

**FUELING THE CLIMATE CRISIS:
EXAMINING BIG OIL'S PRICES,
PROFITS, AND PLEDGES**

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

SEPTEMBER 15, 2022

Serial No. 117-102

Printed for the use of the Committee on Oversight and Reform



Available on: *govinfo.gov*,
oversight.house.gov or
docs.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE

WASHINGTON : 2022

48-612 PDF

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The documents listed below are available at: *docs.house.gov*.

* *Gimodo.com*, article on Oil Company Advertising; submitted by Rep.
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* *National Review*, article; submitted by Rep. Clyde.

FUELING THE CLIMATE CRISIS: EXAMINING BIG OIL'S PRICES, PROFITS, AND PLEDGES

Thursday, September 15, 2022

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

The committee met, pursuant to notice, at 9:45 a.m., in room 2154, Rayburn House Office Building, Hon. Carolyn Maloney [chairwoman of the committee] presiding.

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

Also present: Representatives Casten and Graves.

Chairwoman MALONEY. The committee will come to order.

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

I now recognize myself for an opening statement.

Today, we are holding our third hearing in the committee's investigation into the fossil fuel industry's decades-long climate disinformation and greenwashing campaigns. At our first hearing last October, Big Oil executives admitted for the very first time to Congress that climate change is real and that burning fossil fuels is a primary cause, and that this is an existential threat to our planet. But these executives refused to commit to real changes, to keep warming within acceptable levels. Instead, they repeated their company's misleading climate pledges and described their "aspiration" to reduce emissions decades in the future.

In February, we held a second hearing. We brought in climate experts and investors to evaluate these pledges. Their testimony was clear. Not only are Big Oil's climate pledges misleading and insufficient to curb warming, but none of the companies is even on track to meet these pledges. Not a single one is going to meet the pledges or on track to do so.

Since that hearing and following Russia's invasion of Ukraine, the fossil fuel industry has reaped record profits while people around the world paid more at the pump. Exxon made \$17.9 billion in their most recent quarter, and it is the largest ever quarterly profit, and BP recently posted its highest quarterly profit in 14 years—and we see these astonishing numbers here—\$8.5 billion;

Chevron, \$11.6 billion; Shell, \$11.5 billion, Exxon, the largest quarter ever at \$17 billion. But these companies used this windfall profit to enrich investors and boost salaries of top executives. Their clean energy investments, however, were a drop in the bucket.

Today, our committee is releasing new documents from our investigation that shed light on how the fossil fuel industry misled the public about their climate goals, their actions, and their investments. For example, documents show that even as Shell Oil promoted an economy-wide path to net zero emissions, an employee admitted in private that this scenario had “absolutely nothing to do with our business plans.” And while BP touted carbon capture as key to its transition to cleaner fuel, the company privately hoped this approach would “enable the full use of fossil fuels across the energy transition and beyond.”

We also found that Exxon spent nearly \$70 million to advertise its research in algae-based biofuels, but company documents reveal that technology is “still decades away from the scale we need. We probably won’t see it.” We probably won’t see it in our lifetime, and yet they were promoting it. And the documents show that both Exxon and Chevron fought hard to avoid making any real commitments to advocate for the policies they claimed to support. That is why I love documents. Documents don’t lie. Put simply, these documents show that Big Oil is still not taking its responsibility to curb emissions seriously, and while the fossil fuel industry fiddles, our planet is burning.

This summer we have seen extreme weather that would have been unthinkable just a few years ago. Heat waves and drought are drying up entire rivers in the American West. Record floods are devastating communities in Kentucky, Missouri, and Texas. As climate change intensifies, these disasters will become more frequent, more expensive, and more deadly.

Today, we will hear from survivors of extreme weather from across the country. These men and women have suffered heartbreak and devastating loss, and they are joining us today to urge the fossil fuel industry to finally take real action to address its central role in the climate crisis. We will also hear today from experts, who will speak to the harm that burning fossil fuels has inflicted on our economy and our communities, even as it fattens the pockets of Big Oil executives.

Finally, we invited board members from Exxon, Chevron, Shell, and BP to testify today. We wanted them to answer for the record profits their companies are raking in, while fleecing consumers at the pump and refusing to take meaningful action on climate change. Unfortunately, none of these fossil fuel directors bothered to show up. These four companies have also taken other steps to obstruct this committee’s investigation. After I issued subpoenas last November, the companies withheld documents at the heart of our investigation, including from their boards of directors, while flooding the committee with thousands of press clippings and other materials. Today, I am renewing my call for these companies to comply with these subpoenas. I want to be clear that our investigation goes on and that we will not stop until the American people get the truth about the fossil fuel industry’s role in our climate crisis.

Before I close, I want to briefly address claims that we should not be pressing Big Oil to clean up its act because this will raise energy costs on consumers. The truth is that Americans are suffering from high energy costs in large part because of Big Oil, which is making record profits, the highest they have ever made, while charging high prices at the pump. Fossil fuel companies could lower prices. They could lower them dramatically and still have billions left over to invest in transition to a cleaner and, ultimately, cheaper fuels.

Unlike the oil companies, Democrats in Congress are taking action. President Biden's Inflation Reduction Act, which we passed last month, provides nearly \$370 billion to cut emissions, promote clean energy, advance environmental justice, and this law is estimated to cut energy costs for the average American family by \$500 a year. So Democrats are showing it can be done. We can bring down inflation, reduce energy costs for Americans, and solve the climate crisis. Big Oil needs to do its part. They must end their greenwashing and finally take climate change seriously before more Americans and communities are harmed.

I now invite my distinguished colleague, Ranking Member Comer, to give an opening statement, and again, publicly thank him for attending the ceremony for our late distinguished chair of this committee, Elijah Cummings. Your presence really meant a great deal, and many Democrats expressed to me how much they appreciated your taking part in it, including the family, so thank you.

Mr. COMER. Thank you, Madam Chair. I was honored to be a part of the ceremony, and I know Jason Chaffetz was as well. So we both enjoyed seeing everyone, and we both shared a high level of respect for Former Chairman Cummings, so, again, thank you for the invitation to be there.

And I want to thank our witnesses for being here today and your willingness to testify before the committee. Republicans on this committee have been forced to question the motivation and legitimacy of the Democrats' investigation of the oil and gas companies. This investigation is part of the Democrats' war on America's energy producers, an industry that creates good-paying jobs and provides access to reliable, affordable energy for Americans.

Instead of conducting oversight of government waste, fraud, and abuse, Democrats continue to encourage and enable the Biden administration to enact radical climate policies that have led to our Nation's energy crisis. This hearing is apparently the grand finale after issuing unnecessary subpoenas, demanding information protected by the First Amendment, requesting that board members' spouses' phone numbers and names be unredacted in document production, and continuing to claim companies are not cooperating, despite providing over a million pages of documents, over a million pages.

After issuing a press release on February 3 demanding board members appear at a hearing on March 8, Democrats decided to cancel the meeting. According to media reports, a committee staffer said the hearing was postponed to focus on oversight of the Russian invasion of Ukraine, and that it would be rescheduled as soon as possible. But it has been five months, and we are still waiting

for a full committee hearing on Russia invading Ukraine. Instead, we have had a full committee hearing on the work environment at the Washington Commanders, and Democrats also found time to release a staff report after conducting a hard-hitting investigation into pet flea and tick collars.

And we still haven't heard from a Biden administration Cabinet official. Not a single Cabinet official from the Biden administration has been before this committee. It is clear that Democrats paused this partisan show hearing for five months because publicly attacking America's energy producers would have been embarrassing when the Biden administration's war on domestic energy production resulted in record high gas prices for Americans.

During a hearing with oil and gas executives in October, Democrats on this committee advocated for the companies to decrease production. It is a good thing they didn't listen. The world is on notice of the importance of domestic energy production. Russia's leverage over Europe's energy supply makes the point yet again that energy security is critical to national security. Despite global upheaval, record high gas prices, and skyrocketing inflation, Democrats continue pushing Green New Deal initiatives that make Americans dependent on hostile nations for oil. President Biden went around the world begging and fist bumping directors for oil instead of unleashing American energy production. Meanwhile, Democrats refused to hold a hearing about energy policy with any Biden administration official. Why haven't we had a hearing on gas going over \$5 a gallon in every state for the first time in American history? Why haven't we had a hearing on depleting the Strategic Petroleum Reserves? Why haven't we had a hearing on inflation that is at a 40-year high?

During the past 12 months alone, the price of gas is up over 25 percent, the cost of natural gas is up 33 percent, and the cost of electricity is up over 15 percent. Yet here we are again to talk about climate pledges made by private companies and profits made by private companies. Congress must conduct an oversight of President Biden's disastrous policies that are causing Americans' energy and grocery bills to skyrocket and jeopardize our national security. In March, President Biden made the decision to release 1 million barrels of oil per day over six months from the Strategic Petroleum Reserve, a decision Republicans quickly pointed out as national security concern. SPR inventories have recently sat at their lowest level since 1984, and the United States domestic energy production is threatened. President Biden singlehandedly shut down the critically important Keystone Pipeline, placed a moratorium on oil and gas production on Federal lands, which caused gas prices to reach historic highs.

Under the Biden administration, the household price of electricity is increasing, and it is expected to increase again next year. So many households will struggle under these high energy prices, particularly this winter. In another example of failing Biden administration policy, U.S. household goods could see a 30 to 40 percent hike in energy prices this year. On multiple occasions, we have written, Chairwoman Maloney, to request a hearing with the Department of Energy Secretary, Jennifer Granholm, to discuss these issues, but these requests have been ignored.

As I have stated in the past, 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. That would be disastrous for the American people. Just look at California. I look forward to speaking with the minority witness, Michael Shellenberger, about the consequences of the Biden administration's failed energy policies, and I look forward to setting the table for a real oversight of our government. I want to thank the witnesses again for being here, and I yield back.

Chairwoman MALONEY. The gentleman yields back. I now yield to Representative Khanna, the chair of the Environmental Subcommittee, for an opening statement.

Mr. KHANNA. Thank you, Madam Chair Maloney, and thank you for your leadership in these hearings. Congress is holding a series of hearings this week on Big Oil's role in denying climate change and in profiteering. It is important to hold this industry accountable.

We had the CEOs here in our committee about a year ago, and they all said that they were committed to tackling climate change, that they were committed to meeting the Paris Accords. And yet this committee just today released explosive documents that have been detailed in The New York Times, where we have oil executives taking shots at the kids who are out there fighting for climate change. I mean, they are wishing that kids in the Sunrise Movement have bed bugs. I was appalled. I mean, who wishes that on people? The Wall Street banks never wished on the protesters that they have bed bugs in their beds as they are just exercising their First Amendment right.

And then to have emails making fun of climate change. I was offended as someone who is in California with 110, 120 degrees, and you have these oil executives saying, "Let's drink hot toddies," and, "Why don't the American people toughen up," and denying in 2022 climate. The problem is not the policies. The problem is the culture.

I urge every American to read these documents. I have never seen companies attack kids. I've never seen it. They disagree with them, but wishing them bed bugs? It was just shocking. And then you have the greenwashing, where these companies come, they put almost as much money into television saying that they are committed to climate as they do in the climate investments.

We released documents saying that Exxon, the green algae program, I said, great, they are doing green algae. Guess how much they are putting in it? 300 million dollars. Guess how much their investment is in coal, and fuel oil, and gas? About \$200 billion. So they are putting less than 0.1 percent in green algae, and yet they are putting almost \$68 million in advertising that they are clean. Who do they think they are fooling? Who do they think they are fooling with this stuff? I mean, be honest. I mean, go up with an ad saying we are putting less than 0.1 percent into clean technology. Don't tell the American public that you somehow are going to be a clean technology company and you are committed to the Paris Accords when you are putting in less than 0.1 percent, when you are spending a similar amount on just advertising, money you should be spending in clean technology.

And then the lobbying, the dark money behind the scenes. I mean, these documents show they are lobbying, the industries, to say don't commit to the Paris Accords, don't commit to anything, don't put it in our business plans, while they are parading up for the American public that they are committed to a clean policy. Let me tell these companies something. The American people are not dumb. We are much smarter than they think they are, and they are walking a very fine line by continuing to mislead this public. And that is what this hearing is about, is to hold them accountable and to get them to start telling the truth. Thank you, Madam Chair.

Chairwoman MALONEY. I now yield to Representative Herrell, the ranking member of the Environment Subcommittee, for an opening statement.

Ms. HERRELL. Thank you, Madam Chair, and thank you to the witnesses for being here today. And I am the only Republican that represents the congressional district from New Mexico, and when I won, I pledged to fight for my constituents and protect the industries and jobs that are vital to their livelihoods. Over 100,000 people in my district and around the state are employed by the oil and gas industry, the largest single industry in our state. New Mexico is the third largest oil producer in the country and a world leader in natural gas production. I represent a district that is home to the prolific Permian Basin, and my constituents know firsthand the value of American-produced oil and gas. We live in a Nation that produces oil and gas cleaner than any other country in the world, driven by innovation and new technologies.

In my role as ranking member of the Subcommittee on Environment, I have called on the chairman to issue subpoenas to the Biden administration officials to compel their testimony. The American people deserve to hear from senior-level Biden administration witnesses on their solutions to the energy crisis we face today. Their refusal to come and testify indicates one thing: they don't have solutions. That is why I will spend the remainder of my time doing the Biden administration's work for them and offering real solutions to address the current energy crisis.

First off, President Biden should reform the permitting process and remove obstacles from constructing modern energy infrastructure so that working families in New Mexico and around the Nation don't have to live in fear of blackouts and brownouts. President Biden should reinstitute important reforms to the National Environmental Policy so that Americans can actually build things again. I mean, we can't go on with these policies that are detrimental to the one industry that poses so much opportunity for the American people.

We need to reclarify the definitions of Waters of the United States, the rule that was working, but now it is not because of this Administration. And we need to modernize the Endangered Species Act so the Federal Government stops threatening the livelihoods of my constituents in rural New Mexico. We need to increase oil and gas production on Federal lands so that New Mexico schoolchildren have the funding they need for excellent educational opportunities for decades to come, encourage new offshore and onshore drilling so that our Nation can once again be energy secure.

We need to reduce the regulatory uncertainty that prevents construction of new oil and gas infrastructure, including pipelines and LNG export terminals. And stop robbing the Strategic Petroleum Reserve of vital resources for pre-election gimmicks and putting our national security at risk. End our own reliance on Chinese rare earth and critical mineral production by encouraging investment in a strong domestic alternative by reversing the decision to stop Twin Metals and the Resolution Copper mine. End the practice of sue and settle and hiding settlements from the American people.

The time has come to provide American people with a comprehensive strategy to solve our energy and cost of living crisis. You see, in a couple of months, America will get to make a decision on which path we go down. Are we going to go down the path of American energy innovation, independence, and excellence, or will we see a pathway of summer blackouts and winter price hikes? Democrats have doubled down on failed policies, while Republicans have brought real solutions to the table. It is time we start taking a look at these real solutions and put our energy sector first and foremost and regain our energy independence in this Nation. And with that, Madam Chairwoman, I yield back.

Chairwoman MALONEY. The gentlelady yields back. Mr. Comer is recognized.

Mr. COMER. Madam Chair, I would like to ask for unanimous consent for Representative Garret Graves of Louisiana to waive on the committee today.

Chairwoman MALONEY. So ordered, and I also ask unanimous consent that Representative Casten be allowed to participate in today's hearing. And without objection, it is so ordered.

I did want to respond to the chairman's statements on documents. We are still waiting for documents that we have requested. And it is true we have gotten millions of documents, but a lot of it is just press clippings or things that really are not relevant to what we are looking at and what we want to know. And we have had specific documents that we have subpoenaed, and we are going to continue working hard to get those documents.

Now I will introduce our first panel, which will not be taking questions. First, we will hear from Kara Boyd of Bakersville, Virginia. Then we will hear from Thomas Joseph of Hoopa Valley Tribe in California. Then we will hear from Roishetta Ozane of Sulphur, Louisiana. Then we will hear from Mary Cromer of Whitesburg, Kentucky. And finally, we will hear from Jasmin Sanchez from Baruch Houses, New York.

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

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.

And with that, Ms. Boyd, you are now recognized for your testimony. Ms. Boyd.

**STATEMENT OF KARA BREWER BOYD, BAKERSVILLE,
VIRGINIA**

Ms. BOYD. Dear honorable Chairwoman Carolyn Maloney, Chairman Ro Khanna, Subcommittee on the Environment, ranking members and committee members. Thank you for the invitation. It is truly an honor to address your committee. I am Kara Brewer Boyd, founder and president of the Association of American Indian Farmers. The AAIF has over 3,500 members across the United States. Our membership consists of full-time, part-time farmers, ranchers, landowners, timber owners, and many concerned citizens. I am a regenerative farmer and rancher, maintaining about 1,500 acres, along with my husband, John Boyd, founder and president of the National Black Farmers Association in Southside Virginia, where we grow corn, wheat, soybeans, and hemp along with summer vegetables. Our livestock operation consists of beef cattle, dairy and meat goats, and hogs. Aquaculture and poultry are also integrated into our farm operation.

This hearing is titled, "Fueling the Climate Crisis: Examining Big Oil's Prices, Profits, and Pledges." We know that by practicing regenerative agriculture, we can use nature's proven, time-tested principles to not just take massive amounts of carbon out of the atmosphere, but we can also use it to build back our soils for farms, families, and futures.

Due to increasing extreme weather, the COVID-19 pandemic, and the war in Ukraine, we are currently in a farm crisis, which may lead to a food crisis in the very near future. Farmers already bear the brunt of land degradation and extreme weather events brought on by climate change. The 40-year record high cost of agriculture inputs along with the devastating economic impacts of the pandemic and war have put additional burdens on America's farmers, ranchers, and food supply as we are facing farm foreclosures, significant crop damages, and livestock losses due to excessive drought and heat.

Being an indigenous person here in North America, I highly value food security and resilience as we have always grown and produced food to feed our families, tribal communities, and others. Indigenous agricultural practices help to reduce the burning of fossil fuels as well as conserve natural resources, which include no-till, companion planting, composting, livestock integration, crop rotations, and pollinating buffer strips. Indigenous people rely on predictable weather patterns and planting seasons to dictate to when we plant and harvest our crops, as well as breeding, buying, and selling livestock for pasture and grassland management. Being a good steward of the land includes making decisions with foresight and forethought of the next 7 generations. Remember to take some, leave some, and there will always be some for future generations.

Most agricultural technologies and models have been developed under an assumption of a stable climate. However, current climate change data affirms and poses severe challenges to our national security, livelihood, and survival. We can restore the water cycle and replenish underground clean water sources, making droughts less frequent. We can infiltrate water more quickly and hold more water, thus alleviating flooding. We can hold nutrients on the landscape, thus preventing nitrates and phosphates from entering our

watersheds. We can make farming and ranching profitable again by reducing inputs and stacking enterprises. We can revitalize our rural communities by diversifying local and regional farm production. We can produce food that is higher in nutrient density, thus significantly lowering healthcare costs. We can regenerate America.

While many of these regenerative agriculture concepts are rooted in indigenous knowledge, they are being re-learned and shaped by our current context, and new data emerges that further explains how and why these systems work to regenerate land and sequester carbon. We are living in a time like no other and we need science, technology, indigenous wisdom, and historic thinking working together to move us toward saving our planet, so affectionately known as Mother Earth.

Building back healthy soil is the most cost-effective regional, state, and national investment to address soil degradation, which is directly impacted by Big Oil's extractive practices and the burning of fossil fuels. Indigenous people the world over are disproportionately impacted by resource extraction. We feel that it is absolutely vital that the indigenous voices from the communities most affected communities that have undergone forced relocation and cultural genocide, like the Big Mountain Black Mesa Dine people that are standing as the very blockade to continued mining, and my relatives, the Saponi, Lumbee, and Tuscarora, and other East Coast natives, who are resisting the installation of additional pipelines. We ask for you to continue to listen to the indigenous voices. Thank you.

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

**STATEMENT OF THOMAS JOSEPH, HOOPA VALLEY TRIBE,
CALIFORNIA**

Mr. JOSEPH. Good morning. I would like to recognize the lands of Piscataway and Nacotchtank that we reside on currently, and may our Nation not repeat its past. Greetings. My name is Thomas Joseph. I am a Hoopa Valley tribal member, a descendant of the Lone Pine Paiute Shoshone tribe, and the climate change education organizer of the Indigenous Environmental Network, and it is an honor to be invited to speak here today.

Since time immemorial, my people have called California home. I come from the village of Tsewenaldin and Me'dil ding of the Hoopa people along the Trinity River, which can be identified today as the Six Rivers National Forest, and my father's place, Payahuundau of the Paiute Shoshone, which is often miscalled Owens Valley. The Hoopa people reside on their ancestral territories, which is the largest federally recognized reservation in California, with those lands mostly being forested. Our relationship with our lands have always been and will always be a reciprocal relationship.

I have witnessed firsthand the effects of climate change. The past few weeks, our community has been inundated with forest fire smoke from multiple forest fires across our ancestral lands. This heavy smoke, increasing year after year, is a health risk, an economic strain on our tribal government and people. We only prosper and thrive when our lands and rivers are healthy, and the vital im-

portance of treating our lands with compassion and respect lays the foundation on how we treat each other. Our cultural and our ways of being are directly tied to our relationship with our Mother Earth. Our ceremonies, which teach us our ways of being, which teach us fundamental practices of caring for our Mother Earth, come from the knowledge-based structure that outdates any university or Western science-based system.

I don't say this to undermine or belittle, but to demonstrate the vast amount of knowledge our education system holds when it comes to the management of lands, which we would characterize of not as management of lands, but relationship with lands. Our ceremonies are directly tied to the lands and waters, and without this connection to place, this vast knowledge structure would be a great loss, not just for our tribe, but for all humans as these teachings help humans rebalance an imbalance the Earth is currently experiencing and gives segue toward real climate solutions.

As forest dwelling indigenous people, we understand the vital importance of traditional knowledge that our people have practiced for thousands of years. We acknowledge that when our rivers and forests are sick, so are the people. I believe the current pandemic of COVID-19 is a perfect example of just that. Our planet is sick, and humanity is reflecting that. We are currently witnessing an extinction of numerous lives on earth from our winged, four-legged, and finned relations. Salmon are under great threat. Salmon is a staple part of our diet and plays a vital role in our ecosystems and ceremonies. Earlier this summer, a mudslide caused by ongoing drought and wildfires, this mudslide caused a huge amount of debris and dirt to flow into the Klamath River, which choked out the oxygen in the river, causing a mass salmon kill. The drought and high temperatures in California have caused our forests to become extremely vulnerable to raging wildfires and weather you can read about in my written submission.

Our forests are becoming so dry that our old-growth trees can't even handle a significant amount of snowfall. This last winter, our old-growth trees were snapping during the snowfall, which puts our forest even at further risk of dangerous wildfires. These wildfires threaten wildlife, waterways, even human life. Our tribal community has spent numerous dollars on fighting these fires, on evacuations, humanitarian aid, safety zones, air quality locations, sending the elders to the coast. This list can go on and on. This list also includes the spending of the tribal governments as well as its citizens.

The threat of our tribal nation being burnt out by a wildfire is extremely high. This loss, this break of reciprocal relationship with our Mother Earth is something our people have never faced. Just to name a few things, surviving settler invasion, surviving the 49er gold rush, surviving forced assimilation, including boarding schools, the Hoopa people are still here, still carrying on the traditional indigenous and ecological knowledge of our ancestors through ceremony, through our ways of being, through our reciprocal relationship with our Mother Earth and this relationship to place. This threat is a threat of genocide, and climate change is to blame as well as the corporates of climate change.

We know man has caused climate change. Our people have never been at war with this government. We are not in opposition of you. We are with you as we are people who have laid our lives down to defend and protect this country at greater percentage than any other. It is our duty to protect these lands, and we side with you in this endeavor. But we must be clear in our task at hand. There is no time to waver. A great genocide is upon our tribe and your people, and families are next. I am not here to ask, but to demand that we do all we can to protect and defend our lands, our people, our ways of being, for our very existence depends upon it.

We must hold fossil fuel companies accountable for the atrocities they have caused. We must move forward by ending the fossil fuel industry and keeping fossil fuel underground. We must reject the loopholes that pay off continual business as usual for the fossil fuel industry like carbon markets, carbon capture and storage and net zero pledges. These schemes will not work and will only continue to give fossil fuel corporations permission to harm and destroy our Mother Earth, all sentient beings and non-indigenous human race. Thank you, Chairwoman Maloney.

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

STATEMENT OF ROISHETTA OZANE, SULPHUR, LOUISIANA

Ms. OZANE. Good morning, Madam Chairwoman Maloney and committee. Also, thank you for being here, Mr. Higgins. We were here last week meeting with your office, so it is a pleasure to see you here this morning. I am Roishetta Ozane. I am the founder, director, and CEO of the Vessel Project of Louisiana, which is a mutual aid organization that I founded after Hurricane Laura, Hurricane Delta, Winter Storm Uri, the great flood in May 2021, and the tornadoes that hit in 2021 in Lake Charles.

In August 2021, as a single mom of six, working as a paraprofessional for the local school board, I was devastated to hear the local weather channel saying that we were going to have to evacuate for a hurricane. We have heard evacuation, you know, before, so it wasn't anything new to us, but when we hear that we have to evacuate, a lot of times we don't take it serious because we have heard it so much. When our local weatherman said that he was going to evacuate, we knew it was serious. We all packed up and we headed away from home.

That night we watched as our home was destroyed by Hurricane Laura. When we were finally given the OK to come back home, me and my six children, as we drove west heading back into Louisiana, as soon as we hit Southwest Louisiana, we could see the devastation. Everything was destroyed. Everything had been touched by Hurricane Laura. As I made it into Lake Charles, the tallest building in Lake Charles, which used to be called the Capital One Tower, all the glass was gone. It was very visible the destruction of Hurricane Laura.

We continued to travel west. And as we looked on both sides of the I-10 bridge, it was more destruction. Once we got into the peak of the bridge, all we saw were the lights from industry. No other lights working in the city, but industry was up and running. When I got to my home in Westlake, a tree was on the roof, debris every-

where, and we had to quickly leave because it was getting dark. There were no lights. There was no gas for cars, no water. So we had to continue to travel west to go to Texas because we couldn't stay at home, so we briefly saw our destroyed home.

We finally were given the OK to go home, and cleanup, and try to get back to normal, and a few weeks later, there was another evacuation order for Hurricane Delta. What wasn't destroyed in Hurricane Laura was destroyed in Hurricane Delta. Again, we had to pick up and leave our home. Folks who had a small opportunity to stay in their homes for a few weeks in between the hurricane could no longer come back to their homes after Delta because now their homes were gone. Me and my six children stayed in a hotel from the time Laura hit until November 2021. And I decided that I could no longer commute back and forth, and so we came back. We finally were approved to live in a FEMA trailer. Imagine living in a FEMA trailer with six children in a three-bedroom FEMA trailer.

So even if we don't agree on the causes of the hurricanes, even if we don't agree on climate change, we have to agree that something caused so many detrimental storms in one area in such a small amount of time. And the only factor, the only thing that has changed is the amount of oil and gas industry that we have in Southwest Louisiana. And right now, we have more than 24 proposed projects along the Gulf Coast.

We can't take any more. We simply cannot take any more extractive industry. It extracts our fossil fuel. It extracts our homes. It extracts lives. A common factor in what is going on in communities across the United States and the world is the fossil fuel industries. And that is why each of these frontline folks are here today, because they have all been affected by climate change, and that one common thing is the fossil fuel industries in our communities. Thank you.

Chairwoman MALONEY. Thank you. Thank you for your very moving testimony. And next, Ms. Cromer, you are now recognized for your testimony.

STATEMENT OF MARY CROMER, WHITESBURG, KENTUCKY

Ms. CROMER. Thank you, Chairpersons Maloney and Khanna, Ranking Members Comer and Herrell, and all of the members for the opportunity to testify today about the impacts of the recent flooding in Eastern Kentucky. My name is Mary Varson Cromer. I am deputy director of Appalachian Citizens' Law Center, a small nonprofit law and policy organization in Whitesburg, Kentucky. I have led ACLC's environmental justice program for 15 years. I have been invited to testify about the floods that devastated Kentucky at the end of July.

For five days in late July, rain fell hard and fast, the heaviest rain occurred in the early morning hours of July 27. But despite flash flood warnings, many people say that the first indication they had of any danger was that they woke up to the sound of rushing water. It is important to understand that in our part of Appalachia, there are no broad valleys. The land is a plateau that is deeply furrowed by creeks and rivers. The only flat land for development is along those creeks and rivers. Our communities, our towns are

built in those floodplains. That is why this flood was so devastating and so deadly. Forty people have died so far. Two are still missing. Some areas like Troublesome Creek were particularly hit hard. There, miles of houses along the creek were simply washed away. Search and rescue efforts continued for more than a week. Half of the people who died in the Kentucky floods lived along Troublesome Creek. Whitesburg, where our office is, is a small river town that was badly impacted by the flood.

According to recent FEMA data, 588 houses in our town of only about 2,000 people have been inspected and determined to need habitability repairs. I have been in some of those houses. Habitability repairs require days of hard work: mucking, tearing out walls, drying, and spraying for mold. We have had a lot of really good charitable disaster relief organizations helping with this work, but there is still so much need. There are many in our area, especially those who are elderly and disabled, who have not been able to do that work so far. And because it is a race against the clock to do the work before the mold is out of control, we know that many of our houses will have to be torn down.

Nearly 44 percent of the households applying for FEMA aid in Whitesburg have incomes below \$30,000. Nearly 72 percent of the applicants are homeowners. Less than five percent have flood insurance. From that data, we can discern that if you are poor in Whitesburg, you may have been lucky enough to be a homeowner, but your house was much more likely to have been damaged or destroyed by this flood, and you are not likely to be insured against that catastrophe. For those who already have so little, losing a house is not just about losing what little wealth one has accumulated. That loss will cause further instabilities that will ripple out through their lives, through future generations, and throughout our community.

Even those in our communities who don't associate this flood with climate change know that floods like this will happen again. Everyone knows the dangers of living near our creeks and rivers. "We just have to get these people out of the floodplains." That is the refrain we hear again and again, but no one seems to know how to do that. The resources needed to make that move, the money, the land, those are beyond the reach of the majority of the people who have been impacted. We know that this event was made much more likely because of climate change. All projections show a warmer and wetter climate in Kentucky with more frequent and severe rain events and increased stream flows. As Bill Haneberg, the state geologist of Kentucky, said on August 2, "It may be impossible to say that last week's events occurred solely because of climate change, but they are consistent with our expectations. It is likely that in the coming weeks and months, it will be possible to confidently say how much climate change increase their likelihood."

We also know that a century of coal mining practices in our area makes the impacts of these rain events in some areas so much worse. Mountaintop removal impacts are particularly pronounced. With this form of radical strip mining, after the mountaintop is removed and the overburden is placed in valley fields, the cheapest and fastest way to stabilize and reclaim the land is to compact the

soil and plant grass. Where you once had diverse forested hillsides with the capacity to soak up rainfall, you now have heavily compacted land. It is like pouring water on a tabletop. And not all of our mountaintop removal sites have been reclaimed. As the coal market fluctuates, coal companies skirt regulatory reclamation requirements. In Breathitt County, 59 residents have sued a coal company alleging that the company's failures to follow regulations severely exacerbated the flooding there. They allege that the company failed to reclaim this mountaintop removal site as it was mining, leaving large areas of eroding, blasting, and disturbed land that went into the creeks below.

Our area of Central Appalachia has been at the frontlines of environmental devastation caused by coal mining for decades. We now find ourselves at the front line of flooding disasters caused by climate change. We have so much rebuilding to do. Somehow we must find a way to build back with resilience against future floods because we know flooding like this will happen again. Thank you for this opportunity.

Chairwoman MALONEY. Thank you for your heartfelt testimony. I now recognize Ms. Sanchez. You are now recognized for your testimony, Ms. Sanchez.

STATEMENT OF JASMIN SANCHEZ, BARUCH HOUSES, NEW YORK

Ms. SANCHEZ. Distinguished Members of Congress and staff, I would like to thank Chairs Representative Maloney and Representative Khanna for the invitation, and acknowledge Ranking Members Representative Herrell and Representative Comer. Thank you for the opportunity to speak my truth. My name is Jasmin Sanchez, and I am a lifelong resident of Baruch Houses, the New York City Housing Authority's largest public housing development in Manhattan with over 10,000 residents.

I start by saying this because this was one of the developments that was affected by Superstorm Sandy on October 29, 2012. The day Sandy hit my community, I was sent home early from work. I worked as a babysitter in Park Slope in Brooklyn. Unlike the families I worked for, I did not have the luxury of leaving my apartment to seek refuge in a safe place. There was nowhere else I can go, but back to my apartment.

At 8:26 p.m., I saw a green spark in the sky and everything went dark. It was then that I saw the East River rising and flooding my community. When we lost power, I had no idea it was because the Con Edison plant exploded. The Con Edison plant is a six-minute walk from my development. This was the light that I saw at 8:26 p.m. Within the next few minutes, I saw cars, jeeps, and wagons floating down what would normally be busy streets. I also saw some cars remain in place, but submerged. I waded through the freezing water to find that I was unable to open the lobby door because of the force of the water. When I was finally able to get into the building, the water was above my knees.

Climate justice is a racial justice issue. Sandy showed the inequities in our city. If you didn't have a car, you couldn't leave. If you didn't have financial means, you couldn't relocate. If you weren't financially stable, you still had to work. And if you didn't have cash

on hand, you could not buy the basic necessities. I, along with many of my neighbors, were in survival mode. My community and communities that look like mine feel the ramification of climate change more harshly. After Sandy, I felt compelled to learn about why this happened. This was when I started to learn about the fossil fuels. New York City operates on fossil fuels. Frontline communities in New York City that have historically borne the brunt of pollution are usually Black, and brown, and other low-income communities. We see heat waves, poor air quality, and extreme weather, and climate events ravage through poor communities without a second look.

I live on the FDR Drive. I live by the Con Edison plant. I live by the Williamsburg Bridge, and I live by the holding station for buses. All of this within a four-block radius. The fossil fuel sector is literally choking us to death with no regard to how they contribute to the exacerbation of other conditions in my community. There is a racist placement of power plants in New York City. I have lived by the Con Edison plant my entire life. My mother, father, and sister have lived across from the Ravenswood Power Plant in Astoria for 25 years. The fact that these facilities are located in Black and brown communities is not an accident. It is by design. It stems from decades of racist policies, and it severely affects the quality of life for individuals in these communities.

New York City is facing warming temperatures and more intense and frequent heat waves as the climate changes. Higher temperatures lead to more deaths and illness. I am asthmatic and diabetic. Heat stress can exacerbate heart disease and diabetes, and warming temperatures result in more pollen and smog, which can worsen asthma and COPD. I barely go outside in the summer months because of the heat, not only because of my asthma and diabetes, but because I get heat rashes that spread throughout my body and lasts for days.

In my community, residents who don't have access to cooling centers and don't have the money to purchase an air conditioner for their apartment are particularly susceptible to the effects of increased heat. In addition, low-income areas in cities have been found to be 5 to 12 degrees hotter than higher-income neighborhoods because they have fewer trees and parks and more asphalt that retains heat. When Sandy hit my development, we saw 250 trees being removed from my complex. Seven years later, the FEMA funds came in and we are seeing all our lawns being converted to asphalt.

As we approach the 10-year anniversary of Sandy, I feel scared about where we are. I feel that the fossil fuel industry is willingly sacrificing my community and communities like mine for the sake of profit. While we associate fossil fuel costs with our utility bills, people that look like me pay for fossil fuels with our health, our safety, our democracy, and our children's right to a clean and healthy future.

[Speaking foreign language], and I will translate that for those who did not understand. I will be remiss if I did not mention Hurricane Maria. Burning fossil fuels not only harms our community stateside, but also our islands as well as the world. As we approach the five-year anniversary of this devastating hurricane, the people

on my island have yet to recover. So I think about how we as humans could decide not to fulfill our global responsibility to care for our brothers and sisters and continue to fuel the climate crisis by giving profits to the fossil fuel companies. Thank you for the opportunity.

Chairwoman MALONEY. I want to thank all of the witnesses today for your very moving and personal stories. They all come from different areas of our country. They all have compelling stories of what they personally suffered. I do want to mention that Ms. Sanchez lives on the Island of Manhattan where I live. She is not in my district, but she very accurately described the horror of seeing lower Manhattan underwater—underwater—and we are trying to figure out how we can help people when the next storm comes and the suffering that she had. They all talked about the wildfires, the heat waves, the floods, and other extreme weather, show that climate change is already having a terrible impact across the United States. I want to thank all of you for sharing your story.

There will be no questions. You are now excused. And we have a second panel coming, and we will have a brief recess while the second panel comes.

Again, I can't thank you enough for sharing your story and being with us today, and we will work to help you. Thank you.

[Pause.]

Chairwoman MALONEY. The committee will come to order, and we will now introduce our second panel. First, we will hear from Dr. Isabella M. Weber, assistant professor of economics at the University of Massachusetts-Amherst. Then we will hear from Raya Salter, founder and executive director of the Energy Justice Law and Policy Center and a member of the New York State Climate Action Council. Then we will hear from Dr. J. Mijin Cha, associate professor of urban and environmental policy at Occidental College and a fellow at the Cornell University Worker Institute. Finally, we will hear from Michael Shellenberger, founder and president of Environmental Progress.

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 part of the record.

And with that, Dr. Weber, well, you are recognized for your testimony, and thank you all for being here today.

STATEMENT OF DR. ISABELLA WEBER, PH.D., ASSISTANT PROFESSOR OF ECONOMICS, UNIVERSITY OF MASSACHUSETTS-AMHERST

Ms. WEBER. Chairwoman Maloney, Chairman Khanna, Ranking Member Cromer, Ranking Member Herrell, members of the committee and subcommittee, thank you for the invitation to testify. My name is Isabella Weber. I am assistant professor of economics

at the University of Massachusetts Amherst. My research focuses on the economic management of rapid structural shifts. I lead a research project on inflation funded by the Groundwork Collaborative, and I am a Berggruen fellow.

We have witnessed a profit and price explosion in the fossil fuel industry. This has led to a redistribution of incomes from the bottom to the top of the wealth brackets. Energy price hikes present a major risk for economic stability and can undermine efforts to mitigate climate change. To set an end to the price and profit hikes, I recommend policies for direct price stabilization. These points are developed in my written statement.

Oil corporations have reaped record profits, while the war in Ukraine created global turmoil on commodity markets. Our research shows that U.S. companies have made an estimated \$84.5 billion in fossil fuel profits in the 2d quarter of 2022 alone. This is a net increase of 155 percent. The two largest oil firms, Exxon Mobil and Chevron, have reported the highest profits in their long history.

Profits are high not only because prices are up, but also because costs are down. Higher cost oil rigs were shut down during the pandemic and have not been fully reopened. While there are technical challenges, there are no strong incentives for oil corporations to fully reopen if they can generate unprecedented profits with lower output volumes. This is a low production, high profit model according to a private equity expert.

Asset management companies on Wall Street have gained by intermediating the profit flow. The most important ultimate beneficiaries of the profit explosion are the richest households: 53.7 percent of the total domestic fossil fuel profits go to the top one percent. This reduced their inflation burden by about half, but most Americans cannot compensate rising prices for energy with income from profit flows and are squeezed. Fossil fuel profits impact consumer inflation both directly as well as indirectly as all goods that rely on fossil fuel inputs become more expensive.

The same communities that are hit hardest by climate change suffer most under fossil fuel inflation. Household energy burdens are disproportionately higher for low-income Black, Hispanic, Native-American, and older adult households. Many Americans are at a tipping point into energy insecurity and poverty. The budgets of state and local governments, too, are burdened by rising energy prices. The decline in purchasing power, as explained by 10 out of 12 recessions in post-war America, were preceded by large oil price increases. Large employers, like the retail giant, Walmart, are faced with high fuel costs, while their customers have less money to absorb further price increases. This can threaten jobs. Firms, whose customers are less squeezed, continue to pass on costs or even increase prices beyond costs. This renders profits across the economy arbitrarily.

Oil price explosions also make climate change mitigation more expensive as they drive up the costs for green infrastructure and renewable energy facilities. The value of fossil fuel assets that will need to be taken offline for green transition increases as profits soar, heightening financial risks. Fossil fuel dependence is a systemic inflation risk. The foremost task is to increase the supply in

renewable energies as quickly as possible. In the interim, the toolbox of price stabilization has to expand beyond interest rate hikes as the Emergency Price Stabilization Act emphasizes. Taxing wind-fall profits can play a positive role in correcting the redistribution. Energy insecure households can be supported with a price cap on basic energy needs, a policy I have designed for Germany that could be adapted to the U.S.

This testimony has illustrated the wide-ranging implications of the present fossil fuel price and profit shock. Policies are needed that prevent such shocks from shaking the foundations of the economy. Thank you.

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

STATEMENT OF RAYA SALTER, ESQ., FOUNDER AND EXECUTIVE DIRECTOR, ENERGY JUSTICE LAW AND POLICY CENTER, AND MEMBER, NEW YORK STATE CLIMATE ACTION COUNCIL

Ms. SALTER. Thank you so much. Dear distinguished members, my name is Raya Salter. I am an energy attorney and the founder and executive director of the Energy Justice Law and Policy Center based in New Rochelle, New York, with offices in Birmingham, Alabama. The Energy Justice Law and Policy Center is an energy justice think tank and the Nation's first grassroots public interest law firm dedicated to energy justice. I am also a member of the New York State Climate Action Council, the body tasked with developing the scoping plan for New York to achieve its statewide greenhouse gas emissions reduction goals. I am an adjunct professor of law at Cardozo Law School, and my book, *Energy Justice*, was published in 2018.

This may well be the most important inquiry of our lifetimes. Last year's Intergovernmental Panel on Climate Change report was a code red for humanity. Human-induced climate change is widespread, rapid, and intensifying, and some trends are now irreversible. Greenhouse gas emissions from fossil fuels are choking our planet. The scientists of the world have told us we have 10 years to act, yet progress is stalled at all levels. How can this be? I will tell you why.

The climate crisis is an unprecedented global crime, and the smoking gun lies in the hands of Big Oil and Gas. They have known with precision for over 40 years that they were doing no less than creating a mass extinction event. As over 20 pending lawsuits by U.S. States and cities now attest, the response from the oil and gas industry was to hide the truth in a coordinated and well-financed Big Tobacco-style misinformation campaign. All the while, the emissions during the last decade have been higher than at any time in human history.

The only way to achieve the goals of the Paris Agreement and limit global warming to 1.5 degrees-C is to reign in Big Oil and Gas. On this, we are falling short. According to the United Nations, the combined 2020 nationally determined contributions or the countries' plans for climate action are not sufficient to meet the goals of the Paris Agreement. Last year at COP26 in Glasgow, the oil and gas industry had the largest delegation to COP than any

single country. Put plainly, the world has failed to act on climate because it has failed to take on the fossil fuel industry and lobby.

Big Oil uses its vast marketing muscle to increase production while promising emissions reductions. In truth, their promises are nowhere near close to meeting Paris targets. Take, for example, the 2022 Exxon-Mobil announcement of its ambition to reach net zero by 2050. The commitment covers operational emissions known as Scope 1 and 2. They leave out Scope 3, the massive amount of emissions that actually result from the fossil fuels they sell. This ambition is false on its face.

While Big Oil reaps profit and avoids accountability, it spreads environmental injustice in the United States and throughout the world. The extraction, processing, transportation, refining, and combustion of fossil fuels places disproportionate environmental burdens on Black, brown, indigenous, and poor communities, as you heard this morning. Those impacts include exposure to significant health hazards; eviction from and desecration of ancestral lands, including my own family in Alabama; fires; explosions; industrial accidents; and loss of subsistence fishing and human rights. This is systemic fossil fuel racism. Its causes include segregation, unequal housing, and redlining.

Climate, environmental, and energy justice are interlinked, and inequality and injustice lie at the heart of the climate crisis. There is only one way out: we must phase out fossil fuels. This is the most decisive decade in human history. Absolutely everything depends on curtailing greenhouse gas emissions from Big Oil. Thank you.

Chairwoman MALONEY. Thank you for your very clear and passionate testimony. Dr. Cha, you are now recognized.

STATEMENT OF J. MIJIN CHA, PH.D., J.D., ASSOCIATE PROFESSOR OF URBAN AND ENVIRONMENTAL POLICY, OCCIDENTAL COLLEGE, AND FELLOW, CORNELL UNIVERSITY WORKER INSTITUTE

Ms. CHA. Thank you, Chairman Maloney, Chairman Khanna, ranking members, members of the House Committee on Oversight, and members of the Subcommittee on Environment. Thank you for inviting me to testify here today. My name is Mijin Cha. I am an associate professor of urban environmental policy at Occidental College and a fellow at the Worker Institute at Cornell University. My research focuses on the intersection of climate change and inequality, and my most recent research is on how to advance a just energy transition.

I join you today from Sacramento, California, where we have just endured over a week of unrelenting heat that shattered daily heat records and the record for most days over 100 degrees in a year. The heat was not limited to the daytime. We also shattered record nighttime temperatures. Higher nighttime temperatures are another consequence of the climate crisis and do not allow any reprieve from the unrelenting heat. At the same time, we are on the border of the Mosquito fire, one of several massive wildfires that are currently burning. There is no doubt that the climate crisis exacerbated both the heat wave and the intensity of the wildfire.

Climate change is no longer a concern for the future. We are in a climate crisis now. Yet, despite the urgency of the moment, action

to reduce greenhouse gas emissions has been limited at the Federal level until the recently signed Inflation Reduction Act. No doubt the IRA is the most significant investment in climate action to date, but we must see the IRA as only a down payment on what is needed, not the end-all/be-all of meaningful climate action.

But we also cannot overlook the role that Big Oil and other fossil fuel companies have played in obstructing climate action through their lobbying and extensive misinformation campaigns. Recently, their new form of climate denialism is to shift the responsibility for emissions reductions onto the consumer to deflect away from their own culpability, while also spending millions on public relations campaigns to tout their efforts to reduce greenhouse gas emissions while doing little to nothing to meet these pledges.

This year, a comprehensive peer-reviewed study of 12 years of data on the four largest oil companies—British Petroleum, Chevron, ExxonMobil and Shell—found that while there was a noticeable increase in discourse related to climate change and clean energy, there was little to no effort to actually shift away from producing oil and gas. The authors state, “We conclude that accusations of greenwashing by oil majors are well founded.” Other research analyzing the Paris Agreement targets found that not one major oil company was reducing emissions in line for what is called for in the agreement. The major oil companies are not even meeting their own stated emissions reductions goals. Researchers specifically noted that ExxonMobil and Chevron were grossly insufficient in reducing emissions.

But greenwashing is not the only deception that fossil fuel companies engage in. Fossil fuel companies are also equity washing by messaging concern for communities of colors and workers while engaging in activities that actively harm the same interests. The Chevron refinery in Richmond, California, illustrates just how fossil fuel activity harms these communities. The refinery is located in a majority-people-of-color community with a poverty rate higher than the national average. The refinery releases substantial amounts of greenhouse gases and air pollution in the normal course of business. It also regularly has flaring events, where additional toxic gases are burned and then released into the air. While the negative health impacts of the refinery are well established, the economic benefits are limited. Workers at the refinery also face difficult conditions. Earlier this year, the refinery workers went on strike for two months over unfair labor practices. In the two months of the strike, Chevron experienced nine flare events, an average of more than one a week.

A just transition is possible, but not by relying on Big Oil to lead the way. We must enact transition policies now so that when fossil fuel production meaningfully declines, plans are already in place to support workers and communities. In recent peer-reviewed research, colleagues and I analyzed transition cases across the country and across the world to see what a just transition requires. We determined that four pillars are crucial: strong governmental support, dedicated funding streams, economic diversification, and strong and diverse coalitions. A more complete discussion of these pillars is presented in my written testimony.

I conclude by noting that as you have heard today, the oil and gas industry is extremely profitable, yet continues to receive billions in government aid and support while posting record profits. A portion of these profits should go toward advancing a just energy transition for workers and communities. Moreover, in line with the polluter pays principle, the oil and gas industry should be required to finance efforts to address the climate crisis it is primarily responsible for creating.

While time is running out, we can still act to curb emissions and protect our planet. We must show the fossil fuel industry that people matter over profits and enact a truly just transition. Thank you, and I look forward to your questions.

Chairwoman MALONEY. Thank you for your research and very factual presentation. We really appreciate it. And Mr. Shellenberger, you are now recognized for your testimony.

**STATEMENT OF MICHAEL SHELLENBERGER, FOUNDER AND
PRESIDENT, ENVIRONMENTAL PROGRESS**

Mr. SHELLENBERGER. Thank you. Good morning, Chairwoman Maloney—

Chairwoman MALONEY. Can you turn on your mic? I can't hear you.

Mr. SHELLENBERGER. Good morning, Chairwoman Maloney, Environment Subcommittee Chairman Khanna, and Ranking Member Comer, and members of the committee. I am grateful to you for inviting my testimony. I share this committee's concern with climate change and misinformation. It is for that reason that I have, for more than 20 years, conducted energy analysis, worked as a journalist, and advocated for renewables, coal-to-natural-gas switching, and nuclear power to reduce carbon emissions.

At the same time, I am deeply troubled by the way the concern over climate change is being used to repress domestic energy production. The U.S. is failing to produce sufficient quantities of natural gas and oil for ourselves and our allies. The result is the worst energy crisis in 50 years, continuing inflation, and harm to workers and consumers in the U.S. and the Western world. Energy shortages are already resulting in rising social disorder and the toppling of governments, and they are about to get much worse. We should do more to address climate change, but in a framework that prioritizes energy abundance, reliability, and security.

Climate change is real and we should seek to reduce carbon emissions, but it is also the case that U.S. carbon emissions declined 22 percent between 2005 and 2020, exceeding our Paris climate agreements, by the way, by nearly five percent. Global emissions were flat over the last decade and weather-related disasters have declined since the beginning of the century. There is no scientific scenario for mass death from climate change.

A far more immediate and dangerous threat is insufficient energy supplies due to U.S. Government policies and actions aimed at reducing oil and gas production. The Biden administration claims to be doing all it can to increase oil and gas production, but it is not. It has issued fewer leases for oil and gas production on Federal lands than any other administration since World War II. It blocked the expansion of oil refining. It is using environmental

regulations to reduce liquefied natural gas, or LNG, production and exports. It has encouraged greater production by Venezuela, Saudi Arabia, and other OPEC nations rather than by the United States. And its representatives continue to emphasize that their goal is to end the use of fossil fuels, including the cleanest one, natural gas, thereby undermining private sector investment.

If this committee is truly concerned about corporate profits and misinformation, then it must approach this issue fairly. The Big Tech companies make much larger profits than Big Oil, but have for some reason not been called to account for this, nor has there been any acknowledgement that the U.S. oil and gas industry effectively subsidized American consumers to the tune of \$100 billion per year for most of the last 12 years, resulting in many bankruptcies and financial losses. As for misinformation about climate change and energy, it is rife on all sides, and I question whether the demands for censorship by Big Tech firms are being made in good faith or are consistent with the rights protected by the First Amendment.

Efforts by the Biden administration and Congress to increase reliance on weather-dependent renewable energies and electric vehicles risk undermining American industries and helping China, our greatest geopolitical rival. China has more global market share of the production of renewables, EVs, and their material components than OPEC has over global oil production. It would be a grave error for the U.S. to sacrifice its hard-won energy security for dependence on China for energy. While I support the repatriation of those industries to the U.S., doing so will take decades, not years.

Increased costs tied to higher U.S. labor and environmental standards could further impede their development. There are also significant underlying physical problems with renewables stemming from their energy dilute, material intensive nature that may not be surmountable. Already we have seen that weather dependence, large land use requirements, and large material throughput result in renewables, making electricity significantly more expensive everywhere they are deployed at scale. The right path forward would increase oil and natural gas production in the short and medium terms in the United States and increase nuclear energy production in the medium to long terms. The U.S. Government is, by extending and expanding heavy subsidies for renewables through the Inflation Reduction Act, expanding control significantly over domestic energy markets without a clear vision for the role of oil, gas and nuclear.

We should seek a significant expansion of natural gas and oil production, pipelines and refineries to provide greater energy security for ourselves and to produce, in sufficient quantities, for our increasingly desperate allies in Europe, in particular. We should seek a significant expansion of nuclear power to increase energy abundance and security, produce hydrogen, and, one day, phaseout all the use of fossil fuels. While the latter shouldn't be our main focus particularly now, radical decarbonization can and should be a medium-to long-term objective within the context of creating abundant, secure, and low-cost energy supplies to power our remarkable Nation and civilization. Thank you very much.

Chairwoman MALONEY. Thank you so much for your testimony. I want to thank all the panelists for your commitment and your hard work, and for being with us today on this extremely important issue. I now recognize myself for questions.

On our first panel, we heard from Americans across our country, different areas who are suffering from the terrible consequences of a climate crisis caused by our dependence on fossil fuels. And while these Americans and millions more are suffering, the Big Oil companies are making record profits. Look at these numbers—\$17 billion, the largest profit they have ever had, \$11 billion, \$8.5 billion, \$11.5 billion—and they are not investing in renewable energy. They are just taking the profits. They are not investing in helping people or helping our country, and they are getting rich selling the fossil fuels that are causing the problem.

So I would like to first begin with Dr. Weber. Do you agree that Big Oil is benefiting from our continued dependence on oil and gas, and how so? Could you elaborate?

Ms. WEBER. I do agree with that sentiment. We have conducted research where we have analyzed using input-output methods, which sectors present the greatest inflation risk for the American economy, and we have found that petroleum and coal products are by far the sector that presents the greatest inflation risk. This inflation risk is immediately linked to the profit explosions that we have seen, where low production has been used to hike up prices.

Chairwoman MALONEY. So these companies that are hiking up the prices claim that they support the Paris Agreement “aspirations” to reduce emissions in the future, but internal documents that the committee obtained in response to my subpoena tell a very different story. We obtained an internal memo prepared for the CEO of Exxon, Darren Woods, in 2019. And this memo shows how Exxon and Chevron worked behind the scenes to drastically reduce and weaken climate pledges made by an industry called the Oil and Gas Climate Initiative. The memo shows the two companies wanted to remove any commitment for oil companies to “align their advocacy with their climate-related positions”.

So Ms. Salter, in layman’s terms, why wouldn’t these fossil fuel companies want to advocate for climate positions that they claim to support?

Ms. SALTER. Unfortunately, the fossil fuel company commitments are just, frankly, disingenuous. As you mentioned, the fossil fuel lobby combats climate action on every single level—global, national, state and regional—and that includes New York state, where API is putting the fossil fuel playbook into practice to undermine our ability to reach our transition away from fossil fuel.

Chairwoman MALONEY. Now, this same internal memo to Exxon’s CEO calls for removing any language that commits Big Oil to “enhance climate-related governance, strategy, risk management, and performance metrics and targets”. So, Dr. Weber, is it fair to say that these elements, including governance, strategy, risk management, and performance metrics, are key parts of a business plan?

Ms. WEBER. That seems right to me. I think we have seen in the present crisis that profits are the ultimate and only goal of Big Oil corporations.

Chairwoman MALONEY. And does it concern you that Exxon and Chevron did not want to commit to incorporating climate change into key parts of their business plan? Ms. Salter, does that upset you?

Ms. SALTER. It is disturbing on many levels. It is disturbing on just a human level, but also, as many jurisdictions have said in court, it is a fraud to the investors in these very companies. They are hiding the truth at what climate change is going to mean for their business. The information that they get, the truth that they know about the threat of the climate crisis, internally they use that to protect their infrastructure and understand where they are going to find opportunities. And externally, they play it down and play down the impacts of the climate crisis on the business in a way that many jurisdictions believe is fraud.

Chairwoman MALONEY. So Exxon and Chevron claim they support the Paris Agreement, but they won't commit to advocating for it or working for it. They claim they will reduce emissions, but won't commit to coming up with a business plan to do so. In other words, they are all talk and absolutely no action. While Big Oil stalls, Democrats have taken real meaningful steps to address climate change and cut Americans' energy costs by passing the Inflation Reduction Act. And it is long past due for Big Oil to end its deception and commit to real action to reduce its emissions.

And with that, I now recognize the gentleman from Georgia, Mr. Hice, for five minutes.

Mr. HICE. Thank you, Madam Chair, and I hope you will be gracious with the time on our end as well. It is a shame that once again, both the chairwoman and committee Democrats are wasting our valuable time here, deviating from the jurisdiction that this committee has in order to attack American private enterprise and score some cheap political points with the radical left.

This hearing is just about Democrats searching for a scapegoat for their own failed energy policies, quite frankly. President Biden and the Democrats think that making oil and gas energy-producing companies their scapegoat will somehow solve rising energy costs, but, quite frankly, Americans are not buying it. Americans know who to blame every time they go to the pump to put gas in their cars. In fact, right now, the stock market is lower than it was when President Biden took office, and you add to that inflation that is crippling Americans and businesses. Americans know exactly where the blame lies.

Democrats' energy policies are such a failure that they can't even power the core pillar of their green energy initiative, that being electric cars. It is absolutely embarrassing that we live in one of the most prosperous countries in the world, and yet we have a state, California, that is now telling their residents to ration energy, power, and telling them not to charge their expensive electric cars that they were told to buy all in order to save our environment. Democrats' Green New Deal policies, quite frankly, are destroying our country's energy production and making us more reliant upon foreign-sourced energy. And these actions are, quite frankly, a threat not only to our economy, but our national security.

This committee's jurisdiction is oversight of the Federal Government, not the profits and practices of private sector businesses and companies. So I respectfully ask the chairwoman to stop using this committee to search for a scapegoat to blame for Biden's and Democrats' failed policies. For the security of our Nation and stability of our economy, we must seek for energy independence. And that is the only logical conclusion.

Mr. Shellenberger, let me ask you this. Frankly, this question is a "yes" or "no." Do you believe that our Nation's domestic energy policy is a national security issue?

Mr. SHELLENBERGER. Absolutely, yes.

Mr. HICE. Well, can you explain the importance of domestic energy independence in America and, really, how Europe's reliance on energy, particularly Russia, has failed?

Mr. SHELLENBERGER. Absolutely. What we have seen in Europe and Russia is that Europe became grossly dependent on Russia for its domestic energy production. Europe was actually producing more natural gas than Russia was exporting just 15 years ago, and many people warned Europe, including myself, that it was becoming overly dependent on Russia. By doing so, Europe was unable to deter a Russian invasion of Ukraine.

Putin calculated, and he may have miscalculated, but nonetheless calculated that he would not suffer the consequences of energy embargoes or energy restrictions as retaliation for an invasion of Ukraine, and that gave him the sense that he would be able to invade. And so, whatever happens in that country, we can see the destruction is a result of basically enabling his aggression through European overdependence on Russia.

It would be insane, in my view, for the United States to trade this remarkable security we have achieved, thanks to abundant natural gas and nuclear, for a dependence on the Chinese for solar panels that are just unboxed by American workers, not manufactured here. As I mentioned in my testimony, China dominates the production of not just renewables, but electric vehicles. There is a desire to repatriate those industries. We should do that, but we should not be shifting our energy production to China. That would be absolutely insane, particularly given this harsh lesson that Europe has just learned.

Mr. HICE. In the last 30 seconds or so that I have, can you explain how Biden and Democrat energy policies have contributed to our own energy crisis?

Mr. SHELLENBERGER. Absolutely. The Biden administration has made far fewer acres of Federal lands and offshore water available for oil and gas production. The result is that we do not have enough oil and gas production for ourselves and to provide for our allies in Europe. Biden has repeatedly misstated, by the way, his own policies on this. The Biden administration obviously canceled the Keystone Pipeline right away when he came into office. We also saw them shutting down an important refinery in the U.S. Virgin Islands that could have been retrofitted to be much cleaner than it was. And we have seen incredible hostility in general, including Treasury Secretary Yellen just last week saying that she was going to phase out the use of fossil fuels. That has had a chilling effect on private sector investment in oil and gas and significantly under-

mined U.S. national security as well as the security of Western Europe.

Mr. HICE. Thank you very much. I yield back.

Chairwoman MALONEY. The gentleman yields back. Let me briefly address some of the concerns raised by my good friend and colleague, Mr. Hice. First, high gas prices are a global problem caused by many factors, including the behavior of Russia. And while I agree that gas prices are still too high for many Americans, the fact is that gas prices have declined every day for the past 93 days.

Now, my Republican colleagues say they are concerned about energy prices, but Democrats and Congress are actually doing something about it. The Inflation Reduction Act is estimated to save an average family \$500 per year on energy costs, and every single Republican voted against it. Instead, they are defending the oil companies that are making record profits on the backs of American consumers. They could lower their costs at the gas pump. They could invest in renewable energy.

And with that, I recognize the distinguished and great gentlewoman from the District of Columbia, Ms. Norton. You are now recognized for five minutes, Mrs. Norton.

Ms. NORTON. Thank you, Madam Chair, for this important hearing. Fossil fuel companies—

Chairwoman MALONEY. Can you speak up and pull your mic to you? It is a little hard to hear you.

Ms. NORTON. Can you hear me better now? Can you hear me better now?

Chairwoman MALONEY. Yes, absolutely.

Ms. NORTON. OK. Fossil fuel companies are constantly pitching gas as the lesser evil to coal, essential, of course, to modern life. We understand coal is the most carbon-intensive method of energy production. Currently, coal-fired power plants account for a majority of the electricity production in several Asian countries, including China and India. But according to the International Energy Agency, renewable energy sources are actually the most cost effective for electricity production in most of these markets. Professor Weber, are economies that are reliant on coal like China locked into oil and gas to satisfy their energy needs?

Ms. WEBER. Coal is certainly the more dirty fossil fuel, so locking into coal is an even more devastating choice than being locked into gas and oil, but we should really overcome fossil fuel dependence altogether.

Ms. NORTON. Well, Big Oil would like us to believe that they must choose between the comforts of modern life and reducing greenhouse gases. Ms. Salter, would eliminating American reliance on oil and gas decrease our standard of living?

Ms. SALTER. So the answer is no. For example, in New York, we have come up with a plan to reach net zero by 2050, and our state analysis shows that the technology is there. Our cost benefit analysis shows that the benefits of climate action far outweigh the costs that we need to invest in. So the answer is no.

Ms. NORTON. Thank you for that response. Finally, my colleagues across the aisle love to tout the fact that the fossil fuel industry creates jobs for U.S. workers in oil and gas, and that, of course, is true. They say particularly in low income communities and commu-

nities of color, but in reality, the industry took billions of dollars in tax refunds and COVID relief funds even as it laid off thousands of workers. Then as profits rebounded in 2021, companies continued to prioritize CEO compensation and shareholder profits over investments in their work force. Professor Cha, how does our reliance on fossil fuels for jobs and economic advancement threaten the long-term economic stability and healthcare of these workers?

Ms. CHA. You are absolutely right that the fossil fuel industry has not recovered their work force. They are not at the level of pre-pandemic levels, nor are the wages at pre-pandemic levels. And most of the profits that they have made have not gone to the work force, which is why the workers at Chevron went on strike.

The truth is that one of the benefits of the renewable energy economy is that it largely remains to be built, so there is tremendous opportunity for work force and for workers. We have to remind ourselves that the fossil fuels are a finite resource. We can drill all we want, and then they will run out. And we have to think about what will happen to workers and communities if we don't plan for this transition, let alone what will happen to the planet if we burn all of that oil and gas. The truth is that the fossil fuel industry is good for workers only because of workers' struggle. There is nothing inherently just about the industry, and, in fact, the best thing for workers is for us to transition to a renewable energy future.

Ms. NORTON. My time has expired. Thank you, and I yield back.

Chairwoman MALONEY. The gentlelady yields back. The gentleman from Wisconsin, Mr. Grothman, is recognized for five minutes.

Mr. GROTHMAN. Thank you. I would like to give Mr. Shellenberger there a couple of questions. First of all, when we talk about natural gas in general, could you comment on how clean America is compared to other countries?

Mr. SHELLENBERGER. The United States, we reduced our carbon emissions more than any other country in history between 2005 and 2020. We reduced our carbon emissions by 21.5 percent, if you round it up, up to 22 percent. I recall that under the proposed Waxman-Markey cap-and-trade legislation, which failed in the Senate in 2010, it was to reduce our carbon emissions by 17 percent. Our Paris Climate Agreement was to reduce our emissions by 17 percent. So we reduced our carbon emissions by nearly five percentage points more than we had intended to under cap-and-trade or Paris. Meanwhile, of that reduction, 61 percent of that reduction was due to the switch from coal to natural gas. The remaining 39 percent, which was from wind and solar, were enabled by natural gas, since both of them being unreliable, weather-dependent energy sources required gas to ramp up and down. So gas has been a huge driver.

But if you look at other air pollution metrics, the United States has led the world in reducing air pollution from lead, carbon monoxide, sulfur dioxide, and other air pollutants over the last half century.

Mr. GROTHMAN. For whatever psychological reason, and it can't be a factual reason, for whatever psychological reason, a lot of people like to run down America compared to the rest of the world.

So what you are telling me is, say, compared to other large economies around the world, both European economies and China, India, we are actually doing much better than these other countries?

Mr. SHELLENBERGER. Absolutely. The United States is leading the world in terms of environmental progress. And not only that, sir, but I would also point out that the United States invented all of the major clean energy technologies upon which we rely. That includes nuclear power plants. That includes combined-cycle natural gas power plants. That includes high-temperature, super critical coal plants. That includes even solar panels. The main solar panel design that China has reduced the price of in recent years, thanks in part to incarcerated Uyghur Muslim labor and the use of coal, was invented by Bell Labs, of course. So it is not just that we are the leaders on environmental progress. We are also the leaders of technological innovation of virtually every major clean energy technology.

Mr. GROTHMAN. It makes you proud to be an American. OK. Now, it sounds like natural gas is even more of a step in the right direction. What are the barriers preventing us from increasing the supply of natural gas to the rest of the world?

Mr. SHELLENBERGER. I mean, the main barrier to the expansion of natural gas in the United States both for domestic production and export is the war on natural gas. That war on natural gas is taking place at every level of our society. President Biden is waging war on natural gas by refusing to allow expanded gas production on Federal lands and offshore. His appointees at FERC are blocking the expansion of natural gas pipelines as well as LNG export terminals.

We have been in this energy crisis for a year now. I was writing about the impacts in Europe a year ago. We should have been acting then to be expanding gas production to save our allies in Europe, where we are going to have rationing and industrial collapse this winter. It is occurring through the war on gas in Congress. It is occurring in the courts. It is occurring at every level of our society, and it is putting our basic civilization and Western security at grave risk.

Mr. GROTHMAN. What real or psychological reasons do they have for disliking natural gas?

Mr. SHELLENBERGER. The war on cheap and reliable energy has been going on since World War II. It has been motivated by an anti-human, anti-civilization, Malthusian mentality in the tradition of the British economist, Robert Thomas Malthus. It is a very dark view of the human species. It is a view of humans as a blight on the planet. It is a view of modern Western industrial civilization as bad for the environment. It does not—

Mr. GROTHMAN. OK. I think I got—

Mr. SHELLENBERGER. Yes.

Mr. GROTHMAN. It is more of a psychological thing than it is a—

Mr. SHELLENBERGER. I mean, look, I think when you look at what is driving this, it is acting as a kind of substitute religion, complete with a new form of guilt, a new vision of apocalypse, a kind of fall from, frankly, a state of nature that never existed. This

has been well studied by scholars over 30 years that this is acting as a substitute apocalyptic religion.

Mr. GROTHMAN. I will give you another quick question. Nuclear energy, and I have a nuclear power plant in my district. I was trying to explain to my staff that maybe one of the reasons for the war on nuclear energy was a Hollywood movie around in the 1970's. But can you tell me, is there any basis, in fact, for this dislike of nuclear energy?

Mr. SHELLENBERGER. I mean, nuclear is the cleanest form of energy by far. It has the smallest environmental impact because the energy density is so high. The power densities are so high. Tiny quantities of land and material throughput are required in order to generate significant quantities of energy, and so the war on nuclear has been a war on having abundant energy to power a society. It is a Malthusian pro-scarcity drive.

Mr. GROTHMAN. OK. I kind of wondered if it was driven by a Jane Fonda movie, but OK. Thank you.

Chairwoman MALONEY. The gentleman yields back. The gentleman from Virginia, Mr. Connolly, is recognized for five minutes.

Mr. CONNOLLY. Thank you, Madam Chairwoman, and thank you for having this hearing. Ms. Salter, I want to give you an opportunity to respond to what we just heard. There is a war on gas. There is a dehumanizing, almost religious aspect to the environmental movement that is antithetical to human interest, dystopian, and distorts, frankly, all of human history in terms of its impact on the environment. And by the way, this war on natural gas is irrational and hurting our ability both to be energy independent and to help the environment. What is your sense about those arguments?

Ms. SALTER. It is incredibly disturbing. This is a new level of climate denialism. You know, it is irrefutable climate change is real, and that folks are still saying that somehow the climate crisis is not happening and opening a new level kind of argument that actual, legitimate warnings about the climate crisis are instead a cruel dystopia is beyond ridiculous and almost doesn't dignify a response. We need to move away from fossil fuels, and that absolutely includes gas, and that is why I am very glad that New York state is doing exactly that.

Mr. CONNOLLY. So I guess I would infer from your remarks in rejecting what we just heard, you know, it is almost like a bad religion to be concerned the way we are concerned, is that actually, if we don't take action, what is going to hurt humanity isn't the environmental movement. It is the consequences of greenhouse gas emissions, global climate change, rising ocean levels, and the like. Is that your argument?

Ms. SALTER. That is exactly right. And what we are seeing is the shifting of blame from the climate crisis to individuals, consumers, the environmental movement instead of fixating it where it needs to be, which is squarely on the fossil fuel industry.

Mr. CONNOLLY. And we have been hearing a lot—maybe I will turn to Ms. Salter—about the energy crisis, as if, Mr. Hice would have you believe, somehow Democrats created a worldwide energy crisis. Do you know, Ms. Salter, who the, say, 2d largest oil and gas producer in the world is?

Ms. SALTER. Well, yes. The super majors include Exxon, Chevron—

Mr. CONNOLLY. No, no, not companies. Countries.

Ms. SALTER. Yes. Well, yes. That includes the United States, in addition to Asian countries, the Arab countries as well.

Mr. CONNOLLY. No, but yes, but I think the world's No. 2 producer is Russia.

Ms. SALTER. Russia is an important producer as well.

Mr. CONNOLLY. I think it is No. 2. Is there something going on with Russia that might affect their exports of energy?

Ms. SALTER. This is one of the most disingenuous arguments that you are hearing here today, is that energy security depends on locking in our dependence on fossil fuels. We need to move away from fossil fuels so that we are not dependent on geopolitical forces completely beyond our control, including what you were referring to, is this terrible unjust war in Ukraine that was started by Russia.

Mr. CONNOLLY. But the fact of the matter is, Russia as a result, holding in abeyance your argument, which I certainly agree with about moving away from fossil fuels. But before we even get there, Russia being No. 2, given the war in Ukraine and the sanctions that were imposed, their energy exports become problematic. Markets have been cutoff to them. A price cap has been discussed among allies to limit the revenue they can generate. They have lost customers so they have to kind of go to places like China and India to try to sell their oil at a lower price, all of which means that there is an energy crisis in terms of absolute supply given the importance of Russia in the market. Would that be a fair statement?

Ms. SALTER. Yes.

Mr. CONNOLLY. Would it also be fair, and I know I am sucking you into a political argument, but Mr. Hice made it, so it needs to be refuted. So Democrats didn't cause that energy crisis? Russia did in invading Ukraine?

Ms. SALTER. That is absolutely right, and the refusal to act on clean energy at home is exacerbating it and has been exacerbating it for many years.

Mr. CONNOLLY. Right. Another myth debunked. I rest my case, and I yield back. Thank you.

Chairwoman MALONEY. The gentleman yields back. The gentleman from Texas, Mr. Cloud, is recognized for five minutes.

Mr. CLOUD. Thank you, Madam Chair. There is so much to cover and so little time. It is easy to draw the line between the war in Russia and Ukraine to Biden's energy policies. It was predictable. It was predicted. As a matter of fact, under the Obama Administration, we saw the same thing. So the United States' authority and power in energy is what led to stability in the world, is what led to Middle East peace agreements that were historic, and to discount that is absolutely ridiculous. What is happening right now is leftist energy policies or stupid energy policies are literally killing people. We have people in Europe now burning wood to stay warm, which is, by the way, not as clean as natural gas.

We have a war in the Ukraine and you want to talk about carbon footprint. I think rebuilding a country after it has been destroyed is a pretty big carbon impact. I don't know how many electric vehi-

cles we have to put in the car on the road to cover that kind of damage, but I imagine it is pretty crazy. And then, China is, as you mentioned, building our solar panels. They are powering their industry by building dozens of new coal plants because we are ceding our authority and giving our strategic oil reserves to China. It is absolutely ridiculous. And this is simply round three of the blame shifting that needs to happen when every American knows what is really happening.

Now, recently, I heard a minister say that “It is not the lies the devil tells, it is really the half-truths that really kill you.” And there is a whole lot of virtue signaling when it comes to the Green New Deal and all the efforts that go along with that and so much of it is not based on science. And so, I thought in some of our time today we would uncover some of the other half truths. You mentioned it already, Mr. Shellenberger. Who controls most of the rare earth minerals and green new energy.

Mr. SHELLENBERGER. China.

Mr. CLOUD. China by far. And one of the greatest drivers in the reduction of carbon emissions was the transition to natural gas?

Mr. SHELLENBERGER. Yes.

Mr. CLOUD. So this committee has been set up to demonize the companies that produce natural gas. Here is the other side. Here is the face of the Green New Deal. You mentioned work force conditions in the oil and gas industry here in the United States. This is a rare earth mine. Here is an article from The New Yorker magazine. It says, “Children as young as three learn to pick out the purest ore from rock slabs. Children who work in the mines are often drugged in order to suppress hunger. If the kids don’t make enough money, they have no food for the day. Some children we interviewed did not remember the last time they had a meal. Near large mines, prostitution of women and young girls is pervasive. Other women wash raw mining minerals, which is full of toxic metals and, in some cases, mildly reactive. If a pregnant woman works with such heavy metal cobalt, it can increase her chances of having stillbirth or child with birth defects.

In a recent study, women in the Southern Congo had metal concentrations that are among the highest reported for women. The study also found a strong link between fathers who worked with mining chemicals and fetal abnormalities in their children. The kids, if they do work, they get some pay. But if they sold their minerals, when they had the money, there are street gangs, thugs who could stop you on the roads and snatch your money. To safely pass, you had to pay so you can get safe passage or they will beat you.” These are the work conditions, part of the picture that doesn’t ever get told about rare earth minerals. This is the Green New Deal, the face of it and the work conditions.

Now, you say that renewable energy is infinite and natural energy or normal oil and gas is somehow this finite resource. And there is this messaging, like, clean energy, green energy, renewable energy, which most people now I think could call intermittent energy, is somehow, like, forever. Mr. Shellenberger, are rare earth minerals a finite resource on Earth?

Mr. SHELLENBERGER. Well, I mean, all resources are finite.

Mr. CLOUD. Yes.

Mr. SHELLENBERGER. But no, I mean, high-material intensities are required for renewables because they are so energy dilute. This is just basic physics. You need more land and more material throughput when you are relying on the sunlight and the wind because they are not energy dense. That is the difference. You go up the energy ladder. This is just basic physics. Wood to coal, to oil, to natural gas, to uranium, you are going up the energy ladder toward higher energy densities, toward lower environmental impact because you are literally using less of the natural environment. This is not controversial. This is basic energy science, basic physics.

So that is what you are doing. If you are moving down the energy ladder back toward resources that depend on the sunlight and the wind, you are going to use much more natural resource. That is why you have those devastating impacts. And it is in Congo, where I have certainly been and visited, but it is also in Myanmar. Associated Press just did a big investigation which found the devastating impact of rare earth mining in Myanmar.

Mr. CLOUD. And you mentioned the Uyghurs as well?

Mr. SHELLENBERGER. And that is another issue, is the incarceration of Uyghur Muslims in concentration camps where they produce solar panels. I find it unconscionable. I can't believe that we are still importing those solar panels from China. I just find it shocking to me, honestly, that that is still happening.

Mr. CLOUD. Thank you. I appreciate you being here.

Chairwoman MALONEY. The gentleman yields back. The gentleman from Maryland, Mr. Raskin, is recognized for five minutes. Mr. Raskin?

Mr. RASKIN. Thank you, Madam Chair, for calling this important hearing. I remember when I first got to Congress, our colleagues across the aisle denying the existence of climate change and questioning and undermining the science. And today, with record forest fires in the West and wildfires out of control in Europe, with entire islands being engulfed, with record droughts in the Midwest and flooding in the East, they are no longer denying climate change, but it looks like they have some fancy new theories about how this is all a hangover of Malthusian psychological dysfunction from the post-World War II period, if I understand it correctly. But in the meantime, back on the planet Earth we are dealing with a real crisis. There is no longer any valid scientific dispute about whether the climate has been destabilized. It has been, and we have to confront the reality of this civilizational crisis.

The biggest fossil fuel companies—Exxon, Chevron, BP and Shell—have made net zero emission pledges that they claim are in accordance with the Paris Agreement's goal of limiting global warming below 1.5 degrees Celsius, but experts tell us that all four of these pledges fall dramatically short of meeting the Paris Agreement goal. MSCI, a prominent investment firm, projected how much our planet would warm if the future world economy reflects the pledges of these companies. For example, Exxon and Chevron's pledges would leave us on track for global warming of more than 4 degrees Celsius by 2100 if all we do is what they are proposing to do.

Dr. Cha, could you describe for us what an average global warming of four degrees Celsius would mean for our environment and

for the habitability of our communities both in North America and in other parts of the world?

Ms. CHA. I mean, the damage that we are seeing now, we are just over 1 degree Celsius warming. So at 4 degrees, we can anticipate that every system will be disrupted to the extent that it is quite possible that the conditions that exist will not be consistent with humanity surviving.

Mr. RASKIN. Well, could you draw in more detail what that means? Are we talking about more dramatic levels of ocean rise flooding, engulfing of entire islands, countries? Are we talking about much greater climate migration, millions of climate refugees? I mean, what are we looking at if we just do what the big oil companies are telling us to do?

Ms. CHA. Yes, we will see all of that. We can think about the damage that Hurricane Sandy did in New York City, and that was just a few inches of water rise. You know, it is not just that the seas will rise, but that when we think about these big events, those big ocean currents that come will devastate coastal communities. We can imagine that most small island nations will also disappear, and our agricultural systems will be completely disrupted because there are very small temperature windows in which agriculture can grow. So, 4 degrees would mean that our entire food systems would be completely disrupted. We are already seeing climate refugees, so we can expect that that that will become much more intense. And also, all of the weather patterns that we are seeing now with these really destructive tornadoes, these really disruptive hurricanes, those will all intensify both in terms of their strength, but also their frequency.

Mr. RASKIN. Ms. Salter, we know that for decades, the carbon industry has worked to suppress the reality of climate change and to conceal from the public the dramatic changes in the climate that have been taking place. Now they are offering some rhetorical commitment to the most minimal kinds of changes in their conduct. If we continue to follow the lead of Big Oil and the carbon barons, will we be able to make the changes we need to make in order to preserve habitable life on our planet for our people?

Ms. SALTER. Absolutely not. The only way out of the climate crisis is to reign in Big Oil and gas, the only way out.

Mr. RASKIN. I read a book by Jared Diamond called Collapse, and it is about how civilizations have collapsed throughout human history. And the common theme seems to be that a minority of the population gets control of a disproportionate amount of the wealth and the power, and then runs off on an agenda that is to the detriment of everybody else. And so I want to thank the witnesses for their testimony because we need a democratically determined policy in order to rescue ourselves from an absolute climate collapse. I yield back.

Chairwoman MALONEY. The gentleman yields back. The gentleman from Louisiana, Mr. Higgins, is recognized for five minutes. And I regretfully have to go to the floor to manage a bill, so it will be chaired by Mr. Ro Khanna until 12:30 and then Congresswoman Ocasio-Cortez from 12:30 until I return. Thank you.

Mr. HIGGINS. Thank you, Madam Chair. Americans are watching this hearing today, and I am glad we are having it because this is

some of the most outlandish testimony I have witnessed yet in six years in this Oversight Committee room. It is stunning. I mean, with all due respect to our panelists today, I am not quite sure some of you are connected to reality. So I'm going to Ms. Salter. Ma'am, good lady, please prepare your mind because I am asking you three questions. I am going to give you most of my time. I think it is good that America hears what you have to say.

If you had control of the of the world, ma'am, if you did, I mean, you are presenting these grand ideas about eliminating fossil fuel and the horrors of the oil and gas industry, and the energy that we consume to run the world and uplift the economic potential and prosperity of the world, which is the single most significant factor that connects the prosperity of our citizenry worldwide is economic opportunity. And energy drives that, but here you go. Let me just ask you. I have three questions, so try and keep your answers within 30 or 40 seconds, please.

What would you do with petrochemical products? OK. Everything you have—your clothes, your glasses, the car you got here on, your phone, the table you are sitting at, the chair, the carpet under your feet—everything you have got is petrochemical products. What would you do with that? Tell the world.

Ms. SALTER. If I had that power in the world, actually, I don't need that power because what I would do is ask you, sir, from Louisiana—

Mr. HIGGINS. I'm giving you the power. It is impossible what you are talking—

Ms. SALTER [continuing]. You, sir, from Louisiana, to search your heart and understand why the EPA knows that toxic petrochemical facilities are some of the most—

Mr. HIGGINS. My good lady, I'm trying to give you the—

Ms. SALTER [continuing]. Toxic polluting facilities in the world and are killing Black people throughout Louisiana. So my first thing would be—

Mr. HIGGINS. OK. So what will you do with the products that—

Ms. SALTER [continuing]. You to search your heart and ask your God what you are doing to the Black and poor people—

Mr. HIGGINS. It is our God. I make no apologies about that.

Ms. SALTER [continuing]. In Louisiana. That would be my first thing to ask.

Mr. KHANNA.

[Presiding.] Let's just have one at a time so that we can—

Mr. HIGGINS. I say it is my time, Mr. Chairman. If I reclaim my time, I shall. I'm going to give this young lady an opportunity. You might not like it, but America needs to hear it. You have got no answer, do you, young lady, about what to do with petrochemical products, so I will move on. What are you going to do with ocean-going vessels? What do you do with the maritime industry?

Ms. SALTER. Again, I would ask you to search your heart for what is happening on the coasts—

Mr. HIGGINS. You have no answers to this stuff.

Ms. SALTER [continuing]. Of Louisiana. Of course, we do. We need to move away from petrochemicals.

Mr. HIGGINS. Lady, you stand on these grandiose statements.

Ms. SALTER. We need to shut down the petrochemical facilities in your state and move away from plastic.

Mr. HIGGINS. The world won't run.

Ms. SALTER. We need to move away from it.

Mr. HIGGINS. The world won't function. You couldn't be here. It is insane. What would you do with the aviation industry?

Ms. SALTER. The only thing that would not function is the petrochemical industry in your state, sir.

Mr. HIGGINS. Do you care about the planet, good lady? Like, do you have ecological concern for real? Like, from a biblical perspective, the Lord gave us dominion over the planet and the creatures thereof. Now, the original translation of "dominion" means to care for and nurture, so from a biblical perspective, I am an environmentalist. I love my planet, and the people, and the creatures thereof. Do you?

Ms. SALTER. Sir, if we are going to talk about—

Mr. HIGGINS. I'm asking you, do you love your planet?

Ms. SALTER. If we are going to talk about the Lord, I ask that you search your heart again and think about repenting because you—

Mr. HIGGINS. I searched my heart. Very quickly, I love the planet. I'm asking you, do you actually care about the planet?

Ms. SALTER. The fossil fuel industry that owns your state is destroying the earth and the natural world, and that is a fact, sir.

Mr. HIGGINS. You know what you got, young lady? You got a lot of noise, but you got no answers. Mr. Chairman, I yield.

Mr. KHANNA. I think I just, as chair, want to remind all the members, witnesses of this committee we have very difficult debates. And I understand it is a contentious issue, but all of us should try to show as much respect during the hearing, and I appreciate everyone doing that. It is actually my turn for my five minutes.

You know, I mean, we have heard from the other side that that there is some kind of war on energy. It is kind of hard to square with the facts. I mean, if there was a war on energy, how is Exxon, Chevron, BP, and Shell making over 200 percent profits? I mean, you can't have a war on an industry and then they are having record profits, more than they have ever had under the previous President. You know, Mr. Shellenberger said we lead in clean technology. I agree with that. America leads in clean technology, many of it in my district. But you know what we don't lead in? We don't lead in protecting American consumers while Big Oil is making record profits, and this is something I want to emphasize.

In Europe, they say let's have a windfall profits tax. It just came out. And they are going to be taxing these big excess profits and putting the money back in European consumers. And guess what Big Oil is saying there? Shell quoted today: "We think it is appropriate. We think it is necessary because of the energy crisis, and we want to help support the European consumer." So guess what? They are willing to pay the tax to help the Europeans. They are not willing to pay the tax to help Americans. Americans are getting shafted. Big Oil is making money on the backs of Americans and then going and paying the tax in Europe, and saying, oh, we are on the side of European citizens. We want to help European citi-

zens. We just don't want to help the Americans. That is what is going on.

And for a year we have been proposing in Congress "tax the Big Oil profits and help the American citizens." Boris Johnson passed it in England, the Conservative government. The oil companies are saying do it in Europe, but they want to fleece the American public. That is what this hearing is about. Ms. Salter, can you talk about what the impact would be on a windfall profits tax and how it could help the American public?

Ms. SALTER. My answer to that is that we absolutely need to be looking at all of the significant ways that we can address inflation, and looking into where profits have been a windfall and having an honest conversation, and look at how that could lead to policies that would lead to significant relief and more equality.

Mr. KHANNA. Thank you. And, Dr. Cha, the oil companies' messaging has been on net zero plans that they want to have net zero. Is that actually consistent with what they are doing and where they are investing?

Ms. CHA. Absolutely not. They are investing in increasing oil and gas production. There has been no shift in their business model away from fossil fuels. And I would also point out that they have 9,000 unused oil and gas drilling permits, so it is actually the fossil fuels' desire to protect their profits that is limiting the production, not any kind of policy from the Federal Government.

Mr. KHANNA. Thank you. Dr. Weber, there is a fossil fuel industry wish list floating around. A copy of this was watermarked by a leading oil and gas industry trade group. If that wish list were to pass with frontline communities, could you and Ms. Slater maybe just share what the impact would be?

Ms. WEBER. Sure. I would also like to speak broader about the implications of the fossil fuel dependence for American enterprise, which has been one of the important topics that has been raised. I want to re-emphasize that the largest employer, Walmart, sees itself being squeezed by the exploding fossil fuel prices. So fossil fuel price explosions and profit explosions are putting American jobs at risk. They are also undermining American external competitiveness since all other firms in the American economy are facing these exploded risks. So from that perspective then, fossil fuel dependence is actually undermining the position of the American economy in the world economy. If I may, I would also like to—

Mr. KHANNA. OK. I want to get Ms. Salter in there. And I do want to before just going to Ms. Salter recognize the extraordinary staff here—Greta Gao, Russ Anello, Ethan Van Ness, Katie Thomas, Kevin Fox, and Aria Kovalovich—in helping convene this hearing. And Ms. Salter, I want to give you the last word.

Ms. SALTER. Thank you so much. So the same people, the same frontline communities that are suffering the most health and other negative impacts from fossil fuels are also the same ones who are facing extraordinarily high energy burdens, and of course, struggling with the cost of basic, you know, food and utilities. So we need to phaseout fossil fuels to alleviate fossil fuel racism and alleviate the burden on frontline communities.

Mr. KHANNA. All right. I now get to recognize my friend, debating partner. The gentleman from Ohio, Mr. Jordan, is recognized for five minutes.

Mr. JORDAN. Thank you, Mr. Chairman. Mr. Shellenberger, I think you said earlier the U.S. has reduced carbon emissions and greenhouse gas. Greenhouse gas reduction has happened in America, right?

Mr. SHELLENBERGER. Yes, sir.

Mr. JORDAN. It is significant, right?

Mr. SHELLENBERGER. Massive, the biggest in history.

Mr. JORDAN. So the biggest in history, much more than China or India, some of our bigger competitors economically, more than the European Union in absolute numbers, right?

Mr. SHELLENBERGER. Yes.

Mr. JORDAN. Is there any country in the world that has done better than the United States?

Mr. SHELLENBERGER. No.

Mr. JORDAN. So we are the best?

Mr. SHELLENBERGER. Yes.

Mr. JORDAN. The best when it comes to dealing with the climate?

Mr. SHELLENBERGER. By far.

Mr. JORDAN. OK. So in a previous hearing about a year ago, the chairman asked the CEO of Chevron, "Are you embarrassed as an American company that your production is going up?" That is a strange question to ask when we are reducing emissions. This is a critical energy source for our economy, as my friend from Louisiana said just a few minutes ago, that uplifts people all over our country, and, frankly, around the world. When the American economy is strong, I think the world is a safer and better place. That is kind of a strange question, wouldn't you agree?

Mr. SHELLENBERGER. Yes.

Mr. JORDAN. So the chairman, I think his quote was a "war on the oil and gas industry." I don't know if it is a war, but when the chairman of an important committee in Congress tells the CEO are you embarrassed that you are actually making more of your product, we don't do that to any other industry, do we?

Mr. SHELLENBERGER. No. I mean, not only that, but Meta, Facebook, Apple, and Google had profits of \$39 billion, \$30 billion, and \$76 billion last year. And I didn't see this committee holding hearings on those profits, nor on the huge losses that the shale frackers had. From 2010 to 2020, U.S. shale frackers lost \$300 billion. That did not happen in the high-tech industry in Congressman Khanna's district. Those firms did not suffer. Moreover, the Interior Department distributed just 200 leases for oil and gas development during President Biden's first 19 months in office. During Obama and Trump, there were 10 times as many leases. No President since Nixon has leased out fewer than 4.4 million acres during his first 19 months in office.

Now, if I may, Congressman, I'll just add one thing, because there was a couple of pieces of information that people stated here that were incorrect. The first is that someone said that New York is moving away from gas. That is false. Natural gas and oil went from 77 percent to 89 percent of its electricity supply between 2020 and 2021 because New York shut down a perfectly functioning nu-

clear power plant. So New York is not moving away from gas. It became more dependent on gas because of the war on American energy.

There was another statement that was made that hurricanes will become more frequent in the United States. That is also not the prediction of the National Oceanic and Atmospheric Administration. It supports the notion of a substantial decrease, 25 percent, in the overall number of Atlantic hurricanes and tropical storms. So in terms of misinformation, we have seen some here today.

Mr. JORDAN. So I think earlier you said that, you know, when you look at the ladder—I think that is the term you used—wood, coal, oil, gas, uranium, the energy intensity you get from those moves up as you go up the ladder. Why does the left hate so much the two at the top that are clean, right? They are clean. Gas and uranium, clean.

Mr. SHELLENBERGER. Right.

Mr. JORDAN. Why do they hate them so much?

Mr. SHELLENBERGER. Because they provide the most abundant energy. And if you think that Western civilization is bad, or if you think that human beings are bad, then you want to move toward energy dilute fuels, which provide too little energy to sustain Western civilization.

Mr. JORDAN. And that is scary. If that is, in fact, the case, that is scary. Is there a serious crisis brewing in Europe this year when it comes to energy and energy needs?

Mr. SHELLENBERGER. We have not begun to come to grips with how serious this crisis is: 70 percent decline in fertilizer production. The United Nations Food Program estimates that hundreds of millions of people will die from hunger-related diseases or from hunger this year.

Mr. JORDAN. And is pressuring American companies in a congressional hearing where you would say to the CEO of a major oil and gas company, "Are you embarrassed about production." I remember that hearing. It happened last October where the chairman went down the line and said will you pledge today to decrease production. A decrease in production, would that help or hurt the situation in Europe?

Mr. SHELLENBERGER. It is going to result in more deaths from cold, pollution, and industrial collapse. It is going to be devastating.

Mr. JORDAN. Yes, I think so, too, and it is scary to think that politics is driving some of this that is going to harm families, people, communities in the European Union. And let's hope that same mentality doesn't catch hold here and do that kind of harm to the American families we here to represent.

Mr. SHELLENBERGER. Sir, I would just add that the people that are suffering the most are the poorest countries. It is countries like Pakistan which are being out bid for LNG supplies by Europe that are going to suffer the most. As usual, it will be the poorest countries in the world that will suffer the most from the war on natural gas.

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

Mr. KHANNA. Thank you. The gentlewoman from Michigan, Ms. Tlaib, is recognized for five minutes.

Ms. TLAI. So I want to talk about suffering, human suffering. I represent the third poorest congressional district in the country where frontline communities, like the one in 48217 that I know Chairman Khanna visited, where it is a predominately Black community that is literally housing the only oil refinery in the state of Michigan, high rates of asthma, respiratory issues, everything. What has been detrimental is the pandemic exposed that, one, jobs don't fix cancer, they don't fix disease, and that corporate greed is killing communities like the ones that I represent. And more Black folks during the pandemic in Michigan died of COVID than any other community because of preexisting condition, because of environmental racism of having us pay the total of Big Oil deciding to come in our backyard. Our backyard, not the ones right now pumping all this. Our backyard.

Even though Black folks made up less than 15 percent of the total population, they still died at, like, 40 percent rate than any other community, and so it is important that we as House Oversight Committee understand our role. We have to protect the American people. And there are intentional policies and decisions being made right now around Big Oil that is, you know, that is killing people, and that corporate greed is also resulting in pushing people even more into poverty or having them struggle even more because of the continued price gouging and so much more.

So I do want to talk to some of the panelists about this because, you know, one thing that I know is when companies got permission to expand, you know, for instance, certain plants in my communities and so forth, even the process of permission to pollute hasn't resulted in actually protecting the public health of many of our residents. Again, we don't have universal healthcare in our country. Most of my frontline communities, so hardworking folks, are frontline workers that don't have access to healthcare coverage. They don't have access to a number of things that, again, help keep them alive and be able to thrive.

And so, you know, I think, Dr. Cha, one of the things that I have noticed, you know, like, for instance, you know, it is a true fact that, you know, Black children are 34 percent more likely to develop asthma, become unhealthy, you know, have unhealthy air quality and so forth. Do you think, Dr. Cha, that our communities, frontline communities like Detroit, like my Wayne County communities which haven't met clean air standard since 2013, are they paying the price of corporate greed among fossil fuel industry with their health?

Ms. CHA. Absolutely. Part of the reason why we want to move away from fossil fuels is the air pollution and the damage to health that you are seeing from these very dangerous resources. And despite this very strange theory that you are hearing that environmentalists hate humanity, the reason why we want to move away from fossil fuels is because we want to protect people. We want to make their health better. Fossil fuels are polluting communities across the country like your own, Representative.

So it is not that environmentalists hate people. It is actually the very contrary because we want to protect humanity that we are in this hearing and that we are hoping to reduce the effect and the power of the fossil fuel industry.

Ms. TLAIB. And, you know, the climate-related disasters that we are seeing across our country, it is almost like people are trying to wash it away like it doesn't exist, that we still have to do all of these things, and not understanding the reality is that, you know, people are being directly impacted by us doing nothing, but, again, extracting and creating more harm to our environment. To me, I think it continues to lead to permanent displacement and increased poverty, which we are going to have to deal with in the future.

You know, Ms. Salter, I struggle to what I tell my residents because they understand the climate issues. They understand that pollution is harming their communities. What do you think we can do in Congress to proactively protect these communities, because we're hearing this economic debate, but there is this human element of harm that is happening that keeps getting whitewashed because folks want to continue to talk about the economics, which I don't understand. We end up paying the cost of the harm in the future anyways with death and the illnesses that we continue to see rise, including cancer, respiratory, asthma.

Ms. SALTER. Well, you are absolutely right that people of color, in particular, Black people, are found to bear a disproportionately high burden of fossil fuel pollution across the United States. Black people have 1.54 times more the exposure to particulate matter compared to the overall population, and this is environmental racism and fossil fuel racism. And we need to phaseout fossil fuels, and we also need to enforce air quality standards and transition away from fossil fuels.

Ms. TLAIB. Thank you. I yield.

Mr. KHANNA. Thank you. The gentleman from Ohio, Mr. Gibbs, is recognized for five minutes.

Mr. GIBBS. Thank you. Well, the testimony has been unbelievable. Some people, I think, live in a different world or a fantasy land. I want to go back to the early 1900's. We were an agrarian society, and we had the Industrial Revolution, and we lifted people out of poverty. We improved people's standard of living, and it was really driven by American technology, American ingenuity, and innovation, and having an energy source, and then, you know, we progressed through the 1900's and in the 2000's. And, yes, we had challenges. We produced more energy and we had challenges. We had some pollution issues, and we used technology to fix those sulfur dioxide and all the issues. I can remember driving to my grandparent's house, riding with my parents when I was a kid going through Gary, Indiana. I had to hold my breath, you know. We had all kinds of issues.

And we have made tremendous improvement. The United States is a leader in the world now in reducing pollution, and we were the leader in the world of producing good, clean energy. Some of it is renewable, and a lot of it is from fossil fuels. And it is really a sad day that nuclear has kind of gone by the wayside, because probably that, and fuel cell technology, and some of that technology, hydrogen, makes a lot more sense than a lot of things.

But we had a lot of discussion here. I heard some discussion about a windfall profits tax. You know, if you want to make inflation worse, do a windfall profits tax and make government bigger and send that money back to the people so you increase the de-

mand to buy goods and services where this administration has been limiting demand. You know, the Econ 101 is, what is inflation? Inflation is when you have too many dollars chasing too few goods. And so what this administration has done, it has tried to increase demand by throwing all this currency out in the economy, and it has limited demand, especially in the energy sector.

And then we talk about national security, talking about food security. We feed the world, American agriculture. Now, think about that. How do we do that? We do that because we have technology. We have fertilizer. We have agronomic. You know, in 1950, the national corn yield was 50 bushels per acre. When I started farming in 1975, my goal was to have 100 bushels corn per acre. Now, if you have 150 bushels corn per acre, it is a disaster. We are having yields exceed 180, exceed 200 bushels per acre. If we weren't doing that, we would have worst starvation around the world, and what has caused that? You know, it is our technology, but it is also our energy sector that supplies, that adds the feedstock to the fertilizers.

You know, it just amazes me how some people live in this fantasy that we can wave a magic wand and everything is going to be OK. We can transition to a different energy source. You know, I think we ought to do what we can to eliminate our carbon footprint, but let's do it without putting people in poverty and ruining standards of living and actually, you know, probably raising the death rates.

One thing this administration could do, you know, it was sending the wrong message. You know, our message to the oil companies, we are not going to give you a pipeline permit. They are not going to drill if they can't hook the wells up to a pipeline because you can't move that natural gas, so we are sending the wrong message. If you want to lower the price of oil and lower inflation, the President come out and say we are going to unleash American energy producers. We can do that. We can do it. We did. You know, remember, before the war in Ukraine, gas was down around the \$2 area, and it went up before the war in Ukraine because of the policies of canceled pipelines, incentivizing the energy companies to not do anything because they demonize them. We are just going wrong about this. We can transition to a cleaner energy, but we just can't do it overnight, and we lead with American innovation and technology.

Mr. Shellenberger, it is a breath of fresh air to hear your testimony today. You made so many good points. I think we talked about energy density. I learned something there. It makes it makes a lot of sense. I hope some of the other panelists will listen to that.

We just drove through Northern Maine and Northern New Hampshire a couple of weeks ago. And even my wife noticed this, and she doesn't notice a whole lot of things when we are driving because she is usually sleeping. But she noticed everybody in the rural areas, they got wood piled up around their houses. At some point, they are going to burn wood. You know why? Because New England has to have heating oil, because the state of New York won't let a pipeline to take that Marcellus and Utica shale from Ohio and Pennsylvania, which is cleaner than to burn wood. And

you are going to see that in Europe, right? Mr. Shellenberger, the wood consumption is probably going through the roof, isn't it?

Mr. SHELLENBERGER. Yes, and they are devastating the native forest because of it. There is a big New York Times piece about it, so absolutely. Energy density is the driver of environmental thought.

Mr. GIBBS. We're lowering our standard of living and we are also, at the same time, not improving the environment, and it is, like, America has been a leader in that. And one comment was made the best we could do is shut down fossil fuels and shut down the energy companies. The oil companies will fall. How about China and India? Why did not you mention that, China and India? Worst polluters everywhere around, all types of pollution. I'm running out of time. I have to yield back, but thank you for your testimony, Mr. Shellenberger.

Mr. SHELLENBERGER. Thank you.

Mr. KHANNA. Thank you. The chair recognizes the gentlewoman from New York, Ms. Ocasio-Cortez, for five minutes.

Ms. OCASIO-CORTEZ. Unfortunately, I wish I could use all my time on questioning, but I wanted to address Ms. Salter directly. I just want you to know that in the four years that I have sat on this committee, I have never seen Members of Congress, Republican or Democrat, disrespect a witness in the way that I have seen them disrespect you today. I do not care what Party they are in. I've never seen anything like that. And for the gentleman of Louisiana and the comfort that he felt in yelling at you like that, there is more than one way to get a point across. And, frankly, men who treat women like that in public, I fear how they treat them in private. We can be better than this. We don't have to resort to yelling.

Moving on. I want to tell a story about last year, back in October 2021, and, you know, I'm going to stop as well. I would hope that someone would issue you an apology, but because I don't believe he will, I want to apologize to you about the conduct of this committee and what we just witnessed. The people do not deserve to see that, and we deserve to put forward a better front. So I just want to let you know that, Ms. Salter.

Ms. SALTER. Thank you, ma'am. I just wanted to thank you, and you've provided so much leadership and courage. They can come for me all day long.

Ms. OCASIO-CORTEZ. Well, let's get them today then. Let's tell a little story about last year, back in October 2021. We held a hearing with fossil fuel executives, including the CEO of Exxon-Mobil. And what we found in that investigation is that Big Oil and Gas had spent nearly \$55.6 million on political lobbying here in Congress throughout the entire year. And last year, infamously, what was also going on was the development of the Build Back Better Act, which was supposed to be the largest climate action in American history. Now, provisions were saved during the Inflation Reduction Act, but the influence of fossil fuel lobbying during that time was undeniable. Additionally, the American Petroleum Institute had spent more than \$2 million in a 7-figure ad by spreading misinformation to kill the Build Back Better Act.

Dr. Cha, you mentioned fossil fuel companies, not just their lobbying activity, but their public relations campaigns. Now, very

quickly, what are some of the platforms and kind of places that you see some of the PR campaigns placing their misinformation?

Ms. CHA. I see it everywhere, on Facebook. I just saw on TV the other day. You know, they always say, carbon dioxide, it is life. Those kinds of things are the misinformation that they do.

Ms. OCASIO-CORTEZ. And so you see them on television, correct?

Ms. CHA. All the time.

Ms. OCASIO-CORTEZ. YouTube pre-roll ads.

Ms. CHA. Print ads.

Ms. OCASIO-CORTEZ. Print ads, digital media.

Ms. CHA. Billboards.

Ms. OCASIO-CORTEZ. I want to talk a little bit about political newsletters because those are very targeted toward Members of Congress, chiefs of staff, and other policymakers here on the Hill. A joint investigation from Gizmodo and the Heated newsletter found—and I would like to submit this to the congressional record—found that oil company advertising exploded in Washington, DC, last year in D.C.-based newsletters in the leadup to the October 21 hearing here in this committee calling fossil fuel executives to testify. For example, between October 1 and October 22, 2021, 100 percent of Politico's Morning Energy newsletters were sponsored and funded by the fossil fuel industry. This also happened to be when we were in the thick of negotiating the Build Back Better Act and three weeks leading up to our hearing on Big Oil's role in promoting climate misinformation.

From October 1 to October 22, 63 percent of Punchbowl newsletters were sponsored by fossil fuel companies or interest groups, and every single one of the Morning Energy newsletters were sponsored by Big Oil. Sixty-two percent of Axios-generated newsletters were sponsored by fossil fuel interests. The Gizmodo investigation points out that these rates are highly unusual.

I was wondering, Dr. Cha, if you could speak to how those types of ads influence the negotiating environment and political and legislative outcomes of what's happening in Congress.

Ms. CHA. I think they have a direct influence, of course, because one thing that they do is they mainstream their talking points, so they become very normal, even though what they are saying is quite extreme. They regularly do full page ads in New York Times to make it seem like they are doing what they need to be doing to meet their climate targets, when, in fact, we know that it is the exact opposite. They have also done things like pretended that they are in favor of carbon taxes, even though they lobby against them and behind the scenes. So what they are trying to do is mainstream and normalize their behavior so that people don't think that what they are doing is so destructive, even though we know that it is so destructive.

Ms. OCASIO-CORTEZ. Thank you.

Mr. KHANNA. Thank you, Dr. Cha.

Ms. OCASIO-CORTEZ. My time has expired.

Mr. KHANNA. Thank you, Representative Ocasio-Cortez. And Representative Ocasio-Cortez will be chairing the hearing for the remainder of the time until Chairwoman Maloney returns. But before she assumes the chair, I will recognize the gentlewoman from New Mexico, Ms. Herrell, for five minutes.

Ms. HERRELL. Thank you, Mr. Chair, and before I get started, I do think that Congresswoman Ocasio-Cortez needs to be careful because Representative Krishnamoorthi often routinely disrespects Republican witnesses like Dr. Scott, Mary Katherine Ham, and Kerry Lucas. So I think before we start pointing fingers, we need to be very careful about both sides of the aisle.

And with that, Mr. Shellenberger, I do have a question because through this committee hearing, I have heard a number of comments—“racial, “climate racism,” “health of populations,”—that are being impacted, but I just want to ask a question. Looking at research I have done, you know, face masks, gloves, IV tubes, trays, monitors, ventilators, heart valve replacement, arms and limbs, legs, all made of petroleum products. So what is the backup plan? If we go and move so far away from development of petroleum products, how are we going to even help these people that need the medical attention that we are talking about or hearing about in this committee today?

Mr. SHELLENBERGER. Thanks for the question. I think it is important to put plastics in context. The first plastics were made out of elephant tusks, sea turtle shells, what we called tortoise shell glasses. Happily, these are not made from sea turtles anymore. They are made out of petrochemical byproducts, so a waste, by-product. We have a very good solution what to do with them after you use them, which is to put them in landfills or incinerate them. The dioxins have now been removed from that process. When we attempt to recycle plastics, what has occurred is that they are sent to poor and developing countries that do not have waste management systems, and then they make their way into the oceans. So much of the ocean plastic waste problem is a consequence of our efforts in the rich world to recycle products that should be disposed of properly in landfills and incinerators.

Now, an attempt to move from petrochemical plastics back to so-called natural plastics, bioplastics would have a devastating impact on the natural environment. We have seen with biofuels the devastation of orangutan habitat through palm oil plantations in Southeast Asia. And I know it is a big bipartisan issue here, but I do not think that biofuels are the way to go because what they are doing is they are using landscapes that should be used for critical habitat for endangered species and conservation.

You are moving down the energy ladder from energy-dense fuels toward energy dilute fuels, so we need a proper conversation about what is our strategy here. If we move away from fossil fuels, for example, to nuclear, you are still going to use a petrochemical by-product to make plastics, because the environmental benefits are so superior to using bioplastics, which, again, are just as devastating environmentally as biofuels.

Ms. HERRELL. Right, and thank you for that because what is missing in Congress is a transparent and honest conversation about putting the cart before the horse or trying to do away with an industry that is so vital to so many other areas of our lives. And just to switch gears a little bit, and we heard this earlier. The American oil refineries are operating at max capacity and they are producing more, but prices remain high. Can you explain in a nutshell why is this so people can really understand both sides, be-

cause we are vilifying the producers, and I don't think that is a fair thing to do. And maybe you can shed some light on this for—

Mr. SHELLENBERGER. Sure.

Ms. HERRELL [continuing]. Anybody that is bored today and watching CNN.

Mr. SHELLENBERGER. And thank you for the question. And I think speaking to the issue of misinformation, the Biden administration repeatedly claimed that the refiners were not producing all they could when they were at max capacity. In fact, at such maximum capacity that creates risks of outages from accidents.

Ms. HERRELL. Right.

Mr. SHELLENBERGER. And there was an opportunity for the Biden administration to retrofit a major refinery in the U.S. Virgin Islands. It was an older refinery. It was not as clean as it should have been. There were problems with it, problems that would have been solved through a \$3 billion retrofit that the Biden administration killed in the midst of the worst energy crisis in 50 years is completely inexplicable.

So in my view, this is a completely avoidable crisis and tragedy that we are in. You know, in terms of why do you have those profits like that, because you are stifling production. There is such a thing as supply and demand. In my view, you expand production, you bring down the prices, and you reduce the profits. That is what this country did from 2010 to 2020. That is why so many shell frackers lost their businesses or went bankrupt, a huge benefit to the American consumers even if it actually had negative consequences on some investors.

Ms. HERRELL. Right, and it is sad because this administration could have reversed many of these policies, like the executive orders that have now forced the American people into poverty or into making those tough decisions. Thank you very much for being here, and to all the witnesses, thank you.

Mr. SHELLENBERGER. Thank you, Congresswoman.

Ms. HERRELL. I yield back.

Ms. OCASIO-CORTEZ. [Presiding.] The gentlewoman from Missouri, Ms. Bush, is recognized for five minutes.

Ms. BUSH. Thank you, Madam Chair, and thank you to Chairwoman Maloney for convening this important hearing and continuing this critical series. And also, thank you to both panels for your courageous and insightful testimony.

This summer, heat waves wildfires, historic floods have all devastated our communities. In St. Louis, though, we saw back-to-back flooding in the same week that was supposed to only happen once every 1,000 years. It was the highest rainfall in one day since records began in 1873. In Kentucky, 39 people died, and more than 600 helicopter rescues were carried out. Toxic sites were inundated, and many of our neighbors lost their homes. Many in our community are still recovering from the devastation. The flooding in St. Louis and elsewhere was driven by the climate crisis, which we know, and it is happening as a result of burning fossil fuels. Tragically, the climate crisis is making these events increasingly common and severe, so we know that they will be even worse next year, and the year after that, and the year after that.

The fossil fuel industry is devastating St. Louis and communities around the country by continuing to burn fossil fuels. Further, they are taking home extraordinary profits, causing us to pay more for gas, leaving us less prepared for extra costs associated with disasters. At the gas pump and through dangerous emissions, the fossil fuel industry is threatening us directly, especially our Black communities. In St. Louis, we have seen devastation. The flooding was worse in places that already suffer the most at the hands of the climate crisis, and we were hit the hardest by the pandemic. The hardships keep piling on to the same people. People lost their cars. They lost homes. Entire apartment complexes were condemned, putting hundreds of families on the street. Two months later, the consequences are still playing out right now.

Ms. Salter, can you say more about the direct impacts of burning fossil fuels and over charging gas on Black communities specifically?

Ms. SALTER. Absolutely. One thing that I can mention is that, yes, we know the COVID pandemic has exacerbated the disproportionate impact of fossil fuel pollution, particularly on Black people, who have been more likely to die from the disease. Preliminary science indicates that longstanding inequalities and exposure to air pollution are an especially deadly risk factor for COVID-19. Studies also are showing that there is a relationship between the racist policies of the past that continue to this day, like redlining, like housing discrimination, and pollution that lead to the extreme heat, the asthma and the flooding that, yes, disproportionately impacts Black people and other people of color, Black people most significantly, in this country.

Ms. BUSH. And it is inhumane. The fossil fuel industry is profiting off of death and destruction in our communities, and they have known it for decades. Furthermore, they are making it unsafe for workers to get to work, creating hazardous workplaces and disproportionately putting low income people at risk in their neighborhoods by continuing to burn fossil fuels. Dr. Cha, can you tell us more about how the burning of fossil fuels is harming workers specifically?

Ms. CHA. Well, the fossil fuel industry, in general, is very dangerous work. We can think about coal mining, oil and gas drilling. All those toxics that are needed to release oil and gas from the ground are then directly inhaled by workers. Part of the reason why the fossil fuel industry has higher wages is because it is very dangerous work. So, you know, even when we burn fossil fuels, it is not just carbon dioxide that is released, but there are other air pollutants that are released that are dangerous to communities and to workers. And to increase profits, fossil fuel companies often cut safety measures so that they can increase their profits, but all at the expense of workers.

Ms. BUSH. That, again, is inhumane. Thank you, and I yield back.

Ms. OCASIO-CORTEZ. The gentleman from Pennsylvania, Mr. Keller, is recognized for five minutes.

Mr. KELLER. Thank you, Chairwoman, Ranking Member Comer and witnesses for being here today. This Tuesday, the President and congressional Democrats met on the South Lawn of the White

House to listen to music and celebrate the passage of their massive \$740 billion so-called Inflation Reduction Act. I actually refer to it as the Income Reduction Act because it is reducing the income of many hardworking Americans.

While President Biden called the IRA the single-most important legislation passed in the Congress to combat inflation, and Speaker Pelosi said it was beautifully named for all it does, the stock market was free falling to its worst day in over two years. That morning, the Bureau of Labor Statistics reported an August inflation rate of 8.3 percent. Put differently, since last August, unchecked Democrat spending, including the IRA, has taken one month's income from every American—8.3 percent. So every American just lost one month of their income. Then, ironically, adding to the very problem it was named to combat, the Inflation Reduction Act ensures energy prices will continue to rise.

Mr. Shellenberger, just a couple of questions. It is my understanding that by 2050, the need for energy around the globe will increase by about 50 percent. Is that correct?

Mr. SHELLENBERGER. Yes, sir.

Mr. KELLER. And currently, is it correct that we get roughly 60 percent, or maybe a little bit more, of our energy from natural gas, oil or coal?

Mr. SHELLENBERGER. Yes.

Mr. KELLER. OK. So while we need to increase 50 percent, there are people that want to eliminate 60 percent or a little bit more of how we currently get our energy?

Mr. SHELLENBERGER. Yes, that is correct.

Mr. KELLER. I guess it is going to get a lot more hotter in this building over the upcoming years. We should probably turn off the air conditioning here first, quite frankly, and lead by example. Maybe the President should lead by example and practice mail-in balloting rather than flying Air Force One and his motorcade to go vote, or plan to do it when he was on one of his vacation days already in Delaware instead of making a special trip.

Sorry. I didn't mean to digress. But in light of the hundreds of billions of dollars invested in the IRA, how viable is an energy agenda that excludes fossil fuels?

Mr. SHELLENBERGER. Well, we are seeing it play out in my home state of California, where we have done the biggest investments in renewables by far, and we announced on August 25 that we were going to phaseout internal combustion engines. August 30th, we asked people not to charge their electric cars between 4 and 9 p.m. So we are absolutely not prepared. We came close to blackouts. They have been burning kerosene and diesel. And by the way, I share the concern with environmental justice expressed here. The kerosene and diesel that they are burning in California is because we weren't burning enough natural gas and because we shut down our nuclear plants.

Mr. KELLER. Well, which has more emissions then, the kerosene and diesel or natural gas?

Mr. SHELLENBERGER. Significantly more emissions from the kerosene and diesel, sir.

Mr. KELLER. Who would have thought that, but—

Mr. SHELLENBERGER. And in terms of the renewables, it is the problem with the energy density. You know, we know that solar and wind projects require 300 percent more copper, 700 percent more rare earths. Wind, solar and batteries require 1,000 percent more steel, concrete and glass, 300 percent more copper. I mentioned 4,200 percent more lithium. We are talking significant increase of the material intensity of energy. That is, by definition, going to cause inflation. That is going to make energy more expensive. The reason renewables make electricity expensive is for physical reasons that cannot be overcome by technological innovation.

To give you a sense of it, sir, solar panel efficiencies, the conversion of sunlight to electricity, improved by two percent over the last decade. The reason the Chinese were able to make them so cheap is because they were using basically slave labor of Uyghur Muslims, coal, and they made huge subsidies so that they could bankrupt other solar energy firms around the world. We are headed down an extremely dangerous path. In Europe and around the world, we are going to have hundreds of millions of unnecessary additional deaths from cold, from hunger, and from air pollution because of the war on gas.

Mr. KELLER. Well, to charge the batteries on the electric cars, we have to burn something or we have to generate the electricity somehow, and I guess that is why we are having the problems in California. My concern would be that if I am in California, and I have gotten home from work, and I can't charge my car when I get home, and I have a child that maybe has an emergency and has to go to the hospital, what do I do when I don't have enough electricity to get him there?

I can tell you a story about that. My son, when he was 3, had a head injury, and we took him to the doctor and drove him to the hospital. If I would have run out of gas, he would have died. I think we really need to think about the policies that we are forcing on the Americans, and if Americans want electric vehicles, or they want green energy, or if they want to do this stuff, it should be up to them.

I see the chart here behind Ms. Cortez about the profits. You know, who owns those companies? Pension systems, Americans who have 401(k)'s through a savings plan. A lot of government employees are invested in those companies too. And, again, I don't think anybody should be price gouging. We call it price gouging, or they try to attempt to call it that. How come we don't call it price gouging when they raise taxes to send 87,000 IRS agents out to comb through the finances of hardworking Americans? There was an amendment that said they couldn't use it for that.

Ms. OCASIO-CORTEZ. The gentleman's time has expired.

Mr. KELLER. They want me to expire because they don't want to hear the truth. But the truth of the matter is—

Ms. OCASIO-CORTEZ. It has expired. It is 50 seconds over your limit, sir. Thank you. I apologize. Well, actually I don't. That is the rule. And for the record, my last name is Ocasio-Cortez. The gentleman from Vermont, Mr. Welch, is recognized for five minutes.

Mr. WELCH. Thank you very much. You know, the question is no longer whether climate change is real. The question is whether the fossil fuel companies are going to help us make that transition to

clean energy. And many of my colleagues in pointing out some of the challenges, “those are real.” But what the Inflation Reduction Act did was, for the first time, established governmental policies that then can be used by the private sector, including energy companies, if they take on the challenge, to start moving us to clean energy and make the adjustments we have to in order to make it work.

My concern about the energy companies is two things: one, when we had this spike in prices, they had an option. They could take advantage of it with their market power because we are dependent on getting our kids to school. We are dependent on keeping the lights on. We are in an inflationary environment, and what they did was stick it to the consumers. They have the record profits. They would survive quite well if they were in quarter 2 in 2021 instead of quarter 2022, and use that for stock buybacks, use that for dividend increases. They had another option: lighten up on the stock options, lighten up on the dividends, and try to help the consumers get through this.

Now, the second thing is greenwashing, which you have talked about. They know, these companies, that talking clean energy is appealing to consumers, but clean energy does not happen because of advertising. It happens because of investment, and we are going to need these companies to make investments to help us. And if they make those investments and we have a grid that can transmit that power that is being produced by wind in Iowa to a metropolitan area in Illinois, that is what we are going to need.

Dr. Weber, is there a threat to our well-being if we don't invest in clean energy and solving the challenges of getting the clean energy—air, and wind, and solar—to where it is needed?

Ms. WEBER. I think there is an immediate threat, and there is a threat that also goes through a number of important economic channels. So first of all, these exploding fossil fuel prices unsettle the whole of the American economy, landing us in the kind of inflation crisis that we find ourselves in, which hits the victims of climate change, Black and brown communities, first and foremost. Second, it undermines other industries that would actually make productive investments, because if profits explode in one sector, it becomes comparably more attractive to put all the money into the fossil fuel sector rather than into sectors that we need to buildup a cleaner economy, to build an economy that actually is sustainable for the American people.

Mr. WELCH. All right. So we have some energy companies in Vermont that are actually investing in clean energy. They see their role as making that transition because the impact of carbon fuels, which is how they power their electricity, are having an adverse effect. They don't deny it, they acknowledge it, and they are helping homeowners retrofit their homes. They are helping them install heat pumps. They are helping them do practical things that can bring their bills down and give them reliable energy. Is that a viable approach or a decision for some of these major energy companies to take as opposed to doing the greenwashing as opposed to spending so much time in the propaganda that climate change doesn't exist, Dr. Cha?

Dr. CHA. Yes, absolutely. I think what you detail is a very good example of what the fossil fuel industry can do to help us transition to cleaner sources.

Mr. WELCH. All right. Ms. Salter?

Ms. SALTER. Unfortunately, the fossil fuel industry has shown that they have absolutely no intention of investing in clean energy because fossil fuels are their most valuable asset. This has been at the heart of the deception.

Mr. WELCH. So they got assets in the ground. They want to defend them and keep selling gas for five bucks, or now, I guess, it is four bucks a gallon.

Ms. SALTER. That is correct. They have they have shown limited willingness to invest, and, yes, they want to protect their core asset, which is fossil fuels.

Mr. WELCH. All right. I yield back. Thank you.

Ms. OCASIO-CORTEZ. The gentleman from Georgia, Mr. Clyde, is recognized for five minutes.

Mr. CLYDE. Thank you, Madam Chairwoman. We are here today because of Democrats' desire to continue a sham investigation, which has been ongoing now for over a year. Last year, Democrats threatened the oil and gas industry with subpoenas months before even inviting them to a hearing. Despite the appearance of oil and gas CEOs at a six-hour committee hearing on October the 28, last year Chairwoman Maloney still subpoenaed all the hearing witnesses for documents.

Right now, we should be talking about skyrocketing gas and oil prices and what can be done to help Americans. However, that is not the purpose of this hearing today, because Democrats are out of touch with the reality that millions of Americans are experiencing inflation. But this is not surprising, because during a hearing last October, Democrats asked Mike Worth, are you embarrassed as an American company that your production is going up. Really? Why would he be embarrassed that production is increasing?

Fossil fuel is an imperative for our country to properly function, and it is stunning that people in this hearing room actually think that we can eliminate fossil fuel. Do you know that everything made from plastics comes from fossil fuels and the petrochemical industry? Do you drink water from a plastic bottle? Do you get hand sanitizer from a plastic bottle? Do you have a laptop computer, a television? How about the glasses that you wear, or even the easel back there that is holding that sign has plastic on it. How about the insulation on electrical wire? Electrical wire of which you could not build an electric vehicle without insulation on an electric wire, and that comes from hydrocarbons. All of it comes from hydrocarbons.

So moving away from plastics made from hydrocarbons is clearly a recipe for disaster, but if we are going to move away from it, what are we moving toward? What is the substitute? There is not one. Not only are Democrats out of touch, but they are clearly deflecting our attention from the fact that neither the Democrats in Congress nor the Biden administration have a plan to address the energy crisis.

One day President Biden commits to cutting gas pollution in half by 2030, and the next, President Biden attacks the domestic companies for not producing enough energy. Over the 4th of July weekend this past summer, President Biden stooped so low as to demand that gas stations abide by his will, asking small businesses to cut prices across the country as the solution to his failed anti oil and gas policies.

I would like to ask unanimous consent to submit for the record this article that was published by the National Review on July 6, 2022.

Ms. OCASIO-CORTEZ. Without objection, so ordered.

Mr. CLYDE. Thank you. Biden's shameful gas station attack. Mr. Shellenberger, as you know, Plant Vogtle reactors 3 and 4 in Georgia are the only two nuclear power reactors to be built in decades in America, and my Georgia constituents will benefit from it every day with inexpensive and clean energy. And by the way, thank you for your testimony concerning energy density as it was very enlightening to see where actually the energy, you know, of each particular product rests on the ladder of energy density. I hope every person in this hearing room really takes that to heart.

So what role do you think nuclear energy should play in meeting America's current, and, more importantly, future energy needs?

Mr. SHELLENBERGER. Thank you for the question, sir. I mean, nuclear is the queen of power of all sources of electricity. It is the most environmentally sound. It is the most secure. And of course, it has always been a huge priority for every Presidential administration in the United States because it is a dual-use technology. It always has been. It is a serious issue. We need to significantly expand. We need a green nuclear deal, not a renewables expansion that would increase our dependence on China. We need to reduce our dependence. Nuclear is the key to that.

My concern, sir, is that we are losing the valuable intellectual property and skills that were developed among welders, and pipe fitters, and other workers to build the Vogtle plants. We need industrial security in the United States. That is what Russia's invasion of Ukraine shows. And that means that we need a plan to build out nuclear, take it from where it is today, 19 percent, to 50 percent of electricity between now and 2050. We have always had a national champions model. The right model is two major nuclear plant building firms. We might have one partnership with the Japanese, French, or Koreans, but we need to expand nuclear power. It is a national security imperative at this point, sir.

Mr. CLYDE. Well, thank you. I certainly agree with you in that, and it is a shame that we have only seen two nuclear plants in the last 40 to 50 years come online. I think we need more too. Thank you for that, and with that, I yield back.

Ms. OCASIO-CORTEZ. Thank you. The gentlewoman from Florida, Ms. Wasserman Schultz, is recognized for five minutes.

Ms. WASSERMAN SCHULTZ. Thank you, Madam Chair. The future costs and effects of climate change are something that weighs heavily on both my mind and the minds of so many Americans. But climate change is already costing taxpayers billions of dollars from extreme weather events. If fossil fuel companies are left unchecked, the price tag will be astronomical. This problem is so apparent that

even the Trump Administration admitted that failing to combat climate change could cost the United States more than 10 percent of its GDP each year.

Now, we have just heard the stories of some of the victims and survivors of climate-related disasters earlier today. Last year, the United States faced 20 separate billion-dollar weather and climate disasters. In 2020, we faced \$22 billion climate fueled disasters. In my home state of Florida, sunny day flooding, storm surge, king tides, saltwater intrusions, they all push our infrastructure to the limit. This water intrusion exacerbated by climate change is a daily reality for Floridians. According to NOAA, the National Oceanic and Atmospheric Administration, climate and weather disasters have cost us a trillion dollars over the last six years. We have been fortunate so far this hurricane season, but the 2020 and 2021 seasons were some of the worst in recorded history. Dangerous storms, like we have seen, decimate communities in Florida and Texas and Louisiana, and they are becoming more frequent and more intense.

Ms. Salter, are the costs of climate disasters expected to grow this year, and if so, what do you think is causing the increase?

Ms. SALTER. The costs of climate inaction are growing, and they will continue to grow as we let the fossil fuel industry go unchecked. And really, the devastating irony is that while the fossil fuel industry stands to lose profits from climate action, the rest of us have so much to gain. A recent study from Deloitte found that inaction on climate change could cost the world's economy \$178 trillion by 2070, but if global leaders were to act, we could look at gains of \$43 trillion by 2070.

Ms. WASSERMAN SCHULTZ. Thank you. In fact, as of July 11 of this year, NOAA estimated that we have experienced over \$200 billion in disaster costs this year alone. Since then, flooding knocked out Jackson, Mississippi's water supply, record heat has scorched Utah, the Colorado River has dried up, and California is fighting multiple unprecedented climate crises. Simply put, it is an economic imperative that we move off of fossil fuels.

In addition to cost to individuals and taxpayers, our continued dependence on fossil fuels hurts workers. And I would like to address the myth perpetuated by Big Oil and my Republican colleagues that the fossil fuel industry provides "good stable jobs". In reality, the fossil fuel industry has abandoned workers. After fossil fuel companies received billions of dollars in tax breaks and COVID relief bills, they laid off tens of thousands of workers. So Dr. Cha, have fossil fuel companies made a concerted effort to rehire those workers?

Ms. CHA. They have not. The fossil fuel work force has not rebounded to the size that it was before the pandemic, and wages are not matched to what they were before the pandemic.

Ms. WASSERMAN SCHULTZ. And Dr. Cha, you testified on "equity washing", where companies are messaging concern for communities of color, and workers, and energy transition, while engaging in activities that actively harm these same interests. How else has Big Oil's equity washing concealed how it harms workers?

Ms. CHA. I mean, the first issue is that they claim to be concerned about climate change, but they have no intention of moving away from fossil fuels. So the fundamental to a just transition is

a transition, and yet we see these fossil fuel companies continue to expand their operations. And part of the reason why they have such high profits is that they are not paying their workers what they deserve to be paid.

Ms. WASSERMAN SCHULTZ. And how can we make sure that the historic investments in the Inflation Reduction Act usher in a true and just transition for workers? You know, I am really tired of the, you know, flapping of lips on environmental justice from some of these companies and, you know, companies that supposedly want to help neighborhoods actually get through a transition, but then they turn around and economically devastate these communities either through not paying them what they should be or continuing to expand, not contract, their fossil fuel investment. So how can we make sure that those historic investments are actually going to result in a just transition for workers?

Ms. CHA. I think that there is much more that can be done, but I think that the fundamental point is that we are investing in a clean energy transition. And I think it is important also to point out that, you know, there is a lot of talk about fossil fuel companies, but the reason why they were able to expand their production in the first place was because of government investments and subsidies and research. So the fact that we are investing in the clean energy transition is the same as what we did to grow the fossil fuel industry, and, in that way, as we can transition away from fossil fuels, it is the best way to protect workers.

Ms. WASSERMAN SCHULTZ. Thank you so much, Madam Chair. I yield back the balance of time I don't have.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from Kansas, Mr. LaTurner, is recognized for five minutes.

Mr. LATURNER. Thank you, Madam Chair. Mr. Shellenberger, how are you today?

Mr. SHELLENBERGER. Good, sir. Thank you very much.

Mr. LATURNER. Good. Can you speak at all to the market influences that contribute to oil companies' profits?

Mr. SHELLENBERGER. Well, yes. I mean, essentially, it is supply and demand, so when there is insufficient supply and demand rebounds as it has, that is why we have these big profits.

Mr. LATURNER. Thank you. In your opinion, where did the negative misconceptions about fossil fuels originate, and what has caused people to give credence to them over time?

Mr. SHELLENBERGER. Well, the originary concern with fossil fuels was that they provide for abundant prosperity, and they are the power of civilization. I mean, I have traced that back in my book *Apocalypse Never*. Well before any concerns about climate change, there was an effort to repress fossil fuel development, particularly in developing nations like Bangladesh, because of the concerns of so-called overpopulation. These were often racist concerns expressed, Malthusian concerns. That is how it began. Climate change is just the latest justification for the war on natural gas, for example.

Mr. LATURNER. Can you talk briefly about the economic impact of the shale revolution in America?

Mr. SHELLENBERGER. I mean, it was a huge, as I mentioned, the studies are very clear on this. It was a net benefit to the consumers

at a level of about \$100 billion a year in the form of lower energy prices. That is about a trillion dollars between 2010 and 2020. That was a period that came at the cost of many oil and gas companies, which went bankrupt or lost significant amounts of money. Lots of Wall Street money was lost in subsidizing cheap energy for American consumers. Maybe it is one of the greatest technological innovation success stories in American history.

Mr. LATURNER. Can you explain the environmental tradeoff that is made when the United States shuts down natural gas production in a rush to transition to renewable forms of energy? In other words, will the actions that the administration has taken to shut down domestic natural gas production reduce emissions proportionally, or does that decision come with offsets from other types of energy production?

Mr. SHELLENBERGER. No, in fact, it is increasing air pollution. I mentioned the kerosene and diesel that has been burned disproportionately in neighborhoods of color in California. This is going to be the biggest year of coal burning on record even though we had been reducing our dependence on coal both in the United States and globally because of cheap and abundant natural gas. Coal use is also increasing in the United States even though it had been declining over the last decade. So yes, I mean, the environmental impacts of the war on natural gas are extremely serious and severe.

Mr. LATURNER. You spoke to this earlier, but could you expand on the global humanitarian impacts, particularly for poor countries, without efficient means of energy production of cutting domestic LNG production and rushing our transition to renewable energy?

Mr. SHELLENBERGER. It is devastating. I mentioned before that Europe has seen its fertilizer production decline by 70 percent. This is bonkers. Of course, there is three forms of fertilizer, one of which is made from natural gas. Fertilizer is essential to feeding a world of 8 billion people. We could only feed half of that number without synthetic fertilizers. I also mentioned we saw the government of Sri Lanka fall because of a food and energy crisis.

We are seeing other governments are going to fall or be destabilized by high energy prices. People will starve. People will die because of expensive, scarce energy. We are just not awake to it enough in the United States, in my view. I think we are being too provincial about this problem. We benefit from abundant energy more than our European allies do, but they are in absolute crisis mode right now. They are going to ration energy this winter.

Mr. LATURNER. I have said in the past that compromising our energy independence and net exporter status is a national security threat, and I firmly believe that. Would you agree with that statement, and what steps do you think can be taken to avoid compromising ourselves to Venezuela, Saudi Arabia, Russia, or other nations for energy?

Mr. SHELLENBERGER. Yes. I mean, look, it is just as insane as it looks for Biden to go and beg the Saudis and beg the Venezuelans to produce more oil when we could be producing it here. It is also worse for the environment because you have to transport it, so that is a huge problem. The other issue is we need to repatriate solar panel production to the United States before expanding it. We should not be importing any solar panels from China. This is a fun-

damental, categorical, moral imperative to stop importing solar panels from people that are making them from effectively slave labor. We say we are concerned around Muslim rights. Not showing it by importing solar panels, and much of the Inflation Reduction Act's expansion of renewables depends on Chinese solar.

So this is a dangerous game that we are playing. These industries need to be repatriated, but I think longer term, we need a vision of gas and nuclear and hydrogen. These are domestic fuels that we can produce in abundance, helping to achieve both energy security, prosperity, and radical decarbonization.

Mr. LATURNER. I wish I had more time. You have been an excellent witness. I yield back, Madam Chair.

Mr. SHELLENBERGER. Thank you, Congressman.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from Georgia, Mr. JOHNSON, is recognized for five minutes.

Mr. JOHNSON. Thank you. I like listening to the MAGA Republicans, the witnesses speak about things that need to be done that Democrats just did in the Inflation Reduction Act. In mid-June, the national average gas price was about \$5, nearly double the price for the same time last year, and as a result, Big Oil made record profits while Americans got squeezed and soaked. You know, Americans are getting tired of the situation, where no matter what happens, the rich get richer, and the poor get poorer, and the middle class get squeezed.

And with their billions of dollars in profits, do you think Big Oil executives will be the ones battered by the hurricanes? No. They will just pay more for sand on their private beaches, or they will sell their beach homes and go to some place less battered. Does anyone think these executives face the same asthma and cancer rates as the Black and brown communities which breathe the toxic air caused by the products that they sell? No. Big Oil companies will enjoy record profits, and Big Oil executives will enjoy record profits as Black, and brown, and low-income communities disproportionately experience disproportionate sickness and death due to their greed. But if you check any Big Oil companies' website, you will get a different narrative. These companies tout major pledges to reduce emissions. And these pledges are false misinformation because the truth is that Big Oil companies are doing virtually nothing to help with this crisis that they greatly contribute to because they are perfectly happy with the status quo.

Recently, Congress acted and passed the Inflation Reduction Act without a single extremist MAGA Republican vote that would move the Nation toward decreasing our reliance on fossil fuels. Big Oil can do what other responsible companies are doing, and that is leverage the tax credits and other investments in the IRA along with their gratuitous profits to build clean energy infrastructure in this country. Failure to act means that they will be left behind while other companies reap the benefits. Big Oil companies are well positioned to live up to their climate pledges, and we can no longer allow their baseless promises to suffice for inaction on climate change, which is real and on which we must act with or without MAGA extremist Republicans.

Dr. Weber, this year, ExxonMobil, the country's largest oil company, reported its net profit more than doubled to \$5.5 billion from

a year earlier. The high price of gas this summer put more money into the pockets of executives and shareholders at Shell, ExxonMobil, Chevron, and BP, but left some Americans straining to make ends meet. As a professor of economics, can you make the case that oil companies have engaged in profiteering and price gouging to achieve record profits during a period of global uncertainty?

Ms. WEBER. Thank you, sir. Reading through the earnings calls of fossil fuel companies, we can see that they very explicitly have pursued a strategy that they call being disciplined on investment. In other words, they have very consciously not increased production in the ways in which they could have. Now, that should be good for climate change, but it is, first and foremost, good for their own profits. So the motivation is—

Mr. JOHNSON. So they created the supply and demand situation just so that they could reap the handsome profits?

Ms. WEBER. It is a situation where they have higher profits on lower volumes. Now, if you can produce less and make more money from it, would you start producing more? That is the rationale behind what they are doing.

Mr. JOHNSON. So there is nothing sacrosanct about this law of supply and demand that a previous witness talked about and let me move on. Ms. Salter, greenwashing is when an industry works hard to make their image as clean and allied with those concerned about climate change as possible. Big Oil spends millions on their greenwashing campaigns to mislead the public on their actual carbon emissions and impact on climate change. BP, for an example, vowed to reduce investments in fossil fuel extractions, but actually increased them, and Exxon-Mobil has a goal to reach net zero emissions by 2050, but increased its production by four percent in the first quarter of 2022. Ms. Salter, do you believe that Big Oil's pledges are sincere?

Ms. SALTER. They are absolutely insincere. They have no intention of wavering from selling their core product, which is fossil fuels, be it from carbon capture and sequestration, which they know will not work, to pushing so-called solutions like renewable natural gas. Their modus is to continue to produce throughout whatever transition may happen and continue to push states like New York that are trying to move away from fossil fuels to include these false solutions in our energy plans.

Ms. OCASIO-CORTEZ. Thank you.

Mr. JOHNSON. Thank you. My time has expired, and I yield back.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from Nebraska, Mr. Flood, is recognized for five minutes.

Mr. FLOOD. Thank you, Madam Chair. The past several months have put the debate over energy into perspective. Russia's invasion of Ukraine was a global energy supply shock. That shock has underscored the importance of reliable and affordable energy. Europe has long been too dependent on Russian oil and gas. While countries like Germany have aggressively pursued renewables, they are still dependent on fossil fuels from Russia to keep their economy running.

Now that their fossil fuel source is restricted, those countries are now struggling to power their economies. Germany has mandated

a ban on illuminated advertisements and new nationwide temperature requirements in public buildings to save fuel. The French president is calling on his countrymen to reduce energy consumption by 10 percent over the coming weeks. If people can't hit that energy reduction goal on their own, the government will start enforcing mandatory energy cuts.

Lest we forget, winter is coming. Our friends in Europe are sadly going to see a bigger energy crunch when temperatures drop. I think we need to take this news from Europe as a cautionary tale. Every economy is dependent on energy. We are fortunate in the United States because we have plenty of reliable sources of energy within our boundaries, and I do support a mix of these energy sources.

But I have a question for Mr. Shellenberger. Can you talk about the massive renewable energy incentives included in President Biden's latest IRA bill? Do you think these incentives will meaningfully increase U.S. energy production overall?

Mr. SHELLENBERGER. Thank you for the question, sir, and before I answer, let me just add one thing to that, which is that the Biden administration and the IRA are basically pursuing the same strategy that Europe pursued, which is shutting down domestic natural gas production and increasing reliance on weather-dependent renewables. That is why Europe got itself into the trouble it got into and what is happening here, repeating that error, despite the fact that we can all see the disastrous consequences of it.

I think there are issues. With renewables, what you get are two problems. One is that you don't have the power you need, which is why California, despite having deployed so much solar panels, ran out of energy when we needed it over the last couple of weeks when we were near blackouts, but also produces too much electricity when you don't need it, which is why California has to pay Arizona to take our excess power from us during periods of low energy demand and high solar output.

So I am not sure if I am answering your question or not, sir, but I think for electricity to work well, you need to match supply and demand at any given moment. Any time you take energy out of the electrical grid and bring it back on, you are paying an energy penalty of somewhere between 20 and 40 percent, which increases costs. So any additional unreliability added into electricity increases the number of people and machinery required to deliver electricity and, therefore, increase costs.

Mr. FLOOD. Real briefly, and I don't have a lot of time, but I know that you are a proponent of nuclear energy, and I want to ask you what role do you think nuclear energy plays in this. And also, could you briefly touch on nuclear microreactors? I am interested to know what you think.

Mr. SHELLENBERGER. Sure. And let me say, too, on nuclear, what is important to remember is that if we are not helping our allies and other nations around the world to build nuclear power plants, Russia and China will. And because it is a dual-use technology, we have always recognized what it is. We have always had a policy in the U.S. Government to be involved in nuclear power plant construction abroad.

Well, we are not getting those contracts with nations abroad to build nuclear power plants because we are not building nuclear power plants at home. We need a strategy to build nuclear at home so we have the work force that is capable then of building plants abroad. That is what Korea, Japan, and France have all been involved with. We have got to get back in the nuclear game. We have seen that Saudi Arabia has been working with the Chinese to both do uranium extraction from seawater, uranium enrichment, and build nuclear power plants. I think most people on both sides of the aisle in the Congress recognize the threat that is to national security.

Mr. FLOOD. Microreactors, talk about that.

Mr. SHELLENBERGER. We have microreactors today. They are in submarines and aircraft carriers. They have a near flawless record of operation. The Russians are now using them for icebreakers. I think they are important, but I think we have to just keep in mind that the basic physics of energy continue to apply. Larger reactors require fewer workers and cost per unit of energy, and so they produce the cheapest form of power. So, in general, if you are going to significantly expand nuclear, the main event remains large light water reactors.

Mr. FLOOD. Thank you, Mr. Shellenberger. What I would like to say is we need a well-balanced approach to energy. Renewables can and should be a part of that approach, but this administration, in my opinion, seems intent to pursue a path forward with only renewables, and I do not think that is sustainable. And I think if we want to see what the future is for America, watch Europe. Watch what happens this winter. It is dangerous, and it is dangerous for Europe, and it will be dangerous and is dangerous for America. Thank you, Madam Chair. I yield back.

Ms. OCASIO-CORTEZ. Thank you. The gentlewoman from Illinois, Ms. Kelly, is recognized for five minutes.

Ms. KELLY. Thank you, Madam Chair, and thank you to the witnesses. Most scientists agree that renewable energy is the only path to quickly addressing climate change and energy independence at the same time. We must face the facts. If we go to Big Oil every time there is an energy crisis, it will keep giving us self-serving and costly solutions. Big Oil is ill equipped to address energy crisis, but well equipped to exploit them.

As long as Russia supplies a substantial amount of oil and gas on the global market, Putin will have control over us. Big Oil is only too happy for this outcome. So I agree with U.N. Secretary General Antonio Gutierrez when he says we need "urgent action to grab the low-hanging fruit of transforming energy systems away from the dead end of fossil fuels to renewable energy." Renewable energy technologies provide an enormous opportunity. That is why the recently passed Inflation Reduction Act, or IRA, invests hundreds of billions of dollars in domestic clean energy.

Professor Cha, will the IRA help the United States become energy independent?

Ms. CHA. Absolutely. The best way for us to become energy independent is to transition to clean energy, and the IRA is a significant down payment on that transition.

Ms. KELLY. By investing in clean renewable energy produced here with prevailing wages, we are becoming energy independent for the long haul. We will create union jobs at home, become global technology leaders, and insulate ourselves from global energy shocks and disruptions. Dr. Weber, is there a lesson we can learn here from China's reindustrialization that we can apply in our own renewable energy investments?

Ms. WEBER. Absolutely. So China tried to do a policy of development of shutting its economy out of the world economy before the late 1970's and was not successful with this economically. After the late 1970's, China switched to a policy that used foreign technologies and foreign capacities to leverage its own economy up. I think there is an important lesson here for the transition to renewable energies.

Ms. KELLY. And how does fossil fuel dependence help our global adversaries?

Ms. WEBER. I think that fossil fuel dependence makes the American economy less stable and more volatile because oil prices are structurally volatile. This is an insight that we know since the famous economist, Wesley Mitchell, in the early 20th century. So in that sense, it makes the American economy less stable and more volatile and undermines its position.

Ms. KELLY. Thank you. It is clear with the IRA, the United States is ready to chart its own course to global leadership, benefit American families, and transition to reliable clean energy. This will set up the American economy for a strong and bright future. I am particularly proud that the IRA includes this committee's language on cross-cutting environmental, economic, labor, and equity standards, and the oversight and implementation of the bill at the Office of Management and Budget and the Government Accountability Office. I look forward to working with these two agencies to apply these standards so that plentiful renewable energy will benefit those hit hardest by climate change, pollution, and high prices. And with that, Madam Chair, I yield back. Thank you to the witnesses.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from Texas, Mr. Sessions, is recognized for five minutes.

Mr. SESSIONS. Thank you very much. I want to thank the panel for sitting down for a long period of time to engage this committee, and Madam Chair, thank you. I see that you have reset the clock. Thank you, and I thank you for this. I think that there are valuable things we can learn from experts. I think they are valuable things we can learn from you.

While I deeply disagree with the attack on "Big Oil," I would like to ask what might be to my left side of the table. California is in the middle of 25 or 30 years' worth of preparing for the future. I watched with great discomfort about where California is now that they have taken the direction they have for 25 years. I was disappointed to see where Europe is with the people who produce food, poor people in Europe, to see the governments attack them off these same issues just like you attack oil or at least fossil fuels, as you call them here. Tell me what I don't get about 25 years that California has been doing this and where they presently are. Any of the three ladies.

Ms. WEBER. Well, maybe I will use this opportunity to speak to the situation in Europe. You might tell from my accent that I am from Germany, and I have spent a lot of time talking to policy-makers in Germany in the last months. I think that the situation in Europe should stand as a warning on the topic of fossil fuel dependence, because what we see in Europe today are the consequences of fossil fuel dependence. What we see in Germany today are the consequences of under investment in renewable energies instead of pursuing balanced government budgets in the long run. So what we see in Germany is a situation of a lack of sufficient investment in renewable energies that could have forestalled the current crisis.

Mr. SESSIONS. Well, but you have seen in the United States for probably 10 or 12 years we have been putting \$18 billion worth of subsidies to the industry to build things that come out of China, not just golf carts and not just wind turbines, but a whole bunch of things, but let's go directly. Who is willing to tell me how successful it is and whether this was the plan in California?

Ms. CHA. I can speak to California since I live there, and I think it is also important to remember that California is also an oil and gas state. We are the fifth largest producer of oil and gas in the country. So we also suffer from the consequences of the power of the oil industry. You have heard that about the grid, but, in fact, in our last extreme weather event, the grid did not fail. There was an adequate demand response that made sure that the grid didn't fail and that electricity was provided to all the residents in California.

Mr. SESSIONS. Well, that may be true, but there was a vast outreach to please, don't use the power supply.

Ms. CHA. Only at the peak moments of demand, and most electric vehicles charge overnight. And the grid, again, did not fail.

Mr. SESSIONS. Peak demands were all day, as I recall, don't use your car.

Ms. CHA. Actually, I live in California, and the notice that we got was that you should cool your house during the day, and then around from 4 to 9 try not to use household appliances.

Mr. SESSIONS. OK. So why would that be? After 25 years' worth of building in a future for green energy, why are we doing this?

Ms. CHA. Again, California is also an oil and gas State, so they have not made as much advancements in renewable energy as they could have. And also, again, we had 10 days in a row of 120 degree temperatures, so we had a demand on the grid that was much larger than usual, and, again, the grid did not fail.

Mr. SESSIONS. And I agree with that also.

Ms. SALTER. There has been a chronic underinvestment in the electric grid for a generation or more in the United States.

Mr. SESSIONS. How about California?

Ms. SALTER. Something that is important to note is that the status quo is not OK. This volatility of oil that has been brought up makes us fundamentally insecure. I mean, as you know in Texas with the failure of natural gas that caused many deaths due to freezing, we need to invest in our grid, but we need to make it cleaner. We need to make it more resilient. We need to lower its carbon impact in California and elsewhere.

Mr. SESSIONS. Sure. As you know, Texas has 18 percent of wind, probably the largest advantage across the country. Eighteen percent of the grid comes from wind turbines. So I think what I am about here, and I have got about 10 seconds, is I sure would like to see us become more working with each other and find the mid-ground, and I think that is all of the above, and that does include the \$18 billion subsidies. But Republicans are not against any of the things that they have been accused of today. We are for all of the above. Madam Chairman, thank you very much.

Ms. OCASIO-CORTEZ. Of course. Thank you. The gentlewoman from Massachusetts, Ms. Pressley, is recognized for five minutes.

Ms. PRESSLEY. Thank you, Madam Chair. We are wasting time. Climate change is real, full stop, and while we do still have colleagues that choose deflection, and distraction, and denial in the face of reality, Congress has got to confront the climate crisis head on. I certainly didn't run for office to speak to all the things that we can't or won't do. I am here to change and save lives, and we must. This is a threat to our planet, to all lives. And with every minute that passes, the planet is getting sicker, and so do our people, especially in frontline communities like the ones that I represent.

If we do nothing, economists have estimated the catastrophic consequences of global warming will cost our economy \$178 trillion from 2021 to 2070. That is trillion with a "T," 178, but the truth is that it will cost us our planet. It is the only earth we have, so we have to act with urgency to protect it, and that includes ending the harms of fossil fuels. Our continued reliance on fossil fuels is bad for the planet, bad for the economy, and it is bad for working class folks who need stable and healthy jobs to provide for their families.

So Dr. Weber, again, I represent the Massachusetts 7th congressional District, one of those frontline communities. Could you just speak to the reliance on fossil fuels and how that is affecting low income households? I think it bears repeating for the record.

Ms. WEBER. Yes. So low-income households are clearly the ones that are hit hardest by the energy price explosion. They are the ones that have least means to weatherize their homes. Black and brown community face, on top of this, discrimination in the housing market, which means that they typically end up living in homes that are less well insulated or less energy efficient. These also tend to be the communities that are spending very large shares of their income on food, housing, and fuel, which means that if prices go up for these three items, as they have been—and food, by the way, is in some sense linked to energy—this is an enormous burden on these households, a burden that they can barely carry. And that is pushing millions of households in these communities over the tipping point into energy insecurity, or, for those that were already energy insecure before the crisis, into straight-out poverty.

Ms. PRESSLEY. Thank you, Doctor, and globally, certainly, there is recognition that we must stop relying on fossil fuels. That is why I partnered with Congressman Jones and Congresswoman Tlaib to introduce the Fossil Free Finance Act. Now, this is legislation that would require the Federal Reserve to mandate that major banks and other financial institutions reduce and stop the financing of

projects and activities that emit greenhouse gas emissions and contribute to climate change. So instead of bank rolling fossil fuels, we must invest in renewable energy and clean energy that offer job opportunities with significant future growth just like the investments made in the Inflation Reduction Act as an example, the law that Democrats passed that will create 9 million jobs. Renewable energy has become cheaper than fossil fuels.

Dr. Weber, how do investments in renewable energy lower energy prices for working families?

Ms. WEBER. So already now, renewable energies are cheaper than fossil fuel energy. So if we were to rely more on sources of renewable energy, that would actually lower the bill for ordinary Americans in terms of the cost that they have to pay. I think it is important that you bring up the point of responsible investing. The trouble with these profit numbers that we have seen here is that they make initiatives to funnel financial flows out of fossil fuel industries even more hard than they already were before these profit explosions.

Ms. PRESSLEY. Thank you. And, Dr. Cha, how will a just transition away from fossil fuels and toward renewable energy improve our economy and create jobs?

Ms. CHA. I think the most important point is that, again, the renewable energy economy still has to be built, so the potential for jobs is tremendous. Ensuring that they are good jobs, that there are union jobs that makes our economy stronger is because unions have built the middle class. So the more that we can increase union jobs in renewable energy, the stronger our economy will become.

Ms. PRESSLEY. Thank you. You know, I met with some young people recently and asked them about their aspirations. And they were quite fatalistic in saying that they are afraid to have dreams because they are not confident that they will even have a planet. We need to legislate as if lives depend on it, because they do. Thank you.

Ms. OCASIO-CORTEZ. Thank you. The gentlewoman from Ohio, Ms. Brown, is now recognized for questioning.

Ms. BROWN. Thank you, Madam Chair. I want to thank Chairwoman Maloney for holding this hearing today, and thank you to all the witnesses for joining today. The climate change is fueling extreme weather events, which can have devastating effects on urban communities like mine. I want to thank Ms. Sanchez for sharing her story of the impact that climate crisis is already having in urban communities, highlighting an important, but often forgotten, perspective.

Like Ms. Sanchez's community, we are already seeing heavier rainfalls which drain our aging sewer system in Ohio's 11th congressional District. An increase in lake effect snow due to a warmer Lake Erie is causing more sporadic, but also heavier snow, which can shut down our cities. And extreme heat, which is climate's No. 1 killer in this country, continues unabated, particularly in the poorest neighborhoods with the least canopy. Dr. Cha, how is the climate crisis leading to extreme weather events in urban environments, like Ohio's 11th congressional District where I represent, especially given that we are situated along Lake Erie?

Ms. CHA. You know, we often think of flooding as only affecting coastal communities, but, in fact, flooding will affect communities wherever they are close to water, such as your community. And also, if we think about the urban heat effect, you know, cities tend to be warmer because of a variety of factors, but that will become even worse as the climate crisis intensifies and we see heating increase.

Ms. BROWN. Thank you. Ms. Salter, I want to ask you how does the climate crisis contribute to the rising cost of everyday life in an urban setting?

Ms. SALTER. Everything about the climate crisis makes it harder for those who are poor and least resilient to live a daily life. New York is the genesis of the Federal Justice⁴⁰, and we have looked at indicators of what causes climate vulnerability and who is experiencing environmental burden. And we have done a detailed analysis, and we have looked at things like access to healthcare, race, and income. And what we see are these indicators, you know, overlap, so that if you are low income, if you are a person of color, you both live nearest to a climate impact zone and you have lower access to healthcare. So these various indicators certainly inter lap.

But also, I want to say that there is an opportunity here to make things better. You know, if we move away from fossil fuels, the evidence shows that, you know, communities can become healthier. After a series of coal and oil power plants were closed across California in early 2000's, researchers found a significant decline in preterm births of women who were living in those communities. So there is an opportunity to make our communities healthier and more prosperous.

Ms. BROWN. Thank you, and I see that opportunity as well. While the prices are too high for too many Americans, oil companies continue to contribute in more ways than one to these very problems, raising gas prices for record profits while the climate crisis they helped to create leads to things like you talked about: higher housing, higher food, higher travel costs. It is simply not a way of the future. And so with that, Madam Chair, I yield back.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from Maryland, Mr. Sarbanes, is recognized for five minutes.

Mr. SARBANES. Thanks very much, Madam Chair. I appreciate the opportunity. I want to thank our witnesses for being here. Obviously, this situation with Russia's invasion of Ukraine has put tremendous pressure on energy markets, supply chains, and so forth. And we know that that had an impact on Americans in terms of gas prices, you know, the cost of getting to work, taking your kids to school, et cetera. But all through this, like from beginning to end and even before that, which is what I like to talk about, the oil companies have been raking in these obscene record-breaking profits.

Dr. Weber, you have spoken about how oil companies have exploited the war in Ukraine for profits, dramatically raising the price of gas, and, obviously, our constituents have felt the effects of this firsthand. We saw gas prices getting up to \$5 or \$6 per gallon over the summer. Explain to the committee how fossil fuel companies were raising gas prices on consumers to boost their profits

even before the Ukraine crisis because I think we have to put all of this in context.

Ms. WEBER. Thank you. Yes, that is a great question. It is important to notice that the energy crisis long preceded the war in Ukraine. In fact, there are, of course, laws of supply and demand in the global energy market, and prices in fossil fuels are, at the end of the day, international prices. But what we have seen is that these prices have been going up as the imbalance in the international market has been building up.

At the same time, the American oil companies have basically chosen a strategy of, what they call, discipline investment, which means that they have neither invested in renewables nor in fossil fuel production, which means that they are in a position where they are now basically only having the most profitable oil wells going, those with the lowest cost, while prices have gone up dramatically, which means that, at the end of the day, they are reaping much higher profit.

To give you an illustration, if the price per barrel of crude oil is around \$100 and ExxonMobil is reporting that their price is around \$40, this means that on each \$100 barrel sold, they are basically making \$60 in profits. That is a 60-percent kind of profit.

Mr. SARBANES. Yes. I mean, I think what is happening is the oil industry has found a way to make these exorbitant profits just as a kind of general operating procedure. And, you know, it can be sometimes difficult to chase down what the actual market conditions are. So they take advantage of that overall kind of confusion to hide the ball on how they do pricing.

And now when a crisis comes along, it gives them a terrific excuse to go pursue even higher profits, which I think is what we have seen happen here. The profits in this second fiscal quarter are really mind boggling. Exxon, as we have heard, made a profit of nearly \$18 billion, its highest quarterly profit ever. And if you combine that with what it did in the first quarter, it has made over \$23 billion in profits so far this year. I mean, it is unbelievable.

Chevron made a profit of almost \$18 billion in the first six months of 2022, BP, \$15.5 billion, Shell, \$20 billion in profit by just the end of the 2d quarter of the year. I mean, you got to be kidding me. When the average consumer, their customer, by the way, is still taking it on the chin across the country, these corporate citizens are abdicating their responsibility to step up and do the patriotic thing.

Here is my dream. If you look at these profits,—maybe one enlightened CEO of one of these companies one day soon will realize that they can take their company and leap forward into a clean green energy space and exercise leadership. They have the capacity to do it if they would get their heads out of the sand and decide to be leaders, world leaders, global leaders. I mean, let's make that the challenge to them. Take your fossil fuel companies and turn them into clean energy companies, and instead of being dragged into this clean future, help pave the way and pull the rest of us with you. So with that, Madam Chair, I will yield back. Thank you.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from California, Mr. DeSaulnier, is recognized for five minutes.

Mr. DESAULNIER. Thank you, Madam Chair. To Dr. Weber and Dr. Cha, just a little background. I represent a community in the East Bay of the Bay Area that has five oil refineries and the headquarters of Chevron. In 30 years of representing this area in state, local, and Federal level and having been an air regulator, I have had a close relationship in terms of knowing them, the fossil fuel industry. I have lost constituents, one of whom, Michael Glanzman, lost his life because the company was appealing a Cal/OSHA order to replace a walkie-talkie. When he went out to look at temperature spikes on a hydrocracker because they were ignoring written safety protocols, he was eviscerated when it exploded.

A year later, I lost four constituents when they mis-trained people on a [inaudible] unit. Four people burned to death. We shut them down. We have what is called a full facility audit. Shut them down for a year, and the report came back and said it was the corporate culture that created this. It is, in my view, the priority of return on investment to investors rather than the community and their work force.

So in that context, Dr. Weber and Dr. Cha, how can we trust them? And secondarily, given the dynamics, it seems to me that they have assets, whether it is Putin or American oil companies, that are changing dramatically with the movement, particularly in China, and in places like California and EU, to renewables and alternative fuels. Their futures trading is not what they expected it to do, so it is sort of like they have got to get as much money as they can and get out. So the two questions are, how do you trust somebody without a firm framework of regulatory oversight? And then what about the pressure of how the world is changing more dramatically than they anticipated, I think, given they are trying to create friction to this change from fossil fuels to renewables and how they are trying to maximize their profits and get out? Dr. Weber?

Ms. WEBER. My impression is, from following these hearings today, that we cannot entrust the future of our humanity to these companies. The trouble is that as these profits explode, their assets become more valuable. Already before the profit explosion, researchers estimated that more than \$1 trillion in fossil fuel assets would need to be written off globally to implement the Paris Agreement.

Now, the trouble is that if these assets become ever more valuable and ever more profitable, the challenge of writing off these assets, and, thereby, overcoming fossil fuel dependence becomes even more insurmountable. So reining into the price and profit hikes is really an urgent necessity.

Mr. DESAULNIER. Professor Cha?

Ms. CHA. I would just add that I think Professor Weber is absolutely right that we cannot rely on voluntary commitments or voluntary agreements, that we need a strong regulatory framework that also has meaningful and robust enforcement. The story that you told of Richmond could be replicated in oil refineries across the country. It is a dangerous industry. And for several reasons, for the health and safety of our communities and workers, we need to transition away from fossil fuels.

Mr. DESAULNIER. Dr. Cha, because of those two incidents, we passed in the county that I was on the board of supervisors for and I authored, the industrial safety ordinance. In the 22 years since we have had that, we have never had another fatality or an emergency room, but they fought that. I was at the negotiating table with them. They fought it, and now 22 years later, because of the performance standards, we look back at how well governance, regulatory, oversight has served the community, the workers, and them. They now take credit for it, which I find also indicative of the culture.

One last thing, the dynamic with the renewables. We have transition fuels that we are arguing about now, biofuels, but we want to get to zero as soon as possible here in the Bay Area in California. Can you speak to the pressure that that creates around fossil fuel companies when they talk about transition fuels?

Ms. CHA. I think that there is broad consensus that we need to fight the climate crisis. Particularly, in California, we are seeing, you know, these massive heat waves, these massive wildfires. It is clear the climate crisis is now. So I think that is one reason why oil companies engage in so much greenwashing, to make it seem like their operations are more palatable, when, in reality, we know that they are doing the exact opposite.

Mr. DESAULNIER. Thank you, Madam Chair. I yield back.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from Illinois, Mr. Casten, is recognized for five minutes.

Mr. CASTEN. Thank you, Madam Chair, and thank to you our witnesses and for allowing me to waive on here today. I would like to focus on numbers, if I can. We have talked a lot about these numbers on the back wall about the volume of profits in the oil industry. What is not shown there, and I wish it was, is how many of those dollars are direct wealth transfers from U.S. taxpayers. The U.S. tax breaks, discounted royalty fees, and direct Federal funding to the fossil fuel sector add to \$20 billion a year. Now, that is just the direct money. The International Monetary Fund has calculated that, including the indirect costs, which are transferred from the taxpayers and Americans on to those shareholders, works out to \$662 billion a year. That is more than we spend on Medicaid, almost as much as we spend on national defense. The only country that subsidizes their fossil fuel sector more than the United States is China. Many of my colleagues believe that we should be No. 1. I do not want to win that race, and I hope that my free market advocates would support that.

Dr. Weber, as a reigning economist here, are there any good economic reasons for us to preserve those market-distorting subsidies?

Ms. WEBER. I should not think so, especially not in the light of the kind of profit explosions that we have observed. And while we are at numbers, just to put things in perspective, our research shows that \$93.3 billion have flown from the global fossil fuel industry into U.S. financial institutions and persons. Only in the second quarter, this is about 50 percent more than the Federal Government is spending on natural resources and the environment for all of 2022.

Mr. CASTEN. I am glad to hear it. I introduced, with Earl Blumenauer and Don McEachin, the People Over Petroleum Act that

would take just the \$6 billion of the most egregious tax subsidies, eliminate them today, and give every American a \$500 check. That is only one percent of the subsidy. So my friends in the fossil fuel sector who struggled to compete in the rough-and-tumble world of free market capitalism can rest assured they are still pretty well protected. I hope my colleagues across the aisle will join me the name of capitalism.

I want to share some other numbers with the time I have. Investors make decisions every day about how to allocate their wealth. The price earnings ratio is a measure of how much would you pay for the right to own a share in a company, a right to their profits. Exxon and Chevron are both trading at a price earnings ratio about \$10 right now. Shell is at \$6. NextEra, a leading renewable energy developer, is trading at \$68; First Solar, \$75. Tesla is trading at \$100.

I would submit to you that a part of the reason why the fossil industry is not investing in wells is because capital markets do not trust them with their money. They do not want liquidity. They want to strip cash. In spite of that, many of my colleagues across the aisle are suggesting that when capital markets are saying, I want to move my capital to more productive assets that are cleaner, that are cheaper, where people are investing in the future, my colleagues across the aisle are saying, you know what we should do? We should block those companies from divesting out of fossil fuels.

Dr. Weber, I would ask you again. Are there any principles of efficient market theories that would suggest that the best mode of government in this time is to block capital markets from moving to more productive investments?

Ms. WEBER. I should not think so. And while we are at economic theory, Malthus has been invoked several times during this hearing. Obviously, Malthus had a great debate with David Ricardo, the founder of liberal economics in the 19th century. Ricardo was worried that landlords would eventually suck out so much resources of the economy that the British economy would grind to a halt. I think that the fossil fuel industries today are increasingly taking on a similar kind of economic function as landlords did in the 19th century Britain.

Mr. CASTEN. And the last question for you. Can you think of any good reason why an industry that is receiving \$600 billion a year of subsidies and is struggling to attract capital. that the best policy solution would be to throw them more subsidies?

Ms. WEBER. I should not think so. And we also have to keep in mind that in addition to the direct subsidies, the exploding fossil fuel prices also hurt the budgets of Federal and state governments, which are the second most important users of petroleum and coal products after the petroleum and coal products industry itself. This means that taxpayers are picking up again the bill for this.

Mr. CASTEN. Well, thank you very much. I thank you for your thoughtfulness. This has been an excellent panel, and I wish it was not so partisan. Every time I see Mr. Shellenberger, I am reminded of that quote from Billy Madison, "We are all dumber for having listened to you today, and may God have mercy on your soul." I yield back.

Ms. OCASIO-CORTEZ. Thank you. The gentleman from Louisiana, Mr. Graves, is recognized for five minutes.

Mr. GRAVES. Thank you, Madam Chair. Madam Chair, this hearing today is interesting in that we are talking about record profits of energy companies, and we are watching folks sitting here demonizing those companies. Madam Chair, the Biden administration has projected that global energy demand is going to increase by 50 percent over the next 28 years, a 50-percent growth in global energy demand.

If we look specifically at developing countries, we are probably looking, on the high end according to the Biden administration, about an 80-percent increase in natural gas demand, in developed countries, up to a 58-percent increase in natural gas demand. So that is in the next 28 years, natural gas Biden administration projections. And let me say it again, 50-percent increase in global energy demand over the next 28 years alone. We need wind and solar. We need geothermal, wave, nuclear, hydro, and according to the Biden administration and everybody else, we need oil and gas as well.

So rather than looking at these very projections and saying, OK, what are we going to do to prepare for that, how are we going to develop an energy strategy that achieves reliability, affordability, cleanliness in terms of emissions reduction, exportable technologies and a secure supply chain, what we are seeing, rather than preparation for that scenario is we see the complete opposite.

[Chart.]

Mr. GRAVES. What this shows is this shows the acres of energy of lands that were produced under the various administrations. It doesn't even go back this far, but if you look at all the data, you would have to go back to the Truman administration to find an administration that has leased fewer acres of land for oil and gas production. You would have to go back to the Truman administration in the 1940's when the technology really didn't even exist.

So the data is showing you are going to have a surge in energy demand, yet what they are doing is nothing. To put it in perspective, Madam Chair, the Carter Administration leased 100 times more acres of land—100 times. So the fascinating thing here, the irony here is that we are beating up on an industry that we caused an imbalance in supply and demand. When I say “we,” I really mean the White House. Energy policies of this administration have caused this distortion between supply and demand. You have a surge in demand with cutting off supply. So folks are sitting here saying this is awful that these companies have these profits. You have created it by cutting off supply to meet demand. It is your fault.

Now, all this is being done under the auspices of emissions, right? So this is all climate change, and we are stopping emissions. We are lowering emissions. Let's bring facts to the table again. So the reality is that under the previous administration, emissions went down an average of 2.5 percent a year. Under the Biden administration, they went up 6.3 percent. OK, so we failed on price. We failed on the environment. All right. So let's look at the energy security box. Energy security. Well, so we have gone to Iran. We have gone to Venezuela, we have gone to the Saudis, two of which

have kidnapped Americans, and we have asked them to backfill our refusal to produce energy.

Well, the United States, and specifically, off the coast of Louisiana where I represent, we have some of the cleanest barrels of oil in the world. Recognizing, as the Biden administration does, recognizing that there is going to be global energy demand, why would we not go and get energy from where we know it is cleanest? It doesn't seem to make sense. And so then, last, looking at Census data, 25 percent of all Americans, 1 in every 4 Americans, have had to choose among medication, food, or energy. This is what these policies are doing to people.

Mr. Shellenberger, just asking you a question. You and I have talked about California, and I look at California, eighth worst emissions growth in America, most reliable state upon foreign energy, least reliable grid in the Nation, and rates that are 85 percent above the national average or 100 percent higher than my home state. Why would we want to replicate those failures on the other 49 states?

Mr. SHELLENBERGER. Well, I think California is a cautionary tale, sir. We saw our electricity prices rise 7 times more than in the rest of the United States over the last decade. We have the second highest electricity prices in the United States, second only after Hawaii, which has to import its electricity in the form of oil to burn. We were on the verge of having blackouts. You know, we had rolling blackouts in 2020, so I have been advocating that we keep our nuclear plants open, expand the nuclear plants. The Governor finally did the right thing and kept the nuclear plant going. But California is a lesson to the world. You know, you add more unreliable energy to the electrical grid, you make the electrical grid less reliable.

Mr. GRAVES. Thank you. I yield back, Madam Chair. Thank you.

Ms. OCASIO-CORTEZ. Thank you. In closing, I would like to thank our panelists today 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.

Ms. OCASIO-CORTEZ. This hearing is now adjourned.

[Whereupon, at 1:55 p.m., the committee was adjourned.]

