

Social Cost of Carbon From Federal Oil and Gas Development

Overview:

Drilling on public lands alone accounts for nearly [one quarter](#) of all U.S. greenhouse gas emissions. Oil and gas corporations already [hold](#) over 26 million acres of public lands leases, and 12 million acres of offshore leases. Developing these existing leases without new lease sales would [exhaust](#) the U.S. carbon budget for keeping the world below 1.5-degrees Celsius warming. We cannot meet our climate obligations without addressing federal oil and gas leasing, and stopping new leases that makes the problem worse is the logical place to start.

This is the climate leadership President Biden committed to deliver. First came his bold and inspiring campaign [promise](#) to end new oil and gas leasing on federal public lands and waters. Next, he issued an encouraging Executive Order eight days after the inauguration that implored a 'whole-of-government' approach to tackling the climate crisis, including a pause on drilling pending a thorough review of its impacts.

But today we live in a far different reality. The Interior Department [ignored](#) climate change in its review of the leasing program. The Biden administration unlawfully held the [largest offshore oil and gas lease sale](#) in the Gulf of Mexico, is [poised to drill](#) in Cook Inlet, Alaska, and recently [resumed](#) new leasing on public lands. While the Biden administration [blames](#) a court order for this reversal, it is under [no legal obligation](#) to resume lease sales. Biden and his administration chose to align with growing pressure from [oily politicians](#) and [industry groups](#). They prematurely capitulated to [legal challenges](#) opposing the Climate Executive Order and are getting pressured to release a new five-year offshore leasing plan.

The Russian invasion of Ukraine has only made the need to transition away from oil and gas more obvious. But Big Oil is using the crisis to rake in [big profits](#). As gas prices skyrocket, the industry is pressing for a massive public



lands and waters grab. While industry claims new leases would help stabilize gas prices and respond to the conflict, in reality oil and gas corporations are already sitting on enough [unused leases](#) to produce for decades. Yet these companies have indicated that they [do not plan](#) to [raise production](#), and even if they did, it would still take several [years](#) to develop new leases, meaning no immediate relief at the pump. War profiteering seems to be the name of this game. Moreover, as gas prices hit a record high amid the war, at least five top Big Oil executives cashed out nearly [\\$99 million worth](#) of their increasingly valuable stock. The 18 biggest CEOs are worth over [\\$8 billion more](#) than they were on January 20, 2021.

By resuming new lease sales, the Biden Administration is driving us closer to the climate tipping point. We can measure the risk not only in degrees, but in dollars. By accounting for the economic impact of climate emissions on things like public health and sea level rise, known as the [social cost of carbon](#), we can make better decisions that reflect the true cost of our energy usage. The Biden administration already assigned a [cost](#) of \$51 per metric ton for carbon equivalent emissions, but even conservative estimates put carbon emissions' [social cost](#) much higher, ranging from \$100 per metric ton to upwards of \$800 per metric ton. Once we factor in the real economic impact of oil and gas leasing on federal lands and waters, it is clear that the damage far outweighs any revenue.

Social Cost of Carbon Emissions:

According to the [EPA](#), each barrel of oil consumed produces the equivalent of 0.43 metric tons of carbon. In addition to the Biden administration's [estimated](#) social cost of \$51 per metric ton of carbon, our review uses a conservative estimate for the social cost of carbon of \$100 per metric ton, although most estimates are much higher.

Current public leases, both onshore and offshore, contain an estimated [43 billion](#) metric tons of carbon that would generate trillions of dollars in social costs:

- **43 Billion metric tons x \$51 = (\$2.19 Trillion)**
- **43 B mt x \$100 = (\$4.3 Trillion)**

Potential federal oil and gas development [contain](#) up to 450 billion metric tons of carbon that would cost tens of trillions of dollars in social costs:

- **450 B metric tons x \$51 = (\$22.95 Trillion)**
- **450 B mt x \$100 = (\$45 Trillion)**

The Social Cost of Carbon:

There is a hidden price when Big Oil profits, and society picks up the tab. Fossil fuel development costs society trillions of dollars in air and water pollution, climate change, public health, and environmental degradation. Big Oil doesn't want you to know about the social cost of carbon that we all pay.



Carbon Social Costs Higher Than Federal Oil and Gas Revenue for Fiscal Year 2021:

| Production Source | Barrel of Oil-Equivalent (Millions) | Revenue (Billions) | Metric Tons Carbon (Millions) | Social Cost of Carbon \$51 (Billions) | Social Cost of Carbon \$100 (Billions) |
|-----------------------|-------------------------------------|------------------------------------|-------------------------------|---------------------------------------|--|
| Native American Lands | 86.0 | \$1 | 36.98 | \$1.9 | \$3.7 |
| Federal OnShore | 371.77 | \$4.5 | 262.93 | \$8.2 | \$16 |
| Federal Offshore | 611.46 | \$4.1 | 159.86 | \$13.4 | \$26.3 |
| Total | 1,068 | \$9.6 | 459.77 | \$23.4 | \$46 |

The Interior Department's Bureau of Ocean Management's (BOEM) 2021 [estimates](#) of technically recoverable oil and gas resources in undiscovered fields on the OCS are 68.79

billion barrels of oil and 229.03 trillion cubic feet of gas. The barrels of oil-equivalent (both oil and gas) for each region are cataloged, finding trillions in carbon costs for society if developed.

Offshore Oil and Gas Carbon Costs Based On BOEM 2021 [Assessment](#):

[Source and calculations spreadsheet](#)

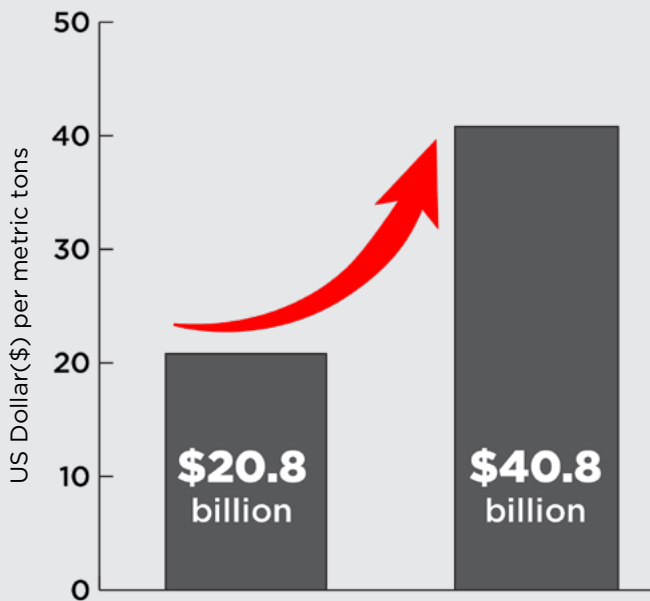
| Offshore Region | Barrel of Oil-Equivalent (Billions) | Metric Tons Carbon (Billions) | Social Cost of Carbon \$51 (Billions) | Social Cost of Carbon \$100 (Billions) |
|-----------------|-------------------------------------|-------------------------------|---------------------------------------|--|
| Alaska | 46.76 | 20.11 | \$1,025.4 | \$2,010.7 |
| Gulf | 39.35 | 16.92 | \$862.9 | \$1,692.1 |
| Pacific | 13.06 | 5.62 | \$286.4 | \$561.6 |
| Atlantic | 10.38 | 4.46 | \$227.6 | \$446.3 |
| Total | 109.54 | 47.1 | \$2,402.2 | \$4,710.2 |

Oil and Gas Lobby-Groups Push For Offshore Drilling:

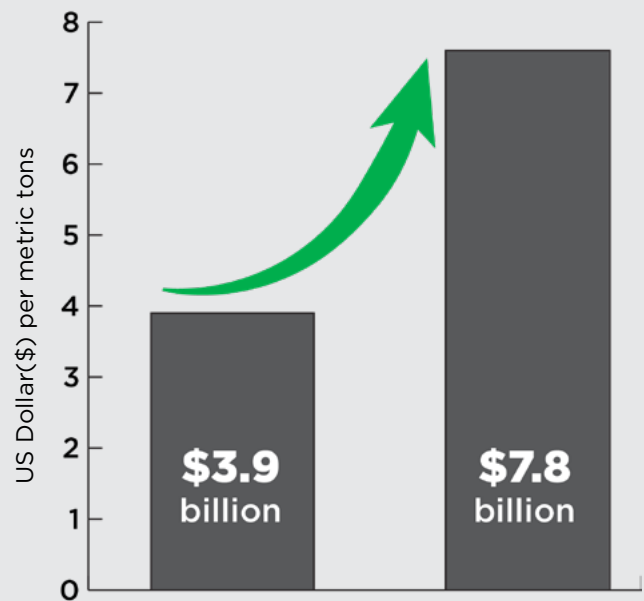
American Petroleum Institute (API) and the National Ocean Industry Association (NOIA) recently released a [report](#) and [fact sheet](#) decrying any delay in the 5-year offshore leasing plan by the Biden administration. It should be noted that the industry groups' claims that more offshore leasing is necessary to stabilize gas prices is out of step with the message the corporate oil and gas CEOs have [communicated](#) to shareholders, who were told they would increase shareholder dividends, not production. But according to the oil and gas lobby-groups, 'a delay in the program will mean nearly 500,000 barrels per day less over 19 years' or roughly 3.34 billion barrels of oil-equivalent not produced. API and NOIA claim there would be dire consequences if these billions of barrels are not produced, citing a \$5 billion reduction in GDP and \$1.5 billion in lost revenue for state and local governments.

But, in reality, the social cost of carbon from an offshore leasing plan based on the lobby-groups' own figures would be \$20.8 billion to upwards of \$40.8 billion annually over the estimated 19-year period. That makes the estimated savings in social carbon costs without leasing in a future five-year plan \$3.9 billion to \$7.6 billion per year when using industry's own estimates for reduced production. The industry report also calculates a potential loss of some \$5.3 billion per year in capital investment and spending by oil and gas corporations. However, once the social cost of carbon from new leasing is factored in, the total projected economic loss industry claims would occur without new leasing in a new plan disappears. Further, the incurred annual social costs are 2.6 to 5 times more than the lobby-groups' projected revenue for state and local governments.

| 5-year Offshore Leasing | Barrel of Oil-Equivalent (Billions) | Metric Tons Carbon (Billions) | Social Cost of Carbon \$51 (19 years) (Billions) | Social Cost of Carbon \$100 (19 years) (Billions) |
|-------------------------|-------------------------------------|-------------------------------|--|---|
| With leasing plan | 18.03 | 7.75 | \$395.4 | \$775.3 |
| Without leasing plan | 14.69 | 6.32 | \$322.2 | \$631.7 |
| Savings | -3.34 | 1.43 | \$73.2 | \$143.6 |



Social cost of carbon from an offshore leasing plan



Social cost savings without an offshore leasing plan

Annual social costs of carbon are **2.6 to 5 times more** than projected revenue for state and local governments

Keep It In The Ground

Big Oil wants the American people to believe that if we don't keep expanding drilling on public lands and waters it will lead to economic ruin. But when we consider the social cost of carbon, oil and gas development is clearly uneconomic for everyone. The numbers don't lie, no matter which way you slice them. The dirty truth is we cannot afford the price of additional oil and gas development.

Big Oil corporations reap billions in profit each year off of cheap public leases while saddling taxpayers and society with the cost of their pollution. But the Biden Administration has the power to avert the extreme cost of business as usual by keeping his promise to implement a 'whole-of-government' approach to tackling the climate crisis, including ending new oil and gas lease sales on public lands and waters.

