TAXPAYERS *for* COMMON SENSE

O & G REPORT

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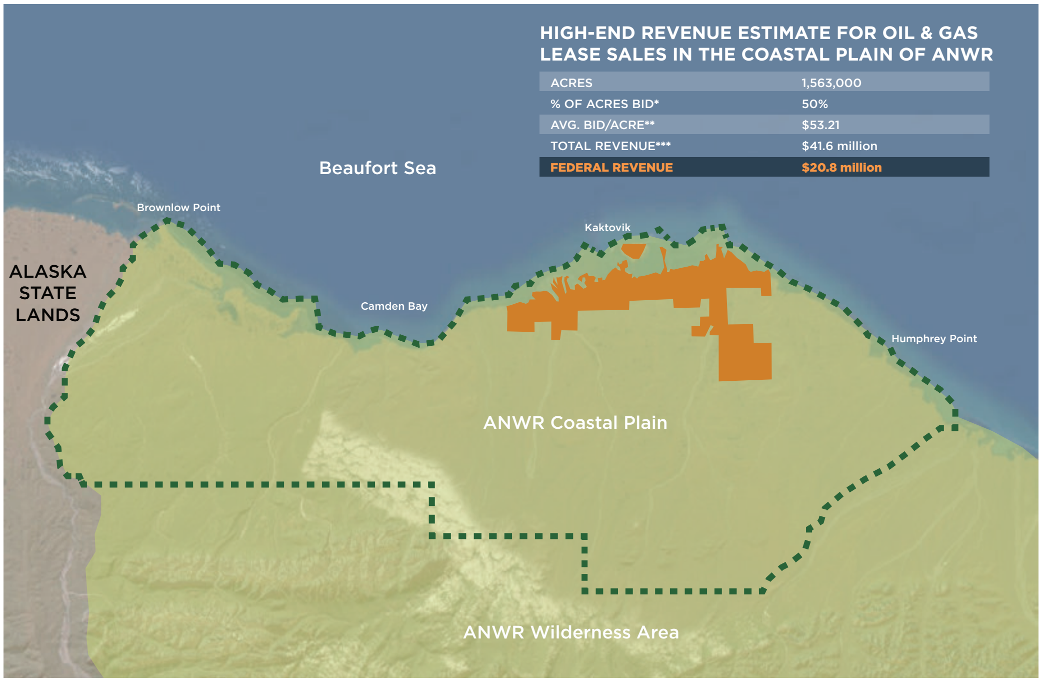
Taxpayers Lose on Arctic Drilling: Big Revenue Promises Don't Add Up

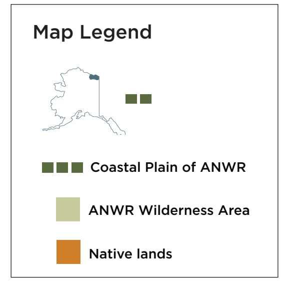
The Canning River in the Coastal Plain of ANWR. Source: U.S. Fish & Wildlife Service

The 2017 Tax Act included an extraneous provision authorizing the preparation and sale of leases for oil and gas development in the Coastal Plain of the Arctic National Wildlife Refuge (ANWR) in Alaska. Estimated to generate $1 billion in revenue, the measure was laughably included as a partial offset to the Tax Act's $1.4 trillion price tag. Yet past oil and gas leasing in the immediate area known as Alaska's North Slope indicates that ANWR lease sales will only generate a small fraction of the initial estimate. In particular, the results from comparable sales on neighboring state land suggest the new leases will most likely only bring in around $20.8 million. The ANWR lease sales will effectively add to the deficit by increasing the cost of the Tax Act and expose taxpayers to significant liabilities from future drilling in the ecologically sensitive region.

Because anticipated revenue from Coastal Plain leasing was used to offset some of the 2017 Tax Act's cost, any revenue shortfall will directly add to the ballooning federal budget deficit. But counting on this revenue seems foolhardy:

- In total over the last 20 years, oil and gas companies leased 12 million acres on Alaska's North Slope, or seven times the acreage of the entire ANWR Coastal Plain—1.56 million acres. Collectively they only paid $611 million in bids—still a third less than projected revenues for the planned ANWR sales.
- Using the average bid per acre for onshore sales over the last five years in the region, taxpayers can expect to receive at most $41.6. million in revenue – just 4.6 percent of the official $900 million estimate.
- Of the 72 parcels in state lands and waters surrounding the Coastal Plain of ANWR, oil and gas companies have only ever leased half over the last 20 years. But even if oil and gas companies bid on ALL of the ANWR parcels— at the historical average for the adjoining lands, taxpayers can hope to recoup just $16.8 million from the BLM oil and gas lease sales.





* **% of Acres Bid**—The percentage (50%) of offered parcels adjacent to the Coastal Plain of ANWR ever bid on by the oil and gas industry, 1999-2018.
** **High-end avg. bid/acre**—The 2014-2018 average bid for all onshore parcels sold on Alaska's North Slope, adjusted to $2018—$53.21/acre
*** **Total Revenue**—Total bonus bids received for ANWR leases, of which half is shared with the state of Alaska

Background

Certain lands on Alaska's North Slope have been protected for wildlife habitation since before Alaska was admitted to the Union in 1959.[1] Congress created the Arctic National Wildlife Refuge (ANWR) as currently constituted through the Alaska National Interest Lands Conservation Act (ANILCA) in 1980.[2] Within the 19 million acre refuge, ANILCA designated 1.57 million acres on the coast of the Beaufort Sea as the "Coastal Plain," and directed the Department of the Interior (DOI) along with state and tribal entities to study the region for possible energy development. But ANILCA also prohibited all resource development activities within ANWR, including the Coastal Plain, unless Congress authorized it through a subsequent act.[3]

Since 1980, members of the Alaska congressional delegation and others have introduced various legislative measures to open the Coastal Plain of ANWR, also known as the "1002 Area," to oil and gas development.[4] Accordingly, the Congressional Budget Office (CBO) has estimated the potential revenue that such measures would generate on several occasions. In each case, CBO estimates surpassed reasonable revenue expectations based on comparative lease sales in the area.[5] None of the legislative proposals to authorize oil and gas drilling in ANWR were enacted, until the measure that was attached to the 2017 Tax Act.

The 2017 Tax Act and ANWR Drilling Authorization

In 2017, Congress included **budget reconciliation** instructions in the fiscal year (FY) 2018 budget resolution (**H.Con.Res.71**). The budget reconciliation mechanism makes it easier for subsequent bills that change spending, revenue, or debt-limit levels to be enacted. As part of its reconciliation instructions, the FY2018 budget resolution directed the Senate Energy and Natural Resources Committee to produce legislation that would reduce the deficit by $1 billion. In response, the Committee chaired by Senator Lisa Murkowski (R-AK) **provided a measure** to raise revenues, in part, by selling oil and gas leases in the Coastal Plain of ANWR.

The measure, which was eventually passed as Section 20001 of the Tax Act (**P.L. 115-97**), directed the DOI to hold two oil and gas lease sales that together offer up at least 800,000

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[1] For more on the history of ANWR, see Congressional Research Service Report - RL33872: "**Arctic National Wildlife Refuge (ANWR): An Overview.**" January 9, 2018.
[2] P.L. 96-487 | 94 STAT. 2371, December 2, 1980
[3] P.L. 96-487 §1003
[4] So named because the 'Coastal Plain' was established in Sec. 1002 of ANILCA
[5] See below for analysis of past CBO estimates at page 3

acres in the Coastal Plain for development within seven years. The legislation also stipulated that 50 percent of revenue generated from the lease sale and any subsequent production should be paid to the State of Alaska.

When the measure passed in December 2017, the CBO estimated that the two lease sales would generate $1.82 billion in bonus bid revenue, of which federal taxpayers would receive $910 million. That total was significantly less than the CBO had estimated in previous years, and nearly $200 million less than **what CBO estimated** a month earlier, when the proposal first passed the Senate Energy and Natural Resources Committee. Yet **initial analysis** of the CBO's score demonstrated that the revenue projections were grossly overstated.

Soon after Congress enacted the 2017 Tax Act, the Bureau of Land Management (BLM) **announced** it would prepare an environmental impact statement (EIS) for the new leasing program in ANWR. After holding a series of scoping meetings, the BLM **published** a draft EIS for the Coastal Plain lease sales in December 2018. In addition to a no-action scenario, the BLM considered three alternatives for oil and gas leasing and development in its draft EIS. Under two of them, nearly the entire area of the Coastal Plain—1.56 million acres—would be offered up for lease, with differing restrictions on surface activity and timing for certain regions of the Refuge. Under the third alternative, the BLM would offer up approximately 1.04 million acres for lease, leaving some more ecologically sensitive areas untouched.

While BLM works to publish a final EIS in late 2019, some members of Congress have introduced legislation that would alter or repeal the BLM's authority to administer an oil and gas leasing program in ANWR. One provision tucked into the House's FY 2020 appropriations bill for DOI would prevent BLM from conducting any Artic lease sale unless the agency sets a minimum bid for the auction high enough for the sale to generate **at least $500 million**. The House passed a package of several appropriations bill with the provision included in June.[6] In a CBO score

Oil pipeline on the North Slope in Alaska
Source: National Energy Technology Laboratory

of a separate measure to completely repeal the authorizing section of the Tax Act, the agency slightly **revised its estimate** of anticipated revenue from the two prescribed lease sales down to $900 million for federal taxpayers.

But nothing in the recent history of oil and gas leasing on Alaska's North Slope suggests generating that much revenue is remotely possible. Even if the sales defy historical trends, taxpayers are likely to receive only a fraction of what CBO projects.

The Official Revenue Projections

The amount of revenue generated by an oil and gas lease sale is determined by three factors: (1) the amount of land in the parcels offered for lease, (2) the proportion of parcels that receive bids, and (3) the level of bids per acre for those parcels. In its June 2019 estimate of leasing revenues, the

[6] See H.R. 3055, Division C, Sec. 118

Since 1999, the U.S. DOI has held 18 sales for oil and gas leases in the Chukchi Sea, Beaufort Sea, and the NPRA. The state of Alaska has held 39 sales for leases on the Beaufort Sea coast, and in the general North Slope Area—the region between the NPRA and ANWR
Source: USGS. Modified for clarity.

CBO assumed the BLM would offer up 800,000 acres for lease in the two sales—the minimum acreage set by the 2017 Tax Act. The CBO projected the two sales would generate $1.8 billion in bonus bids, half of which would go to the state of Alaska, leaving federal taxpayers with $900 million. The CBO also anticipated BLM would collect $5 million in rental payments for ANWR leases in the 10-year window, for a total of $905 million in revenue.

To generate $1.8 billion in bonus bid revenue from the ANWR lease sales, oil and gas companies would need to submit bids of $2,250 per acre on average if every single available parcel receives a bid, as the CBO itself noted. If only a portion of parcels receives bids, the average bid price needed to generate CBO-predicted revenue is correspondingly higher. For example, if only 50 percent of parcels receive bids, it would take an average bid of $4,500 per acre to generate $1.8 billion. Those levels of bidder interest and bid rates are unprecedented.

How CBO's Estimate Measures Up

The amount of recoverable oil and gas reserves, and therefore the potential to attract high bonus bids, varies widely from one part of the North Slope to another, but the results from past lease sales in the region can indicate what's reasonable to expect for ANWR lease sales. For the sake of comparison, federal oil and gas lease sales in the Chukchi Sea, the Beaufort Sea, and the National Petroleum Reserve—Alaska (NPRA), as well as Alaska state sales in the Beaufort Sea and the North Slope area were all used in this analysis (see map).

In the last 20 years, the U.S. DOI and Alaska's Department of Natural Resources (DNR) have held a combined 57 sales for oil and gas leases in the North Slope region. The amounts companies bid for those leases never approached the $2,250/acre average CBO predicts for ANWR in any of those sales. Only seven of the sales had an average bid price of even $100/acre or more, measured in 2018 dollars. The highest average bid, and the only one greater than $200/acre, was recorded for DOI's 2008 sale in the Chukchi Sea that netted $1,126/acre ($2018). The parcels sold then, however, are furthest away from the 1002 Area and likely the least useful as a comparison.

Oil and gas companies' production cost calculations differ greatly between offshore and onshore operations, and bids for onshore tracts might better approximate potential bids for 1002 Area tracts. Since 1999, the U.S. DOI has held 14 sales for parcels in the NPRA, and the Alaska DNR has held 20 state sales for parcels in the region between the NPRA and ANWR, for a combined 34 onshore sales. For the 2,886 parcels covering 11.8 million acres sold in those 34 sales, the inflation-adjusted average bid price was $51.75/acre. That's less than three percent of the $2,250/acre average bid needed to generate the $1.8 billion in revenue projected by the CBO.

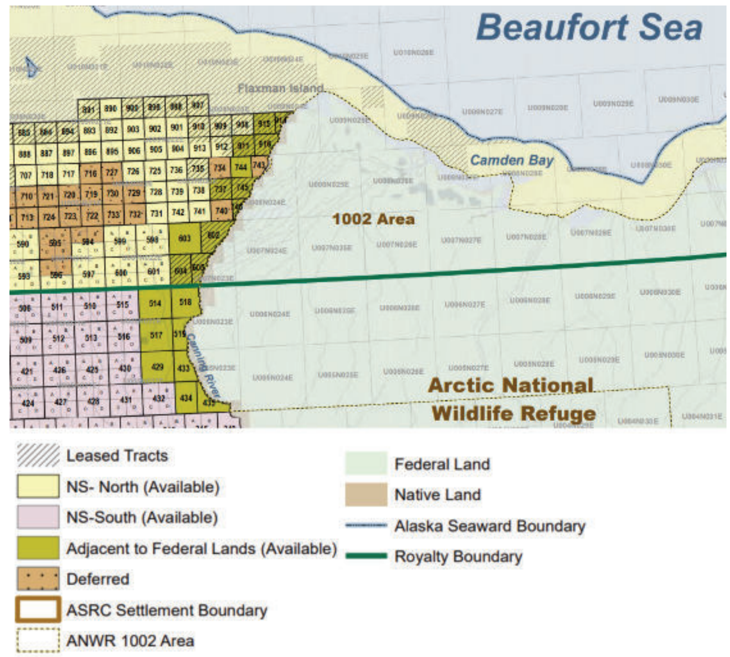
In the 10 onshore sales conducted in the last five years, the average bid was only marginally higher at $53.21/acre.

In its **most recent revenue estimate** for the Coastal Plain lease sales, the CBO stated it expects that parcels in the "western portion of ANWR—which contains the highest estimated concentration of resources—will be most attractive to bidders..." In fact, CBO expects that bidding for these parcels will exceed the projected average of $2,250/acre. The results from the sale of state parcels immediately adjacent to the western portion of ANWR, however, indicate that CBO's expectations are unfounded, if not completely unrealistic.

For years, the Alaska DNR has separately identified all parcels that are adjacent to federal lands in the documentation for its oil and gas lease sales (see example), including 63 offshore parcels and 22 onshore parcels that abut the 1002 Area. Of those, roughly 46 adjoin the western portion of the 1002 Area. Under the assumption CBO makes that oil and gas reserves near these parcels are particularly attractive to producers, they would reasonably be expected to have historically sold at record-high bid prices. In fact, the opposite is true; the parcels adjacent to the 1002 Area, and its western portion specifically, have historically sold at relatively low levels.

Of the 46 tracts of Alaska state lands and waters that lie next to the western 1002 Area, some never sold at lease sales while others were leased, relinquished, and re-sold several times. In total, 24 of the 46 tracts were sold a combined 48 times since 1999.[7] Adjusting for inflation, the winning bonus bids for those parcels total approximately $3 million. On average, the parcels adjoining ANWR's western border sold for just $23.75/acre.

The combined average for parcels neighboring ANWR on all sides was $21.44 which is roughly half the $40.74/acre average for all parcels bid on in the 39 state sales in the region since 1999. That is, the land near ANWR has been leased for less, on average, than other parcels in state lands and waters in the region. The $21.44/acre average is also a mere one percent of the $2,250/acre the CBO predicts for parcels in the 1002 Area.



Portion of the Tract Map and legend published by Alaska's DNR for its 2012 North Slope Areawide lease sale that specifically identifies parcels adjacent to federal lands. The parcels north of the 1002 Area are similarly identified in the DNR's Beaufort Sea sales maps.

In sum, the results from past lease sales in the North Slope area provide three different bidding averages to calculate what 1002 Area lease sales might reasonably generate: the record of $1,126/acre, the onshore sales' five-year average of $53.21/acre, and the adjoining state parcels' average of $21.44/acre.

But how much revenue the Coastal Plain lease sales ultimately generate also depends on what portion of parcels offered receive bids. Data from the 14 NPRA sales held since 1999 provide some insight. Of the 14 sales, the 2017 sale had the highest bidding rate, where 42 percent of acres offered received bids. Yet overall, just 11 percent of all acreage offered for lease in the NPRA since 1999 received bids at auction.

Results from the sale of parcels closest to ANWR—those adjacent to the 1002-Area offered in state auctions—likely provide a better indicator of future interest and bidding. Of the 72 parcels[8] lying next to the Coastal Plain made available by the state only 36 were ever leased, though each was available for lease multiple times over the last 20 years. This cumulative retrospective rate of adjacent parcels ever being leased, rather than an average from

[7] Four additional parcels were leased after being reinstated through a court settlement in 2012.
[8] Of the 85 parcels abutting ANWR, 13 parcels in the Beaufort Sea were never made available for lease and were thus omitted here for the purposes of gauging past industry interest in the region.

individual sales, likely best approximates ANWR bidding for two reasons: (1) the parcels included in DOI's plans for ANWR lease sales cover a similar geographical span as the combined Beaufort Sea and North Slope Areawide sales, and (2) there will likely be only one chance for interested parties to bid for Coastal Plain leases.

Past leasing in the North Slope thus provides several estimates for what portion of ANWR parcels will receive bids including the single-sale record of 42 percent and the cumulative retrospective rate for adjacent parcels of 50 percent. For a lower bound, 25 percent—or half the adjacent parcels rate—is used in this analysis. Projections using these and the three estimates for expected bidding averages provide a range of how much taxpayers stand to lose from ANWR oil and gas leasing.

Reasonable Revenue Estimates

All evidence from past oil and gas lease sales on Alaska's North Slope indicates that CBO's projections for ANWR leasing revenues are wildly overstated. No sale has demonstrated that ANWR parcels will receive anything close to the $2,250/acre average bid needed to generate $900 million in revenue for federal taxpayers. In fact, the range of revenue estimates created using benchmarks from recent leasing in the region and the alternatives DOI is considering for the two upcoming lease sales, all indicate that revenues will fall hundreds of millions of dollars short under even the most generous assumptions.

The bidding rates for the DOI's 2008 oil and gas lease sale in the Chukchi Sea were an aberration. The sale's inflation-adjusted average bid of $1,126/acre is more than six times the next highest result for any other sale in the North Slope region. Similarly, oil and gas companies bidding on 42 percent of parcels offered in the 2017 NPRA sale was nearly twice the frequency with which they bid in any other NPRA sale. Yet together, these parameters can be used as the upper bound of what taxpayers can expect for the ANWR lease sales.

Under the scenario in which DOI puts 1.56 million acres up for auction, and companies bid on 42 percent of the acreage at the record high of $1,126/acre, taxpayers would net $372 million. That's only 40 percent of what CBO counted on as an offset to the 2017 Tax Act, which means taxpayers would lose $530 million under the best-case scenario.

Most Likely Scenarios

The full range of estimates created using the parameters derived above are presented below. Of these, most revenue is anticipated if DOI offers 1.56 million acres for sale, oil and gas companies bid on 50 percent—the total portion of parcels adjacent to the Coastal Plain they've historically bid on; and they bid an average of $53.21/acre—the average received for all onshore North Slope sales over the last five years. In that scenario, federal taxpayers would receive a mere **$20.8 million**. This would amount to a loss of ***$879 million for taxpayers***.

In the more likely scenario, in which the portion of parcels receiving a bid and the average amount bid per acre mirror previous bidding for leases adjacent to the Coastal Plain, taxpayers would receive just $5.6-$8.4 million, depending on the leasing alternative chosen by DOI. This would amount to less than one percent of what CBO projected.

Projected Federal Revenues

	SCENARIO 1 1.56 million acres offered		SCENARIO 2 1.04 million acres offered	
Portion of Acres Sold	Adjacent Parcels Average Bid	5-Yr. Onshore Sales Average Bid	Adjacent Parcels Average Bid	5-Yr. Onshore Sales Average Bid
25%	$4,190,180	$10,399,229	$2,779,696	$6,899,097
50%	$8,380,360	$20,798,459	$5,559,392	$13,798,194

No Money, Big Problems

Despite an overwhelming lack of evidence that drilling in the Arctic will provide any significant revenue or overall taxpayer benefit, the Department of Interior continues to push forward with leasing at record pace.

The DOI released a draft plan for leasing last December and is currently in the process of completing its environmental review. They are considering four main alternatives of varying acreages with varying restrictions to offer in upcoming lease sales. We expect a final plan to be released this fall.

Ultimately the alternative they proceed with will impact the amount of revenue taxpayers receive, but as we've shown above, any way you slice it, the sales will not generate anywhere near the billion-dollar mark used to justify the inclusion of drilling in the tax bill and place needless risk on taxpayers' shoulders. It's time to face reality and use some common sense and table this political play to lease the Arctic.

Arctic drilling platform on Alaska's North Slope
Source: USDOE via Flickr

Appendix: Past Estimates for ANWR Drilling Revenues

In 2005, Congress passed a budget resolution for FY 2006 that included similar instructions for the House Committee on Resources and the Senate Committee on Energy and Natural Resources to make proposals to reduce direct spending by $2.4 billion over 10 years.[9] In response, both committees submitted statutory changes that would allow for oil and gas leasing on the Coastal Plain of ANWR.[10] In its reviews of the **House** and **Senate** committees' recommendations, the CBO estimated that administering oil and gas leasing in ANWR would have generated slightly more than $5 billion over ten years, mostly from bonus bids for the new leases.[11] After deducting Alaska's share, the proposals would have ostensibly netted the federal government $2.58 billion.

In 2012, the CBO scored **another measure** that would have directed the DOI to institute a leasing program for the Coastal Plain. Again, the **agency projected** that bonus bids from lease sales would generate $5 billion in gross revenue, half of which would be directed to Alaska. The has CBO also cited this 2012 score in **subsequent materials**.

[9] 109th Congress. H.Con.Res.95 §201(a)2(F) and §202(a)(4)—**https://www.congress.gov/bill/109th-congress/house-concurrent-resolution/95**

[10] The two proposals differed on how this would be achieved and the recommendations by the House Committee on Resources included additional provisions that, among other things, would have opened up leasing in some federal waters.

[11] The CBO projected that very little revenue would be generated from production royalties in the 10-year window, due to the long lead time necessary to begin production in the Arctic. That differs from its 2012 and 2017 estimates, where the CBO projected no royalty revenue at all would be generated in the 10-year window.