

The Oil Patch

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News, Analysis and Commentary on How the Oil Industry Works Today: Promises, Problems and Practices

Here you will find occasional news, analysis and commentary on subjects that have received too little notice from government agencies, the press and other policy analysts.

(This section was last updated March 4, 2007)

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The Arctic Refuge Numbers Game (Update):

High Prices Unlikely to Close Gap Between Estimated Lease Bonuses and Actual Bids

By RICHARD A. FINEBERG
March 4, 2007

Figure 1.

Alaska North Slope Petroleum Lease Revenues, 1961 - 2006

There is a significant disparity between the low Alaska North Slope bonus bids in lease sales since 1991 (blue line on chart, showing five-year average payments per leased acre) and the amounts that the Administration and CBO believe oil companies would pay for exploration and production rights on the Arctic Refuge Coastal Plain (red bars at top right).

Agency estimates that Arctic Refuge leasing might contribute \$3.0 to \$3.5 billion to federal deficit reduction (the federal half of lease bonus revenues) ignore factors that caused the steep decline in North Slope bidding during the 1980s, as well as the subsequent pattern of significantly reduced lease bonus bids on the North Slope and elsewhere (see Richard A. Fineberg, *Projected Bonus Payments from Proposed Leasing on the Arctic National Wildlife Refuge Coastal Plain Greatly Exceed North Slope Historical Trend*, Jan. 2005, at <http://www.finebergresearch.com>).

Despite high oil prices during 2006, the trend of declining per-acre lease bonus payments on the North Slope continued in five North Slope lease bonus sales.

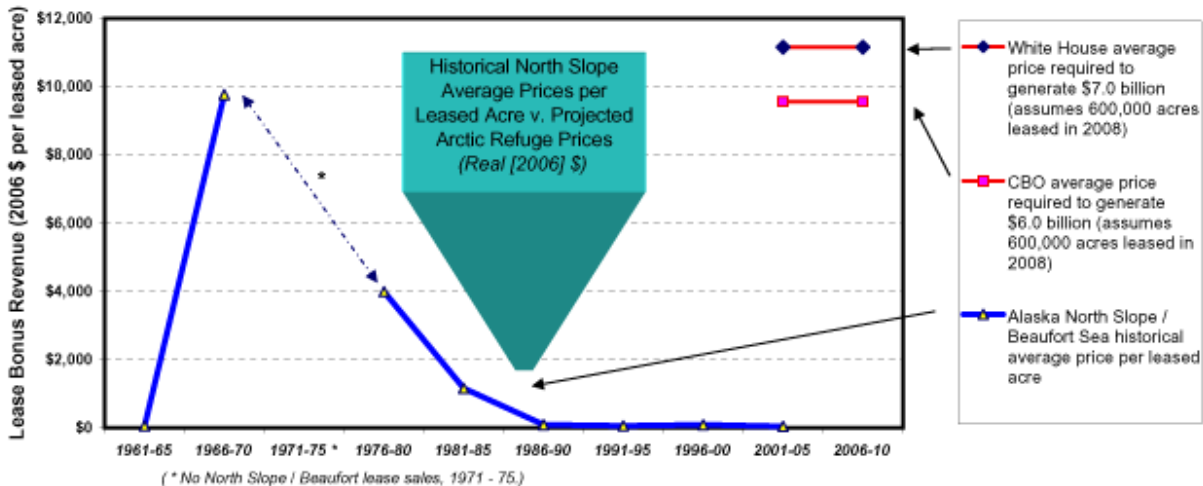
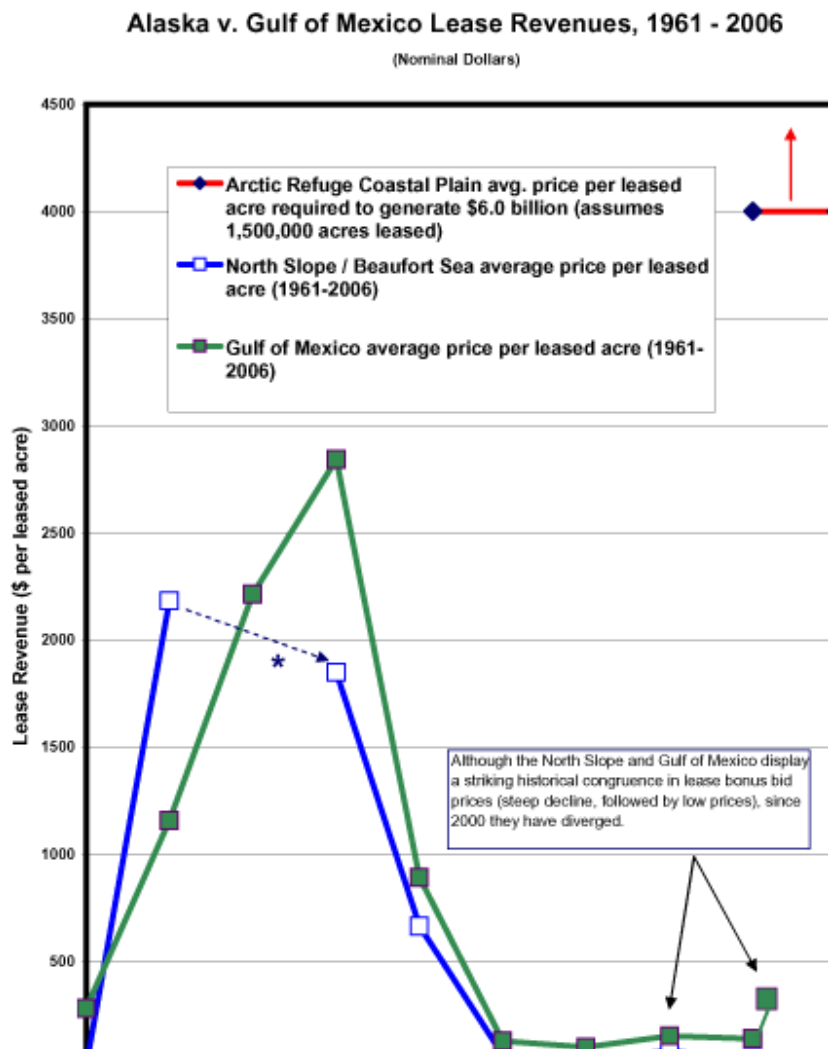


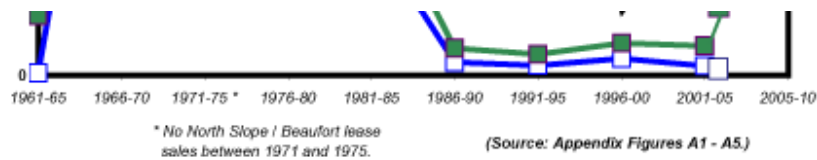
Figure 1 (above) shows the contrast, in dollars per leased acre, between historical Alaska North Slope lease bonus bids received (the blue line running across the bottom of the chart) and federal government estimates of what they believe bidders might pay to secure exploration and production rights on the Arctic Refuge Coastal Plain (shown in red in the top-right corner). For discussion and analysis of this striking disparity, [click here](#).

Figure 2 (below) shows the striking similarities between the leasing experience on the North Slope (shown in blue) and that of the Gulf of Mexico (shown in green). Although high oil prices and discoveries in the Gulf of Mexico have led to a doubling in the per-acre bid rates there, these increases barely begin to close the gap between historical bidding patterns and the amounts the agencies are optimistically predicting. If discoveries, development and high oil prices have not closed the gap in the Gulf of Mexico, this analysis suggests these factors are even less likely to do so on Alaska's North Slope (see report for discussion).

(Note that the lower chart is presented in nominal dollars for purposes of clarity in display. Although nominal data do not capture the effects of inflation, the use of nominal numbers permits the reader to link the chart data to the tables attached to the accompanying report, from which this chart was derived. (Moreover, for this comparison we are more interested in the data from current and recent leases; therefore the effects of inflation are less significant than they would be for consideration of a longer period of time.) These charts were prepared in October 2006; the President's budget for FFY 2008, released in February 2007, delayed Arctic Refuge leasing for one year (to 2009), while holding the figure for anticipated lease bonus revenue constant at \$7.0 billion. [CBO's new estimate for Arctic Refuge lease bonus bids was not available when this page was posted on March 4, 2007.]

Figure 2.





Research Associates, Ester, Alaska (October 2006)

The President's budget proposal, released Feb. 5, once again includes anticipated revenue from lease bonus bidding on the Coastal Plain of the Arctic National Wildlife Refuge. His proposal calls receipt of \$7.0 billion from the first Arctic Refuge lease sale in 2009, followed by \$1.0 billion from a follow-up sale, two years later. (1)

The President is using the same dollar estimate as he used last year, rolled back one year. As of this posting, the Congressional Budget Office (CBO) has not yet issued its estimate, which will serve as the official basis for budget deliberations and authorizations. Last year CBO estimated receipts of \$6.0 billion from the first Arctic Refuge lease bonus sale. (2)

The charts above show the disparity between the government agency estimates and the actual results of lease bonus bidding on the North Slope and in the Gulf of Mexico. For detailed discussion of this disparity, click here. Because the new Congress plans to operate under Pay-As-You-Go ("Pay-Go") rules, this disparity is even more important than formerly.

In the Interior Department's new budget overview, the Administration states that Arctic potential equates to "up to one million barrels per day of new domestic oil supply. This daily production is equivalent to nearly 10 percent of the Nation's current daily imports." (3) As frequently pointed out in the past, the Administration's own data suggest that the key figures in this proposal - "up to one million barrels per day" and "nearly 10 percent of . . . daily imports" - are suspect for the following principal reasons:

- The U.S. Energy Information Administration (EIA) currently estimates that at its peak in approximately 2025, the Arctic Refuge would produce approximately peak at 0.78 million bpd, or approximately three percent of domestic consumption.
- According to EIA, that peak would be short-lived, with production declining to approximately 0.65 million bpd by 2030 and continuing to decline thereafter. (4)
- During 2006, the U.S. imported approximately 12.3 million barrels of oil per day (approximately 60% of its petroleum supply crude oil, natural gas liquids and refined products). (5) EIA forecasts that imports will increase to more than 15 million bpd by 2025. (6) Thus, the Administration has significantly overstated the potential effect of the Arctic Refuge on petroleum imports.

To put these figures into long-term perspective: The U.S. appears to be on track to consume more than 400 billion barrels of oil between now and 2050, the period spanning the estimated life of potential Arctic Refuge production. (7) The U.S. Geological Survey mean estimate of total Arctic Refuge production during this period under oil prices of approximately \$50.00 per barrel (in 2007 \$) is 9.7 billion barrels of oil. (8) Thus, if oil were discovered and produced from the Arctic Refuge, this economically and environmentally risky venture oil might provide 2.3% of this nation's petroleum needs between now and 2050 - nowhere near the cornucopia some drilling advocates imagine.

Endnotes

(1) See: Office of Management and Budget, *The Budget for Fiscal Year 2008, Department of the Interior:*

"General Provisions," p. 635; Analytical Perspective,, "User Fees and Collections," Table 18-3, p. 276; and Summary Tables, Table S-5 , p. 157.

(2) For analysis of the difference between historical lease bonus bids and the agency estimates, see the [attached report](#).

(3) Office of Management and Budget, *The Budget for Fiscal Year 2008, Interior Department Overview*, p. 87.

(4) U.S. Energy Information Administration, *Annual Energy Outlook 2006*, Table D12 and A11 ("Petroleum Supply and Disposition Balance").

(5) See: U.S. Energy Information Administration, *Monthly Energy Review*, January 2007, Tables 3.1a ("Petroleum Overview: Supply") and 3.1b ("Petroleum Overview: Disposition and Stocks").

(6) See: U.S. Energy Information Administration, *Annual Energy Outlook 2007 (Advance Release)*, Table A11 ("Liquid Fuels Supply and Disposition").

(7) Consumption through 2050 projected from EIA data through 2030 (see: *Annual Energy Outlook 2006*, Table 1 ["Total energy supply and disposition in the AEO 2006 reference case: summary, 2003-2030"]).

(8) See: Emil D. Attanasi, *Economics of 1998 U.S. Geological Survey's 1002 Area Regional Assessment: An Economic Update* (U.S. Geological Survey, Open File Report 2005-1359), 2005, p. 8.

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