

**FUELING THE CLIMATE CRISIS:  
EXAMINING BIG OIL'S CLIMATE  
PLEDGES**

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**HEARING**  
BEFORE THE  
**COMMITTEE ON**  
**OVERSIGHT AND REFORM**  
**HOUSE OF REPRESENTATIVES**  
ONE HUNDRED SEVENTEENTH CONGRESS  
SECOND SESSION

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FEBRUARY 8, 2022  
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## **FUELING THE CLIMATE CRISIS: EXAMINING BIG OIL'S CLIMATE PLEDGES**

**Tuesday, February 8, 2022**

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON OVERSIGHT AND REFORM,  
*Washington, D.C.*

The committee met, pursuant to notice, at 10:05 a.m., in room 2154, Rayburn House Office Building, Hon. Carolyn Maloney [chairwoman of the committee] presiding.

Present: Representatives Maloney, Norton, Connolly, Krishnamoorthi, Raskin, Khanna, Mfume, Ocasio-Cortez, Tlaib, Porter, Bush, Brown, Wasserman Schultz, Welch, Johnson, Sarbanes, Kelly, DeSaulnier, Gomez, Pressley, Comer, Jordan, Foxx, Hice, Grothman, Cloud, Gibbs, Higgins, Norman, Sessions, Keller, Biggs, Fallon, Herrell, and Donalds.

Also present: Representative Graves.

Chairwoman MALONEY. The committee will come to order.

Without objection, the chair is authorized to declare a recess of the committee at any time.

I now recognize myself for an opening statement.

We are here today to uncover the facts behind the promises and pledges the fossil fuel industry makes about addressing climate change. Last October, we held a hearing to expose Big Oil's decades-long disinformation campaign to deny climate change. We learned that Exxon scientists warned about the danger of burning fossil fuel and its link to global warming in 1978, more than four decades ago. Rather than fix the problem, Exxon kept this research secret. For decades, the fossil fuel industry waged a multimillion-dollar disinformation campaign to cast doubt on the science and prevent action to reduce emissions, all to protect its bottom line.

Over the last half-century, the top oil and gas companies have generated more than one-third of the emissions that have warmed our planet. They also made trillions in profits. In the meantime, the world has already grown more than one degree Celsius warmer than pre-industrial times. At our October hearing, fossil-fuel executives admitted for the first time to Congress that climate change is real, it is happening now, and burning fossil fuels is the primary cause, four decades after they first learned the truth. Because of their lies, humanity lost four decades. We are now on the brink of a climate catastrophe.

Climate change is already having a profound effect on Americans, from record hurricanes to year-round wildfires, to historic

floods in our coastal cities and river communities. If current trends continue, global warming will likely exceed 1.5 degrees before the mid-century, which is the point many scientists say will lead to irreversible damage to our planet. To avert this disaster, in 2015, nearly 200 countries united behind the Paris Climate Agreement and pledged to reduce emissions by 2030, with a goal of limiting global warming to below 1.5 degrees Celsius.

The leading oil companies—Chevron, Exxon, BP, and Shell—now want the public to believe they support the Paris Agreement. They have made their own climate pledges and claim they will reach net zero emissions by 2050. They have spent millions to advertise these plans and greenwash their images. We called today’s hearing to evaluate these pledges, but when the committee invited board members of these companies to come in today and explain their pledges, they declined to appear on the date we requested. None of them showed up today. Not a single one. So today, we will hear from experts who will reveal Big Oil’s climate pledges for what they are—empty promises.

Scientists have found that the reduction in emissions under these pledges is far short of what is needed to avert disaster under the Paris Agreement. These pledges rely on unproven technology, and they ignore the vast majority of greenhouse gas emissions created by fossil fuels. Moreover, the industry continues to pour money into new oil and gas fields with no plans to stop extracting. At our committee’s October hearing, I asked fossil fuel executives if they would pledge to stop spending money to oppose efforts to reduce emissions and address climate change. They refused to make that pledge. Many investors have been asking oil and gas companies to make a similar pledge by passing shareholder resolutions that commit these companies to actions consistent with the goals of the Paris Agreement. These companies have refused. In fact, they have consistently recommended that their shareholders vote against those resolutions.

The message is clear: Big Oil intends to continue its playbook from the past four decades, fighting meaningful action to prevent climate change while engaging in a PR campaign to deceive the public. This committee will not stand for it. We launched this investigation to get to the bottom of Big Oil’s role in contributing to climate change, and we will get to the truth about these pledges. We intend to hold another hearing with board members in March to answer questions about the pledges. If they do not agree to appear, the committee will use every tool at its disposal to get the information we need. The American public and all generations to come deserve accountability.

I now recognize the distinguished ranking member, Mr. Comer, for an opening statement.

Mr. COMER. Thank you, Chairwoman Maloney, and I want to thank the witnesses for their willingness to testify before the committee today. It is, however, unfortunate that my good friend, Chairwoman Maloney, refuses to hold a hearing on the skyrocketing energy prices impacting every American. In November, we wrote the chairwoman requesting a hearing with the Department of Energy Secretary Jennifer Granholm to discuss these issues, but we still haven’t gotten a response. Instead, here we are

again so Democrats can attack an industry that provides good-paying jobs and energy for all Americans.

The Oversight Committee should focus on rooting out waste, fraud, abuse, and mismanagement in the Federal Government, not investigating the implementation of pledges made by private companies that don't even go into effect for almost 30 years. We should conduct real oversight of the Biden Administration's disastrous policies that have led to surging gas prices and inflation. However, Democrats are not interested. Last month, Committee Republicans hosted a joint forum with the congressional Western Caucus to discuss the impacts of the Biden Administration's energy policies that have failed the American people. We spent a good deal of time talking about solutions to these problems, and I hope my colleagues on the other side of the aisle are able to see how their radical Green New Deal policies are hurting all Americans.

The hearing today is now a two-part hearing. The first panel will be comprised of so-called experts who have studied the climate change pledges proposed by oil and gas companies and their impact on climate change. The second panel will be board members from the four companies who appeared before this committee on October 28 of last year. I have two questions. At what point will Democrats support energy independence for our country, and second, at what point will Democrats stop attacking an American industry?

Committee Democrats claim these companies are not complying with the committee's investigation, but that simply is not true. The companies, along with the U.S. Chamber of Commerce and the American Petroleum Institute, have provided over 400,000 pages of documents thus far and their leadership answered questions for six hours in the last hearing, but apparently that is not good enough. Even after producing hundreds of thousands of documents and answering questions all day, Democrats issued subpoenas after the prior hearing. Why did they do this? Because their investigation hasn't turned up anything, no smoking gun because there isn't one. No matter what these companies do, it will never be enough to please the Democrats. The sole focus of this investigation is to put these companies out of business.

Today, I look forward to speaking with the minority witnesses, Katie Tubb from The Heritage Foundation, about the consequences of the Biden Administration's failed energy policies. This Administration is clearly not committed to promoting an expansive energy solution in America when President Biden says he has no immediate plan to address rising gasoline prices. President Biden single-handedly shut down the critically important Keystone XL pipeline, placed a moratorium on oil and gas production on Federal lands, and enacted policies that increased individual energy costs for American citizens. Simply put, President Biden's policies raise electricity costs for the American people and put American energy companies at a competitive disadvantage with the rest of the world. Just a few years ago, the United States was experiencing a boom in domestic energy production. We even became a strong exporter of oil and natural gas, which allowed us to compete on the global stage. Unfortunately, President Biden's policies threaten the jobs and investment that hardworking Americans spent so long creating.

It is critical that this committee examines the more pressing concerns of the American people, concerns about inflation rising to a 40-year high, gas prices costing a dollar more per gallon than last year, and heating bills rising 54 percent this winter. The Biden Administration is leading us down a dangerous path at a time when our energy independence is more crucial than ever. I hope that we can move on from the demonization of private companies and instead focus on the committee's intention of combatting the ever-increasing number of crises the Biden Administration has created.

I want to again thank the witnesses for being here, but before I yield back, Madam Chair, you have not responded to our November 18 letter requesting that Secretary Kerry appear before the committee at a hearing. So I would like to enter into the record this invitation that we plan to send Secretary Granholm inviting her to participate in part two of this hearing on March 8. We feel that it is vital to hear from Biden Administration officials on their plans to combat rising energy prices, and I hope that the Secretary will participate in this hearing.

Chairwoman MALONEY. Without objection.

Mr. COMER. I yield back.

Chairwoman MALONEY. The gentleman yields back.

Let me briefly address the concerns that have been raised about gas prices. First, rising gas prices are a global issue caused by the behavior of Russia and other factors. Here at home, President Biden has taken aggressive steps to address this issue, including releasing millions of barrels of oil from the strategic oil reserve and seeking to crack down on anticompetitive behavior. Second, prices have not gone up because of climate policies. The head of the International Energy Agency recently debunked this claim, writing, and I quote, "Unfortunately, we are once again seeing claims that volatility in gas and electricity markets is the result of the clean energy transition. These assertions are misleading to say the least." Third, fossil fuel companies are raking in record profits while consumers are hurting at the pump. Exxon made almost \$9 billion last quarter and Chevron made more than \$5 billion.

The bottom line is that as long as we are dependent on fossil fuels, we will be at the mercy of fluctuating gas prices. That is why it is so crucial that we invest now in transitioning to clean energy alternatives.

Mr. COMER. Madam Chair? Madam Chair?

Chairwoman MALONEY. With that, I recognize Mr. Rho Khanna, who is the chairman of the Environment Subcommittee, for his opening statement for this important hearing. Mr. Rho Khanna.

Mr. KHANNA. Thank you, Chairwoman Maloney, thank you, Ranking Member Comer, and the witnesses here today. I am very thankful for our staff—Katie, Kevin, Arya, as well as Russ and Greta from the full committee—who have been doing exceptional work.

Today's hearing isn't about partisanship. It is about getting at the truth. And let me be clear: the purpose of this investigation isn't to embarrass anyone, and it is certainly not put any company out of business. Our purpose is to get the fossil fuel companies to live up to their own pledges, to the goals that they say they believe in, the goals that they have told the American public and their con-

sumers that they are committed to. And it is certainly an appropriate function of the Oversight Committee to make sure that a company is living up to the public statements that they make.

Now, the good news, at least some good news, is that since the historic hearing, since we had all of the oil executives in this committee, they have all announced new plans. Exxon, Chevron, Shell, and BP all have made climate pledges. These pledges don't go far enough in terms of the Paris Accords and their own commitments, but at least they are taking some steps. ExxonMobil, in fact, announced three new pledges since this committee's hearings. Just a few weeks ago, Chevron announced a new net zero aspiration.

Here is the reality. The European companies—Shell and BP—actually have pledges that say they are going to be 50 percent reduced or totally by 2050, net zero on all the emissions. The challenge I have with the Exxon pledges and the Chevron pledges is they are saying that it only applies to Scope 1 and Scope 2. Now, what does that mean? That means it only applies to the emissions of their actual drilling and their actual production of oil, not to all of the oil they sell. Well, that would be like an automaker pledging to eliminate emissions from their manufacturing but doing nothing to improve their cars' fuel efficiency.

I hope that Exxon and Chevron will see what BP and Shell are doing and that our American companies will make the same commitment—2050, a reduction on Scope 1, Scope 2, and Scope 3—and there is still opportunity for them to do that. They have taken an initial step. Let's make sure they finish the job.

I just want to echo what Chairwoman Maloney said. I support President Biden who has taken decisive action to help lower gas prices. President Biden is calling on OPEC to boost production. He is calling on all of the companies, all the oil companies, to temporarily increase production. I agree with President Biden. We need a strong supply of oil and gas in the short term to lower prices at the pump and the price of heat in their homes. But let me be clear: that is not a long-term solution. I wish we had diversified our energy sources 10 years ago so we wouldn't have this price volatility. I wish we had invested in electric vehicles. I wish we had invested in renewables. That is the long-term solution to help American consumers to lower the price at the pump, to lower the heating bills, and that is what we are doing now.

We are not asking these companies to hurt their bottom line. We are saying be strategic, be long term, be honest, start diversifying energy sources so we can help American consumers lower the price at the pump and also address climate change and live up to your goals. Thank you, Madam Chair.

Chairwoman MALONEY. The gentleman yields back.

I now recognize Mr. Norman, who is the ranking member of the Environmental Subcommittee, for an opening statement.

Mr. NORMAN. Thank you, Mrs. Maloney. You know, well, well, well, here we go again. With all due respect, Mrs. Maloney, for you to say that gas prices are a global crisis and Congresswoman Rho Khanna to say that, you know, we are asking OPEC to graciously lower prices, I really cannot believe what I am hearing. The reason the gas prices are where they are is because this President has canceled the Keystone pipeline. We were energy independent in-

stead of energy dependent, and we are buying it from countries that make up OPEC that don't like us: Venezuela, Iraq, Iran.

Why are our cities on fire now? Why are our borders completely open with being run by the drug cartels and being run by groups that are feeding fentanyl to our young people? Why is there a movement to defund the police of all things? Why are 13 dead Americans left in Afghanistan along with many other Americans? And the list goes on and on. I will tell you why. This Administration. They are clueless. You have got the leader of the free world in Mr. Biden. He doesn't know what month it is. You all know it. You have heard him. Any of his underlings will not answer letters, and it is extremely frustrating.

But as Congressman Comer said, you know, the goal of this hearing is to put oil and gas companies out of business forever. Well, good luck on getting on an airplane powered by batteries. Let's see how that works. At a time when we should be using the abundant natural resources that we have to advance America's interests, the Biden Administration wants to bankrupt the very companies who are working to provide energy and security to all Americans. This Administration's out-of-control spending is causing inflation to skyrocket. Gas is \$1 more expensive than it was last year. As a result, Americans are now paying more for goods and services while taking home less money in their paychecks.

The Department of Labor recently stated that over the last 12 months, inflation has increased by seven percent. Meanwhile, China and other countries around the world continue to pollute at record levels while the United States continues to reduce emissions, and I guess the answer that the left uses is, let's just ask China to be nice. It doesn't work that way. Do Democrats really believe that putting the oil and gas industry out of business will suddenly make China less a polluter? If that is the case, I have got some land that is underwater I would love to sell you for high-rise condos. I am afraid extreme proposals by Democrats will do nothing but destroy good-paying American jobs and ruin our economy, which it is doing today. In fact, it has already happened. At our prior hearing, we heard from an unemployed Keystone pipeline worker, out of a job, does not have a paycheck.

As the ranking member mentioned in his opening statement, we held a very informative roundtable with the Western Caucus a few weeks ago to discuss solutions to the ever-growing energy crisis America is facing. In that roundtable, we heard from a variety of industry experts working to ensure that Americans have access to reliable and affordable energy. These energy experts all want Americans to have the opportunity to heat their homes and fuel their cars at affordable energy, not buying energy from countries that aim to destroy us. But today, during this investigation, Democrats have done nothing but undermine the efforts of the energy industry. As a result, we see the consequences everywhere.

According to a study performed by the United States Census Bureau, nearly 28 percent of Americans had to forego expenses for basic necessities, such as medicine or food and money to pay for an energy bill, for the last 12 months. This is a frightening statistic that bears repeating. In the past year, over one-quarter of American citizens had to forego purchasing medicine to pay a home

heating bill. Get that. I don't know what you are thinking, but all this is doing is undermining America.

Every day this Administration seems to create a new problem. We are dealing with increasing gas prices, record high inflation, and the Democrats' only solution is to hold hearings like this to attack the industry striving to find actual energy solutions. Today is yet another example of the Democrats refusing to conduct meaningful oversight of this Administration's glaring failed policies. All the Democrats seem to care about is distracting us from the fact that they have no plan to recoup our energy work force or our energy independence like we had under President Trump. This committee should start focusing on the issues that are impacting ordinary Americans because America should not have to bear the consequences of an unrealistic Biden climate agenda.

I want to thank the witnesses for their participation today, and all I can say is God bless this country with what we are having to go through. I yield back.

Mrs. MALONEY. The gentleman yields back.

I would now like to focus on the purpose of this hearing. I would like to introduce our witnesses.

Our first witness today is Dr. Michael Mann, who is a professor of atmospheric science at Penn State University. Then we will hear from Mark van Baal, who is the founder of Follow This, a group of 8,000 green shareholders in oil companies. Next, we will hear from Tracey Lewis, who is policy counsel at Public Citizen. Finally, we will hear from Katie Tubb, who is a senior policy analyst at the Heritage Foundation.

The witnesses will be unmuted so we can swear them in. Please raise your right hand.

Do you swear or affirm that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?

[A chorus of ayes.]

Chairwoman MALONEY. Let the record show that the witnesses answered in the affirmative. Thank you.

And without objection, your written statements will be made part of the record.

With that, Dr. Mann, you are now recognized for your testimony.

**STATEMENT OF MICHAEL E. MANN, PH.D., PROFESSOR OF ATMOSPHERIC SCIENCE, THE PENNSYLVANIA STATE UNIVERSITY**

Mr. MANN. Thank you very much. Chairwoman Maloney and members of the committee, my name is Michael Mann. I am distinguished professor of atmospheric science and director of the Earth System Science Center at Penn State. My research focuses on earth's climate system and assessing climate change impacts and mitigation strategies. I have published more than 200 scientific articles, numerous commentaries, and five books about the basic science impacts and policy implications of climate change. My most recent book, *The New Climate War*, details the efforts by fossil fuel interests and their enablers to block meaningful climate action.

Among other honors, I have received the Early Career Award for Public Engagement with Science from the American Association for

the Advancement of Science and the Tyler Prize for Environmental Achievement. In 2020, I was elected to the U.S. National Academy of Sciences. I am perhaps best known for my paleo-climate research two decades ago that produced the iconic hockey stick curve demonstrating the unprecedented nature of human-caused warming. My research in recent years has focused on other topics, including the increased coastal risk from sea level rise and intensified hurricanes, and the impacts of climate change on extreme weather events.

My objective today is to review the basic scientific framework for assessing and mitigating human-caused climate change and its impacts. And I will begin by discussing climate projections that were made nearly four decades ago, not by NASA or other climate modeling groups, but by none other than ExxonMobil, the world's largest publicly traded fossil fuel company.

ExxonMobil's own scientists in a secret 1982 report made remarkably accurate predictions of both the rise that we would see in atmospheric carbon dioxide levels and the warming it would cause given business-as-usual extraction and burning of fossil fuels. See this graphic.

[Chart.]

Mr. MANN. They even used the word "catastrophic" to describe the potential impacts of that warming, but rather than come forward with what their own scientists had concluded, they engaged in a campaign of denial and delay, which continues on today. We are now paying the cost of that delay in the form of extreme weather events exacerbated by climate change: the apocalyptic wildfires that once again ravaged California in the West this summer, a heat dome over the Pacific Northwest that made parts of Canada feel like Phoenix on the 4th of July, and the devastating floods in my state of Pennsylvania as the remnants of climate-change-fueled Hurricane Ida dumped months' worth of rainfall in a few hours. Dangerous climate change is now upon us, and it is costing the U.S. hundreds of billions of dollars. The toll in dollars and human lives will continue to increase in the absence of concerted action.

Much of that damage could have been avoided had we acted decades ago when the scientific community and, indeed, ExxonMobil's own scientists recognized we had a problem. See the graphic.

[Chart.]

Mr. MANN. Because of the delay that resulted from the public disinformation campaign funded by ExxonMobil and other fossil fuel companies, it is now a far greater challenge to limit warming below 30 degrees Fahrenheit, a level beyond which we will see the worst potentially irreversible impacts of climate change. The good news is that climate models show that warming is likely to stabilize rather quickly within a few years once net carbon emissions reach zero. So there is a direct and immediate response to our efforts to reduce global carbon emissions.

We can still prevent surface warming from crossing the dangerous three-degree Fahrenheit warming threshold through aggressive efforts to decarbonize the global economy. We must reduce net carbon emissions by 50 percent this decade as well as bring them down to zero by mid-century. The IPCC's 2018 special Report—see the graphic—demonstrates possible pathways.

[Chart.]

Mr. MANN. Some impacts, such as ice sheet collapse and sea level rise, may continue to worsen even after emissions reach zero owing to the longtime scale responses of ice sheet dynamics and possible tipping-point behavior. Collapsing ice sheets, for example, may lock in not just feet, but meters, of sea level rise.

In the words of former Presidential Science Advisor John Holdren, any comprehensive climate action will consist of three components: mitigation, adaptation, and suffering. That is to say, we must prevent any additional warming that we can, enact policies to increase our resilience and adaptive capacity in the face of those impacts that are now locked in, and provide assistance to those who have had the least role in creating this problem and have the least adaptive capacity. This latter imperative speaks to issues of environmental and climate justice.

If we are to meet this monumental challenge, we will need all hands on deck. We cannot have industry and their PR firms working at cross purposes. That means holding fossil fuel interests accountable for the damage they have already caused and prevent them from doing more damage through delay tactics, such as deferred carbon reduction pledges, and empty promises of offsets, and unproven carbon capture technology. It means incentivizing the energy industry to move toward clean and renewable energy today rather than kicking the can down the road. Congress has a central role in facilitating all of these actions.

Thank you.

Chairwoman MALONEY. Thank you. Mr. van Baal, you are now recognized for your testimony.

**STATEMENT OF MARK VAN BAAL, FOUNDER, FOLLOW THIS**

Mr. VAN BAAL. Thank you. Chairwoman Maloney, Chairman Khanna, Ranking Members Comer and Norman, and other members of the committee, today is an important day, not just for Big Oil, not even for the environment, not for the U.S. economy, but for the world at large. Failing to avert catastrophic climate change will disrupt the world economy because of sea level rises, extreme weather, and wildfires.

If you were to believe the advertisement of Big Oil and what their executives told you last October, you would think they are taking adequate action to fight the climate crisis. In reality, they are not. On the contrary, they are still exacerbating the climate prices by increasing their CO<sub>2</sub> emissions. How do we know? Every year we formally request them to reduce emissions at their shareholders meetings. We do so by filing shareholder proposals. These climate proposals formally request them to set company-wide emission reduction targets. Every year the board of these companies advise their shareholders to vote against these climate proposals, and, by extension, against emissions reductions.

Follow This was founded in 2015 with the conviction that we need Big Oil and that Big Oil has the range and the billions to rapidly scale the energy transition to renewables. Big Oil will make or break the Paris Climate Accords, and we use shareholder democracy to show that their investors, their rightful owners, want them to change. They want them to change course, and, indeed, they

have. In 2021, our climate proposals at Chevron, ConocoPhillips, and Phillips 66 each received a majority of the vote. In doing so, shareholders sent an unequivocal message to these oil companies: cut your emissions. However, Shell, BP, Chevron, and Exxon still intend to grow their total CO2 emissions this decade, and they have no intention to change that. Instead, they talked about reducing emissions from operations—Scope 1 and 2—carbon intensity, or their preference: talk about 2050.

Well, the climate crisis is happening now. As Dr. Mann has reminded us many times, the Paris Climate Agreement calls for a decrease in total greenhouse gas emissions of approximately 50 percent by 2030. So not in 2050. 2030. And this is what Big Oil's current strategies lead to. BP expects, and I quote, "absolute level of emissions associated with our marketed products to grow out to 2030." Shell's total emissions will increase by four percent by 2030, according to the Australian Research Institute of Global Climate Insights.

Chevron, in a press release on January 28, boasted that it grew production to a record of 3.1 million barrels per day. And ExxonMobil CEO, Darren Woods, told the Financial Times on January 18 that Exxon could expand its oil and gas production and still meet emissions reduction goals of their operations. With such goals, ExxonMobil is really like a tobacco company which pledges to prohibit smoking in their factories in 2015 while continuing to produce and sell cigarettes. So for all these four companies, they all intend to grow emissions and have no intentions to cut these emissions. In their notice of the shareholder meetings, the boards of BP, Shell, and Chevron recommended shareholders to vote against following this climate proposal by stating, for example, I quote, "Chevron's actions are appropriate."

To conclude, science asks us to cut emissions 50 percent by 2030. These companies intend to grow emissions up to 2030 and reject shareholder support to shift investments to renewables and make the necessary emissions reductions. Therefore, the key question to the executives on March 8 is, how deep will you cut your emissions by 2030, not your operational emissions, not your carbon intensity, not in 2015, but the total emissions from your operations and your products? We believe Big Oil can and thrive in the energy transition. We, therefore, support these companies who set Paris-consistent targets to meet an increasing demand for energy while reducing CO2 emissions, to shift the billions that are spent today in oil and gas to exploring new business models in renewable energy.

In May, our resolutions will again come to vote at the shareholders meeting of these four companies. We will continue to use shareholder democracy to support Big Oil to change, and we trust Congress to legislate to support Big Oil to change. Thank you for your time, and I look forward to your questions.

Chairwoman MALONEY. Thank you. Ms. Lewis, you are now recognized for your testimony.

**STATEMENT OF TRACEY LEWIS, POLICY COUNSEL, PUBLIC CITIZEN**

Ms. LEWIS. Good morning, Chair Maloney, Chair Khanna, and Ranking Members Comer and Norman. Thank you so much for

holding these hearings and for the work you do, you and the other committee members and your staff have done, to reveal the inner workings of how the fossil fuel industry has actively misled the public about the climate crisis. It is an honor to be here today. Thank you for the opportunity to submit this testimony.

Public Citizen is a nonprofit organization with more than 500,000 members and supporters nationwide. We represent the public interest through legislative and administrative advocacy, litigation, research, and public education on a broad range of issues. My name is Tracey Lewis, and I am the climate and energy policy counsel at Public Citizen and also a fellow at the Climate and Community Project, which works to connect the climate justice movement and the policy development process. Today I would like to discuss the human impacts of climate disinformation, particularly on low-wealth communities and communities of color, and some proposals for how we address these problems.

At least 45 years ago, oil industry scientists privately warned their own company executives that their products would spell doom for the planet. They warned executives that continued burning of fossil fuels would lead to possible catastrophe from the greenhouse effects. At that 1977 meeting, those Exxon scientists laid out a doomsday scenario where the average global temperatures would increase between 2 and three degrees Celsius. Weather patterns would be altered, increasing rain in some places and turning other places into deserts. Yet instead of taking action, the fossil fuel industry has used its political power and public messaging capabilities to undercut climate policymaking and climate action, misleading the public about its products and, therefore, causing well-documented harms.

What is becoming clear is that disinformation is a key tool in maintaining the status quo. For example, the 2009 email hacking scandal disrupted the Copenhagen COP, which really could have been a pivotal moment of international progress on climate that would have put us years ahead of where we are now. So in witnessing a disinformation campaign, like BP's promise to go beyond petroleum, years later, after no serious moves toward that goal, the company's Deepwater Horizon rig exploded, killing 11 rig workers and countless wildlife due to the 130 million gallons of oil spilled into the Gulf. Now, over 10 years later, the Gulf is still in recovery, and the people who worked at the cleanup report a host of health problems.

Faced with incontrovertible evidence of a warming planet, oil companies are now changing their public messages about climate change, moving away from outright denial of climate change, and asserting they seek to be part of the solution. Even ExxonMobil, long the most aggressive promoter of climate denial, has pivoted to claiming that it cares about climate change. The company made this shift amid intense pressure from shareholders, who recently unseated company board members on the basis that the companies' near exclusive focus on oil and gas is a poor long-term business choice. So really, quite simply, what we are seeing is that industry climate pledges are just climate just disinformation and greenwashing.

According to #ExxonKnew, there are four ways to evaluate how fossil fuel companies use climate pledges to greenwash their actions. One, they exclude most of their total emissions and shift responsibility to consumers. Two, they rely on false solutions, like carbon capture and carbon sequestration. Three, their targets cover only a portion of their business operations. Fourth, they promise to become more efficient polluters. This latest industry tactic is to emphasize a carbon capture storage scheme, an expensive, and energy-intensive, and unproven technology that has repeatedly failed to deliver despite substantial government support. Although carbon capture has a record of near complete failure, Congress has been debating whether or not to increase Federal tax credits designed to support this technology. And the bipartisan infrastructure bill passed by Congress last year included more than \$12 billion for carbon capture technology and \$9 billion for hydrogen hubs that would largely benefit incumbent fossil fuel companies while doing little to produce clean energy.

So there are consequences for failing to take meaningful action, and they are giving the fossil fuel industry a pass for its continued climate disinformation and the harms that go well beyond escalating the climate crisis. Air pollution from burning fossil fuels harms people's respiratory, cardiovascular, reproductive, and neurological health. Living within 10 miles of a refinery increases risk of all cancers. Here in the United States, the deadly health impacts from fossil fuels fall principally on black, brown, indigenous, and frontline communities, and we simply must do better.

Thank you.

Chairwoman MALONEY. Thank you so much. Ms. Tubb, you are now recognized for your testimony.

**STATEMENT OF KATIE TUBB, SENIOR POLICY ANALYST, THE HERITAGE FOUNDATION**

Ms. TUBB. Good morning, and thank you all for the opportunity to speak before you today. While the title of today's hearing refers to the voluntary commitments made by a handful of private companies to reduce their greenhouse gas emissions, I would like to use this occasion to zoom out and offer broader context to the discussion.

A realistic view of global warming must acknowledge that the commitments of these several companies will have no impact on global temperatures by the end of the century, whether they achieve them or not. Regardless of one's opinions on global warming science or policy, the ongoing energy crisis has sharply brought to the fore why these conversations about energy policy and climate policy matter. Energy is essential to America's economic opportunity and our ability to live healthier, safer, and more productive lives. Rather than interrogate these companies engaged in the yet legal activities of producing and selling oil to American and global customers, Congress should be seeking to understand the ongoing energy price crisis, finding the vulnerabilities it has exposed, and examining policy tools to eliminate barriers for the efficient functioning of energy markets.

Coal, oil, and natural gas met 79 percent of Americans' total energy needs in 2020, the remaining coming from nuclear at nine per-

cent and renewables at 12 percent. Petroleum met 90 percent of Americans' transportation fuel needs. According to the EIA, Americans' average total energy costs fell five percent from 2018 to 2019, and per capita energy costs decreased in every state except California. Today, energy prices are a significant driver of the inflation Americans are facing. Estimates from Penn Wharton's Budget Model and the Joint Economic Committee expect that average American households we will pay over \$1,200 more for energy in 2021.

There are also broader economic consequences of high energy costs as thousands of products are made with oil, coal, and natural gas' feedstocks, and energy is essential to countless economic interactions. The Heritage Foundation is currently completing our own modeling to understand some of these relationships by modeling President Biden's commitment under the Paris Agreement. These costs are in the trillions of dollars and millions of jobs. Americans' representatives in government must be honest with them about the benefits and costs of such a policy objective.

Undoubtedly, a recovery of demand coming out of the pandemic has contributed to energy price increases, but to pin all of this on economic recovery would be mistaken. The way out of high demand and accompanying high prices is increased supply. However, this is precisely what the Biden Administration's energy and climate policies are trying to prevent by hampering production markets' delivery and future consumption of the coal, oil, and natural gas, which supply American's energy for power, heat, and transportation. Less obvious to the average American are the scores of regulations that will increase the cost of energy-consuming products they use every day: cars, kitchen ranges and ovens, washing machines and dryers, water heaters, light bulbs, ceiling fans, dehumidifiers, dishwashers, and I could go on. If that is the future this Administration is working toward, it is no wonder that American energy companies are hesitant to invest hundreds of thousands to billions of dollars in exploration equipment and employees.

Regardless of the Administration's aspirations, EIA's international energy outlook projects no scenario in which global demand for oil and natural gas do not increase through 2050. It also expects coal use to decline but persist as an important source of energy globally. Two-thirds of greenhouse gas emissions come from developing nations, some of which still do not have access to electricity or enjoy anything near the standards of living that affordable, reliable energy has enabled in the United States. These countries cannot afford costly energy policies, and as countries like India and others have shown, they do not intend to follow the expensive policy model proposed by the Biden Administration.

Frankly, the political cart has got out before the horse in our zeal for net zero greenhouse gas emissions policies and irresponsible slogans for a certain type of energy by a certain date. Particularly in the electricity sector, this is causing grid monitors to have concerns that they have been raising for years now, and policymakers need to listen. We should recommit to energy policy informed by principles of reliability, affordability, open competition, and consumer protection, then step back and allow engineers and entrepreneurs to lead the way.

Thank you very much for your time, and I look forward to your questions.

Chairwoman MALONEY. Thank you very much. I now recognize myself for five minutes for questions.

Experts agree that if we allow the world to warm up beyond 1.5 degrees Celsius, severe weather events will become even more frequent and more destructive than they are today. Dr. Mann, based on your research, is the world currently on a path to warm beyond 1.5 degrees Celsius in the next two decades?

Mr. MANN. Yes. Thanks, Chairwoman. We are currently on a path to warm well over three degrees Celsius, somewhere between three and four degrees Celsius. That is, you know, six degrees, seven degrees Fahrenheit, well, beyond the level of dangerous interference with the climate. And as you note, the extreme weather events that we are seeing have been exacerbated by climate change. This is the veritable tip of the iceberg because we know that these events, these wildfires, and floods, and heatwaves, and superstorms, and droughts, will just continue to get worse. We sometimes hear people describe this as a new normal, that we are entering into a new normal. That implies that we have some new sort of, you know, climate that we just have to adjust to, but it is much worse than that. These events continue to get more intense.

And here is a dirty secret. You know, a lot of the critics love to attack climate modelers and climate scientists, our model projections, and they like to talk about uncertainty. Well, uncertainty isn't our friend here because one of the things my own research has demonstrated in recent years is that the climate models are actually underestimating the impact that climate change is having on these unprecedented extreme weather events, and it is underestimating the extent to which they will get even worse in the future.

Chairwoman MALONEY. Well, can I ask how much time do we have in order to act to prevent a climate catastrophe?

Mr. MANN. Yes. Well, in a sense, we have zero time. We have to get going now, but the number that we have heard quoted here is accurate. We need to reduce carbon emissions globally by 50 percent within this decade to remain on a path that keeps warming below that catastrophic three degrees Fahrenheit. It can be done. There is research that demonstrates that we have the solutions, we have the technology today to decarbonize our economy. What we are lacking is the political willpower and the incentives to make it happen.

Chairwoman MALONEY. Well, your testimony is truly frightening. Since the world came together in Paris to commit to net zero emissions by 2050, fossil fuel companies have made their own pledges to reach these goals, but these pledges are very misleading. Just last month, Exxon announced an "aspiration" to achieve net zero emissions by 2050, but it turns out that this pledge covers only Exxon's own production and operations. It ignores a whopping 90 percent of Exxon's emissions which come from burning the oil and gas that Exxon pumps out of the ground and sells, yet Exxon doesn't plan to reduce oil production by a single drop.

Ms. Lewis, is Exxon's emission pledge sufficient to reach the goals of the Paris Agreement?

Ms. LEWIS. Thank you so much for your question. I think, as I shared in my testimony, that it is pretty clear that the fossil fuel industry is currently using its climate pledges as a new form of climate disinfo and greenwashing, allowing them to continue oil exploration, allowing them to continue increasing their outputs overall, while simultaneously claiming that they are not. So really, I think one of the only solutions here today is to ask Congress to do something about it. To do something about it is you have the power where you can create, draft legislation that holds the fossil fuel industry accountable and punishes them when they deviate and don't follow the law.

Chairwoman MALONEY. Thank you. What is Exxon currently doing to invest in proven and financially viable clean energy, Ms. Lewis?

Ms. LEWIS. I am so sorry. Could you repeat the question?

Chairwoman MALONEY. Do you know what Exxon is doing now currently to invest in proven and financially viable clean energy? Are they investing in clean energy, to your knowledge, in any way?

Ms. LEWIS. I know that they are claiming that they are, but we certainly would be interested in seeing actual proof of that.

Chairwoman MALONEY. So Chevron has also set an "ambition" to reduce emissions from its own operations by 2050, but like Exxon, Chevron's pledge ignores 91 percent of the company's emissions, which come from burning the oil and gas that Chevron sells. And rather than reduce oil production over time, Chevron plans to increase production of oil by more than 17 percent by 2025. Dr. Mann, are Exxon and Chevron's actions consistent with curbing emissions to stay below 1.5 degrees Celsius, which is our goal?

Mr. MANN. No. As we have already heard, they are not even close to doing that. They have focused largely on Scope 1 and Scope 2 emissions, but 90 percent of the carbon pollution that they produce is in the form of these Scope 3 emissions. The fact is that their product—fossil fuels—is burned and creates carbon pollution that warms up the planet. Now, one of the things that has already been mentioned here is that they love to talk about how they are going to decrease the carbon intensity of their fossil fuels. That is sort of like, you know, your doctor telling you that you need to cut the fat from your diet, and so you switch to 40-percent reduced fat potato chips, but you eat twice as many of them. That doesn't help. The net amount of fat that you are taking in actually increases, and that is effectively what fossil fuel interests are doing here.

That is the sort of shell game, if you will forgive the pun, that they are playing here, and we have heard of some of the other tactics that they are using to make it sound like they are far more committed to reducing their carbon emissions than they actually are.

Chairwoman MALONEY. Well, thank you. I am way over time. I have many, many more questions, but I am closing. At our October hearing, the Big Oil CEOs admitted for the first time that climate change is an existential threat to our planet and is caused by burning fossil fuels, but it is clear that these companies are still not taking this threat seriously. Next month, we will hear from members of the boards of directors of these companies, and I hope we can convince them to take meaningful action before it is too late.

I now recognize my good friend and colleague, Dr. Foxx, Representative Foxx.

Ms. FOXX. Thank you very much, Madam Chair. I appreciate your recognizing me. My question is for Ms. Tubb. What steps can be taken by the United States to achieve energy independence again?

Ms. TUBB. I think I would reframe it just a little bit to say energy freedom, and I say that because we have excellent partners in Canada, Mexico, and around the world, and I think that is an important part of a robust and resilient energy sector. I think the answer is simple but not easy. I think it is a total about-face on the Administration's posture toward energy and the regulatory onslaught that we have seen over the last year. And I think it also entails looking at legacy policies, like the Renewable Fuel Standard, which put an additional burden on refineries, them being a chokepoint for energy products. The Jones Act, I think, is another great example of a policy that should go that affects both conventional energy resources and renewables. So I think there is a lot we can do to have a more robust energy sector.

Ms. FOXX. Thank you. Another question, Ms. Tubb. President Biden canceled the Keystone XL pipeline but has allowed the Nord Stream 2 pipeline to proceed. These decisions favor our adversaries, especially Russia, while handicapping American energy production. And by the way, I love the word "freedom." That is what we are losing in our country and what we have to focus on, so thank you for saying that. Can you discuss the impact of these decisions and how they undermine our security and energy freedom?

Ms. TUBB. Certainly. You know, I think it was very confusing for many Americans to see their President reject a pipeline that has passed all kinds of environmental tests and analysis, and it certainly confused our neighbors to the North, and then for the President to then tacitly support a problematic pipeline in Europe. So at a minimum, it caused a crisis of confidence, I think, amongst Americans. And I recently got back from a business trip to Eastern Europe, and I saw firsthand the implications of an unsecure energy sector. And I think that is what many Americans are fearing we are going toward as we narrow our options in the energy space to politically correct resources. And I think what we need to be striving for to both achieve affordability and reliability, but also political independence, is to have a diversity of routes and resources in our energy sector. I saw the converse of that in Eastern Europe, and I hope very much that that is not the direction the United States goes.

Ms. FOXX. Well, you know, I think high school students ought to understand the importance of energy freedom and how it impacts the United States' ability to compete against our adversaries, again, especially Russia and China. I think most Americans understand that. As I said, I think high school students would understand that, but do you have anything else that you would like to say about that?

Ms. TUBB. Yes. You know, I think in the United States, we are blessed to have abundant energy. Not many of us wonder if the lights will turn on when we come down to the kitchen, you know, and prepare breakfast. We don't think about the energy that is re-

quired to have meetings like this. I am currently wearing contact lenses that are made with fossil fuel products. I am very thankful for that. It has improved the well-being and, you know, productivity of my life. And I think the more we can understand the benefits of energy, I think the more realistic our energy policies will be.

Ms. FOXX. Well, I want to thank you for that. As someone who grew up in a house with no electricity or running water, let me tell you, I tell everybody when I get up in the morning and I am able to turn on a light in my house and go to a bathroom inside, I am extremely grateful for that. And I think most people in the world who don't have those would be very, very grateful for those. And growing up, again, we didn't own an automobile much of the time, and we walked everywhere we went. I would love to see these people who decry the use of fossil fuels and all these other wonderful conveniences that we have start to live like that, but of course they don't. We have the left, such hypocrites because they fly in private airplanes all over the country and they are very wasteful. Because I grew up without those things, I am extraordinary frugal about them, and I think what we have to learn to be is smart about how we use all the resources that God has given us, and I think in America, we have been.

With that, Madam Chair, I yield back.

Chairwoman MALONEY. The gentlelady yields back.

The gentlewoman the District of Columbia, Ms. Norton, is recognized.

Ms. NORTON. Thank you, Madam Chair, for this important hearing.

Dr. Mann, I was struck by something you included in your written testimony. You showed how accurate Exxon's climate projections from 1982 actually were and that, in turn, shows how much time we have lost.

I think you testified that Exxon calculated that the global temperature would increase by three degrees Celsius if we doubled the amount of fossil fuel we burn.

Now, that turned out to be accurate. Isn't that true?

Mr. MANN. Thanks, Congresswoman. In a sense. ExxonMobil's calculations predicted four decades of warming that actually align almost perfectly with the projections of standard climate models that are run by scientific groups around the world.

Those same models project more than three or, potentially, four degrees Celsius, 6, 7, 8, 9 degrees Fahrenheit warming of the planet relative to pre-industrial if we continue with business as usual through the end of this century.

And so, essentially, what ExxonMobil's calculations did was to validate the very climate models that their PRX—their PR folks were attacking. The same time they were attacking independent scientists, their own scientists were getting exactly the same answer.

Ms. NORTON. Oh, my.

[Laughter.]

Ms. NORTON. Everybody knew. They knew, and they could have helped us all.

Ms. Lewis, what do you think would have happened if fossil fuel companies had been required to be more transparent with their shareholders about what they knew?

Ms. Lewis?

Ms. LEWIS. Oh. Thank you so much for your question, Congresswoman.

I think it is pretty clear what would have happened. In the past year or so we have seen a really increased amount of shareholder activism toward adhering to science and pushing toward rejoining the Paris Climate Agreement, all those things.

So I, certainly, imagine that same level that we are seeing today, had people—investors—had the same information 40 years ago, they would have made similar pushes to a more sustainable economy—more sustainable energy sources.

So it is really troubling, obviously, to know that Exxon knew and all of the other fossil fuel companies had vast amounts of scientific information that has been borne true over the past four decades, yet they persisted in this time to try and mislead us at every point to make us think that the only way, for example, that we could affect this is through our own personal change.

Well, actually, the onus falls on the industry to make these great changes. Our individual contributions to this are substantial but nothing in comparison to what the industry has contributed to climate change.

Ms. NORTON. Dr. Mann, here we found ourselves, you know, where the United Nations Climate Assessment tells us that climate change is widespread, rapid, and intensifying. The report says that many of the changes already have been set in motion, such as continued sea level rise. These are irreversible over hundreds of thousands of years.

So, Dr. Mann—excuse me, Dr. Mann, from the vantage point of 40 years ago, was climate warming inevitable and what must be happen—what must happen to—no, was it inevitable and is a hotter future now, essentially, locked in?

Mr. MANN. Yes, thanks. Great questions. It wasn't inevitable, and I showed that animation earlier of what our emissions reductions would have looked like back in 2000 if we had acted then.

My good friend and colleague, Susan Joy Hassol, likens it to the difference between a bunny slope and a black double diamond slope, for those of you who are watching the Olympic skiing events right now.

If we had acted two decades ago we could have followed this gentle bunny slope down the hill in terms of bringing our carbon emissions down gradually. Now, because of decades of inaction, thanks in part to the disinformation promoted by ExxonMobil and other fossil fuel interest groups and those promoting their agenda—thanks to that inaction, we now have that black double diamond slope. We have got to come down half the way from the top of the mountain to the flat land in—you know, in 10 years—in less than 10 years.

The good news that I alluded to, climate modeling does have a bit of good news. As we sort of have become more elaborate in the way that we model the different components of the climate system including the ocean and its ability to absorb carbon, what we find

is that the ocean will take some of that carbon out of the atmosphere and the net effect is that if we stop burning fossil fuels right now, if we bring those emissions to zero, the planet stops warming up.

So yes, we are stuck with some impacts that are now baked in and we need to—you know, we need to be more resilient and we need to provide resources to people and to—you know, to various nations to adapt to those changes that are now inevitable.

But we can prevent it from getting worse if we act now. That is why it is so important to have policies now that incentivize the—you know, the fossil fuel energy to move in the direction of renewable energy.

And, you know, this isn't about individual behavior. As Dr. Lewis said before, this is an old tactic that has been used by the tobacco industry, it was used by the beverage industry, to distract us to make us think that we don't need policies. We just need individuals to change their behavior.

Mr. COMER. Madam Chair, we are long over time.

Chairwoman MALONEY. The gentleman's time has expired. The gentleman from Wisconsin, Mr. Grothman, is recognized for five minutes.

Mr. GROTHMAN. Thank you.

Ms. Tubb, I have a few questions for you. First, I want to followup on Ms. Foxx's question.

You know, she talked a little bit about pipelines and, of course, it is the clear goal of this administration to shut down pipelines in the United States. Obviously, the Nord Stream pipeline is going ahead.

Is there a difference in safety or possible pollution concerns between the American pipeline that the Biden administration wants to shut down and the European pipeline that they apparently are fine going ahead with?

Ms. TUBB. I am less familiar with the European or the Nord Stream 2 pipeline you are referring to as far as safety and environmental consequences there. I am very confident in the pipeline infrastructure in the United States and in our environmental standards and labor standards.

So I can, at least, speak to that, that I have confidence there.

Mr. GROTHMAN. OK. I will give you another question. As far as energy production in India and China, which, to a certain extent, will go up and down with their manufacturing, as I understand it, China is building a lot of new electrical plants. So is India.

Do you want to—would you be comfortable commenting on the difference in pollution as to whether or not electricity for future manufacturing is done in American plants as opposed to Chinese or Indian plants?

Ms. TUBB. Certainly. You know, I think history has shown us that China has not been honest about their pollution problems and I think that is something we need to keep in mind, going forward.

Just with traditional pollution, like particulate matter, but also greenhouse gas emissions—that there is some amount there, and I think it, again, is a great contrast point to what we have in the United States that, you know, over the last—I would say, 1980, our

air pollution has fallen over 70 percent and I think that is a record to be very proud of.

And I guess the last point is that the pollution problems in India and China speak all the more robustly for the United States to export affordable, reliable, clean energy to these countries because they desperately need it.

Mr. GROTHMAN. OK. Could you give us just a broad feeling? As I understand it, there are dozens of coal-fired plants being built in China right now. Could you elaborate on the effect of the environment as far as having future electricity for manufacturing come from coal-fired plants in China as opposed to the United States?

Ms. TUBB. I can say that their air quality is much, much worse than our own. China is building more coal. Their coal fleet grew by 30 gigawatts in 2020. They are commissioning another 30 to 70 gigawatts more. So I can at least speak to the trajectory of where they are going and I think the——

Mr. GROTHMAN. Yes. I guess what I am looking for is insofar as we are going to have to produce more electricity in this world and our goal is or if we feel there is global warming going on because of what is happening in the environment, would it be better if that additional energy for manufacturing would be produced in China or the U.S.A.?

Ms. TUBB. I think what I would say is we need clean, affordable energy both in the United States and China.

Mr. GROTHMAN. Is that what we are going to get or is there a difference? Is one cleaner than the other, given the current policy of the governments?

Ms. TUBB. Certainly, the system in the United States is much cleaner.

Mr. GROTHMAN. Much cleaner. So if your number-one goal was to reduce pollutants you would want future energy built in American plants rather than Chinese or Indian plants?

Ms. TUBB. I think a realistic approach to both the energy growth that is projected to happen and whatever concerns people do or don't have about global warming is to get clean energy technologies around the world, and I think the United States is a leader in that category. So I think one very pragmatic climate policy is to have freer and more open trade to get these technologies around the world.

Mr. GROTHMAN. There is current climate alarmism that is being pushed on children, sometimes very young children, causing them to be very concerned, I think, about the future of the world.

Could you comment on what I will refer to as the climate alarmism being pushed at our young people today?

Ms. TUBB. Yes. I think the climate issue is very much about media literacy and understanding context.

Certainly, I am the outlier of the panel here, but I do think that the Earth has warmed but I don't think we are headed for catastrophe and I think when we talk about one minute to midnight type scenarios it really hampers both the scientific and policy discussion and, unfortunately, children have fewer resources to navigate that very complex conversation.

Chairwoman MALONEY. The gentleman yields back.

The gentleman from Virginia, Mr. Connolly, is recognized for five minutes.

Mr. Connolly?

Mr. CONNOLLY. Thank you, Madam Chairwoman, and thank you for having this hearing.

Dr. Mann, I assume that BP, Chevron, ExxonMobil, are all cutting back on the development of new oil and gas fields, shifting from fossil fuel to more sustainable energies, right?

Mr. MANN. Thanks, Congressman. Unfortunately, you would be wrong.

My understanding is that they actually plan to continue to expand fossil fuel exploration in the years ahead and that is actually fundamentally inconsistent with what the International Energy Agency, a pretty conservative body, has said, that if we are to stabilize warming below catastrophic levels there can be no new fossil fuel infrastructure, and they are continuing with new fossil fuel infrastructure.

Mr. CONNOLLY. So in sort of the context of mixed messaging, if we look at the screen, BP's website touts five different times that it intends to get to net zero by 2050 in terms of emissions. ExxonMobil's energy factor website states it commends President Biden's decision to rejoin the Paris Agreement. Chevron, similarly, has a public website supporting climate change policy.

Dr. Mann, is increasing the supply of new oil and gas through new development consistent with reaching those goals of the Paris Climate Agreement?

Mr. MANN. No, it isn't. Again, it is like, you know, with these promises of decreasing their carbon intensity that is really sort of a bait and switch, if you will, because we are not talking about carbon intensity. We are talking about decreasing carbon emissions.

It is like, you know, if you double the amount of potato chips you eat it doesn't matter if they are slightly reduced in their fat content. That is, essentially, what they are doing.

So it is a bait and switch, and no, they are going in the opposite direction of what we need to be doing under Paris. We need to bring those total carbon emissions down by 50 percent within the next decade.

They are not even touching the main source of their fossil fuel contributions, which is their scope three emissions. They are mostly just talking about scope one and scope two. And so they are nowhere near to meeting their obligations under Paris.

Mr. CONNOLLY. You know, I had a friend of mine who was a humorist and an author, and he had a wonderful expression—if you are going to be a phony at least be sincere about it, and that is what this reminds me of.

We are touting our commitment to the Paris Climate Accord and zero emissions by 2050 but, meanwhile, in fact, we are expanding exploration and development of new oil and gas fields and that is, clearly, inconsistent with what we are trying to achieve through the Paris Climate Accord.

Mr. MANN. Congressman, you know, there is another expression. They are talking the talk but they are not walking the walk.

Mr. CONNOLLY. Yes. I prefer my expression.

[Laughter.]

Mr. CONNOLLY. Ms. Lewis, you work to push oil and gas companies to become more transparent and truthful about how the environment and climate friendly they really are. In your opinion, do any of these companies and public websites that paint rosy pictures of their work come close to being transparent about their actual efforts to curb warming?

Ms. LEWIS. Well, thank you so much for that question, Congressman.

Climate disinformation—what is it? We literally see it every day and the websites that you refer to are really a huge part of that disinformation process.

Because the average person wants to see our planet survive. We want to see—we want to see humanity exist.

So when you see those certain buzzwords—climate policy, Paris Agreement—it leads an average person to believe that is what they are now trying to do after over 40 years of promulgating dangerous misinformation.

But as, you know, has been pointed out earlier, it is the same as with big tobacco. The goal here is to cause people to believe one thing while the company is doing the exact opposite.

So we are all aware that all the major fossil fuel companies are increasing their exploration, increasing output while the IEA report said that by 2022 we need to cease additional exploration. That is not happening.

So you cannot say, on one hand, we are moving toward net zero—well, they won't say fossil-free future, but moving toward net zero while increasing output in every conceivable way. So it is really important to them to put that opaque face onto their very dangerous actions.

Mr. CONNOLLY. Thank you so much. My time is up. Thank you, Madam Chairwoman.

Chairwoman MALONEY. The gentleman yields back.

And the gentleman from Ohio, Mr. Gibbs, is now recognized for five minutes.

Mr. GIBBS. Thank you, Madam Chair.

It is amazing to me in just one year the Biden administration has done everything they can to shut down the American energy industry and raised gas prices by more than a dollar and home heating prices increasing significantly in all products and we see record inflation we haven't seen since the 1970's.

At the same time, President Biden has done everything to shut down the American energy industry. He is begging—basically, begging OPEC and Russia to produce more to help lower the prices because more production would lower the prices.

And the irony of that is, I believe, that their production over there is less clean than American production, and then by the time you ship it over—ship oil over to the United States you have more carbon emissions and so on. So it makes absolutely no sense.

And I would also argue that slowing down our economy by raising our energy prices, unlike China, who is increasing their production and their energy, it limits the resources we have available to do research and development, to develop new technologies, to be innovative, and help our energy producers come up with the new technologies to get to carbon-free energy.

Ms. Tubb, we saw in 2020 when the economy—world economy was pretty much locked down we are just seeing a slight impact in the amount of carbon dioxide in the atmosphere decrease. What does that tell us about the real effects that expensive climate change proposals will actually have?

Ms. TUBB. I would say minimal, and Special Climate Envoy John Kerry has said as much himself.

Mr. GIBBS. So we are not seeing China and India—that they are not reducing their emissions and, basically, China, even in the Paris Agreement, was, basically, given a waiver to not even start until 2030 and they set their own benchmarks.

You know, it is just unbelievable to me that, you know, if the United States was just to shut down—you know, just hypothetically speaking, if we just shut down completely, what would that do to global emissions?

Ms. TUBB. It would reduce global emissions but it would have no impact on global temperatures by the end of the century, again, because emissions growth is coming from the developing world.

Mr. GIBBS. OK. That is—I thought so. The irony here is just—really just unbelievable.

I want to talk about natural gas. I think we have—the United States has decreased in the last decade or so our carbon emissions and I believe—tell me if I am wrong—I believe that all the rest of the developing world their emissions have actually gone up and ours has decreased. Is that true?

Ms. TUBB. Yes.

Mr. GIBBS. So we are touching on something right now. I think a lot of that can be attributed to natural gas. We are producing natural gas cleaner than we ever have before, and I think it is a good clean energy for this century to transition to new technologies that we probably don't even know about—new energy technologies that will come after my lifetime, probably, but a good way to get there.

So is natural gas abundant in this country?

Ms. TUBB. Absolutely.

Mr. GIBBS. And it is cheaper to produce than other forms of energy, overall?

Ms. TUBB. Currently, and I think that has a lot to do with the innovation you mentioned just a moment ago, that previously we looked at—we were looking at high energy prices and innovation, thanks to affordable hydraulic fracturing, opened up all kinds of energy resources, including natural gas.

Mr. GIBBS. I agree and so, you know [inaudible] correct?

Ms. TUBB. Yes, that is right.

Mr. GIBBS. So shutting down our American natural gas industry, by making it harder to build pipelines to transport it, just adds to energy costs and we are seeing less investment in this country because this administration has been so, you know, attacking the industry and this—of course, this committee has done a pretty good job of that, too, instead of trying to help put policies in place to where they can produce clean natural gas at cleaner levels, produce less carbon, and transport it.

You know, we have seen pipelines be shut down and that is the safest way to transport natural gas and moves us to—back to, as you like to say, energy freedom. And so I think it is good policy and it is too bad we are not going that way in this administration.

So if the United States, Ms. Tubb, went totally green tomorrow, let me—I guess I already kind of asked that question—the impact it would have on our economy, you know, cost of living, what would happen if we took—adopted the Green New Deal overnight?

Ms. TUBB. Well, I think we are seeing a bit of a taste of it now. But I think people need to remember that energy isn't just our household energy needs. It impacts all kinds of goods and services, whether we are talking about the cost of running a business, transporting goods, even food prices. So I think the impacts are throughout the economy.

One thing you mentioned about pipelines that I want to just highlight is the EIA has noted how pipeline infrastructure has given Americans in Texas and Appalachia access to more energy and more affordable energy and I think we are seeing the converse of that in California, where they have limited pipeline infrastructure and have to rely on Jones Act vessels to transmit energy and, again, in the Northeast, where capacity is not keeping up with demand, and they are paying higher energy prices because of it.

Mr. GIBBS. Thank you. I am out of time. I yield back.

Chairwoman MALONEY. The gentleman's time expires.

The gentleman from Maryland, Mr. Raskin, is recognized for five minutes.

Mr. RASKIN. Thank you, Madam Chair.

You know, denial is not just a river in Egypt. For some of our colleagues it is a way of life. The same people who deny that Joe Biden beat Donald Trump by more than 7 million votes and just censured Liz Cheney for telling the truth about the election, the same people who denied the reality of COVID-19 and attacked our scientists and sold quack medical cures as the disease killed hundreds of thousands of our people, the same people who called the deadly insurrection on January 6 legitimate political discourse, are now, again, denying the existence of climate change and this is their most dangerous lie of all.

Climate change is a global catastrophe that has come to our door. Across the country we have seen record forest fires in the West, record drought in the Midwest, record flooding in the East, hurricanes of record velocity in the South.

Last year, we had 20 severe climate events that killed 688 Americans and cost us more than \$145 billion. But all our colleagues can think about is the profits of their buddies in big oil. Made nearly \$9 billion in profits last quarter. Chevron made more than \$5 billion.

But they can't imagine a renewable energy future as something that would benefit everyone in America. They see it only as a threat to the power of the carbon kings.

Joe Biden and his administration have created more jobs than any Presidential administration in our lifetimes, while their dubious hero destroyed more jobs than any president in our lifetime.

So I would like to ask the question of Mr. van Baal. In your view, is the ideological denial of climate change by a major political party

a global phenomenon? Do we see it in every country or is it something that is distinctively American?

Mr. VAN BAAL. I think it is—these are global companies so this is a global issue and the denial also has been global. Here in Europe, the denial has been as strong as in the U.S.

I think that has almost ended. The risk is that these companies now moved directly from denial to delay, which they are doing right now.

Mr. RASKIN. Dr. Mann, can you please explain why the goal of limiting global warming to 1.5 degrees Celsius is so important?

Mr. MANN. Yes. Thanks, Congressman. Thanks, by the way, for all you do, including your efforts to preserve our democracy. I just wanted to say that.

You know, we, you know, are already experiencing the—you know, people ask, what is dangerous climate change? Is it one and a half degrees Celsius? Three degrees Fahrenheit? Is it four degrees Fahrenheit?

Dangerous climate change is here. If you are Puerto Rico, if you are California, if you are Australia, if you are my home state of Pennsylvania that saw that record flooding with Hurricane Ida, we are already seeing devastating consequences of climate change and it will simply get worse and worse.

The real danger is that we start to cross certain tipping points where the damage that we do is irreversible on human timescales, on historical timescales. We are starting to see the warming of the ocean.

And by the way, my colleagues and I published an article just weeks ago showing that the oceans were at record levels of warmth this last year. That warmth is eroding the ice shelves that help prop up the west Antarctic Ice Sheet. If that ice sheet collapses, we don't get feet—we get meters of sea level rising.

Historically, our projections have always been conservative. Some scientists say that could take a century or more to happen. Others say it could happen more rapidly than that.

So all of this underscores the importance of acting now. The cost of inaction is so far greater than the cost of taking action.

Mr. RASKIN. Thank you.

Ms. Lewis, can we make the changes we need to make to address the calamitous consequences of climate change while still allowing Exxon and Mobil and other big energy companies to thrive and survive?

Or, as our colleagues suggest, does it mean putting them out of business?

Ms. LEWIS. Congressman Raskin, thank you so much for your question, and as a resident of your district, I, too, thank you for all that you do.

Your question, of course, indicates that we all know the answer. We simply cannot maintain the status quo and expect to have change. Those two ideas cannot be held simultaneously.

So the cognitive dissonance within that, which is what the fossil fuel industry wants us to believe is possible and as our scientific research shows over and over again, it cannot be. We must make these changes. Congress has power. It can exercise it, and I am

hopeful that you are able to continue to convince them to do the right thing.

Mr. RASKIN. Well, thank you.

Madam Chair, I know my time is up. I would like to seek unanimous consent to enter into the record a great op-ed by former Republican House Science Committee Chairman Sherwood Boehlert, who wrote a powerful column in the *Washington Post* challenging his fellow Republicans in Congress to open their minds and to accept and embrace the science of climate change.

He also defended against the climate deniers many scientists, including today's witness, Dr. Mann. Former Chairman Boehlert, alas, passed away in September of last year. But we all remember him fondly for being willing to buck ideological discipline and tell the truth based on science.

Chairwoman MALONEY. Without objection.

Chairwoman MALONEY. The gentleman's time has expired. The gentleman from Arizona, Mr. Biggs, is recognized for five minutes.

Mr. BIGGS. I thank the chair. Thank you for recognizing me and appreciate the opportunity. I appreciate the witnesses being here.

This hearing is another example of Democrats attacking American workers and the private sector to further their socialist agenda while advocating for policies that will lead to higher energy policy—higher energy costs and will harm working Americans.

This hearing is meant to advance the Democrats' radical agenda to destroy the oil and gas industry. According to reports, the oil and gas industry supports nearly 10 million jobs.

Yet, Democrats in Congress want to eliminate these jobs in the name of green energy. The Green New Deal would radically alter America's economy and do little to fight climate change.

Our chairwoman said today that while we see rising gas prices the Biden Administration released oil from the Strategic Oil Reserve. Indeed, he did. He released 50 million barrels and just a week or so ago he released an additional 13.5 million barrels.

That is about two days' worth of consumption. So that didn't do much, and the first 50 million had 18 million of it going to China and India.

My friend from California said we must force them, meaning the oil companies, to live up to their own public statements.

That is not Congress' job. That is not our role to make sure that people live up to statements they make publicly. If that were the case, we would take away the private airplanes that flood Davos every year from people who profess to be global environmentalists.

Scarcity and demand—that is what is driving oil prices higher. What we saw was an immediate cancellation of the Keystone pipeline by this administration, coupled with draconian regulations that curb exploration, development, production, refinement, and distribution, and that has resulted in places like in southern Arizona where natural gas now is up over, in some cases, 125 percent just over a year ago.

And this committee is so out of touch even with the Biden administration. The Biden administration's Secretary Blinken said just yesterday, "We are working together right now to protect Europe's energy supply against supply shocks, including those that could result from further Russia aggression against Ukraine. En-

ergy security is tied directly to national security, regional security, and global security. Europe needs reliable and affordable energy, especially in the winter months.”

By the way, we average over 600,000 barrels a day of oil imported from Russia. So when Secretary Blinken said what he is talking about is working with governments and major producers around the world about surging their production and distribution capacity.

Secretary Blinken was not saying, hey, let us increase solar, let us increase wind or even nuclear. No, he is talking about fossil fuel production that he wants surging. And that reminds me that it was not too long ago that our own president was asking OPEC and its allies to increase their oil production.

That is how out of step and out of whack this committee is and this hearing with even the Biden administration and with what Secretary Blinken said as recently as yesterday.

Ms. Tubb, if the Green New Deal was enacted would it be able to replace the jobs that are lost in the oil and gas industry, and how long would it take to do so?

Ms. TUBB. I don't believe it would and I think we have experience of that with the American Recovery Act and how the green jobs program was a general failure in reemploying people.

Mr. BIGGS. The constant assault on the oil and gas industry has been led by this administration and his allies in Congress. Democrats in Congress claim that the Green New Deal would reduce energy prices and would help working class Americans.

However, we have seen skyrocketing energy prices over the last year—as I mentioned, natural gas prices in southern Arizona as well as the price of a gallon gas at the pump more than a dollar.

Ms. Tubb, what effect do policies like the Green New Deal have on the U.S. economy and energy prices?

Ms. TUBB. Well, I think you alluded to it in that when you artificially eliminate resources you are going to increase costs. There is no way around that.

But, again, as you increase the cost of energy you increase costs throughout the economy. The Heritage Foundation has modeled this before and, again, we came out with trillions of dollars in costs and lost millions of—millions of jobs lost. So I don't think it is promising future, in part because I think it is unrealistic.

Mr. BIGGS. Thank you.

Madam Chair, I have a number of articles I would like to submit to the record.

I have—and I would like to comment on mine just like Mr. Raskin commented on his and you indulged him.

Chairwoman MALONEY. Without objection.

Mr. BIGGS. Thank you.

So, first of all, from the *Washington Examiner* a piece entitled “Greenpeace co-founder joins climate change skeptics,” where he says that, as a philosophical level, Greenpeace had started with a strong humanitarian orientation to save human civilization from nuclear war and then it gradually turned left, and that is from Patrick Moore, one of the founders of Greenpeace.

I also want to submit his testimony from February 25, 2014, that—when he testified before the U.S. Senate.

Also, Patrick Moore debunking climate and other varieties of alarmism from the *Financial Post*.

Also, former Greenpeace insider Patrick Moore who questions climate change, says he can stand the heat—from the *Washington Times*.

Also, “Biden demands OPEC boost oil production amid rising gas prices” from *New York Post*. Also, the petroleum and—U.S. Energy Information Administration’s tracking of the import of Russian oil by the United States as well, as a piece entitled, “Oil reserves released by Biden expected to primarily go to China and India.”

And I thank the madam chair.

Chairwoman MALONEY. Without objection.

Chairwoman MALONEY. The gentleman yields back.

The gentleman from California, Mr. Ro Khanna, is recognized for five minutes.

Mr. KHANNA. Thank you, Madam Chair.

What is impressive to me is that a 1977 Exxon report said there is, quote, “general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide released from the burning of fossil fuels.”

That was in 1977. That means that as early as the 1970’s Exxon knew not only that climate change is real but that its products—Exxon’s products—were contributing to the climate crisis.

In 2002, former Exxon CEO Lee Raymond said he does not believe, and I quote, “that the science establishes the linkage between fossil fuels and warming.”

Dr. Mann, you are a distinguished climate scientist at Pennsylvania State University in our heartland. Do you think that Lee Raymond’s statement that science had not established a link between fossil fuels and climate change in 2002 was accurate?

Mr. MANN. No, it was thoroughly inaccurate. Even ExxonMobil at that point knew how inaccurate that statement would be.

Mr. KHANNA. Do you think it is fair to say that his statement was not consistent with the science as Exxon understood it at the time?

Mr. MANN. That is right, and I would just add that the subsequent CEO of ExxonMobil, Rex Tillerson, who went on to become Donald Trump’s Secretary of State, has evolved from denial of the science to insistence that we can just use technology like geo-engineering to solve the problem.

So there is an evolution there. But even now, we still have a CEO of ExxonMobil denying the importance of meaningful climate action.

Mr. KHANNA. Well, I guess, you know, in front of this hearing, Darren Woods—and, you know, my interest is actually not to embarrass him—he told us that, quote, “I think Mr. Raymond’s statement was consistent with the science at the time.”

Do you think at the very least he should retract that or correct the record? I mean, is there any plausibility for that statement?

Mr. MANN. The statement is inconsistent with internal reports from ExxonMobil’s own scientists in 1977 and 1982.

Mr. KHANNA. I will just say that I really urge Mr. Woods to clarify the record or to explain why Dr. Mann is incorrect.

But I just—you see no way that Exxon today could maintain that the statements by Lee Raymond were consistent with Exxon's understanding at the time that Lee Raymond made those statements. Is that correct?

Mr. MANN. Yes, not in good faith.

Mr. KHANNA. The other thing that Mr. Woods said and, you know, he said that increased gas—greenhouse gases can contribute to the effects of climate change.

You know, I would have thought he would have said that they do contribute. The word “can” tells me that it is possible that it won't. It is pretty apparent today, right, that increased greenhouse gases will contribute to climate change, that there should not be any ambiguity on this point?

Mr. MANN. Yes. His statement is sort of like saying gravity can contribute to an object falling. It is basic physics that has been known for the better part of two centuries that greenhouse gases warm the atmosphere, they warm up the planet, and carbon dioxide being a principle one.

Mr. KHANNA. Dr. Mann, also in Exxon's pledges where they say, OK, scope one and scope two, we are going to cut emissions or get to net zero but we are not going to do it for scope three for the actual oil we sell, what do you think of that?

Mr. MANN. Well, I would use the analogy it is like rearranging deck chairs on the Titanic. It is not addressing the gorilla in the room. Ninety percent of the carbon emissions are from scope three—the fact that their business model involves the extraction and sale of fossil fuels, which, when burned, warm up the planet and create climate change.

Mr. KHANNA. Dr. Mann, when the chairwoman and I and many of the members conceived of having these hearings, our purpose, really, was not to stick it to big oil. It was, really, to have them come clean and say how they are going to make changes, going forward.

If you were talking to Mr. Woods, what would your advice be that they can do in terms of the past misstatements and in terms of future action?

Mr. MANN. Yes. I mean, we believe in redemption in this country, and I would encourage them to become part of the solution. It is not too late for them to embrace the need to address the climate crisis and to become heroes by helping us steer quickly away from fossil fuels. There is still time for them to have that be their legacy.

Chairwoman MALONEY. The gentleman yields back.

And the gentleman from Texas, Mr. Cloud, is recognized for five minutes.

Mr. Cloud?

Mr. CLOUD. Thank you, Chairwoman. I wanted to take some time and bring a little context to this discussion. Last week, Russia and China announced a strategic partnership against the United States.

Ms. Tubb, is the world a better place with the United States as a premier influence, or China or Russia?

Ms. TUBB. I think the United States stands for ideals of freedom for everyone, and so I would definitely prefer the United States in that leadership role.

Mr. CLOUD. Of the top oil and gas nations in the world—Russia, Saudi Arabia, Iraq, Iran, Qatar, China, United States—which nation produces energy more responsibly?

Ms. TUBB. Well, the United States is the number-one producer of both oil and natural gas and I believe we are the second in the world for coal, and I think our environmental record stands as a sterling example to the rest of the world.

Mr. CLOUD. So we are leading in the world. So the greater portion of the world's supply that the U.S. production takes up the better it is for the world environment. Is that a fair statement to say?

Ms. TUBB. Yes, and I think it is better for freedom as well. I think when countries import American energy they are working with private companies. They are not working with an outgrowth of a government.

And so there is political freedom there to engage in free market exchange of energy. That is not true for, I think, other major energy-producing countries.

Mr. CLOUD. And so right now what we see happening on the world stage with Qatar, Russia, Saudi Arabia, when the U.S. reduces production, do we see them going green or do we see them looking for other production in other parts of the world?

Ms. TUBB. Other production. You know, as I mentioned in my testimony, world demand for energy is not decreasing. And so if the U.S. pulls out of the game that space will be filled by other players.

Mr. CLOUD. Indeed, we have actually seen this happen, for example, with Qatar recently striking up a new relationship with China for China to buy energy from them and for them to buy ships from China. That was new.

Is a pipeline built in Russia inherently greener for the global environment than one built in the United States?

Ms. TUBB. I don't believe so. I would have to get some numbers on that for you to be confident in that answer. But I am very confident in the environmental standards in the United States.

Mr. CLOUD. Right. OK. Is war good for the environment?

Ms. TUBB. No.

Mr. CLOUD. OK.

Ms. TUBB. Not good for the environment or for people.

Mr. CLOUD. OK. So in the last administration we saw the American energy dominance lead to historic peace deals in the Middle East. We saw stability around the world. With the Biden administration, we saw the waiving of sanctions on Nord Stream 2. We saw restrictions placed on production here in the United States, and now we find ourselves on the brink of war, where, literally, thousands of lives hang in the balance because of climate hysteria of what is going on

Meanwhile, at the same time, tens of thousands of people are dying in the United States because of fentanyl and this committee continues to not focus on these issues.

Last term we had I don't know how many hearings on the border and we haven't had any this time. We have all these issues that Americans are facing on a daily basis and still this committee will not address them, and we keep coming back to these issues time

and time. We should have had this hearing last week on Ground Hog Day.

Ms. Tubb, I also serve on the Agriculture Committee. Right now, when Americans go to the grocery store, we see empty—we see empty shelves. We are seeing higher food prices.

On the Ag Committee, I can tell you farmers and ranchers are really concerned, farmers especially, who are seeing fertilizer prices go up. We are seeing pesticides go down. Both of those are byproducts of the oil and gas industry.

And if we think that food prices are higher now, a year from now when we have reduced yields because of the reduction or the restrictions placed on oil and gas production we will have a troubling time a year from now when it comes to high prices.

But this is on top of gas prices already that the American consumer is seeing. Can you speak to the burden that the American family is seeing with high oil and gas production?

Ms. TUBB. Sure. You know, I think there is a reason that energy is one of the major—

Mr. CLOUD. I should say high cost. My apologies.

Ms. TUBB. No worries.

Mr. CLOUD. Reduce production, higher costs.

Ms. TUBB. Yes. I think there is a reason that energy is one of the major drivers of inflation and it is because it impacts so many sectors of our economy.

Agriculture is a very good example where—energy prices both in the production but also in byproducts or secondary products of energy—you mentioned fertilizer as a good example—are impacted by high energy prices.

I think another thing that you highlighted that is important to the conversation is these longer-term effects, that when we scale back production or when we make production of energy difficult there are long-term impacts throughout the economy of that posture.

Mr. CLOUD. Thank you. My time is up. I yield back.

Chairwoman MALONEY. The gentleman yields back.

The gentlelady from Ohio, Ms. Brown, is now recognized for her questions for five minutes.

Ms. Brown?

Ms. BROWN. Thank you, Chairwoman Maloney, for putting forth to this hearing this morning, and I also want to thank the witnesses for joining us.

Fossil fuel companies such as Exxon, Chevron, and BP and Shell all have publicly supported the Paris Climate Agreement and have pledged that they would be consistent with this agreement.

I would like to focus on another aspect of the questions that have been addressed. Natural gas is a fossil fuel that emits greenhouse gases at all phases of its lifecycle and it is primarily composed of methane, a potent greenhouse gas that can warm the planet more than 80 times as much as the amounts of carbon dioxide.

Yet, fossil fuel companies are touting natural gas as the clean solution to climate change and they publicly support the Paris Climate Agreement.

Dr. Mann, why is natural gas not a viable alternative for the future?

Mr. MANN. For two reasons. Natural gas is a fossil fuel. When you burn it, it generates carbon pollution. Maybe somewhat less than when you burn coal, but at the same time, the process of extracting natural gas from the ground, fracking—hydraulic fracturing or fracking—releases what we call fugitive methane. Natural gas is mostly methane. Releases that into the atmosphere, and methane is an even more potent greenhouse gas than carbon dioxide on the relevant timescales of, you know, one or two decades.

And so there is no reason to believe that natural gas is any more climate friendly than other fossil fuels, and investing in natural gas is crowding out investment in true clean renewable energy that can help us decarbonize our economy and address the climate crisis.

Ms. BROWN. Thank you. So when Chevron and Exxon say they are working to reach the Paris Agreement, they are not being straight with their shareholders, their investors, and the American public.

So, Ms. Lewis, what do these misleading pledges mean for the communities that live near dirty refineries and power plants?

Ms. LEWIS. Thank you so much, Congresswoman, for your question. Simply what it means is having these fossil fuel facilities in frontline communities, low wealth communities, and communities of color, which often intersect, it means increased death.

It means poor health outcomes. It means cancer. It means all types of diseases. It means people who are unable to work. It means that they are more likely to have to rely on external moneys to—just to survive. And, of course, you know, we can get into all the issues around access to medical care, which we know that communities of color are often not able to.

So what we are talking about is increased death and morbidity, and if that is what we want for our fellow humans then we should continue on the path that the fossil fuel industry is laying out.

Ms. BROWN. Thank you so much.

Dr. Mann, do you have anything you would like to add?

Mr. MANN. Yes, I just wanted to address—there have been some myths that we have heard, for example, you know, that investing in renewable energy is going to destroy the economy, it is going to, you know, hurt efforts to create jobs.

It is just the opposite. If you look at Lazar Investment Firm, their analysis of the levelized cost of different energy sources, renewable energy outcompetes fossil fuel energy in the market today.

The problem is we have all these subsidies for the fossil fuel industry that make them artificially more competitive than they should be. And so we are providing incentives for energy that is actually hurting the planet rather than for energy that can help save it.

Ms. BROWN. Thank you so much. So, basically, the poor and marginalized communities are bearing the brunt of the pollution and health hazards and it is unacceptable. Everyone in America should have the right to clean air and clean water.

So thank you, Madam Chairwoman. I yield back.

Chairwoman MALONEY. And the gentleman from Louisiana, Mr. Higgins, is now recognized for five minutes.

Mr. Higgins?

Mr. HIGGINS. Thank you, Madam Chair. I hope that America is paying close attention here because we are going to—we are going to drill down pretty hard.

Leftist elites in America don't really care about global pollution and ecology because if they did they would support the American energy industry. It is very clear.

We are a representative republic. Every colleague sitting in this committee has been elected by American citizens to represent America's interest. And yet, we have hearing after hearing after hearing just smashing American industry and placing the burden of the world's climate upon the American conscience, although it is the American energy industry that is driving the reduction of carbon emissions worldwide.

The Paris Climate Accords have been referred to by my colleagues several times today. It is a terrible deal for America. It is a big gift to Russia and China. Every reasonable man supports an all-of-the-above energy policy. All of us support a gradual increase in technological processes for the research and development, extraction, refining, and delivery, transport, of fossil fuels and gradually growing greener and cleaner.

This is industry driven, not government driven. Industry has learned great lessons across the span of the 20th century that cleaner, more efficient production is good business.

We have an American energy industry that is leading the world in reducing carbon emissions and, yet, we have American representatives here in the people's House allegedly representing the best interests of American citizens—is smashing that very American industry, pushing the industry overseas into nation states that have horrible ecological records, and employs slavery, by the way, to produce dirty energy.

The Democrats' agenda could be summarized in two words, government control, is a quote, one of hundreds, from left-leaning writ over the last couple of decades—nationalization is the best shot the world has got to decommission a recalcitrant industry in time to stave off climate disaster and it is an opportunity to build something better in its place. The nationalization of America's oil and gas—that is what the left really wants. They want us to join the ranks of Venezuela, Iran, Iraq, Saudi Arabia, China, Nigeria, Libya, Kuwait. The list goes on.

So I am going to ask our panelists, everyone yes or no. You have an opportunity to participate in something called truth.

Yes or no, Dr. Mann?

Mr. MANN. Sorry. What is the question?

Mr. HIGGINS. Do you believe that America's energy industry should be nationalized?

Mr. MANN. That is not a matter for me to decide. That is a matter for Congress to decide.

Mr. HIGGINS. I will take that as a yes.

Mr. MANN. No. No, that is not a yes.

Mr. HIGGINS. Mr. Mark van Baal?

Mr. MANN. That is not a yes. It is an irrelevant comment. It is an irrelevant question for me.

Mr. HIGGINS. You see—you see, Mr. Mann, you are referred to as a distinguished. I would say that if it were up to you, because

you are quite an arrogant fellow, in my opinion, you would add revered and heralded to your title. You know you support the nationalization of American oil.

I will move to Mr. Mark van Baal. Do you have the courage to answer that question, sir?

Mr. VAN BAAL. Yes, Congressman. Thank you for your question.

Of course, the American industry doesn't need to be nationalized. We need them to thrive in the energy transition. We need them to provide America with clean energy, replace fossil fuels by renewables.

Mr. HIGGINS. It is the cleanest—it is the cleanest in the world. And yet—

Mr. VAN BAAL. It is not clean enough.

Mr. HIGGINS [continuing]. And yet they are being smashed today.

Mr. VAN BAAL. Sorry to interrupt you. It is not clean enough to fight the climate crisis.

Mr. HIGGINS. Is it the cleanest in the world?

Mr. VAN BAAL. No, it is not the cleanest in the world.

Mr. HIGGINS. It is not the cleanest in the world. That is what you are saying. Where? Give us the example.

Mr. VAN BAAL. Solar panels, wind turbines, you name it.

Mr. HIGGINS. No. No. No. You are talking—we are talking about actual energy in the really real world, sir. The clothing that you wear, everything in your office there, your television, your iPhone—everything you have got is petroleum based. We are talking about the really real world. Does the American energy industry deliver—

Chairwoman MALONEY. The gentleman's time has expired but the gentleman may answer his question.

The gentleman's time has expired but the gentleman my answer his question.

Mr. VAN BAAL. Do you allow me to answer?

Mr. HIGGINS. Thank you, Madam.

Chairwoman MALONEY. OK.

Mr. HIGGINS. Madam Chair, I yield. Thank you very much.

Chairwoman MALONEY. Thank you.

The gentleman from Georgia, Mr. Johnson, is now recognized for five minutes.

Mr. JOHNSON. Thank you, Madam Chair. Thank you for holding this very important and timely hearing and also thank you to the witnesses for their testimony.

Climate change denial is live and in living color today and so is deception. Deception is not uncharacteristic of big oil, which has downplayed and denied the imminent climate crisis for decades.

One of their newer methods of dishonesty is publicly touting goals of, quote, "net zero emissions", end quote, and clean energy while privately continuing, if not increasing, fossil fuel production.

As habitats crumble from warming oceans and communities suffer from unpredictable weather, big oil continues to mislead and profit at the world's expense.

Ms. Lewis, a disclaimer in Shell's 2020 sustainability report states precisely that, quote, "Shell's operating plans, outlooks budgets, and pricing assumptions do not reflect our net zero emissions

target,” end quote, and that they expect Shell’s operating plans to move toward net zero emissions as society moves toward it.

How can we take Shell’s climate mitigation goals seriously when they do not even consider these goals in their current budgets, outlooks, and prices?

Ms. LEWIS. Congressman, thank you for your most excellent question.

It is pretty clear that we can’t take that seriously. Once again, we see the cognitive dissonance between stating the goal to move toward net zero while within its own prospectus, its websites, that it is not even incorporating that.

So, you know, there is, certainly, power within Congress to hold companies like Shell accountable for that—those misleading statements.

Mr. JOHNSON. In what ways can Congress mitigate insidious maneuvers such as this one to ensure that big oil, in fact, implements the changes that it purports to support?

Ms. LEWIS. Oh. Thank you again.

Well, most certainly, Congress has the power through a variety of means. Actually, for example, last year you took a great step with passing the Fossil Free Fuel Act. That was one method focusing on the Federal Reserve and its mandate.

Another method, obviously, would be to simply state, you can no longer falsely advertise your net zero goals, and if you do that you are misleading the public, the same way that Congress did with tobacco, held Big Tobacco accountable for telling the public that it was safe to smoke and there was no connection between that and cancer and other diseases.

Mr. JOHNSON. Dr. Mann, net zero pledges are baseless and riddled with contradictions. For example, Shell recently began drilling off the coast of Namibia and plans to continue to search for new drill sites in that area until 2025, thus continuing the exploitation of resources from Africa.

In addition to the impacts of carbon emissions, can you speak on how new drill sites can destabilize ocean habitats and also destabilize the lives of the people who live in under-and undeveloped nations that are exploited for oil?

Mr. MANN. Sure. You know, it is not my area of expertise but certainly extraction of fossil fuels has this hidden cost in terms of the damage it does to our environment, whether those are marine environments, whether those are mountain environments here in the United States, where mountaintop coal removal does tremendous damage to streams, to those forests.

So there is this additional cost that we don’t often even talk about, which is the damage done to the environment by extracting dirty sources of energy.

Mr. JOHNSON. Thank you. My time is about to expire so I will yield the balance.

Chairwoman MALONEY. Thank you. The gentleman yields. The gentleman from Georgia, Mr. Hice, is recognized for five minutes.

Mr. HICE. Again, here we are, instead of conducting real oversight, this committee continues to attack American businesses. And, you know, I mean, we are dealing with issues that the American businesses are already addressing, but we are having this type

hearing yet again. October of last year we had a committee hearing with CEO participation, from ExxonMobil, BP, Chevron, Shell, American Petroleum Institute. And how did that hearing end? Well, it concluded with a subpoena.

Let's get the fact straight yet again. And here are the facts. From 2005 to 2019, U.S. greenhouse gas emissions decreased by 12 percent. From 1990 to 2019, methane emissions from coal mines, natural gas production, et cetera, decreased 15 percent. All the while, Russia's territorial carbon dioxide emissions per capita grew by 14.5 percent between 2000 and 2018.

China produced 27 percent of the world's greenhouse gases in 2019. That is according to research by the Rhodium Group. And by the way, the issues, the figures I mentioned of the U.S. decrease of greenhouse gas emissions and methane are from the EPA, their report of April of last year. China's emissions exceed all developed nations combined. China's emissions more than tripled over the previous three decades. China has vowed now to reach zero emissions by 2060. How nice is that? They vow to have a peak no later than 2030.

From 2006 to 2019, ExxonMobil's global gas greenhouse emissions had decreased 13 percent.

So those are some of the facts, and yet what has been the response, the current state of affairs if you will, with our current Administration? Well, the Biden administration cancels Keystone Pipeline in January of last year. The Biden administration shut down oil and gas lease cells from the Nation's vast public lands and waters in the first days of his office, stopping drilling on about 23 million acres previously that were being leased to energy companies.

And what was the result of all of that? Well now we have energy prices going through the roof. The national average of gasoline now nearing \$3.50, up \$1-plus from this time last year. Energy costs, like heating your home, which is pretty essential at this time of the year, it has risen 29 percent.

And yet the reaction of the Biden administration is now, let's solve the problem by pushing OPEC to increase their oil production, dirty oil, while the U.S. is leading the way in much, much, much cleaner oil, and yet the Biden administration now is pushing, calling, begging OPEC to increase their oil production instead of domestic oil production right here in the U.S. And we all remember the Biden administration approving Russia's Nord Stream 2 pipeline. I still scratch my head over that decision. The pipeline alone is projected to emit over 100 million metric tons of CO<sub>2</sub> per year. And now the world is watching. We are all watching Putin make his move, because we have given him such an incredible gift.

Now, now, now is the time to encourage the sale of domestically produced gas—freedom gas, as it has been called—freedom gas, to the world. But again, the Biden administration is looking overseas to OPEC and other countries to address this looming crisis of Russia and their invasion of Ukraine.

These policies are ridiculous. They are hurting America. They are hurting our constituents. They are hurting their wallets.

Ms. Tubb, do you believe that the U.S. is making great strides toward lowering emissions compared to the world's largest emitters of pollutions, specifically China?

Ms. TUBB. Yes, and I think data bears out that freer economies are environmentally cleaner, in the past, and I expect that to be in the future.

Mr. HICE. Thank you very much. I see my time has expired. I yield back.

Chairwoman MALONEY. The gentleman yields. The gentlewoman from Illinois, Ms. Kelly, is recognized for five minutes. Ms. Kelly.

Ms. KELLY. Thank you, Madam Chair.

At the last hearing, I asked the president of Shell about their energy transition strategy. Now that we have climate experts I would like to examine Shell's plan to become a net zero energy company by 2050. At first glance, Shell's plan seem more ambitious than some of the other companies we are discussing today. For example, Shell is one of the only companies that plans to reduce its scope for the emissions, which include those that come from the supply chain or from consumers using a product as intended.

To offset its goal through emissions Shell proposes something it describes as nature-based solutions, which include purchasing credits to offset its emissions.

Dr. Mann, are you familiar with Shell's nature-based solutions plan, and if you are, what is it?

Mr. MANN. Yes. So this is a common sort of pledge that you hear from fossil fuel producers, and again it is a bit of a shell game because the idea is that we can offset these fossil fuels that are carbon that has been buried beneath the surface of the planet for millions of years, that we can somehow offset that by planting trees, whose lifetime may be decades or at most centuries.

And if you actually look at the residence time of that carbon, it is not equivalent. You can't make up for the carbon pollution we are extracting from the earth by just simply expanding forests. And, in fact, in recent years, we have seen that it can work in just the opposite direction, because we are seeing worse drought and worse wildfires. And so we are seeing much of that carbon that is stored in forests increasingly burning and putting that carbon back into the atmosphere.

So it is not a viable, you know, strategy for really reducing carbon emissions, but it does give fossil fuel interests a convenient talking point.

Ms. KELLY. And I understand the company's plans to reforest land, equal in size to the entire state of Wyoming. In your view, how feasible are Shell's reforestation plans?

Mr. MANN. It is not feasible, right. I mean, there is no, you know, proof of concept. There is no indication that this sort of project can occur at the scale that would be necessary to substantially offset emissions, and even if it did we have already talked about the problems, that carbon isn't locked up for the long term and it can easily escape back into the atmosphere.

Ms. KELLY. Thank you. Shell also plans to offer consumers the opportunity to pay more at the gas pump to purchase reforestation credit to offset emissions. Shell estimates that this will offset about 120 million tons per year of emissions from using its oil and gas

products by 2030. That is equal to taking 25 million cars off the road. Shell plans to pass these costs directly onto their customers.

Ms. Lewis, how likely is it that consumers would choose to pay more at the pump to support Shell's reforestation plans?

Ms. LEWIS. Excellent question, Congresswoman. And it is incredibly saddening to hear that a multi-billion-dollar, global corporation is going to pass on the cost of what they have incurred, the damages that they are imposing on American people and people worldwide when they could easily do that themselves, No. 1.

And No. 2, you know what? American people are giving and thoughtful, and probably, you know, might say, "Oh, well let me do something for the good of our country," when the reality is this is a corporation that has no business passing on the costs of decarbonizing to the American people when they can afford it themselves.

Ms. KELLY. Dr. Mann, do you think offsets should be a part of a fossil fuel company's plan to achieve net zero?

Mr. MANN. No. Again, you know, there is no evidence that these sorts of projects can be viable at the scale that is necessary to reduce net carbon into the atmosphere. What does work is moving away from fossil fuels toward renewable energy.

And by the way, just to address this comment that was made earlier about nationalizing, nobody is talking about doing that. What we are talking about is market-driven approaches, which would include subsidies, carbon pricing, to move us, to move industry in the direction that we know they need to go.

Ms. KELLY. Thank you so much to the witnesses. It is clear the fossil fuel industry has more work ahead to clean up its business, and I hope they will achieve these goals with practical, realistic steps and realistic timelines instead of what seems to be marketing gimmicks.

Thank you so much, and I yield back.

Chairwoman MALONEY. The gentleman from Texas, Mr. Fallon, is recognized for five minutes.

Mr. FALLON. Thank you, Madam Chair. So I am a bit confused and I want to see if some folks can straighten this out for me. Mr. Mann, this is an easy question. Is the United States a planet?

Mr. MANN. Sorry?

Mr. FALLON. Is the United States a planet?

Mr. MANN. The United States is on a planet.

Mr. FALLON. Yes, exactly, and we share that planet with somewhere in the neighborhood of 200 other countries.

Would you describe, say—I have got limited time here—Russia, China, Iran, and Venezuela, OK, these four countries—would you describe them as a rule-of-law society?

Mr. MANN. No. What I would say is that the United States is on this planet and has contributed more carbon—

Mr. FALLON. OK. I just—

Mr. MANN [continuing]. Any other country.

Mr. FALLON. OK. Sir, sir, I just asked you a simple question. Do you believe that Russia, China, Iran, and Venezuela are rule-of-law societies?

Mr. MANN. Rule of what?

Mr. FALLON. Rule of law, l-a-w. Rule of law. Can you not hear me?

Mr. MANN. I couldn't hear you very clearly, no.

Mr. FALLON. OK. Can you hear me now?

Mr. MANN. I don't even know what you mean by that.

Mr. FALLON. You don't know what rule of law? OK.

Mr. MANN. I don't know what you mean in this case.

Mr. FALLON. OK. Do you think they have a healthy, environmental lobby in those four nations?

Mr. MANN. A healthy environmental lobby? You are including Russia.

Mr. FALLON. Wow. OK. Do you speak English, sir?

Mr. MANN. Did you include Russia in that question?

Mr. FALLON. Yes, I did. Russia, China, Iran, and Venezuela.

Mr. MANN. Is there a healthy environmental lobby in Russia?

Mr. FALLON. Do you think they do?

Mr. MANN. It is an authoritarian government that suppresses—

Mr. FALLON. They all are. Right? They all are.

Mr. MANN [continuing]. Any such activities.

Mr. FALLON. None of those countries have an independent judiciary either, which means, do you think that when they extract their energy that they are doing it in the most efficient way with stringent regulation?

Mr. MANN. They are not extracting energy. They are extracting resources do produce energy. And nobody right now, including the United States, is doing so as efficiently as we could with respect to carbon pollution.

Mr. FALLON. OK. So you are saying we are on par with those dictators, if reducing emissions in China is the greatest polluter on the planet.

Mr. MANN. I didn't say that at all.

Mr. FALLON. Thank you. Thank you. OK. I reclaim my time.

So here we go again. We have got—it is like, I think Yogi Berra said, *de javu* all over again." I don't know how many times we have had hearings where we are going to demonize this industry. I don't know if this is Outrage 3.0 or 4.0 or 5.0, because, quite frankly, I have lost track.

But it is interesting that the people on this panel, the people that serve in Congress, we all enjoy the benefits of this industry, and those that criticize it and demonize it and say it was some person that actually said that she was going to have to be forced to live in a future that they are setting on fire, well, that is having your cake and eating it too. I don't see many folks driving from their district and back in Priuses and never getting on an aircraft. I don't see them rowboating to Europe. They are enjoying these benefits as well, and then ignoring the fact that human existence, human life, has never been longer, life expectancy, from 1900—and we are just going to use that as a measuring stick—to 2022, life expectancy in this country has almost doubled, and for some demographics it has doubled. And the quality of that life has improved dramatically.

And sometimes there are issues that we need to deal with, and problems, but when the solutions are unrealistic that is not going

to get us anywhere, and that is where we are again. In fact, one of our colleagues said that by 2020, in these hyperbolic claims that we all hear, there are issues to be addressed. But when you make hyperbolic claims, to just scare people, and it is just about fear, that there are going to be major crop failures by, I believe it was 2026 or 2028, and that large swaths of the United States will be uninhabitable in 2036, these remind me of Thomas Malthus, these crazy claims. But then when 2026 comes and 2038 comes, and none of these things has happened, the goalposts are just simply moved again.

And I hope that we don't have another 15 of these hearings that get nothing accomplished. They simply demonize an industry to cater to a very narrow political base.

Madam Chair, I yield back.

Ms. TLAIB. [Presiding.] The gentleman yields. I recognize the gentlewoman from Florida, Debbie Wasserman Schultz, for five minutes.

Ms. WASSERMAN SCHULTZ. Thank you, Madam Chair, and I am little bit astonished at how rude the previous questioner was, but not surprised, I guess.

So last month, Exxon announced its aspiration to reach net zero operational emissions by 2050, and that sounds great in a press release but it takes only a minimal amount of investing to see that it is just more corporate greenwashing. Exxon's pledge includes Scope 1 and Scope 2 type emissions, which are those produced directly by Exxon or from the generated power it buys. Scope 3 emissions, which account for 90 percent of the company's carbon emissions, are entirely excluded from that pledge. These emissions are created by consumers using Exxon's product exactly as intended. In other words, Exxon doesn't take any responsibility for the emissions created by the millions of barrels of oil it sells every single day.

Dr. Mann, what is the true value of Exxon's net zero emissions pledge if it does not address emissions from the products they sell?

Mr. MANN. It is minimal, and, you know, at the same time ExxonMobil and these other fossil fuel companies are funding organizations and outfits and dark money groups that are trying to prevent passage of legislation that would actually move us in the direction we need to go. So they claim that they are in support while undermining the very policies that would be necessary for the United States to make good on its commitment under the Paris Agreement.

Ms. WASSERMAN SCHULTZ. OK. Thank you.

Carbon intensity, for example, has become a go-to phrase for Big Oil companies that often amounts to empty promises. Oil companies have promised to lower their carbon intensity, which is the amount of carbon emitted per unit of energy consumed, and that is a crafty way, from what I understand, for fossil fuel companies and the banks that finance them to continue to find alternatives to promising outright emissions reductions.

Mr. van Baal, is a promise to lower carbon intensity compatible with increased emissions overall?

Mr. VAN BAAL. If it would lead to a decrease of absolute emissions it would be a credible claim, but all these companies are

promising to lower their intensity and they still will increase their absolute emissions.

Ms. WASSERMAN SCHULTZ. OK. And then last I really want to ask a question based on Shell's court case. Last year Shell was ordered by a Dutch court to slash its emissions footprint by 45 percent within 10 years. Despite that order, we learned last week that Shell struck a major oil deposit in Namibia. Shell is drilling, and not just drilling but doing it in a frontier region without well-developed infrastructure or oil industry.

Oil demand is still strong for the near future and we will continue to see oil exploration, despite our transition to clean energy. This is why we must maintain a Federal moratorium on offshore drilling on the coast of my home state of Florida, and we also have to find ways outside of market forces to reduce total emissions. For example, we have debated implementing a clean energy performance program which would reward utility companies that switch from burning fossil fuels through renewable energy sources and penalizing those that do not.

My last question is, Ms. Lewis, you are our policy expert here. What policies should Congress consider to achieve a total reduction in emissions in line with the Paris Agreement?

Ms. LEWIS. Congresswoman, thank you so much for your question. I think you just spoke to those. It is incentivizing better behavior, creating opportunities for the fossil fuel industry to step up, and making it really plain also that there will be costs and punishment for not doing that. Yes, I could go on and on, but think—

Ms. WASSERMAN SCHULTZ. You have a little time, so feel free.

Ms. LEWIS. Oh yes, I do. OK. Thank you. That timer is a—

Ms. WASSERMAN SCHULTZ. Please answer the question.

Ms. LEWIS. So just very shortly, absolutely Congress has the power to incentivize and increase subsidies. It also can end certain subsidies like 45Q that has been given to companies that have not even created any carbon capture infrastructure, \$1 billion given away. That could have been given to more sustainable things.

Ms. WASSERMAN SCHULTZ. Thank you. Mr. Mann, you look like you are chomping at the bit. Perhaps you could answer that question as well.

Mr. MANN. No, sorry. I agree with everything that Dr. Lewis just said there. I mean, we need incentives. We are not talking about nationalizing the energy industry. We are talking about market-driven solutions like Ronald Reagan and George H. W. Bush supported, market-driven solutions for dealing with these environmental externalities, for solving environmental problems like climate change.

Ms. WASSERMAN SCHULTZ. Thank you. And Madam Chair, I just have to say, it is one thing to be a member who forcefully advocates their position. It is another thing to be totally rude and insulting to our witnesses. And so I just would hope that we would be admonishing our colleagues not to be rude and nasty to our witnesses even when we disagree with them.

Thank you. I yield back.

Ms. TLAIB. The gentlewoman yields. Without objection, Mr. Graves is authorized to participate in today's hearing. Mr. Graves, you are now recognized for five minutes.

Mr. GRAVES. Thank you, Madam Chair. I want to thank the witnesses for being here today. I am from south Louisiana, where we have lost about 2,000 square miles of our coast as a result of many factors including subsidence and sea rise. And these are the people that we represent. I have very strong concerns about ensuring that my children—we have three kids—that my children and the children we represent have the same opportunity that we have had in our lifetime, and I do have some strong concerns about the direction we are going.

Ms. Lewis, do you believe that the United States should follow more of sort of a California model toward energy and climate?

Ms. LEWIS. Congressman, thank you for your question. Well, certainly I believe that California has been at the forefront of addressing the issues of climate change that have impacted their state and the residents, and I certainly think there are many aspects that can be used elsewhere.

Mr. GRAVES. OK. OK. Thank you.

Dr. Mann, have the performance of emissions reduction, has it worked better on an average basis under President Trump or under President Biden?

Mr. MANN. Clearly we are seeing inroads now with the policies that the Biden administration—

Mr. GRAVES. I am sorry. I am sorry. Trump or Biden—which one was that?

Mr. MANN. Biden is doing better. No question about it.

Mr. GRAVES. OK. Thank you. OK. So there we go. There we go. Let's get back to reality here. This is fascinating. California has resulted in higher prices having a disproportionate impact on the poor. They are eighth-worse emissions growth in America, the most dependent state on foreign energy, the least reliable grid in the Nation, and, according to the latest analysis, the most dependent state upon oil coming out of the Amazon rainforest. Are these really the statistics we want to follow?

Dr. Mann, I have been watching you. I have been working with your data for decades now, and it is amazing to me to think that you would come before this Congress. You have crossed so far over from science into political theater, it really undermines your credibility.

Here are the facts. Under President Trump, emissions were reduced, on average, 2.5 percent per year. Under President Biden, emissions have gone up 6.3 percent. I think you know better. I think you do, and I am incredibly disappointed.

Let's go on and talk more about some of the facts out there. I heard talk about the IEA earlier. The IEA said, in a February 2020 report, the United States recorded the largest emissions decline on a country basis with a reduction of 140 million tons, down by almost 1 gigaton from their peak. Natural gas, at that point, had surpassed coal in terms of producing more electricity. Emissions from the energy sector decline. In fact, this is—I am sorry, from the energy sector decline to levels last seen in the 1980's, when electricity demand was one-third of which it was at the time. There has been an 80 percent growth in emissions during the same period of time from Asia and China. Emissions in the United States are down 25 percent while energy production has increased 29 percent.

Here is a quote. We are going to talk about the IEA. Here is a quote from the executive director: “In the last 10 years, the emissions reduction in the United States has been the largest in the history of energy”—in the history of energy—“coming out of the United States.”

So all of you are sitting here talking about this. This entire hearing has been talking about demonizing the energy industry, demonizing the energy industry, when the reality is that we have seen, under this Administration’s policies, higher emissions. We have seen higher prices, disproportionately affecting those that can least afford it, the pool. We have seen less energy security. We went from energy independence in November 2020 to now becoming more dependent upon other countries. As a matter of fact, under this Administration, we are now paying the Russian government approximately \$22 million a day for additional oil coming from Russia, \$22 million a day more we are sending to Russia to use on their aggression in Ukraine and other countries. These policies do not make sense.

So you are there saying, oh, we just need to invest more. We need to make more taxpayer investment, which interestingly, Ms. Lewis said earlier, that wasn’t an obligation for people to pay, which I am not sure I understand.

Let me give you a few facts. In 1983, the American Wind Industry Association said that solar and wind would be competitive and self-supporting on a national level by the end of the decade if assisted by tax credits and augmented by federally sponsored R&D. Thirty-eight years ago these comments were made. Forty years ago these comments were made, nearly. And as a matter of fact, since that point in time, according to Stephen Moore, we have invested in excess of \$150 billion—billion dollars—in these sectors, and they are only asking for additional renewals, as a matter of fact, in Build Back Better, an additional \$100 billion in subsidies going. And if you add everything up, all of the tax credits that are included, the number, according to Stephen Moore, could reach half a trillion dollars, and he said, “No other industry in American history has ever received this lucrative of a paycheck.”

Madam Chair, I am absolutely on board for discussing rational strategies, but to listen to people come before this committee, suggesting that they are experts in this field, focusing myopically on the energy industry that has resulted in the greatest reductions in world history is completely flawed, and it is disingenuous, and I urge that we stick to the science, Dr. Mann.

I yield back.

Mr. GOMEZ. [Presiding.] Thank you so much. The gentleman from Maryland, Mr. Sarbanes, is now recognized for five minutes.

Mr. SARBANES. Thanks very much, Mr. Chairman. I am not here to demonize the industry. I am just getting really tired of the head fake. Oil and gas companies have spent millions of dollars on advertising to promote the false message that they are already an integral part of the solution to the climate crisis, while they are simultaneously spending billions of dollars lobbying against meaningful regulation of the pollution that causes climate change. That is just the reality of what is happening.

Much of the lobbying has been indirectly done, cleverly, skillfully, cynically done by industry trade groups that have been formed by these companies, rather by the companies themselves. They keep it at arm's length. For example, between 2003 and 2010, Exxon, Koch Industries, DonorsTrust, and other industry groups funded 91 think tanks and advocacy organizations designed to downplay the risks of global warming. These organizations held themselves out as neutral while working to identify, recruit, and pay scientists to publish fringe research closely aligned with industry. That is just the reality of what has been happening.

Here is an example. Recently, the American Petroleum Institute publicly stated it supports methane regulation. Meanwhile, its front group, Energy Citizens—sounds great—Energy Citizens carried out a seven-figure TV and internet ad campaign against the methane fee provisions in the Build Back Better act.

One insidious thing about the work of fossil fuel front groups is that it is often very hard to disentangle the web of relationships and the sources of funding.

Mr. van Baal, would average Americans paying into pension funds or mutual funds know that their investments in public companies are often going to fund these shadow groups' efforts to block meaningful climate change?

MR. VAN BAAL. No. I don't think everybody is aware that his pension money and his savings money is invested in the fossil fuel industry, and at the same time the fossil industry is threatening all their assets, also their investments in whatever other industries that are all going to suffer from devastating climate change, if we don't change fast enough.

So I think the general public should be aware that their savings and pensions are in fossil fuel companies and that the fossil fuel companies can make or break the Paris Accord, and therefore make and break their savings and pensions, in the long term.

MR. SARBANES. I think many in the public would be outraged if they had any clear understanding that this is where their investments are being directed.

Throughout our process to fortify American democracy and ensure that public policy is made for the public, not for hidden private interest, we have developed a number of proposed to counter the influence of dark money in our elections and public life, which includes shining a light on dark money by preventing big money contributors and special interest from hiding the true sources of their funding and requiring all organizations engaged in political activity to disclose their large donors.

Further, we must reaffirm Congress' authority to regulate money and politics after the disastrous decision by the Supreme Court in Citizens United.

Ms. Lewis, do you agree that there should be greater transparency and disclosure requirements for public companies that work with front groups so that, again, the average investor understands what they are in, in fact, supporting?

MS. LEWIS. Absolutely, Congressman. It is of the utmost importance.

MR. SARBANES. I appreciate that. And we are going to continue our efforts, and I want to thank the chairwoman for convening this

hearing today, to get to the bottom of all of this. Because as I said at the outset, there is a giant head fake, a collective head fake going on by the fossil fuel industry. Hopefully we can get more representatives from that industry and those companies to come before this committee and play it straight.

But on the one hand they are acting like they are going along with these important climate change objectives that we have set forth and that most Americans support in a significant way. On the other hand, they are standing up these front groups to basically message in a way that is completely counter to that. And that disconnect has to be exposed. So bringing more transparency to this campaign I think is critical, and I appreciate, Madam Chair, your efforts to do that.

With that I yield back.

Mr. GOMEZ. The gentleman from Ohio, Mr. Jordan, is recognized for five minutes.

Mr. JORDAN. Thank you, Mr. Chairman. The Democrats talk about climate crisis. My guess is most Americans are more concerned right now about the inflation crisis.

Ms. Tubbs, is the price of gas higher today than it was a year ago?

Ms. TUBB. Yes.

Mr. JORDAN. How about the price of everything? Is the price of everything higher today than it was a year ago?

Ms. TUBB. Generally, yes.

Mr. JORDAN. And when you shut down a pipeline, is that probably one of the factors that contributed to the higher cost of gas today?

Ms. TUBB. You know, it is hard for me to make a connection from A to B, but it certainly doesn't help. The way to decrease prices is to increase supply, and pipelines are an incredibly important part of that.

Mr. JORDAN. Is the overall cost of energy higher today than it was a little over a year ago?

Ms. TUBB. Yes, significantly.

Mr. JORDAN. And when the price of energy goes up, that drives the cost of everything else, because you have got to ship it, you have got to make it, it takes energy to make things, it takes energy to transport things, it takes energy to ship things.

So when the price of energy goes up it contributes greatly to the price of everything else increasing. Is that accurate?

Ms. TUBB. Yes, that is correct. I think you could call energy the master resource because of its influence throughout the economy.

Mr. JORDAN. So it sort of begs the obvious question. Would it help if the United States produced more oil and gas and more energy here? Would that be helpful?

Ms. TUBB. Absolutely. Yes, that is basic economics. To solve for high prices and high demand you increase supply.

Mr. JORDAN. So basic economics would help with the fundamental fact we are dealing with today, which is we have a 40-year high inflation. It would help if we would increase oil and gas production here, right?

Ms. TUBB. Yes. Absolutely. And I think the resources, the policies to be able to do that.

Mr. JORDAN. Well then why would the Democrats want to decrease production? I mean, we had a hearing in this very room—well, you are not in this room; you are virtual—but we are in the room, and we had a hearing in this room a few months ago where one of our Democratic colleagues said to the CEO of Exxon, “Mr. Woods, would you commit to reducing the production of oil?” Is that going to help with the 40-year high inflation rate and the price of gas and the price of energy, Ms. Tubbs?

Ms. TUBB. No, and I don’t want to guess at people’s intentions. I think we all strive for the well-being of our country. But I think there is a disconnect between aspirations and reality, in some cases.

Mr. JORDAN. Well, you don’t have to question anyone’s intentions. His intentions were clear because he said to the CEO of Chevron, he said, “Are you embarrassed, as an American company, that your production is going up?” I mean, to me that is one of the craziest questions I have ever heard. You ask the CEO of a company, “Are you embarrassed that you are making more of your product and selling more of your product?” I thought that is what you are supposed to do.

So I do not think it is a question of intention. Their intentions are clear. They want to destroy the oil and gas industry in this country, and they want to continue to drive up the cost of energy, drive up the cost of goods and services. And they must like this 40-year high inflation. Is there any other conclusion that a rational person could reach, Ms. Tubbs?

Ms. TUBB. I don’t think so, and sir, to your point just now, I think one of the more troubling things about this conversation is that policymakers should not be telling a company what they ought to produce and what kind of company they ought to be.

Mr. JORDAN. Well, someone needs to tell that to the Democrats because that is all they want to do.

Is it better to produce energy in the United States of America to help our economy or would it be better to bring it in from overseas?

Ms. TUBB. I think we have a lot of resources here in the United States to provide affordable, reliable energy. I think the goal is to have free flow of energy and free trade of energy, because there are efficiencies to be gained there that help consumers.

Mr. JORDAN. OK. And let me just ask you this too, because, you know, we now have the spectacle of the President of the United States begging OPEC to increase production. Does the President of the United States asking and begging OPEC to increase production, will that help with climate change and the climate crisis that the Democrats talk about so much?

Ms. TUBB. No, and I think the reason I am struggling with some of this conversation is, you know, President Biden’s administration has admitted that the U.S. could shut off their emissions, if that were possible, tomorrow, and it would have no impact on global temperatures by the end of the century. So what this amounts to is wanting to release the political pressure for high energy prices, pursue a political agenda for certain energy technologies, and I think in some cases—

Mr. JORDAN. So, Ms. Tubb, if I could just interject. You said something important there. So the position of this Administration

is they want America to go to zero emissions, which will not change what is happening relative to the climate around the world because all these other countries pollute so badly. But at the same time they are doing that they are actually beginning foreigners, OPEC, to increase production and send it in, which will exacerbate the very problem you just cited. Is that accurate?

Ms. TUBB. Yes, and I think it is a disconnect between wanting to release short-term political pressure and understanding that the energy resources we need take time and investments. And so you can't solve these problems by looking for short-term fixes or easy ways out. You have to have an open market that allows people to invest in this country.

Mr. GOMEZ. Time has expired.

Mr. JORDAN. Thank you.

Mr. GOMEZ. Thank you. I recognize myself for five minutes.

I actually served on both Oversight and Natural Resources when I first got to Congress, and everybody said that Oversight was the more rough-and-tumble committee. And what I learned quickly is the more rough-and-tumble committee was Natural Resources because there seems to be any kind of commonality when it comes to an overlap, when it comes to dealing with climate change, the climate crisis, recognizing that climate change is real between the parties. And it is very common that we have the gentleman from Illinois come and speak here, because his attacks have always been the same attacks, which is attack California, attack California, attack California.

But I always like to remind my Republican colleagues that California is one of the economic engines of this country. Without California's GDP, where I am from, this country would be worse off. I am not saying that we do not want other parts of this country within our country. We do. But to always bash on California as a cheap political stunt is just that. It doesn't solve the problem.

We have offered the gentleman from Louisiana help. Let us help with what you need, because we recognize Louisiana as being devastated by climate change. The coast is eroding, the hurricanes batter it, and there are not enough resources to adapt to that changing environment.

And, at the same time, people like to bash California when it comes to the electrical grid. But people forget, on the Republican side, about Texas that just suffered some of the worst power shortages and shutdowns, where people died and froze to death, devastating their homes because the grid hasn't been updated. And they are going to say it is because wind turbines and so forth, but 60 percent of the energy loss that occurred, occurred from gas-and coal-fired plants.

So if we are going to make real progress we have to have some common understanding of this problem. And I know that talking about climate change for Republicans is like talking about January 6. You know, deny, deny, deny. But we are not going to resolve the issue that way.

And who hurts? Who suffers? Low-income communities suffer. Low-income communities in California, Texas, Illinois, Louisiana, no matter where you are from it is always the working class that suffers, because the rich have the resources. And we need to figure

out how to get beyond that and work on real solutions for working people.

I know that we have had disinformation campaigns going on. We still see it. You know, one of the things, you can say all sorts of stuff on the fly in a committee, and I can almost tell you 60 percent of all statistics quoted in a committee are probably made up on the spot. So we should always take what people say with a little bit of a grain of salt.

Mr. Mann, in your prepared testimony you described net zero pledges and other such promises as a continuation of the energy industry's effort to delay action on climate change. Can you elaborate on why these climate promises cannot be taken at face value, or should be taken with a grain of salt?

Mr. MANN. Yes, because they are kicking the can down the road. What we need right now is a reduction of carbon emissions by 50 percent this decade. So that means we need incentives right now. And also I found it ironic that the Congressman from Louisiana, whose people are facing the brunt of the impacts of climate change, would be so dismissive of that and would try to point blame at California, which is actually growing their economy and reducing carbon emissions at the same time. It is a model for what the rest of the states, including Louisiana, should try to do.

So it just doesn't make sense. There is no way to understand this irrational, you know, unwillingness to confront the climate crisis.

Mr. GOMEZ. Thank you so much. And being from California, having worked on cap in trade, also greenhouse gas reduction target bill that said 35 percent of the resources to combat climate change must go to disadvantaged communities, we can do it at the Federal level. And most of that money won't necessarily go to blue states. It will go to the areas that are disproportionately impacted by climate change. Louisiana, Texas, Florida, states that are Republican states. And we care about them as much as we care about any other state.

So with that I will end my testimony and I will recognize the gentleman from Pennsylvania, Mr. Keller, for five minutes.

Mr. KELLER. Thank you, and I also thank the witnesses for taking time to be here today with us.

While today's hearing seemingly attempts to hold the American energy industry accountable to carbon emission standards, with timelines expiring 30 years in the future, it would be nice to see the Democrats hold the Biden administration accountable for the energy crisis happening right now.

In October 2021, committee Republicans joined me in sending a letter to Energy Secretary Granholm expressing concerns that President Biden's policies would exacerbate the skyrocketing price of fuel and ultimately hit fixed-and low-income Americans the hardest, making America more reliant on nations that don't produce energy as cleanly as we do here in the United States.

Now is not the time to penalize American energy producers who have the capability to provide the entire world with cleaner energy in the midst of an energy crisis.

A recent report by the Joint Economic Committee confirmed committee Republicans' fears, reporting that American households

spent \$1,200 more on energy costs in 2021, and I ask unanimous consent to submit the report for the record.

Mr. GOMEZ. Without objection.

Mr. KELLER. So when we look at what we are seeing happen here, Ms. Tubb, it is good to see you again. In 2019, the U.S. was energy independent, and we heard references to that. I believe we can all agree on that. How much energy is the U.S. importing currently?

Ms. TUBB. I don't know offhand and I can give you those numbers. I think what is distinctly different between then and now is that America's energy costs saw a five percent reduction between 2018 and 2019, and in 2021, as you just referenced, they are seeing increases.

Mr. KELLER. OK.

Ms. TUBB. The lowest quintile saw increases of 11 percent. I am sorry. Energy consumed 11 percent of their budget this year, as opposed to eight percent, and I think that is where the conversation is quite important to be talking about now.

Mr. KELLER. So how much of the energy that we are importing, or maybe you don't know, but we are importing energy from Russia?

Ms. TUBB. Absolutely. Particularly in the Northeast. But energy imports, generally speaking, are part of a healthy system, because of the flow of energy between refineries and ways to make energy a usable product. Where it is problematic is when we have abundant resources here in the United States and we shut down access to them, and therefore offshore our political independence.

Mr. KELLER. Well, I guess I would just ask a question. The President recently said that if Russia invaded in Ukraine that we would supply Europe with energy. Did the President make that statement? Do you recall that?

Ms. TUBB. I know he has been speaking with companies in the U.S. and abroad for how to deal with the energy supply problems there.

Mr. KELLER. I just wondered what the Administration's plan is. If we are not energy independent where are we going to get the energy to send to Europe?

Ms. TUBB. I think that is a great question.

Mr. KELLER. Well, I mean, I have been reading the stuff. The *Washington Post*, the *Washington Times* have articles about the President talking tough, but I am just wondering what their plan is, and if they have one I hope it is a lot better than the one that they had with Afghanistan.

What is happening is, while supporting our European allies and preventing Russia from weaponizing its natural gas supply is a worthy goal. I mean, we should do that. But that effort must go hand-in-hand with strengthening American energy and supporting domestic oil and gas production.

Ms. Tubb, what has the Biden administration done to prepare these two essential goals together?

Ms. TUBB. You know, the Administration, I think, has done everything to communicate both informally and through action by way of regulation, but it does not see a future for coal, oil, and nat-

ural gas in the United States. And I think our allies are noticing that and are quite concerned.

I recently returned from a trip to Eastern Europe and they are particularly concerned about the Administration's posture toward natural gas and providing technical expertise on natural gas infrastructure, but I think the same could be said about oil and coal. And when the Administration is telling Americans there is no future for these resources in the United States, it certainly has implications abroad.

Mr. KELLER. Well, how did we anticipate to generate electricity to energize all these electric vehicles that the Administration is proposing the Federal Government buy in the legislation they passed, if we don't have fuel to generate the electricity?

Ms. TUBB. I think that is a very important question. There is no perfect energy resource, renewables amongst them. They bring interesting things to the table but they also bring liabilities. And I think throughout the country grid monitors have been shooting off warning shots at this point about grid reliability, whether we are talking about California, Texas, New England, or—

Mr. KELLER. Well, I would just say that—I thank you for that—I would just say that I think the Administration should rethink what it has been doing and start putting America first with strong energy policy.

Thank you, and I yield back.

Mr. GOMEZ. Thank you so much. The gentleman from Illinois, Mr. Krishnamoorthi, is recognized for five minutes.

Mr. KRISHNAMOORTHI. Thank you, Mr. Chair, and thank you to the witnesses for coming in today.

Ms. Tubb, you are a Senior Policy Analyst for Energy and Environmental Issues at The Heritage Foundation. Correct?

Ms. TUBB. That is correct.

Mr. KRISHNAMOORTHI. And you frequently write about climate science, interpreting and translating dense scientific reports for non-experts. In fact, you frequently criticize politicians, media, and others for misinterpreting these reports. And I suppose you must be highly qualified to make those assertions. In fact, The Heritage Foundation proudly lists your qualifications on their website. It says here you were, quote, “previously an intern in the office of then Representative Mike Pence” and you, quote/unquote, “hold a bachelor's degree in history.”

Ma'am, you don't have an advanced degree in physics or geophysics. Correct?

Ms. TUBB. No, and I don't pretend to.

Mr. KRISHNAMOORTHI. And you don't have a degree in atmospheric science or meteorology. Correct?

Ms. TUBB. No, sir.

Mr. KRISHNAMOORTHI. Engineering?

Ms. TUBB. No.

Mr. KRISHNAMOORTHI. Math?

Ms. TUBB. No.

Mr. KRISHNAMOORTHI. Complexity science or systems modeling?

Ms. TUBB. History, sir.

Mr. KRISHNAMOORTHI. In fact, you do not have an advanced degree in anything. Correct?

Ms. TUBB. That is correct.

Mr. KRISHNAMOORTHY. And you are not a climate scientist, are you?

Ms. TUBB. No.

Mr. KRISHNAMOORTHY. Neither am I. But in 2015, you wrote for The Heritage Foundation the following. You said, quote, “There is little agreement as to how much global warming is attributable to human activity or even if warming is harmful.” Isn’t that what you wrote?

Ms. TUBB. Yes, and I stand by—

Mr. KRISHNAMOORTHY. And you stand by that statement, right?

Ms. TUBB. I do.

Mr. KRISHNAMOORTHY. And, you know, Mr. Mann, is there little agreement as to how much warming is attributable to human activity?

Mr. MANN. No. There is—

Mr. KRISHNAMOORTHY. Sir, let me just go through your credentials, just so that we know exactly on what basis you are making that particular statement. You are a professor of atmospheric science. Isn’t that right?

Mr. MANN. Yes, I am.

Mr. KRISHNAMOORTHY. You have a degree in physics.

Mr. MANN. I do.

Mr. KRISHNAMOORTHY. You have a degree in applied math.

Mr. MANN. I do.

Mr. KRISHNAMOORTHY. You have an M.S. in physics.

Mr. MANN. I do.

Mr. KRISHNAMOORTHY. You have a Ph.D. in geology.

Mr. MANN. I do.

Mr. KRISHNAMOORTHY. A Ph.D. in geophysics.

Mr. MANN. Geology and geophysics.

Mr. KRISHNAMOORTHY. And you are a member of the National Academy of Sciences. Isn’t that right?

Mr. MANN. That is correct.

Mr. KRISHNAMOORTHY. I am not a member of the National Academy of Sciences. Ms. Tubb, you are not a member of the National Academy of Sciences, are you?

Ms. TUBB. No.

Mr. KRISHNAMOORTHY. In fact, Mr. Mann, I think in the IPCC report it said, quote, “It is unequivocal that human influence has warmed the atmosphere, ocean, and land.” Isn’t that right?

Mr. MANN. That is right.

Mr. KRISHNAMOORTHY. And you believe that to be the case. Isn’t that so?

Mr. MANN. The world’s scientists believe that to be the case, and I am one of them.

Mr. KRISHNAMOORTHY. And in December 2021, Ms. Tubb, this is what you wrote. “What is the nature of global warming? Is it a net positive change, a negative, or some mix in between?” Isn’t that what you wrote?

Ms. TUBB. Yes, and I stand by it.

Mr. KRISHNAMOORTHY. Yes, I bet you do.

Now Mr. Mann, how about you? What is the nature of global warming? Is it a net positive change, a negative, or somewhere in between?"

Mr. MANN. Natural factors have probably offset some of the warming. More than 100 percent of the warming is due to increased greenhouse gas concentrations because temporary natural factors actually offset some of that warming. All of the warming is due to our activity.

Mr. KRISHNAMOORTHY. And is the nature of global warming, is that a net positive change, a negative, or somewhere in between, for the planet?

Mr. MANN. The impacts are quite negative and they are getting worse over time.

Mr. KRISHNAMOORTHY. Now with regard to there, quote/unquote, being "little agreement," according to Ms. Tubb, as to how much warming is attributable to human activity, that IPCC report, Mr. Mann, that I just referenced, it was written by more than 200 scientists, drawing on more than 14,000 individual studies, and it was endorsed and approved by the governments of 195 countries. You don't disagree with that, right?

Mr. MANN. No. Not at all.

Mr. KRISHNAMOORTHY. How about you, Mr. van Baal? Mr. Van Baal, can you hear us?

Mr. VAN BAAL. I fully agree with Dr. Mann here.

Mr. KRISHNAMOORTHY. Now let me just ask you something, Mr. Mann. What does it mean when we have people—what is the impact of people denying climate science and saying there is little agreement as to how much warming is attributable to human activity?

Mr. MANN. Well, it provides an excuse for the forces of inaction, and we have already heard about the dark money groups and their relationship with the fossil fuel industry. Look, they understand that if we address this crisis it is going to hurt their economic bottom line, and they have fought tooth and nail to prevent action for decades. That is the harm. It continues this lie that climate change isn't real and it is not human caused, and it is not having detrimental impacts.

Mr. KRISHNAMOORTHY. Thank you and I yield back.

Mr. GOMEZ. Thank you. The gentleman from Florida, Mr. Donalds, is recognized for five minutes.

Mr. DONALDS. Thank you, Mr. Chairman. You know, this hearing is a complete and utter waste of time. I mean, this thing is ridiculous. I thought we had wasted a lot of time here in Congress, and fortunately for the American people we do, and this hearing adds to that. We are examining Big Oil's climate pledges. These are multinational companies, and you are trying to get them—you are trying to force them to adhere to pledges that the majority party wants them to make about climate change.

I fail to see how that is the responsibility for the Oversight Committee, to enforce pledges that they choose or choose not to make. That is not our purview. That is not our job. I think so much of what we should be doing here is focused on what we can actually control.

Let's talk about the genesis of these pledges, the actual Paris Climate Accords, which, by the way, are not a treaty, because the President of the United States has not brought it to the Senate to be ratified. So if it is not a treaty of the United States, these climate accords, how then do we have the legal authority to try to hold multinational companies, some of which headquarter themselves in the United States?

Can somebody explain that to me, where this body, the House of Representatives, has the ability to literally bully companies into adhering to a climate pledge based upon a climate accord which is not even a treaty of the United States, because Joe Biden won't take it to the Senate, because the Senate will not ratify said treaty? None of this makes sense.

But let's go on to other things that don't make sense. The price of oil is now \$90 a barrel, give or take. Instead of allowing producers in the United States to actually go and drill for this oil, mind you, in a much more environmentally friendly way, Joe Biden doesn't want our domestic producers to go get the oil. He wants to go ask OPEC to go get oil. And then he wants to go ask Russia for oil, because yes, we are importing oil from Russia, you know, that country that is now looking at Ukraine. And so he is trying to tell the Russians, "We are going to cutoff Nord Stream 2 if you go into Ukraine," but at the same time we are importing oil from Russia. Again, none of this makes any sense. But we are going to hold the oil companies accountable for not holding to their climate goals.

You know what the funny thing is? Joe Biden and the Democrats are doing the same, exact thing that the oil companies are doing. You see, the Democrats are running around talking about how, "Oh, we are going to cut carbon emissions by 2030. We are going to be tied to the Paris Climate Accords. This is what we are going to do. It is going to be great for our environment." But in the same breath we are relying on countries in other parts of the world to drill the oil that we need to keep the lights on, to drill that oil that, you know, for Dr. Mann, he needs to power Penn State.

Dr. Mann, at Penn State are you guys, are you at zero emissions at Penn State right now?

Mr. MANN. I don't control Penn State's emissions, but I——

Mr. DONALDS. Dr. Mann——

Mr. MANN [continuing]. For my own power it comes entirely from renewable energy.

Mr. DONALDS. Dr. Mann, I am talking right now. Dr. Mann, does Penn State even have the ability to be zero emissions?

Mr. MANN. They have a goal to do that, but I don't set their standards.

Mr. DONALDS. Dr. Mann, if Penn State went to zero emissions today would you freeze in your office and would your students freeze in their classrooms and their dorms?

Mr. MANN. That is the silliest question I have heard today.

Mr. DONALDS. It is not a silly question.

Mr. MANN. I mean, that isn't a scenario.

Mr. DONALDS. That is actually the one question that makes sense. If you cutoff energy, people will freeze.

Mr. MANN. Nobody is talking about cutting off energy, are they?

Mr. DONALDS. If you cutoff energy, economies cannot thrive. If you cutoff energy, then what we are arguing about right now, with respect to what the Big Oil's climate pledges, will not matter because every Member of Congress, every member of the Senate will have constituents who will be furious because they simply cannot heat their homes at a time where, yes, it is cold outside. And anybody in D.C. knows right now it is cold.

Like I said, this is a ridiculous hearing. We should be focused on so many other things, like why is it that a barrel of oil is going to \$90 a barrel right now, and will probably go higher, and what that means for people who live in the northern states in the United States when it comes to heating their homes. Why have their heating costs doubled in the last year? Why have they gone up? It is because of bad economic policy coming out of the White House. And considering all the decisionmaking that this White House is engaged in, it is no wonder that they are wrong again.

I yield back.

Mr. GOMEZ. The gentlewoman from Michigan, Ms. Tlaib, is recognized for five minutes.

Ms. TLAIB. That was something. I just want you all to know, Ms. Lewis, Mr. van Baal, Dr. Mann, like thank you for speaking truth, because I know in this hearing it doesn't feel like it, but my residents are in some of the most polluted ZIP codes in the Nation. They are not talking about Russia and China. They are not talking about that. Do you know what they are talking about is their kids getting asthma, is the fact that they are getting preexisting conditions that are worsening their public health, and many of them are dying at a higher rate of COVID because of the environmental racism, because in their back yard they literally have over 200 to 300 air permits.

You know, I have got BP up here lying to inventing the carbon footprint to blame consumers for climate change. Exxon has all of us all convinced that renewable and natural gas go together, like peanut butter and jelly.

In my district, Marathon Petroleum had made themselves out to be some indispensable company in my district. They destroy our air and water, PFAS contamination, you name it. Yet they still expect us to thank them in return because they pass out backpacks to the kids in my community, with their logo on it. And the funny thing is they change it spell out "murder."

These companies are skilled at deceiving our country, deceiving our residents, the people we fight for, that their fossil products are good for the people and the planet. That is the truth. Now they are telling us that they are, quote, "energy companies" rather than oil companies, signaling a shift away from oil. In 2021, BP announced its net zero strategy. Part of the strategy was pivoting from international oil company to integrated energy company. But BP spent 4.3 percent only of its capital expenditures on clean energy in 2021.

So Mr. van Baal, I mean, do you think spending four percent of the company's investment on clean energy makes it an integrated energy company?

Mr. VAN BAAL. Absolutely not, Congresswoman. If you claim to be in an energy transition, if you claim to pivot to other sorts of

energy, which would be great, by the way, then you would at least spend 50 percent of your investments in this new business model.

Ms. TLAIB. Absolutely.

Mr. VAN BAAL. These companies with these small amounts, which, by the way, most of them are smaller than their marketing amounts, risk being the Kodaks of the 21st century.

Ms. TLAIB. You know, Ms. Lewis, I am trying to gentle here, Ms. Lewis, because, I mean, they are lying, but I am just going to ask you. Would you describe this branding exercise as misleading or deceptive?

Ms. LEWIS. Congresswoman, I appreciate your passion and pursuit of truth, and yes, it is exactly meant to mislead the American public on what their true intents are.

Ms. TLAIB. You know, in a 2020 interview with Bloomberg, Shell CEO—you guys probably, I don't know if everybody talked about it or not—the Shell CEO said, and I quote, “The very fact that in this interview you referred to us an oil company is symptomatic of the problems that we are facing. We are a much more sophisticated, integrated energy player and we are trying to grow our non-oil part much faster than the oil part.”

So, Mr. van Baal, do you agree with Mr.—is it van Beurden—that Shell is no longer an oil company?

Mr. VAN BAAL. Not at all. They are still an oil company, and this year they are going to spend around 12 percent on renewable energy. So absolutely not.

Ms. TLAIB. You know what is so disgusting is how they think, like us Americans, like we are dumb. Like of course we know that they are. Like stop treating us like we are dumb.

Mr. VAN BAAL. Yes. There was a Dutch—

Ms. TLAIB. So, Doctor—no, I am sorry, Mr. van Baal—but Dr. Mann, because I only have a few minutes, is Shell acting with the speed and ambition necessary and consistent with the Paris Climate Agreement? I think you have said, yes, they are not, right? Is that a no?

Mr. MANN. No. That is a firm no.

Ms. TLAIB. So fossil fuel companies are saying all the right things in public. I mean, they have the best press conferences. My kids are on YouTube seeing their beautiful commercials and stuff, and I am out here saying, you know, those are the people poisoning us. Be careful. I mean, literally, this is so incredibly dangerous.

If we only listen to their speeches and advertisement you might be fooled into thinking we are on track for a safe climate and a sustainable future, but they are not doing what they say they are doing.

And so I intend to work, as vice chair of the Environmental Justice Subcommittee on this House Oversight Committee, I intend to work with my colleagues, because, you know, the American people deserve better than this. I am tired of it. I am tired of—I mean, four times I saw basements flooded in just one home. Homes, tons of homes in my community, and all of it again is direct impact. They are not saying what my colleagues are talking about. They are saying we are literally getting sick, and it is hard to live with this climate crisis right now. It shouldn't be this hard.

So I thank you, and again I yield.

Mr. GOMEZ. Thank you. The gentleman from California, Mr. DeSaulnier, is recognized for five minutes.

Mr. DESAULNIER. Thank you, Mr. Gomez, and I want to associate myself with the passion of the previous speaker, my friend from Michigan.

In 2016, Representative and I, Ted Lieu, from Torrance, myself from Contra Costa in the Bay Area, two of the most intense fossil fuel footprint areas on the West Coast, led an effort after the L.A. Times had reported a terrific investigatory series in partnership with Climate Action on what Exxon had done to obfuscate its role and its knowledge. We asked for information—that was in 2016, through this committee—and we are still waiting for much of that response.

As somebody who represents a very fossil fuel-dependent area—we have four refineries in the county I represent; Chevron has its headquarters here—I just want to—and Dr. Mann and Ms. Lewis, really I have a couple of questions for you, some quotes. BP says it “aims to be a very different kind of energy company by 2030, as we scale up investment in low-carbon energy.” Chevron says, “Leadership and innovation to advance a lower-carbon future.” Exxon, “Committed to helping transform our energy systems and working to reduce emissions in the short time while also working on advancing decarbonization solutions.”

Contrast that with their financial reports. Between 2010 and 2018, out of total capital expenditures, BP spent 2.3 percent on low-carbon investments, Shell spent 1.3 percent on low-carbon investments, Chevron less than one percent, 0.23 percent—Chevron, a California company. ExxonMobil spent 0.22 percent on low-carbon investments.

So, in addition, according to the Carbon Disclosure Project, the 24 largest publicly owned oil companies spent less than one percent of their budgets on low-carbon investments between 2010 and 2017.

So my colleagues brought this up before, on the other side of the aisle. Part of this is the moral problem, but it also is identifying where we are in the global environment that is quickly changing, and the money is definitely moving that way. All major car companies and heavy-duty manufacturers are moving to alternative fuels. The Chinese are adding 100,000 charging stations a month. We have 42,000 in the entire United States. They have almost 1.5 million now.

So we are in a race to be globally competitive to transition. I am very involved with trying to transition these refineries in the Bay Area and California off of their current position. Municipal government is very dependent on the property tax, particularly school districts in California, as is Los Angeles, as is Puget Sound on the West Coast. It has limited deep water ports so they are valuable.

So, Dr. Mann, why should we trust them when they come in and say they are going to transition and work with us? And then second, Ms. Lewis, shouldn't they be accountable legally for the delay they have caused in us being competitive and also meeting our targets in terms of reducing carbon? First, Dr. Mann.

Mr. MANN. Yes. They are not going to do this voluntarily. You know, what more evidence do we need for that? So that is why we

need incentives. That is why we need policy that makes it necessary for them to move in the direction that we know they have to go.

Mr. DESAULNIER. Ms. Lewis, why shouldn't they be held accountable? We have got the same problem. Dr. Mann mentioned this is the legacy of caveat emptor, buyer beware in contract law, from my perspective. The pharmaceutical industry, the tobacco industry, so many examples of these large industries, and now the oil industry, why shouldn't they be held accountable for their short-term investments and their misleading the public when it comes to public health and our natural economy? Why shouldn't they be held accountable, according to law, both personally and as corporate entities?

Ms. LEWIS. Congressman that is an excellent question, and it is very clear that they can be held accountable. Congress has done it before. Again, we refer to the tobacco settlements. It has been done—mortgage crisis, done before, so it can be done again.

Mr. DESAULNIER. So that begs the question, we know this is a pattern of human experience. I don't understand why, when we look at this—and Dr. Mann, you said this in your comments earlier—this is the same business model, but we all end up paying for it. The shareholders and the investors and the corporate officers leave with tons of money, yet it happens again and again, and the energy industry is just another example. In my area, the local editorial board once said we are addicted to this product. We are like we are dealing with a drug dealer here, where we are trying to extract ourselves from a relationship.

Thank you, Madam Chair. I yield back.

Mr. GOMEZ. Thank you so much. The gentleman from Vermont, Mr. Welch, is recognized for five minutes.

Mr. WELCH. Thank you, Mr. Chairman. I want to follow up on my colleague, Mr. DeSaulnier, in his line of questioning. No. 1, fossil fuels have been with us for a long time. The energy companies became aware, a long time ago, about the impact on the environment and the effect of the pollutants and its contribution to climate change. It concealed that information and, in fact, advocated for, in effect, fake science to try to dispute it.

Times have changed, where we are well aware of the fact that the planet is in peril. The Paris Agreement was an indication of countries coming together to at least acknowledge that.

The major oil companies, in my view, have to be an important part of the solution. The oil companies have said that they intend to be part of that solution and they embrace the Paris Accords and they claim even, in many cases, to favor a tax on carbon.

But let me ask you, Mr. Mann, is what they have done with their capital expenditures in line with what their public statements are about wanting to go to clean energy? Dr. DeSaulnier went through what their profits were. He left out, I think, how much they spent on stock buybacks, but he documented how little they spend on clean energy. Can you go through this, because we have to make decisions as to whether we can trust what they say they want to do versus what they are actually doing with investors dollars.

Mr. MANN. Yes. Well, there is no question that I think all of them have said that they continue to continue with fossil fuel ex-

ploration. They plan to continue to increase their fossil fuel reserves. And so that is going in exactly the opposite direction of the Paris Agreement and our commitment to lower carbon emissions by 50 percent within this decade. There is no way we can do that if we have energy companies that are still seeing themselves as fossil fuel companies and continuing to move in the wrong direction, maybe a little more slowly in the wrong direction but they are still moving in the wrong direction.

Mr. WELCH. Mr. Donalds asked, I think, a fair question about the jobs that are associated with this industry, and that is of concern to me. Any time that one of our citizens has a job, we have to take that very seriously. But I will ask Tracey Lewis, if, in fact, a company is looking over the horizon and seeing where the opportunity lay, what Mr. DeSaulnier again laid out was how many of our competitors including China, are going all in on electric and they are making investments accordingly, and is there an economic danger that threatens our job stability if we are behind the curve when it comes to moving into clean energy technology, electric vehicle technology?

Ms. Lewis, do you want to respond to that?

Ms. LEWIS. I am very happy to, and as a proud alumni of Vermont Law School I am glad to answer.

It is very clear that we cannot fall behind. We have got to ensure that folks who are involved in fossil fuel industries, those workers who put their lives at risk, are able to transition to good-paying jobs. We also need to ensure that there are more employment opportunities in green jobs. That is what the future is going to bring. So it is within the purview of Congress to also help make that happen.

Mr. WELCH. And on this question again of responsibility, we have had industries where they peddle tobacco, denying the health consequences, or in some cases pharmaceuticals that have had very adverse health outcomes. Is there any question about the health hazard of continuing to load carbon emissions into our atmosphere? And I will ask Ms. Tubb if you want to answer that.

Ms. TUBB. I think the market will determine if these products are valuable, and currently 80 percent of Americans' energy needs are met by coal, oil, and natural gas. And to me that tells me that Americans want to continue using these resources, and until Congress tells these companies otherwise, by way of law, which is the transparent and accountable means of communicating change, these companies, I think, have every right to continue providing their shareholders with value.

Mr. WELCH. Well, you know, you are talking about the market. You are talking about individual choice. But if the only thing you can afford is a combustion engine car—there are no incentives, and then there is no investment by companies—individuals do not have a choice. Do you think most individuals would prefer to have a car that can end the climate change and these wild storms and wildfires out in California?

Ms. TUBB. Sir, it is not my place to tell people what to buy.

Mr. GOMEZ. Time has expired.

Mr. WELCH. I yield back. Thank you.

Mr. GOMEZ. Thank you so much. Votes have been called, but we only have two more members. We will get through the two more members and then we will adjourn after those two members go.

The gentlewoman from Missouri, Ms. Bush, who has been patiently waiting, is recognized for five minutes.

We can't hear you, Ms. Bush.

Yes, we can hear you now.

Ms. BUSH. All right. Thank you so much. And I thank Chairwoman Maloney and Chairman Khanna for convening this important hearing.

When fossil fuel companies produce massive greenhouse gas emissions, St. Louis heats up. When St. Louis heats up, more bullets fly and more kidneys fail, lives are lost, and in St. Louis it is the lives of Black people that are disproportionately lost as a result of this hearing.

Dr. Mann, St. Louis has 11 more 90-degree days per year today than when I was born. How will a community like ours continue to change in the next 10 years?

Mr. MANN. That is right. We are seeing a huge increase in the frequency of these extremely hot spells, temperatures above 90 degrees Fahrenheit, 100 degrees Fahrenheit. And if we continue on the course that we are on right now, if we continue with business as usual burning of fossil fuels, by the middle of the century most of summer will feel like the hottest day that you experienced in your life. So that is the sort of future that we face if we fail to act now, and it will only get that much worse, and as you allude to, the problem is worse, for example, in urban environments that tend to be heavy minority populations, where, you know, there are studies that showed that they live in the most susceptible places, the hottest places, the places most susceptible to flooding.

Ms. BUSH. Thank you. And all the while the fossil fuel industry spends huge sums on misleading advertising, pretending that they are part of the solution.

We are here today talking about how fossil fuel industry needs to dramatically reduce emissions, but they are not. They will not. They are admitting they are not. You know, these intentional and misleading pledges are evidence enough that their decades of climate denial continue.

I am a black Congresswoman with asthma, asthma made worse by being hit and sprayed with tear gas and pepper spray. My asthma is not a coincidence, though. A 2021 EPA analysis found that black communities are 34 percent more likely to have increased childhood asthma diagnoses due to climate change. It is in communities like mine that fossil fuel companies' emissions put our health at risk first. Fossil fuel facilities are typically located in our communities, predominantly black and brown communities, where they compound toxic pollution to exacerbate underlying health conditions.

So Ms. Lewis, please describe how Big Oil's pledges reveal they are planning to continue building factors and refineries in communities of color.

Ms. LEWIS. Thank you so much, Congressman Bush.

It is very, very clear that despite the pledges, the march toward increased fossil fuel infrastructure is planned, particularly around

carbon capture and carbon sequestration, underground sequestration. Those plants will never be built in the center of town. They will never be built in wealthy neighbors like Baden University in St. Louis. That won't happen. They are going to be in the underserved communities where black, brown people live, in urban areas where indigenous people live, and impact their health. So we have to deal with this, and the way that we can stop it is by stopping funding them with taxpayer dollars for subsidies for multibillion dollar companies.

Ms. BUSH. You got right to it, Ms. Lewis, because I was going to ask you, because we know that these companies aren't going to reduce the emissions themselves, what do you specifically think Congress must do to intervene? Do you have anything else on that point?

Ms. LEWIS. Oh yes, happy to add here. You know, one, keep holding hearings like this holding companies' feet to the fire. Also, I think that you have the capacity to speed up our transition toward a future of renewable energy, and that is really key to protecting these communities that are directly impacted by the harms of the fossil fuel industry.

Ms. BUSH. Yes, thank you. We know that black folks are 40 percent more likely than other groups to live in areas where extreme temperatures driven by climate change will result in higher mortality rates. Structural inequity, environmental racism, and climate change have made our communities lethal environments. Communities like mine are suffering from the climate crisis right now. We will not wait around for the fossil fuel industry to intervene to stop their own environmental bias and racism that has continued for decades. Big Oil will continue to prioritize profits over black lives until we intervene ourselves, which that is what we are doing. This investigation that the committee is undergoing right now, it is essential to the work to save lives. Thank you, and I yield back.

Mr. GOMEZ. Thank you so much. The gentlewoman from Massachusetts, Ms. Pressley, is recognized for five minutes.

Ms. PRESSLEY. Thank you, Mr. Chair. As we just heard from really all of our colleagues, the climate crisis is not a theoretical problem for the future. It is an imminent problem and crisis right now. From coastal flooding to the urban heat islands threatening communities like Chelsea and East Boston in my district, the Massachusetts 7, it is real and it is here. In order to confront it, we need real solutions that are proven to work and to keep our planet safe. Fossil fuel companies like to point to carbon capture and sequestration, also known as CCS technology, as a way to offset their greenhouse gas emissions, while allowing them to continue producing a toxic product at the same level, but there is little evidence that the technology actually works.

Former CEO of Exxon, Lee Raymond, spoke at the 2007 National Petroleum Council Conference about the future of carbon capture. He said CCS technology "has never been demonstrated at scale. It is a huge, huge undertaking. People just assume that it can happen. You can't assume that is going to happen." Yet Big Oil continues to endorse carbon capture. Dr. Mann, have there been advancements in CCS technology that make you believe it will perform as advertised by fossil fuel companies?

Mr. MANN. No, I don't see any evidence at this point. There hasn't been a proof of concept that shows that you can use CCS and produce energy without producing carbon pollution. And as long as there is no proof of concept for that, then obviously it is not a meaningful climate solution, and it displaces meaningful climate solutions, like clean energy and renewable energy.

Ms. PRESSLEY. Thank you. I wholeheartedly agree. Carbon capture is not proven and its risks are catastrophically dangerous. In 2020, a CO2 pipeline ruptured and burst in Yazoo County, Mississippi, a low-income and majority black population, and because of the rupture of high pressure gases, a noxious green fog seeped out, spread through the area, leaving residents convulsing, foaming at the mouth, and even unconscious. As we approach the two-year anniversary of the Yazoo County pipeline explosion, we must recognize this carbon capture explosion is just another example of the toxic legacy of environmental racism that has plagued our Nation for far too long.

Ms. Lewis, what can the Federal Government do to limit existing and future harms to frontline and vulnerable communities, which are disproportionately black and brown folks, from these toxic pipelines?

Ms. LEWIS. Thank you so much for that incredibly important question. It is heartbreaking to even hear those effects of that pipeline burst. So clearly, the industries will not build if they are not siphoning American taxpayer dollars to subsidize their so-called carbon capture, so let's just end it. Let's be done with it. Let's end 45Q that gives tax breaks to companies that say they are going to build yet haven't, and they have already cashed the checks. Let's continue to push. Let's continue to highlight the harmful effects on our most vulnerable communities, and I think we can start to make some real impacts there.

Ms. PRESSLEY. Right, so-called CCS, you know, more through the propaganda here. So Big Oil touts CCS and other improvement technology because they want to keep producing fossil fuels rather than doing what is really necessary, reducing extraction and production of oil and gas. Let's recognize carbon capture for what it is. As you just so eloquently pointed out, Ms. Lewis, it is a delay tactic and a distraction. And I yield back.

Mr. GOMEZ. The gentlewoman from New York, Ms. Ocasio-Cortez, is recognized for five minutes.

Ms. OCASIO-CORTEZ. I thank the chair and Chairwoman Maloney for convening the hearing, and I thank Congressman Pressley as well as Bush for highlighting two very important topics, but especially debunking the myths of CCS as some sort of proven or effective method of drawdown.

You know, know Exxon, Chevron, and BP, and Shell all say that they support the Paris Agreement, and all four companies have made public pledges which they claim are consistent with the Paris Agreement goal of keeping warming below 1.5 degrees Celsius. But virtually every credible scientific study we have has found, or rather, has concluded that all four companies' pledges fall terribly short of this goal. MSCI, a prominent investment research firm, has estimated how much the planet would warm if the future economy reflected the climate pledges of each of these fossil fuel companies.

So if we start with Shell and BP, these pledges may be more ambitious than other U.S. companies. But MSCI says that if the world economy reflected Shell's pledge, the world would warm to 2.7 degrees, far higher than the 1.5 of Paris. If it reflected BP's, we would have 3.1 degree Celsius.

Now, Dr. Mann, I think sometimes what gets lost in public imagination is that the actual number—1.5, 2.7, 3 degrees Celsius—may seem quite small to a layperson. Maybe perhaps not a big deal. And so I kind of want to go a little bit back on the record because in many of our hearings, we haven't really had witnesses be able to actually articulate what this means for humanity. So let's get a better sense of what that would look like and for the world. In images, in experiences, what would global warming of about three degrees look like for the planet and for everyday people? What are their experiences? What are we seeing, et cetera?

Mr. MANN. Yes. Well, I mean, again, if you look at the worst events that we are now dealing with—the superstorms, the wildfires—some of this stuff feels almost dystopian. It feels like it is a view into a future apocalypse, but it is now, so imagine it getting that much worse. Imagine that we have twice as much area burned each summer in the western United States. Imagine that the floods grow, you know, a foot or more greater than what we have seen so far. Imagine sea level rise combined with more intense hurricanes that makes a Superstorm Sandy event, like you folks experienced in New York, rather than being a 1 in 100 or 1 in 30-year event, that sort of event happens typically every other year. That is a possible future. We have even done some research that bear out those numbers.

So, you know, you don't have to use your imagination. That is what is so unfortunate. You can see these impacts now playing out, and they will just get that much worse if we don't act.

Ms. OCASIO-CORTEZ. Now, Ms. Lewis, are any of these companies, fossil fuel companies, in your view, currently making the investments necessary to reach a 1.5 degrees Celsius goal?

Ms. LEWIS. No, there are not.

Ms. OCASIO-CORTEZ. And do any of these companies' financial plans for future investments put them on a path consistent with the Paris Climate Agreement either?

Ms. LEWIS. Sadly, they do not.

Ms. OCASIO-CORTEZ. So, you know, they are publicly saying that they believe in the Paris Agreement, but all of their actions pretty much indicate that is a lie. Do you think it would be fair to say that Ms. Lewis?

Ms. LEWIS. Well, Congresswoman, I would call it a falsehood, yes.

Ms. OCASIO-CORTEZ. Yes.

Ms. LEWIS. Your term is very—

Ms. OCASIO-CORTEZ. Thank you. I appreciate your diplomacy. And perhaps, you know, I think that may be because the profits are too good to let go. You know, not only is it the fossil fuel business model, but also they received millions of dollars in government subsidies, including the 45Q tax credit, which provides companies with a rate of \$50 per metric ton of carbon capture that Congressman Pressley had mentioned just immediately previously. So, Ms.

Lewis, what kinds of perverse incentives do tax credits like 45Q set up for Big Oil companies? And, you know, I know Mr. van Baal seemed to have his hand raised, and I would like to give him an opportunity to speak as well.

Ms. LEWIS. Sure. I will just say that Congress could pass EPWA, the End Polluter Welfare Act, to address some of those concerns, and I will defer to Mark.

Mr. VAN BAAL. Yes, the remark I would like to make about all these pledges of these, they all pledge to be net zero emissions in 2050, and they don't take necessary action in the next 10 years. In the next 10 years, we will win or lose the fight against climate change. We have to make very bold and brave decisions in coming years to reduce emissions by 50 percent in 2030, so talking about 2050 is pointless if you don't have targets to reduce your emissions in the next decade. And none of these Big Oil companies have, although their shareholders want them to do that because their shareholders see that all their assets are at risk.

Ms. OCASIO-CORTEZ. Mm-hmm. Thank you very much, and I yield back to the chair.

Mr. GOMEZ. Thank you so much. Any other members? Nope.

Seeing none, in closing, I want to thank our panelists for their remarks, and I want to commend my colleagues for participating in this important conversation.

With that, without objection, all members will have five legislative days within which to submit extraneous materials and to submit additional written questions for the witnesses to the chair, which will be forwarded to the witnesses for their response. I ask our witnesses to please respond as promptly as you are able.

Mr. GOMEZ. This hearing is adjourned.

[Whereupon, at 1:36 p.m., the committee was adjourned.]

