Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
Oversight Hearing
1324 Longworth HOB & WebEx
December 2, 2021
10:00 AM

Oversight Hearing on

"What More Public Lands Leasing Means for Achieving U.S. Climate Targets"

Questions from Rep. Stauber for Nick Loris

1. In your testimony, you speak a great deal about the negative emission trends we are continuing to see from China, Russia, and other major global economies. Clearly, while the United States has proven its ability and willingness to voluntarily decrease emissions, other countries have not. Even so, we have heard from this Administration and our Democratic colleagues that the U.S. needs to "lead by example," and that despite meaningful reductions over the past two decades, we need to take steps that would cripple our economy and energy output.

a. Given the signaling from major global polluters, do you think this approach is likely to lead to any meaningful changes in global emissions trends?

Thank you for the question, Ranking Member Stauber. Any energy and climate policy that unilaterally focuses on domestic emissions is misguided. Prohibiting oil and gas development, implementing excessive regulations and mandating specific energy sources will increase energy costs for families, weaken the American economy and enable cronyism. Because most of the emissions growth will come from developing countries, the economic pain will be for minimal climate benefit. The absence of Russian and Chinese leadership from COP26 is indicative of how unserious these countries are regarding climate action. China already emits more greenhouse gas emissions than the rest of the developed world combined. The amount of coal-fired power plants China commissioned in 2020 was more than three times the amount of the rest of the world combined.[1] The gigawatts of Chinese coal in planning or development is more than six times the entire coal fleet of Germany.[2]

[1]Global Energy Monitor, "China Dominates 2020 Coal

Conversely, largely through private sector innovations, the United States has been a global leader in both energy production and energy-related emissions reductions. That is leadership. By decoupling economic growth and emissions, the U.S. will continue to be a leader. Technological

advancements in renewable, nuclear and conventional fuels will ensure the U.S. remains

a global leader on energy innovation and combatting climate change.

The most effective way to drive global emissions reductions is to make it in the economic interest of countries to do so. That will not happen by making energy more expensive but decreasing the costs of low-carbon and carbon-free technologies and deploying them rapidly. The fact that the costs of wind, solar and storage technologies have declined significantly is encouraging. Affordable, reliable natural gas is the reason U.S. emissions fell in the last 16 years and should not be ignored or dismissed at the global level. However, technology cost reduction is only part of the battle. Streamlining deployment will be critical to delivering affordable low-carbon and carbon-free technologies. Deployment should include power plants, renewable projects, transmissions lines, pipelines and liquified natural gas export and import terminals.

2. If this Administration and Democrats in Congress achieve their ultimate wish of stopping oil and gas leasing on federal lands, would that have a significant impact on reducing U.S. emissions? If so, how much would it reduce them by?

Oil and gas development on federal lands (extraction, indirect and end use combustion) is responsible for 6.5 percent of total domestic greenhouse gas emissions and just 0.7 percent of global greenhouse gas emissions.[3] Even under the extremely generous assumption that production is not made up elsewhere, the averted warming would be a few hundredths of a degree Celsius over the next 80 years.

The realistic outcome is that production will shift to nonfederal lands in the United States and to other countries (OPEC+) where the environmental standards are not as rigorous. A study from Resources for the Future projects that the emissions leakage rate could range from 53-73 percent.[4] Based on 2020

Plant Development," Center for Research on Energy and Clean Air, February 2021, https://globalenergymonitor.org/wp-content/uploads/2021/02/China-Dominates-2020-Coal-Development.pdf

[2] Ibid.

[3] [3]U.S. Department of Interior Bureau of Land Management, "2020 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate," October 2021, https://www.blm.gov/content/ghg/#exsum

[4] Brian Prest, "Supply-Side Reforms to Oil and Gas Production on Federal Lands: Modeling the Implications for Climate Emissions, Revenues, and Production Shifts," Resources for the Future, September 2020,

Bureau of Land Management emissions data, the reduction of emissions would fall from 427 million metric tons of carbon dioxide to 312 million metric tons to 226 million metric tons. The questions policymakers should be asking are: What is the climate impact of those domestic emissions reductions and at what cost are they occurring (to families, businesses, the economies of western states, etc)?

3. Could you tell us about projections for worldwide energy demand, and how restricting American oil and gas production would actually increase global emissions?

According to the International Energy Agency's (IEA) semi-annual Electricity Market report, "global electricity demand is set to grow by close to 5% in 2021 and 4% in 2022 – driven by the global economic recover […] The majority of the increase in electricity demand is expected to come from the Asia Pacific region, primarily China and India."[5] Further, IEA projects that , "world oil demand is forecast to rise by 5.5 mb/d, to 96.3 mb/d in 2021 and 3.3 mb/d in 2022, when it is set to reach pre-Covid levels. From September through end-2021, global output is set to rise 2.7 mb/d with OPEC+ accounting for 1.5 mb/d and non-OPEC+ pumping the rest."[6] Certainly, the pandemic could rapidly change forecasted energy demand if countries impose restrictions on travel.

Nevertheless, leasing moratoriums and bans on domestic extraction would provide more opportunities for increased supply from OPEC+ and other countries where the environmental standards are less rigorous. Looking several years into the future, IEA's projected output from OPEC+ would likely increase even more.

Moreover, reductions in natural gas supply could result in a switch back to coal or could force electricity producers to keep existing coal-fired generation on-line. In a September 2020 study prepared by OnLocation, Inc and using the U.S. Energy Information Administration's National Energy Modeling System, higher natural gas prices increase coal generation 15 percent by 2030 and half as much coal generating capacity is retired.[7] The report concludes that CO2 emissions increase two percent in 2030 and

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https://media.rff.org/documents/RFF_WP_20-16_Prest.pdf?_ga=2.25893309.1499405328.1638287529-1934057910.1638287529.

[5] Press release, "Global electricity demand is growing faster than renewables, driving strong increase in generation from fossil fuels," International Energy Agency, July 15, 2021, https://www.iea.org/news/global-electricity-demand-is-growing-faster-than-renewables-driving-strong-increase-in-generation-from-fossil-fuels

[6] International Energy Agency, "Oil Market Report," October 2021, https://www.iea.org/reports/oil-market-report-october-2021

[7] OnLocation, Inc., "The Consequences of a Leasing and Development Ban on Federal Lands and Waters," September 2020, https://www.api.org/~/media/Files/News/2020/09/Consequences_of_a_Leasing_and_Development_Ban_on_Federal_Lands_and_Waters.pdf.

five percent over the long run.[8] If the U.S. restricts domestic supplies and those restrictions prevent opportunities to export liquified natural gas, other countries may be even more reliant on coal or dirtier natural gas from other countries.

4. Earlier this year, the Biden administration urged Japan not to buy U.S. LNG. Do you believe that increasing the use of U.S. LNG globally will reduce emissions? Could you say that this move made by the Biden administration potentially led to increased emissions?

There is a strong likelihood that discouraging or prohibiting liquified natural gas exports would increase global emissions. It has been well documented that the reason the U.S. has been a global leader in emissions reductions is because of natural gas displacing coal. Studies show that other countries, including Japan, could similarly displace coal with exported LNG from America. U.S. exported LNG could also displace dirtier natural gas from countries like Russia.

One 2019 study from the Department of Energy's National Energy Technology

Laboratory analyzed life cycle greenhouse gas emissions from U.S. liquefied natural gas

(LNG) exports. In different scenarios of comparing U.S. LNG shipped to European and

Asian markets, when compared to coal use or Russian piped gas, the life cycle emissions

from U.S. LNG exports are lower.[9] A 2021 study by Western States and Tribal Nations Natural Gas Initiative estimates that "LNG produced in Rockies basins and exported from the North American West Coast to China, India, Japan, South Korea, and Taiwan would produce net life cycle emissions reductions of between 42%-55% if used to replace coal-fired energy

generation."[10]

In addition to the climate benefits, increased U.S. LNG exports would also generate meaningful economic and national security benefits. More energy trade would provide more opportunities to supply natural gas and build the necessary infrastructure. LNG exports would provide America's allies with more energy choice, which is particularly important for European nations dependent on Russian gas.

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[8] Ibid.

[9] Selina Roman-White et al., "Life Cycle Greenhouse Gas Perspective on Exporting Liquified Natural Gas from the United States: 2019 Update," U.S. Department of Energy, September 12, 2019, https://www.energy.gov/sites/prod/files/2019/09/f66/2019%20NETL%20LCA-GHG%20Report.pdf

[10] Adebola S. Kasumu, PhD, et al., "Life Cycle Assessment of Greenhouse Gas Emissions from Liquefied Natural Gas Exports from North America's West Coast for Coal Displaced Electricity Generation in Asia," Western States and Tribal Nations Natural Gas Initiative, June 2021, https://ceda60f9-1aec-426f-a073-008895be8fba.usrfiles.com/ugd/ceda60_321bc1d38f904de2a0134bae21dcc312.pdf

5. In your testimony, you talk about voluntary innovations in the oil and gas sector that have lowered emissions here in the United States. Could you speak a little bit more about how the U.S. can expand the use and efficiency of our natural carbon sinks, as well as the potential for abandoned mine land remediation for emissions reductions?

I believe there is a huge opportunity for natural climate solutions for reclaiming coal, oil and natural gas sites after they are no long producing. I also believe there is a huge opportunity for natural climate solutions with the hundreds of thousands of abandoned mine sites on federal lands. Policymakers should turn these environmental liabilities into opportunities. Establishing better incentives for abandoned mine clean up can turn health, safety and environmental dangers into productive land.[11] Improving soil health, planting more trees and eradicating invasive species could provide more economic opportunities but also sequester more carbon dioxide.

There was some really interesting research published this summer in the journal *Agricultural and Resource Economics Review.* Led by the U.S. Forest Service's Jeff Kline and including researchers from the other Forest Service research stations, "Kline estimated the present and future value of carbon sequestered in U.S. forests through 2050. They evaluated the potential effects of various climate change mitigation policies on total forest carbon storage, including increased tree planting, reduced loss of forestland to development, and reduced wildfire. Of the policies they evaluated, afforestation –planting trees in areas without recent tree cover– and reforestation would provide the greatest increase in carbon benefits, far exceeding policy cost. This information is pertinent for policymakers and managers tasked with maintaining forest ecosystem service."[12]

Additionally, regenerative agriculture practices where the ranchers and cattlemen can diversity what they plant on their land and improve their soil health not only diversifies income but also improves soil health and results in greater carbon dioxide sequestration. Combining that with more afforestation and reforestation, and there are truly some exciting opportunities. Of course, not every reclamation project or abandoned mine may suitable for natural climate solutions, and any plan should consider what plants and trees are native and deploy local knowledge.

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[11] Jonathan Wood, "Prospecting for Pollution: The Need for Better Incentives to Clean Up Abandoned Mines," The Property and Environment Research Center, February 2020, https://www.perc.org/wp-content/uploads/2020/02/prospecting-for-pollution-abandoned-mines.pdf

[12] U.S. Department of Agriculture, "Estimating the value of carbon sequestration by U.S. forests through 2050," U.S. Forest Service, July 16, 2021, https://www.fs.usda.gov/pnw/pnw-research-highlights/estimating-value-carbon-sequestration-us-forests-through-2050

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