

# **GAO-19-531 Missed The Real Problem in the Fair Return on Federal Resources**

*The real problem is the viability decision. The \$18 Billion value is misleading.*

November 2019

## **My Background**

I practice the dark arts of Math, Statistics, and Computer Science. In 1984 I was hired by the Mineral Management Service (MMS). One of my duties was to be the System Manager of the proprietary software that calculates the MMS estimate of Fair Market Value (FMV). Later during a reorganization, I was transferred to the Economics Division. The Economics Division frequently worked on topics related to royalty rates. In 2007, I retired from MMS. In my retirement I have researched topics related to Energy Policy. My website for public policy is [tedspublicpolicy.weebly.com](http://tedspublicpolicy.weebly.com).

## **Journey to the Viability Decision**

GAO-19-531 is another one in a series of reports claiming that MMS and its successor Bureau of Energy Management (BOEM) is not obtaining Fair Market Value for offshore resources. From my inside vantage point, I came to the opposite conclusion. MMS is obtaining more than FMV. My viewpoint is unique. So, if everyone else is correct and I am wrong then there should be multiple cases where MMS made a serious mistake. That is incidences of where oil companies obtained a lease for cheap and made lots of money from it. I had the advantage of 20/20 hindsight in my search. I was actively hunting for them. For example, I found a case of a lease off Texas where MMS determined that there were not economic resources on that lease. It went into production. I talked to the subject matter experts about this lease. They were a where of it. They consider the discovery to be sub-economic. When I retired from MMS in 2007, I had not found any cases of MMS making a serious error in the FMV process.

One of the topics I worked post MMS was a look back study of the Deep Water Royalty Relief Act (DWRRA). In the course of that research I found four leases (G16641, G20082, G20084, G20085). These leases represented about 80% of DWRRA lease production at the time of the study. MMS at the time of sale of these leases were classified as nonviable (no economic resources). They sold for a modest bonus bids. Now looking back over a decade later each of these leases had a very large field. I had finally found some actual cases where MMS made a mistake! I inquired back to MMS asking how could MMS miss seeing the large fields on these leases? The response was at the time of sale there was no geophysical indication of these structures. Later a new technology known as 3-D seismic was developed enabling the mapping of these fields. This is an example of a break down of the FMV process found in hindsight. These are just four errors in over tens of thousands of FMV determinations.

## **An approach to fix the problem**

How to conduct viability analysis is outside my area of expertise. I suggested the following fix. Reject all bids for leases which BOEM has determined to be nonviable. If the high bidder believes that it is truly viable, they can appeal the decision where they would have the opportunity to demonstrate the viability. Historically about 7% of nonviable leases do enter production. This proposal was sent to BOEM via public comments in the 5 year program process. Project On Government Oversight also recommends is approach (<https://www.pogo.org/investigation/2018/02/drilling-down-big-oils-bidding/>). BOEM and or GAO could suggest other approaches.

The approach has several good characteristics. It provides insights on how private sector evaluates potential resources to BOEM. It eliminates premature leasing. In the case of those four leases, waiting to when 3-D seismic was available would have enabled greater competition for these very valuable structures.

## **Differences between MMS/BOEM FMV and oil company bids**

GAO notes that there are many cases when the high bid is considerably larger than the MMS/BOEM estimate of FMV. This is a feature of the process, not a problem. Recall my observation was MMS/BOEM was obtaining above FMV. First there is the Winner's Curse from bidding theory. It is a well known phenomenon the high bidders over bid. A related concept is the Money Left on the Table. That is the difference between the high bid and the second high bid. It is a measure of the over bid. In the recent Sale 252 the high bid on G36558 was \$24,495,776 and the second high bid was for \$9,596,676. The high bidder left almost \$15 million on the table.

## **Progressive Royalty System**

The report advocates a progressive royalty system. That is royalty rates increase in times of high prices and is lower during low prices as opposed to the current fixed royalty rate practice. The simplistic relationship of the payments and fair market values is:

$$\text{Fair Market Value} \leq \text{Bonus Bid} + \text{Rental Payment} + \text{Royalty Payment}$$

If BOEM modifies the Royalty Payment system then the bidders and BOEM modeling software will adjust the amount of the bonus bid. This is impacting when and if the government gets paid. The Bonus Bid is immediate and certain. The rental payments follow in time with some uncertainty. The royalty payments are much further in the future and with greater uncertainty in the amounts. It is a trade off for the policy maker. Changing to a progressive royalty structure will not create a golden goose for the government. Consider this: Figure-1 of the report shows a spike in Bonus Bid revenues during 2008. \$2.6 billion of that spike was Sale 193 in the Chukchi Sea for 487 leases. None of those leases ever produced. That Sale had a low royalty rate

meaning the payments were shifted towards the Bonus Bids. There were no royalty payments. If a progressive royalty structure was in place the government would have obtained less in Bonus Bids without those projected royalty payments.

As a side note, MMS/BOEM has collected about \$9 billion in bonus bids in the Alaskan Region. The Alaskan Region has only one field that actually came into production. Another observation supporting my perspective that MMS/BOEM obtains more than FMV.

### **\$18 Billion**

Finally the report states \$18 billion loss in royalty payments which was then compared to \$2 billion increase in bonus bids for DWRRA leases. This is really misleading. The \$18 Billion number received considerable press coverage. It is misleading because:

1. The royalty collection is highly influence by the price of oil. These leases were issued in late 1990's during low prices. As example the price of oil in 1996 was \$22.12. However the production of the oil was much later during a time of much higher prices. As example the price of oil was \$79.28 in 2010. The prime reason for the large value was the high price of oil which is not related to the DWRRA.
2. The report does not address the increased tax collections on the increase revenue from the high price royalty free production.
3. The report does not address the increase rental payments, due to extra leasing from the DWRRA.
4. The increase in bonus bids and royalty holiday occurred at very different dates and need to be adjusted for inflation.

### **Recommendations**

My recommendation is BOEM needs to address the viability decision making process. Moving to progressive royalty system will not generate any meaningful improvements.

Ted D. Tupper  
PO Box 445  
Summerdale, PA 17093

[tedspublicpolicy.weebly.com](http://tedspublicpolicy.weebly.com)