 percent method. Although enabling OCS legislation establishes 12-1/2 percent as the minimum royalty rate for most bidding systems, there is no specific quantitative basis for either the 16-2/3 percent rate traditionally used or the 12-1/2 percent rate cited in the law. The recent use and effects of various leasing methods and royalty rates seem to suggest that no one rate is appropriate for the myriad of OCS leasing areas. In fact, it is difficult to defend the use of a single royalty rate due to the subjectivity of predicting OCS market dynamics and the size and location of OCS resources.

The extent to which increased royalty rates can enhance Federal revenue is, at best, difficult to measure. Many factors which are presently unknown, such as future price and production levels and general economic conditions, play an important role in determining the Federal Government's ultimate share in revenue produced from OCS leases. Although these uncertainties exist, results from the recent use of higher royalty rates on tracts considered to have higher resource potential appear encouraging. Higher valued tracts offered at a fixed 33-1/3 percent royalty rate generated greater competition and higher bonuses than those offered at the 16-2/3 percent rate, indicating that the higher royalty rates did not deter industry interest in tracts apparently perceived as having high resource recovery potential. Further, although most of the high royalty tracts are not yet producing, exploration efforts appear as diligent as on tracts leased under the traditional 16-2/3 percent rate.

Several States employ higher royalty rates; however, State and Federal royalty practices are not comparable due to differences in leasing methods, leasing environments, and the relationship between bonuses and royalties as revenue sources. Foreign methods could not be compared to United States' methods because of differences in resource and industry ownership and a restricted market environment.

An across-the-board increase in the offshore royalty rate may not be appropriate at this time; however, selective tailoring of the royalty rate based on resource potential estimates and industry response experiences is desirable. We support Interior's past use of higher royalty rates in response to estimated resource, development, and market expectations. It is difficult at this time to predict the impact Interior's new accelerated leasing program will have on the future leasing environment. Under the new program (1) Interior will be offering more land for lease, but with less pre-sale information; (2) industry will be extending its financial resources over more sales and tracts than in the past, presumably with a lesser amount of resources per tract; and (3) industry may be offered second sales in leasing areas before it has information from prior sales to define its interest. These and other possible impacts suggest that Interior should maintain a flexible approach in selecting bidding systems for future sales. Higher royalty rates may prove to be advantageous to the Government in a number of these situations--just as lower rates or one of the alternative bidding systems provided for under the OCS Lands Act Amendments of 1978.

AGENCY COMMENTS AND OUR EVALUATION

In commenting on our report, Interior generally agreed that a modest increase in royalty rates, on a selective basis, could probably be accommodated without unfavorably impacting OCS revenue and production. However, Interior opposed increasing royalty rates stating that their analyses and studies showed that higher rates (1) reduce the likelihood tracts will be leased, (2) yield possible negative impacts on minimum economic field sizes, and (3) result in slower production and less total economic value to the Nation. Interior also stated that the certainty of their pre-sale information is such that the risks of offering tracts at higher royalty rates outweigh possible gains.

We met with Interior officials to discuss their comments and the studies or analyses they claimed supported their positions. We also wanted to clarify the Department's policy with regard to the future use of higher royalty rates in offshore lease sales. Interior's analyses consisted of (1) pre-lease bid design evaluations for two recent and one proposed sale, and (2) a post-sale evaluation of one sale employing a high royalty rate for 13 tracts. In the three pre-lease bid analyses Interior concluded that based on estimated resource levels and development costs for the proposed tracts considered in those sales, a higher royalty rate was not appropriate due to the reasons cited in Interior's response. The post-sale study provided by Interior analyzed one sale of 13 high royalty tracts and indicated a weak but significant effect of the higher rates in increasing competition and no significant effect on bonuses. The study noted, however, that its failure to observe stronger effects possibly stemmed from analyzing only 13 tracts in one sale. The study did not specifically address the three factors Interior cited as the basis for its reluctance to offer tracts at higher royalty rates.

We agree that Interior should be guided by its pre-sale analyses in establishing royalty rates for offshore lease sales. As indicated previously, our conclusion addresses only those selective instances in which resource estimates and estimated development costs are conducive to the use of a higher royalty rate. Interior's one post-sale analysis of actual bidding results using a higher royalty rate, however, indicated an increased number of bidders and higher bonuses--a finding consistent with our analyses of the results of all five sales in which Interior used higher royalties.

In our follow-on discussions, Interior officials told us the Department has no written policy on the use of higher royalty rates. The decision to use a higher royalty rate is made at the Secretary or Under Secretary level on a sale-by-sale basis after consideration of pre-lease design evaluations prepared by the Interior staff. We pointed out that Sale 53 held in May 1981 was the last sale in which a fixed royalty rate higher than 16-2/3 percent was used under the cash bonus, fixed royalty leasing arrangement. This fact, coupled with Interior's stated reluctance to use higher royalty rates, raised a question as to whether Interior would use a higher rate in the future if its pre-lease sale evaluations found that a higher royalty was appropriate. We were told that higher royalties would be considered for future sales but in all likelihood they would not be used--the basis for this being that higher royalties theoretically tend to reduce the chances of land being leased and expeditiously explored for hydrocarbons. We were told the current administration is committed to rapidly inventorying the offshore for hydrocarbons and that higher royalty rates, theoretically, could adversely impact on this goal. Again, our review has shown that the use of higher royalty rates on selected tracts of high resource potential has had no apparent unfavorable impacts on competition, revenues, and exploration. Furthermore, we believe that Interior should not rule out or prejudge any leasing options, including higher royalty rates, until the impacts of its new accelerated leasing program are more fully known. The response to the new program may result in situations where royalties other than 16-2/3 percent are more appropriate.

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NINETY-SEVENTH CONGRESS

Congress of the United States

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SUBCOMMITTEE
OF THE
COMMITTEE ON GOVERNMENT OPERATIONS
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WASHINGTON, D.C. 20515

March 8, 1982

Honorable Charles A. Bowsher
Comptroller General
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

As you know, the Subcommittee on Environment, Energy and Natural Resources has been investigating the Interior Department's outer continental shelf oil and gas leasing activities. A particular area of concern to the Subcommittee is the question of royalty rates for oil and gas production, more specifically, whether current royalty rates set by the Interior Department for lease sales ensure the best return to the U.S. Treasury.

At a time when social programs are being severely curtailed in an attempt to balance the budget, I believe it essential that we maximize revenues from publicly owned energy resources in the OCS and on-shore. I am not convinced that the Department of Interior is pursuing such a policy. The Treasury may be losing millions and ultimately billions of dollars in revenues as a result of the low royalty rate required under the present system.

It is my understanding, for example, that the Interior Department offered a number of deep-water tracks in South Atlantic Sale 56 at the minimum royalty rate of 12.5 percent, well under the traditional rate of 16.66 percent. At the same time many individual states are leasing their offshore lands under bidding arrangements similar to those used by Interior, but requiring as much as a 25 percent royalty.

Since the Secretary of Interior has proposed to accelerate leasing through a 5-year plan which will place under lease up to a billion acres of public property, nearly all of the OCS, it is essential that we act now to obtain the highest return from those leases.

Honorable Charles A. Bowsher
Page Two
March 8, 1982

I request that you investigate the Department of Interior's rationale and practices in setting royalty rates for offshore oil and gas production. This analysis should compare Interior's approaches in setting royalty rates with those of various states leasing offshore lands and also those of foreign governments with offshore development programs. In your analysis please address the revenue implications associated with the differing practices.

The 1978 amendments to the Outer Continental Shelf Lands Act directs the Department to experiment with different bidding systems, including systems which will reduce front end cash bonus bidding and allow greater competition. As part of your review I would appreciate an analysis of whether the Department of Interior has indeed significantly reduced the use of front end cash bonus bidding.

I request that you provide the Subcommittee with a report of your investigation by July 1982. Please coordinate your activities with Mr. Lester Brown of the Subcommittee staff.

Thank you for your cooperation.

Sincerely,

Toby Moffett

TOBY MOFFETT
Chairman

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

OCT 5 1982

Honorable Charles A. Bowsher
Comptroller General of the
United States
General Accounting Office
Washington, D.C. 20548

Dear Mr. Bowsher:

Thank you for the opportunity to review the report entitled "Interior Should Make Greater Use of Higher Royalty Rates for Selected Outer Continental Shelf Oil and Gas Leases." The Department of the Interior's comments on the report are included in the enclosure.

Sincerely,

Donald Paul Hodel

UNDER SECRETARY

Enclosure

Comments on General Accounting Office Draft Report Entitled "Interior Should Make Greater Use of Higher Royalty Rates for Selected Outer Continental Shelf Oil and Gas Leases"

The Department of the Interior (DOI) generally agrees with the conclusions in the General Accounting Office (GAO) report and particularly that "While too substantial an increase in the royalty rate might ultimately reduce Federal revenue and oil and gas production, there is some support that a modest increase, in selective instance, probably will not produce significant adverse impacts on revenue and production." However, the certainty of our pre-sale resource information is such that the risks of offering tracts at higher royalty rates outweigh possible gains. This will be especially true as we move to areawide leasing where our tract-specific resource information is more limited.

The DOI does not agree with the GAO conclusion that "Recent and possible future declines in lease bonuses--along with the inherent difficulty in ascertaining minimum acceptable bids in situations where market forces are not fully working--suggest that the Federal Government should make greater use of higher royalties to help ensure the public's interests are met in the sale of OCS resources." The DOI does not see the rationale for this statement as determining minimum acceptable bids is difficult regardless of the royalty rate being used. The Department chooses royalty rates for sales that will encourage competition, result in a fair economic return to the Government, and lead to the expeditious and efficient development of OCS oil and gas resources.

The principal reasons for the Department's reluctance to offer leases at higher royalty rates are: (1) our analysis indicates higher rates reduce the likelihood tracts will be leased; (2) we estimate that the higher rates will have a serious negative effect on minimum economic field sizes which means fewer discoveries will be produced; and (3) our studies reveal less capacity being installed at higher royalty rates which means a slower rate of production and less total economic value to the nation.

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