

Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
Oversight Hearing
1334 Longworth House Office Building
September 19, 2023
10:30 AM

“Examining the Biden Administration’s Mismanagement of the Federal Onshore Oil and Gas Program.”

Questions from Rep. Huffman for [Kathleen Sgamma, President, Western Energy Alliance]

1. Multiple studies, including the United States Geological Survey’s 2018 report “Federal Lands Greenhouse Gas Emissions and Sequestration in the United States: Estimates for 2005-2014” and Ratledge et al.’s 2022 “Emissions from fossil fuels produced on US federal lands and waters present opportunities for climate mitigation” in Climatic Change, have found that fossil fuel extraction on public lands and waters account for approximately one-quarter of U.S. greenhouse gas emissions. What proportion of U.S. greenhouse gas emissions come from oil and gas produced on BLM-managed land?

Response

Thank you for the question, which follows from my response to incorrect information in the opening statement of Ranking Member Ocasio-Cortez, who said, “As it stands, nearly a quarter of the United States’ current carbon pollution comes from fossil fuel production on federal lands and waters.”

This misleading talking point about greenhouse gas (GHG) emissions on federal lands and waters gets tossed around carelessly. A few points to set the stage: “Carbon pollution” is a political term that has little meaning, so I will use GHG emissions throughout. The Environmental Protection Agency (EPA), which inventories and reports on GHG emissions, does so using carbon dioxide equivalents (CO₂e). EPA converts various GHGs, such as methane, into CO₂e to take into account their higher intensity compared to CO₂.

I do not fault the Ranking Member directly for the misinformation, as she got that talking point from the environmental lobby, which does not let accuracy get in the way of a good narrative. Likewise, the question from Rep. Huffman misquotes the 2018 U.S. Geological Survey (USGS) study it supposedly references, but even more explicitly by saying “fossil fuel extraction.” ***In fact, fossil fuel extraction on federal lands and waters accounts for about .7% of U.S. GHGs. The percentage of GHGs from oil and natural gas extraction, the subject of the hearing, is actually 0.56%.*** All of my numbers come from the USGS study, the definitive source of GHG information on federal lands and waters.¹ My calculations are done using the data in Table 1 of the USGS report and presented in a table below. Percentages are

¹ [Federal Lands Greenhouse Gas Emissions and Sequestration in the United States: Estimates for 2005-2014](#), USGS, 2018.

calculated as simple ratios compared to total U.S. GHG emissions as reported by EPA in its annual inventory.²

The source of confusion on the “nearly a quarter” talking point is a misunderstanding of the USGS report. USGS very explicitly measured emissions not just from extraction and production processes of fossil fuels from federal lands, but the end-use emissions by the consumer. The Ranking Member specifically said “the production of fossil fuels”, not the production and end-use, and Rep. Huffman’s question incorrectly claims the “extraction” process specifically.

In some ways, the talking point that about a quarter of U.S. GHGs come from the production and end-use consumption of fossil fuels from federal lands and waters would be rather unremarkable. 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, even there, the intensity is less, as USGS finds that only about 19% of U.S. GHGs come from the production and end-use of federal fossil fuels. Again, when looking at just oil and natural gas, total GHGs from the production and end-use is just 7%. ***So we get “nearly” a quarter of U.S. oil and natural gas production from federal lands but they only account for only 7% of total U.S. GHG emissions.***

Another source of confusion may be the statement in the first paragraph of the USGS report: “Emissions from fossil fuels produced on Federal lands represent, on average, 23.7 percent of national emissions for CO₂, 7.3 percent for CH₄, and 1.5 percent for N₂O over the 10 years included in this estimate.” (p. 1) Note that a careful reading of the sentence is that it relates to the emissions from fossil fuels, not just the production process, and it is clear from earlier in that same paragraph that, “...USGS has produced estimates of the greenhouse gas emissions resulting from the extraction and end-use combustion of fossil fuels produced on Federal lands in the United States.”

An even more careful reading of that sentence shows that it is only CO₂ emissions from fossil fuels that are “nearly a quarter” of the U.S. total, not all GHGs. When considering the three main GHGs—CO₂, methane and N₂O—that are the subject of the report and which make up over 97% of U.S. GHGs, in actuality the production processes and consumption of federal fossil fuels actually represent just over 19%. Nineteen percent is not “nearly a quarter” of U.S. GHG emissions.

Likewise, a less-than-thorough reading of Ratledge et al. could be used to perpetuate the careless “nearly a quarter” talking point. It is clear in Ratledge that, like USGS, the report is dealing with “the extraction, transportation and combustion” of fossil fuels. Ratledge et al. fills in the data from 2014, the year measured in the USGS report, through 2019. The study appears to be in line with the USGS report. Rutledge et al. does not include the raw data tables as did USGS, so it is not possible to recreate the math, but the graphs appear to be in line with the USGS report. I would be happy to address any other of the “[m]ultiple studies” mentioned in the question, should they be specified. I am not aware of others.

² [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.

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.

	CO2	CH4	N2O	Total GHGs
	(All Emissions in Million Metric Tons of CO2 Eq)			
Combustion Emissions - Stationary				
Coal-related	734.886	2.11745	3.72809	740.73154
Petroleum products	41.77	0.039	0.095	41.904
Natural Gas	217	0.1	0.12	217.22
Combustion - Mobile				
Motor Gasoline	110.892	0.143	1.239	112.274
Aviation gasoline	0.3			0.3
Jet Kerosene	25.58			25.58
Diesel	58.25		0.06	58.31
Residual fuel oil	4.61			4.61
Liquefied petroleum gas	0.078			0.078
Extraction Emissions				
Petroleum wells	0.18	7.97		8.15
Natural gas wells	5.3	25.31		30.61
Coal		11.8		
Total Fed O&G Extraction Emissions	5.48	33.28		38.76
Total Extraction from Fossil Fuels	5.48	45.08		50.56
Total Combustion of Oil & Gas	458.48	0.282	1.514	460.276
Total Extraction & Combustion of Oil & Gas	463.96	33.562	1.514	499.036
Total Extraction & Combustion of Fossil Fuels	1279	47.6	5.5	1332.1
Total US GHGs 2014 (from EPA inventory)	5,556	730.8	403.5	6,870
% of US GHGs by GHG	80.87%	10.64%	5.87%	97.38%
% US GHGs from Fed Lands Fossil Fuels Extraction & Combustion	23.02%	6.51%	1.36%	19.39%
% US GHGs from Fed Lands Fossil Fuels Extraction	0.10%	6.17%	0.00%	0.74%
% US GHGs from Fed Lands O&G Extraction	0.10%	4.55%	0.00%	0.56%
% US GHGs from Fed O&G Combustion	8.35%	4.59%	0.38%	7.26%
% US GHGs from the Fed O&G Extraction	0.10%	4.55%	0.00%	0.56%
%US GHGs from the Fed O&G Extraction & Combustion	8.35%	4.59%	0.38%	7.26%