

**“WHAT MORE GULF OF MEXICO
OIL AND GAS LEASING MEANS
FOR ACHIEVING U.S. CLIMATE
TARGETS”**

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND
MINERAL RESOURCES

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

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OVERSIGHT HEARING ON “WHAT MORE GULF OF MEXICO OIL AND GAS LEASING MEANS FOR ACHIEVING U.S. CLIMATE TARGETS”

Thursday, January 20, 2022

U.S. House of Representatives

Subcommittee on Energy and Mineral Resources

Committee on Natural Resources

Washington, DC

The Subcommittee met, pursuant to notice, at 12:06 p.m., via WebEx, Hon. Alan S. Lowenthal [Chairman of the Subcommittee] presiding.

Present: Representatives Lowenthal, McEachin, Levin, Porter, McCollum; Stauber, Herrell, Graves, and Tiffany.

Also present: Representative Carl.

Dr. LOWENTHAL. The Subcommittee on Energy and Mineral Resources will come to order.

Good morning, or good afternoon, depending upon where you are. Welcome to the Subcommittee. We are meeting today to hear testimony on what additional Gulf of Mexico oil and gas leasing means for the United States to achieve its climate targets.

Under Committee Rule 4(f), any oral opening statements at hearings are limited to the Chair and the Ranking Minority Member, or their designee. This will allow us to hear from our witnesses sooner and help Members to keep to their schedules. Therefore, I ask unanimous consent that all other Members' opening statements be made part of the hearing record if they are submitted to the Clerk by 5 p.m. today, or at the close of this hearing, whichever comes first.

Hearing no objection, so ordered.

Without objection, the Chair may also declare a recess, subject to the call of the Chair.

Without objection also, the Member from Alabama, Representative Carl, is authorized to question the witnesses in today's hearing.

As described in the notice, statements, documents, or motions must be submitted to the electronic repository at HNRCdocs@mail.house.gov.

Additionally, please note that as with in-person meetings, Members are responsible for their own microphones. As with our in-person meetings, Members can be muted by staff only to avoid inadvertent background noise.

Finally, Members or witnesses experiencing technical problems should inform Committee staff immediately.

With that, I will begin with my opening statement.

**STATEMENT OF THE HON. ALAN S. LOWENTHAL, A
REPRESENTATIVE IN CONGRESS FROM THE STATE
OF CALIFORNIA**

Dr. LOWENTHAL. The Earth's 7 hottest years on record have all occurred since 2015. And 2021 was the ocean's hottest, and that was for the third year in a row. With a rapidly warming climate, the Biden administration must chart a course that leads the world to achieve our emissions reduction goals. And while the Administration has taken numerous positive steps, and is moving in the right direction, good is not nearly enough.

At the last Subcommittee hearing in December, we looked at the climate implications of fossil fuel production on public lands which was managed by the Department of the Interior. Today's hearing is an opportunity to look at the offshore lands in the Gulf of Mexico, where the vast majority of Federal leasing occurs.

Both Congress and the Biden administration must do more to ensure that the management of our public waters aligns with the commitment to reduce emissions 52 percent from 2005 levels by 2030 and to achieve economy-wide net-zero emissions by 2050.

But the November Gulf of Mexico lease sale and the Interior Department's leasing report demonstrates that the Biden administration has not yet found the political courage necessary to confront the realities of climate change. We need the Administration to act boldly, but they don't have to go it alone. They have allies in Congress and across the country ready to help them undertake this challenge of reducing our emissions.

Federal oil and gas leasing in the Gulf of Mexico produces nearly 20 percent of all carbon dioxide pollution from public lands and waters each year. The Gulf also spews out about 20 percent of all methane emissions from public lands and waters. Oil and gas companies have stockpiled over 9 million acres of non-producing leases off our coastline. Yet, the Biden administration used the June preliminary injunction as an excuse to sell off another 1.7 million acres to the oil and gas industry during a recent lease sale in November.

I strongly disagree with the Department's decision making around this sale and found it particularly disappointing, given the extensive commitments to address climate change that were made in Glasgow at the COP26 Climate Conference. Secretary Haaland must ensure her Department accurately accounts for the damage that carbon pollution from leasing causes, and she must develop a long-term strategy to reduce emissions from all existing and new leases, starting with the next 5-year leasing plan due out later this year.

While many of my colleagues and I are passionate supporters of the Administration, we will continue to push them to follow the science and use the tools at their disposal to reduce emissions from America's public lands and waters.

Reducing emissions from fossil fuel production has been an area of bipartisan agreement on this Subcommittee, and I hope that we can discuss that shared goal during today's hearing.

Despite some claims otherwise, we know that reducing emissions from oil and gas drilling in the Gulf of Mexico will help reduce overall carbon emissions.

Research shows that, on average, eliminating one barrel of U.S. oil supply decreases—and I point that out—decreases global supply by about half a barrel. To put it simply, we can successfully reduce oil and gas leasing here in the United States without driving up emissions because of increased production overseas.

In addition to combating climate change, limiting fossil fuel leasing and extraction in Federal waters will yield enormous health benefits for the communities that call the Gulf Coast region home.

For too long, the Gulf Coast has been treated as a sacrifice zone. The fossil fuel industry has been allowed to contaminate the water and air, causing disease and disproportionately high cancer rates. Gulf Coast communities are also on the front lines of climate change and sea level rise, erosion, flooding, and more powerful storms will continue to wreak havoc unless and until we reduce our emissions.

And we must reduce our emissions. Failure to do so will spell disaster for our climate and those Americans most impacted by the fossil fuel industry's toxic pollution.

[The prepared statement of Dr. Lowenthal follows:]

PREPARED STATEMENT OF THE HON. ALAN S. LOWENTHAL, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF CALIFORNIA

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And while the administration has taken numerous positive steps and is moving in the right direction, good is not nearly enough.

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Today's hearing is an opportunity to look offshore to the Gulf of Mexico, where the vast majority of federal leasing occurs.

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I strongly disagree with the Department's decision-making around this sale and found it particularly disappointing given the extensive commitments to addressing climate change that were made in Glasgow at the COP26 Climate Conference.

Secretary Haaland must ensure her Department accurately accounts for the damage the carbon pollution from leasing causes. And she must develop a long-term strategy to reduce emissions from all existing and new leases, starting with the next 5-year leasing plan due out later this year.

While many of my colleagues and I are passionate supporters of the administration, we will continue to push them to follow the science and use the tools at their disposal to reduce emissions from America's public lands and waters.

The stakes are just too high for the health of our planet and future generations for us to maintain the status quo.

Reducing emissions from fossil fuel production has been an area of bipartisan agreement on this Subcommittee, and I hope that we can discuss that shared goal during today's hearing.

Despite some claims otherwise, we know that reducing emissions from oil and gas drilling in the Gulf of Mexico will help reduce overall carbon emissions.

Research shows that, on average, eliminating one barrel of U.S. oil supply decreases global supply by about half a barrel. To put it simply, we can successfully reduce oil and gas leasing here in the United States without driving up emissions because of increased production overseas.

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For too long, the Gulf Coast has been treated as a sacrifice zone. The fossil fuel industry has been allowed to contaminate the water and air, causing disease and disproportionately high cancer rates.

Gulf Coast communities are also on the front lines of climate change, and sea-level rise, erosion, flooding, and more powerful storms will continue to wreak havoc until we reduce our emissions.

And we must reduce our emissions. Failure to do so will spell disaster for our climate and those Americans most impacted by the fossil fuel industry's toxic pollution.

Dr. LOWENTHAL. With that, I look forward to the testimony of our witnesses, and I now recognize Ranking Member Stauber for his opening remarks.

Welcome, Ranking Member.

STATEMENT OF THE HON. PETE STAUBER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. STAUBER. Thank you, Chairman Lowenthal, and thank you to the witnesses for joining us virtually today.

Before we begin, I want to take a moment to recognize my good friend and colleague, Chairman Lowenthal, who announced his retirement since we last had an EMR meeting. Although it has only been a year since I have been fortunate enough to be Ranking Member alongside him, I have grown to really appreciate his demeanor when leading this Committee. Therefore, I certainly look to Mr. Lowenthal's leadership style as a strong template in how to conduct Committee business. I couldn't be happier for Alan and his family. Energy and Mineral Resources will miss him. But Long Beach, California is fortunate to have him back full-time.

And with that, I would like to welcome everyone back from a busy Christmas and holiday season. Apparently, my colleagues on the other side of the aisle are choosing to pick up right where we left off, discussing emissions.

Just like previous hearings, the Majority is making an active choice to include U.S. in the title, and consciously choosing to ignore a holistic, global view of carbon because the Majority knows, just as well as we do, that the cleanest energy in the world is produced in America, whether it be Federal lands onshore or offshore.

Between 2005 and 2020, the United States decreased its CO₂ emissions by 24 percent, while global emissions grew by 14 percent. Today, I look forward to joining my colleagues from the Gulf, Mr. Graves and Mr. Carl, in sharing the good news about how the oil and gas producers in the Gulf are leading the charge on reducing emissions.

But just don't take our word for it. Ask President Obama's Bureau of Ocean Energy Management, who, in a 2016 report, stated U.S. emissions would be higher if BOEM were to have no lease sales. Emissions from substitutions are higher due to exploration, development, production, and transportation of oil from international sources being more carbon intensive.

That is right, Mr. Chair. It is a fact that a barrel of oil from the Gulf or elsewhere in America is far and away cleaner than our rival exporters like OPEC, plus Russia, or even Canada. And President Obama's Interior Department recognized that. In fact, the Gulf specifically decreased emissions by more than 8 percent from 2013 to 2019, which coincides with an unprecedented increase in American oil and gas export and production.

This fact bears repeating. While America increased oil and gas production and exports, we decreased our emissions, with Gulf operators leading the way.

And despite this unprecedented success, President Biden listened to his radical base and banned oil and gas development on his very first day in office, contributing to skyrocketing gas prices and crippling inflation. This was, of course, illegal, and the courts, like they have a couple of times now under this Administration, rightfully have mandated lease sales.

Through gritted teeth, the Interior Department finally released its "early summer oil and gas report" in November and held its court-mandated lease, the Sale 257 in the Gulf of Mexico. Lease Sale 257 was a resounding success, generating roughly \$200 million in bonus bids, illustrating a clear market desire for more Gulf oil and gas.

And we are putting these resources to good use. Homes in my district, where temperatures have already touched 36 degrees below zero, rely on the natural gas-powered energy grid for electricity and natural gas and propane for direct heating to keep their homes heated and comfortable.

All of this can be derived from our own resource. We can make sure Minnesotans and the Mississippi headwaters can heat their homes during sub-zero temperatures with affordable energy from American resources originating in the Gulf of Mexico at the south end of the river.

And not only does this lease sale illustrate the continued demand we have for oil and gas, but this means restoration of conservation funding. Whether it be bonus bids or royalties, revenue sharing of oil and gas funds allows for a good chunk of the money to stay in the Gulf states, focusing on projects like coastal resiliency, while disseminating the rest throughout the country.

Do you have a national park in your district, or one that you care about? Well, then you should support oil and gas leasing in the Gulf. Much of the royalties goes to fund those national parks.

So, let's be clear about what we are talking about when we consider oil and gas development in the Gulf. We are talking about affordable energy, low emissions, and funding for our treasured conservation efforts. Therefore, I look forward to more lease sales. I look forward to producing more American energy for our homes and businesses. And I look forward to funding conservation.

Thank you very much, Chairman Lowenthal, and I yield back to you.

Dr. LOWENTHAL. Thank you, Ranking Member Stauber, for your opening remarks.

I am wondering, is Ranking Member Westerman on this Subcommittee hearing? If he is here, would he like to make a statement?

Mr. STAUBER. Mr. Chair, Ranking Member Westerman is not on the hearing, so there will be no opening statement.

Dr. LOWENTHAL. Thank you. Now I will introduce today's witnesses.

Dr. Kristina Dahl is a Senior Climate Scientist for the Climate and Energy Program at the Union of Concerned Scientists.

Dr. Beverly Wright is the Founder and Executive Director of the Deep South Center for Environmental Justice. Dr. Wright is also an environmental justice scholar, an author, and professor of sociology.

Dr. Max Sarinsky is a Senior Attorney at the Institute for Policy Integrity, housed at the New York University School of Law, where he is also an adjunct professor.

And Mr. Lucian Pugliaresi—I hope I haven't mangled that—is the President of the Energy Policy Research Foundation.

Let me remind the witnesses that, under our Committee Rules, they must limit their oral statements to 5 minutes, but that their entire statement will appear in the hearing record.

When you begin, the timer will start, and it will turn orange when you have 1 minute remaining. I recommend that Members and witnesses joining remotely use the stage view so they may pin the timer on their screen.

After your testimony is complete, please remember to mute yourself to avoid any inadvertent background noise.

I will also allow the entire panel to testify before questioning the witnesses.

The Chair now recognizes Dr. Dahl for 5 minutes.

Welcome to the Committee, Dr. Dahl.

**STATEMENT OF KRISTINA DAHL, SENIOR CLIMATE SCIENTIST,
UNION OF CONCERNED SCIENTISTS, CAMBRIDGE,
MASSACHUSETTS**

Dr. DAHL. Chairman Lowenthal, Ranking Member Stauber, and members of the Subcommittee, thank you for the opportunity to testify today about the implications of additional oil and gas leasing in the Gulf of Mexico. My name is Dr. Kristina Dahl, and I am a Senior Climate Scientist at the Union of Concerned Scientists.

I spent the last decade of my career working to understand how climate change will affect communities across the United States and how the choices we make today will shape the world that we ultimately pass along to our children and grandchildren. The message I would like to communicate to you today is this: We have precious little time to affect a wholesale shift in how we power our lives and our economy, if we wish to avert the most dangerous consequences of climate change. We are decades late in making that shift, so any increases in our heat-trapping emissions will make the

narrow chance we have of averting those consequences even slimmer.

The Federal Government can and must align its actions with what is needed to meet the climate challenge and, therefore, must not apply business-as-usual thinking to energy-related decisions, including those relating to leasing Federal lands in the Gulf of Mexico.

The cumulative result of every energy-related decision for the last 150 years is that we are now struggling to cope with a climate that is nearly 2 degrees Fahrenheit, or 1 degree Celsius, warmer than it was at the start of the 20th century. In the United States in 2021 alone, heat waves claimed the lives of some of the most vulnerable among us. Wildfires crossed the spine of the Sierra Nevada twice and made the air we breathe toxic for thousands of miles downwind. Hurricanes intensified at an unbelievable pace before leaving 1,000-mile-long trails of destruction. During these and many other climate-related events in 2021, we watched as infrastructure built for the climate of our ancestors failed and as people lost their homes and their lives.

Recognizing that the consequences of climate change would be devastating with continued warming, in 2015 the United States and other signatories of the Paris Agreement committed to pursuing efforts to limit future warming to 1.5 degrees Celsius above pre-industrial levels. The science now tells us that to have just a 50/50 chance of staying within that limit, nations around the world can only collectively emit another 500 gigatons of carbon dioxide. That is our collective carbon budget. At the current global pace of emissions, we are in danger of exceeding that budget and reaching the 1.5 degree C mark within the next 10 to 20 years.

To ensure that warming does not exceed 1.5 degrees C, use of all fossil fuels, including oil and gas, must decline significantly and quickly. The United States has committed to reducing fossil fuel use, and such reductions could be at least partially achieved by expedited passage by Congress of the Build Back Better Act. Yet, in November 2021, with that package stalled in Congress, the U.S. Government opened more than 80 million acres of Federal lands in the Gulf of Mexico for oil and gas leases that could produce up to 1.2 billion barrels of oil and 4.4 trillion cubic feet of natural gas over the next 50 years. As a rough estimate, the full combustion of those products would release an estimated .76 gigatons of carbon dioxide, equivalent to about 16 percent of the Nation's fossil fuel emissions for 1 year.

Phasing out our use of fossil fuels is about much more than securing our climate goals. Spills from drilling equipment in the Gulf of Mexico have affected the environment and ecosystems repeatedly and tragically for decades, and Gulf Coast residents have lost their livelihoods and experienced long-lasting health problems because of these spills.

Given that climate change is expected to increase the intensity of hurricanes, and given the prevalence of hurricanes in the Gulf of Mexico, siting yet more drilling infrastructure within the Gulf could place additional health burdens on residents living alongside and suffering from the output of fossil fuel facilities.

The science is clear, that surpassing the 1.5 degree C temperature target would be disastrous. Science has also shown us that that temperature target translates into a specific carbon budget that, in turn, necessitates sharp reductions in fossil fuel use and systemic shifts in our energy system. We must, therefore, assess our energy investments holistically, not as one-offs, to ensure the smoothest possible transition to cleaner forms of energy.

With the stakes so high, continuing with lease sales in the Gulf of Mexico without taking the time to fully interrogate whether or how the enabled extraction will fit within our Nation's future is both reckless and irresponsible. Thank you.

[The prepared statement of Dr. Dahl follows:]

PREPARED STATEMENT OF DR. KRISTINA DAHL, SENIOR CLIMATE SCIENTIST,
UNION OF CONCERNED SCIENTISTS

Chairperson Lowenthal, Ranking Member Stauber, and members of the subcommittee, thank you for giving me the opportunity to testify today about the climate implications of additional oil and gas leasing in the Gulf of Mexico. My name is Dr. Kristina Dahl, and I am a senior climate scientist in the Climate and Energy Program at the Union of Concerned Scientists. I have spent the last decade of my career working to understand how climate change will affect communities across the United States and how the choices we make today will shape the world that we ultimately pass along to our children and grandchildren.

The research my colleagues and I at the Union of Concerned Scientists have done and the research of thousands of dedicated scientists around the world makes clear that the ability for people, plants, and animals to thrive now and in the future depends on our ability to rein in heat-trapping emissions both nationally and globally. And indeed, future generations will be the inheritors of the choices we make today.

In my testimony today, I will address the current state of our climate; the current state of national and global emissions with a particular eye toward contributions from the oil and gas sector; the latest science on how emissions will need to decrease globally to limit dangerous levels of climate change; and the implications of increased oil and gas production for our climate, our health, the environment in which we live, and the ecosystems on which we depend.

We have precious little time to effect a wholesale shift in how we power our lives and our economy if we wish to avert the most dangerous consequences of climate change. We are decades late in making that shift, and we now find ourselves in a position where any additional increases in our heat-trapping emissions will make the narrow chance we have of averting those consequences even slimmer. The federal government can and must align its actions with what is needed to meet the climate challenge and therefore must not apply business-as-usual thinking to energy-related decisions, including those relating to leasing federal lands in the Gulf of Mexico.

Climate change is here, and it is a product of human activity

Earlier this month, the National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA) released reports summarizing the state of our climate that serve as sobering reminders that we have already begun to live with the effects of climate change and that our society is under-equipped for its consequences. Scientists at these agencies found that 2021 was the sixth-warmest year on record for the globe, with an average temperature of 1.5°F (0.84°C) above the 20th-century average, and that the last eight years have been the eight warmest since recordkeeping began in 1880.¹ The anomalously warm years we have experienced recently are the product of the decades-long warming trend that has resulted from human emissions from the burning of coal, oil, and

¹ <https://www.ncdc.noaa.gov/sote/global/202113>

gas.^{2,3} At present, the average temperature of the Earth is about 1.8°F (1.0°C) warmer than the 1850–1900 average.⁴

The consequences of that warming were felt acutely around the world in 2021, including here at home in the United States, where 20 extreme weather and climate-related disasters causing \$1 billion or more in damages cost at least \$145 billion last year alone and claimed a record number of lives—nearly 700.⁵ More than 40% of US residents live in counties that experienced climate-related disasters in 2021,⁶ and millions of people experienced the toxic air from wildfires, power outages resulting from extreme heat or cold, or devastating floods. And this doesn't even capture the full toll—for example, the hundreds of deaths from the extreme heatwave in the Pacific Northwest last year are not included in that total.

The climate extremes we and others around the world have been experiencing bear the fingerprints of human-caused climate change. The heat waves that have become more frequent and intense, the hurricanes that intensify rapidly and dump record-breaking amounts of rain, and the wildfires of unprecedented scale are all in line with our expectations of how extreme weather and climate-related events respond to higher concentrations of heat-trapping gases in the atmosphere that result from the burning of fossil fuels.

Since the dawn of the Industrial Revolution in the mid-1800s to today, our collective burning of fossil fuels (primarily coal, oil, and gas) has emitted 2,390 gigatonnes of CO₂ (GtCO₂), with each gigatonne equaling one billion tonnes, or about twice the mass of all the people on Earth.⁷ The United States alone is responsible for nearly 25% of all historical emissions⁸ despite being home to just 4% of the world's population today,⁹ which means that we bear a disproportionately large responsibility for the emissions and warming we as a planet have incurred.

In terms of annual emissions, the United States was the top emitter—by far—until the year 2006, when China's annual emissions began to exceed those of the United States.¹⁰ While our total annual emissions are currently about half those of China's,¹¹ our per capita emissions are more than twice those of China.¹² The burning of oil and gas for US energy purposes accounted for the vast majority (81%) of total U.S. emissions in 2019 (the remaining 19% of energy-related emissions were derived from burning coal).¹³

In 2020, production on offshore federal lands amounted to 642 million barrels of oil (16% of all domestic oil production) and 910 million cubic feet of gas (3% of all domestic natural gas production).¹⁴ Most of this offshore production takes place in the Gulf of Mexico.¹⁵ Notably, however, the area of the Gulf of Mexico under lease has declined significantly over the last decade and 55% of leased acreage is non-producing, which indicates that the current leased acreage should be sufficient to meet demand for years to come.¹⁶

Recent assessments of the full life cycle of oil, meaning from the time of production through the refining and transportation stages and the consumption or burning of that fuel, showed that the pre-consumption stages (producing, refining, and transportation) are responsible for between 10% and 30% of the full life cycle emissions.¹⁷ Similarly, those pre-consumption stages for gas account for between 15% and 40% of the fuel's full life cycle emissions.¹⁸ A significant portion of the emissions from

² https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Headline_Statements.pdf

³ <https://blog.ucsusa.org/kristy-dahl/new-noaa-data-shows-just-how-abnormal-our-climate-has-become/>

⁴ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf

⁵ <https://www.ncdc.noaa.gov/billions/overview>

⁶ <https://www.washingtonpost.com/climate-environment/2022/01/05/climate-disasters-2021-fires/>

⁷ https://energyeducation.ca/encyclopedia/Gigatonne#cite_note-1

⁸ <https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change>

⁹ <https://data.worldbank.org/indicator/SP.POP.TOTL>

¹⁰ <https://www.bbc.com/news/world-asia-china-57483492>

¹¹ <https://www.ucsusa.org/resources/each-countrys-share-co2-emissions>

¹² <http://energyatlas.iea.org/#!/tellmap/1378539487/4>

¹³ <https://www.eia.gov/energyexplained/energy-and-the-environment/where-greenhouse-gases-come-from.php>

¹⁴ <https://www.doi.gov/sites/doi.gov/files/report-on-the-federal-oil-and-gas-leasing-program-doi-eo-14008.pdf>

¹⁵ <https://www.boem.gov/regions/gulf-mexico-ocs-region/oil-and-gas-gulf-mexico>

¹⁶ <http://energyatlas.iea.org/#!/tellmap/1378539487/4>

¹⁷ <https://www.iea.org/reports/world-energy-outlook-2018/oil-and-gas-innovation>

¹⁸ <https://www.osti.gov/servlets/purl/1485127>

oil and gas therefore comes from the consumption of those fuels for transportation, industrial, residential, and commercial purposes.

Swift and deep emissions cuts are needed to limit future warming

Global and national climate assessments along with thousands of individual scientific studies point to an even more dire future if we fail to rein in our heat-trapping emissions.

Drawing on the best available science, the global community—including the United States—pledged in the 2015 Paris Agreement to “*holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels*” to help limit the risks and impacts of climate change.¹⁹ To cap global warming at any specific level, whether that is 1.5°C, 2°C, or any other target, we must reach net-zero emissions, meaning that any remaining emissions of heat-trapping gases are balanced by removals of in the same amount.²⁰ And to stay at or below a specific temperature target, we must stay within a specific carbon budget. In other words, we can only emit so much more carbon before we exceed dangerous thresholds of warming.

On our current trajectory and with the current pledges from nations party to the Paris Agreement, the planet is on track to warm by at least 4.3°F (2.4°C) by the end of the century.²¹ As just one example among myriad examples of what that warming implies for the US, the number of dangerously hot days across the country is projected to double between now and midcentury if we are slow to act to reduce global heat-trapping emissions.²²

The relationship between our cumulative global emissions of CO₂ and global temperature is roughly linear: increased emissions, resulting in higher concentrations of CO₂ in the atmosphere, translate directly to higher global temperatures.²³ This strong relationship allows us to estimate that to have a 50% chance of limiting future warming to 1.5°C above preindustrial temperatures, nations around the world can only collectively emit another 500 GtCO₂.²⁴ Giving ourselves an 85% chance of meeting that 1.5°C goal would mean emitting even less than that—just 300 GtCO₂.²⁵ Total global CO₂ emissions currently amount to roughly 36 GtCO₂ per year (Global Carbon Project via Carbon Brief), which means that we are in danger of reaching the 1.5°C mark within the next 10 to 20 years.²⁶

Staying below the 1.5°C mark—that is, not overshooting it at any point—requires us to decrease emissions quickly. The best available science suggests that we must reduce global CO₂ emissions by about 45% below 2010 levels by 2030 and reach net-zero emissions around 2050.²⁷ Emissions of other heat-trapping gases, such as methane, will need to decline along similarly steep pathways. Achieving these emissions reductions will mean significantly curtailing our fossil fuel use as quickly as possible.

Scientific modeling has shown that in most scenarios in which we are able to limit warming to 1.5°C above preindustrial levels, use of all fossil fuels, including oil and gas, must decline significantly.^{28,29} To meet global energy demand, those declines must be coupled with a commensurate increase in energy efficiency and renewable energy, with renewables supplying 90% or more of our electricity in 2050.^{30,31} And numerous studies show that these investments in efficiency and clean energy will more than pay off, especially when evaluated against the prohibitive costs of run-away climate change and the steep public health burden of fossil fuels.

The energy investments we make now will have repercussions for decades to come. Research suggests that developing the energy-related technologies and infrastructure consistent with a 1.5°C pathway will require investment in clean energy

¹⁹ https://unfccc.int/sites/default/files/english_paris_agreement.pdf

²⁰ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

²¹ <https://climateactiontracker.org/press/Glasgows-one-degree-2030-credibility-gap-net-zeros-lip-service-to-climate-action/>

²² <https://iopscience.iop.org/article/10.1088/2515-7620/ab27cf>

²³ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

²⁴ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

²⁵ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

²⁶ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

²⁷ <https://www.ipcc.ch/sr15/chapter/spm/>

²⁸ <https://www.iea.org/reports/world-energy-outlook-2021>

²⁹ [https://www.ipcc.ch/sr15/\(2.4.2\)](https://www.ipcc.ch/sr15/(2.4.2))

³⁰ [https://www.ipcc.ch/sr15/\(2.4.1,2.4.2,2.4.3\)](https://www.ipcc.ch/sr15/(2.4.1,2.4.2,2.4.3))

³¹ <https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits>

technologies and energy efficiency to overtake fossil investments by around 2025.³² Furthermore, the International Energy Agency—among the world’s leading energy organizations—has found that reaching net-zero emissions by 2050 would require having ceased investment in new fossil fuel supply projects as of last year.³³

The United States is committed to substantial and necessary emissions reductions

The Biden Administration has committed the US to a 50–52% reduction in national heat-trapping emissions below 2005 levels by 2030, and to putting the nation on a path to net-zero emissions by midcentury.³⁴ Such reductions mirror the global emissions cuts necessary for capping warming at 1.5°C above preindustrial levels and there is a case to be made that the US’s outsized contribution to global emissions historically and per capita demands that we shoulder a larger share of the global emissions reductions.

Achieving a 50% reduction in national emissions by 2030 will require bold action, resolute vision, and an exacting attention to the consequences of every energy-related decision we make going forward. And so we must bring that exacting attention and the best available science to our understanding of the consequences of opening up new leases for oil and gas drilling on federal lands.

Research by energy and transportation experts at the Union of Concerned Scientists indicates that deep cuts in heat-trapping emissions are feasible, both within this decade and continuing through 2050, in line with rigorous climate targets.³⁵ To achieve these reductions, though, every sector of the economy must shift, including through widespread uptake of energy efficiency, end-use electrification, and carbon-free energy. With currently available technologies, a viable solution set to achieving the US’s stated emissions-reduction commitments is within our grasp today. The system costs of this transition are comparatively modest—and easily outweighed when compared to the benefits of improved health and avoided climate impacts. However, delaying necessary near-term action, including emissions reductions that could be achieved by expedited passage by Congress of the Build Back Better package—or further entrenching ourselves in a fossil-fuel-based economy—is costly and risks stranding assets, foreclosing some solutions pathways, and probably falling short of climate goals.

The implications of additional oil and gas leases in the Gulf of Mexico

In November 2021, the US government opened up more than 80 million acres of offshore federal land—an area larger than the state of New Mexico—in the Gulf of Mexico for lease sales. Within days, fossil fuel corporations had bid a combined \$192 million for drilling rights on nearly two million of those acres.³⁶ It is likely to be several years before these areas are producing oil or gas, which means that they’d be coming online late this decade when emissions from fossil fuels must be in a steep decline to meet the US’s climate goals.

The Bureau of Ocean Energy Management (BOEM) estimates that the area recently opened for lease sales could produce up to 1.2 billion barrels of oil and 4.4 trillion cubic feet of natural gas over the next 50 years.³⁷ Using the Environmental Protection Agency’s Greenhouse Gas Equivalency guidelines, the combustion of those products would release an estimated 0.76 GtCO₂ with 0.52 GtCO₂ resulting from oil combustion and 0.24 GtCO₂ resulting from gas combustion. In 2019, US fossil-fuel emissions totaled 4.7 GtCO₂.³⁸ With this rough estimate and assuming no other changes in US fossil fuel sourcing or use, the potential emissions from the areas recently opened to leasing therefore represent about 16% of the nation’s fossil-fuel emissions for one year.

³² [https://www.ipcc.ch/sr15/\(2.5.2\)](https://www.ipcc.ch/sr15/(2.5.2))

³³ <https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits>

³⁴ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>

³⁵ <https://www.ucsusa.org/sites/default/files/2021-08/A-Transformative-Climate-Action-Framework.pdf>

³⁶ <https://www.pbs.org/newshour/amp/economy/days-after-climate-talks-u-s-to-hold-huge-crude-sale-in-the-gulf-of-mexico>

³⁷ <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/GOM-LS-257.pdf>

³⁸ <https://www.ucsusa.org/resources/each-countrys-share-co2-emissions>

While the potential emissions from these Gulf of Mexico lease sales may seem limited,³⁹ viewing them in isolation fundamentally mischaracterizes the cumulative and collective action challenge of climate change. It will take joint efforts by all nations to address the scale of the climate challenge—each contributing their fair share, cutting emissions across every sector of their economies, so that together we can meet science-based emission reduction goals. It is the cumulative result of each energy-related decision that has been made by nations over the last century and half that we are now struggling to cope with our already-altered climate. In this warmer climate, heat waves claim the lives of the most vulnerable among us—those who harvest our food,⁴⁰ our elderly parents and grandparents,⁴¹ people who have no home in which to cool off.⁴² Wildfires cross the spine of the Sierra Nevada⁴³ and make the air we breathe toxic for thousands of miles downwind.⁴⁴ Hurricanes intensify at an unbelievable pace⁴⁵ before slamming into the coast claiming lives along a 1,000-mile path.⁴⁶ Deadly heatwaves follow on the heels of hurricanes,⁴⁷ wildfire smoke exacerbates a pandemic's ravages on our health,⁴⁸ and infrastructure built for the climate of our ancestors fails.⁴⁹ And this is only considering impacts in the US.

Spills from oil drilling equipment have profoundly affected marine environments and ecosystems repeatedly and tragically for decades. Ten years after the 2010 Deepwater Horizon Oil Spill in the Gulf of Mexico, researchers have found that there is still a substantial amount of oil in the sediment at the bottom of the gulf; that reproduction rates of fish and dolphins near the spill site remain low; and that fish in the gulf remain contaminated with oil-related toxins.⁵⁰ An estimated 600,000 to 800,000 birds died because of the spill.⁵¹ People, too, have suffered in the wake of the spill. In addition to the 11 Deepwater Horizon workers⁵² who lost their lives when the rig exploded and sank, Gulf Coast residents experienced the loss of their livelihoods as well as health problems—including headaches, shortness of breath, depression, and anxiety—for years after the spill.⁵³

Human health also suffers as oil and gas are processed or refined and transported. Communities located near oil refineries and petrochemical facilities exhibit higher rates of a wide range of cancers, including brain and lung cancer.⁵⁴ They are also at risk of immune system suppression resulting from exposure to harmful chemicals.⁵⁵ Threats to health from fossil fuel facilities along the Gulf Coast rise acutely during and after hurricanes, when accidents, emergency shutdowns, and restarts lead to the release of toxic chemicals into the air and water.⁵⁶ These threats are particularly acute in communities of color⁵⁷ because centuries of systemic racism have led to a constriction of living options and resources⁵⁸ as well as the deliberate siting of industrial facilities in and around these neighborhoods.⁵⁹

The ramifications of failures in drilling infrastructure can be long lasting. Seventeen years after a mudslide triggered by Hurricane Ivan caused a Taylor

³⁹“Each 1,000 GtCO₂ of cumulative CO₂ emissions is assessed to likely cause a 0.27°C to 0.63°C increase in global surface temperature with a best estimate of 0.45°C” (IPCC AR6)

⁴⁰ <https://www.opb.org/article/2021/07/03/oregon-heat-wave-deaths-farm-workers-sebastian-francisco-perez-vigil/>

⁴¹ <https://www.kuow.org/stories/heat-wave-death-toll-in-washington-state-jumps-to-112-people>

⁴² <https://www.koin.com/news/special-reports/new-data-shows-scope-of-heatwave-related-homeless-deaths/>

⁴³ <https://www.sfchronicle.com/bayarea/article/Giant-Dixie-Fire-first-ever-to-burn-its-way-clear-16396141.php>

⁴⁴ <https://www.theguardian.com/us-news/2021/jul/21/new-york-air-quality-plunges-smoke-west-coast-wildfires>

⁴⁵ https://www.washingtonpost.com/business/how-climate-rapid-intensification-revved-up-hurricane-ida/2021/08/31/cfb0b5be-0a63-11ec-a7c8-61bb7b3bf628_story.html

⁴⁶ <https://www.cnn.com/us/live-news/ida-aftermath-09-02-21/index.html>

⁴⁷ <https://weather.com/news/news/2021-09-09-heat-hurricane-ida-new-orleans-louisiana-power-outages>

⁴⁸ <https://news.harvard.edu/gazette/story/2021/08/wildfire-smoke-linked-to-increase-in-covid-19-cases-and-deaths/>

⁴⁹ <https://www.texastribune.org/2021/12/14/winter-weather-texas-climate-change/>

⁵⁰ https://digitalcommons.usf.edu/msc_facpub/877/

⁵¹ <https://usa.oceana.org/reports/time-action-six-years-after-deepwater-horizon/>

⁵² <https://www.epa.gov/enforcement/deepwater-horizon-bp-gulf-mexico-oil-spill>

⁵³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5932154/>

⁵⁴ <https://www.sciencedirect.com/science/article/abs/pii/S0013935120303881>

⁵⁵ <https://www.tandfonline.com/doi/abs/10.1080/09603123.2019.1689232>

⁵⁶ <https://www.sciencedirect.com/science/article/abs/pii/S030438940701477X>

⁵⁷ <https://www.liebertpub.com/doi/full/10.1089/env.2020.0052>

⁵⁸ <https://dsl.richmond.edu/panorama/redlining/#loc=5/39.1/-94.58&text=intro>

⁵⁹ <https://news.umich.edu/targeting-minority-low-income-neighborhoods-for-hazardous-waste-sites/>

Conclusion

QUESTIONS SUBMITTED FOR THE RECORD TO DR. KRISTINA DAHL, SENIOR CLIMATE
SCIENTIST, UNION OF CONCERNED SCIENTISTS

Question 1. Dr. Dahl, in 2020, researchers at the University of Michigan found that oil and gas platforms in the Gulf of Mexico have a 2.9 percent natural gas loss rate, meaning platforms were leaking twice as much methane as the EPA estimates. According to the researchers, this is because of undercounting offshore platforms, higher emissions from shallow-water facilities, and a small number of sporadic super-emitting incidents. Can you speak to the human health and climate impacts of methane emissions?

Dear Representative Huffman,

Methane is the primary component of natural gas and methane emissions have important implications for our climate and for human health. While methane is much less abundant than CO₂ in our atmosphere, it's a much more potent heat-trapping gas. Methane emissions to date are responsible for about 30% of the warming we've experienced over the last 150 years. That said, the lifetime of methane in the atmosphere is relatively short—about 10 years. After that point,

[illegible]

⁶³ <https://www.ucsusa.org/sites/default/files/2021-08/A-Transformative-Climate-Action-Framework.pdf>

most emitted methane will have broken down to form water and CO₂, which will continue warming the planet for hundreds of years.

The more we learn about methane and its impacts on our climate, the worse the picture is and the higher the emissions are than we have previously understood. Moreover, EPA estimates are likely significantly undercounting methane emissions from the oil and gas sector. With this in mind, it is critically important to fully consider the implications of oil and gas extraction on methane emissions.

While the bigger beast to tackle is our long-term CO₂ emissions, reducing methane emissions here and now could help us to reach our 2030 climate goals. Notably and intuitively, oil and gas operations account for more than a quarter of all methane emissions, so as we pursue reductions in fossil fuel production and use, we would expect methane emissions to decline as well.

Because methane emissions contribute to the overall warming of our planet, they influence human health. Rising temperatures are associated with more frequent, more intense heatwaves; stronger hurricanes; larger wildfires; more frequent floods; and less predictability in our water systems. Each of these climate impacts poses a risk to our health, with the risks expected to grow as we continue to alter our climate.

Methane also has indirect impacts on our health because it is a precursor formation of ground-level ozone, which can cause respiratory problems, damage our airways, and worsen asthma and other lung diseases. Children, older adults, and people who work outdoors are particularly at risk. Methane is also often released along with a host of other toxic chemicals, like hydrogen sulfide, benzene, and formaldehyde. These pollutants increase the risks of cancer, immune system problems, neurological and reproductive issues, and other health problems.

Thank you again for your question and for your service to our shared home state of California.

Dr. LOWENTHAL. Thank you, Dr. Dahl. The Chair now recognizes Dr. Wright for 5 minutes of testimony.

Welcome, Dr. Wright.

[Pause.]

Dr. LOWENTHAL. Dr. Wright, I believe you are muted.

Dr. WRIGHT. Clearly, I am, yes.

**STATEMENT OF BEVERLY WRIGHT, EXECUTIVE DIRECTOR,
DEEP SOUTH CENTER FOR ENVIRONMENTAL JUSTICE,
NEW ORLEANS, LOUISIANA**

Dr. WRIGHT. Thank you to the Energy and Mineral Resources Subcommittee for holding this hearing and inviting me today. My name is Dr. Beverly Wright, Executive Director of the Deep South Center for Environmental Justice and co-founder of the Center for nearly 30 years in the city of New Orleans, Louisiana.

At the Center, we partner with communities who are harmed by environmental racism and face serious climate threats in the Gulf Coast region. We provide education and research, as well as policy and legal assistance that support communities to effectively engage in governmental decisions affecting their health and wellness. Our worker training program in six states prepares unemployed and underemployed people to obtain state certifications for environmental careers. And this year, we will host the Eighth Annual HBCU Climate Change Consortium, which I co-direct with Dr. Robert Bullard from Texas Southern University. This gathering prepares more than 300 students at 32 HBCUs to contribute to climate solutions through scientific research they conduct and present at the annual HBCU Climate Change Conference.

I am here today not just as a scholar and advocate, but as a Black mother and a decades-long resident of New Orleans,

Louisiana. I have seen and felt firsthand the effects of climate change, environmental racism, and policies that favor the oil and gas industry over the health and safety of Black children and families. I have seen eroding pipes in Black neighborhoods covered in oil, Black residents displaced from homes that have been in their families for decades, Black-owned small businesses and restaurants struggling because of a seafood industry on the brink of ruin from oil spills and extreme weather.

As you consider the question at hand, I want you all to remember that economic gain does not outweigh the devastation we are feeling right now, particularly Black communities. In 2019, the Environmental Protection Agency published a report that found the petroleum sector released over 11 million pounds of pollution in 25 Louisiana parishes, with many of these facilities operating in close proximity to Black residents. Within this pollution were chemicals widely known to cause cancer and damage heart and lung functions, making it difficult to breathe and leading to premature death. And now, as studies show that air pollution exacerbates the impacts of COVID-19, the threat oil and gas facilities pose to our communities is magnified.

Simply put, these communities are in double jeopardy, facing exposure to the pollution and destruction to their homes. If we don't take action soon, they face a triple jeopardy of extinction.

Following the BP oil drilling disaster, massive amounts of oil waste were dumped in landfills next to Black communities, jeopardizing our water supplies. And as offshore drilling continues, our coastlines are deteriorating, leaving areas without natural defenses to extreme weather events. To make matters worse, greenhouse gas emissions from the oil and gas industry are massive contributors to the climate crisis, which disproportionately affects our communities.

I want you to take a hard look at this map.

[Slide.]

Dr. WRIGHT. These are the oil and gas pipelines that exist today throughout the Gulf Coast region. We are inundated. We can't even make out the outline of my home state through what looks like a picture of human veins and arteries. Is this not enough? More of what is bad for you is not better for you.

President Biden has made it clear that reforming the leasing system is a leading priority. While detractors framed the Administration's pause on new leases as stopping progress while the source of gas price is rising, it presented an opportunity to review the system and create a transition from fossil fuel development that is both environmentally and economically just. The pause was for research, to take a look at the impact of the leases that already exist.

Simply put, the *State of Louisiana vs. Biden* litigation continues necessary, time sensitive research. We must take advantage of this moment to act properly and carefully with environmental justice at the center for decision making.

I call upon you as Members of Congress to work alongside us to make this a reality by: (1) mandating the targeted reductions in a way that is equitable for communities of color that have been suffering for so long; and (2) requiring an annual impact analysis from

the Department of Energy studying how the oil and gas industry is affecting the community's health, wellness, and the very land they call home.

There is a lot of work to be done. The environmental justice community is up to the task, and we hope you will join us in this work, because our lives depend on it.

Thank you.

[The prepared statement of Dr. Wright follows:]

PREPARED STATEMENT OF DR. BEVERLY WRIGHT, FOUNDING EXECUTIVE DIRECTOR,
DEEP SOUTH CENTER FOR ENVIRONMENTAL JUSTICE

Good afternoon Chairperson Lowenthal, Ranking Member Stauber, and members of the Subcommittee. I am Beverly Wright, and I am the founding executive director of the Deep South Center for Environmental Justice in New Orleans, Louisiana.¹ At the Center, we work to improve the lives of children and families harmed by pollution and vulnerable to climate change in the Gulf Coast Region. We do this through education, research, community engagement, and worker training programs. We foster collaborative projects among communities, students, scientists, and policymakers that promote the right of all people to be free from environmental harm as it impacts health, jobs, housing, education, and quality of life. I appreciate this opportunity to provide testimony on the impacts of oil and gas leasing in the Gulf of Mexico and what more leasing means for achieving U.S. climate targets.

Impacts of Oil and Gas Leasing in the Gulf of Mexico

For more than 80 years, oil and gas leases have been issued off the coast of Louisiana.² In this time, Indigenous communities have lost forested lands to ongoing coastal erosion brought on by the extensive network of oil and gas pipelines.³ Historic Black communities have been vacated due to toxic exposures and contamination from inland oil refineries and petrochemical industries.⁴ Over the course of 30 years, oil and gas leasing and all the infrastructure for drilling platforms, pipelines, and industrial facilities were firmly established before Black people gained the right to vote.

For more than 50 years, the oil and gas industry has dominated the Gulf Coast Region to the detriment of Black communities engulfed in the massive amounts of toxic pollution from oil refining and the manufacturing of plastics from oil and gas feedstocks. In the 2019 Toxic Release Inventory, the petroleum sectors report the release of 11 million pounds of pollution in 25 Louisiana parishes. Much of this pollution is released from multiple facilities located in close proximity to Black residents. These facilities release chemicals in the air that are scientifically known to cause cancer as well as damage heart and lung functions which make it difficult to breathe and cause premature death.

Black communities are disproportionately exposed to oil and gas operations, where the view from windows is oil and gas storage tanks, oil refinery smokestacks, or gas-fired power plants. A national report by the NAACP found that over 1 million Black people in the United States live within a half mile of at least one oil or gas facility and in areas where pollution from these facilities exceeds EPA's cancer risk guidelines.⁵ This report is further confirmation of the connection between pollution

¹Beverly Wright Curriculum Vitae, Appendix 1.

²See U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, History of the Offshore Oil and Gas Industry in Southern Louisiana, September 2008, vol. 1, p. 30, available at <https://espis.boem.gov/final%20reports/4530.pdf> (noting that in 1936 Louisiana leased a combined 33,000 acres offshore to the Pure Oil Company and the Superior Oil Company).

³Saskia de Melker and Melanie Saltzman, "Native American Community Relocates as Land Washes Away," PBS News Hour, July 30, 2016, available at <https://www.pbs.org/newshour/show/native-community-louisiana-relocates-land-washes-away>.

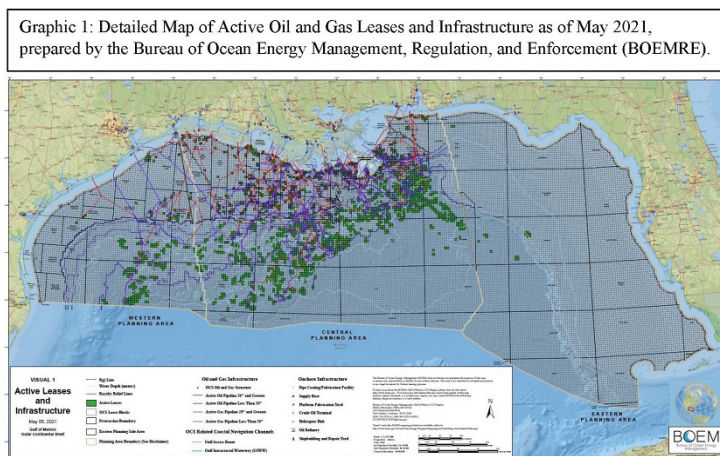
⁴Bullard, Robert D., *Dumping in Dixie: Race, Class, and Environmental Quality*, Boulder: Westview Press, 1994 (documenting the lost Black communities of Reveilletown, Sunrise, and Morrisonville in Louisiana); Lerner, Steve, *Diamond: A Struggle for Environmental Justice in Louisiana's Chemical Corridor*, Cambridge: MIT Press, 2006; Heather Rogers, "Erasing Mossville: How Pollution Killed a Louisiana Town," *The Intercept*, November 4, 2015, available at <https://theintercept.com/2015/11/04/erasing-mossville-how-pollution-killed-a-louisiana-town/>.

⁵NAACP, *Fumes Across the Fenceline: Fumes Across the Fence-Line: The Health Impacts of Air Pollution from Oil & Gas Facilities on African American Communities*, 2017, available at <https://naacp.org/resources/fumes-across-fence-line-health-impacts-air-pollution-oil-gas-facilities-african-american>.

and race and the existence of environmental racism, which is well documented in reports by governmental and non-governmental entities. The source of oil and gas pollution in Black communities are the oil and gas leases in the Gulf of Mexico.

With each hurricane in the Gulf of Mexico, there is growing concern regarding the lack of preparedness and response to oil spills and other industrial hazards. Even air monitoring is mired in resistance by some state governments to collect and share data on toxic releases during a disaster.⁶

There is a massive array of pipelines and platforms in shallow and deep waters in the Gulf of Mexico. See below Graphic: Detailed Map of Active Oil and Gas Leases and Infrastructure as of May 2021, prepared by the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE).⁷ The map below does not include the recent federal offshore leases that occurred in November 2021 in which companies placed bids on 1.7 million acres.⁸ According to BOEMRE, a total of approximately 11 million acres of the Gulf of Mexico are now subject to active leases.⁹



Pursuant to a lease, the exploration for oil and gas typically involves seismic activity that harms marine ecosystems. The discovery of oil or gas leads to production requiring transport via pipeline or vessels to refineries where oil spills or gas leaks can result in contamination, fires, or explosions. The BP oil spill disaster in 2010 involved the exploration for oil in the deep waters of the Gulf of Mexico which caused the biggest environmental disaster in US history. BP responded to the spill in ways that magnified the damage with toxic air emissions, the use of harmful chemicals to disperse the oil, and disposal in landfills located in close proximity to Black communities.¹⁰ The BP oil spill disaster claimed the lives of eleven people, injured seventeen, and wreaked havoc on the health and livelihoods of Gulf Coast residents.

Poor oversight of oil and gas activities in the Gulf of Mexico has resulted in more than 27,000 abandoned wells without regular monitoring on the ocean floor of

⁶Mark Schleifstein, "Louisiana refineries, chemical plants flaring at full blast; 15 air monitors knocked out," The Times-Picayune/NOLA.com, September 2, 2021, available at https://www.nola.com/news/environment/article_6c017212-0c2d-11ec-b3ff-3b08d3c3460d.html; Susan Rust and Louis Sahagun, "Post-Hurricane Harvey: NASA tried to fly a pollution-spotting plane over Houston. The EPA said no," The Los Angeles Times, March 5, 2019, available at <https://www.latimes.com/local/california/la-me-nasa-jet-epa-hurricane-harvey-20190305-story.html>.

⁷Graphic map with zoom functions available at https://www.boem.gov/sites/default/files/documents/about-boem/Visual-1-Active-Leases-and-Infrastructure_2.pdf.

⁸Nathan Rott, "The Biden Administration Sold Oil and Gas Leases Days after the Climate Summit," NPR News, Nov. 17, 2021, available at <https://www.npr.org/2021/11/17/1056713397/the-biden-administration-sold-oil-and-gas-leases-days-after-the-climate-summit>.

⁹BOEMRE, Combined Leasing Report as of January 1, 2022, available at <https://www.boem.gov/sites/default/files/documents/Lease%20stats%201-1-22.pdf>.

¹⁰Nance, Earthea, King, D., Wright, B. and Bullard, R.D., Ambient Air Concentrations Exceeded Health-Based Standards for PM2.5 and Benzene during the Deepwater Horizon Oil Spill," Journal of Air and Waste Management, 2016.

federal waters and another 3,200 wells without any plugging to prevent leaks.¹¹ These wells leak methane and other gases that contribute to the climate crisis. A former BOEM employee explained that notwithstanding requirements for plugging these wells, ensuring the requirements are met are “beyond the scope and capability of the resources the agency has.”¹² Toxic air pollution, contamination, soil degradation, damage to ecosystems, and risk of explosions are impacts of abandoned wells that threaten human health and sustainability. The environmental risks do not go away with wells that are considered properly plugged. Rusting, re-pressurization, and failures with the plug itself can give rise to environmental impacts from plugged wells.

Oil and Gas Leases Do Not Include Climate Targets

The purpose of US climate targets is to protect human life and stave off planetary destruction from climate change. These targets come years after mounting damage to human health and environment caused by exposure to toxic chemicals, which are co-pollutants released with greenhouse gases from industrial smokestacks and vehicle tailpipes. The climate targets essentially call for reducing greenhouse gas emissions by 50–52 percent from 2005 levels by the year 2030. However, meeting the climate targets is not a mandate for oil, gas or other fossil fuel companies or the users of fossil fuels. The targets are not included in the terms of the offshore oil and gas leases that were recently issued in November 2021. The oil and gas companies that have leased new acres of the Gulf of Mexico can operate as if the climate crisis does not exist. Each lease that finds a producing well moves us further away from, not closer to, meeting the climate targets.

Notwithstanding the damaging effects of oil and gas leases on Louisiana communities and the environment, the State of Louisiana along with 12 other state governments won a federal court ruling last year that blocks the application of US climate targets to offshore oil and gas leases. The preliminary injunction removes the federal pause on leasing that is set forth in President Biden’s Executive Order 14008, which calls for an all of government approach to tackling climate change and delivering environmental justice.¹³

The major loss from the court’s preliminary injunction is the important work undertaken by the Department of the Interior, pursuant to the Executive Order, to assess the wide-ranging impacts of offshore oil and gas operations. Completing this assessment is central to the task of meeting US climate targets by informing the direction of the Interior’s leasing program to ensure environmental justice and deliver equitable climate solutions. There can be no meaningful assessment to meet climate targets with the continued leasing of millions of more acres for oil and gas development.

Conclusion

I have discussed above how oil and gas leases are not required to meet US climate targets and have given rise to the massive environmental harms that are disproportionately felt by Black and Indigenous communities in the Gulf Coast Region. While there are environmental regulations, they have proven to be inadequate to protect the health and safety of communities from toxic chemicals. Similarly, climate targets by themselves are inadequate to reduce greenhouse gases.

Given the state we are now in where there is precious little time to reduce greenhouse gas emissions to stave off the worst effects of climate change, it is critical that committee members consider solutions for meeting US climate targets. I strongly recommend the following:

1. establish compliance with US climate targets for the oil and gas industry;
2. require health protections for communities harmed by the extraction, transport, burning, and disposal of fossil fuels;
3. prohibit racially disproportionate pollution burdens;

¹¹ Jeff Donn and Mitch Weiss, “Gulf Awash in 27,000 Abandoned Wells,” NBC News, July 6, 2010, available at <https://www.nbcnews.com/id/wbna38113914>; Jeff Donn, “High Risk in Multitude of Abandoned Wells,” Sarasota Herald-Tribune, April 21, 2011, available at <https://www.heraldtribune.com/story/news/2011/04/21/high-risk-in-multitude-of-unplugged-wells/29011603007/>.

¹² Hannah Seo, “Unplugged: Abandoned Oil and Gas Wells Leave the Ocean Floor Spewing Methane,” Environmental Health News, December 8, 2020, available at <https://www.ehn.org/oil-and-gas-wells-methane-oceans-2649126354/particle-8>.

¹³ *Louisiana v. Biden*, 2-21-cv-0078, Western District of Louisiana, June 15, 2021.

4. expand the reach of the Superfund responsible parties to compensate the clean up and plugging of abandoned wells, as well as the regular monitoring of all existing wells;
5. stand up an expert federal team for disaster planning, preparedness and response on oil spills and other industrial hazards resulting from hurricanes in the Gulf of Mexico; and
6. hold companies accountable for abandoned wells in the Gulf of Mexico.

QUESTIONS SUBMITTED FOR THE RECORD TO DR. BEVERLY WRIGHT, EXECUTIVE
DIRECTOR, DEEP SOUTH CENTER FOR ENVIRONMENTAL JUSTICE

Questions Submitted by Representative Lowenthal

Question 1. Dr. Wright, during the hearing you were not given an adequate chance to respond to the questions and statements leveraged against you. Would you like to respond to anything said to you by a Republican Member of Congress during today's hearing?

Answer. First, I live with racism every day and have for as long as I can remember. It's insulting to try and deny the systemic steps that have been taken to ensure the communities most impacted by pollution are communities of color. Cherry-picking data by only looking at white parishes where a small number of people live is not an accurate representation of the suffering that has gone on for so long in Cancer Alley. The facts and data are clear, there has been a disproportionate impact of pollution on African American communities in Louisiana, and race is a primary determinate in where polluting facilities are placed.

The states' own demographics show that African Americans are overrepresented in the pollution corridor. The GIS maps show that 80 percent of African Americans in the state live within three miles of a cancer-causing facility. This isn't an accident, it's the result of skewed decision-making and environmental racism.

Questions Submitted by Representative Huffman

Question 1. Dr. Wright, in November, the Biden Administration made 80 million acres of the Gulf of Mexico available to the fossil fuel industry for leasing, and companies ended up purchasing leasing covering 1.7 million acres. What was your response to this sale, and do you think an adequate environmental review and analysis was completed for the lease sale?

Answer. I don't think there was an adequate environmental review, and since our hearing, a federal judge has reversed the decision. Our position remains that the entire federal leasing process should be reviewed to better account for its impact on all communities. Until the administration has had time to review the system, they must extend the pause on new leases.

Given the state we are now in where there is precious little time to reduce greenhouse gas emissions to stave off the worst effects of climate change, it is critical that committee members consider solutions for meeting U.S. climate targets. I strongly recommend the following:

1. Require health protections for communities harmed by the extraction, transport, burning, and disposal of fossil fuels;
2. prohibit racially disproportionate pollution burdens;
3. expand the reach of the Superfund responsible parties to compensate the cleanup and plugging of abandoned wells, as well as the regular monitoring of all existing wells;
4. stand up an expert federal team for disaster planning, preparedness and response on oil spills and other industrial hazards resulting from hurricanes in the Gulf of Mexico;
5. hold companies accountable for abandoned wells in the Gulf of Mexico; and
6. establish compliance with US climate targets for the oil and gas industry.

Dr. LOWENTHAL. Thank you, Dr. Wright. The Chair now recognizes Mr. Sarinsky for 5 minutes.

Welcome to the Committee, Mr. Sarinsky.

STATEMENT OF MAX SARINSKY, SENIOR ATTORNEY, INSTITUTE FOR POLICY INTEGRITY, NEW YORK UNIVERSITY SCHOOL OF LAW, NEW YORK, NEW YORK

Mr. SARINSKY. Thank you very much. Good afternoon, Chairman Lowenthal, Ranking Member Stauber, and members of the Committee. And thank you for this opportunity to testify at this critical hearing. I am a senior attorney at the Institute for Policy Integrity, which is a non-partisan think tank dedicated to improving the quality of government decision making using law and economics. We are housed at New York University School of Law, where I also serve as an adjunct professor.

Federal oil and gas policy should be guided by the best available science and economics. Unfortunately, however, previous Interior analyses have typically undervalued the environmental impacts of fossil fuel leasing and extraction on public lands in at least three different ways. Interior has broad discretion to reconsider its oil and gas policies, and in doing so it should be guided by the best available data and science.

First, Interior has previously concluded that offshore oil and gas production reduces total greenhouse gas emissions. But this conclusion ignores basic economics, has been rejected by Federal courts, and has now been disclaimed by Interior itself.

The reason why Federal leasing increases greenhouse gas emissions is, in fact, quite intuitive and simple, because it increases fossil fuel usage and production and combustion overall. While some have claimed that fossil fuel production on Federal lands merely substitutes for production that would otherwise occur elsewhere, that hypothesis ignores fundamental economics. As one appellate court stated in rejecting this assumption, "Such an assumption is contrary to basic supply and demand principles."

In an evaluation this past October for an upcoming lease sale, Interior corrected for the modeling errors identified by the courts and concluded that proposed offshore leasing in the Cook Inlet would result in more than 30 million metric tons of additional surplus climate pollution. Thus, Interior now rejects its prior claim that offshore leasing reduces emissions. And as discussed in my written testimony, moreover, Interior still continues to underestimate the climate pollution from offshore leasing due to other continuing modeling limitations.

Second, even when Interior has acknowledged that Federal leasing contributes to climate change, it has typically characterized those emissions as insignificant by noting that Federal leasing represents a relatively small fraction of all national or global greenhouse gas emissions. But the implication of such logic is that nobody should ever do anything to mitigate the climate crisis, which, as a Federal court explained in rejecting this very logic, "would be a prescription for climate disaster."

In reality, the Federal oil and gas program is responsible for millions upon millions of tons of climate pollution each and every year, which greatly exacerbates the climate crisis and cannot be ignored. Reducing these emissions would be an important piece of meeting the Nation's emission reduction targets.

Third, Interior has typically ignored the considerable option value of delaying leasing decisions. Developers already have vast resources of both productive and currently non-producing fossil fuel leases, such that there is little short-term need or economic benefit to further leasing at this time. Against such a backdrop there is considerable value in curtailing fossil fuel leasing now, and preserving the option to lease or not lease in the future, particularly given that continued growth of renewable energy is likely to render extensive future leasing unnecessary.

Interior should be guided by this information moving forward. If the government properly considered energy substitution, the social cost of greenhouse gases, and option value, fossil fuel leasing would look less attractive and determinations that Interior currently justifies under its flawed methodologies would become unjustifiable.

Moreover, if the government properly considered the climate harms of the fossil fuel program, it would adjust fiscal terms to eliminate the billions of dollars in annual subsidies that it provides to the oil and gas industry.

In short, the Federal fossil fuel program greatly increases greenhouse gas emissions, severely harming both present and future generations of Americans. Federal land use policy should no longer be based on contrary conclusions that Federal courts have rejected time and again. Instead, the Federal Government should reform oil and gas leasing to account for climate harms and refocus its land use policy toward facilitating a necessary transition to a renewable economy.

I thank the Committee for this opportunity and look forward to answering your questions.

[The prepared statement of Mr. Sarinsky follows:]

PREPARED STATEMENT OF MAX SARINSKY, SENIOR ATTORNEY, INSTITUTE FOR POLICY INTEGRITY; ADJUNCT PROFESSOR, NEW YORK UNIVERSITY SCHOOL OF LAW

Thank you for the opportunity to speak at this important hearing. I am a senior attorney at the Institute for Policy Integrity ("Policy Integrity"), a non-partisan think tank dedicated to improving the quality of government decisionmaking. Policy Integrity is housed at New York University School of Law, where I am also an adjunct professor.

Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. We have written extensively on the consideration of greenhouse gas emissions and other environmental impacts in oil, gas, and coal leasing.

As this committee and the Department of Interior assess the future of oil and gas leasing on federal waters and lands, they should be guided by the best available science and economics. Unfortunately, previous Interior analyses have typically undervalued the environmental impacts of the federal fossil-fuel programs. Interior has broad discretion to reconsider its oil and gas policies and practices, and in doing so, it should be guided by the best available data and science.

First, Interior has previously concluded that offshore oil and gas production reduces total greenhouse gas emissions. But this conclusion has been rejected by independent analyses and federal courts, and should not form the basis for leasing policy. In reality, the federal oil and gas program is responsible for millions upon millions of tons of greenhouse gas emissions each year.

Second, even when Interior has acknowledged that federal leasing contributes to climate change, it has characterized those contributions as insignificant. But framing large volumes of emissions as a small portion of total global or national emissions, as Interior has done, is not a reasonable basis for decisionmaking, and masks the program's substantial climate harms. Available tools, such as the social

cost of greenhouse gases, could be used to measure the climate costs of the federal program and account for climate change in program policies.

Third, Interior has typically ignored the considerable “option value” of delaying leasing. Fossil-fuel leasing today affects extraction for decades to come and causes irreversible climate damage. Yet developers already have vast reserves, such that there is little short-term need or economic benefit to further leasing at this time. Against this backdrop, there is considerable value in curtailing fossil-fuel leasing now and preserving the option to lease or not lease in the future, particularly as the continued growth of renewable energy could render unnecessary extensive future leasing.

Interior should be guided by this information moving forward, and restore rationality to the oil and gas leasing program. For one, if the government properly considered energy substitution, the social cost of greenhouse gases, and option value, fossil-fuel leasing would look less attractive and determinations that Interior currently justifies under its flawed methodologies would become unjustifiable. Second, if the government properly considered the climate harms of the fossil-fuel program, it would eliminate subsidies to the oil and gas industry by adjusting fiscal terms.

In short, the federal fossil-fuel program greatly increases global greenhouse gas emissions, severely harming present and future generations of Americans. Federal land-use policy should no longer be based on contrary conclusions that courts have rejected. Instead, the federal government should reform oil and gas leasing to account for climate harms, and refocus land-use policy toward facilitating a necessary transition to a renewable economy.

I. The Department of Interior Has Broad Discretion to Reform the Oil and Gas Program to Account for Climate Damage

Congress passed three primary statutes granting the Bureau of Land Management (“BLM”) and Bureau of Ocean Energy Management (“BOEM”) authority to manage onshore and offshore oil and gas leasing. There are two primary onshore leasing statutes: the Mineral Leasing Act of 1920 (“MLA”),¹ and the Federal Land Policy and Management Act of 1976 (“FLPMA”).² Offshore leasing is subject to the Outer Continental Shelf Lands Act (“OCSLA”).³ These statutes all grant Interior broad authority to manage public waters and lands for the public interest, requiring rational balancing of competing uses.

OCSLA governs the development of fossil fuel resources in the Outer Continental Shelf.⁴ The statute requires BOEM to balance the production of oil and gas with “protection of the human, marine, and coastal environments.”⁵ BOEM is required to consider the environmental risks of oil and gas development in offshore areas.⁶ In deciding whether to lease any portion of the Outer Continental Shelf, BOEM must ensure a “proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”⁷ BOEM is not required to make any particular or amount of parcels available for fossil-fuel development.

The provisions in FLPMA are intended to work in tandem with those in the MLA. FLPMA provides BLM with an overarching framework for managing federal lands “on the basis of multiple use and sustained yield.”⁸ These multiple uses include, but are not limited to, “recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values.”⁹ Under FLPMA, BLM must manage public land uses “in the combination that will best meet the present and future needs of the American people,”¹⁰ and is also not required to make any particular or amount of lands available for fossil-fuel development.

In carrying out its statutory mandates, Interior must balance positive and adverse impacts of oil and gas development, including harms to climate change that arise from the program. For example, under FLPMA, BLM is required to “weigh long-term benefits to the public against short-term benefits” when formulating regional management plans.¹¹ Similarly, under OCSLA, BOEM must weigh the “economic,

¹30 U.S.C. § 181 et seq.

²43 U.S.C. § 1701 et seq.

³*Id.* § 1331 et seq.

⁴*Id.*

⁵*Id.* § 1802.

⁶*Id.* § 1344(a)(2)(A), (H).

⁷*Id.* § 1344(a)(3).

⁸*Id.* § 1701(a)(7).

⁹*Id.* § 1702(c).

¹⁰*Id.*

¹¹*Id.* § 1712(c)(7).

social, and environmental values of the . . . resources contained in the outer Continental Shelf.”¹²

As these provisions illustrate, Interior has broad authority to manage public lands for the public benefit, and the consideration of environmental values is critical to this consideration.

II. In Assessing the Oil and Gas Program, Regulators Should Be Guided by the Best Available Science and Reject Implausible or Discredited Theories

While federal law requires Interior to base its policies on reasonable information and assumptions, previous Interior analyses have substantially undervalued the environmental impacts of fossil-fuel extraction on public lands, often relying on disproven methodologies or irrational assumptions. Such false narratives should no longer form the basis for federal policy.

In particular, in recent years Interior has operated under the following assumptions: (1) energy production on federal property, particularly offshore, can reduce total greenhouse gas emissions; (2) any greenhouse gas emissions that do result from federal leasing and planning determinations are likely insignificant; and (3) there is, at most, limited option value to curtailing leasing despite the vast reserve of existing leases. As detailed below, all three of these assumptions are irrational and discredited by independent analysis.

A. Fossil-Fuel Extraction on Federal Waters and Lands Increases Total Greenhouse Gas Emissions

The notion that fossil-fuel extraction on federal lands does not affect—or even decreases—total greenhouse gas emissions has been widely rejected by both federal courts and independent analysis, and should not form the basis for leasing policy.

At times, the Department of Interior has claimed that fossil-fuel leasing would have no impact on downstream greenhouse gas emissions, on the theory that extraction occurring on federal lands perfectly substitutes for alternative oil and gas development that would otherwise occur. But courts on numerous occasions have rejected this “perfect substitution” assumption as irrational and counter to basic market dynamics, as an increase in supply is bound to result in an increase in production and consumption.¹³ In 2017, the U.S. Court of Appeals for the Tenth Circuit rejected a BLM leasing decision that assumed perfect substitution, finding the assumption “contrary to basic supply and demand principles.”¹⁴

In its most recent five-year plan, BOEM did not exactly assume perfect substitution, but instead used a model (known as MarketSim) that concluded that extraction in federal waters would *decrease* total greenhouse gas emissions. In essence, MarketSim found that oil and gas extraction in federal waters only modestly increased total extraction while displacing production in areas that would have yielded greater emissions to transport the energy to its end destination.¹⁵ But that model was based on irrational inputs and assumptions, and courts have since rejected BOEM’s conclusion that offshore extraction reduces greenhouse gas emissions.

As the U.S. Court of Appeals for the Ninth Circuit recently held, BOEM’s analysis improperly omitted impacts on foreign oil demand resulting from domestic oil production.¹⁶ Specifically, the Court explained, MarketSim “fail[s] to include emissions estimates resulting from foreign oil consumption” and thereby irrationally “assumes that foreign oil consumption will remain static” when domestic production increases.¹⁷ As the Court explained, this ignores the global nature of the energy market and violates “basic economics principles” about supply and demand.¹⁸ The Court pointed to “credible scientific evidence” demonstrating that “domestic consumption impacts foreign oil consumption, and increases in foreign oil

¹²*Id.* § 1344(a)(1).

¹³*See, e.g., Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003) (“[T]he proposition that the demand for [energy] will be unaffected by an increase in availability . . . is illogical at best.”).

¹⁴*WildEarth Guardians v. BLM*, 870 F.3d 1222, 1236 (10th Cir. 2017).

¹⁵BOEM, *OCS Oil and Natural Gas: Potential Lifecycle Greenhouse Gas Emissions and Social Cost of Carbon* 26 (2016); *see also* Liberty Development and Production Plan Final Environmental Impact Statement 4-52 (2018) (“Here, life cycle GHG emissions associated with the No Action Alternative are estimated to be higher than those associated with the Proposed Action, despite the model’s assumption that a slightly lower amount of energy would be consumed domestically overall.”).

¹⁶*Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 736–40 (9th Cir. 2020).

¹⁷*Id.*

¹⁸*Id.*

consumption can be translated into estimates of greenhouse gas emissions,” including one study concluding that offshore development “cause[s] an increase in global oil consumption ten times greater than the increase in domestic consumption forecasted by BOEM.”¹⁹ The U.S. District Court for the District of Alaska echoed these findings in a subsequent decision vacating a BLM development plan that relied on the same modeling.²⁰

In fact, in its most recent analysis for Lease Sale 258, published in October 2021 following the Ninth Circuit and District of Alaska decisions, BOEM corrected for the modeling error identified by the courts and concluded that the proposed offshore leasing in the Cook Inlet would result in more than 30 million metric tons of additional climate pollution.²¹

But even the agency’s updated methodology underestimates the climate impacts of fossil-fuel leasing, as the MarketSim model still does not account for structural changes in the global economy that are likely to reduce long-term oil and gas demand and increase substitution to renewables. In fact, the model unreasonably assumes near constant demand for oil and gas for 70 years into the future,²² which is incompatible with domestic and international efforts to mitigate the impacts of climate change and would produce unsustainable amounts of warming.²³ As some scholars have noted, domestic and international policies are likely to increase renewable generation in future years, meaning that fossil-fuel production would substitute for cleaner energy use far more than implied by MarketSim’s business-as-usual assumptions.²⁴

In short, fossil-fuel extraction on federal lands increases greenhouse gas emissions. Although past Interior analyses have minimized this effect or rejected it altogether, its analyses were based on incomplete or outdated assumptions. Interior’s prior analyses—and, more broadly, the notion that domestic production is good for the environment—should not form the basis for federal leasing policy any longer.

B. Emission Increases from Federal Fossil-Fuel Development Result in Extensive and Irreversible Climate Damage

Even when Interior has acknowledged that the federal fossil-fuel program contributes to climate change, it has typically characterized those contributions as insignificant by noting that federal leasing represents a relatively small fraction of all national or global emissions. But the implication of such an argument is that nobody should take steps to mitigate the climate crisis, which as a federal court explained, would be a “prescription for climate disaster.”²⁵ In reality, the climate pollution produced by the federal fossil-fuel program exacerbates the climate crisis, harms present and future generations of Americans, and cannot be ignored.

The practice of comparing emissions from a particular planning or leasing determination to far larger totals such as global emissions misleadingly makes massive amounts of climate harm from federal actions appear trivial. As one federal court recently recognized, “[t]he global nature of climate change and greenhouse-gas emissions means that any single . . . project likely will make up a negligible percent of . . . nation-wide greenhouse gas emissions.”²⁶ Yet while agencies assess percentage comparisons of greenhouse gas emissions should recognize this phenomenon and adjust their standards accordingly, they typically do not. In other words, agencies all too often fail to recognize, as one federal court explained, that

¹⁹*Id.* (citing Peter Erickson, *U.S. Again Overlooks Top CO2 Impact of Expanding Oil Supply, but That Might Change*, Stockholm Env’t Inst. (Apr. 30, 2016), <http://www.sei.org/perspectives/us-co2-impact-oil-supply>; Peter Erickson & Michael Lazarus, *Impact of the Keystone XL Pipeline on Global Oil Markets and Greenhouse Gas Emissions*, 4 *Nature Climate Change* 778, 778–80 (2014); Jason Bordoff & Trevor Houser, Columbia SIPA Center on Global Energy Policy, *Navigating the U.S. Oil Export Debate* 57 (2015)).

²⁰*Sovereign Inupiat for a Living Arctic v. BLM*, No. 3:20-CV-00290-SLG, 2021 WL 3667986, at *10–14 (D. Alaska Aug. 18, 2021).

²¹BOEM, Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258 at 47–51 (2021).

²²BOEM, *Potential Lifecycle Greenhouse Gas Emissions*, *supra* note 15, at 20.

²³*Id.* (recognizing that “[a]s countries, including the U.S., address climate change with individual policy targets, this assumption could no longer hold,” and that “as new energy sources become more economically feasible, they could displace existing sources and/or alter the composition of energy supply”).

²⁴*See, e.g.*, Brian C. Prest & James H. Stock, *Climate Royalty Surcharges* 11 (Nat’l Bureau of Econ. Res. Working Paper No. 28564, 2021) (“[A]s renewable generation increases the electricity demand for gas could become more elastic.”).

²⁵*California v. Bernhardt*, 472 F. Supp. 3d 573, 623 (N.D. Cal. 2020) (“[F]raming sources as less than 1% of global emissions is dishonest and a prescription for climate disaster.”).

²⁶*WildEarth Guardians v. Bureau of Land Mgmt.*, 457 F. Supp. 3d 880, 894 (D. Mont. 2020).

even a seemingly “very small portion of a gargantuan source of . . . pollution” may “constitute[] a gargantuan source of . . . pollution on its own terms.”²⁷

In one recent assessment, for instance, Interior’s Office of Surface Mining deemed a proposal’s carbon dioxide emissions “small” because they comprised 0.44% of the annual global total.²⁸ But 0.44% of annual global emissions is actually a massive volume for an individual agency action. If Interior had used the social cost of greenhouse gases, which provides a monetary estimate of the harm caused by an incremental unit of climate pollution, it would have concluded that this determination resulted in at least \$9 billion in annual climate harm.²⁹ As this illustration demonstrates, Interior should contextualize the impacts of federal fossil-fuel determinations using the social cost of greenhouse gases, rather than dismissing them through misleading percentage comparisons to larger denominators.

Indeed, in the few instances in which Interior has used the social cost of greenhouse gases, the tool has revealed the substantial climate harms of the oil and gas program. In its most recent offshore leasing assessment, for instance, BOEM projected that the resulting climate pollution (which it underestimated due to poor substitution assumptions discussed above) would produce over \$2 billion in climate damage.³⁰ Independent analysis also finds that, even using conservative estimates of the social cost of greenhouse gases, curtailing federal leasing could cause \$10 billion in climate benefit per year.³¹

In short, the federal government should not ignore the substantial climate impacts of the oil and gas program. Tools such as the social cost of greenhouse gases are available to assess the severity of those impacts, and should be widely applied in planning and leasing determinations.

C. Particularly Given the Vast Stock of Existing Leases, There Is Considerable Option Value in Restricting Additional Leasing at This Time

Prior planning and leasing determinations have also been based on a lease-now approach, and have mostly ignored the possibility that the government could curtail leasing and wait until further information is available before determining whether additional leasing is appropriate. But this value of delay—known in economics as “option value”—is extremely high, particularly given the fact that fossil-fuel developers already have vast stocks of existing leases and thus any potential economic benefits from additional leasing will not materialize for years.

Fossil-fuel developers already have vast reserves of both producing and currently non-producing leases. In the Outer Continental Shelf alone, producers currently hold nearly 3 million acres of producing leases and another 8 million acres in non-producing leases.³² Onshore, producers now hold over 26 million acres of federal land, half of which is not yet producing.³³ This high volume of non-producing leases is due in large part to the “long lag time between leasing a parcel and beginning production from that parcel,”³⁴ as the very presence of subsurface reserves on a company’s balance sheet can “boost its attractiveness to shareholders and investors, and even increase its ability to borrow on favorable terms.”³⁵

Given the vast reserves held by fossil-fuel developers, the current need for additional leasing is low and value of delaying leasing determinations until further information is available—including information about the growth of renewable

²⁷ *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1032 (5th Cir. 2019) (internal quotation marks omitted).

²⁸ Bull Mountains Mine No. 1 Federal Mining Plan Modification Environmental Assessment D-2 (2018).

²⁹ Richard L. Revesz & Max Sarinsky, *The Social Cost of Greenhouse Gases: Legal Economic and Institutional Perspective*, 39 *Yale Journal of Regulation*, manuscript at 19 & n.134 (forthcoming 2022) (using low-end value of the social cost of greenhouse gases based on a 3% discount rate).

³⁰ BOEM, Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258 at 51 tbls. 4-14 & 4-15 (2021) (using a 2.5% discount rate).

³¹ Brian Prest, Supply Side Reforms to Oil and Gas Production on Federal Lands 32 (RFF Working Paper Working Paper 20-16) (2020).

³² BOEM, Combined Leasing Report as of Dec. 1, 2021, <https://www.boem.gov/sites/default/files/documents/regions/pacific-ocs-region/oil-gas/Lease%20stats%2012-1-21.pdf>.

³³ *Compare Oil and Gas Statistics*, Bureau of Land Mgmt. tbl. 2, <https://www.blm.gov/programs-energy-and-minerals-oil-and-gas-oil-and-gas-statistics>, with *id.* tbl. 6.

³⁴ Congressional Budget Office, Options for Increasing Federal Income From Crude Oil and Natural Gas on Federal Lands 3 (2016).

³⁵ Ctr. for Am. Progress, *Oil and Gas Companies Gain by Stockpiling America’s Federal Land* 3 (2018); see also Taxpayers for Common Sense, *Gaming the System: How Federal Land Management in Nevada Fails Taxpayers* 4 (2019) (“Certain companies and interests take advantage of the low acquisition and ownership costs for federal leases to amass sizable lease holdings.”).

energy—is high. This informational value of delay is known as “option value,” and it has long been considered by agencies, courts, and economists to be a relevant factor for leasing and mineral decisions.³⁶ As the U.S. Court of Appeals for the District of Columbia Circuit has explained, there is a “tangible present economic benefit to delaying the decision to drill for fossil fuels to preserve the opportunity to see what new technologies develop and what new information comes to light.”³⁷ And this option value “can be quite substantial”³⁸—as it is now when both renewable energy is becoming more widespread and developers are likely to wait years to develop new leases.

In short, leasing additional lands to fossil-fuel developers at the present moment offers limited benefit given the vast reserve of existing leases, and the value of delaying leasing is high given that leasing is likely to result in substantial climate costs down the road. Interior should directly account for this option value in its policies and practices.

III. Rational Analysis Counsels for Reforming the Oil and Gas Program

As outlined in this testimony, the federal government has relied on irrational and discredited theories for too long in setting oil and gas policy. It is past time for the government to rely on the best available science and economics. Such evidence, if properly assessed, counsels for several key reforms to the oil and gas program.

First, if the government properly considered energy substitution, the social cost of greenhouse gases, and option value, fossil-fuel leasing would look less attractive and determinations that Interior currently justifies under its flawed methodologies would become unjustifiable. Second, if the government properly considered the climate harms of the fossil-fuel program, it would eliminate subsidies to the oil and gas industry by adjusting fiscal terms.

A. Proper Analysis Counsels for Curtailing Fossil-Fuel Leasing that Is Socially Undesirable

The substantial climate costs of federal production and the high option value of delay strongly indicate that Interior’s leasing practices are unjustifiable and that the federal government should curtail fossil-fuel leasing.

Given the high option value of delay, Interior’s lease-now approach is not socially desirable. Analyses from both government agencies and independent economists finds that even more ambitious reforms to the oil and gas program would have negligible impacts in the short term.³⁹ For instance, an analysis from Resources for the Future finds that a leasing moratorium would not produce any reduction in domestic oil production for five years or in domestic gas production for nine years, and that declines would then proceed gradually.⁴⁰ Reductions in domestic oil and gas production would take decades to fully materialize, as recent leasing is likely to result in extraction decades into the future.⁴¹

Given this backdrop, there is little economic benefit to engaging in additional fossil-fuel leasing at the present moment, since leasing now will have negligible short- to medium-term effects and is not needed in large volumes to “meet national energy needs.”⁴² Leasing now does, however, have severe long-term climate costs, as detailed above, since when production does eventually occur it will release substantial climate pollution. Thus, there is a high value in delaying further leasing. If, after fossil-fuel developers have mostly exhausted their reserves, there remains a need for additional energy, then Interior could engage in leasing at that time. But if other energy sources—including renewable sources—meet national demand and

³⁶ BOEM itself has acknowledged the importance of option value in assessing leasing, yet has only considered oil price uncertainty without rigorously assessing uncertainties regarding environmental factors, technological development, and the growth of renewable energy. BOEM, 2017–2022 Outer Continental Shelf Oil and Gas Leasing Proposed Final Program 10-3 to 10-16 (2016).

³⁷ *Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588, 610 (D.C. Cir. 2015).

³⁸ Michael Livermore, *Patience is an Economic Virtue: Real Options, Natural Resources, and Offshore Oil*, 84 U. Colo. L. Rev. 581, 638–39 (2013).

³⁹ See Laura Zachary, *The Estimated Effects of a Leasing Pause: A Review of the Modeling Consensus and Why a 2020 Study by Timothy J. Considine Fails to Compute* 2-4 (2021) (reviewing literature including studies from the Energy Information Administration and the Federal Reserve Bank of Dallas).

⁴⁰ *Id.* at 3.

⁴¹ In its most recent environmental analysis, BOEM assumed a 40-year exploration and development scenario. See BOEM, Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258 (2021).

⁴² 43 U.S.C. § 1344(a).

there is little need for additional fossil-fuel leasing, then leasing that occurs now would have unnecessarily exacerbated the climate crisis for limited benefit.

Accordingly, option value strongly suggests the federal government should curtail fossil-fuel leasing at this time. With respect to the offshore program, this means that BOEM's upcoming five-year plan should prioritize renewable-energy generation and conservation. Due to the vast reserves of existing leases, this will result in a gradual, long-term reduction in climate pollution from the federal program while ensuring that America has plentiful energy supplies and allowing time to for production of clean, renewable fuels to increase.

B. Economic Theory Counsels for Adjusting Lease Terms to Shift Associated Climate Costs onto Fossil-Fuel Producers

As discussed above, the social cost of greenhouse gases provides a highly useful tool for assessing the climate impacts of the federal oil and gas program. In particular, the tool can be highly useful for adjusting lease terms to ensure that fossil-fuel producers bear the costs of the climate pollution that they cause. Doing so would correct a market failure and align federal leasing policy with basic economic theory.

In economics, the costs of climate change are known as a negative externality, which is a market failure that results when a cost caused by a producer is not financially borne by that producer. Negative externalities are market failures because producers, lacking financial incentive to do so, do not consider the costs that they impose on third parties—here, the entire public. As a result, the public provides an implicit subsidy to the producer because it bears the costs that the producer imposes. According to a recent study from the International Monetary Fund, in fact, the United States provided the fossil-fuel industry with \$660 billion in subsidies in 2020, mostly through implicit subsidies.⁴³

The market failure of negative externalities can be corrected by “internalizing” the externality—that is, by shifting the external cost from third parties onto the producer. For Interior, this means adjusting lease terms to make the producer pay the social cost of greenhouse gases caused by production on federal lands. The agency has broad authority to adjust lease terms: for instance, resource-management statutes set floors for royalty rates but give the agency wide latitude to set rates above those minimums.⁴⁴ As one member of Congress explained before the statute's enactment, the MLA gives Interior “practically unlimited authority as to the granting and the terms and conditions of leases.”⁴⁵ Given the broad concern for climate impacts in land-management statutes, discussed above, Interior undoubtedly has authority to adjust lease terms to internalize environmental impacts.

Adjusting lease terms to eliminate subsidies and shift the cost of climate pollution onto producers could raise billions of dollars in public revenue while simultaneously reducing climate pollution. One recent analysis, in fact, found that incorporating the social cost of greenhouse gases into royalty rates for offshore and onshore oil and gas would increase royalty revenue by \$6 billion annually while reducing climate pollution by over 40 million metric tons per year.⁴⁶

Conclusion

For decades, the federal government has inadequately considered the climate harms that result from oil and gas leasing on public waters and lands. It is time to restore rationality to the oil and gas program. In particular, federal policy should be based on credible scientific and economic analysis, and as detailed above, such analysis counsels for key reforms including curtailing leasing and adjusting fiscal terms.

I thank the committee for this opportunity and look forward to answering any questions.

⁴³ Ian Perry et al., *Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies* 26 (Int'l Monetary Fund Working Paper No. 2021/236, 2021).

⁴⁴ See 43 U.S.C. § 1337(a)(1) (setting minimum royalty rate of 12.5 percent of offshore oil and gas revenues); 30 U.S.C. § 226(b)(1)(A) (setting minimum royalty rate of 12.5 percent of onshore oil and gas revenues); *id.* § 207(a) (setting minimum royalty rate of 12.5 percent of surface coal revenues).

⁴⁵ 51 Cong. Rec. H14,954 (Sept. 10, 1914) (statement by Mr. Thomson of Illinois).

⁴⁶ Prest & Stock, *supra* note 24, at 17 tbl. 3 (assessing impacts of a “welfare-maximizing” climate surcharge based on a \$125 valuation of the social cost of greenhouse gases).

QUESTIONS SUBMITTED FOR THE RECORD TO MAX SARINSKY, SENIOR ATTORNEY,
INSTITUTE FOR POLICY INTEGRITY

Questions Submitted by Representative Huffman

Question 1. Mr. Sarinsky, can you identify a few of the times that U.S. courts have taken issue with federal agencies using either perfect substitution or very high substitution rates to support fossil fuel projects or additional fossil fuel leasing?

Answer. At least five federal court cases fit this description, which can be grouped into two categories.

In at least two cases, federal appellate courts have rejected the assumption of perfect substitution, finding that it violates economic principles. First, in 2003, the U.S. Court of Appeals for the Eighth Circuit rejected an analysis from the Surface Transportation Board assuming that a proposed coal railroad would not affect coal consumption, explaining that “the proposition that the demand for coal will be unaffected by an increase in availability and a decrease in price, which is the stated goal of the project, is illogical at best.”¹ Then, in 2017, the U.S. Court of Appeals for the Tenth Circuit rejected an analysis from the Bureau of Land Management (“BLM”) finding that fossil fuel leasing would not affect greenhouse gas emissions, finding the “perfect substitution assumption arbitrary and capricious” because it is “contrary to basic supply and demand principles.”²

In three other cases, federal courts have rejected the MarketSim model that the Bureau of Ocean Energy Management (“BOEM”) developed for its review of offshore leasing, which finds very high substitution rates. First, in 2020, the U.S. Court of Appeals for the Ninth Circuit held that BOEM’s analysis improperly omitted impacts on foreign oil demand resulting from domestic production, and thus irrationally assumed that foreign oil consumption will remain static when domestic production increases.³ As the Court explained, this ignores the global nature of the energy market and violates “basic economics principles” about supply and demand.⁴ Then, in 2021, the U.S. District Court for the District of Alaska echoed these findings in a decision vacating a BLM development plan that relied on the same faulty modeling.⁵ Most recently, just last week, the U.S. District Court for the District of Columbia identified the same flaw in BOEM’s analysis and thus vacated an offshore lease sale in the Gulf of Mexico.⁶

Questions Submitted by Representative Carl

Question 1. You emphasize twice in your testimony’s first two paragraphs that your think-tank (IPI) is non-partisan. Please disclose for the record the political contributions and affiliations of yourself and obtain from your present colleagues and disclose that information for the institute’s executive committee and board.

Answer. The redundancy of that statement in my written testimony was due to an editing oversight for which I apologize. In any event, my individual contributions to federally registered political committees is publicly available through the Federal Election Commission (“FEC”) website.⁷ I have no personal knowledge of contributions from other Institute for Policy Integrity (“Policy Integrity”) staff or advisory board members, though I understand their federal campaign donations should also be a matter of public record on the FEC website.

Question 2. What is your think-tank’s prediction for both U.S. and global oil demand over by years 2025, 2035, 2040, and 2050? (If IPI has not made or refuses to make such a prediction, please cite a credible source for such prediction upon which you base your policy prescriptions.)

Answer. Policy Integrity has not made projections of future U.S. or global oil demand. While many independent projections exist, some of the most authoritative projections come from the U.S. Energy Information Administration (“EIA”)—a federal agency that analyzes and disseminates energy information. In its most recent Annual Energy Outlook, EIA recognized substantial uncertainty in future oil

¹ *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003).

² *WildEarth Guardians v. BLM*, 870 F.3d 1222, 1236 (10th Cir. 2017).

³ *Id.*

⁴ *Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 736–40 (9th Cir. 2020).

⁵ *Sovereign Inupiat for a Living Arctic v. BLM*, No. 3:20-CV-00290-SLG, 2021 WL 3667986, at *10–14 (D. Alaska Aug. 18, 2021).

⁶ *Friends of the Earth v. Haaland*, No. CV 21-2317 (RC), 2022 WL 254526, at *12–15 (D.D.C. Jan. 27, 2022).

⁷ https://www.fec.gov/data/receipts/individual-contributions/?contributor_name=FEC++Campaign+Finance+Reports+and+Data&contributor_name=max+sarinsky.

demand. For instance, under the “Low Oil and Gas Supply” case, EIA projects that renewable energy would greatly increase its share of U.S. electricity generation while natural gas would decline substantially, with renewables soon becoming the dominant source of U.S. electricity generation.⁸ In some other cases, EIA projects that oil demand will remain relatively steady over the coming decades.⁹ Of course, the policies that the United States and other nations enact in the coming years could greatly determine which future occurs.

As explained in my written and oral testimony, this considerable long-term uncertainty creates substantial “option value” (i.e., the economic value of delay) that counsels for curtailing leasing at this time, when developers hold so many existing leases in reserve and thus the short-term need or economic benefit from additional leasing is currently low. If there remains a need for additional energy after fossil-fuel developers have mostly exhausted their reserves, then Interior could engage in additional leasing at that time. But if other energy sources, including renewable sources, meet national demand and there is little need for additional fossil-fuel leasing, then leasing that occurs now would have unnecessarily exacerbated the climate crisis for limited benefit.¹⁰ In other words, the fact that long-term oil and gas demand is highly uncertain is itself a strong reason to curtail leasing at this time.

Question 3. Has any person or agency within the Biden Administration ever asked IPI or its employees to conduct studies or informal analysis of any kind to support its policy or regulatory processes? If so, please provide the committee either physical or electronic copies of such communications.

Answer. No person or agency within the Biden Administration has asked me to conduct studies or analysis to support its policy or regulatory processes, either on the subject matter of my testimony or on anything else. I am not aware of any person or agency within the Biden Administration asking other Policy Integrity staff to conduct studies or analysis to support the Administration’s policy or regulatory processes.

Question 4. If so, has IPI or its employees been in any way compensated for such work product? If so, please provide the committee either physical or electronic copies of such transactions.

Answer. Please see response to Question 3.

Question 5. Excluding public comments, has IPI directly communicated with any member of the White House staff, either political appointee or career staff, on BOEM’s Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258? If so, please provide the committee either physical or electronic copies of such transactions.

Answer. I have not directly communicated with any member of the White House staff on BOEM’s Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258 (excluding public comments). I am not aware of any other Policy Integrity staff having done so.

Question 6. Excluding public comments, has IPI directly communicated with any member of the Interior Department staff, either political appointee or career staff, on BOEM’s Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258? If so, please provide the committee either physical or electronic copies of such transactions.

Answer. I have not directly communicated with any member of the Interior Department staff on BOEM’s Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258 (excluding public comments). I am not aware of any other Policy Integrity staff having done so.

Question 7. Please disclose any instances where IPI has offered, been requested for, or provided any information in support of the filings of the parties to Friends of the Earth v. Haaland (DDC) as well as any and all of the cases you cite in your testimony, and please provide the committee either physical or electronic copies of such communications (Including Ctr. for Biological Diversity v. Bernhardt, 982 F.3d 723, 736–40 (9th Cir. 2020)).

⁸ U.S. Energy Information Administration, Annual Energy Outlook 2021 at 15 (2021), https://www.eia.gov/pressroom/presentations/AEO2021_Release_Presentation.pdf.

⁹ E.g., *id.*

¹⁰ For a fuller discussion of option value and how it may affect Interior leasing determinations, see pages 6–8 of my written testimony previously submitted to this committee.

Answer. Policy Integrity served as co-counsel for petitioner in *Center for Sustainable Economy v. Jewell*, 779 F.3d 588 (D.C. Cir. 2015), which was cited in my written testimony. Policy Integrity submitted an amicus curiae brief supporting petitioners-appellants in *WildEarth Guardians v. BLM*, 870 F.3d 1222 (10th Cir. 2017), which was cited in my written testimony. Policy Integrity also submitted an amicus curiae brief supporting plaintiffs in *California v. Bernhardt*, 472 F. Supp. 3d 573 (N.D. Cal. 2020), which was cited in my written testimony. All three filings predated my employment with Policy Integrity.

I contemplated filing an amicus curiae brief on behalf of Policy Integrity in support of plaintiffs in *Sovereign Inupiat for a Living Arctic v. BLM*, No. 3:20-CV-00290-SLG, 2021 WL 3667986 (D. Alaska Aug. 18, 2021), which was also cited in my written testimony, but decided against it. I have otherwise not offered, been requested for, or provided any information in support of the filings in any of the cases cited in my written testimony. I am not aware of other Policy Integrity staff offering, being requested for, or providing any information in support of the filings in any of the cases cited in my written testimony, aside from the three cases discussed in the prior paragraph in which Policy Integrity itself prepared and submitted written filings.

Question 8. Your testimony cites a working paper from one Brian Prest of Resources for the Future. Please disclose all communications between IPI employees and Mr. Prest.

Answer. In March 2021, after the publication of his cited working papers, a colleague and I exchanged emails with Dr. Prest regarding his research. I am aware that several of my colleagues have also communicated with Dr. Prest since the publication of his cited working papers, but have not been privy to those communications.

Question 9. In the hearing, you indicated that you were aware of a study that showed restricting oil and gas production in the Gulf of Mexico would result in a decrease in the total consumption of oil and gas in the U.S. Please provide that study.

Answer. At the committee hearing, I responded affirmatively to Rep. Carl's question as to whether any studies show that "restricting oil and gas production in federal waters will actually result in decreasing the total consumption of oil in the U.S." The study that I referenced is presented on pages 43–48 of BOEM's Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258.¹¹ As that study found, increasing domestic oil and gas production in Alaska's Cook Inlet would result in an increase in both domestic and international oil and gas consumption, thereby resulting in over \$2 billion in additional climate damage.¹²

While I did not say this during the Committee hearing, BOEM has actually recognized for years—long before its 2021 analysis discussed above, and beyond the specific context of the Cook Inlet—that increasing offshore oil and gas production increases total U.S. fossil-fuel consumption. In its 2016 analysis for its current five-year program, BOEM concluded that leasing and extraction under the program would in part displace reduced consumption, meaning that the five-year program would increase fossil-fuel consumption.¹³

Dr. LOWENTHAL. Thank you, Mr. Sarinsky. The Chair now recognizes Mr. Pugliaresi for 5 minutes.

Welcome to the Committee, Mr. Pugliaresi.

[Pause.]

Dr. LOWENTHAL. Mr. Pugliaresi, I believe you are muted. Please unmute yourself.

Mr. PUGLIARESI. My apologies for that.

¹¹This analysis is available at https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/LS258-DEIS_0.pdf.

¹²*Id.* at 51 tbls. 4-14 & 4-15 (using 2.5% discount rate).

¹³BOEM, OCS Oil and Natural Gas: Potential Lifecycle Greenhouse Gas Emissions and Social Cost of Carbon 18 tbl. 6-3 (2016), <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Leasing/Five-Year-Program/2017-2022/OCS-Report-BOEM-2016-065--OCS-Oil-and-Natural-Gas--Potential-Lifecycle-GHG-Emissions-and-Social-Cost-of-Carbon.pdf>.

**STATEMENT OF LUCIAN (LOU) PUGLIARESI, PRESIDENT,
ENERGY POLICY RESEARCH FOUNDATION, INC. (EPRINC),
WASHINGTON, DC**

Mr. PUGLIARESI. Chairman Lowenthal, Ranking Member Stauber, members of the Subcommittee, my name is Lucian Pugliaresi. I am President of the Energy Policy Research Foundation, and I welcome this opportunity to provide my perspective on the importance of the Federal Government's oil and gas leasing program in the Gulf of Mexico.

First slide, please.

[Slide.]

Mr. PUGLIARESI. Next slide.

[Slide.]

Mr. PUGLIARESI. Great. The United States is the world's largest oil and gas producer, and the Gulf of Mexico is an important contributor to this leadership position, providing between 15 and 18 percent of total U.S. crude production in recent years.

Next slide, please.

[Slide.]

Mr. PUGLIARESI. The Gulf of Mexico yields substantial revenues to the U.S. Treasury, contributes to American energy security, and is a prolific and low-cost resource for sustaining the North American oil and gas production platform. If we were to discontinue production from this natural resource, the Federal Government would lose an important source of income, revenues the Federal Government collects from the Gulf of Mexico oil and gas production would now be collected by foreign producers. A portion of this revenue stream now provides significant funding for coastal restoration projects on the Gulf Coast.

Next slide.

[Slide.]

Mr. PUGLIARESI. As shown in Figure 3, halting Gulf of Mexico production is likely to be counter-productive in addressing carbon emissions. Production from Gulf of Mexico petroleum resources, particularly the new prospects in the deep-water gulf, have considerably lower emissions per barrel than most other locations.

Next slide, please.

[Slide.]

Mr. PUGLIARESI. I think one of the things we need to keep in mind is that, at least over the last 10 years, natural gas, often produced in large quantities as a byproduct of crude oil production, has been the most important fuel in reducing U.S. carbon emissions, as it is a cost-effective substitute for the use of coal in the production of electricity. This explains the remarkable performance of the United States in lowering carbon emissions. Our trading partners can take advantage of this as well, as U.S. gas can be exported as LNG.

Next slide, please.

[Slide.]

Mr. PUGLIARESI. This is very important to understand this slide. As you can see from previous past attempts to accelerate our use of wind and solar, it is an effort that faces enormous obstacles. Fully implementing an energy transition over the next 30 years is neither easy, nor can it be assured. We face important obstacles

and failure modes, so abandoning our legacy fuels before alternative sources are ready is risky.

Next slide.

[Slide.]

Mr. PUGLIARESI. Achieving net-zero in the developed world will reduce carbon emissions by only a small amount. The developed world is rich. We can afford a lot of costly measures. But even if we were to exceed in getting net-zero throughout the entire OECD, global emissions in 2050 are not likely to be any more than 20 percent less than in a business-as-usual case. And the reason for this is that, in the developing world, dense, ample supplies of energy are going to be driven by population and economic growth.

Next slide.

[Slide.]

Mr. PUGLIARESI. The United States should see the current energy crisis in Europe as a cautionary tale and learn from it. If you look at the major utility systems in the countries that have accelerated its use of intermittent fuels without having adequate backup or sustainable power sources, these are the countries and the systems which are experiencing the largest price increases and the most unstable power supplies.

Next slide.

[Slide.]

Mr. PUGLIARESI. The energy transition is going to establish a lot of environmental challenges and energy security issues, in addition to the old ones. As you can see from this slide, the United States is the largest oil and gas producer in the world. So, the existing policy to try to reduce U.S. oil and gas production and accelerate the transition will move us from a position of energy independence to highly dependent on critical materials and minerals. And we do not yet have an adequate plan to develop those minerals in the United States.

Finally, next slide.

[Slide.]

Mr. PUGLIARESI. Policy measures should be robust against uncertainty, and this is really quite a serious problem, in my view. The future is quite uncertain, and even well-known modelers and experts have widely different views on the future of our energy requirements. And whatever strategies we undertake, they need to withstand against these uncertainties as we move ahead.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Pugliaresi follows:]

PREPARED STATEMENT OF LUCIAN PUGLIARESI, PRESIDENT, ENERGY POLICY
RESEARCH FOUNDATION, INC. (EPRINC)

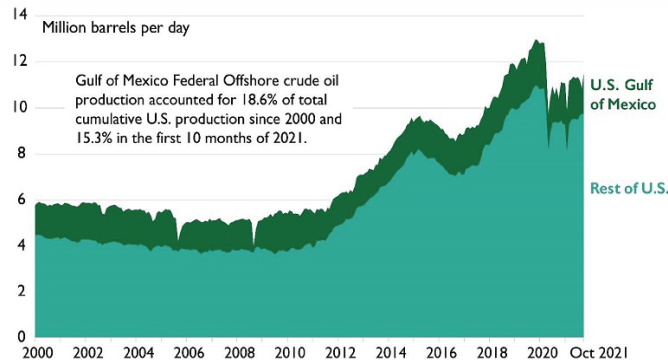
Chairman Lowenthal, Ranking Member Stauber, and members of the subcommittee, my name is Lucian Pugliaresi. I am President of the Energy Policy Research Foundation, Inc. (EPRINC), a non-profit public policy research organization. EPRINC was founded in 1944 and studies energy economics and policy issues with special emphasis on oil, natural gas, and petroleum product markets. I have worked on a broad range of energy security issues for my entire career, both in and out of government, beginning with the 1973-74 Arab oil embargo. Over the last two years EPRINC has undertaken a systematic assessment of the limitations of computational models that evaluate our energy future.

I welcome this opportunity to provide my perspective on the importance of the Federal Government's oil and gas leasing program in the Gulf of Mexico (GOM). The

U.S. is the world's largest oil and gas producer and the GOM is an important contributor to this leadership position by providing between 15–18% of total U.S. crude oil production (Figure 1) in recent years. The Gulf of Mexico yields substantial revenues to the U.S. Treasury, contributes to American energy security, and is a prolific and low-cost resource for sustaining the North American oil and gas production platform.

Figure 1

Monthly U.S. Crude Oil Production



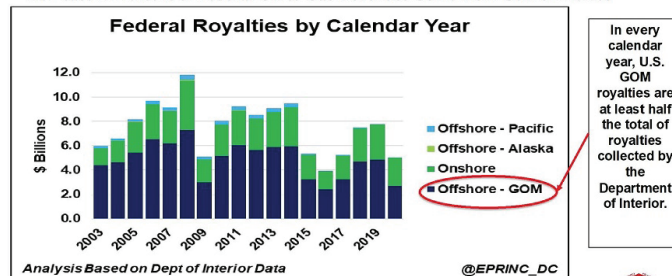
Source: Batt, Odgerel. EPRINC figure and analysis based on EIA monthly petroleum data. In October 2021, GOM produced 1,744 thousand barrels per day.



If we were to discontinue production from this national resource, the Federal Government would lose an important source of income and see rising unemployment in the petroleum and related industries. American vulnerability to expensive and insecure petroleum imports would rise. Revenues the Federal Government collects from GOM oil and gas production (Figure 2) would now be collected by foreign producers as U.S. imports rise to replace the lost production. Important environmental programs would also suffer. Under the 2006 Gulf of Mexico Energy Security Act (GOMESA), Gulf producing states receive 37.5% of all qualifying OCS revenues, with 20% of each state's share dedicated to "coastal political subdivisions." This revenue stream provides significant funding for coastal restoration projects on the Gulf Coast.

Figure 2

At Least 50 Percent of Federal Oil & Gas Revenues Come from Gulf of Mexico



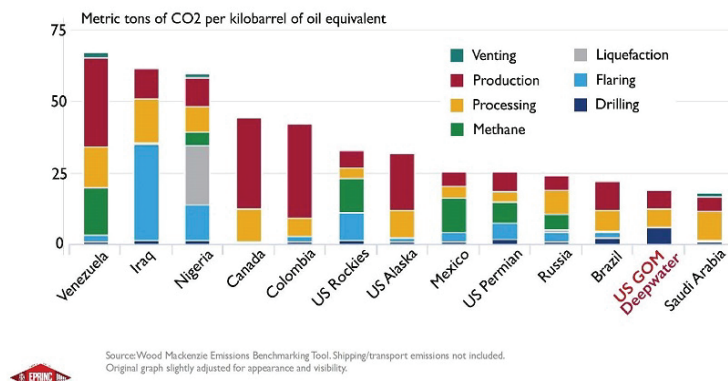
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As shown in Figure 3, halting GOM production is also likely to be counter-productive in addressing carbon emissions. Production from GOM petroleum resources produces lower levels of emissions per barrel than most other locations.¹ Nevertheless, President Biden has issued several Executive Orders aimed at achieving a “net-zero” carbon emissions target for the national economy, in part, by halting new offshore oil and gas development.

Figure 3
US GOM Deepwater Oil & Gas Production Has a Low Carbon Footprint

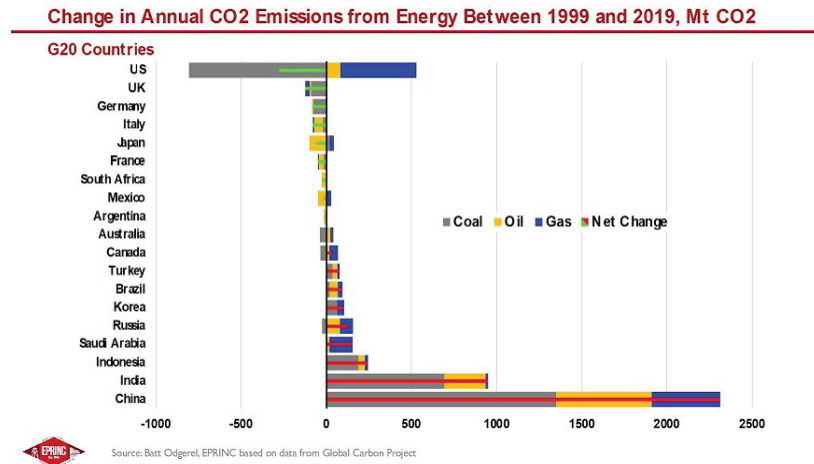
CO2 Emissions Intensity by Production & Processing Source



More importantly, initiatives to halt or curtail domestic oil and gas production present grave economic and social risks to the United States and represent a misplaced understanding of the difficulty in executing an energy transition over the next 20–30 years. Natural gas, often produced in large quantities as a by-product of crude oil production, has been the most important fuel in reducing U.S. carbon emissions as it is a cost-effective substitute for the use of coal in the production of electricity (Figure 4). Before proceeding with any policies to limit the use of legacy fossil fuels, we need to understand the full range of uncertainties and the potential implications to our security and economic well-being. Public support for the transition will hinge on the availability of reliable and affordable energy which remains the lifeblood of our economy and our national security.

¹These findings were published and supported during the Obama Administration. See U.S. Department of the Interior. Bureau of Ocean Energy Management, “OCS Oil and Natural Gas: Potential Lifecycle Greenhouse Gas Emissions and Social Cost of Carbon,” November 2016, <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Leasing/Five-Year-Program/2017-2022/OCS-Report-BOEM-2016-065---OCS-Oil-and-Natural-Gas---Potential-Lifecycle-GHG-Emissions-and-Social-Cost-of-Carbon.pdf>.

Figure 4



The energy transition requires overcoming complex technical, scientific and public policy challenges. It is an enormous undertaking, fraught with setbacks, especially if attempted quickly without a careful assessment of the full range of economic and social consequences. I encourage the Congress to consider the following points as you proceed with legislation to halt or limit production of oil and gas from the Gulf of Mexico.

1. The Energy System is highly complicated, inter-connected regionally and globally in ways that are not always apparent. The energy transition presents a new set of supply and price risks for consumers and manufacturers. Fully implementing an energy transition over the next 30 years is neither easy nor can it be assured.

The tasks required in any transition will be enormous, difficult and expensive—complicated by the fact that other countries around the world are attempting similar feats with little or no practical experience. Worldwide, fossil fuels continue to dominate the energy complex, providing over 80 percent of primary energy requirements (Figure 5). This will not be our first attempt to accelerate the energy transition and Figure 6 demonstrates how difficult it remains to implement ambitious plans to accelerate the deployment of wind and solar resources to support the energy transition. The deployment of these technologies has been limited even as the U.S. government has provided direct financial incentives and mandates to advance wind and solar power over the last 30 years (over \$50 billion in Federal expenditures in tax incentives and grants between 2005–2015 alone).² Today, these two technologies produce less than 4% of our primary energy requirements. In the same time period (2005–2015), gross receipts to the Federal Government from oil and gas leasing exceeded \$110 billion.³ Oil and gas continues to garner revenues for the Federal Government, and as stated above, a considerable portion is shared with the states. The differences in these two revenue streams (one from, and other to, the Federal Government) reflect the reality of the marketplace.

² *Examination of Federal Financial Assistance in the Renewable Energy Market*, November 2018. <https://www.energy.gov/ne/downloads/report-examination-federal-financial-assistance-renewable-energy-market>.

³ *Options for Increasing Federal Income from Crude Oil and Natural Gas on Federal Lands*. Congressional Budget Office, April 2016. https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51421-oil_and_gas_options-OneCol-3.pdf.

Figure 5
Energy Transition is Hard and Rare

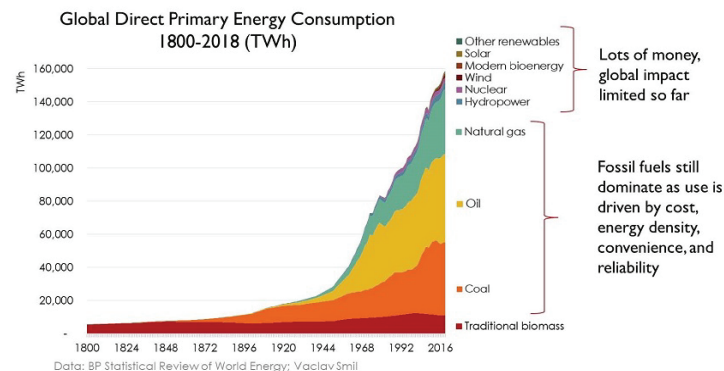
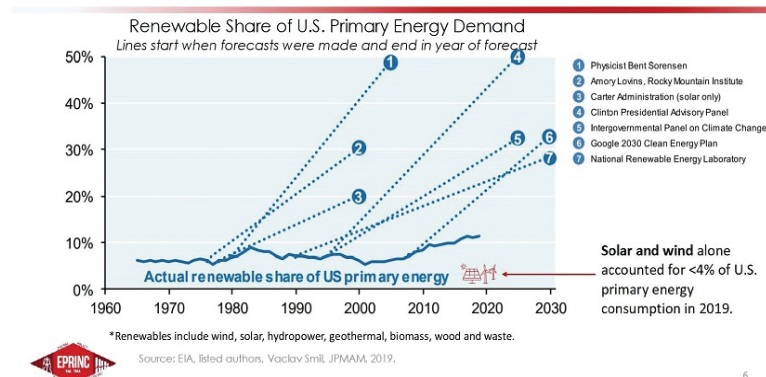


Figure 6

Ambitious Goals Need Sober Assessment

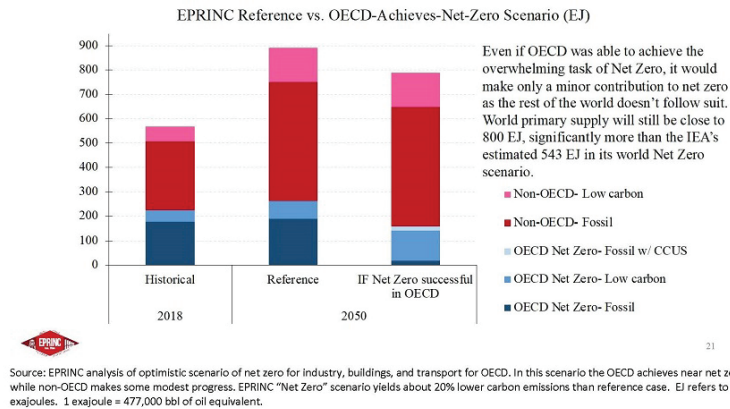


2. Achieving net zero in the developed world will reduce carbon emissions by only a small amount, likely no more than 20 percent of expected global emissions.

Reducing carbon emissions is a global challenge. Even if the developed world achieves net zero, our research concludes that without a massive commitment from the developing world, the net reduction in carbon emissions will be relatively small, perhaps no more than 20% less in 2050 when compared to a business-as-usual scenario (Figure 7). An important challenge for the developed world, represented by membership in the Organization for Economic Cooperation and Development (OECD), is that policies that push for a rapid energy transition will also likely be accompanied by lower rates of economic growth. This is a serious challenge for the OECD as any loss of economic expansion will also reduce public resources for research and development of new and advanced carbon free energy resources.

Figure 7

Even If OECD Approaches Net Zero, Non-OECD Will Struggle to Follow Suit

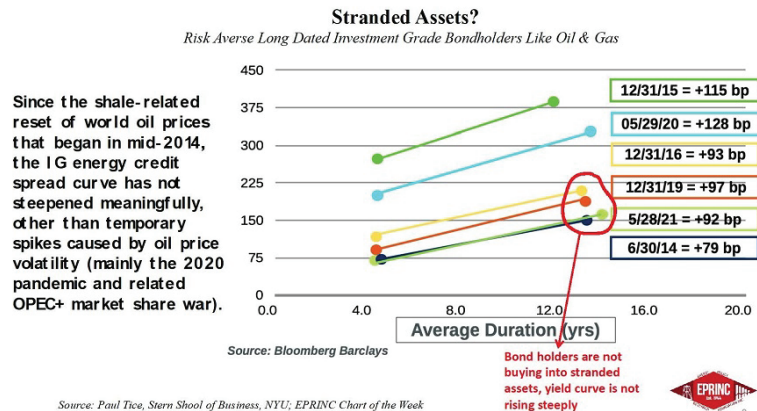


3. Regulatory programs as well as private sector commitments to accelerate the energy transition—whether it be mandates, targets, financial and procurement guidelines create uncertainty and financial risks that limit investment commitments to current legacy fuels, many of which are likely to remain in demand for years to come.

Legislative, regulatory and policy decisions made today, even if relatively narrow in scope are creating expectations of rising costs and delays in extraction of oil and gas resources, and increasing the risk for capital flows to establish new oil and gas production. For example, policies by financial institutions that prohibit investments in the development of oil and gas resources may lead to temporary if not longer-term supply constraints that will affect energy prices, manufacturing and U.S. competitiveness.

Many commentators assert that there remains a serious risk that oil and gas companies are likely to end up owning assets for which there is no market, but financial data does not support the claim that companies are holding "stranded assets" (Figure 8), nor is it likely that world demand for oil and gas will decline precipitously in the near future. Our desire for change cannot obscure the on-the-ground reality of how important energy is to our economy and the need to assure a robust supply of reliable and affordable energy.

Figure 8
Financial Data Show that Oil & Gas Reserves are Not Stranded Assets?



4. A portion of the recent escalation in energy prices can be tied directly to dislocations in energy supplies (largely oil and gas) from the Covid-19 pandemic. However, government policies, such as the halt on leasing on federal lands, the cancellation of the Keystone Pipeline, the potential cancellation of line 5 from Canada, rising regulatory requirements and permitting delays are all threatening North American oil and gas production. We undermine this strategic asset at our peril if we abandon these fuels before the energy transition is well established.

The U.S. and the rest of the world will continue to need oil and gas throughout the transition. Any policy decision based on the simple premise that the U.S. can transition simply by cutting off production of legacy fuels will backfire horribly and erode public support. Other measures undertaken or under consideration, such as halting crude oil exports or a release of the Strategic Petroleum Reserve without a genuine supply disruption are likely to be counterproductive.

Recent speculation that some Members of Congress and the Biden Administration are considering reinstituting a ban on U.S. crude oil exports is especially worrisome as it would likely raise gasoline prices and further disrupt supply chains. The U.S. is a large continental land mass and so minimizing transportation and processing costs for moving crude oil to market are important. Oil prices are set in the world market so a refiner in Hawaii would rather purchase crude from Indonesia than Houston and save on transportation costs. A Gulf coast refiner whose processing technology is tuned to heavy crude can gain cost efficiencies by using Mexican or Canadian oil rather than one with alternative specifications produced in North Dakota. Halting the export of crudes with specifications suited for foreign refiners would likely reduce U.S. production and further drive-up crude oil prices and lead to further increases in gasoline prices.

Crude oil and petroleum product exports allow the entire North American production platform to minimize transportation and processing costs. Open access to markets and crude and product transportation efficiencies permit U.S. refineries to operate at high levels of capacity utilization and provides opportunities for upstream producers to maximize crude oil output. The free movement of capital, crude oil and petroleum products remain critical to sustaining the productive capacity of the U.S. petroleum industry and the entire North American oil and natural gas production platform. These efficiencies have led to rapid expansion of U.S. oil production and remain one of the central reasons that large volumes of U.S. crude imports also result in large volumes of higher value-added exports of petroleum products. One of the reasons the U.S. has achieved energy independence is that the production platform is efficient. Reinstituting the export ban would result in further reductions in U.S. production, higher stress on supply chains, and rising price risk to gasoline supplies.

5. Policy Matters. The U.S. should see the current energy crisis in Europe as a cautionary tale and learn from it.

The current energy crisis in Europe, characterized by rapidly escalating natural gas prices, has been driven by constraints in electricity supplies. The European crisis has its roots in policies that sought rapid decarbonization without accounting for the associated supply risks. Germany presents a stark example as the rising demand for natural gas to support intermittent renewable supplies has contributed to a more expensive and a less resilient power sector (Figures 9 and 10). Clearly, recovery from the pandemic is a factor, but so are policies that limit fuel diversity and make power systems less resilient.

Figure 9

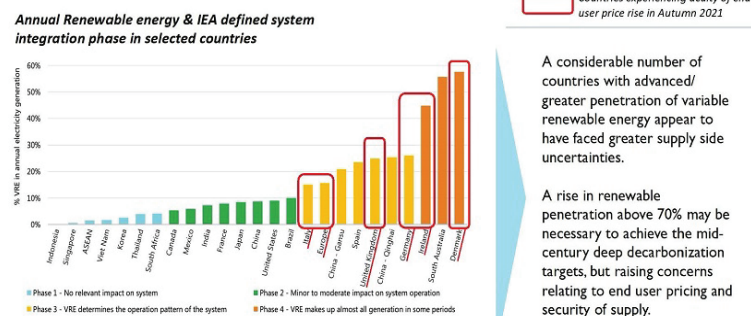
German Energy Transition Difficulties Are ‘Policy Driven’

Policy Instruments	Stated Aim/Objective of the Policy
“Feed In” tariff mechanism	Introduced in 2000, this policy guaranteed high tariffs for early investors which produced a solar boom.
Nuclear Plant Retirements	Following the Fukushima Accident, Germany was the first country to ban all future nuclear power and enforce a shutdown of its nuclear fleet by 2022
Coal Plant Retirements	The “Coal Commission” policy proposals advocate a retirement of entire 45GW coal capacity by 2038
German Hydrogen Strategy	The Hydrogen policy seeks to utilise the renewable overcapacity for hydrogen production through promoting commercial scale electrolyzers- a technology choice made by policy, ignoring the cost-competitiveness of hydrogen production through the natural gas steam reformation route.

Source: Ash Shastri, EPRINC Distinguished Fellow

Figure 10

Recent Events Suggest Greater Renewable Energy Portends Set of Risks



Source: Ash Shastri, EPRINC, from Secure Energy Transitions in Power Sector; IEA



The German Commission on Growth, Structural Change and Employment, better known and referred at the Coal Commission set up by the German Government to enquire into the future of the role of coal (and lignite) in the country's low carbon energy transition released its strategy document in January 2019. The German transition strategy followed two previous policy instruments, the German Feed-In

Tariff Law of 2000 and the German Nuclear Plant Shut down Directive of 2012. In early 2020, German government articulated its first draft of its Hydrogen Strategy that made a technology choice of hydrogen production through the electrolysis route over other more economically attractive technology options.

The German energy transition plan is now directed by these new policy instruments and despite support for the transition initiative by several leading figures (including the Head of the IEA, Dr Fatih Birol) these policy initiatives are delivering higher systemic risk into the German power sector.

Two risky features are now prevalent in the German power sector:

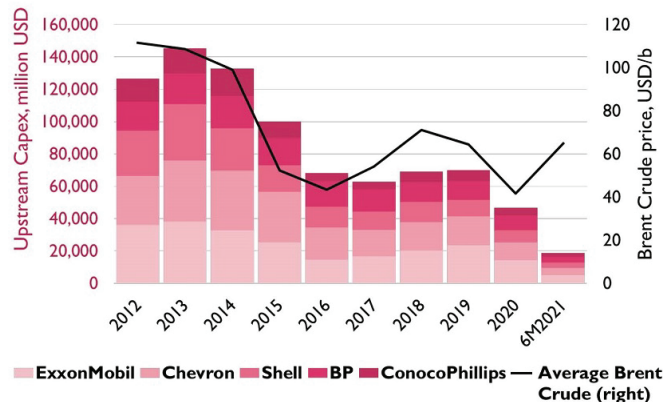
1. The transition to a low carbon economy in Germany—driven mainly by policy instruments around highly attractive feed-in tariffs for renewables, a shut-down of coal and nuclear plants by 2024 and 2038 respectively and the introduction of hydrogen by a specifically chosen technology route. These policy initiatives will not be sufficient to meet demand for electricity in Germany in 2030. The energy transition in Germany has been a policy driven exercise that has been expensive and yet unable to achieve its stated aims.
2. The only remaining fuel vector for Germany to close the gap in its electricity demand then remains natural gas/LNG.

These policy instruments, directed at rapidly bringing down carbon emissions will continue to be expensive, unable to meet its stated decarbonization targets and drive rising, instead of reduced, demand for natural gas.

6. Policy initiatives that seek to accelerate the U.S. to a fully renewable energy complex will have global implications for energy security.

Much of the world will remain dependent on oil and gas with a growing dependence on producers from the Middle East and Russia. Recent trends in upstream oil and gas capital expenditures are especially worrisome (Figure 11). While the reluctance to increase capital expenditures among the major oil companies may be tied to concerns on strengthening their balance sheets, rising development costs, other forces may be at play as well including government directives discouraging investment by financial institutions in upstream oil and gas development. Should this trend continue, we might find ourselves in the midst of a two-speed transition process. Rapid transition (at least an attempted rapid transition) in the OECD, but limited progress in the developing world. China, Russia and the Middle East will gain positional advantage leaving the U.S. and its allies vulnerable to strategic threats. We may end up with an energy transition which will see the U.S. move from our current position of energy independence to dependence on a broad set of critical minerals from insecure sources, while at the same time experiencing growing reliance on traditional oil and gas supplies from insecure and expensive sources.

Figure 11
U.S. Oil and Gas Capital Expenditures by Select Majors



Data: Company annual and quarterly reports and SEC filings; EIA's historical oil price data
Note: BP 2021 Q1 and Q2 upstream Capex are estimates based on previous quarters' ratios.

7. The transition will establish new environmental challenges and energy security issues in addition to the old.

Figures 12, 13, and 14 show the challenges facing the U.S. Today, the U.S. is the largest producer of oil and gas worldwide. This provides strategic advantages and energy independence. A rapid shift to reliance on electric vehicles (and batteries), solar, wind and related renewable energy sources will also require large quantities of copper, lithium, manganese, cobalt, and molybdenum. While many of these minerals can be developed through potential mining sites in the U.S., these minerals will also require new processing facilities to be developed into useable materials. Permitting constraints and environmental reviews will likely make the development of these resources a long and arduous effort.

Figure 12

Energy Transition will Require Acquisition of Higher Volumes and Broad Range of Minerals

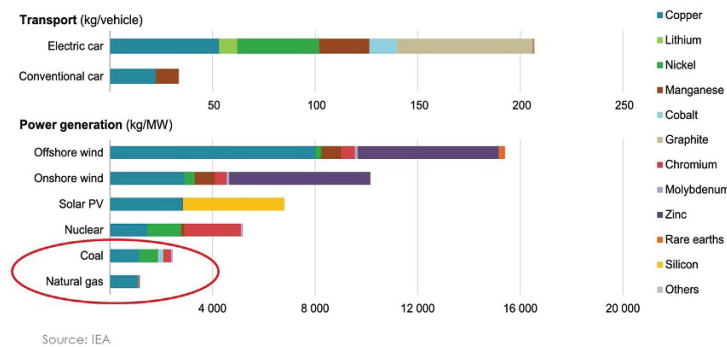


Figure 13

The U.S. is a Leader in Oil and Gas Production

(In specialty minerals, the U.S. is highly dependent on foreign sources of supply)

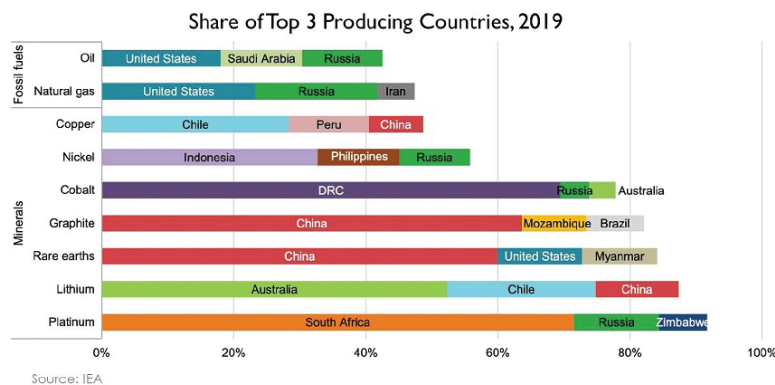
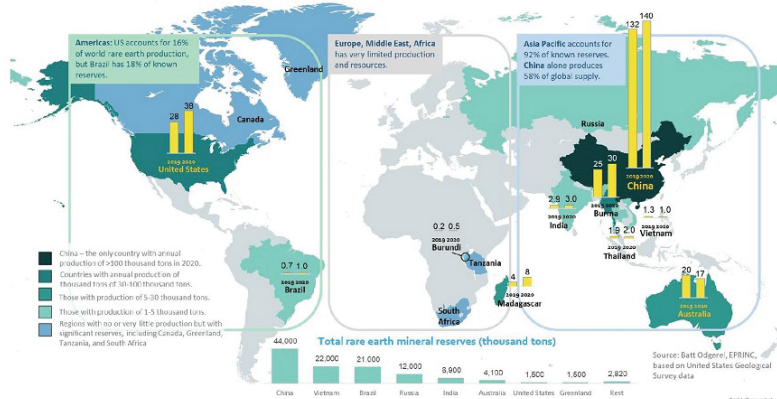


Figure 14

The New Energy Security Problem?

Rare earth mine production (metric tons), 2019, 2020



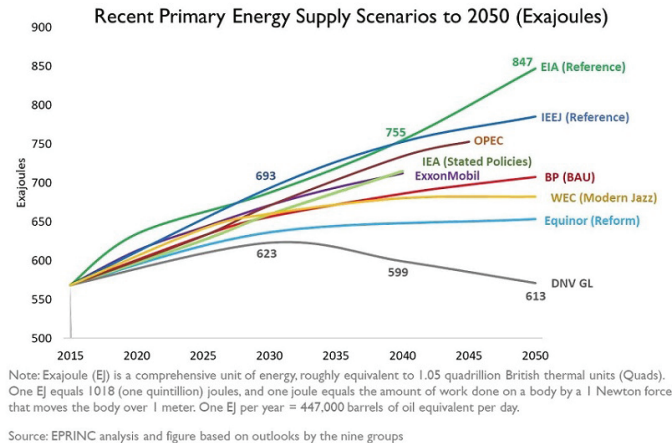
In addition, it is not a trivial effort to construct large scale wind and solar farms and to accelerate the production of electric vehicles. Mark Mills, Senior Fellow at the Manhattan Institute, has outlined the formidable requirements for replacing the energy output from a single 100-megawatt natural gas-fired turbine with wind turbines.

It would require at least 20 wind turbines, each one about the size of the Washington Monument, occupying some 10 square miles of land. Building those wind machines consumes enormous quantities of conventional materials, including concrete, steel, and fiberglass, along with less common materials, including 'rare earth' elements such as dysprosium . . . All forms of green energy require roughly comparable quantities of materials in order to build machines that capture nature's flows: sun, wind, and water. Wind farms come close to matching hydro dams in material consumption, and solar farms outstrip both. In all three cases, the largest share of the tonnage is found in conventional materials like concrete, steel, and glass. Compared with a natural gas power plant, all three require at least 10 times as many total tons mined, moved, and converted into machines to deliver the same quantity of energy.⁴

8. Policy measures should be robust against uncertainty.

We are heading into a largely uncharted world full of enormous, price, energy security risks. We have an extraordinary responsibility to consider the vast and array of risks and to develop policies that are robust under the uncertainties that cannot be easily predicted. Expect failures, cost over-runs and the unexpected. As shown in Figure 15, experienced analysts with long involvement in modeling our future energy requirements disagree on worldwide requirements over the next 30 years.

⁴Mills, M.P. (2020, July 9). *Green Energy Reality Check: It's not as clean as you think*. Manhattan Institute. <https://www.manhattan-institute.org/mines-minerals-and-green-energy-reality-check> Page 6.

Figure 15**Wide Differences in Energy Outlooks**

QUESTIONS SUBMITTED FOR THE RECORD TO LUCIAN PUGLIARESI, PRESIDENT,
ENERGY POLICY RESEARCH FOUNDATION, INC. (EPRINC)

Questions Submitted by Representative Stauber

Question 1. Why should the Federal Government offer more leases, when so many have been issued and development has yet to proceed?

Answer. The federal outer continental shelf (OCS) leasing program provides specific conditions for winning bidders, including bonus bids, rental fees and time limits for development of leased properties. In order to maximize efficient development and the productive capacity of federal offshore petroleum resources it is important to have a large inventory of properties available for development. A large inventory of leases waiting development is not necessarily an indication the Department of Interior has issued too many leases or that the existing inventory is excessive. Changes in market conditions, technological advances, environmental reviews and mitigation programs, potential for unitization of adjoining properties can alter the profitability, sometimes substantially, of leased properties and the flow of financial capital for development. The pace at which offshore resources are developed does not, and should not, be determined by the date on which original leases were issued.

A similar example is recent criticism over the large number of export permits for liquefied natural gas (LNG) issued by the U.S. Department of Energy (DOE). To date a large number of LNG export facilities have been authorized, but many of these have not received a Final Investment Decision (FID). The large number of undeveloped, but authorized export permits has been identified as a primary reason that DOE officials have decided to halt issuing any new permits to so-called non-free-trade destinations, which represents most of the world's natural gas consuming countries. However, such a policy fails to recognize that some pending projects might be superior to already authorized facilities. For example, proposed construction of new liquefaction facilities on Mexico's Pacific Coast, supplied by U.S. produced natural gas, could supply U.S. LNG to important allies and markets in the Pacific Rim. There are no restrictions on the shipment of U.S. natural gas to Mexico, but additional permits are required for natural gas shipped to Mexico that is re-exported as LNG. The best potential for expanding cost-effective supplies of domestic oil, gas and LNG require a large inventory of prospects that can command financial support to proceed.

More importantly, there remains widespread agreement that the U.S., the world's current largest producer of natural gas, has substantial gas reserves and could provide additional supplies to the world market both as an instrument of global

energy security and as a cost-effective pathway to limit emissions of carbon dioxide as a substitute for coal.

Question 2. During the hearing, there was discussion of subsidies from the U.S. Government from oil and gas production, citing an IMF paper. Could you please clarify the assumptions and conclusions of this working paper?

Answer. There was discussion during the hearing that development of oil and gas resources from the Outer Continental Shelf did not accurately account for the large subsidies provided by the government as described in a recent IMF working paper.¹ The Committee was left with the impression that oil and gas development received an annual subsidy in excess of \$600 billion. Two features of the working paper are worth noting. First, the IMF uses the word “subsidies” to include not just direct tax payer support for fuel use, but an estimate of environmental costs for the combustion of the fuel. Nearly half of their “subsidy” calculations are related to coal use and are therefore not relevant to development of oil and gas resources on the OCS. In fact, to the extent that offshore development provides additional volumes of natural gas that can substitute for coal combustion, it would substantially lower the IMF estimates of the effective “subsidy.” In addition, the report makes no adjustment for revenues collected by federal, state, and local jurisdictions from oil and gas development of public and private lands. Note that, according to the U.S. Department of Interior, the federal government alone collected over \$100 billion in oil and gas revenues between 2005–2015. A further limitation of the paper is that it does not effectively address uncertainty in calculations from the environmental costs of oil and gas use, especially given advances in control technologies. Air pollution costs are especially uncertain given the advances in the U.S. on control technologies and cleaner fuels. The paper has not been peer reviewed and should not be relied upon for any important policy conclusions.

Question 3. Could you provide more context to the claims made by the Administration and the Majority that halting OCS production will reduce carbon emissions?

Answer. The claims made by the Administration and the Majority that halting OCS production will reduce carbon emissions is driven by computer modeling effort that concludes that halting U.S. domestic production would yield higher world equilibrium oil prices sufficiently to lower world demand by enough volume to reduce worldwide GHG emissions. The model is based on a very simplistic description of the world oil market. For example, OPEC might decide to pursue a price target by merely adjusting output for incremental production from non-OPEC producers and U.S. output would merely shift to foreign producers. If U.S. policies to limit domestic production were to drive up world natural gas prices, Asian electric power producers might switch out of gas to coal or direct crude burn. U.S. policy makers may decide that high petroleum prices risk energy security or are politically unacceptable and request OPEC producers to expand output.

None of these are speculative statements, but events that have occurred in the world oil and gas market in just the last 12 months.

Here the central point is that attempting to calculate a global GHG emission estimate from a single oil and gas lease sale provides little useful information against the global uncertainties of future energy use and emissions. Policy development on the role of domestic oil production should include an analysis of the broad range of consequences beyond implications of a simple variable, i.e., GHG emissions. Asking policy makers to consider a single variable is likely to be misleading and ignore other important considerations.

Question 4. In terms of environmental justice, how are minorities and low-income families affected by rising gasoline prices?

Answer. Data from the U.S. Census Bureau shows that poverty rates for Black and Hispanic households, although declining between 2015–2019, are still about twice as high as among white households. In 2019, the share of Blacks in poverty was 1.8 times greater than their share among the general population. Blacks represented 13.2% of the total population in the United States, but 23.8% of the poverty population. The share of Hispanics in poverty was 1.5 times more than their

¹David Coady, et al. *Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates*. IMF working paper, May 2019. See <https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509>.

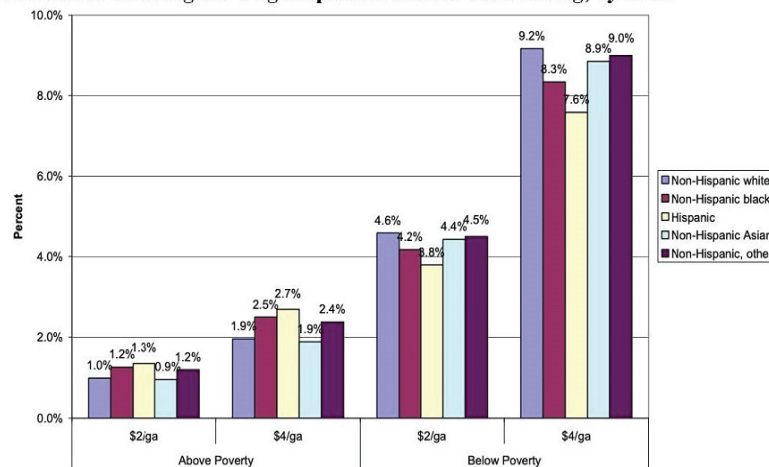
share in the general population. Hispanics comprised 18.7% of the total population, but 28.1% of the population in poverty.²

U.S. energy policies which seek to curtail the production of legacy fuels without adequate low-cost substitutes are especially harmful to low-income and minority communities. While the increase in gasoline prices increases costs for all drivers, and especially commuters, workers from households whose income is below the federal poverty level pay a larger proportion of their income for gas. The most comprehensive data on this topic is from the American Community Survey undertaken in 2006 published by the Urban Institute.

Low-income commuters on average have slightly shorter commutes (19.5 minutes) than those with incomes above the poverty level (23 minutes). However, because their incomes are much lower, poor commuters spend a much higher proportion of their wages on gas (8.6 versus 2.1 percent at \$4/gal). As gas prices double, the increase in costs represents a disproportionate increase in the burden for below-poverty commuters—from \$2/gal, the increase takes 4.3 percent of income from below-poverty commuters and 1.0 percent from those above poverty.

As shown in the Figure below when the price of gasoline rises from \$2 to \$4 per gallon households with income below the poverty line experience an increase of wages going to gasoline from approximately 4% to 8%. Any discussion of environmental justice should also include the consequences of environmental policies that raise long-term gasoline prices.

Figure
Estimated Percentage of Wages Spent on Gas for Commuting, by Race



Source: Urban Institute. *The Impact of Rising Gas Prices on Below Poverty Commuters*. See

Dr. LOWENTHAL. Thank you, Mr. Pugliaresi, for your testimony. I thank the panel, all the panelists, for their testimony.

I want to remind the Members that Committee Rule 3(d) imposes a 5-minute limit on questions.

The Chair will now recognize Members for any questions they may wish to ask the witnesses, and I am going to recognize myself first for 5 minutes of questions.

Before I begin, I want to thank the Ranking Member for his very kind words at the beginning, and I hope that this year we continue

²John Creamer, U.S. Bureau of Census. *Inequalities Persist Despite Decline in Poverty for All Major Race and Hispanic Origin Groups*. See <https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html>.

our relationship, our respect for each other, and respect for all the members of the Committee. I think the strength of Congress is when we may not all agree, but that we have great respect for each other, and we listen to each other.

All right, I am going to follow up my first question with Mr. Sarinsky, and I want to follow up on what you have already talked about, but just to kind of reiterate and to clarify, Mr. Sarinsky.

You know that in this Committee many of the supporters of offshore drilling argue that, if we don't drill here in the United States—they make the argument that drilling would increase in other countries and emissions would go up. That is a kind of a logical interpretation of where they are, and it is understandable. And BOEM's current 5-year leasing plan cites this very argument as a reason to hold lease sales. So, that argument is out there.

And the question is, do you agree with BOEM's analysis that emissions would increase in the absence of new leasing?

Mr. SARINSKY. I do not agree with it. The economists I work with do not agree with it. And more importantly, Federal courts have rejected it and Interior has since disclaimed it.

So, if I could provide a little bit of context, at a high level, Interior's assessment was based off this idea that almost all extraction that occurred on Federal waters would occur elsewhere if they were not to occur on Federal waters. That simply is not how economics works. It violates basic supply and demand principles. And in reality, while there would be some substitution effect, what we see is that extraction on Federal lands leads to a very large increase, overall, in total combustion and production. So, as a result, you have a very large increase in greenhouse gas emissions.

So, as I said, the Ninth Circuit last year, in 2020, rejected, flat out, BOEM's conclusion that the offshore program reduces greenhouse gas emissions. It found that there were severe modeling limitations, that was the conclusion. And in its most recent proposed leasing in the Cook Inlet, which was released this past fall, BOEM corrected for that particular error that the court identified and found that that leasing would result in over 30 million metric tons of additional surplus pollution. And that still remains an underestimate due to continuing modeling limitations.

Dr. LOWENTHAL. So, you are saying that, in part, BOEM's analysis is flawed, that original, and that it is changing. Can you explain where BOEM is now, and how it is changing?

Mr. SARINSKY. Yes. BOEM's prior analysis assumes—in the 2016 5-year plan, BOEM's analysis assumes that foreign consumption would be unaffected by domestic production. That makes no economic sense. Energy is a global market, so effects that occur in the United States affect the entire world.

The court, the Ninth Circuit, patently rejected that conclusion. They said it is irrational. There was a second court, the District of Alaska, that followed suit, so now two courts have rejected that conclusion. And since then, BOEM has updated its modeling to correct for that issue. So, it now finds that there are substantial increases in foreign greenhouse gas consumption as a result of domestic fossil fuel reduction.

And as I said, there are still severe issues with some modeling that a number of economists have pointed out that, if those were

corrected, would show that there is even further greenhouse gas emission surplus as a result of U.S. production.

Dr. LOWENTHAL. Thank you. I want to turn to Dr. Wright.

Dr. Wright, you participated in the Interior Department's forum on the Federal oil and gas program, and last June you published an Op-Ed calling for the Interior Department to incorporate environmental justice into offshore leasing reforms.

What were your thoughts on the leasing report the Department of the Interior released in November?

Dr. WRIGHT. Well, first of all, thank you for that question.

But the report, to some extent, gave us a little bit of hope, because it seemed to really speak to trying to find a way to measure some of the impacts that it would have on environmental justice communities. What we would like the Department to do is to develop an analysis, a real working analysis, to determine the impact that these leases will have on environmental justice communities.

Right now, the only thing that we have is something that is more anecdotal, and I could go into a lot of details as it relates to how the leasing program is really a gateway to climate change that, in turn, leads to all the negative effects that we have been dealing with at this point.

We would just like to see more done, a better analysis that includes environmental justice communities in the decisions that they are making and also allow us to review the new leases that they are looking at to be giving out.

Dr. LOWENTHAL. Can you kind of tie it up? We are a little bit over time.

Dr. WRIGHT. Yes, so I guess, in general, I just want to say that we certainly appreciate the fact that the office is now beginning to think about including environmental justice communities in their evaluation of new leases. We are, in fact, though, asking that they develop a real environmental justice analysis for new leases and look at the impact it is having on our communities.

Dr. LOWENTHAL. Thank you, Dr. Wright.

[Pause.]

Mr. STAUBER. Mr. Chair, can you hear me?

You are on mute, my assumption is.

Dr. LOWENTHAL. Now I can hear you. I think we are both on the same wavelength. Sometimes it takes a while for us to get on the same wavelength, but we are there.

Mr. STAUBER. Thank you, Mr. Chair.

Real quick, Mr. Sarinsky, are you saying that in 2016, when the Obama administration brought their BOEM report out, it was inaccurate, then?

Mr. SARINSKY. Yes, the modeling was severely flawed, and Federal courts have rejected it.

Mr. STAUBER. So, the Obama administration was wrong?

Mr. SARINSKY. Yes.

Mr. STAUBER. OK.

Mr. Pugliaresi, thank you so much for joining us. You discussed in your testimony how Gulf production means significantly less emissions. If we were to shut down production outright in the Gulf,

as this Administration attempted to do, would we see an increase in oil and gas imports, and therefore an increase in emissions?

Mr. PUGLIARESI. Absolutely. We would see a very substantial increase.

Keep in mind that, between 2010 and 2020—and by the way, I agree with Mr. Sarinsky that the market model is a horrible model. But if you step back and you look at the growth in global petroleum demand between 2010 and 2020, the United States provided 80 percent of that. In the absence of U.S. production, oil prices would be substantially higher. Americans would be suffering large economic losses. And what is happening now is a picnic, compared to what that would look like.

And I think the key point here is that the notion that you can't—it is like the drug war, that somehow you can stop demand by cutting off supply. It is just not correct. And until we have the fuels of the future in place that provide cost effective substitutes for the fuels Americans need now, these strategies of cutting off supply are going to fail, and fail miserably. And they are also going to undermine public support for the transition strategy.

Mr. STAUBER. Mr. Pugliaresi, thank you for those comments. And I will just say that really in the northern climates like Minnesota, when it is really cold out we depend on that energy that is affordable and reliable.

And I think it is important that we continue to work and explore for oil and gas in the Gulf, because that is—even though there are some folks on the other side of the aisle that say it is not going to increase emissions—it just seems logical that it will.

And then another argument made by the Majority and this Administration is that we simply don't need oil and gas development because our energy sources are transitioning. Would shutting down offshore production shift demand to alternative energies like wind or solar?

Mr. PUGLIARESI. Absolutely not. For example, the first case was that you can see from the data that it is the massive increase in U.S. natural gas that has been the largest contributor to U.S. reductions in global greenhouse gas emissions. And we face a lot of obstacles in transitioning to the fuels of the future, including electric vehicles.

We are going to produce more electric vehicles. We are going to produce more alternative fuels. But the pace at which that happens is highly overestimated. And if we try to remove the legacy fuels now, before the transition fuels are in place, it is going to cause enormous dislocations to the American economy and the American people.

Mr. STAUBER. How much time do I have, Mr. Chair?

Dr. LOWENTHAL. You have a little over 1 minute.

Mr. STAUBER. OK, and same line of questioning, how would shutting down offshore production again—like this Administration attempted to do—impact revenues for conservation in Louisiana, Alabama, and other parts of the country?

Mr. PUGLIARESI. Yes. As you can see, the Gulf of Mexico itself provides half of the royalty payments to the Federal Government, well in excess—anywhere between, year to year, from \$4 to \$8 billion. If you lose those revenues, some of those—many of those

revenues—go to Gulf restoration and the Land and Water Conservation Fund. Where are we going to find the funds for that? I don't think—it is not thought out at all.

Mr. STAUBER. Well, I thank you very much for your expert and factual testimony.

Mr. Chair, I yield back.

Dr. LOWENTHAL. Thank you, Mr. Ranking Member. Now I would like to call upon Mr. McEachin for 5 minutes of questions.

Welcome, Mr. McEachin.

Mr. MCEACHIN. Thank you, Mr. Chairman, and let me begin by echoing the sentiments of the Ranking Member. I have enjoyed serving with you during my time in Congress. I have learned from you, and I hope that we will be able to continue our relationship even after you are gone fishing.

Dr. LOWENTHAL. Thank you.

Mr. MCEACHIN. Mr. Chairman, I would like to start off by asking Dr. Wright.

Dr. Wright, in 2015 the offshore oil and gas industry in Louisiana employed nearly 55,000 workers. That number has since dropped by 47 percent, even as they have managed to have production soar. This is partly because new technology and automation have allowed the offshore oil and gas industry to do more with less, so operators have cut jobs to increase profits.

How can the Biden administration support equitable energy solutions in the Gulf that create new, good-paying jobs that protect public health and the climate?

[Pause.]

Mr. MCEACHIN. I think you are muted.

Dr. LOWENTHAL. Dr. Wright, you are still muted. Unmute yourself. Thank you.

Dr. WRIGHT. Yes, I am so sorry. Thank you for that question.

I think that the Biden administration can, to some extent, follow the lead of many of us who are working on the ground, and that is to find ways to train communities to be able to be a part of the workforce in renewable energy.

The Deep South Center right now has a program with an unbelievable record of training young men and women in hazard remediation dealing with legacy pollution.

The point is that these communities that have been most affected by climate change and environmental justice issues related to toxins are also the people who should be involved in the workforce, as we move forward.

I think that being able to find a way to develop a workforce that is, first of all, one that creates jobs, but is also environmentally just and creates safe jobs would be the way that we should go.

So, the fact that we are losing jobs in Louisiana and across the Gulf Coast with our transitioning to renewable energy, but more so because the industry has found a cheaper way to be profitable. And as usual, the industry does what is necessary for them to make a profit.

The communities in Louisiana and across the Gulf Coast have been suffering, and finding ways to develop a training mechanism so that the new jobs that will come out of renewable energy projects would also—the benefit would also go to communities.

Mr. MCEACHIN. Thank you so much for that.

Dr. Dahl, can you speak to some of the most severe effects of climate change that communities along the Gulf Coast are experiencing?

And explain how climate change might continue to harm these populations years, and even decades, from now.

Dr. DAHL. Absolutely, thank you for the question. Communities along the Gulf Coast are among those that are on the front lines of climate change. Sea level is rising faster in parts of Louisiana than it is almost anywhere in the world. So, we are seeing rates of sea level rise that are already profoundly affecting communities there.

In speaking with communities, I have heard of people who live in homes where the house is raised, but they still store things under the house. But when there is an extra high tide, they know to expect it, they know they are going to flood, and they have to remove all of that stuff from under their homes, sometimes having a pulley to ratchet it up so that it doesn't get wet.

We have seen what communities call ghost forests in Louisiana. These were forests that had served as traditional gathering spaces for Indigenous communities. But because sea level is now higher, those trees have been inundated with saltwater to the point that they have died, and those cultural aspects of cultural heritage are disappearing.

We have also seen the impacts of climate change in the form of more intense hurricanes affecting the Gulf Coast. As our climate warms, we expect the intensity of hurricanes to increase further, which will have impacts for people who live along the Gulf Coast, which is one of the most hurricane-prone parts of our country.

Finally, it is important to recognize the importance of extreme heat in the Gulf Coast. It is one of the hottest regions of our country, and as we warm our climate, we can expect the frequency and the intensity of heat waves to increase. Often this will combine with other climate-related disasters, like we saw in the wake of Hurricane Ida last year, where, as people were returning to their homes after evacuating for the storm, they were met with a deadly heat wave that ultimately killed more people than the hurricane itself.

So, the Gulf Coast is already experiencing some of the effects of climate change, and we can expect all of those to grow more intense and more severe in the future, if we fail to reduce our emissions.

Mr. MCEACHIN. Thank you very much.

And Mr. Chairman, I am over time, so I yield back.

Dr. LOWENTHAL. Thank you. I now recognize Representative Herrell for 5 minutes of questions.

Ms. HERRELL. Thank you, Mr. Chairman, and thank you to all the witnesses. I just really appreciate having the opportunity for us to work and listen to each other, and just find solutions, because this is such an important subject.

I have a question for Dr. Dahl. I want to make sure I have that right, so I just want to ask this very slowly, so it makes sense.

We know that the demand for fossil fuels is not going away. I mean, it is growing and growing and growing. So, if we phase out

fossil fuels, I want to see what is the solution. What are your thoughts on how do we protect the environment, or climate, when then we would rely on other nations to produce energy?

If we cut our energy production here in America, but they have an uptick, say in China or Ukraine or Russia, they don't fall within the same regulatory confines that we do. How do we protect the environment consistently, if we cut production here, and yet see more production from other countries that don't live within those same requirements?

Because China, for instance, is building 200 power plants a year. They are really driving the force here. But if we are going to be honest about climate, we have to look, I think, at more of a global solution.

Dr. DAHL. Absolutely, climate change is a global problem. So, the solutions to it have to be global, as well.

In the United States, we know that we have contributed about 25 percent of all of the historical carbon emissions that have entered the atmosphere since the Industrial Revolution. So, we are responsible for about a quarter of the warming that has resulted.

Contrast that with the fact that we have just 4 percent of the world's population, and you can see that we have had a disproportionate effect on the climate problems that we are seeing today.

Ms. HERRELL. Right. But wait, I hate to interrupt, but then how do we—by cutting it here in America, how do we—it is a global problem, and I think our producers around the country have done a phenomenal job of lowering CO₂ emissions. And we are producing energy more cleanly, more efficiently, more affordably than any other country in the world. And I understand the populations, what you are—but how do we really protect the environment if we are not going to hold the other countries to the same standards?

Because that is where I see the problem is, and that is what I think the bigger solution needs to come from.

Dr. DAHL. Sure. We will need to see other countries, other major emitters like China, Australia, the European Union cutting their emissions, as well, in line with what the science tells us we need to do. But—

Ms. HERRELL. Do you see that happening? Are there conversations happening, say, with China or other countries now?

I mean, are they working on that? Are you aware of anything?

Dr. DAHL. There are ongoing conversations, particularly through the COP process, Conference of Parties, where they meet every year and discuss goals that would help us to get to the goals of the Paris Climate Agreement—

[Audio malfunction.]

Ms. HERRELL. Thank you.

Dr. DAHL. Yes.

Ms. HERRELL. Thank you very much, because I just want to ask one more question to Dr. Pugliaresi— and I am sure I said that completely wrong.

But just very quickly, talking about the crisis over in Europe, and where we have been cautioned, especially from the French Government, who had to ask their largest utility facility to artificially lower prices, can you expand on the choices that certain Western European nations have made that have led to the crisis,

and what we should take away from it as we consider U.S. energy policies?

Mr. PUGLIARESI. Yes, there are sort of two problems, I think, in the European side. One is they went to a very narrow set of fuel choices. They abandoned—particularly the Germans—they abandoned nuclear power. They tried to shut down their—actually, their coal is resurging now—and they limited their utility system to a very risky set of fuel choices, and natural gas being one of them, and lots of wind and solar.

And you can see that there was a disruption in Britain, wind supplies in the North Sea began to slow down, and they didn't have the traditional baseload fuels.

So, there is a lesson here. We can move to these fuels of the future, but if they are intermittent, we have to make sure they reach a certain stability, and they have an adequate backup, because we don't have the battery technology yet to support these intermittent fuels. And I think it is a kind of aspirational attempt to reach an aspirational goal without having the technology in place yet.

Ms. HERRELL. Thank you.

Mr. Chairman, I yield back and, again, I appreciate the witness testimony and you putting this meeting together. Thank you.

Dr. LOWENTHAL. Thank you. I now recognize Representative Levin for 5 minutes of questions.

Welcome, Mike.

Mr. LEVIN. Thank you, Mr. Chairman, and I want to thank you publicly for your many outstanding years representing Southern California. It really has been just an honor to serve with you, and I hope we can continue your legacy of exemplary service for Southern California, and also the example of statesmanship that you have set.

I want to thank you for this hearing. I think it is really important, as we wrestle with the long-standing issues around existing offshore oil and gas leasing, and consider how incompatible our Federal oil and gas program is with our efforts to stave off the worst impacts of the climate crisis.

In addition to my concerns about climate impacts, I am also cognizant of the negative effects of offshore drilling on local communities. I think many of you know that my district last year experienced the negative impacts of the Orange County oil spill. And even months after 25,000 gallons of oil were discharged into our waters in Southern California, I still see the devastating impacts that the spill had on our fisheries, on our local businesses, and the public. And I still worry a great deal about the longer-term effects of the spill.

Dr. Wright, I will begin with you. Given your background in environmental justice work in the Gulf, can you share how communities in the Gulf similarly suffer from both the direct and the indirect consequences of offshore drilling?

[Audio malfunction.]

Dr. WRIGHT. Directly, the communities in the Gulf Coast have suffered from offshore drilling, because they live in close proximity to these particular facilities. That means that all of the toxic

pollution—and just tons of it—are in their neighborhoods, and they have suffered in terms of their health.

But I wanted to just give you an example of what these communities deal with. They deal with things like their screens rusting and falling off their windows every 6 months, everything dying downwind from petrochemical facilities is—that could have direct connections to offshore drilling or the pipelines.

But specifically, I think it is important that I mention that in Louisiana, in particular, we have been dealing with these problems for many, many years. And communities have been seeing oil pods on the sand near their homes for a long time. We are just now learning how many unplugged facilities actually exist and are affecting our communities.

The cancer rates are extremely high, because there is an absolute connection between offshore drilling and petrochemical facilities, and our communities are fence line to and fighting for survival.

The fact that we are thinking about leasing more land is something that boggles our minds, because we already don't know how to deal with the pollution that we have right now, with the numbers of pipelines that are affecting us.

I believe that it is hard for us to understand how more of something that is bad for you is better for all of us, and that the economic impacts that exist outweigh our health interests when, in fact, in Louisiana, with some of the highest cancer rates in the Nation.

So, when you really look at the impact, the good that comes out of the production of oil in Louisiana creates so much bad that it does not balance out.

Mr. LEVIN. Thank you.

Dr. WRIGHT. But in the end, we are talking about saving the planet. Sorry.

Mr. LEVIN. Thank you, Dr. Wright. I want to make sure to move on and ask Mr. Sarinsky.

You noted in your testimony, under the Outer Continental Shelf Lands Act, BOEM is explicitly required to balance the production of oil and gas with—and I quote—“protection of the human, marine, and coastal environments.” Listening to Dr. Wright, it doesn't seem that the continued oil and gas leasing program meets that criteria, that statutory criteria, to ensure the protection of the human, marine, and coastal environment.

Given these concerns, I was wondering if you could speak to the legal authorities that the Secretary of the Interior has when it comes to reforming the offshore oil and gas program. First, is the Secretary required to hold every lease sale included in the Bureau of Ocean Energy Management's final 5-year leasing program?

Mr. SARINSKY. No, the statute specifically provides that it doesn't, and numerous prior lease sales have been canceled—

Mr. LEVIN. So, theoretically, BOEM's next 5-year leasing plan could have zero sales?

Mr. SARINSKY. I believe so, yes. That would bear reading the statute, yes.

Mr. LEVIN. I appreciate that answer. I just want to be clear. I personally believe that including any new leasing in BOEM's upcoming 5-year plan would be at odds with the Administration's

stated climate and environmental justice goals. And that is why I urge the Administration to move forward on a 5-year leasing plan that does not include new leasing. I believe it is the way we need to move forward toward a zero-carbon future.

With that, Mr. Chairman, following your example, I hope we can all disagree without being disagreeable, following your lead. With that, I will yield back, and thank you for all you do.

Dr. LOWENTHAL. Thank you. I now recognize the Representative from Louisiana, Representative Graves, for 5 minutes of questions.

Mr. GRAVES. Thank you, Mr. Chairman. Thanks for having this hearing. Unfortunately, I want to spend the first couple of minutes actually going back and addressing some of the comments that were made by the witnesses.

First of all, Dr. Wright, you have suggested that energy production is racist in Louisiana. I represent south Louisiana, and I have to tell you, I am actually kind of offended by that. I think the facts show something a little bit different.

Some of the parishes that are closest to energy production in Louisiana, parishes like Plaquemines Parish, Lafourche, Terrebonne, and Cameron Parish—in Cameron Parish, for example, 4 percent of the population is actually Black, 4 percent. In the case of Plaquemines Parish, on the high end, 21 percent, which means the remaining 79 percent, they are non-Black. In Lafourche Parish, it is 15 percent, and in Terrebonne Parish, it is 19 percent. So, to suggest that this activity is racist is just—it is not factual and it is very concerning.

Mr. Sarinsky, you said that the law doesn't require leases. The Western District of Louisiana disagrees with that and has actually forced them to hold leases. In fact, the law requires that leases happen "expeditiously."

Next, if we are going to stop leasing in the Gulf of Mexico or otherwise, we have some of the lowest emission rates in the world, as indicated by testimony by the last witness. All that does is squeeze a balloon and cause production to happen in other areas, as we have had career Department officials, career Department of the Interior officials, testify before the Committee. All it does, when we stop domestic production, is increase our dependence upon foreign energy sources with greater emissions.

Cutting production in the United States increases global emissions. Shame on us for not recognizing the flawed approaches of California, what has happened in New England and the UK, where their strategies that some of you are pushing have resulted in higher emissions and unaffordable energy, disproportionately impacting, in some cases, communities of color and impoverished communities. That is not the solution.

Next, this Department of Energy, under the Biden administration, has projected that we are going to have an increase in energy demand. In fact, as I recall, I think a 30 percent increase in natural gas demand alone between now and 2030, I believe. So, if there is going to be this increase in demand—the IEA says a 50 percent increase in global energy demand, I mean, why would we not produce it where we can produce it with the lowest emissions?

Last, Mr. Sarinsky, you indicated that in the assessment by Interior, they failed to take into consideration the international

impacts by using the fuels in other countries. OK, that is a good point. So, let's take into consideration what happens when we stop producing here, and you increase global emissions. You have a net increase in global emissions. The facts history shows that is exactly what happens. Shame on us for not recognizing this evidence that is out there right now. We have shown strategies that result lower emissions, lower energy prices, and prosperity for Americans. That is what we need to be doing.

Ms. Dahl, I represent south Louisiana. That is where I live and represent. I actually ran the coastal program, the resilience program for the state. Fascinating, listening to others come in and describe what is going on.

Yes, we have some of the fastest—you left out a key word—relative sea rise. That is because we are having some of the greatest subsidence or sinking rates in the world because of how the Federal Government, Republican and Democrat administrations, have mismanaged the Mississippi River system. Don't leave these things out. These are important facts. We are going to go out there and pose solutions that don't solve any problems.

We have to stop focusing on the source of energy, and instead focus on the emissions. It doesn't matter if we use natural gas, if we burn heating oil, as they are doing up in the Northeast right now, or if we do solar. We have to stay focused on the emissions. Let innovators innovate. We have proven we can use natural gas at net-zero emissions. For every ton of emissions we produce in the United States, China has gone up by four. This doesn't make sense.

Mr. Pugliaresi, I just want to ask you very quickly. If we stop producing energy in the United States: (1) will we see a global reduction in emissions? And (2) what is going to happen with energy? Are we suddenly going to all go to renewable energy sources?

Mr. PUGLIARESI. No, we have to be really concerned about failure modes of implementing the energy transition.

The United States, which has very high environmental standards—and, of course, we can always do better—if we reduce the legacy fuels here before we are ready to transition, they are just going to be produced somewhere else. And that is going to be worse for the local environment and for global emissions.

Mr. GRAVES. Thank you, Mr. Chairman. I yield back.

Dr. LOWENTHAL. Thank you. I now recognize—let's see, who am I waiting for?

Is that Representative McCollum? Representative McCollum, I recognize you for 5 minutes of questions. Welcome, Betty.

Ms. MCCOLLUM. Thank you, Mr. Chair. I am at a slight disadvantage here with how I had set up my screen, so I am doing my own self-timer here, so I can see a clock. Mr. Chair, there is time to say goodbye later. Right now, my dear friend Alan, it is a joy to work with you.

Dr. LOWENTHAL. Thank you.

Ms. MCCOLLUM. I want to maybe take this on a little bit of a different direction, because we have some great testimony here.

Dr. Wright, you have extensive work in working with communities that are most directly impacted by toxic exposure and environmental hazards. You pointed that out. And most of the offshore

oil and gas in the United States does come from the Gulf region, which means these local communities have borne the cost of our fossil fuel dependence development.

And you pointed out, and you can show scientifically, the health and environmental burdens of the Gulf, fossil fuels and the petroleum industry have disproportionately harmed communities and disproportionately we can show through health records, when they are fully available, that Black and Indigenous communities have suffered the most.

But other communities around in the area, including Latino, Asian, Caucasian, other communities have also been affected by these health disparities. But it targets, in certain areas where development has taken place, some communities more significantly than others, and I thank you for pointing that out.

I believe that Congress has to take responsibility for helping all those communities recover, and we can do it in many different ways. And one of the ways that I think we can do it—and I have spoken to many members on this Committee about a piece of legislation that I am working on—is the Mississippi River and Restoration Resiliency Initiative.

Now, Mr. Stauber and I are home to—well, he has the headwaters. I am a little farther south. But Minnesota is home to the headwaters of the Mississippi River. It is a working river. It is a vibrant river. I grew up in a barge town. It is a river which supplies drinking water for so many Americans, including in the large metropolitan area that I represent, St. Paul, and the adjacent Minneapolis. It is recreation. It is habitat.

But my bill would also begin to address some of the legacy issues that you pointed out, Ms. Wright, including funding and activities for environmental justice for communities from the headwaters to the Gulf.

How do you think the Federal Government can work in a focus of justice and equity for all Americans, especially those that have been impacted by offshore oil and gas drilling, moving forward?

So, we have a legacy issue, and we are talking about whether or not we continue that legacy. But I would like to just take a second and have you talk about some of the legacy issues you think the Federal Government should be focused on.

I also serve on the Interior and Natural Resources Committee, where the EPA is located.

Thank you.

Dr. WRIGHT. Thank you for that question.

I do want to say to my fellow Louisianian that in his report he selected certain communities with the racial demographics that supported his report. But I also live in Louisiana, and he is insulted that I was saying that this is racist, and I want him to know that I am also insulted by racism that I live with every day.

Now to your question. The legacy pollution that exists for a lot of our communities has a lot to do with Superfund sites and all the—before we knew better, the things that we did with industry. What we are finding is that communities affected by offshore drilling are in places now where their communities or their homes are going underwater.

I think Louisiana was the first area to deal with communities that are now displaced, or environmental refugees. But we have so many communities living on toxic land. So, finding ways to relocate these communities, for one thing, would be very important, and doing it in a way that that land is then reclaimed for things like a solar farm, or solar panel fields, which is one of the things that we have been pushing for in our community, with a 30-year fight to move a community off of a Superfund site.

There are all kinds of ways that we can take this land that is now no longer usable for humans, and we would have a hard time cleaning it up, to get it there, turning it into renewable energy types of projects like solar fields. The communities need to be relocated.

And our communities need to be trained. We need to have a vibrant workforce that trains young men and women of all races, all ages who are interested in getting us to transition to this renewable economy, learning how to do solar, how to do wind, how to do hydro, create really wonderful jobs, and at the same time clean up our communities. Thank you.

Ms. MCCOLLUM. Thank you. And as you can hear, Mr. Chair, my timer went off, and my time is up. Thank you.

Dr. LOWENTHAL. Yes, thank you. I now recognize Representative Tiffany for 5 minutes of questions.

Welcome.

Mr. TIFFANY. Thank you, Mr. Chairman. I appreciate it very much.

Ms. Dahl, in your testimony, you said we have precious little time, and we are decades late in making the shift—I am assuming to alternative energies. And before me here I have an article from April 28, 1975, Peter Gwynne in *Newsweek*, “The Cooling World,” where it says there will be a global disaster, food shortages, unpredictable and crazy weather events, and, of course, politicians refusing to act in the face of these undeniable realities. Isn’t this just a political effort to control people’s lives, this doomsday, sky-is-falling rhetoric that we hear?

Dr. DAHL. Thank you for the question. Absolutely not. This is not political rhetoric. This is science.

And back in the 1970s, there was a brief moment when there was worry about global cooling. Since then it has become abundantly clear, through thousands upon thousands of scientific studies, that we are warming our planet, and that the results of that warming could become irreversible and devastating for people around the world.

Mr. TIFFANY. Thank you very much.

Dr. DAHL. It is very clear.

Mr. TIFFANY. And the operative word there is “could,” and we hear “could,” “might,” “shall,” because it is all based on models, no different than back in the mid-1970s, when the sky was going to fall, and we were going to have mass famines by the year 2000.

Mr. Pugliaresi, did China sign on to the Glasgow Accords—I don’t know exactly what they call it, but call it the Paris Accords—at their most recent summit in Glasgow?

Mr. PUGLIARESI. So, I mean, they agreed to take certain measures. I think there is a general out in the Paris Agreement in

which, if the measures undertaken in attempting to get these goals results in enormous economic hardship, the nation states can adjust their plans accordingly.

Mr. TIFFANY. So, they have an out, is basically what you are saying.

Mr. PUGLIARESI. They have an out, and they have not given us firm targets. I can tell you that.

Mr. TIFFANY. Yes, absolutely. They have not given us firm targets, there is no doubt about it.

We are seeing these huge price spikes in Europe, where some alternative energies are failing them over there, as you have highlighted. So, what alternative source of energy are they using now to be able to power people's—to give people electricity?

Mr. PUGLIARESI. They are using less energy and higher prices. It is a very bad outcome.

Mr. TIFFANY. And have they switched to coal? Has coal been their backup for—

Mr. PUGLIARESI. Their fascination with getting rid of nuclear power after Fukushima, they are actually spiking their coal use in Germany now, particularly very low-quality lignite coal.

Mr. TIFFANY. Yes, so here comes, alternative energy is coal now. Whereas, in the United States, we are smart enough to produce enough natural gas.

One year ago, today, President Biden signaled to the United States and the world that we are going to become more dependent on alternatives, and we are not going to allow an all-of-the-above approach, that we are going to end fossil fuel use, or attempt to do it with the shutdown of the Keystone Pipeline. Investors have heeded those words, and we have seen increased prices.

And I just say to all the panelists, regardless of where you come from, why should my constituents be paying twice as much for their home heating fuel this winter? Why should gasoline be costing almost a dollar a gallon more?

I mean, I have cited this frequently. Propane costs \$.80 a gallon as a home heating fuel, which a quarter of my constituents use in northern Wisconsin. They paid that in August 2020, and in August 2021 they were paying \$1.50 a gallon. And I know, because I dug the bills out. I heat my home with propane, along with 25 percent of my constituents.

Is that the direction that we want to go here in America? Because that is exactly what is happening.

And the final point that I would make, I find this really ironic, this hearing today, when yesterday we were hearing the bill RAWA, Recovering American Wildlife Act, which was unpaid for, \$1.3 billion a year, \$13 billion over 10 years. And that is the reason I did not vote for the bill, because it was not paid for. And here we have the opportunity, with things like offshore leases and being able to produce oil, to be able to pay for some of those things, and we are saying no, we are not going to do it. Fossil fuels have been paying the bills, in many cases, for improvements in the environment, and we should never forget that.

I yield back, Mr. Chairman.

Dr. LOWENTHAL. Thank you, Representative Tiffany. I now recognize Representative Porter.

Welcome. Five minutes of questions.

Ms. PORTER. Thank you very much. And I have some pollution going on in a neighbor's yard right now from a gas-powered leaf blower, so I apologize if you can hear that in the background.

I wanted to start with Dr. Dahl.

Does oil leaked from pipelines stay in the surrounding environment?

Dr. DAHL. No, it does not. When oil is leaked from drilling equipment or a pipeline, it goes where the environment is going to take it. So, if it happens in the ocean, that is going to depend on things like the ocean currents, where they are going, the pace with which they are going.

And we know, from major oil districts like the 2010 Deepwater Horizon oil spill that happened in the Gulf of Mexico, that the oil disperses over a very large area. In that case, it was thousands of square miles, and up and down the entire water column of the Gulf of Mexico.

Ms. PORTER. And we saw this, we heard about this. We had a field hearing, Chairman Lowenthal and I, following the rupture of a pipeline off the coast of Orange County, and we had poisonous petroleum tar balls washing up on our shores. And Dr. David Ballantyne told us exactly what you did, that that pollution will spread. It could wind up in lots of other areas. He gave an example of a pipeline leaking off the coast of Brazil in 2019 that wound up polluting and sending oil off our coast in Florida.

So, understanding that oil from pipelines that leak in the Gulf could end up on beaches further away, Dr. Dahl, from a broader climate perspective, not just a direct pollution perspective, from a broader climate perspective, does the source of carbon dioxide emissions matter, or is damage to the climate the same, whether we are talking about the Gulf of Mexico or the coast of California?

Dr. DAHL. It does not matter where carbon dioxide is emitted on the planet. It will affect the entire planet. Carbon dioxide mixes very quickly into our atmosphere. So, when you look at the globe, there is not much variation from place to place.

Now, that is not to say that there aren't cleaner and dirtier forms of fossil fuels in the sense that some will emit more carbon dioxide than others. But as a whole, it doesn't matter where that carbon dioxide is coming from, your emissions or my emissions or People of China's emissions.

Ms. PORTER. Dr. Sarinsky, does the Department of the Interior subsidize oil and gas drilling?

Mr. SARINSKY. Yes, it does, in quite a number of—

Ms. PORTER. Can you tell us how?

Mr. SARINSKY. Yes, absolutely. So, just to give a little bit of context here, there was an IMF study that found that in the year 2020 the Federal Government, on the whole, subsidized fossil fuels by \$660 billion. That was just in 1 year.

In terms of the Federal oil and gas leasing program, the main subsidies are in the form of very beneficial fiscal terms for oil and gas drilling, where, basically, the harm that is being caused by oil and gas extraction is being borne by the public, by and large, rather than by fossil fuel extraction.

Just to give one example, Congress last year passed, I believe, \$4.7 billion to clean up orphaned wells. Those are damages that were caused by the industry that now the public is footing the bill, and that could be solved by increasing bonding requirements, for instance.

Ms. PORTER. Dr. Sarinsky, I want to make sure I heard you, because sometimes these numbers get big. So, I just want to repeat this back, and please correct me if I am wrong. You just cited an IMF study suggesting that the U.S. taxpayers are spending \$660 billion a year subsidizing fossil fuels. Did I get that right?

Mr. SARINSKY. Yes, that is an explicit and implicit subsidy. But yes, you got that absolutely right.

Ms. PORTER. \$660 billion?

Mr. SARINSKY. \$660 billion.

Ms. PORTER. Wow. So, Dr. Dahl, how much money did extreme weather-related disasters cost taxpayers last year?

Dr. DAHL. The compilation that was done by the National Oceanic and Atmospheric Administration just earlier this month showed that, just in 2021, there was at least \$145 billion in climate and weather-related disasters across the country.

Ms. PORTER. So, to summarize, taxpayers are subsidizing, to an eye-popping number, oil and gas drilling from various methods, and we are incentivizing fossil fuels at the expense of clean energy technology. And then taxpayers are spending billions of dollars cleaning up the damage caused by both emissions, through things like abandoned wells and by extreme weather events caused by climate change. Taxpayers are, literally, being asked to foot both sides of the bill here, to both help companies extract and then to help companies clean up from extracting.

That is a lot of money that we could be putting toward transitioning to clean energy, creating new jobs for the future, and actually bringing down costs for American families. This seems like a really unfair deal to me.

I yield back.

Dr. LOWENTHAL. Thank you. I now welcome a colleague from—I believe, the state of Mississippi—or Alabama, Representative Carl.

Welcome to the Committee, Representative.

Mr. CARL. Thank you, Chairman and Ranking Member. I appreciate the opportunity to come and to be a part of this. Obviously, I am not on this Committee, but I have a lot at stake, obviously, being in south Alabama.

I want to start with just a quick question of the witnesses, which—thank you to the witnesses for taking time. But just a yes or no, because I have a limited amount of time, and I want to focus on something different. But are any of the witnesses aware of any evidence that shows restricting oil and gas production in Federal waters will actually result in decreasing the total consumption of oil in the United States?

[No response.]

Mr. CARL. So, by not drilling, will it decrease in Federal waters, will it decrease the consumption in the United States? Is there any study to back that up?

Mr. SARINSKY. Yes.

Mr. CARL. Who said yes? I am sorry, I can't see who it is.

Mr. SARINSKY. I did.

[Pause.]

Mr. CARL. OK, all right, Max? OK, good.

Mr. SARINSKY. Yes. Do you want me to elaborate on that, or—

Mr. CARL. Yes. If you will, real quickly, tell me where the study is at, where I can find it, and where I can pull it up.

Mr. SARINSKY. I mean, Interior's own analysis finds this.

Mr. CARL. I want the study. I want to know exactly where it is at. I just don't want an opinion. I want—

Mr. SARINSKY. It is Interior's MarketSim model, which was most recently updated in 2021, and was presented in the Cook Inlet lease sale. And it finds that fossil fuel extraction domestically is substituting, in part, for renewable energy that would be consumed domestically. And—

Mr. CARL. Who put that together?

Mr. SARINSKY. I am sorry, sir?

Mr. CARL. Who put that together? Who put those findings together?

Mr. SARINSKY. The Department of the Interior at BOEM.

Mr. CARL. OK, so listening to your opening remarks, it kind of blends into what I am going to here. Basically, what I got from your opening remarks is higher fuel prices equate into less driving. So, by shutting the Gulf leases down, we are going to push that production overseas, which is going to drive the price up, so equates into less driving. That is what I got from your opening statement. I would love to see some documentation to actually back that up.

Dr. Wright, real quick, I am also offended. I will be quite honest with you. I was in county government for the past 8 years, or prior to this job. We got a lot of money from the petroleum industry that we used in minority communities. We built beaches, we built parks, recreation. We did a tremendous—we got waterways for canoeing, and all of this is in minority communities.

So, when you start talking in general about—that all production, or these leases damage minority communities, I challenge you to come to Alabama and show that to me. I am sure you can find a spot somewhere. There is no doubt. But where this oil is coming in is in my county, Mobile County. The south part of Mobile County probably is 90 percent Caucasian, maybe 10 percent. That 10 percent that actually live there, most of them work in the petroleum industry, because we have a huge gas plant right next to us in Pascagoula, Mississippi.

I challenge you to show me—you are talking about the screens rusting? Well, welcome to the Gulf Coast. Everything rusts on the Gulf Coast. Stainless steel rusts on the Gulf Coast. So, that is it. But to insinuate that it is a minority issue, it is bizarre.

I saw this 10 years ago, when the extreme environmental groups couldn't push their theories through the local communities, so they latched on to the NAACP. They actually showed up at the environmental meetings with jackets on that said we are the environmentalists for the NAACP. So, I understand where this is coming from, and they are using this minority reasoning to push these far extreme theories.

I know you want to say something, but it is my time, so hang on just a second.

No one wants to get away from petroleum products more than the Republican Party, and I am tired of being labeled as the group that dislikes the environment.

The state of Alabama, we are poised, poised, for all the technology to happen and come about on electric vehicles. I have four companies in the state of Alabama that produce automobiles. I have a truck company, and I have a company that makes buses. We have Auburn University, we have Tuscaloosa University, and we have NASA up in Huntsville: the triangle, as I like to call it. We have a huge graphite finding up in Coosa County, so we are no longer dependent on that graphite coming from China.

So, no one is going to benefit more from that. But in that process we can't just shut petroleum off and drive prices up. I had this same conversation with a Black gentleman at the airport, on the flight in a few days ago. He says, "In 3 years we will be in electric vehicles, and you can't buy gas." That is their plan.

Well, I challenge you to go to the Black community in Selma, Alabama. I challenge you to go there and tell them that they are going to have to buy a \$60,000 electric car. I challenge you to tell them that they can't buy any more petroleum, because I bet you Terri Sewell will tell you you are wrong. And that is true.

We have to slow down. We have to use common sense. We have to quit scaring people with the sky is falling, the sky is falling, the sky is falling. We can work through this, Republicans and Democrats. We have to start focusing on what works and put a plan together, together. We can be one on this issue, we truly can. Some of these environmental groups, please keep in mind, make a living out of pushing fear. And that is where we are at.

I apologize if I offended anyone. I am passionate about this. Again, Dr. Wright, I wish you the best. If you want to come to south Alabama, I would love to have you. You and I will ride around and look at some of these issues.

With that, Chairman, I give back my time, thank you.

Dr. LOWENTHAL. Thank you, Representative Carl. And again, welcome to our Committee. We welcome you any time that you would like to come.

Mr. CARL. Thank you.

Dr. LOWENTHAL. I want to thank all of the witnesses for their testimony and the Members for their questions.

Before I end, I want to ask the Ranking Member, is there any statement, or anything you would like to say at the end? If not, I am going to close the hearing.

Mr. STAUBER. Mr. Chair, thank you, I have an article that I would like to enter into the record. It is a January 19, 2022 article. The title is, "Eliminating Gulf of Mexico Oil and Gas Leasing Will Hurt U.S. Climate Achievements, a Consumer Group Says." So, Mr. Chair, if you will allow it, I would like to ask that I can enter that into the official record today.

Dr. LOWENTHAL. Without objection, it shall be entered.

[The information follows:]

Submission for the Record by Rep. Stauber**Eliminating Gulf of Mexico Oil and Gas Leasing
Will Hurt U.S. Climate Achievements, Consumer
Group Says**

January 19, 2022



WASHINGTON – Consumer Energy Alliance (CEA) Federal Affairs Adviser Michael Zehr made the following statement in advance of Thursday’s House Natural Resources Subcommittee on Energy and Mineral Resources hearing entitled “What More Gulf of Mexico Oil and Gas Leasing Means for Achieving U.S. Climate Targets.”

“American parents, families and small businesses are paying a dollar a gallon more at the pump this year—a 50% increase over last year. High fuel prices and growing energy bills are key factors driving inflation to 40-year highs, making everything more expensive for American families still struggling from the economic challenges and uncertainty brought by COVID-19.”

“Some economists claim the high energy prices are due to supply and demand imbalances along with international efforts, largely led by OPEC+, to limit supplies. Similar efforts to limit supply are being undertaken at home through an array of regulatory and legislative moves to make U.S. oil and gas production harder and more expensive, which is creating uncertainty, the enemy of new investment.”

“These actions offer few if any environmental benefits – especially when considering that taking American production offline means demand will be met by increased output from more carbon-intensive producers like OPEC, Russia, and Saudi Arabia.”

“The Administration has also failed to help send positive market signals by initiating the 18-month process of creating a Congressionally mandated five-year plan for much-needed federal offshore oil and gas leasing, which governs one of the most lucrative programs for our Treasury. The current plan expires on July 1.”

"High prices for gasoline, oil and natural gas have hurt families financially, and resulted in greater carbon emissions tied to climate change over the last year. High prices caused U.S. coal-fired generation to rise 17%, the first increase in seven years and an unfortunate 2021 report card for a nation that has led the world in absolute emissions reductions for two decades."

"Rather than penalizing U.S. families through higher gas and energy bills, leaders should advance energy policies to incentivize and expedite deployment of renewables; carbon capture, usage and storage; renewable natural gas; advanced nuclear; hydropower and broader international consumption of U.S. LNG to displace coal."

"Increasingly efficient and continually cleaner development of oil and gas in the U.S. is essential to meeting our global energy needs and ensuring we achieve our net zero goals without causing severe economic strains that would turn the public against these ambitions."

"U.S. companies are leading the way towards a lower carbon future but for these energy transition gains to be maintained, expanded and exported—they must bring benefits to families, consumers and small businesses instead of higher costs now being either ignored or portrayed as sacrifices we all must make. Done right, no one need suffer – but first we have to be honest about what's technically possible and the real effects our policies will have."

###

Mr. STAUBER. Thank you.

Dr. LOWENTHAL. In closing, I will make a final statement also, and it is actually the same statement I made at the beginning of the hearing. I am not saying anything more than—remember, there has been a stockpiling of over 9 million acres of non-producing leases off our coastline.

So, the question is, do we need to keep with having so many leases out there?

And having to meet our climate goals, do we need to sell another 1.7 million acres? And that was the initial question and issue that I had raised.

With that, members of the Committee may have some additional questions for the witnesses. We are going to ask you to respond to them in writing. Under Committee Rule 3(o), members of the Committee must submit written witness questions within 3 business days following the hearing, and the hearing record will be held open for 10 business days for these responses.

If there is no further business, without objection, this Subcommittee stands adjourned.

[Whereupon, at 1:47 p.m., the Subcommittee was adjourned.]

[ADDITIONAL MATERIALS SUBMITTED FOR THE RECORD]

Submissions for the Record by Rep. Lowenthal

January 20, 2022

President Joseph R. Biden, Jr.
 The White House
 1600 Pennsylvania Avenue NW
 Washington, DC 20500

The Honorable Deb Haaland Secretary
 Department of the Interior
 1849 C Street, N.W.
 Washington, DC 20240

Dear President Biden and Secretary Haaland:

To protect the nation from catastrophic climate impacts, and to ensure this administration continues to meet its historic commitments to environmental and racial justice, we urge you to immediately reject the bids or suspend the offshore leases under Lease Sale 257 in the Gulf of Mexico, to stop all remaining offshore lease sales planned in the Gulf of Mexico and Alaska, and to issue a new five-year offshore lease plan that includes no new leases after the current five-year plan expires this year.

As environmental organizations and activists that represent millions of members across the United States, including communities in Gulf states that have been impacted by climate and environmental disasters as a result of offshore drilling, we are shocked by this administration's decision to sell 80 million acres of public waters to ExxonMobil, BP, and other polluters less than a week after COP26. Burning the oil and gas that the Department of the Interior projected to be developed as a result of Lease Sale 257 would be the equivalent of building 130 new coal-powered plants. As such, building even one new oil rig in the Gulf of Mexico will deepen the climate crisis, disproportionately imperiling low-income communities and communities of color in the process.

We are also concerned that the administration has not been forthcoming with the public about its reasons for moving forward with Lease Sale 257. We have learned that the administration acknowledged in its own court filings that the U.S. District Court for the Western District of Louisiana (WDLA) had not compelled the Department of the Interior (Interior) to move forward with the sale within a specific timeframe, as recently reported by *The Guardian*.

As commander-in-chief, it is imperative that you defend the nation's interests from the continued fossil fuel extraction driving the climate emergency by taking the following actions:

1. Follow Federal Law to Stop Lease Sale 257 and Remaining 2022 Offshore Lease Sales

We urge you, first and foremost, to reject the bids or suspend the leases under Lease Sale 257 and to correct the Trump administration's flawed National Environmental Protection Act (NEPA) analysis that was used to justify the sale by claiming that the sale would have no impact on climate change or the environment. We also urge you to cancel the remaining lease sales planned in the Gulf of Mexico and Alaska. This administration has repeatedly cited the WDLA ruling in June 2021 (*Louisiana et. al. v. Biden et. al.*) as the basis for why the Interior was obligated to move forward with offshore lease sales. But in that ruling, the court recognizes that "there is a huge difference between the discretion to stop or pause a lease sale because the land has become ineligible for a reason such as an environmental issue, and, stopping or pausing a lease sale with no such issues and only as a result of Executive Order 14008." The court's order, therefore, does not preclude the Interior from following federal law, including NEPA and the Outer Continental Shelf Lands Act (OCSLA), which grant the Interior Secretary discretion to stop lease sales to allow for proper and comprehensive environmental review. We urge you to do so before new leases become effective.

2. Create a New Five-Year Lease Plan with No New Lease Sales

Secondly, as you are also aware, OCSLA requires the Interior Secretary to create a new five-year plan for offshore lease sales after the current plan expires this year. In accordance with OCSLA, we urge you to create a new five-year lease plan that includes *no new offshore lease sales* for the next five years. Issuing a new five-year lease plan with no new leases will have no effect on the fossil fuel industry's ability to meet the nation's energy needs, nor will it affect jobs. As the Interior previously acknowledged in January 2021, "the oil and gas industry has stockpiled millions of acres of leases on public lands and waters" that remain unused and non-producing. In March 2021, White House Press Secretary Jen Psaki also stated that stopping these lease sales "will not affect oil and gas production or jobs for years to come."

Creating a new five-year lease plan with no new leases will, however, give the United States critical time to combat the climate emergency by not adding new emissions to the crisis while we work to reduce existing greenhouse gases and transition to clean energy. This will also improve the administration's position on the world stage when it comes to climate action ahead of both the World Economic Forum and COP27 this year. Finally, it will fulfill the President's promise to end fossil fuel leasing.

We are in an unprecedented crisis and need leadership from your administration. Just this past month, temperatures in Alaska reached record-high temperatures of nearly 70 degrees, and scientists now warn that the "doomsday" Thwaites glacier in Antarctica is near collapse, threatening to accelerate a 10-foot rise in global sea levels that could decimate coastal cities within the next five years. As recently outlined by the Department of Defense and the National Intelligence Council in October 2021, we must immediately reduce emissions to prevent the impacts of climate change on U.S. food systems, infrastructure, supply chains, and public health.

The above actions would be in accordance with existing federal law and in compliance with the ruling issued by WDLA in *Louisiana et. al.* that struck down the pause on offshore leasing via executive order. These actions would also be in alignment with this administration's commitment to center environmental justice in all decision-making. For these reasons, we urge you to marshal the full authority of your office to cancel or suspend Lease Sale 257, stop the remaining leases in the current five-year offshore leasing plan, and issue a new five-year leasing plan that includes no new lease sales.

Sincerely,

Andrew Hudson
Founder
198 Methods

Dineen O'Rourke
Campaign Manager
350 PDX

Laura Neish
Executive Director
350 Bay Area

Karen Bueno
Leaders Team Member
Accelerate Neighborhood Climate
Action

Patricia Hine
President
350 Eugene

Erika Thi Patterson
Campaign Director
Action Center on Race and the
Economy

Sherry Pollack
Co-Founder
350 Hawaii

Maayan Cohen
National Campaigns Director
Action for the Climate Emergency

Shelden Prentice
Federal Policy Lead
350 Seattle

Katie Huffling
Executive Director
Alliance of Nurses for Healthy
Environments

Daniel Villa
Volunteer
350 Tacoma

Sarah Stewart
President
Animals Are Sentient Beings, Inc.

Karen Bearden
Coordinator
350 Triangle

Emily Southard
US Team Co-Coordinator
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Patricia Alessandrini
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Communications & Digital Director
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Marie Venner and Stefanie Klass
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Mark Meeks
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Capitol Heights Presbyterian

Stefanie Klass
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Nikki Reisch
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Irene Danysh
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Heather Cantino
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Phil Berrigan Memorial Chapter,
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Mary Gutierrez
Director
Earth Action, Inc.

Elizabeth Dunne
Director of Legal Advocacy
Earth Law Center

Alexandria Villaseñor
Founder & Executive Director
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Leah Redwood
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Frac Sand Sentinel: Project
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Hallie Templeton
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Friends of the Earth

Codi Norred
Executive Director
Georgia Interfaith Power and Light

Sara Shor
Organizing Director
GreenFaith

Rose Ann Witt
Co-Founder
Conejo Climate Coalition

Clayton Dewey
Ecosocialist Committee Chair
Denver Democratic Socialists of
America

Manna Jo Green
Environmental Director
Hudson River Sloop Clearwater

Rachel Lehman
Chair of Healthy Communities
I-70 Citizens Advisory Group

August Allen
Executive Director
In the Shadow of the Wolf

Dallas Goldtooth
Campaigner
Indigenous Environmental Network

Philip Beck
Co-Founder
Indivisible Ambassadors

Elizabetha Stacishin
Climate Envoy
Indivisible Colorado

Basav Sen
Climate Policy Director
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Mark J. Palmer
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Anni Hanna
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National Policy & Programs Mgr.
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Dorothy Slater
Senior Climate Researcher
Revolving Door Project

Jeff Hart
Co-Founder
Save EPA

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Jennifer Nielsen
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Matt Krogh
U.S. Oil & Gas Campaign Director
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Jerry Rivers
Environmental Scientist
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Stop the Algonquin Pipeline
Expansion

Kristi Douglas
Commerce City Coun. & Co-Chair
North Range Concerned Citizens

Lauren Naunus
Advocacy Director
Sunrise Movement

Maura Stephens
Coordinating Committee Member
System Change Not Climate Change

Paddy McClelland
Co-Founder
Wall of Women

Timothy Edward Duda
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Terra Advocati

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The Climate Mobilization

Chris Calwell
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Livable Climate

Harmony Commings
Co-Founder
The Green House Connection Center

Osprey Orielle Lake
Executive Director
Women's Earth and Climate Action
Network

Fran Aguirre and Deb James
Co-President
Unite North Metro Denver

Renee M. Canon
Executive Director & Co-Founder
Womxn from the Mountain

OUR CHILDREN'S TRUST
EUGENE, OR

February 3, 2022

Hon. Alan S. Lowenthal, Chairman
Hon. Pete Stauber, Ranking Member
House of Representatives
Subcommittee on Energy and Mineral Resources
Washington, DC

Re: **Materials for January 20, 2022 Subcommittee on Energy and Mineral Resources Hearing on What More Gulf of Mexico Oil and Gas Leasing Means for Achieving U.S. Climate Targets**

Dear Chairman Lowenthal and Ranking Member Stauber:

On behalf of Our Children's Trust ("OCT"), a nonprofit law firm dedicated to securing the legal right to a safe climate system for youth and future generations, please find enclosed herewith materials for your consideration relevant to the January 20, 2022 Subcommittee on Energy and Mineral Resources Hearing on "What More Gulf of Mexico Oil and Gas Leasing Means for Achieving U.S. Climate Targets." This submission is designed to emphasize the detrimental effects of the U.S. Department of the Interior's ("DOI") Interim Report on the Federal Oil and Gas Program on youth and future generations of Americans. We also hope to inspire you with the stories of courageous children and provide resources critical to developing science-based, technically and economically feasible solutions to the climate crisis that serve as alternatives to the years of devastation wrought by the Federal Oil and Gas Program.

Through youth-led constitutional legal actions, including *Juliana v. United States* ("Juliana"), the landmark federal constitutional climate case filed by twenty-one youth plaintiffs, including eleven Black, Brown and Indigenous youth, described in

Exhibit A, OCT supports youth seeking to hold their governments accountable for policies and actions that have caused, and continue to cause, the climate crisis. Through these actions, youth seek science-based remedies to reduce greenhouse gas emissions at rates necessary to protect their fundamental human rights.

It is OCT's understanding that the materials submitted for the January 20th hearing will inform the Committee's outlook on how to best shape future climate policy and legislation pertaining to DOI's report of the Federal Oil and Gas Program and related concerns. The U.S. government has long known of the dangers of climate change and can no longer act in a manner that ignores that a climate emergency exists. If DOI, as trustee of public trust resources, does not take immediate effective action to cease permitting activities that increase the Earth's energy imbalance (described below), our children, future generations, and innumerable species will continue to suffer greater injury with long-lasting and potentially irreversible consequences. Continued federal leasing without an adequate assessment of the effects on our Nation's children and implementation of a national plan to protect the atmosphere in trust for present and future generations would be a gross violation of the Constitution and DOI's public trust responsibilities. Given our mission as the Nation's only law firm dedicated to representing youth whose constitutional rights are being infringed by their government's conduct that causes climate change, OCT has a substantial interest in ensuring that any such legislation, policies, or programs are consistent with what the best available science dictates is necessary to stabilize the climate system and protect the fundamental rights of youth and future generations.

We invite you to consult the materials enclosed herewith, which demonstrate that climate change is *already harming* the fundamental rights of young people in the United States and legislation, policies and programs which ensure emissions reductions and sequestration of excess CO₂ is necessary for the protection of the fundamental rights of American children (Note: Carbon removed through natural sequestration in sinks must be counted separately and used to draw down the excess CO₂ already in the atmosphere from cumulative U.S. historic emissions, not to provide a negative credit or offset for ongoing and new U.S. emissions.).

There is simply no scientific basis to continue historical rates of extraction in light of the already-dangerous accumulations of greenhouse gases in the atmosphere to date and readily available and cost-effective renewable energy sources. Enclosed as **Exhibit B** are comments OCT submitted April 15, 2021 on DOI's Interim Report on the Federal Oil and Gas Program. As part of its fiduciary duties as trustee to manage and protect our country's vital natural resources, DOI has the duty of loyalty to administer the trust solely in the interest of the trust beneficiaries—both present and future generations of citizens—and that can only be done by recognizing and applying the best available science as to how to restore Earth's energy imbalance. With the current atmospheric CO₂ concentration over 415 ppm, the atmosphere has already been substantially impaired—as Dr. Michael Kuperberg, former director of the U.S. Global Change Research Program has stated, we are in the “danger zone.” How can we achieve global climate stability if DOI continues to authorize more emissions through its oil and gas leasing program? You must be able to answer that question and your answer should guide your conduct going forward. All analyses of the potential and historical impact of GHG emissions from changes in the Federal Oil and Gas Program must be evaluated in terms of whether the emissions are in line with the U.S. government's public trust and constitutional obligation to reduce emissions to below 350 ppm by 2100. Anything less than this scientifically supported trajectory will irreparably harm the environment on which our children rely for their life, liberty, and property and which our posterity are entitled to inherit.

Enclosed as **Exhibit C** you will find a document entitled “Government Climate and Energy Policies Must Target <350 ppm Atmospheric CO₂ by 2100 to Protect Children and Future Generations.” This document details the scientific basis underlying, and prescription for, stabilization of the climate system as necessary to protect the fundamental human rights of youth and future generations relative to the climate crisis and explains the scientific conclusion that allowing warming of up to 1.5°C is *not safe*, as the IPCC has also acknowledged.

Climate legislation, policy, and programs which ensure emissions reductions and sequestration of excess CO₂ consistent with what the best available science dictates is necessary for the protection of the fundamental rights of young people and future generations. The information in these Exhibits are additionally relevant to the House of Representatives' concurrent resolution, Children's Fundamental Rights and Climate Recovery (H.Con.Res.31), sponsored by Representative Schakowsky, supporting the *Juliana* youth plaintiffs. It recognizes the disproportionate effects of

the climate crisis on children and their fundamental rights which demands renewed U.S. leadership and development of a national, science-based climate recovery plan. This resolution, re-introduced on Earth Day 2021, had the support of 64 members from both chambers.

Should you have any questions regarding the enclosed materials, please feel free to contact Liz Lee, OCT's government affairs staff attorney at liz@ourchildrenstrust.org.

Sincerely,

ANDREA RODGERS
Senior Litigation Attorney

Enclosures:

Exhibit A: *Juliana v. United States* Summary and Plaintiffs' Profiles

Exhibit B: Our Children's Trust's Comments on U.S. Department of the Interior's Interim Report on the Federal Oil and Gas Program (April 15, 2021)

Exhibit C: Government Climate and Energy Policies Must Target <350 ppm Atmospheric CO₂ by 2100 to Protect Children and Future Generations (March 2021)

[The Exhibits can be viewed on the Committee Repository at: <https://docs.house.gov/meetings/II/II06/20220120/114338/HHRG-117-II06-20220120-SD011.pdf>]

