

Myth Versus Reality: Greenhouse Gas Emissions from Federal Oil and Natural Gas



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- The administration exaggerates federal oil and natural gas greenhouse gas (GHG) emissions as justification for banning leasing, insinuating they're "nearly a quarter" of all U.S. GHGs.
- The number for all federal fossil fuels is actually 19%, not "nearly a quarter." That 19% represents the entire lifecycle from production to consumption, not just the extraction.
- Of that 19%, federal oil and natural gas account for 7%. That's a much lower intensity than the 22% and 12% of U.S. total production that federal oil and natural gas contribute, respectively.
- The actual extraction of oil and natural gas from federal lands accounts for a miniscule 0.6% of U.S. GHGs while providing the American taxpayer with billions in annual revenue.¹
- In the absence of alternatives, stopping leasing and development on federal lands merely shifts production to other areas of the country or overseas, doing nothing to reduce global GHGs.
- Federal fossil fuel emissions of CO₂ and methane have declined 6.1% and 10.5% since 2005.

One week after taking office, President Biden signed the "[Executive Order on Tackling the Climate Crisis at Home and Abroad](#)" to ban new oil and natural gas leasing on federal lands and waters. It's in the form of a "comprehensive review of the federal oil and gas program" regarding wide-ranging impacts on climate change.

[In discussing the policy](#), the administration and the environmental lobby parrot the talking point that "fossil fuels extraction on public lands accounts for nearly a quarter of all U.S. greenhouse gas emissions." The talking point is based on a legitimate study from the U.S. Geological Survey commissioned during the Obama Administration, but it's being distorted in order to provide justification for banning oil and natural gas on federal lands.²

Myth Number One: Federal lands extraction is responsible for nearly a quarter of all U.S. GHGs

This talking point gives the impression that extraction itself produces a quarter of all GHGs. In actuality, the vast majority of emissions comes from the end-use combustion of fossil fuels, not from the extraction. *The USGS data show that 0.6% of U.S. GHGs come from the extraction of oil and natural gas on federal lands.*

¹ [Office of Natural Resources Revenue data](#) for 2014 federal offshore and onshore oil and natural gas show \$10.7 billion. All data in this paper reflect 2014, the year used in the USGS study.

² [Federal Lands Greenhouse Gas Emissions and Sequestration in the United States: Estimates for 2005-2014](#), USGS, 2018. Unless footnoted otherwise, all data in this paper come from USGS. The percentages calculated as part of this position paper all come from Table 1.

Myth Number Two: Federal oil and natural gas account for a large percentage of U.S. GHGs

In some ways, the talking point that about a quarter of U.S. GHGs come from federal production is unremarkable. It's well understood that the consumption of fossil fuels produces GHGs. Since about 22% of U.S. oil production comes from federal lands and waters, it makes sense it would account for about the same amount of GHGs.³

However, once again the administration uses sleight of hand with the USGS numbers. Indeed, USGS shows that federal lands account for 23% of U.S. carbon dioxide (CO₂) emissions, but looking at the top three GHGs including methane,⁴ federal lands actually account for only 19% of all U.S. GHGs. Even including coal as this number does, that's less carbon intensity when balanced against the energy benefits provided to Americans. *If we look at just the oil and natural gas numbers, it turns out that federal oil and natural gas account for "about a quarter" of American energy but only 7% of U.S. GHGs.*

Myth Number Three: Banning federal oil and natural gas will have a positive impact on climate change.

In the absence of an alternative that does everything oil and natural gas do (home heating, transportation, industrial energy, electricity generation, electronic components, petrochemicals, etc.), banning federal production does not reduce the demand for oil and natural gas but merely displaces it to other parts of the country without federal lands or overseas. Whether oil and natural gas are produced in Texas, Pennsylvania, Russia or Saudi Arabia, the resulting GHGs equally impact global climate change.

Conveniently Overlooked: The USGS study recognizes the emissions reductions industry has already achieved. "Compared to 2005, the 2014 totals represent decreases in emissions for all three greenhouse gases (decreases of 6.1 percent for CO₂, 10.5 percent for CH₄, and 20.3 percent for N₂O)."

³ [The Consequences of a Leasing and Development Ban on Federal Lands and Waters](#), Prepared by OnLocation, Inc. for the American Petroleum Institute, September 2020. Federal oil and natural gas production constitute 22% and 12% of U.S. total production, respectively.

⁴ The three main GHGs are CO₂ at 5,556 million metric tons of carbon dioxide equivalent (MMT CO₂ Eq) or 81%, methane (CH₄) at 730.8 MMT CO₂ Eq or 10.6%, and N₂O at 403.5 MMT CO₂ Eq or 5.8% for a total of 97% of U.S. GHGs. Carbon dioxide equivalents take into account the greater intensity of methane. [Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2014](#), EPA, April 15, 2016. This is the same version of EPA's annual inventory that USGS used in its report.