HOUSE COMMITTEE ON
NATURAL RESOURCES
RANKING MEMBER BRUCE WESTERMAN

To: House Committee on Natural Resources Republican Members
From: Subcommittee on Energy and Mineral Resources; Ashley Nichols Ashley.Nichols@mail.house.gov (251-656-8498), Rebecca Konolige - Rebecca.Konolige@mail.house.gov (914-217-8728) and Rob MacGregor – Robert.MacGregor@mail.house.gov (202-424-9615)
Date: November 29, 2021
Subject: Oversight Hearing: *"What More Public Lands Leasing Means for Achieving U.S. Climate Targets"*

On **Thursday, December 2, 2021, at 10:00 am EST, in room 1324 Longworth House Office Building and online via Cisco Webex**, the Subcommittee on Energy and Mineral Resources will hold an oversight hearing titled, *"What More Public Lands Leasing Means for Achieving U.S. Climate Targets*."

Member offices are requested to notify Ashley Nichols no later than **Wednesday, December 1, at 4:30 p.m. EST**, if their Member intends to participate via his/her laptop in the committee room or remotely from another location. Submissions for the hearing record must be submitted through the Committee's electronic repository at HNRCDocs@mail.house.gov. Please contact David DeMarco (David.DeMarco@mail.house.gov) or Everett Winnick (Everett.Winnick@mail.house.gov) should any technical difficulties arise.

I. KEY MESSAGES

- The United States has led the world in reducing emissions since 2005, even as oil and gas production has increased over the same period. This has largely been made possible by voluntary innovations lead by the energy sector. [1]
- Blocking conventional energy development on federal lands will jeopardize thousands of good-paying American jobs in the sector and further restrict future energy supply in the middle of a global energy crisis.
- Preventing oil and gas extraction from federal lands will have negative impacts on both our economy and our energy security, and would make almost no difference in greenhouse gas emissions worldwide.[2]
- Real emissions reductions are best achieved by incentivizing domestic production, improving energy infrastructure, and empowering private industry to develop innovative solutions to address greenhouse gas emissions, such as carbon capture and increased energy efficiency.

[1] Institute for Energy Research, "Since 2005, U.S. Has Had Largest Decline in Carbon Dioxide Emissions Globally," October 27, 2021, https://www.instituteforenergyresearch.org/climate-change/since-2005-u-s-has-had-largest-decline-in-carbon-dioxide-emissions-globally/
[2] Western Energy Alliance, "Greenhouse Gas Emissions from Federal Oil and Natural Gas," Factsheet, March 2021.

WITNESSES

- Nick Loris, Vice President of Public Policy, C3 Solutions, Washington, D.C. *[Republican Witness]*
- Jade Begay, Climate Justice Campaign Director, NDN Collective and Member, White House Environmental Justice Advisory Council
- Carrie Hamblen, New Mexico State Senator (D), District 38 and CEO/President, Las Cruces Green Chamber of Commerce
- Erik Schlenker-Goodrich, Executive Director, Western Environmental Law Center

II. BACKGROUND

Trends in U.S. Emissions

Between 2005 and 2020, the United States decreased its CO2 emissions by 24 percent; over the same 15-year period, CO2 emissions from the global energy sector grew by 14 percent.[3] In fact, the U.S. has had the largest global reductions in CO2 emissions by far since 2005.[4] Importantly, these reductions came at a time when oil production on federally-managed lands and waters reached an all-time high, hitting a record 1 billion barrels in Fiscal Year 2019.[5]

The United States' emissions reductions are in stark contrast with trends in other large global economies. For instance, China saw staggering increases over the last 15 years, emitting 23 times more carbon dioxide than the U.S. and all of Europe combined.[6] Ninety-eight percent of the worldwide increases in CO2 emissions from 2005-2020 have been attributed to China.[7] Russia, now the second largest supplier of oil to the U.S.,[8] is also going in the wrong direction – Russia emitted the most methane in the world last year at 12.9 million tons,[9] even as natural gas exports to Europe fell by 14 percent.[10] In the Middle East, Saudi Aramco alone released more than 40 billion metric tons of greenhouse gases between 1992 and 2017.[11] While the Biden administration has set very aggressive domestic net-zero and decarbonization goals, it is clear that a holistic consideration of global emissions will be necessary to make meaningful greenhouse gas reductions possible.

Global Energy Demand

Despite ill-conceived policies to disincentivize oil and gas development, conventional energy resources will be a necessary component of the worldwide energy mix for many decades to come. The Energy

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[3] Institute for Energy Research, "Since 2005, U.S. Has Had Largest Decline in Carbon Dioxide Emissions Globally," October 27, 2021, https://www.instituteforenergyresearch.org/climate-change/since-2005-u-s-has-had-largest-decline-in-carbon-dioxide-emissions-globally/
[4] *Id.*
[5] Institute for Energy Research: Oil Production from U.S.-Managed Lands and Waters Tops a Record 1 Billion Barrels, February 13, 2020
[6] Institute for Energy Research, "Since 2005, U.S. Has Had Largest Decline in Carbon Dioxide Emissions Globally," October 27, 2021, https://www.instituteforenergyresearch.org/climate-change/since-2005-u-s-has-had-largest-decline-in-carbon-dioxide-emissions-globally/
[7] *Id.*
[8] Bloomberg, Russia Captures No. 2 Rank Among Foreign Oil Suppliers to U.S., Sheela Tobben and Jeffrey Bair, August 4, 2021, https://www.bloomberg.com/news/articles/2021-08-04/russia-captures-no-2-rank-among-foreign-oil-suppliers-to-u-s
[9] Bloomberg, Russia's Dirty Gas Is Keeping Europe From Freezing Over, Aaron Clark, November 1, 2021, https://www.bloomberg.com/features/russia-europe-gas-pipeline-climate-impact-2021/
[10] Washington Post, Russia allows methane leaks at planet's peril, Steven Mufson, et. al., October 19, 2021, https://www.washingtonpost.com/climate-environment/interactive/2021/russia-greenhouse-gas-emissions/
[11] The Intercept, Saudi Arabia Denies its Key Role in Climate Change Even as it Prepares for the Worst, Lee Fang, September 18, 2019, https://theintercept.com/2019/09/18/saudi-arabia-aramco-oil-climate-change/

Information Administration predicts a 50 percent increase in global energy consumption by 2050, with petroleum and other liquid fuels remaining the largest energy source, and natural gas increases expected as well.[12] The need for reliable, inexpensive energy is clearer now than ever as the world faces a global energy crisis. Gas prices in the U.S. are at a seven-year high[13] and Americans are already suffering under the effects of inflation. In Europe, 80 million households are struggling to heat their homes going into a cold winter.[14]

Proposals by the Biden administration and Committee Democrats to stop conventional energy production on federal lands will do nothing to stop market forces and will simply outsource energy demand to countries with inferior standards for both emissions and human rights. President Biden recently appealed to the Organization of the Petroleum Exporting Countries (OPEC) multiple times to increase supply in an effort to alleviate skyrocketing costs at home.[15] After repeated rejections by OPEC, the administration released 50 million barrels from the Strategic Petroleum Reserve (SPR) on November 23rd, a drastic step that may have been avoided if the administration had not impeded domestic production. Maximizing production in America will limit the need to import from Russia, OPEC, and other nations, and address both emissions concerns and the domestic energy crisis without jeopardizing our strategic energy reserves.

Complications from Environmental, Social, and Governance (ESG) Investing

Many credit rating agencies, global stock market analysts, proxy advisory firms, and asset management firms have incorporated climate and other ESG factors into their ratings. Several third-party organizations set ESG standards that companies can voluntarily use. In June, the Biden administration's Securities and Exchange Commission (SEC) announced it will move forward with a rulemaking to require climate report disclosures and increase the federal monitoring of ESG issues.[16] However, the rulemaking has yet to surface and some suspect that the delay is due to perceptions around the ongoing energy crisis.[17] This rulemaking could be devastating to the U.S. energy sector and could actually increase global emissions. The regulations would make direct investment in oil and gas companies less attractive by forcing companies to disclose climate risk factors, thus making investment for new energy development harder to acquire. [18] Legislative attempts to require similar ESG disclosures include H.R. 1506 (Lowenthal), which would mandate ESG reporting requirements based on standards by the so-called Sustainability Accounting Standards Board.[19]

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[12] U.S. Energy Information Administration, EIA projects nearly 50% increase in world energy use by 2050, led by growth in renewables, Courtney Sourmehi, October 7, 2021, https://www.eia.gov/todayinenergy/detail.php?id=49876
[13] CNBC, Gas prices are at a seven-year high and expected to keep rising. How to save at the pump, Sarah O'Brien, October 19, 2021, https://www.cnbc.com/2021/10/19/gas-prices-are-at-seven-year-high-how-to-save-at-the-pump.html
[14] CNN, 80 million European households struggle to stay warm. Rising energy costs will make the problem worse, Walé Azeez, October 1, 2021, https://www.cnn.com/2021/09/30/business/europe-energy-poverty/index.html
[15] Bloomberg, OPEC+ Heads for a Clash With Biden as Members Reject Call for More Oil, Salma El Wardany and Javier Blas, November 1, 2021, https://www.bloomberg.com/news/articles/2021-11-01/opec-heads-for-biden-clash-as-members-reject-call-for-more-oil
[16] Office of Information and Regulatory Affairs, Agency Rule List – Spring 2021: Securities and Exchange Commission, https://www.reginfo.gov/public/do/eAgendaMain?operation=OPERATION_GET_AGENCY_RULE_LIST&currentPub=true&agencyCode=&showStage=active&agencyCd=3235&csrf_token=7CE97CC2D49C9B6B70868F7B2752E582C86F1945A4A46F34426C18AF1ABE101E611318F64B67159C3A36E7556BD0FB872C8F.
[17] National Review, Will the Energy Crisis be ESG's Great Reset?, Richard Morrison, October 12, 2021, https://www.nationalreview.com/2021/10/will-the-energy-crisis-be-esgs-great-reset/
[18] Harvard Law School Forum on Corporate Governance, The SEC's Upcoming Climate Disclosure Rules, Sarah Solum, September 1, 2021, https://corpgov.law.harvard.edu/2021/09/01/the-secs-upcoming-climate-disclosure-rules/
[19] *Id*.

Mineral Demand and Conflicting Administrative Policies

There is a clear conflict between the Biden administration's major renewable energy goals and its simultaneous attempts to block domestic hardrock mineral development. Simply put, the net-zero energy future envisioned by this administration cannot exist without massive investments in hardrock mining on a global scale. By 2040, demand for the minerals needed in electric vehicle batteries and grid storage will increase by 30 times.[20] Attempting to meet the goals of the Paris Agreement will cause a 40 percent demand increase for copper and rare earth elements, a 60-70 percent increase for nickel and cobalt, and a nearly 90 percent increase for lithium.[21] Despite this, the Biden administration has already taken steps to put some of our richest lands off-limits for mineral development, such as beginning the withdrawal process for 225,378 acres of copper-nickel-cobalt deposits in Northern Minnesota.[22] Until this administration faces the reality of its conflicting energy and mineral goals, the their renewable energy and net-zero targets will remain completely unattainable.

Curbing Global Emissions by Increasing U.S. Production

U.S. energy production has soared over the last decade largely due to unconventional shale development across the country and favorable policies implemented by the Trump Administration.[23] In 2020, this rapid increase in domestic development allowed U.S. oil exports to surpass imports, with domestic production surpassing consumption for the first time in over 70 years.[24] Additionally, the U.S. was able to overtake Russia as the largest producer of natural gas in 2011 and beat out Saudi Arabia as the largest producer of oil in 2018.[25] This growth in U.S. energy production also had a significant positive impact on global emissions. From 2010 to 2019, carbon dioxide emissions in the U.S. energy sector dropped from 5,495,370,000 metric tons to 5,081,450,000 metric tons, and at the same time, methane emissions dropped from 300 million metric tons to 267 metric tons.[26]

These emissions reductions could be expanded if the U.S. is able to continue producing and exporting natural gas. In fact, U.S. liquified natural gas (LNG) exports hit record highs in the first half of 2021.[27] Light sweet crude oil, the type predominantly produced in the U.S., is much cleaner than the heavy varieties found abroad.[28] Unfortunately, the Biden administration seems determined to stymy U.S. energy production. In its first week, this administration announced a suspension of new oil and gas leasing on U.S. federal lands and waters.[29] In April, the Biden administration urged Japan not to invest

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[20] International Energy Agency. Clean energy demand for critical minerals set to soar as the world pursues net zero goals. May 5, 2021, https://www.iea.org/news/clean-energy-demand-for-critical-minerals-set-to-soar-as-the-world-pursues-net-zero-goals
[21] *Id.*
[22] U.S. Department of Agriculture, Biden Administration Takes Action to Complete Study of Boundary Waters Area Watershed, Press Release, October 20, 2021, https://www.usda.gov/media/press-releases/2021/10/20/biden-administration-takes-action-complete-study-boundary-waters
[23] Trump White House, *American Energy Dominance: Bad for Bureaucrats, Great for our Country*, July 29, 2020, https://trumpwhitehouse.archives.gov/articles/president-trump-is-restoring-american-energy-dominance/
[24] U.S. Energy Information Administration, *Oil and Petroleum Products Explained*, https://www.eia.gov/energyexplained/oil-and-petroleum-products/imports-and-exports.php
[25] U.S. Energy Information Administration, *The U.S. leads global petroleum and natural gas production with record growth in 2018*, August 20, 2019, https://www.eia.gov/todayinenergy/detail.php?id=40973
[26] *Id.*
[27] U.S. Energy Information Administration, *U.S. liquefied natural gas exports grew to record highs in the first half of 2021*, July 27, 2021, https://www.eia.gov/todayinenergy/detail.php?id=48876
[28] OilPrice.com, *Light Sweet Crude Oil Is Taking Over The Market*, November 30, 2020, Matthew Smith, https://oilprice.com/Energy/Energy-General/Light-Sweet-Crude-Oil-Is-Taking-Over-The-Market.html
[29] Reuters, *Biden's New Climate Orders to Include Pause on Federal Oil and Gas Leasing: Sources*," Valerie Volcovici, Jessica Resnick-Ault, January 26, 2021, https://www.reuters.com/article/us-usa-drilling-biden/bidens-new-climate-orders-to-include-pause-on-federal-oil-and-gas-leasing-sources-idUSKBN29V255

in overseas LNG projects that would be able to use American LNG.[30] Despite supposed concerns about emissions, in May, the Biden administration decided to waive sanctions on the Nord Stream 2 pipeline delivering natural gas from Russia to Germany.[31] These actions are all a part of a larger attack on U.S. energy production that has contributed to our current energy crisis. Democrats in Congress have recently responded by urging the President to ban oil exports in an attempt to lower gas prices,[32] but such an action would further disrupt the market and make the situation worse.[33] Overall, the policies of this administration and congressional Democrats will only increase emissions by bolstering the market share of energy-producing countries with emissions trending in the wrong direction.

Infrastructure Development

One of the easiest ways to decrease emissions and lower the cost of energy is by increasing and modernizing energy infrastructure, specifically pipelines. The Trump administration aimed to expedite the process by directing federal agencies to streamline regulations, provide certainty, encourage investment, and improve the process for securing rights-of-way.[34] The Trump administration also issued reforms to the National Environmental Policy Act (NEPA),[35] which would have improved the permitting process for domestic pipeline development. Unfortunately, the Biden administration announced last month that it would begin rolling back these critical reforms.[36] Domestic pipelines are also regularly held up by litigation from radical environmental groups, such as the Mountain Valley Pipeline (MVP) project that would carry natural gas from northwestern West Virginia to southern Virginia. Stopping MVP could have a direct negative impact on emissions by reducing the amount of gas captured in the Marcellus and Utica shale formations.

Republicans have continually pushed to expedite pipeline infrastructure development on federal lands. For instance, H.R. 4334 (Scalise), the American Energy First Act, would streamline the NEPA process for pipelines within an existing right-of-way and allowing for routine expansions or modifications of existing pipelines. Expediting this infrastructure would play a critical role in ensuring that more energy produced on federal lands is captured and sent to market instead of being flared.

Technological Innovation

The U.S. oil and gas industry leads the way in innovation to proactively increase the capture of both methane and carbon dioxide. The U.S. currently has 12 commercial scale operating carbon capture, utilization and storage (CCUS) facilities, which are capable of capturing approximately 25 million metric tons of CO2 annually.[37] This amount stands to significantly increase, as the U.S. is currently

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[30] Bloomberg Government, *U.S. Asked Japan to Stop Funding LNG Power Plants Abroad*, Stephen Stapczynski, April 18, 2021, https://www.bgov.com/core/news/#!/articles/QRSB6LT0G1KY.
[31] BBC News, *Nord Stream 2: Biden Waives US Sanctions on Russian Pipeline*, May 20, 2021, https://www.bbc.com/news/world-us-canada-57180674
[32] Reuters, *U.S. House Democrats urge Biden to release oil reserves, reinstate export ban*, Andrea Shalal, November 22, 2021, https://www.reuters.com/markets/us/us-house-democrats-urge-biden-release-oil-reserves-reinstate-export-ban-2021-11-23/
[33] American Petroleum Institute, Why the U.S. Must Import and Export Oil, Dean Foreman, June 14, 2018, https://www.api.org/news-policy-and-issues/blog/2018/06/14/why-the-us-must-import-and-export-oil
[34] The White House, Executive Order: Promoting Energy Infrastructure and Economic Growth, April 10, 2019, https://www.steptoe.com/images/content/1/9/v2/191530/EO-Promoting-energy-infra.pdf
[35] Council on Environmental Quality, Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 7/16/2020, https://www.federalregister.gov/documents/2020/07/16/2020-15179/update-to-the-regulations-implementing-the-procedural-provisions-of-the-national-environmental
[36] The White House, CEQ Proposes to Restore Basic Community Safeguards during Federal Environmental Reviews, https://www.whitehouse.gov/ceq/news-updates/2021/10/06/ceq-proposes-to-restore-basic-community-safeguards-during-federal-environmental-reviews/
[37] American Petroleum Institute, Climate Action Framework, https://www.api.org/climate

[38]developing over 20 more CCUS projects.[39] Exxon Mobile Corporation announced last month that it has restarted construction on a $400 million carbon capture facility in Wyoming that would capture 1 million metric tons of CO2 a year.[40] Earlier this year, Valero Energy Corporation, BlackRock Global Energy & Power Infrastructure Fund III, and Navigator Energy Services announced a plan for an industrial-scale pipeline system across five states to move liquefied CO2 to a central sequestration facility, sequestering 5 to 8 million metric tons of CO2 per year.[41]

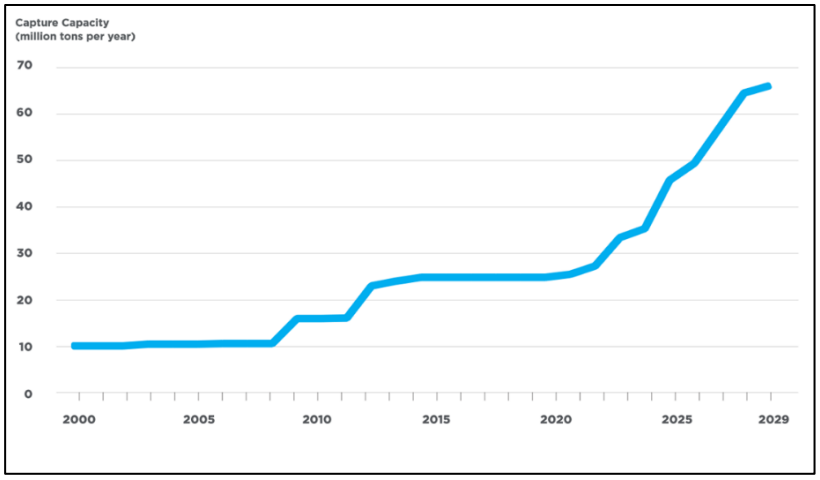

Figure 1: U.S. Carbon Capture Facilities (Operating And Under Development)
Source: API Climate Action Framework

The U.S. oil and gas industry also continues develop new technologies to detect and capture methane. Emissions relative to production in the largest producing oil and gas basins were down nearly 70 percent between 2011 and 2018 and continue to trend downward.[42] Additionally, while natural gas production increased more than 50 percent from 1990 to 2017, methane emissions from natural gas decreased 14 percent.[43] These efforts demonstrate industry expertise is critical to increasing the sequestration of methane and CO2. Attacking industry with imposed costs and new regulations will only drive up energy costs for American families, push production and U.S. jobs overseas, and ultimately increase emissions worldwide.

Alternative emission capturing technologies are also on the rise. Scientists at Los Alamos National Laboratory have developed a new technology which they believe could reduce methane emissions by up to 90 percent.[44] In Iceland, a plant named Orca scrubs the atmosphere by sucking carbon dioxide and storing it underground.[45] The National Energy Technology Laboratory worked with the University of California, Los Angeles (UCLA) to develop a method to transform flue gas from coal and natural gas into concrete blocks that sequester roughly 75 percent of the CO2.[46] Lastly, the Energy Department's

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[38] *Id*.
[39] *Id*.
[40] Natural Gas Intelligence, ExxonMobil Bidding to Advance CCS Expansion at Wyoming's LaBarge Natural Gas Facility, October 22, 2021, Carolyn Davis, https://www.naturalgasintel.com/exxonmobil-bidding-to-advance-ccs-expansion-at-wyomings-labarge-natural-gas-facility/
[41] BusinessWire, Valero and BlackRock Partner with Navigator to Announce Large-Scale Carbon Capture and Storage Project, March 16, 2021, https://www.businesswire.com/news/home/20210316005599/en/Valero-and-BlackRock-Partner-with-Navigator-to-Announce-Large-Scale-Carbon-Capture-and-Storage-Project
[42] API, Climate Action Framework.
[43] Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017*, P.3-80, https://www.epa.gov/sites/default/files/2019-02/documents/us-ghg-inventory-2019-chapter-3-energy.pdf
[44] Forbes, *Los Alamos Scientists Say Their New Technology Could Cut Methane Emissions By 90%*, November 23, 2020, Scott Carpenter, https://www.forbes.com/sites/scottcarpenter/2020/11/23/los-alamos-scientists-say-their-new-technology-could-cut-methane-emissions-by-90/?sh=646bc720e420
[45] Associated Press, *Air-scrubbing machines gain momentum, but long way to go*, November 8, 2021, Cathy Bussewitz, https://apnews.com/article/climate-technology-science-business-iceland-39fda46606cdba85ad10fac44d08dce6
[46] EnergyWire, *Researchers Envision 'Super-Sized' Carbon Capture Network*, John Fialka, May 10, 2021, https://subscriber.politicopro.com/article/eenews/1063732097?utm_medium=email&utm_source=eenews%3Aenergywire&utm_campaign=edition&ee_data=TTFeVkWJ20N7hpwPnM32D%2FPIdssAQdtKfAM92dIj%2FijMDfJdNf1GcZtD5X6updE8YSEoYTKjDqIEUExVgyv5bw%3D%3D

Pacific Northwest National Laboratory has claimed they have developed a solvent that could slash the overall cost of carbon capture by almost 20 percent.[47] These are just a few examples of new innovative technologies that could greatly reduce emissions without further regulation.

The U.S. is leading the way in developing innovative technical and natural solutions for lowering emissions, and Committee Republicans are supportive of exporting these solutions around the world rather than increasing our dependence on OPEC, Russia and other nations with inferior environmental and human rights standards.

DOI Oil and Gas Leasing Program Report

On Friday, November 26, 2021, DOI released a report on the federal oil and gas leasing programs administered by the Bureau of Land Management (BLM) and the Bureau of Ocean Energy Management (BOEM).[48] In the first week of his Administration, President Biden signed Executive Order 14008, imposing an indefinite moratorium on oil and gas leasing and initiating a review of the federal oil and gas leasing program. DOI indicated that the report would be released in early summer and Secretary Haaland later testified before the House Committee on Natural Resources in June of 2021 that the report would be released shortly thereafter.[49] On June 15, 2021, U.S. District Judge Terry A. Doughty placed an injunction on DOI's unlawful moratorium and ordered the agencies to restart the leasing process.[50] DOI held one offshore lease sale on November 17, 2021 and has taken steps toward holding onshore lease sales, although none are scheduled for 2021 and BLM will likely offer less acreage than initially planned under sales deferred from earlier this year.[51] [52]

The DOI report recommends several reforms to the leasing program that will drive up the cost of production on federal lands and waters under the guise of generating greater return to the taxpayer. The report advocates for policies similar to those included in the HNR Democrats' tax and spend budget reconciliation package, such as raising rental fees, royalty rates, and bonus bids and bonding requirements – costs which will ultimately be passed onto the consumer in the form of even higher energy prices. While DOI's report argues that these recommendations are consistent with fee and royalty requirements on state lands, it ignores the uncertainty, costs and regulatory challenges associated with developing on federal lands and waters. If implemented, DOI's recommendations will only further discourage development on federal lands and waters, reducing overall domestic energy development and security and increasing our reliance on foreign nations with lower environmental standards to meet America's energy needs.

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[47] C3 NewsMag, *DOE lab unveils technology to slash CCS costs*, March 30, 2021, https://c3newsmag.com/doe-lab-unveils-technology-to-slash-ccs-costs/
[48] U.S. Department of the Interior. Report on the Federal Oil and Gas Leasing Program. November 26, 2021. https://www.doi.gov/sites/doi.gov/files/report-on-the-federal-oil-and-gas-leasing-program-doi-eo-14008.pdf
[49] Renshaw, Jerrett, Volcovici, Valerie and Groom, Nichola. Biden administration proposes higher fees in changes to federal oil, gas drilling. https://www.reuters.com/markets/commodities/biden-administration-release-federal-oil-leasing-review-soon-sources-2021-11-26/
[50] Partlow, Joshua and Eilperin, Juliet. Louisiana judge blocks Biden Administration's oil and gas leasing pause. https://www.washingtonpost.com/climate-environment/2021/06/15/louisiana-judge-blocks-biden-administrations-oil-gas-leasing-pause/
[51] Bureau of Ocean Energy Management. Lease Sale 257. https://www.boem.gov/Sale-257
[52] Volcovici, Valerie. U.S. Interior to weigh greenhouse gas emissions of proposed 2022 oil lease sales. https://www.reuters.com/business/energy/us-interior-unit-weigh-greenhouse-gas-emissions-proposed-2022-oil-lease-sales-2021-10-29/