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THE NEED FOR LEADERSHIP TO COMBAT CLIMATE CHANGE AND PROTECT NATIONAL SECURITY

HEARING

BEFORE THE

COMMITTEE ON OVERSIGHT AND REFORM HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

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THE NEED FOR LEADERSHIP TO COMBAT CLIMATE CHANGE AND PROTECT NATIONAL SECURITY

Tuesday, April 9, 2019

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

The committee met, pursuant to notice, at 10:03 a.m., in room 2154, Rayburn Office Building, Hon. Elijah Cummings (chairman of the committee) presiding.

Present: Representatives Cummings, Maloney, Norton, Lynch, Cooper, Connolly, Krishnamoorthi, Raskin, Rouda, Hill, Wasserman Schultz, Sarbanes, Speier, Kelly, DeSaulnier, Plaskett, Khanna, Gomez, Ocasio-Cortez, Pressley, Tlaib, Jordan, Amash, Gosar, Massie, Meadows, Hice, Grothman, Comer, Cloud, Gibbs, Higgins, Norman, Roy, Miller, Green, Armstrong, and Steube.

Chairman CUMMINGS.

[Presiding.] The committee will come to order. Without objection, the chair is authorized to declare a recess of the committee at any time.

This full committee hearing is convening to review the need for leadership to combat climate change and protect national security. I now recognize myself for five minutes to give an opening statement.

Today the committee is honored to have two distinguished witnesses, former Secretary John Kerry and former Secretary of Defense Chuck Hagel. We welcome both of you.

In addition to serving as key members of the Cabinet, both Secretary Kerry and Secretary Hagel served for many years in the U.S. Senate, and both served with great distinction. They also served in our armed forces, and they both served with distinction in combat.

Secretary Kerry and Secretary Hagel, on behalf of the committee and on behalf of a grateful Nation, I thank you for your service. I also thank you for joining us today to discuss the threat that climate change poses to our country and our national security.

Just a few weeks ago, record-breaking floods forced parts of Offutt Air Force Base in Nebraska under as much as eight feet of water. Secretary Hagel, as you know very well, Offutt Air Force Base is home of the U.S. Strategic Command, and although they are used to floods, this year was nothing like they have ever seen before.

Last September, Hurricane Florence caused massive damage to Camp Lejeune in North Carolina. As a result, the Commandant of the Marine Corps, General Robert Neller, warned that, and I quote, "One-third of the combat power of the Marine Corps is degraded and will continue to degrade." One-third.

For several decades our national security leaders, including the two distinguished men sitting at our witness table, have been warning that we need strong and decisive leadership to combat climate change and to plan for national security implications we are going to face. These warnings have come from Democratic administrations and Republican administrations. In fact, in the most recent National Climate Assessment issued under the Trump administration, 13 Federal agencies, more than 300 experts from around the country, warned, and I quote, "The Earth is now changing faster than at any point in the history of our modern civilization, primarily as a result of human activities."

The assessment found that our response to this crisis so far has not been sufficient to avoid, and I quote, "substantial damages to the United States economy, environment, and human health and well-being over the coming decades."

In addition, earlier this year the President's Director of National Security Dan Coats warned that climate change is [quote]"likely to fuel competition for resources, economic distress, and social discontent through 2019 and beyond."

Director Coats also warned that heat waves, droughts, and floods driven by climate change are, and I quote, "increasing the risk of social unrest, migration, and interstate tension in countries such as Egypt, Ethiopia, Iraq, and Jordan."

Unfortunately, instead of mobilizing efforts to fight climate change, President Trump has attacked the science, weakened environmental protections, and undermined United States leadership abroad. In fact, when his administration issued the National Climate Assessment last year, he stated, and I quote, "I do not believe it."

The title of today's hearing, "The Need for Leadership to Combat Climate Change and Protect National Security," is quite appropriate. I understand that there may be differences of opinion on how we should respond, but there should be no uncertainty about whether we should respond. If the President disagrees with the Paris Accord, that is his prerogative. But what he is proposing instead will not work.

According to press reports, he is reportedly considering creating a White House panel to relitigate whether climate change is real. A panel like that would be a huge step backward for our Nation and indeed the world. The true measure of leadership is whether we leave the world better for our children and our grandchildren and those yet unborn than we found it.

Each day that we fail to act on climate change, we are risking the health and the security of future generations. For these reasons, our committee is making climate change a top priority for this Congress. Today the committee is making a referral to our Subcommittee on the Environment, which is chaired by the distinguished gentleman from California, Representative Rouda, to launch a series of hearings that will take advantage of our commit-

tee's unique and broad jurisdiction over all Federal agencies as well as over the Executive Office of the President, to identify opportunities for advancing concrete solutions.

So I look forward to hearing from our witnesses, and now I yield to the distinguished ranking member, Mr. Jordan. Sorry. I yield to the distinguished gentleman, Mr. Rouda.

Mr. ROUDA. Thank you, Chairman Cummings, and thank you for allowing me to give a statement and calling this very important meeting. I also want to thank Secretary Kerry and Secretary Hagel for testifying before our committee today and for your decades of public service.

As chair of the Subcommittee on Environment, I appreciate the referral of Chairman Cummings to examine one of the most defining and imperative moral issues of our time. Climate change poses an enormous threat to our environment, our national security, our economy, and our long-term health. Climate change can no longer be thought of as something that may or may not impact us someday.

The effects of climate change are already being felt today. Just ask the hurricane survivors in Puerto Rico and the U.S. Virgin Islands. You can also ask my fellow Californians where two most recent wildfire seasons were the deadliest in the state's history, taking the lives of more than 100 fellow Americans and costing approximately $24 billion in damages.

I want to echo Chairman Cummings when I say that the debate that I hope we have here today is about what we should do to mitigate the effects of climate change over the next century, not whether climate change is actually occurring and whether human activity is the leading cause. The science on climate change is settled, and we are past the point where this is an issue of debate.

A few years ago, the American Association for the Advancement of Science released a report showing that 97 percent of climate scientists agree that climate change is happening and that it is being caused by humans. I want to read one passage from the report because I want it to hit all of you the way it hit me when I read it.

"The science linking human activities to climate change is analogous to the science linking smoking to lung and cardiovascular diseases. Physicians, cardiovascular scientists, public health experts, and others all agree smoking causes cancer."

"And this consensus among the health community has convinced most Americans that the health risks from smoking are real. A similar consensus now exists among climate scientists, a consensus that maintains that climate change is happening, and that human activity is the cause."

So let's let that sink in. The consensus on whether climate change is real is equivalent to the consensus on whether smoking causes cancer. I would wager that every single person in this room and the overwhelming majority of Americans trust the science on smoking, as they should. So why are there people still contesting the science on climate change?

As Chairman Cummings points out, the Trump administration's own officials are ringing the alarm on the serious consequences of inaction on climate change. But it does not stop there. There have been other calls to action that cannot be ignored.

The United Nations Intergovernmental Panel on Climate Change synthesized the work of thousands of scientists, including the top American scientists, into its Fifth Assessment Report. They concluded that the rate of sea level rise today is larger than at any point in 2,000 years. Oceans have also become 26 percent more acidic due to the influx of carbon dioxide into the water since the Industrial Revolution.

Mr. Chairman, I would like to enter into the official report record both a United Nations Report and the AAAS report right here.

Chairman CUMMINGS. Without objection, so ordered.

[The United Nations Report and the AAS information are at: *docs.house.gov.*]

Mr. ROUDA. These facts are scary, and they should be. These are clear, pronounced, historical trends. Do we think this is just going to stop? No. It is only going to get worse, and working families, farmers, homeowners, everyone will continue to suffer.

This afternoon, the Subcommittee on Environment, which I chair, will launch a series of hearings and investigations on climate change. Through this work I will hold out a standing invitation to all of my colleagues. Join us. Join us in devising practical, economical solutions to combat climate change. We know that it makes economic sense to incentivize the development and production of alternative energy sources; to heavily invest in electric vehicles, as General Motors has recently done; and make infrastructure more energy efficient to protect our air and water from pollution caused by carbon emissions.

We may not all agree on the best policies to achieve these goals, but I look forward to these debates over the upcoming months and years because the best policies are forged through respecting the diversity of American interests, listening to farmers, auto workers, coal miners, rural and urban residents, children and young adults, lower-income people, Republicans, Democrats, and Independents.

But we do not have time to waste. The White House has chosen not to lead on this issue, so it is up to us in Congress to do so. We have a tough problem that needs solving, and we will rise to the challenge. We must say to the world: America will lead.

Thank you, Mr. Chairman. I yield back.

Chairman CUMMINGS. Thank you very much.

Now I yield 10 minutes to the distinguished ranking member, Mr. Jordan.

Mr. JORDAN. I thank the chair.

The first three months of the 116th Congress, the Democrats' focus has been on one thing: attacking the President. Not addressing the emergency on the border, not addressing the $22 trillion debt or the opioid crisis, but a relentless pursuit and focus on the President.

Think about last week. In one week's time, the chairman of the Ways and Means Committee says, "I want the President's tax returns" for purely political reasons. The chairman of the Judiciary Committee says to Mr. Mueller—or to the Attorney General, "Send us the Mueller report," even though the Attorney General has said he is going to give it to us in a matter of days. Then, of course, this committee sends letters to the President's accountant and his

bank seeking personal business records for the last 10 years, and they did that based solely on the testimony of Michael Cohen, who, oh, by the way, was also in the news last week. That is right, the first announced witness of this Congress, the first big hearing of this committee, a guy who is going to prison for lying to Congress, who came in front of this committee and lied to us seven times, and we did nothing about it. And because we did nothing about it, his lawyers send a letter to Democrats last week and say, "Shazam. Michael Cohen has found a new hard drive. Can you help keep him out of prison so he can come back in front of us and lie some more?"

I mean, you cannot make this stuff up. This is truly unbelievable. I am not sure most Americans could name any legislative initiative of the Democrats this Congress, with the possible exception of one. Maybe they can name one: the Green New Deal. And my guess is a lot of Americans could name it because it is so radical. And if you do not believe me, just read about the Green New Deal in the launch document, the overview document from Thursday, February 7, at 8:30 a.m., the document that talks about the Green New Deal.

Today's hearing, Mr. Chairman, is titled, "Leadership to Combat Climate Change," certainly a worthy objective. And I am not a scientist, do not pretend to be one. And while I respect each of our witnesses today and I appreciate their service to our great country, they are not scientists either. In fact, I do not know if there are any scientists on our committee. The closest thing, the closest one is the gentleman from Kentucky, Congressman Massie. He has got two engineering degrees from MIT, has over two dozen patents, successful business owner, probably the greenest guy in Congress, drives an electric car, powers his home and farm with solar panels and batteries. I hope we hear a lot from Mr. Massie. But I am not sure this hearing is about getting truth from people like Congressman Massie. I think it is about the Green New Deal and the regulations, the central government planning, and the politics that come with it.

By the way, Mr. Chairman, the Green New Deal is not new. Not new at all. During the previous administration, the Obama Administration, they had the Department of Energy Loan Guarantee Program. You all remember this? Millions and millions of taxpayer dollars went to 22 companies, average credit rating double B minus, almost all of them went belly up. Almost all of them went bankrupt with taxpayer money. You remember. Solyndra, Beacon Power, Abound Solar, Fisker Automotive—all of them got our constituents' tax dollars. All of them went bankrupt.

The Green New Deal is not new, but it is devastating. It would be devastating to people who live in Mrs. Miller's district in West Virginia to Mr. Comer's district in Kentucky, hardworking miners. It would be devastating for people in Mr. Higgins' state, oil and gas workers, Mr. Armstrong's state, North Dakota. And I think it would be devastating for middle-class families in all our districts all across this great country, driving up the cost of energy which, therefore, drives up the cost of all kinds of other goods and services.

You know what I also think is interesting, Mr. Chairman? The Green New Deal has 91 Democrat cosponsors in the House, 13 Democrat cosponsors in the Senate. Seven Democratic Presidential candidates have endorsed it. But when it came time to vote on it, when they had a vote on it, zero—zero—people supported it. You would think if everything is going to go bad in 12 years, as people have been saying, somebody would have voted for it. No one voted for it.

So I hope the focus today is actually on the issue that we are supposed to be talking about and not on politics and not on attacking the President like we have done for the first three months of this Congress.

Mr. Chairman, I would yield to the gentleman from Kentucky, the ranking member of the Subcommittee, Mr. Comer.

Mr. COMER. Thank you, Ranking Member Jordan.

Today my Democratic counterparts on this committee will argue that climate change is an imminent threat to our national security, among other alarmist notions. Some members of this committee have said climate change is "our World War II." They have said that, "The world is going to end in 12 years if we do not address climate change." You get the picture.

And what do they propose as their solution to combat this imminent threat? The Green New Deal. This outlandish proposal and all proposals that resemble it are an affront to the citizens and the economy of this Nation, particularly rural Americans.

Coal mining is a way of life in many corners of rural America, including my district. After more than two centuries of commercial mining operations, Kentucky coal remains an important component of the Commonwealth's economy and America's energy portfolio. Kentucky was the fourth highest coal producer in the U.S. in 2016, mining 42.9 million tons of coal. In that same year, coal mines directly employed more than 6,600 Kentuckians, and mining directly contributed billions of dollars to Kentucky's economy. Both the first and second largest coal-producing counties, Union and Ohio counties, are in my district. I am incredibly concerned about this or any proposal that aims to eliminate this entire way of life and an economic engine for my district and the Commonwealth of Kentucky as part of their answer to saving the planet.

Alarmist proposals like the Green New Deal would devastate mining communities, driving out good-paying jobs, and ship coal production to countries like China that have much worse environmental regulations and standards, likely increasing global greenhouse gas emissions in the process. Coal is one of the most reliable energy sources in the U.S. and generates base power that prevents rolling blackouts when wind and solar fall short in extreme weather. Our coal miners have fought hard to keep their jobs despite excessive and burdensome regulations and have targeted their livelihood. It is far past time that Washington stop picking winners and losers and stop seeking to eliminate an entire way of life.

And while I could speak volumes on how American farmers and cattlemen would also suffer from the Green New Deal, I will just briefly touch on it for time's sake.

Farmland covers 54 percent of the total acreage in Kentucky. With 2.2 million head of cattle, Kentucky is the leading cattle pro-

ducer east of the Mississippi River. Despite all the progress we have made on the environmental front in recent decades, it is amazing that some policymakers seem to think targeting U.S. beef producers and consumers will make a huge impact on global emissions. U.S. beef producers now have one of the lowest carbon footprints compared to our global counterparts. Harming our agriculture sector in the pursuit of this irrational plan is ill-informed and misguided.

The bottom line is touting the Green New Deal as a realistic plan for the future is short-sighted and reckless. Of course, we all want clean water and clean soil. I as a farmer know firsthand how important this is in producing food, feeding our citizens, and safeguarding the well-being of our land. But we must use caution when considering a climate change and environmental reform deal that is rooted in socialism.

The Green New Deal paints a dark picture for rural America and takes our country in a direction far from the one we know. I urge this committee to truly consider the impact that radical climate change proposals have on rural America, particularly the mining and farming communities that feed, fuel, and clothe all of us.

I yield back to the ranking member from Ohio.

Mr. JORDAN. I yield to the gentlelady from West Virginia.

Mrs. MILLER. Thank you, Ranking Member Jordan.

My home state of West Virginia is abundant in natural resources. From the hills to the hollers, we are proud that the coal, the natural gas, and oil that our state has fueled the world and promotes a prosperous economy throughout the United States. However, during his administration, President Obama took drastic steps that decimated the coal industry. These extreme anti-coal policies shuttered mines, left coal workers without jobs, and collapsed the surrounding economies. The machine shops, the hardware stores, clothing and grocery stores as well as restaurants were all shuttered. The joblessness led to great hopelessness as well as people leaving our state. If you go to Charlotte, you will see a lot of proud West Virginians. My state is still trying to recover from the population losses to this day.

These policies implemented by the Obama Administration led to hopelessness and despair and helped to give rise to the opioid crisis. But our West Virginians are proven to be resilient. President Trump has given our energy economy the tools it needs to get back on track. That is why I worry about proposals from my colleagues across the aisle. We all live on this Earth, and we all breathe the same air. But my colleagues from the other part of the country will never be able to understand what the energy industry means to my state.

Legislation like the Green New Deal is a one-size-fits-all approach that poses an imminent threat to the economy of my state, jobs of my constituents, and the heartbeat of West Virginia. This proposal is short-sighted and is lacking in common sense. Simply stated, it has rebranded the war on coal, oil, and gas, and it is a blueprint for disaster.

I yield back my time.

Chairman CUMMINGS. Thank you very much.

Now I want to welcome our former Senate colleagues, the Honorable John Kerry and the Honorable Chuck Hagel, who both began their service to our country in the military and continued their service as Secretary of State and Secretary of Defense, respectively.

I will begin by swearing you in. Would you stand, please, and 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?

Let the record show that the witnesses answered in the affirmative. I want to thank you very much. The microphones are very sensitive, so please speak into them directly. We really want to hear what you have to say. Without objection, your written statement will be made a part of the record.

With that, Secretary Kerry, you are now recognized to give an oral presentation of your testimony.

STATEMENT OF HON. JOHN KERRY, FORMER SECRETARY, U.S. DEPARTMENT OF STATE

Mr. KERRY. Well, thank you very much. Mr. Chairman, thank you very much. Mr. Ranking Member Jordan, thank you very much. It is a privilege to be here. Opening Day in Boston, we are not doing so well, so maybe it is Okay to be here.

In keeping with the telling of the truth, I had forgotten what fun politics is in Washington.

[Laughter.]

Mr. KERRY. Mr. Chairman, thank you not only for your leadership on climate change, but even more thank you for your stewardship of a committee which, at its best, demands accountability of those in positions of power on behalf of the American people.

Chairman Cummings, Ranking Member Jordan, and all the members of the committee, thank you for inviting me and my good friend, Secretary Hagel, Chuck. He and I have done a lot of things together, and I think we have proved that we used to be able to do that here in Washington. It would be great if we could get back to bipartisan effort on these kinds of issues. We are delighted that you saw fit to invite back not one but two recovering Senators.

I think most on this committee would agree that there is a long list of issues where, despite the advice and warning of experts, Washington remains gridlocked. But at least on most of those issues, no one can credibly deny the magnitude of the challenge, let alone the existence of the problem.

Regrettably, the same cannot be said about climate change. Think about it. During World War II, America would never have tolerated leadership that denied Hitler's aggression. During the cold war, no one in public life would have been taken seriously if they did not offer a policy to counter the Soviets. And after 9/11, it would have been disqualifying to deny that al Qaeda knocked down the Twin Towers.

Facts are facts. But here we are in 2019 where too many in positions of responsibility still call climate change a "hoax" and advocate policies that will only make the reality of climate change worse.

The science has proven that we do not have time to waste debating alternative facts, only to be forced then to invest years trying

to reestablish trust in the real ones. We are here for our country. We are not here for our parties.

Just the other month, we learned that the White House is planning to convene a task force, apparently working behind closed doors—not sure why—to determine "whether climate change is a national security threat." My friends, we already know what the outcome will be. It is a council of doubters and deniers from what has been leaked from the White House, convened to undo a 26-year-old factual consensus, Republican and Democrat, liberal and conservative, that climate change is a national security threat multiplier.

In fact, I am afraid this effort may be a scheme to pretend that there are two sides to an issue already long since settled. In examining the facts regarding this issue, you do not have to accept my and Secretary Hagel's word for it. The designation of climate change as a security issue was not settled by President Obama's NSC, my state Department, or Secretary Hagel's Pentagon. No. It was settled 28 years before that by a Republican President and a team that included Jim Baker, Dick Cheney, Brent Scowcroft, Colin Powell, and Bob Gates.

In 1991, the Bush Administration assessed in its National Security Strategy that threats like climate change, which "respect no international boundaries," were already contributing to political conflict. Each of his successors included climate change in their national security strategies. Even after the 9/11 terrorist attacks, President George W. Bush's administration made room in the 2002 National Security Strategy to warn of "dangerous human interference with global climate."

There is not a scintilla of accepted science or bipartisan military expert analysis that four consecutive administrations were wrong. There is no event and certainly no scientifically based event or suggestion that the proposition ought to be reexamined. The factual basis of climate change's threat originated not with politicians but with the national security community, including the intelligence community.

Eleven retired military leaders constituting the Military Advisory Board at CNA, a naval think tank in Arlington, described climate change in 2007 "a threat multiplier for instability." Seven years later, 16 retired flag officers representing all branches of the military implored Americans to understand the severity of "a salient national security concern because time and tide wait for no one."

Instead of convening a kangaroo court, the President might want to talk with the educated adults he once trusted enough to fill his top national security positions. Director of National Intelligence Daniel Coats has reported that climate change would increase the risk of social unrest, migration, interstate tension in countries such as Egypt, Ethiopia, Iraq, and Jordan. Then-Defense Secretary Jim Mattis told the Armed Services Committee this last year, "Climate change is impacting stability in areas of the world where our troops are operating today." These officials were not making back-of-the-envelope projections about a distant, dystopic future.

Climate change is already impacting national security. The American Security Project, ASP, is an organization of security experts, including retired admirals and generals, flag officers, who

spent their careers in service not to a President or a party but the country above all else. It also includes former United States Senators, both Democrat and Republican, Governors, other public officials. The experts at ASP note that climate change is what we call "a ring road issue," meaning that climate change affects all the other threats. It will change disease vectors. It will drive migration. And these changes in turn could affect state stability and harm global security as a consequence of that.

Lieutenant General Castellaw and Brigadier General Adams of the American Security Project know the ground truth. They write, "Even as our comrades on active duty in the U.S. military forces plan for the impact of the rise in sea levels in places like Bangladesh, the retreat of ice in the Arctic, and extreme storms in places like the Philippines, Members of Congress and others continue to deny the obvious."

The truth is that climate change is real and poses significant challenges for our Nation's security. As Secretary of State, I visited Naval Station Norfolk. It is the biggest naval installation in the world, and the land that houses it is literally sinking. In fact, sea levels on the east coast are rising twice as fast as the global average thanks to uneven ocean temperatures and geology.

The admiral in charge of the fleet and the base commander, Mr. Chairman, made clear what further sea level rise could mean for Norfolk or for the U.S. Navy fleet, 20 percent of which is homeported nearby. Willful denial will not change the fact that our military readiness will be degraded when the permafrost our Alaskan bases are built on begins to thaw out.

And it does not end with military impacts. Climate change did not lead to the rise of the terrorist group Boko Haram in Nigeria, but the country's severe drought and the government's inability to cope with it exacerbated the volatility that militants then exploited to seize villages, butcher teachers, and kidnap hundreds of innocent girls.

Climate change did not cause the tragedy of the war in Syria. A prolonged historic drought, however, killed off such a vast proportion of the livestock of Syria that more than a million people were forced to migrate to Damascus and its environs, contributing greatly to the violence in that country.

The prospect of a more arid climate throughout the Middle East and parts of Asia will increasingly strain the most essential resource of all: water. We have already seen tension rise around the basins of the Nile, Central Asia's Indus River, and the Mekong in Southeast Asia. Areas facing unrest, instability, and weak governance are breeding grounds for violent extremism. Climate change will only exacerbate migration in places already enduring economic, political, and social stress. If people think the migration on Europe today is a challenge to the politics of Europe, wait until you have much of the Middle East and Northern Africa knocking on Europe's door because of the inability to grow food and live day to day in 120-degree heat.

Mr. Chairman, the only people cheering the President's apparent attempt to erase climate change from U.S. national considerations live in Beijing and in Moscow. China and Russia have for years been mapping the resource competition, military implications, and

geostrategic challenges that climate change will present in an ever-changing, climate-impacted Arctic. What a gift to them if we stop making our own assessments because we have our heads buried in the sand while their eyes are on the tundra.

Now, I know legislating on climate change is not easy. I was charged with the responsibility in the Senate when we were in the majority of leading the last serious bipartisan effort with Lindsey Graham and Joe Lieberman when we tried to pass legislation. I lived the difficulties. But I know we will never get there at all if we do not listen to our generals and admirals, our scientists and our intelligence community. We can spend the next two years debating whether two plus two equals five. But it would mean someday a young American in uniform is going to be called on to go to harm's way because truth lost out to talking heads and alternative facts.

So let us debate how to address the climate national security threat, not whether it is real.

Thank you, Mr. Chairman.

Chairman CUMMINGS. Thank you very much.

Secretary Hagel.

STATEMENT OF HON. CHUCK HAGEL, FORMER SECRETARY OF DEFENSE AND SENATOR

Mr. HAGEL. Chairman Cummings, Ranking Member Jordan, members of this committee, thank you for inviting Secretary Kerry and me to testify today about the threats posed by climate change to our national security.

I am proud to be sitting next to my friend and former Senate and Cabinet colleague, John Kerry. He has been a long-time leader on this issue and understands it very well. John and I have shared many conversations about climate change over many years. We are both founding members of the American Security Project, an organization that has led research into the national security implications of climate change.

In my public career, both in the Senate, at the Department of Defense, and as co-chairing the President's Intelligence Advisory Board, preparing for climate change was an important part of my work. In 1997, the Senate passed the Byrd-Hagel resolution which laid out the conditions for Senate support for an international agreement on carbon emissions. The Senator Byrd referred to in the Byrd-Hagel resolution was Senator Robert Byrd, the late Senator Robert Byrd, of coal-producing West Virginia, who took this issue very seriously. Later that year, I led the Senate delegation to the protocol negotiations in Kyoto where Secretary Kerry was also a member of the delegation.

In 2007, I led the effort to require a national intelligence assessment of security impacts of climate change. As Secretary of Defense, I issued the Department's first Arctic Strategy in 2013 highlighting how the military would respond to melting ice and other challenges, as well as the Department's first climate adaptation road map detailing how to prepare for climate change.

I supported the 2015 Paris Peace Climate Agreement that Secretary Kerry negotiated because it met the requirements of the

Byrd-Hagel resolution, ensuring that all nations—all nations—take measurable, reportable, and verifiable steps to reduce emissions.

While climate science readily and rapidly advanced over my decades in public service, my priorities remained the same: Any actions to address climate change must protect America's economy, our environment, and our national security. My views were always informed by science.

As scientists reduced uncertainty about climate change over the last two decades, it became clear, very clear, that the U.S. must implement policies to address the challenge, prepare, because climate change is threatening our economy, our environment, and our national security.

Dating back to the George H.W. Bush Administration in 1992, as Secretary Kerry has noted and Chairman Cummings has noted, intelligence and national security professionals were telling us that climate change posed a direct threat to U.S. national security. This is 1992. This work has been informed by U.S. scientists telling us that a melting Arctic, more frequent droughts and floods, and extreme weather are all examples of the changing climate in the United States and the world.

Changing weather patterns threaten our national security through its impacts on military infrastructure, readiness, disaster response, and the economy. We now do not need to wait for more sophisticated climate models to project the security consequences of climate change. We know what they are. The impacts of climate change are clearly evident today.

As members of this committee know so well, this past year's extreme weather has seriously affected our military readiness. In September, Hurricane Florence decimated Camp Lejeune and caused damage to Fort Bragg and military installations across North Carolina, as Congressman Meadows knows so well.

A few weeks later, Hurricane Michael leveled Tyndall Air Force Base in Florida's Panhandle, causing damage to 17 expensive F–22s and major structural damage throughout that base. Last month, floods in my home state of Nebraska, as Chairman Cummings noted, severely damaged the runway and infrastructure at Offutt Air Force Base, home of U.S. Strategic Command. As a Nebraskan, spring floods are no surprise. However, these floods were the most extreme ever—extreme, more extreme than anything we have seen. We saw record-setting flooding along the Missouri, Platte, and Elkhorn rivers and across the Midwest. Estimates of the cost of these disasters to the military are significant. The Marines have requested $3.6 billion to rebuild North Carolina while the Air Force has requested an initial $5 billion for Tyndall and Offutt.

While the bases may rebuild over time and with money, the loss of training and readiness cannot be recovered. In a February letter to the Secretary of the Navy, General Neller, Commandant of the U.S. Marine Corps, wrote that because of the damage from the storms, the combat readiness of Marine Expeditionary Force, "One-third of the entire combat power of the Marine Corps has been degraded and will continue to degrade." That is a powerful statement coming from the Commandant of the U.S. Marine Corps.

I will close by addressing the proposal, as we know—a proposal that may be forthcoming from the White House to question the science behind the national security estimate on climate change. We still do not know the details of what the proposal before the National Security Council would do. I noticed this morning in the Washington Post there was a significant story about that issue. Press reports have indicated that National Security Adviser Bolton wants to create a panel that would reexamine whether climate change is needed and a threat to national security—that climate change is indeed a threat to national security.

If this panel were created in good faith, transparent, open, under the legal requirements of a Federal Advisory Committee, I am confident that the weight of scientific evidence and present-day realities would confirm what I and other national security leaders have found: Climate change is a real and present threat to our national security, which most likely will get worse.

There needs to be a dedicated effort to address this threat, and, Mr. Chairman and Mr. Jordan, I appreciate very much you bringing this committee together on this subject because it is only through the committee work in the Congress where we forge a bipartisan consensus to move forward and prepare for what we know is impending and is real.

This year, the Pentagon delivered a congressionally mandated report on the vulnerable of our military installations. The report found that 67 percent of the installations assessed currently face threats from flooding. Sixty-seven percent. Fifty-four percent currently face threats from drought, and 46 percent face threats from wildfires. Those percentages jump higher when future vulnerabilities—not just current but future vulnerabilities are taken into consideration.

Unfortunately, this administration failed to comply with congressional requirements. The report left out the Marine Corps entirely and ignored the requirement to provide an overview of action necessary to ensure resiliency. It did not include any cost estimates. While the initial report remains a valuable first step, the failure to complete the assessment and provide future mitigation plans will severely inhibit future readiness.

I signed a letter along with Secretary Kerry and 56 other senior national security officials asking that the President not dispute and undermine military and intelligent judgments on climate change, and I ask that a copy of that letter be included in the record.

Chairman CUMMINGS. Without objection, so ordered.

Mr. HAGEL. Mr. Chairman, Mr. Jordan, and this committee, again, I thank you for this opportunity and for your attention to this serious matter, and I look forward to your questions.

Chairman CUMMINGS. Thank you very much to both of you, and thank you for recognizing the pain and turning it into a passion to do your purpose. And I think that when we are dancing with the angels, future generations will benefit from your work.

Secretary Kerry and Secretary Hagel, in February, there were a number of press reports regarding a White House memo showing that the President may be seeking to create a committee within the NSC to challenge previous Government reports on the dangers of climate change.

The memo specifically challenges the finding that climate change is a national security threat.

Last month the two of you led a group of 58 senior national security professionals in writing to President Trump about this committee. You wrote, and I quote, "We are deeply concerned by reports that the National Security Council officials are considering forming a committee to dispute and undermine military and intelligence judgments on the threat posed by climate change," end of quote.

You went on to write that this committee, quote, "will weaken our ability to respond to real threats, putting American lives at risk," end of quote.

Secretary Hagel, what concerns you most about the proposed White House panel?

Mr. HAGEL. Well, the first concern I have with what I have heard that the White House may come up with in their effort to review the science and the seriousness of climate change on national security is and I think was addressed very forcefully last week before the Senate Armed Services Committee by four of our leading generals, beginning with the Chairman of the Joint Chiefs of Staff. Each laid out pretty clearly, if you go back and look at that record, the concern they had about not addressing this issue of climate change seriously and the impact it is having and will continue to have, especially on our readiness. I mentioned it in my comments that the readiness portion, as the Commandant of the Marine Corps laid out, gets lost in this.

We have, this country has, the only country in the world that has responsibilities around the world for our own interests, not the interests of NATO allies but for our interest. We are in NATO, for example, because it is clearly in our interest to be in NATO, not Germany or England; they are our allies. But we had better pay attention to what our scientists, our intelligence people, our military leaders are saying how serious this is and the impact it is going to have, it is having, on our readiness and our capabilities and our national security.

Chairman CUMMINGS. Secretary Kerry, how could a panel undermining scientific and intelligence assessments put American lives at risk? Secretary Kerry?

Mr. KERRY. Well, there are many ways. First of all, let me try to be clear, if I can. I hope we can kind of try to depoliticize this, and I ask our colleagues here to stop and think about what is going on.

Lives are already being lost in America. We are losing lives today. People are being killed in mudslides. People are being killed in fires. People are being killed in floods. I mean, you have a host of dangers already being lived out by average Americans. There is a guy from Nebraska in the most recent floods, a farmer who said, quote, "It is probably over for us," said a farmer from Nebraska whose farm was destroyed by the floods, financially. How do you recover from something like this? That is an average person in America who is already suffering from this.

Now, in terms of military security and larger security, every prediction that scientists made—I began this in 1988, when Jim Hanson testified to us in the Senate. Al Gore, Tim Wirth, Frank Lau-

tenberg, John Warner of Virginia, Mack Mathias of Maryland, a host of people came together and we all agreed that we ought to listen to these guys. The science is telling us it is happening.

In 1992 we went down to Rio, to the summit in Rio, the global summit. George H.W. Bush, Republican, sent Bill Reilly, the EPA director, down there to help negotiate an agreement, and we came up with an agreement. It was voluntary. It did not work, but there was a consensus, and all of the predictions in the science that each year have been revised, 97 percent of the world's scientists agreeing, they have come together and said this is happening, it is happening now, it is happening faster and it is happening bigger than we predicted it would. So we are all forced to stop.

Now, in terms of the military piece of this, we have already seen what happens with the war in Syria, the pressures that Turkey was able to use by just turning the dial and upping the number of migrants that would move into Europe and the disturbance that created to the politics of France, of Britain, of Italy, of Eastern Europe. It has had a profound negative impact.

Imagine what happens as climate change gets worse and you have millions of people that have to move because they cannot eat, they cannot drink. The instability that is created will be manna from heaven for extremists who are already exploiting the impoverished. There are 2 billion young people between the ages of 15 and 25. There are 1.8 billion children 15 years old or younger living in most of those areas. Four hundred million of them will never go to school.

Mr. Chairman, that becomes a concern of our military that has people posted around the world in these locations fighting terrorism, trying to protect the United States of America. The best protection is to take away the causes of these things before they happen. Do not allow them just to buildup and then inundate us.

So, you know, the reason there is such concern about this report, this analysis, is I have a copy of the executive order, and the executive order itself says that Climate Science Special Report claims to authoritatively link climate change to the emission agreement—"claims." No, it does not claim. It overwhelmingly proves the connection.

So if this executive order is coming in with the notion that it is going to put a guy named William Happer, who is not a climate scientist, who has likened, compared climate science to Nazi propaganda, he is behind putting this together, and it is being done in secret, we have a concern that all of the consensus built up over 20 years with respect to military concerns, security concerns, is now going to attempt to be eroded by a president who has said climate change is a hoax caused by the Chinese for the purpose of economic competitive advantage and who has said "I believe in clean air, immaculate air, but I do not believe in climate change."

So I do not trust a secret group being put together that is already challenging in the executive order the legitimacy of science that is beyond anybody's doubt whatsoever.

Finally, Mr. Chairman, a study from 2016 replicated the basic assumptions of the three percent of alternative science with respect to climate. In every single case, they found that the assumptions and the basic analysis had an error in the methodology and the

analysis, and when corrected appropriately to reflect the 97 percent consensus about the science, they wound up finding the same consequences of climate change.

So this is a dangerous moment for us, Mr. Chairman, because we spent $265 billion cleaning up after three storms two years ago. Harvey dumped more water on Houston in five days than goes over Niagara Falls in an entire year, a once in 50,000-year storm now happening more frequently. In Irma, you had the first sustained winds in a hurricane measured at over 185 miles an hour for a full 24 hours. That has never happened before. And the reason you have greater intensity in these storms is the ocean is now warming 40 percent faster than ever before.

The glacier of Greenland is melting four times faster than it was 10 years ago. Eighty-six million metric tons of ice fall off every day, floats out to sea to melt. That 85 million metric tons a day is equal to the entire water demand of greater New York, New Jersey, and Connecticut for an entire year.

We are living with insanity. We are on a kind of merry-go-round with acceptance of non-science that is preventing us from doing what every other nation in the world is currently trying to do.

Chairman CUMMINGS. Thank you very much.

Ms. Miller.

Mrs. MILLER. Thank you, Mr. Chairman.

Over the last two centuries we have seen a massive boom in the world's economic output. For comparison, according to CapX, in 1820 over 90 percent of the world's population lived on less than $2 a day; and in 2015, less than 10 percent of the people lived on less than $1.90 a day.

This boom is not just because of microchips and the Internet. It is, in part, because people have access to energy. From powering homes, schools, and workplaces, access to affordable energy helps lift a society out of poverty and put it on a path to prosperity. Quality of life directly correlates with access to affordable energy. That is why, when I hear my colleagues talk about our energy industry, they must recognize that dismantling coal, oil, and natural gas would not just destroy these jobs and families, it would make our energy less affordable and set our progress back.

As a mother and grandmother, I can understand the importance of ensuring that our world is a better place for our future generations. This means taking care of our environment. Most importantly, it means taking care of our economy.

Secretary Hagel, in 2017 the United States led the world in the reduction of climate emissions, according to the American Enterprise Institute. The United States has made great strides in ensuring we are cleanly utilizing our energy resources. However, other countries in the world are not making equivalent strides and are seemingly canceling out our efforts. Many of the greatest culprits are signatories to multilateral agreements, as well.

How is change possible without the help of other nations?

Mr. HAGEL. Well, it is not. That is why Senator Byrd and I wrote the resolution in 1997 the way we did. There were two parts to that resolution. The U.S. Senate would not confirm any treaty on climate change unless it included all nations of the world, different percentages, but it must include all nations.

So we have to work continuously. The Paris Accords were a good example of how you do that. You cannot force other countries to do things that they may not want to do, but you can encourage them, you can incentivize them with technology.

I brought a New York Times front page business section that I think is relevant to this issue, the business section of the New York Times yesterday. You may have seen it, a front page story, big story: "Big Oil Bets on Removal of Carbon Emissions."

Chevron and a number of the big oil companies are investing, and they are not the only ones, and this is not the only example, here in the United States and worldwide, in how we reduce our carbon emissions. It is very clear that carbon emissions hurt the environment. It is very clear something is happening in the climate. You just heard Secretary Kerry and I talk about some of those specifically in the national security arena.

Mrs. MILLER. I did hear you——

Mr. HAGEL. But let me add one other thing. Climate is not limited, as you know, just to the United States.

Mrs. MILLER. Correct.

Mr. HAGEL. Climate is worldwide. There is another face that we have not even talked about this morning yet. It is pandemic health problems, and——

Mrs. MILLER. Well, I am more interested in talking to you about how the other countries are not complying with——

Mr. HAGEL. Well, like I said, we have to incentivize them, we have to work with them, we have to encourage them. That is why allies are important. That is why we built the world order after World War II, so that the countries would not go it alone.

Mrs. MILLER. But they are not.

Another question——

Mr. HAGEL. Well, that is not true. That is not true. China actually is investing in a lot of carbon emission technologies. In fact, they are trying to fill the vacuum that the United States is leaving behind in this area with other countries in carbon emissions technology. They are actually doing pretty well with it.

Mrs. MILLER. I have another question for you as well, sir.

Mr. HAGEL. Yes.

Mrs. MILLER. Access to affordable energy is arguably the foundation of human progress over the last century and a half, where we have lifted more people out of poverty, fed a growing global population, and created more prosperity for humanity than at any other point in history. Our energy industry is here to stay.

What steps can we take to ensure we preserve and protect our environment while also maintaining critical employment, growth, and affordability within our economy and energy sector?

Mr. HAGEL. Well, it is what we are talking about, what we have been doing the last 30 years. The balance of a strong economy, cutting-edge technologies, but protecting your environment at the same time, protecting your national security interests, protecting your interests around the world. It is not just one dominant dynamic of that. It is a world that balances them all. A strong economy is, of course, the core of that.

Mrs. MILLER. Absolutely.

Mr. HAGEL. But you talk about your children and your grandchildren, if we do not protect our environment, your grandchildren have got a pretty tough go here in 20, 30, 40, 50 years, what we leave behind. You just look around at what has happened in 12 months in this country, around the world. I mean, it is not just here, it is around the world.

So we have to be smart, prepared, come together with bipartisan solutions, not fight each other on it but come together seriously and recognize we have an issue. It is the biggest responsibility any leader has, to leave the place better than they found it, and I do not think we are doing it right now.

Mrs. MILLER. Absolutely.

Chairman CUMMINGS. The gentlewoman's time has expired.

Mr. KERRY. Could I just add one thing that is important?

Chairman CUMMINGS. One answer to the question.

Mr. KERRY. Well, I think it is important to the discussion here, if I can, just quickly, because I have been down in the mines in West Virginia. I have enormous respect. I understand completely what Congresswoman Miller is struggling with in terms of the folks she represents and the jobs they need.

We all want an economy that is going to grow. You are absolutely correct that poverty has come down. When I went to college, severe poverty was over 50 percent. Now it is below 10 percent. People have been brought in out of poverty.

The problem is—and it is a problem for all of us on the planet—that we have been doing this in a way that is simply not sustainable. There is no country in the world living sustainably today, and our grandchildren, our kids are all going to face this challenge as we go forward. Oil and gas are going to continue to be used for whatever number of years to come. That we knew as we were working on the legislation we worked on in the Senate.

But the truth is, Congresswoman, solar today is cheaper than coal. It is. And the marketplace has made its decision. In America, it is not the Congress who has decided that coal plants are closing. It is the market. There is not an American bank that will finance a new coal-fired power plant in America.

It is also not happening in many other parts of the world. People are transitioning to use gas as the bridge fuel for the base load of their power sector, but they are building incredible amounts—in fact, China, investments in renewables was the largest it has ever been about two years ago, and China accounted for 45 percent of all solar photovoltaic investment, and Europe is leading in offshore wind.

I want America to lead in those things. I want your people in West Virginia to be the ones who are building those turbines and selling those blades. Why is that not happening? Because we are not in the game. And that is what I think is so frustrating for many of us.

The greatest marketplace the world has ever seen is the energy market, 4 to 5 billion users. It is going up to 9 billion users in the next 30 years. And if the United States does not get into that market in a whole way, we are going to cede it to these other countries that are currently replacing us. There are jobs there, plenty of jobs.

Chairman CUMMINGS. Mrs. Maloney?

Mrs. MALONEY. Mr. Chairman, what we need is strong leadership to combat the crisis of climate change, and I thank both of our panelists for pointing that out and for pointing out that this is an American challenge, it is a bipartisan challenge. If there was anything that we should be agreeing on, it is to work together to combat this.

But what we have instead is a White House which is considering a new panel to deny that climate change really exists.

So what we need is reality. We need efforts to attack climate change, not politicize it. As Secretary Kerry pointed out in his testimony, the Administration's own leaders, their own generals, their own scientists, know the risks from climate change are real and that our efforts to address it are terribly inadequate.

So, as you said in your testimony, Secretary Kerry, facts are facts, and the facts are real. It is here.

My question to both of you, starting with Secretary Kerry, is what do we need to do to get ready? Climate change is here; everyone knows it. People may want to deny it, but it is here. How do we work together to protect our people, protect our planet?

Mr. KERRY. Congresswoman Maloney, I think that the key is to come together in a bipartisan way to move forward. I think we got up to about 55 votes in the Senate at one point, until certain industry folks started to attack one of the senators on the other side of the aisle, by the way, our colleague, Lindsay Graham. So we have to get away from that by coming together around a plan that will unite Americans, which will create jobs, which will phase in at an appropriate rate. But there are several things that we can do.

One of the most important things we could do—Congressman Jordan, Mr. Ranking Member, you were referring earlier to the companies that failed. It is true, some companies failed that were invested in. But what is going to win this battle is something called mission innovation, which China has signed up to, India has signed up to, 23 nations plus the EU. So there are 27, still 28 today, depending on what Britain does, but 27 other countries.

All of them are contributing now to consortia efforts to push the technology curve, because in the end it is probably going to be battery storage or increased mileage at a cheaper rate, hydrogen as a fuel that can be taken up to scale. We should be pushing the curve of discovery. That is in the American DNA. If we did that, there is also a Republican proposal.

Former Secretary Jim Baker, former Secretary George Schultz, who was also Secretary of the Treasury, both believe that America needs to have carbon pricing, and they have suggested a methodology by which we could price carbon, which would let the marketplace begin to decide where the winners and losers are. That is a good old-fashioned laissez faire economic way of making decisions.

We could do that, I believe, in a joint way. We need to include, I think—some people disagree with this, but maybe fourth-generation modular nuclear is going to be a component of the overall mix. Let communities decide for themselves whether that is the way to go.

But I think if we could come together around a few basic steps like this, there are huge gains to be made in reducing emissions through efficiencies, buildings, how we are managing our industry,

all of our transportation. Every one of these sectors is ripe for us to be able to make progress without hurting our economy; in fact, helping our economy by creating millions of jobs.

If we did infrastructure around this, a new grid for America, a smart grid, you would have, for every billion dollars of infrastructure investment, 27,000 to 35,000 jobs created. That is what we ought to be doing.

Mrs. MALONEY. Secretary Hagel.

Mr. HAGEL. Thank you. Secretary Kerry laid it out pretty clearly. I would just summarize. I think you have about five components to this, and Secretary Kerry really listed them.

But first is U.S. political leadership, political leadership here in the United States, in the Congress, in the White House, working together on forming policy.

Market is the second piece of that. The marketplace will always win, just as John has noted regarding coal. It is just not efficient anymore, or it is not the cheapest form of energy anymore. It is the marketplace. Focus on the marketplace. Open the marketplace up.

Technology. Technology always drives everything. Focus on the technology. It is out there. It is happening.

As was noted in this business piece in the New York Times, allies and alliances. We have to work with all of our partners and people all over the world because this is a global issue.

Those are the components, to answer your question.

Chairman CUMMINGS. Mr. Comer.

Mr. COMER. Thank you, Mr. Chairman.

Secretary Kerry, Secretary Hagel, welcome back to Washington. Thank you for your service in Congress and the administration, and especially in Vietnam.

I want to focus my time on the Green New Deal and how it will affect the agriculture industry. I am a farmer and former Kentucky Commissioner of Agriculture. The agriculture industry is the lifeblood of rural communities that I represent and that, honestly, the Green New Deal stands to decimate those rural communities.

The U.S. agriculture industry supports more than 21 million jobs. That is 11 percent of all the jobs in the United States, and that is according to the American Farm Bureau.

Land is needed for the Green New Deal. Land is needed to build tracks for the high-speed rail, to build solar plants, solar panels, windmills, and the proposal calls for the government to seize this land, this farmland.

The elimination of farmland in order to build these projects will not only cost U.S. jobs but also put our food supply in jeopardy, not to mention that it is not fair to hard-working family farmers.

Authors of the Green New Deal plan to pay for the bill, and I quote, "the same way we paid for the New Deal, the 2008 bank bailout, all our current wars, by the Federal Reserve extending credit, by creating new public banks that extend credit, by the government taking an equity stake in projects," end quote.

Secretary Kerry, my question to you is, printing a lot of new money and opening a whole bunch of new public banks is a real way to pay for this Green New Deal project proposal?

Mr. KERRY. Well, let me begin by saying, Congressman, there are a lot of different proposals about how to proceed. I do not know

that any of them are coming from your party or your side of the aisle. Do you have a plan to deal with climate change? I think you said you are not sure of the science.

But my focus is on how we are going to move forward. We all have some differences with one piece of legislation or another. But in proposing what she has proposed, together with Senator Markey, Congresswoman Ocasio-Cortez has, in fact, offered more leadership in one day or in one week than President Trump has in his lifetime on this subject.

So we are talking about it, and my question is where is your proposal? Did you have any hearings on it in the last few years? Mostly on Benghazi, if I recall, when I was up here.

So I think what we ought to do is stop the politics and get down to really serving the people of West Virginia and the people of Kentucky.

Mr. COMER. And that is what we are doing here today, and we are glad you are here to talk about it. But my next question——

Mr. KERRY. Well, you asked me about the focus——

Mr. COMER [continuing]. revolves around how to pay for it.

Mr. KERRY. Well, there are all kinds of ways. I mean, look at what Secretary Schultz and Secretary Baker, both Republicans, as practiced in American politics as any two people alive today, and they believe deeply—Professor Schultz, George Schultz is at Stanford at the Hoover Institute, and he says we have to price carbon, and that will let the market move.

I do not know why your party—I think it is an American Enterprise Institute concept that first came about. But at any rate, let's debate it, let's put it on the floor, let's really discuss it. Even better——

Mr. COMER. And let me add, to the Senate's credit—I do not brag on the Senate very often—they did put the vote on the floor, and as Ranking Member Jordan mentioned, not a single Democrat voted for the bill, not a single one.

Mr. KERRY. Congressman, you know as well as I do—that is why I said I am reminded today about the fun I am missing. I mean, come on, we have all seen those votes. We all know what those are. That is a political vote, and people chose to vote present because it was a meaningless vote. In effect, it was politics.

I think what is really important is if the committee came together and said, hey folks, let's kill the politics for the next two months and come up with a piece of legislation that puts infrastructure——

Mr. COMER. My time is running out here. But you talk about theater——

Mr. KERRY. Well, America's time is running out.

Mr. COMER [continuing]. and we were just talking about it, your party knows there is no way to pay for this, for one.

Mr. KERRY. That is not true. There are any number of ways to pay for it.

Mr. COMER. Well, how do we pay for it?

Mr. KERRY. There are so many different ways to pay for it. If we sat down—I served on the super-committee, and I formed an alliance with former Congressman David Camp and with Fred Upton, and we had a way of putting together a proposal that we thought

was terrific which would have helped solve the entitlement problem for the long term——

Mr. COMER. Like how?

Mr. KERRY. Well, I will tell you what happened: Politics got in the way. The chairman would not even let two of his own members, Republican Party, put it up or take it seriously, and we never got to the issue of tax reform, which we thought was the tradeoff. So we had a grand bargain potential of solving entitlements for the long term, having tax reform and expediting it, and we never could get there because of the politics of it.

So I have to tell you, this is prisoner of not sitting down to find a creative way to deal with this. We have a looming deficit issue, a lot of challenges coming at us. We are going to have to find some kind of revenue to deal with the priorities of our country because we are not rebuilding America today. We are not putting money into infrastructure, and there are any number of ways to fund that.

Mr. COMER. And it is estimated to cost between $51 trillion and $92 trillion——

Chairman CUMMINGS. The gentleman's time has expired.

Mr. Rouda?

Mr. ROUDA. Thank you, Mr. Chairman.

I am utterly disappointed. I was hoping this would be a bipartisan discussion about climate change, and what I am hearing from the other side is, no, we do not believe in climate change; or, no, we do not believe it is a national security threat; no, we do not need to do anything about it; no, let other countries do something about it; or, no, we should not do anything because other countries are not doing anything about it.

It is time to step up and not be the Party of No or Members of Congress that simply say no. We have to be looking for solutions that impact every generation, our children, our grandchildren, and future generations. It is time to step up.

Let's talk about national threat. You would think from the other side that we do not have a national threat when it comes to climate change.

Secretary Hagel, it is known quite well that the Department of Defense has been making preparations for installations across the world for our military installations to address climate change; is that correct?

Mr. HAGEL. Yes.

Mr. ROUDA. And that is not because they do not think this is a non-factor. It is one of the number-one threats to our national security, as identified by the Department of Defense; correct?

Mr. HAGEL. Correct.

Mr. ROUDA. In fact, there are some estimates that there will be approximately 200 million climate change refugees by the year 2050. I will point out that that is 31 years from now. Is that an assessment that is consistent with some of the modeling you have seen from the Department of Defense and other agencies?

Mr. HAGEL. Well, I have not been there for a couple of years, but it sounds reasonable, and it sounds like the numbers, when I was Secretary of Defense, that we were looking at as we were projecting out.

As you know, the Defense Department works off projections into the future, whether it is buying new platforms, new planes, whatever, almost in 10-year projections. So this threat of climate change is one that the Pentagon has always seen as a future threat but also real right now.

Mr. ROUDA. And the reason is because as we raise the ambient temperature in the earth's atmosphere, where we have built our homes, our farms, and our cities are going to be in the wrong place because we are changing the weather patterns; right?

Mr. HAGEL. That is right.

Mr. ROUDA. So this is an infrastructure issue well beyond the widening of the local highways. This is a massive issue of 200 million climate change refugees, the greatest migration of humankind since World War II; correct?

Mr. HAGEL. Correct. John pointed out, if you recall, I think, in his opening statement that he had visited, while he was Secretary of State, Norfolk, where the Atlantic fleet is. That is our largest fleet. And that is a very good example of the vulnerability that we have there. That is a huge asset for our national security, and they are projecting now to have to reassemble, restructure, replace, and probably remove some areas before the climate change dynamic——

Mr. ROUDA. So we can put to rest the debate as to whether this is a national security threat. Climate change is a national security threat.

Mr. HAGEL. Clearly. It clearly is.

Mr. ROUDA. So let's turn to the economics of it, because I completely disagree with the Ranking Member of the Environmental Subcommittee that we cannot address this through economic means or what it is going to cost. That is exactly how the energy companies exist today, through economic incentives. And while I agree with the Ranking Member that there have been times when we have made investments in clean energies that have not come to fruition, the reality is that for every $80 we spend supporting fossil fuels, we spend $1 on renewable fuels.

Secretary Kerry, do you believe that if we had economic parity under the tax code for renewables versus fossil fuels that you would see a greater utilization of fossil fuels?

Mr. KERRY. Clearly, we do not. We have a balance, in fact, against them.

Mr. ROUDA. Exactly, which is why you talked about carbon dividend, and also ideas of cap and trade, which would provide the appropriate economic incentives so that energy companies could be leading us even faster than they are now in adopting renewable energies; right?

Mr. KERRY. Correct.

Mr. ROUDA. So when we look at renewable energies today, representing two-thirds of all new energy coming from renewables, and we have only seen two-tenths of 1 percent from coal, it is clear that we have an opportunity through appropriate economic incentives to have the change in behavior we want to see in addressing climate change.

Mr. KERRY. Well, I might mention, Congresswoman Miller is not here right now, but I would just point out that for West Virginia

and other coal-producing places, the reason the United States did well bringing emissions down two years ago, in 2017, we had 75 percent of the new electricity that came online in the United States came from solar, 75 percent. Do you know what coal was? 0.2 percent.

So the market is making the decision right now, and coal has never, in fact, included the genuine costs because it does not factor in black lung, it does not factor in particulates in the air and the cost—the largest cost of children's hospitalization in America in the summer is asthma, is environmentally induced asthma. We spend $55 billion a year on that.

So when you start putting in the real costs, there is such a differential in choice here, and that is what we ought to be putting to the American people.

Chairman CUMMINGS. The gentleman's time has expired.

Mr. Amash?

Mr. AMASH. Thank you, Mr. Chairman.

I will yield to the gentleman from Kentucky, Mr. Massie.

Mr. MASSIE. Thank you, Mr. Amash.

Mr. Chairman, there is not a single climate denier in this room. The climate was different yesterday, it was different 10,000 years ago, and it is going to be different 10,000 years from now, whether there is a human on this planet or a domesticated animal. There is not a climate denier in this room.

But I think there are some photosynthesis deniers. I think there are some natural climate deniers. I noticed in Secretary Kerry's testimony here—it is three pages, single spaced—it does not even mention the words "anthropogenic" or "manmade." I think it is an attempt to conflate manmade climate change with climate change, the natural climate change that is occurring.

Let me read the sentence here from your testimony, Mr. Kerry. "In fact, sea levels on the East Coast are rising twice as fast as the global average"—wow, how does that happen?—"thanks to uneven ocean temperatures and geology." Well, what are we going to do to stop geology? Can you explain how that works, Secretary Kerry? How does the average global sea level differ from the sea level on the East Coast?

Mr. KERRY. The temperature of the water itself and the geology of the water, that it is able to be higher in one place and lower in another, and those are anomalies.

But on the climate change denier thing——

Mr. MASSIE. Let me go to this next. You said that it is sinking. You said it is sinking in the sentence before that, that the land is sinking. You cannot change that. That is geological. That is on a geological time scale.

What is the rate of sea level change? Let's go with global average. What is the rate of sea level change? Short answer, please. Use any units you prefer.

Mr. KERRY. It is in centimeters, presented in centimeters on an annual basis.

Mr. MASSIE. Okay, that is close. That is close.

Mr. KERRY. Wait. But they are predicting—whoa, whoa, whoa. But you have to——

Mr. MASSIE. It is millimeters. Let's set the record straight.

Mr. KERRY. Congressman, if you do not want the genuine truth here, I swore to tell the truth, so let's listen to the truth.

Mr. MASSIE. Okay, go for it.

Mr. KERRY. The truth is that what is happening is there is anthropogenic major contribution, which all of the 97 percent of the scientists have agreed on mankind is contributing to and making the increase.

Mr. MASSIE. There are 100 different models, and they all disagree. Which one——

Mr. KERRY. No. There are different models, that is correct, and sometimes there are differences in the 97 percent about what model is more correct or less correct. But they do not disagree on the fundamental contribution of human beings to what is happening today. And the fact is that no one can predict with absolute certainty what the rate of the melt-off of the Greenland ice sheet will be. If the Greenland ice sheet melts completely, which is entirely possible now—there are scientists who assert—there is an entire river. I have been up on that glacier. I looked down through a hole 100 feet deep. You see an entire river rushing unbelievably fast underneath it. People are afraid that that river is going to act like a slide and take a whole portion of that ice sheet one day. We lost a portion of the West Antarctic ice sheet just in the last years the size of the state of Rhode Island, and another one is about to break off. It is going to melt.

Mr. MASSIE. Okay. This is the House, not the Senate. We get five minutes, so you cannot filibuster.

Mr. KERRY. But, Congressman, the one thing you need to understand is——

Mr. MASSIE. Let me finish and set the record straight. You said it was in centimeters per year. It is millimeters per year, the highest claims that I have seen. It may be three, four, five millimeters per year. Are you aware of what the sea level change has been in the last 15,000 years, the average, in millimeters per year?

Mr. KERRY. No, not the average.

Mr. MASSIE. It is about seven millimeters a year. It was 100 meters lower 15,000 years ago.

Mr. KERRY. But we did not have 7 billion people on the planet back then.

Mr. MASSIE. I ask unanimous consent——

Chairman CUMMINGS. You want to put it in, go ahead.

Mr. MASSIE [continuing]. to submit for the record the Sea-Level Rise Modeling Handbook from the USGS.

[The Sea Level Rise Modeling Handbook referred to is available at: *docs.house.gov.*]

Mr. MASSIE. Also, I want to ask you about CO2 as well, because——

Mr. KERRY. Do you want an answer to it? Because I would like to answer the one we were just talking about.

Mr. MASSIE. I have 45 seconds, but I think I might get some more time later.

I want to ask you, since we were talking about anthropogenic, what has been the anthropogenic effect on the climate? How has

that affected crop yields in the United States over the last 50 years per acre?

Mr. KERRY. How has that affected what?

Mr. MASSIE. How as it affected our crop yields in the United States? You spent two of your three pages talking about the Middle East and all over the globe. I want to know how has increased CO2 levels affected crop yields in the United States over the last 50 years.

Mr. KERRY. Well, you have different crops affected by different things. You have had GMO, as you know. You have had an incredible amount of fertilizer advancement, chemical advancement. As a result of much of that, we have runoff into the Gulf of Mexico through the Missouri, down to the Mississippi, the Ohio River, et cetera, which has now created a dead zone so massive that you have nothing that lives there because of the nitrate overload. So, yes, we have better crop yield, but we have other downstream problems.

Mr. MASSIE. Would you——

Mr. KERRY. Let me just finish. The fact is that we are increasingly witnessing impact on crops. We have migration of forests. We have migration of different fauna that grow or do not grow in different places. We have insects that now stay alive, like the pine-beetle that is destroying millions of acres of trees—Montana, Wyoming, Canada. You are losing trees because they do not die now because it does not get as cold as it used to in the cycle.

So there is all kinds of impact on crops yet to be determined. We do not have all the answers, but we are seeing negative impact even as we have grown our ability to be able to produce food.

Mr. MASSIE. For the record, it is a positive impact on plant growth when you get higher CO2 levels.

Mr. KERRY. Yes, but here is the problem. Mr. Chairman——

Chairman CUMMINGS. The gentleman's time has expired.

Mr. Connolly?

Mr. CONNOLLY. Thank you, Mr. Chairman.

I will say it is always troubling when politicians interpose themselves for science and for empirical-based policymaking when we do not like the conclusions we come up with on our own. I am not sure we are the best people in the world to do that. In fact, I am sure we are not.

Secretary Kerry, you were interrupted. I think you wanted to talk about what would be the consequences of global sea level rise if the entire ice sheet on Greenland were to melt. What would be that impact, sir?

Mr. KERRY. Thank you, Congressman.

Look, let's be factual here and clear, because I want to cover both sides appropriately. CO2 has a positive impact on certain plants, of course. Plants thrive on CO2. But what good does it do to have the plants thriving on CO2 if they are being destroyed in a mudslide or a fire, a forest fire or a flood? There are balances. There are counter-balances to the other side of the amount of CO2 we produce.

Ninety-seven percent, or I think most scientists agree that CO2 is now being added at a rate that is having a profound impact on climate change. It is the fundamental cause, not the only cause.

There are other greenhouse gases. It is the principal cause, and it is the most long-lasting.

So if the Greenland ice sheet were to melt in its entirety, you could have several feet of sea level rise, not millimeters. So you can mock the millimeters today, but if you ignore the cycle of what is happening and what that predicts is going to happen, you are putting Americans in danger, property trillions of dollars of damage. It is estimated that if we have the 0.5 degrees of increased temperature over the course of the next 12 years, it will cost all of us about $54 trillion. If we go up to the two degrees Centigrade, the cost is estimated to be $69 trillion. These are analyses that are available to people to make their judgments——

Mr. CONNOLLY. And you were Secretary of State, Secretary Kerry, and you saw the IPCC report, which represented a global consensus about the threat from global warming. Were you convinced in reading that report and presumably the kind of intelligence you had available to you during your tenure?

Mr. KERRY. Congressman, I was convinced prior to reading the report because we started the hearings in 1988, and before the report came out there were many of us who were already working on this. But, yes, the report confirmed it, and there is ample peer-reviewed science, literally thousands of reports that have been done which have peer reviewed the judgments, the assumptions, the analysis, and that is why you have 97 percent agreement at this point in time, and more than 195 countries all working in concert to try to live by the Paris goals and hopefully surpass the Paris goals.

Mr. CONNOLLY. Thank you, Mr. Secretary.

Secretary Hagel, you were Secretary of Defense. Was climate change just some kind of abstract, theoretical decision at the Pentagon?

Mr. HAGEL. Congressman, it was not. Again, I go back to what John Kerry has noted, and Chairman Cummings, to the George H.W. Bush Administration. That administration really laid out in 1991 and 1992 the threats of climate change, especially for national security.

I might point out for those of you who do not recall, Dick Cheney was the Secretary of Defense during that time, and he enthusiastically embraced that, what their intelligence people had laid out. So you could maybe go back even before 1992 with the Pentagon, but certainly in 1992 and forward, the Pentagon has looked at potential of climate change as a threat to our national security.

Mr. CONNOLLY. And I believe, Mr. Secretary, if I can squeeze this in, there was a study of 80-something military installations of ours around the world, and 70-something of them were determined to be under threat, in part because of global climate change.

Mr. HAGEL. That is correct. I noted that in my opening statement. It was an assessment done at the direction of Congress, and it was released I think earlier this year.

Mr. CONNOLLY. So that is contemporaneous documentation?

Mr. HAGEL. Yes.

Mr. CONNOLLY. I thank both Secretaries for being here today.

Thank you, Mr. Chairman.

Chairman CUMMINGS. Thank you very much.

Mr. Massie?

Mr. MASSIE. Thank you, Mr. Chairman.

Secretary Kerry, I want to read part of your statement back to you: "Instead of convening a kangaroo court, the President might want to talk with the educated adults he once trusted to fill his top national security positions." It sounds like you are questioning the credentials of the President's advisers currently. But I do not think we should question your credentials today. Isn't it true you have a science degree from Yale? What is that?

Mr. KERRY. Bachelor of Arts degree.

Mr. MASSIE. Is it a political science degree?

Mr. KERRY. Yes, political science.

Mr. MASSIE. So how do you get a——

Mr. KERRY. To my regret.

Mr. MASSIE [continuing]. Bachelor of Arts in a science?

Mr. KERRY. Well, it is liberal arts education and degree. It is a Bachelor.

Mr. MASSIE. Okay, so it is not really science. So I think it is somewhat appropriate that somebody with a pseudoscience degree is here pushing pseudoscience in front of our committee today.

I want to ask you——

Mr. KERRY. Are you serious? I mean, this is really seriously happening here?

[Laughter.]

Mr. MASSIE. You know what? It is serious, you are calling the President's Cabinet a "kangaroo court." Is that serious?

Mr. KERRY. I am not calling his Cabinet a "kangaroo court." I am calling this committee that he is putting together a "kangaroo committee."

Mr. MASSIE. Are you saying that he does not have educated adults there now?

Mr. KERRY. I do not know who it has yet because it is secret.

Mr. MASSIE. Well, you said it in your testimony.

Mr. KERRY. Why would he have to have a secret analysis of climate change?

Mr. MASSIE. Let's get back to the——

Mr. KERRY. Why does the President need to keep it secret?

Mr. MASSIE [continuing]. science of it. Let's get back to the science of it.

Mr. KERRY. But it is not science. You are not quoting science.

Mr. MASSIE. Well, you are the science expert. You got the political science degree.

Look, let me ask you this: What is the consensus on parts per million of CO2 in the atmosphere?

Mr. KERRY. About 4–0–6, 406 today.

Mr. MASSIE. Okay, 406. Are you aware——

Mr. KERRY. Three-hundred-fifty being the level that scientists have said is dangerous.

Mr. MASSIE. Okay. Are you aware—350 is dangerous, wow. Are you aware that since mammals have walked the planet, the average has been over 1,000 parts per million?

Mr. KERRY. Yes, but we were not walking the planet. Let me just share with you that we now know that definitively at no point during at least the past 800,000 years has atmosphere CO2 been as

high as it is today. When I was in the South Pole—I was not on the South Pole. When I was in McMurdo, we could not get to the South Pole because of the weather, but I was given a vial of air which said on it, "Cleanest air in the world." It was 401.6 parts per million. That is 50 parts per million already over what scientists say is acceptable.

Mr. MASSIE. The reason you chose 800,000 years ago is because for 200 million years before that, it was greater than it is today, and I am going to submit for the record——

Mr. KERRY. Yes, but there were not human beings—I mean, that was a different world, folks. We did not have 7 billion people yet.

Mr. MASSIE. Well, so how did it get to 2,000 parts per million if we humans were not here?

Mr. KERRY. Because there were all kinds of geologic events happening on Earth which spewed up——

Mr. MASSIE. Did geology stop when we got on the planet?

Mr. KERRY. Mr. Chairman, I—this I just not a serious conversation.

Mr. MASSIE. Your testimony is not serious.

[Laughter.]

Mr. MASSIE. I agree. When you cannot answer the question, that is the best answer you got——

Mr. KERRY. I did answer.

Mr. MASSIE. I submit for the record an article called "The CO2 Deficit."

Chairman CUMMINGS. Without objection, so ordered.

Mr. MASSIE. Thank you.

[The article, ″The CO2 Deficit″, is available at: *docs.house.gov*.]

Mr. MASSIE. Secretary Kerry, you avoided my colleague's question about how do you pay for it, but I want to ask: What is your solution to comply with the Paris Accord requirements? Like what would you do?

Mr. KERRY. I beg to differ with you. I did not avoid the question. I said there are many ways to pay for it——

Mr. MASSIE. He just asked for one.

Mr. KERRY. I did. I talked about the carbon pricing is one way to pay for change. There are all kinds of other things we could do. One would be to not give a trillion dollars worth of tax benefits to the top 1 percent of Americans. I am one of them. I did not deserve to get that tax cut—nobody did in this country—at the expense of average folks who cannot make ends meet. So that would be a fair way to start.

Mr. MASSIE. You do not want to politicize this, but you just played the one-percent card.

Mr. KERRY. No, I actually played a moral judgment about what is appropriate in building a civil society. That is what I did.

Mr. MASSIE. What my colleague Mr. Comer from Kentucky knows is——

Mr. KERRY. That is a——

Mr. MASSIE [continuing]. that this will fall on the poorest of the poor. It is regressive——

Mr. KERRY. No, you are wrong. You are absolutely——

Mr. MASSIE [continuing]. when you base the price of energy in Kentucky or Massachusetts or Pennsylvania or France or wherever——

Mr. KERRY. Congressman, that is absolutely——

Mr. MASSIE [continuing]. whichever house you are staying in.

Mr. KERRY. That is absolutely incorrect that it would fall on the poorest people because if you do it right, which has not been done here for a little while, if you look at the tax legislation, there are all kinds of ways to make sure that people at the bottom end and people struggling to get into the middle class can be rewarded. And that is not what has happened.

Mr. MASSIE. So soak the rich——

Mr. KERRY. If you look at the distribution, we have the most unequal distribution of income in America that we have had since the 1920's when we did not have an income tax. We have a country in which 51 percent of America's income is going to 1 percent of Americans. That is not a sustainable political equation.

Mr. MASSIE. We have a country—you want to use 1920's as——

Mr. KERRY. People need to stop and think about that.

Mr. MASSIE [continuing]. the benchmark——

Chairman CUMMINGS. The gentleman's time has expired.

Mr. MASSIE [continuing]. people of this country are far better.

Chairman CUMMINGS. The gentleman's time has expired.

Mr. Krishnamoorthi?

Mr. KRISHNAMOORTHI. Thank you, Secretary Kerry and Secretary Hagel, for joining us.

Secretary Kerry, you mentioned that solar is now cheaper than coal and, in fact, the solar industry has doubled the number of jobs in the coal industry, 350,000 versus 175,000. As chair of the bipartisan congressional Solar Caucus, I want to thank you for making the point with regard to the decreasing costs of solar power.

I want to turn to this panel that the White House is convening. The person who is reportedly spearheading the White House Climate Change Panel, Climate Security Panel, is called William Happer, who has a long history of downplaying and denying climate change.

In 2010, Dr. Happer testified before the House Select Committee on Energy and Global Warming, and he said the following: "The warming will be small compared to the natural fluctuations in the Earth's temperature," and that the warming and increased CO2 will be good for mankind. Do you agree with Dr. Happer that this increased CO2 will be good for mankind?

Mr. KERRY. No. Clearly, I do not. I think it is similar to the argument that was just being made. No. The problem we have today is that greenhouse gases—I mean, this is basic science. Why is it called a "greenhouse"? Because it behaves like a greenhouse. The heat is contained within the Earth's atmosphere and trapped, and as these gases gather in the atmosphere, they are what is responsible for the continual warming. It is sort of basic scientific fact. And the result is the amount of carbon—the estimates by scientists are, I forget the exact number of gigatons, but we are going to have to get massive giga-tonnage of CO2 out of the atmosphere. We are going to have to reduce it to a net zero, net carbon, no carbon, low carbon economy by about, let's say, 2050 is the accepted level. And

between now and then, we have plenty of time to make the changes if we are smart and committed to making those changes. But the amount of CO2 we have today is accelerating, and, unfortunately, China, even as they are moving rapidly into the solar market, and even as they have closed some old coal-fired power plants, are geared up to bring 250 megawatts of coal-fired power online. India, the same.

Mr. KRISHNAMOORTHI. Secretary Kerry, I know that Mr. Massie has a science degree. I have a B.S. in mechanical engineering. Of course, I practice the B.S. part now on Capitol Hill. But Dr. Happer recently compared climate science to Nazi propaganda. He said, "This is George Orwell. The Germans are the master race," referring to climate change. "The Jews are the scum of the Earth. It is that kind of propaganda." Those were Dr. Happer's words. In a 2014 interview, Dr. Happer said, and I quote, "The demonization of carbon dioxide is just like the demonization of poor Jews under Hitler. Carbon dioxide is actually a benefit to the world, and so were the Jews."

Do you have a comment on Dr. Happer's comments?

Mr. KERRY. I think I have already commented on his comments. I said it earlier. I think what we really ought to try to focus on is the bigger issue here. Why after 20 years of consensus, Republican and Democrat alike, why after generals and admirals and guys who have laid their lives on the line for their entire life for our country and have made the judgment already, Republican and Democrat alike have acted on this, why suddenly should we have a secret effort within the White House, led by somebody like Mr. Happer, or being put together by him, at least, that is geared to reevaluate something where there is no legitimate call for that reevaluation? That is really the issue.

Mr. KRISHNAMOORTHI. Secretary Hagel, what is your comment or thought about why this would be a secretive panel? What purpose would secluding these people in closed proceedings have with regard to this issue on the part of the White House?

Mr. HAGEL. Well, one would have to suspect the motive behind the effort to put together this panel. If the motive was transparent, clear, try to find out what we should do in this country about this issue based on science, based on facts, based on what we do know today, then why wouldn't you do it transparently? Why wouldn't you open it up and involve everybody and want others' opinion?

So I would answer your question that way. I do not know what is behind it.

Mr. KRISHNAMOORTHI. What are they hiding? Right.

Mr. HAGEL. But I think anytime it is that closed, it is always—it brings about a certain amount of suspicion as to what is the motive behind it. And as you have noted Mr. Happer's background and comments, it is not very enlightening or it is not very likely that they would choose to open this up and make this a very transparent process for the good of the cause and for what the objective should be.

Mr. KRISHNAMOORTHI. Thank you.

Chairman CUMMINGS. Mr. Armstrong.

Mr. ARMSTRONG. Thank you, Mr. Chairman. And thank you both for being here, and I do truly respect your service to this country

and also your ability to do these hearings well. So with that being started, I actually have a national—I want to bring it back to national security because I think there is part of a conversation on climate change we do not.

But just before that, I do want to just say that if we are going to say things like stopping the politics and all of that and then also infer that it is the free market that ended up causing most of the coal industry's problems, without at least recognizing that there was a combination of unrealistic Federal regulation, tax credits, and allowing primacy on an electric grid that was neither designed nor prepared for that, it seems to be a little disingenuous, particularly when it was not that long ago where we had a Presidential candidate that said she was going to put coal workers and coal miners out of business.

But that being said, I am from North Dakota, and I think one of the things for national security is due to technical advances in the oil and gas industry, one of the best parts about it is we produce it at home. We are closest as we have ever been in this country's history to being food and energy secure. And I would just say in recent events we have seen that happen because we have become less reliant on Middle Eastern oil. I mean, just two different events that have happened in the very recent past, whether it is the problems in Venezuela or even earlier this week designating Iran's Revolutionary Guard as a terrorism activity.

Now, I know there has been some fluctuation in the oil market, but not that long ago, 20 years ago, these types of events would have caused an incredible spike in oil prices, throwing our economy into issues.

But I want to go to wind and solar because I support it all. I really do. I believe in an all-of-the-above energy policy. But one of the things I think we forget to talk about is we think wind turbines blow or the sun shines and then all of a sudden houses are powered and our cars drive. But there is a big middle part in the middle of this, and that is rare-earth metals, and this has to be a conversation regarding national security because, whether it is lithium, cobalt—I cannot say some of them because I definitely have a B.S. in B.S.

[Laughter.]

Mr. ARMSTRONG. But, I mean, rare-earth metals, they are actually relatively common, but they are extremely labor-intensive to separate them from a rock, and it requires chemical cocktails that produce tremendous amounts of waste and leak acids, heavy metals, and radioactive elements into the water and the environment. But I think more importantly from a national security standpoint, China controls about 90 percent of the rare-earth metal environment, and we know, regardless of where we are at on all of this, they do not have the Federal regulatory environment we do, nor do the other developing countries.

As we transition to more batteries, whether it is large-scale storage batteries for solar, large-scale batteries for wind, car batteries, as we move to more electric, market pressures that are going to create processing—or incentives for processing plants in countries that, again, have none of our environmental incentives to keep—I do not want to export pollution, and I think we have to be consid-

ering to have that conversation. And the supply chain and disruption in the supply chain has to be a conversation if we are talking about transitioning into these things.

A single Tesla uses about 15 pounds worth of lithium, and current production of these, again, is in China, and there is no separating the Chinese Government from Chinese business. And it was not that long ago when Japan detained a Chinese fishing captain, and China enacted a de facto ban on exporting rare-earth metals to Japan, and it took about 48 hours for Japan to return the Chinese fishing captain, because as we move to this—and so what are the national security implications, I mean, as we transition and do all of this in relying on China for—and other developing countries, I mean, and there are some human rights issues in the Congo and a lot of different issues. But we do not talk about that part of this conversation at all. I have not heard it mentioned in the media. I have not heard it mentioned in any of the rhetoric, what I would call "inflammatory rhetoric," what I would call "reasonable rhetoric." But we are not having this conversation because we are as close to energy secure as we have ever been. And as we transition here, we will not be. I mean, we have these metals here, but that mining conversation will be a bigger one. But how do we deal with that issue? That would be my question.

Sorry, I am only giving you 20 seconds, but I think this is an important issue that we need to continue to talk about.

Mr. KERRY. Well, Congressman, you have absolutely put your finger on a critical issue, and we do not talk about it enough, and it is serious. And it is one that I came across in the course of the time that I was privileged to serve as Secretary. China has indeed cornered that market. But also, frankly, one of the reasons why we need to be paying attention to what is happening with climate change in the Arctic, because as the Arctic is opening up, there are a lot of people up there now—the Chinese included, and the Russians, who are mapping extraction possibilities. As you well know, Russia dropped a flag on the North Pole. It was kind of a tease, but the message of it is, "We are here, and we are playing for the long term." We are not sufficiently on that, nor are we sufficiently geared up to think about what we have to be doing with respect to China and Russia now in terms of 5G and quantum computing and the whole issue of technology "security," is the word I will use rather than—I think, you know, America has always been technologically secure in that regard. It is technology that has given us this energy incredible boost that we have today. That is why I am so optimistic, frankly, about our capacity to deal with the issue we are all talking about here today.

America has DNA built on discovery, breaking barriers, moving forward, and that is why I think it is so critical that mission innovation and our technology partnership with the private sector—remember, in Paris, most of the Fortune 500 companies were there supporting the endeavor. All of the big oil companies were there supporting the Paris agreement. And all of the big oil companies are currently investing in alternative and renewable and sustainable energy.

So this is good for, you know, everybody, if we could come together around the notion of how we are going to protect ourselves on these rare minerals, which are critical.

Chairman CUMMINGS. Mr. Raskin?

Mr. RASKIN. Thank you very much, Mr. Chairman.

We are in a civilizational emergency. Senator Kerry, Secretary Kerry, you make the powerful point that we have actually had decades of scientific consensus about the anthropogenic causes and the dangerous dynamics of climate change, and we have also had a bipartisan political consensus endorsing the scientific consensus that has suddenly been ripped apart by the anti-scientific outbursts and outlook of President Trump and his administration and the pseudo-scientific dogmas of climate change deniers, obfuscators, and industry propagandists.

These deniers are undermining our ability to act forcefully, comprehensively, and in unity to address the forest fires that are out of control, the hurricanes of unprecedented velocity, the record drought and record flooding, the rise in the ocean levels, the vanishing of glaciers and so on. And it is troubling to me that we have to waste our time simply going back to basics to prove what should be obvious.

I would like to ask both of the witnesses this question: Secretary Kerry, starting with you, if 97 percent of the doctors told you that you had cancer and needed to start treatment immediately, would you accept their judgment and start treatment? Or would you say that they have not convinced everybody yet and hold out for years or more debate on the subject?

Mr. KERRY. Well, unfortunately, I can answer that in real terms. I was told by one doctor I had cancer, and I did the treatment. If 97 doctors told me, I would redouble my efforts in 100,000 ways. But I think it is a measurement of the—it is not just the percentage. It is really measuring what they are saying to you and what the foundation of their analysis is. And it is there for everybody to judge. You just have to take the time to read it and make those judgments.

Mr. RASKIN. And just to twist the hypothetical a little bit, Secretary Hagel, let me come to you. If 97 percent of the scientists told you not to drink the water in the Cannon House Office Building because it is not potable and it would be a danger to you, which, unfortunately, is the truth, would you follow their advice? Or would you say, "Well, three percent are still holding out and disagree, and so I am going to continue to drink the water"?

Mr. HAGEL. Well, actually, I drank the Cannon House Office water for five years in the 1970's, so I am still here.

[Laughter.]

Mr. RASKIN. I take it you do not want some today.

Mr. HAGEL. Well, I would hope it is better, but——

Mr. RASKIN. I can give you some from the cooler in my office.

Mr. HAGEL. Thank you.

Mr. RASKIN. President Trump has called climate change—against the vast majority of the scientific evidence and the weight of authority, he has called it an "expensive hoax," "nonsense," and "B.S." Secretary Hagel, how do you respond to the President calling climate change "fake news"?

Mr. HAGEL. Well, the President says a lot of things, and I do not know why he says that, as you have quoted. But the facts are different. I know he sometimes has difficulty with facts, but the facts are clearly different than what he says. Whether he believes it or not, I do not know. I assume he does.

But to have the first President of the United States in our modern history essentially say those things, disputing scientists, his own intelligence people, military people, people who have been at this a long time, is really troubling because it sends a message not only to the United States but to the world that we are abdicating our responsibilities here in this country and around the world on one of the most vital subjects and topics that we are dealing with today, certainly we will be dealing with in the future.

Mr. RASKIN. Well, I appreciate that point very much, and I wonder, Secretary Kerry, if you would care to elaborate on just this point. What is the message sent to the rest of the world? Does it undermine and squander America's moral leadership to have the President denying the existence of climate change? And does it give cover to countries that want to opt out of participation in efforts to reduce greenhouse gas emissions?

Mr. KERRY. I very much appreciate the question, and I particularly want to address it to our friends here in the Republican Party, some of whom have questioned the science to date. And let me just say this: One hundred and ninety-six countries came together, their presidents, their prime ministers, their finance ministers, their environment ministers, all of them came to an agreement that this is happening and that we have to move.

Up until Paris, China was opposed to us. China did not move at all. In fact, Copenhagen four years earlier, the meeting failed because China led the G–77 to say, "Wait a minute. We are a developing country. You are the developed countries. You are the guys who caused this. Why should we have to do anything?" So we got nothing done.

Now, President Obama authorized me to go to China, and I went and met with President Xi, and we negotiated about how to approach the Paris, and he agreed finally that he was ready to move and do something about climate. Why did he move? He moved because his Governors and his mayors were complaining that the citizens were complaining to them about the quality of the water, the quality of the air, you could not breathe in Beijing or other cities, and they were feeling the impact of climate change. So China joined the United States, leading the world to Paris, where all of these people responsible for their governments made the decision to move forward.

I would say to my friends on the other side of the aisle, when I was on the aisle, if I am wrong, Al Gore is wrong, all of those ministers and presidents are wrong, and every country that joined this—Iran—and we do this the right way, the worst thing that will happen is we have cleaner air, we are healthier, we have less cancer, less pollution, we are energy independent, we are clean in our energy, we are living up to our environmental responsibility, we pass on a better Earth to the next generation. That is if we are wrong, because all those good things will come out of the investments we are talking about.

What if you are wrong, if you are a denier? Catastrophe. If we continue down this road with every scientist telling us what is going to happen in 12 years with a 0.5 degree increase, and we are already seeing the consequences, catastrophe. History is going to judge what side of this people come down on, and it is already moving at a rate fast enough that it is making some of those conclusions right now.

Chairman CUMMINGS. Mr. Higgins.

Mr. HIGGINS. Thank you, Mr. Chairman.

Gentlemen, thank you for your service to your country, and as has been stated by my colleagues and each of you gentlemen today, what we hope to do in this committee is reach a reasonable accord regarding the reality of climate change and how it impacts our planet and our Nation. We are representatives of the American citizenry, and, thus, we are responsible to the citizens we serve. And yet America is, in my opinion, the leader of the free world and, thus, we have challenges on a global setting. And on that stage, we should be leaders regarding climate change and the reality thereof.

And let me just say that the geological record is clear. The Earth's climate changes, and I believe that the debate here is the percentage to which mankind may have some impact upon that. The decisions that we make in this body affect America. Climate change is not restricted to the Earth. According to NASA, Mars also undergoes large variations over thousands of years that result in "substantial shifts in the planet's climate, including ice ages."

The Scientific American publication regarding the Sun's cyclical change, studies indicate that sunspot activity overall has doubled in the last century, resulting in the Sun shining brighter here on Earth by a small percentage than it did 100 years ago.

The solar wind, according to NASA, emanates from the Sun and influences galactic rays that may in turn affect atmospheric phenomena on Earth, such as cloud cover. Scientists admit they have much to learn about this. It is this body that does not admit that there is much to learn. In statements I hear from my colleagues that the science is settled and mankind is responsible, well, I do not believe mankind is responsible for climate change on Mars. I do not believe mankind is responsible for cyclical climate change in the Sun's impact upon our Earth.

What I am frightened of is the unintended consequences of bad legislation or international agreements that we have witnessed. I will not criticize my colleague from New York for her enthusiasm and her creativity regarding the Green New Deal. I shall just suggest that it would be very bad legislation and it would impact Americans we are sworn to serve. CO2 emissions in the United States have decreased markedly while emissions of China and India and other nations are increasing.

You mentioned, Senator Kerry, that the oil and ga industry is one of the major investors in renewables and recapture technology. They have discovered, of course, over the course of doing business that clean, efficient, safe business is good business. We should be encouraging the American model of the fossil fuel energy industry not regulating it out of business. We should certainly not send this business to nations that have virtually zero standards compared to American standards.

Secretary Hagel, in your opinion, would bills like the Green New Deal—and, again, I say this respectfully to my colleague from New York, but by her own memo, it would attempt to de-commission every nuclear plant in 10 years and replace every building in the U.S. Would that in any way encourage China or India to regulate their own industries, Secretary?

Mr. HAGEL. Thank you. Well, first, I have not read the Green New Deal proposal totally. I have read in the papers their——

Mr. HIGGINS. Would anything we do in America impact what decisions are made in China regarding regulating their own fossil fuel industries and expansion?

Mr. HAGEL. Well, there is no question that what America does has an effect on other countries, certainly. And marketplace regulations——

Mr. HIGGINS. You think that American legislation would cause China and India to change their legislation?

Mr. HAGEL. Well, wherever——

Mr. HIGGINS. Why not just take our business?

Mr. HAGEL. Wherever you are driving this, I am not here to testify for the Green New Deal or defend it. That is not my role here this morning. I have not even read it in total. What I am here to talk about—and we have been talking about it—in answer to your question, generally the way the world works, as you know, America has been the leader in the world in every respect since World War II. Everybody emulates us, follows us in some way. We dominate the world still.

Now, that is changing. It is shifting. Generations, technology have an effect on all of that. But this issue of climate change is one that has a futuristic dynamic to it, clearly, not just because of the impacts and consequences of climate change, but for our leadership in the world and how China will respond.

Mr. HIGGINS. Pardon me, Mr. Secretary, but my time has expired. Mr. Chairman, I would just ask a yes or no question of the gentleman.

Is American industry leading the world in clean evolution of the fossil fuel industry?

Mr. HAGEL. China is doing very well, but I think America is still the leader in the world.

Mr. HIGGINS. I yield back. Thank you for your indulgence.

Chairman CUMMINGS. Thank you very much.

Ms. Ocasio-Cortez.

Ms. OCASIO-CORTEZ. Thank you, Mr. Chair.

Secretary Hagel, is climate change and its attendant effects from rising sea levels, intensifying temperatures and so on, currently contributing to the following global crises: the destruction or damage done to U.S. military bases domestically and across the world?

Mr. HAGEL. Yes.

Ms. OCASIO-CORTEZ. Is it contributing to the erosion of a healthy environment for our military veterans and current servicemembers?

Mr. HAGEL. Yes.

Ms. OCASIO-CORTEZ. Is climate change contributing to increased disease factors, including the exacerbation of global outbreaks?

Mr. HAGEL. Yes, and I mentioned that in my comments.

Ms. OCASIO-CORTEZ. Is it contributing to increased migration patterns as referenced by Secretary Kerry in his opening statement? Is it contributing to increased migration patterns in Europe and the United States?

Mr. HAGEL. Clearly, in the Pacific, too.

Ms. OCASIO-CORTEZ. And is it also contributing to increased social instability throughout the world?

Mr. HAGEL. Yes.

Ms. OCASIO-CORTEZ. Thank you for establishing that. I know you both have already spoken to it, but with the debate over what is already factually established, sometimes we have to reassert these things.

Mr. HAGEL. By the way, Congresswoman, this issue of climate change is what, as you know, has been referred to often as a "threat multiplier." It multiplies and multiplies threats and more threats, and we have got to anticipate that, and we factor that in whatever we are going to do about it.

Ms. OCASIO-CORTEZ. Thank you. Thank you, Secretary Hagel.

Do you think that neglecting to address these threats could contribute to the loss of American life?

Mr. HAGEL. Yes.

Ms. OCASIO-CORTEZ. And do you think that denial or even delaying in that action could cost us American lives?

Mr. HAGEL. Yes.

Ms. OCASIO-CORTEZ. Secretary Kerry, do you think that appointing a Federal panel that questions 26 years of established climate science be responsible for the loss of American life?

Mr. KERRY. It could be.

Ms. OCASIO-CORTEZ. So I think what we have laid out here is a very clear moral problem, and in terms of leadership, if we fail to act, or even if we delay in acting, we will have blood on our hands. I do not know if you are allowed to agree with that, Secretary Kerry or Secretary Hagel. Would you agree with that assessment?

Mr. KERRY. Well, if I can—here is what is happening, and it is happening. We are not responding. No country in the world is doing enough to be able to help the world meet the goal of holding the Earth's temperature rise to two degrees Centigrade. And it is absolutely certainly decided as a matter of scientific fact, two and two is four, four and four is eight. We can predict when the Sun and Moon will rise because we have tables to do it with. With the same certainty, we know that human beings are responsible for the rise of CO2 contributing to climate change. So we have to lower it. And the fact is we are currently on track not to hit two degrees but to hit four to four-point-five degrees in this century.

So as long as we do nothing, Congresswoman, we are complicit in our acts of omission and commission of what we are doing to choose for our energy, et cetera. We are going to contribute to people dying. We are going to contribute to trillions of dollars of damage of property, and we will change the face of life on this planet.

Ms. OCASIO-CORTEZ. Thank you. Thank you, Secretary Kerry.

You know, I would be remiss if I did not talk or address some of the comments made across the aisle, and while I am incredibly flattered that the ranking member and many members across the aisle seem to be so enamored with a non-binding resolution pre-

sented by a freshman Congresswoman sworn in three months ago, I think that ironically, despite that fixation, it does not seem that they have actually read the contents of the proposed and presented resolution. And so I would encourage that we do not need Cliff Notes for a 14-page resolution that was designed to be read in plain English by the American people. So I would encourage my colleagues to actually read the resolution presented so that they can speak to it responsibly and respectfully.

I would also like to highlight that it is not responsible to complain about anything that we dislike as "socialism," particularly when many of our colleagues across the aisle are more than happy to support millions and potentially billions of dollars in Government subsidies and carveouts for the oil and gas and fossil fuel industry. So the fact that subsidies for fossil fuel corporations are somehow smart but subsidies for the development of solar panels is "socialist" is just bad faith and it is incorrect. And I think it is important to support and propose the fact that we need bold action.

So I just have one final question. With any global threat on this scale in American history, has it been met with a war-time level scale of Government mobilization?

Chairman CUMMINGS. The gentlelady's time has expired, but you may answer the question. You can ask it again. He did not hear you.

Ms. OCASIO-CORTEZ. Sure. In American history, when we have been presented with a threat on this scale, have we met that threat, the threat on the scale of climate change, have we met that within economic and mobilization on the scale of a war-time level mobilization?

Mr. KERRY. Yes, we have, and we have done it with remarkable consequence for the planet. And I believe we can and I hope we will—we have time over the course of the next years to make thoughtful judgments about energy policy, which is the solution to climate change.

Ms. OCASIO-CORTEZ. Thank you very much, Secretary.

Chairman CUMMINGS. Thank you very much.

Mr. Gibbs.

Mr. GIBBS. Thank you.

Witnesses, I represent the energy-rich area of eastern Ohio that is situated in the heart of the Utica and Marcellus shale formations. There are over a thousand million cubic feet per square mile of natural gas, according to the experts. The shale revolution has transformed the economy in eastern Ohio, and it has created hundreds of jobs, and we have seen that across the country. One of the best things we have seen in the downturn we had back 2008 and 2009 and 2010 was the resurgence of our oil and gas industry.

Policy proposals from the other side of the aisle want to erase this economic growth and replace our current energy portfolio with more expensive, less reliable alternatives. Switching exclusively to more expensive forms of energy will have a devastating effect on the competitiveness of our businesses globally and cost us jobs.

My district is also heavily reliant on agriculture. Many of the policy proposals being debated by the members opposite among themselves are an assault on agriculture.

I come from a livestock background, and I know the importance of how to feed this country and be environmentally safe and provide for an economic foundation for our rural communities with reliable and affordable energy.

Mr. Secretary, according to the think tank Progress, the Green New Deal would reinstate the Obama Administration WOTUS rule in its entirety. I have found this land and water grab from the beginning—I have fought it from the beginning and been doing everything in my power to provide certainty for farmers, ranchers, small businesses, landowners, and even local government.

Secretary Kerry, do you hope that the Obama Administration's WOTUS rule will be reinstated in its entirety?

Mr. KERRY. Would you just say the question?

Mr. GIBBS. The WOTUS rule, Waters of the United States, do you hope that will be reinstated?

Mr. KERRY. The—which be reinstated?

Mr. GIBBS. Waters of the United States, the WOTUS rule that expands the Federal jurisdiction of waters of the United States.

Mr. KERRY. Oh, the watershed. It would be impossible—I mean, in principle, no, but I think you have got to look at what particular issue is at stake here.

Mr. GIBBS. Okay. I will go on because obviously you do not know what I am talking about. Innovation and technology has improved with oil drilling, especially from fracking and horizontal drilling, and as we know, we have seen the emissions of this country, carbon emissions, drop, I think it was—I had it here a second ago—14 percent from 2005 to 2017, but China and India have increased by 21 percent. Mr. Kerry, my understanding is that the Green New Deal would eliminate oil and gas exploration. Do you support that that would happen, eliminate oil and gas exploration in the United States?

Mr. KERRY. I believe, Congressman, first of all, I think—and I have said this many, many times—gas is going to be a component of our energy mix for some time to come because we have to be able to deal with baseload. And, obviously, when the Sun is not shining, when the wind is not blowing, or the waters are not flowing for hydro, we have got some challenges. But we are not moving, frankly, in the way that we could be moving to provide the alternatives rapidly because, I mean, gas gives us a 50-percent gain over other fossil fuels in the reduction of emissions.

Mr. GIBBS. Okay. I appreciate——

Mr. KERRY. So it is a step forward.

Mr. GIBBS. Okay. I want to move on.

Mr. KERRY. In the end, though——

Mr. GIBBS. I want to move on because I——

Mr. KERRY [continuing]. we need a net low-/no-carbon economy, and we have got to begin moving toward that.

Mr. GIBBS. Okay. I want to talk about—you were involved in the Paris Climate Treaty, correct?

Mr. KERRY. Super-involved, yes.

Mr. GIBBS. Is it correct that in that agreement we would let China increase their carbon emissions to 2030, to peak out at 2030, and then that would be their benchmark, where ours was immediate and there was no enforcement to put on China to cut their

carbon emissions, so that was a deal going out more than a decade with no enforcement actions, but it was a good——

Mr. KERRY. Congressman, let me try to explain to you what we sought to do in Paris. In the Kyoto Agreement, which Senator Hagel has referred to, we had a mandatory reduction enforceable mechanism. Nobody wanted it. We could not pass it because it was not shared in the same level. And so in approaching Paris, we came at it differently. We had each country joining to design a plan because the theory was that if 195 or 196 countries came together, all of them simultaneously agreeing to lower emissions and move in the same direction, the signal to the marketplace would be extraordinary. And it was.

The next year, $358 billion was invested in alternative renewable fuel. For the first time in history, more money went into alternative and sustainable fuel than fossil fuel. So we accomplished the goal, and the theory was——

Mr. GIBBS. Were some of those dollars——

Mr. KERRY. I beg your pardon?

Mr. GIBBS. Were some of those dollars a transfer of wealth from the United States to these other countries that signed on?

Mr. KERRY. I am sorry. What?

Mr. GIBBS. Were some of those dollars a transfer of wealth from the United States to——

Mr. KERRY. No. Actually, each—that is just the total amount of investment that the marketplace put into alternative. What happened in America happened in America. What happened in Europe happened in Europe. But the point is that collectively we were moving in the direction of trying to lower emissions, and every country made a decision to do that.

Now, China has. China has reduced its energy intensity. It has closed coal-fired power plants. It is a leading deployer of solar energy at this point in time. Is it moving fast enough? No.

Mr. GIBBS. Isn't it through they are still building coal plants?

Mr. KERRY. I beg your pardon?

Mr. GIBBS. Isn't it true they are still building coal plants?

Mr. KERRY. Yes, unfortunately. They are building a next generation, which they are trying to claim is Okay, and we are trying to tell them, no, it is not Okay. So we are still in this struggle. But we have done better than where we were. The point is we do not want to lose the momentum, and by having a President who, frankly, has pulled out of Paris and not offered leadership, we are losing that momentum. And the last meeting of the U.N. Conference of the parties in Katowice, Poland, was a reflection of the lack of American leadership, frankly.

Chairman CUMMINGS. Mr. Sarbanes?

Mr. SARBANES. Thank you, Mr. Chairman. Thanks to both of you for your incredible service to the country over decades. And thank you for continuing your service to the country by being here today to raise a clarion call about the impact of climate change, particularly as it affects our national security. Nobody is in a better position to make those observations than the two of you.

When I am trying to figure out why political leaders are moving in the opposite direction from where the public is moving or where science in this case is moving or the experts are moving, I have

found it pretty useful up here to follow the money. And I can tell you, when you look back over this issue of climate change, you have to conclude that the position being taken by some—and I put the President in this category—is being driven more by campaign donors, by the fossil fuel industry, industry front groups, than it is by any real dispute or genuine dispute over the science that is involved here. And I want to cite an example.

The Mercer family contributed $15 million to President Trump's 2016 campaign, and it funds a variety of climate denial front groups, including the Heartland Institute and the CO2 Coalition. Both of those groups have received funding from the fossil fuel industry in the past.

Since the 2016 election, surprise, surprise, the Heartland Institute, the CO2 Coalition, and other climate change denial groups have been pushing the administration to create this panel that you spoke about today that is publicly—we think will publicly dispute the science of climate change.

The former head of the CO2 coalition is none other than, today, already, who is now employed at the White House, and he is the one trying to set up this panel that will deny climate change.

Secretary Hagel, I assume you agree that the Federal Government should be making decisions about climate change based on facts and not based on the influence of campaign donors or other money that comes at the system?

Mr. HAGEL. Yes.

Mr. SARBANES. Secretary Kerry, do you think that a panel that the fossil fuel industry and the President's campaign donors have been advocating for is likely to produce meaningful and reliable results, given what you know about how politics works up here on the Hill and in Washington?

Mr. KERRY. No.

Mr. SARBANES. The fossil fuel industry has funded efforts for years to confuse and mislead the public on climate science, but here is the interesting development. Even that industry now I think increasingly persuaded, as you pointed to with some of your remarks today, and certainly motivated by the economic models that have shifted dramatically toward more renewable energy is making sense, even that industry is beginning to shift its position, leaving the Trump administration and the President's position really increasingly as an outlier.

So, for example, Shell Corporation recently publicly committed to meeting the goals of the Paris Agreement, as I understand it, saying the need for urgent action in response to climate change has become ever more obvious since the signing of the Paris Agreement, and thank you, Secretary Kerry, for your work on that effort. And, recently, Shell quit a major fossil fuel lobbying group, the American Fuel and Petrochemical Manufacturers, citing "material misalignment on climate-related policy positions," and explaining that the lobbying group had failed to support the Paris Agreement and had supported the Trump administration's rollback of EPA's Clean Power Plan.

I assume, Secretary Kerry—and Secretary Hagel, if you would like to comment as well—that it is at least encouraging that some members of that industry are stepping up and making the argu-

ment that we have to take dramatic action on climate change and are moving away from some of the industry groups and others that still seem to be captive to these other interests and viewpoints that I think are on the wrong side of history.

Mr. KERRY. Well, I think Shell just pulled out—Shell Oil just pulled out of one of the associations—fuel associations that they were members of because the association itself was taking a denier attitude on climate and Shell believes that it is happening.

I would add also, when I was negotiating the Senate bill back with Lindsey Graham and Joe Lieberman and the folks in the Senate, we had the environment community at the table; we had the faith-based community at the table. We had the big oil at the table; we had the nuclear industry at the table; and we had agreement. And I reached a point where BP, Shell, Chevron, ExxonMobil—Rex Tillerson was there at the time—had all agreed to accept a price on carbon. And we were about to announce it publicly on a Monday, and on the Friday before the Monday, the president of BP calls me and says, "Sorry, I cannot be there. We just had a blowout in the gulf." And so we had to postpone, and during the ensuing weeks, about $800,000 was spent in one state against one of our colleagues working hard on this to terrify him that he should pull back, which indeed he wound up doing, and we lost the momentum on the bill.

So, you know, the bottom line is money has a lot to do with how it is spent, affecting the outcome and the attitudes on this issue.

Mr. SARBANES. Thank you.

Secretary Hagel.

Mr. HAGEL. But that said, all the majors are moving in the direction that you are talking about, I noted in this paper yesterday. But what John is talking about, there are other examples, all of them, ExxonMobil, Chevron, all the big ones are moving in this direction. They are not giving up their oil resources or fracking operations. But they see where the future is, and every time one starts to move a little closer to a new era and buying into that future and planning for that future, that is good.

Mr. SARBANES. Thank you.

Chairman CUMMINGS. Mr. Norman.

Mr. NORMAN. Thank you. Secretary Kerry and Secretary Hagel, thank you for coming. I appreciate you taking questions.

Let me just say that, you know, Secretary Kerry, you mentioned up front that you want to get politics out of it. Yet then you took off on our President. You took off on some of the qualifications of his Cabinet. You took off on the tax plan or tax reductions that this party initiated. Now, if you are going to take politics out of it, I do not think it starts with criticizing the President, who I think has had other things at the top of his agenda like getting a stagnant economy back going, like dealing with rogue countries as in North Korea, which were a disaster prior to him coming; you know, like dealing with facing an immigration problem now that he is dealing with that have been kicked down the road and not addressed.

So I think if you are going to take politics out of it, let's have a debate, and I disagree and I think others would disagree with both of you, in all due respect. There are scientists out there who disagree with your findings. If we are going to really have a discus-

sion, let's have the Harrison Schmitts sit down beside each one of you, who was a geologist and Apollo 17 astronaut who disagrees with you. Let's have a Timothy Ball, who is a climatologist. Let's have a Fritz Vahrenholt, who has got his doctorate in chemistry. Let's have this guy right here in Thomas Massie, who is an MIT graduate and is an electrical engineer who has been off the grid with his house for a long time. Let's have that debate, and other than one station of the media, all the other stations have been taking it as a given that climate change is real, which some parts of it are real, but I think it is irresponsible for anybody—and I do not criticize my colleague from the other aisle from New York for her plan. But what I do question is everything has a price tag. You have got to figure out how to pay for something along with proposing what you want to do.

So I think it is irresponsible to do anything otherwise than that, and we cannot just say at the end of the day we are going to pay for it with higher taxes and add a thousand new pages to the Federal Register. That is not what the country wants to hear, and that is why, quite frankly, a lot of people are dubious of the Green New Deal and the other things. You have spoken of solutions. You have not put a price tag on them. You have not put a detailed plan on what do we do next. And I come from a—we are deeply interested in this. I come from Catawba Nuclear Station. They supply 80 percent of our power in South Carolina. There are 60 plants all over the country, and we cannot just spout these facts and figures without having alternate views and take them seriously.

Do you want to respond to that?

Mr. KERRY. I would be delighted to, Congressman. I appreciate the question actually very much.

I am not taking off against the President politically. I am disagreeing with him substantively. It has a profound impact when the President of the United States, after America's leadership that brought us the Paris Agreement, it is a profound setback to pull out of that agreement, saying to the American it places too great a burden on the United States and on our economy.

Mr. NORMAN. That is your opinion.

Mr. KERRY. Well, yes, it is a substantive issue in politics. The truth is it places no burden on America. The agreement per se is an agreement in which each country wrote its own plan. We wrote our plan, and we wrote our plan for Americans, by Americans, with American help from Fortune 500 companies, including the major oil companies who supported the Paris Agreement.

So we have a substantive difference, but the profound impact of the President of the United States pulling away from it and speaking the language of a denier has a profound negative impact on our ability to meet the challenge and deal. When the President says the planet is freezing, record low temperatures, our global warming scientists are stuck in ice, he is mocking it. That is a mockery statement. When he says, "I believe in clean air, immaculate air, but I do not believe in climate change"—he says, "I do not believe in climate change," point blank.

Mr. NORMAN. Mr. Secretary, let me interrupt. I have got 12 seconds. Let me just say I would welcome having you back. Let's get

some alternate views of people who can debate every single issue that you have, and we will put a price tag——

Mr. KERRY. I would be delighted to have it happen, but let me just say——

Mr. NORMAN. Mr. Chairman, I ask for us to—for you to get a hearing set up of alternate views. Let's have these two fine gentlemen debate on a case-by-case, issue-by-issue point, and let's get into how we are going to pay for it.

Mr. KERRY. If you are going to have alternate scientists in, I suggest you have John Holdren and you have, you know, Jim Hansen and a bunch of people who have spent a lifetime on this. But I will just tell you this, Congressman: Ninety-seven percent is not to be sneered at. You can find people, I know that, you can find people who will say anything in today's world.

Mr. NORMAN. On both sides of the aisle.

Mr. KERRY. You can find people to say anything anywhere at any time in this damn world we are living in today, unfortunately, and we have lost the capacity to decide what are the facts on which we as Americans are really deciding things. And a democracy depends on an ability to agree on what the facts are.

Now, two and two is four, and the fact is that 97 percent of the scientists who have worked on this all their life say that this is no longer an issue for debate, it is beyond doubt that anthropogenic impact is what is responsible for the climate change rate—not entirely. I agree with Mr. Massie. Of course, there are natural occurrences that have an impact. Volcanoes contribute. The clouds that come from the volcanoes have an impact. Those enter into the models. All of this is difficult stuff. But no one that I know of within that 97 percent—you ought to have the 97 to three and see where people come out.

Chairman CUMMINGS. Ms. Tlaib.

Ms. TLAIB. Thank you, Mr. Chairman. Thank you both for your incredible leadership and bipartisanship on this critical issue.

I want to start with a quote from Emma Lockridge in my district. She said, "You cannot sacrifice people's lives." She lives near a Marathon Petroleum Oil Corporation refinery in southwest Detroit. She said, "At the end of the day, they are killing us." She said, "We already cannot breathe over here. And the thought that pollution could just go up and the smell is just too much."

Today's hearing makes it very clear that climate change threatens the health and security of each and every American, but the harm done by climate change will not be distributed equally. I welcome any of my colleagues—and I am being sincere about this—to please come to Michigan, come to my district and see what doing nothing looks like.

According to both the October 2008 National Climate Assessment, climate change will have an unequal impact on poor communities and communities of color. The assessment explains, as you all know, Secretaries, multiple lines of evidence demonstrate that low-income communities and some communities of color are experiencing higher rates of exposure to adverse environmental conditions and social conditions that can reduce the resilience to the impacts of climate change.

The report also said, "In urban areas, disruptions in food supply or safety related to extreme weather or climate-related events are expected to unequally impact those who already experience food insecurity."

So, Secretary Kerry, do you agree that climate change will disproportionate harm low-income communities and communities of color?

Mr. KERRY. Yes, absolutely, without any question. I mean, you know, diesel trucks—it is not just climate change. Our environmental policy does it. Where do the diesel trucks go driving through a city? They go through the poor neighborhoods. Look at the numbers of kids in hospitals and elsewhere impacted. I mean, you can see this in many ways playing out.

Ms. TLAIB. Yes, and, Secretary, I will tell you, one of five children have asthma in my district. We have a Right to Breathe Campaign to talk about these issues in a more impactful way. And local environmental justice advocates in Detroit have identified extreme heat and flooding as the key concerns for the Detroit Wayne County area where my district is located, and low-income households are at extreme risk for exposure to heat. A study by the University of Michigan says temperatures in Detroit homes alone were 4 degrees warmer than outside temperatures from July to September 2016, with over 35 percent of those home studied registered average indoor temperatures above 80 degrees.

This trend can be expected to continue. The extent and severity of the temperature increases will depend on the amount of future greenhouse gas emissions, as you both know. And under a higher emission scenario, there will be around 65 days warmer than 90 degrees, and 23 days of those will be over 100 degrees alone in Detroit. This is a sentencing for some of our most vulnerable residents to death if we do not act now.

Secretary Kerry and Secretary Hagel, what are some of the things that we can do to mitigate the impact of climate change on our most vulnerable communities?

Mr. HAGEL. Well, first recognize that we have a problem and then start addressing the problem, locally, nationally, globally. That brings us back to why we are here. What is the role of this committee, our energy committees, our science committees, commerce committees in the Congress of the United States? What is the role of the Governors and the state legislatures, city councils? And there are specific things that can be done, and we have been talking about a high level of things today in kind of a universe of world policy and national security policy. But you have brought it down to the ground level and reality, and that is where you start. But it has got to be a collaborative effort. It has to be a cooperative effort to recognize that we are doing harm to our communities, especially the most vulnerable people in these——

Ms. TLAIB. I could not agree more, and I can tell you, you know, it starts with us in this chamber to take leadership and accepting the science is real and it is true. And I can tell you, I think in the National Climate Assessment it explains and talks about across the climate risk, children, older adults, low-income communities of color are experiencing discrimination affected by extreme weather the most, partially because—and this is to ask all of us—they are

often excluded in the planning process. And I really truly believe that these are front-line communities that are already experiencing what doing nothing on climate change looks like. And they need to be at the table. And, yes, I am here speaking on their behalf, but I ask you both, bring them to the table as you are planning this process, as you are doing the advocacy and educating all of us in this chamber. Bring them here because when we do that, when we localize what is happening now and not doing nothing, because it is already happening across this country. Those voices need to be in this room.

Thank you.

Chairman CUMMINGS. Thank you very much.

Mr. Hice.

Mr. HICE. Thank you, Mr. Chairman. And thank you both for your service to our Nation and in the Senate as well.

Of course, as we all know here, both in the Senate and the House, whenever we cosponsor a bill or a resolution, it is because we support it. We would love to get a vote on it, and I think all of us pretty much would admit that and agree to it, although a "present" vote, as you mentioned earlier, was a political statement. As a general rule, when we cosponsor things, it is because we support it.

The Green New Deal as a resolution is important because it sets forth a precedent, a clear choice for the American people. It sets forth a clear choice between two parties on a very important issue and what we believe and how best to address it.

On the one side, for example—and, by the way, we have had 92, I believe it is, Democrats in the House cosponsor the Green New Deal; virtually everyone running for President in the Democratic Party in the Senate has signed on to it. So this is a statement of where the party is on the solution for the climate issues, and they believe that we must move to a 100 percent zero emission energy position within 10 years—never mind the fact that this could cause a potential nearly 300 percent increase in household energy bills, never mind the fact that it would require rebuilding or upgrading over 100 million buildings, never mind we are looking at nearly 300,000 cars and trucks that would need to be replaced by electric vehicles, never mind it would take half—the Government would take over half of our economy at a cost estimated at $93 trillion. I mean, that is the GDP of the entire world combined. A central planning committee would have to be set up with this.

On the other side, you have groups who believe in free market enterprise, believe in federalism, believe in competition, capitalism, believe that the best way to address this is to get the Federal Government out of it as much as possible and allow the free market to do what it does best. And I certainly hold to that.

I want to see us drive all forms of energy, an all-of-the-above strategy to incentivize competition, to eliminate the barriers that currently exist, and for all of this reason, when we get back from Easter, I am going to the House floor to try to force a vote on this. The American people need to know where their Representatives stand on this issue, and I am putting forth a discharge position so the American people can know. And I hope my Democrat colleagues will not vote "present" but will stand up. Fifteen in this committee

have cosponsored this. The American people need to know where their Representatives stand on these two sides of a very important issue, and so I would hope that we would be able to get some cosponsors or some signers on that discharge petition.

I have got about a minute and a half, I want to go ahead and yield to the gentleman from Kentucky, Mr. Massie, the remainder of my time.

Mr. MASSIE. Thank you, Mr. Hice.

The question was asked earlier, what is the worst that could happen if the climate change alarmists are wrong? And I think it is a right question to ask, but the conclusions were wrong. Here is the worst thing that can happen or some of the bad things that could happen by forcing a transition to renewable energy too soon. We could have higher taxes, lower crop production, higher food prices, wasted energy reserves, and a foolish effort to deplete CO2, which is plant food, from the atmosphere, raise energy prices on the poor. We could have shortages and blackouts for everyone. We could spend millions of man-hours of effort focusing on non-pollution while losing focus on real pollution and real problems that we have to solve, like what to do with our nuclear waste, which this body still has not resolved.

Let me say this: I have lived for 12 years with 100 percent solar, and I am aware of the struggles and the realities and the technical challenges that are involved. There are sacrifices that, frankly, not everybody wants to make. I do not think everybody can make those sacrifices.

I agree with something Secretary Kerry said, and Mr. Hagel. China has installed about four times as much solar panels as we have this year in this country. They are not doing it for the environment. It is a market thing. It is a reason—they are doing it to be energy independent. And I hope that in this country we could use our transition not for a force of big government, but for a force of smaller government and more independence from other countries.

Thank you. I yield back.

Chairman CUMMINGS. Ms. Pressley.

Ms. PRESSLEY. Thank you, Mr. Chairman. And thank you, Secretary Hagel and Secretary Kerry. I consider you both to be patriots with your demonstration of bipartisan work. That is supposed to be the work of this committee where we demonstrate the ultimate patriotism in prioritizing the country and the health of this planet over party politics and gamesmanship.

Just indulge me with a point of personal privilege here. Secretary Kerry, not only do I thank you for your contributions to our Nation, but your contributions in my life personally. The opportunity to have worked for you for 11 years changed the trajectory of my life, and as your former schedule and now as a member, in hindsight I would like to say, "I apologize."

[Laughter.]

Ms. PRESSLEY. But in all seriousness, bringing some levity to a very serious topic here. Secretary Kerry, in our home state of Massachusetts——

Mr. KERRY. I thought you works for me for 15 years.

Ms. PRESSLEY. You might be right. But in our home state of Massachusetts, we have seen firsthand the impacts of climate change, from record snowfall in 2015 to four major nor'easters last year, resulting in record flooding, and these events can lead to very serious public health concerns, including contaminated drinking water. The gentlelady from Michigan was just speaking to these public health impacts.

I want to also lift up not only the increased frequency and severity of asthma as well as the increase of the number of insects who carry diseases like Zika and West Nile.

And so we do need to address these issues collaboratively on the Federal, state, and municipal level, and we have to look at them both in the macro and the micro. And since you have already spoken to the public health impacts, I wanted to just pick up on something in your opening statement, Secretary Kerry, and if you could expound upon this point since immigration has been a very contentious and polarizing issue here. And if you could just speak to the impact on migration and the potential for whole communities and territories to have to migrate and what that impact would be.

Mr. KERRY. Thank you, Congresswoman Pressley. Let me just also say, as another point of personal privilege, how proud I am that you are here, and what an extraordinary public person you are and how lucky I was.

There was an article, I think in—I think it was the New York Times had an article the other day about what is happening in Honduras where climate change is now impacting what can be grown at certain altitudes and what is happening, and people are abandoning lifetime-held land as a result of the inability to grow anymore, and they are migrating. They are becoming part of climate refugee status, which is already existent in other parts of the world. There are many parts of the world where people have had to move.

There is an island nation, Palau; Tommy Remengesau is the President of that country. He has been very involved with us in working on oceans policy, and he is literally planning for where his people are going to move to. This is a nation that will not exist because of sea level rise already, and it is happening.

So this plays to what Secretary Hagel and I have both been saying about—and as we have quoted many, many, many military people. I mean, this is not the two of us sitting here saying that climate change is happening, anthropogenic contribution causing it, and it is going to have multiplier effect. You have the Department of Defense, you have the U.S. Global Change Research Program, the National Academy of Sciences. In fact, every National Academy of Science in the world has agreed it is happening and human beings are causing it. The Intergovernmental Panel of Climate Change, the Office of DNI, former Secretary of Defense Mattis, I mean, you can run the list of people. They are not crazy. They are not stupid. They have given their life to the country. They have taken evidence that has been measured by scientists all around the world, and all of these nations have collectively made a decision that we seem incapable of making collectively. And we have got to stop and ask ourselves why that is true.

Also, I might add, with respect to immigration because it is such a hot issue, obviously, we faced the imminent implosion of the country of Colombia. The narcotraffickers were taking it over, the Cali cartel, the Medellin cartel, and 13 members of the Supreme Court were assassinated in one room in an afternoon in Bogota. I mean, this country was going down.

So rather than sort of shut them off and say we are not going to deal with that and just give it up as a failed state, we put together something in a bipartisan way. Republicans and Democrats came together; we created what was called "Plan Colombia." We put $1 billion on the table. We invested with President Uribe. President Uribe invested in his own country, in his own people, showed remarkable courage because we were with him, and we changed the violence pattern of that country. Just a couple years ago, the President of the country, Juan Manuel Santos, won the Nobel Peace Prize for making peace with FARC, which had been the longest-running civil war in history.

Why did this happen? Because we engaged. That is what we need to do to deal with immigration. You have got failed state-ism happening in Nicaragua, in El Salvador and Honduras and Guatemala. And rather than cut them off, we should be increasing our effort to assist them to prevent people from being the victims of violence and give them a future. That is the way you are far more effectively going to begin to deal with people looking for a better life.

Chairman CUMMINGS. Thank you very much.

Mr. Meadows.

Mr. MEADOWS. Thank you, Mr. Chairman.

Mr. Secretary, I am amazed you said you did not want to get political, and then you go on a diatribe there on an issue that is not even the subject of this particular oversight hearing.

Mr. KERRY. But it is part of climate change. It is part of climate change. Immigration——

Mr. MEADOWS. The President's policy on Nicaragua and El Salvador is part of climate change? How is that the case?

Mr. KERRY. Well——

Mr. MEADOWS. So, Mr. Chairman, I have not interrupted a single person on your side of the aisle, and we get comments.

So, Mr. Secretary, I am one of the few people here that actually has listened to the entire conversation today, is more predisposed perhaps to your message than most on my side of the aisle. I was a wind, solar, and geothermal expert for an electric utility many years ago back when the Department of Energy actually started. I have people on my staff that are looking at a carbon tax and a number of issues, and yet when we come in and say we want to pull out the politics and we start, Mr. Secretary, with all due respect, with hyperbole in some areas, it makes it very difficult to listen to.

For example, your comments that would suggest that the unrest in Syria and the Middle East is largely a byproduct of climate change is just not accurate, and you know that, Mr. Secretary. You were the Secretary of State. Would you not agree that that was a little bit of hyperbole to suggest that climate change is the reason for the unrest and terrorist activity in those countries?

Mr. KERRY. Congressman, I am sorry that, you know, perhaps it was a step beyond the hearing for me to comment on immigration, but it is obviously a big issue, and I acknowledge that.

Mr. MEADOWS. I appreciate your comment.

Mr. KERRY. But coming back to this, I did not say that. I very clearly said that climate change is not the cause of the war in Syria. I said that as my opening comment.

Mr. MEADOWS. But in your opening comments——

Mr. KERRY. But then I said—then I said that you have to——

Mr. MEADOWS [continuing]. you talked about Syria.

Mr. KERRY. But everybody in the region understands that the level of violence, the intensity and some of the sectarian component of it was added to by the million people who descended on Damascus. That is a known fact.

Mr. MEADOWS. That is a known fact. But what is also a fact, Mr. Secretary——

Mr. KERRY. I did not——

Mr. MEADOWS. Hold on. What is also a known fact is historically that particular region has had famines, has had unbelievable unrest, long before there was a combustion engine.

Mr. KERRY. Sure.

Mr. MEADOWS. Long before.

Mr. KERRY. Sure.

Mr. MEADOWS. And so it is the hyperbole that makes it very difficult to have a bipartisan conversation where we try to find a solution to this.

Mr. KERRY. But there is no hyperbole, I think, in saying, as I did, climate change did not cause the war in Syria, but a million people moving because their livestock died due to an unprecedented drought had an impact. That is a reality.

Mr. MEADOWS. But an unprecedented drought—are you suggesting that droughts only started once the combustion engine——

Mr. KERRY. No, no.

Mr. MEADOWS. And that is my point. When you take what is a rational argument and extrapolate it to a point, it makes it very difficult for us to say everything relates to climate change.

Mr. KERRY. No, it does not. And I am not here——

Mr. MEADOWS. It does—well, with all due respect, it does for me, when we look at this. I mean——

Mr. KERRY. I think, Congressman, I said earlier in a couple of answers, I made it clear that there are things that obviously happen naturally. There are components of the models that shift, and I understand that. And that is why there are differences between the models. But even where there have been differences in the models, people agree on the basic precept, the basic concept that human contribution to the rate of——

Mr. MEADOWS. There is no doubt that human contributions have attributed to greenhouse gases. There is no denying as well that fracking has actually decreased the price of natural gas, which actually has changed our mix in what we have used for energy and lowered our greenhouse gas emissions. Would you not agree with that?

Mr. KERRY. Congressman, it is absolutely—you have heard me advocate that we need to have gas used——

Mr. MEADOWS. So you are in favor of fracking?

Mr. KERRY. Fracking—I have accepted that fracking—I have accepted that fracking is currently the methodology by which we have been able to advance technologically to produce our——

Mr. MEADOWS. But it has lowered greenhouse gas emissions.

Mr. KERRY. But, in fairness, I will also say we do not know yet, we do not know the full evidence yet on whether or not subterranean fissures and passages may someday come back to haunt us. We do not have the answer to that yet. And I have——

Mr. MEADOWS. Well, we do have many of those answers, and I will be glad to discuss in private, offline, the science on both of those things. Here is what I am saying, Mr. Secretary, and I will close with this. Let's have real discussions, and the real discussion right now is that fracking has lowered natural gas prices exponentially.

Mr. KERRY. Absolutely.

Mr. MEADOWS. To the point where we actually met the Kyoto Protocol guidelines without actually being a signatory on that particular agreement. Would you agree?

Mr. KERRY. Fracking has been an enormous economic boon, but we actually do not know yet if it is going to be cost-free in terms of downstream impact. We just do not know that.

Mr. MEADOWS. I will yield back.

Chairman CUMMINGS. Thank you very much.

As we go to Mr. DeSaulnier, let me say this, Secretary Kerry: Although it is not directly related, your comments on Colombia, I got your point that engaging—Colombia was a major accomplishment. Major. And I guess what you were saying is that by engaging we were able to resolve that. Is that what you were saying?

Mr. KERRY. I am saying we empowered them to be able to resolve it.

Chairman CUMMINGS. Yes.

Mr. KERRY. They did it for themselves. At great cost, but they did it.

Chairman CUMMINGS. Yes. Mr. DeSaulnier.

Mr. DESAULNIER. Thank you, Mr. Chairman. I want to thank both of you for giving the committee so much of your time. I sense some level of frustration. I will also tell you, you are two of my heroes. I imagine a time when this institution was more based on rational thought and analysis.

I will admit when I was 18 and I was a resident of the Commonwealth of Massachusetts, I registered as a Republican because I wanted to vote for Ed Brooke. I tell people under 30 now that I did that because I wanted to vote for a liberal Republican, and they do not believe there was such a thing.

But times change. I have had many occasions to work with my colleagues on the other side, except on these big instances. So I want to talk about the Green New Deal, with all due respect to its author, and my experience in California. In the 1990's I was fortunate enough to be appointed by two Republican Governors and a Democratic Governor to the California Resources Board. During the Wilson administration, our peer-reviewed scientific panels brought to us the evidence that climate change was real, was going to have a significant impact on the state of California, the snowpack, the

delta, the runoff, and we started to respond to it in a nonpartisan, analytical approach.

So to me—and we had and we continue to have robust cost-benefits that are peer-reviewed, that created great value, that included the public health benefits, which are an international model. But to me the most compelling thing is the economic argument with the exceptions, as Mr. Meadows said, there are things that happen that we have to consider, like fracking.

But California, I am sorry to be parochial, because we did these things 20 years ago, it is sort of a given that renewables and alternative fuels are a good thing to the economy. So I would like to get a response. It strikes me that one of our great national crises, if we do not adhere to the advice you are giving us and the scientists, is our economic growth. I tell my kids that their kids are going to grow up in a world where Chinese cars are probably going to dominate the world if they are capable of mass-producing electric cars in the next five or 10 years. General Motors has indicated that they understand this and are putting more resources in alternative fuels.

So California gets about 50 percent of the venture capital in the United States every year, year after year. A lot of that goes into tech. A lot of it goes into biomed. But a disproportionate amount goes into alternative fuels and renewables where 33 percent—when I was in the legislature, the utility said there is no way we can make it. They made it. They have surpassed it. We are talking about going to 50, 75, 100 percent. All of those things would indicate to me that there is plenty of research that California and the west coast is leading the country when it comes to economic growth.

One of our key things is to make sure that people who are left behind are not left behind, so people who are coal miners need to have more than just career training and job training. But our success in California is a partnership between the building trades, when Republicans supported the building trades, and the environmental community, where the cultural differences in those two groups 20 years ago came together and said, "You are going to have the jobs of the future. You are going to be installing and maintaining these renewable fuels."

We have huge challenges on the alternative fuel side because battery electric cars or fuel cells will not require the maintenance that fossil fuel and internal combustion engines do. So maybe you could enlighten me just in your view of the economic benefits that go to international security for the United States and our leadership when it comes in terms of economic growth for everybody, for a middle class that does well and people who do not have a college degree to do well in a global economy that acknowledges that our dependence on fossil fuels, even if you were to accept the doubts of the science, that the economic growth is sort of inarguably there, that by changing the Europeans and California and the west coast is really leading the world and the Chinese are right behind us. Secretary Kerry or Secretary Hagel?

Mr. KERRY. I have always considered myself a pro-growth Democrat but with sensitivity to the folks who do not always get the shared opportunity, and I think we have to be sensitive to that,

and I think it is particularly important to be sensitive in terms of what we call "environmental justice."

But the future—and I would just say to my friends here, the world is moving rapidly toward this transition. And the fastest-growing job in America today, I believe, I am told, is solar power technician, installer, and the second-fastest is wind turbine technician. So it is happening. There has been an 88-percent reduction in the cost of solar. There has been a 69-percent reduction in the cost of wind in the last 10 years. And you have to look at the trend line of what we are living with. The last 10 years included the hottest year in recorded history. The 10 years prior to that decade was the second hottest. The 10 years prior to that decade was the third hottest. There is sort of a trend line here, I think, over 30 years. And given the science that is added to that trend line, when the scientists in such overwhelming number are saying this is what humans are causing, we have an alternative opportunity here to dominate a market. The global energy market is the biggest market ever, 4 to 5 billion users today. It will go up to 9 billion users in the next 30 years, and already it is a multi-trillion-dollar market. The market that we experienced in Massachusetts and California in the 1990's, when a lot of people made a lot of money, was fundamentally a $1 trillion market with 1 billion users, and yet we created more wealth than we have ever created. In the 1990's in America, every single quintile of earner of income went up.

So I believe to have America on the sidelines not aggressively pursuing this market is to be contrary to the very success that California has had as, what, the sixth largest economy in the world?

Mr. DESAULNIER. Fifth.

Mr. KERRY. Fifth.

Mr. DESAULNIER. Almost fourth.

Mr. KERRY. Fifth largest economy in the world. So I hope we will understand this is economic opportunity. This is not cost.

Mr. HAGEL. You know, I would just add one thing. The reality is we are all global citizens in a global community, underpinned by a global economy. The world is interconnected in every way: climate, environment, economy, security. And I am not sure we always take that into consideration when we are debating, passing laws, making regulation, and doing the things to move this country forward. Sometimes we are too insulated, and we will pay a price for that.

Chairman CUMMINGS. I am going to recognize Ms. Ocasio-Cortez for a unanimous consent request.

Ms. OCASIO-CORTEZ. Thank you, Mr. Chair. Just very briefly, since there seems to be some confusion on how climate change is connected to immigration patterns, I seek unanimous consent to submit to the record this article from the New Yorker on how climate change is fueling the U.S. border crisis, particularly in Guatemala. The question is no longer whether someone will leave but when.

Chairman CUMMINGS. Without objection, so ordered.

Ms. OCASIO-CORTEZ. Thank you, Mr. Chair.

[The New Yorker article referred to is available at: *docs.house.gov.*]

Chairman CUMMINGS. Mr. Jordan.

Mr. JORDAN. Thank you, Mr. Chairman.

Secretary Hagel, who is on the President's task force, this council? Who are the members?

Mr. HAGEL. I have no idea.

Mr. JORDAN. You do not know?

Mr. HAGEL. The President's task force on——

Mr. JORDAN. Yes, we have been talking a lot about it. I just was curious who is on it.

Mr. HAGEL. I do not know. I said in my statement I do not now.

Mr. JORDAN. Do you know when the Executive order was issued to form the task force?

Mr. HAGEL. No.

Mr. JORDAN. That is because there was not one.

Mr. HAGEL. I do not know. All I know——

Mr. JORDAN. There was no executive order issued to form a task force. There is no task force that exists, and, therefore, there are no members on the task force.

Mr. HAGEL. Well, there is certainly a lot of conversation evidently going on in the White House about it.

Mr. JORDAN. Let me ask you this——

Mr. HAGEL. It was picked up by the press reporting it.

Mr. JORDAN. Do you agree with your colleague, Senator Kerry, Secretary Kerry, in his testimony just a few hours ago when he read his testimony, he said, "It is a council of doubters and deniers." Is that accurate?

Mr. HAGEL. Secretary Kerry just handed me a draft of the President's Executive order setting up this task force. Maybe we should include——

Mr. JORDAN. I have got the draft in front of me. I have seen that. It is a draft. It has never been done, never been executed, no one has been appointed. So I am just curious how the Secretary——

Mr. HAGEL. Well, it should not be, and I hope it is not.

Mr. JORDAN. Well, that is no my question. My question is: Do you agree with what Secretary Kerry said when he said, "It is a council of doubters and deniers"?

Mr. HAGEL. I do not know who the council is. I have already told you that. I do not know who it is.

Mr. JORDAN. That is the point. We have had a three-hour hearing talking about this council——

Mr. HAGEL. I think you should direct your question to Secretary Kerry.

Mr. JORDAN [continuing]. that is yet to be formed.

Secretary Hagel, are emissions up or down for the United States over the last 15 years?

Mr. HAGEL. They are down.

Mr. JORDAN. Down.

Mr. HAGEL. Yes.

Mr. JORDAN. Earlier, both of you talked about market forces. It is amazing to me that emissions are down in spite of the fact that we had the first Green New Deal, the loan guarantee program in the Obama Administration, that gave millions and millions and millions of dollars to all kinds of companies, and almost every sin-

gle one of them went bankrupt. And yet, still, somehow the market figured out a way to drive emissions down.

Mr. HAGEL. Well, I think President Obama may have——

Mr. JORDAN. Is that—do you——

Mr. HAGEL. I think President Obama may have had something to do with that, too, and a Congress recognizing what the issues are and the seriousness of the issues.

Mr. JORDAN. I will tell you about market forces. Market forces said Solyndra got a bunch of our taxpayers' money, folks from the 4th District of Ohio, and went bankrupt. That was market forces. Beacon Power got a bunch of taxpayer money, some of it from the citizens of the 4th District of Ohio, went bankrupt. Abound Solar went bankrupt. Fisker Automotive went bankrupt after receiving tons of taxpayer money. That is market forces. And in spite of those companies, which were the end-all, be-all, save-all, emissions went down because the market did it—something you both talked about.

Mr. KERRY. Not just the market, Congressman. The fact is we put in place the strongest CAFE standard——

Mr. HAGEL. The Obama Administration——

Mr. JORDAN. I was talking to Secretary Kerry. Is the Green New Deal, Secretary Hagel, is the Green New Deal bipartisan?

Mr. HAGEL. I do not know. I told you before in my comments in responding to the Green New Deal question, I do not know about it other than what I have read in the paper. I do not know who is cosponsoring it. I do not know the details of it.

Mr. JORDAN. Well, both of you have talked a lot—and I agree with this. Both of you have talked about de-politicizing this issue. Both of you have talked about working in a bipartisan fashion. The Green New Deal has got 91 Democrat cosponsors, 13 Democrat Senators, not one Republican.

Mr. HAGEL. Take that up with the Congresswoman, not me.

Mr. JORDAN. No, I am just asking your thoughts. Would you define that as bipartisan?

Mr. HAGEL. I am not here to defend that bill or testify about it.

Mr. JORDAN. Well, you made——

Mr. HAGEL. You talk to your Congress——

Mr. JORDAN. You have made that clear several times.

How about the statement, do you—I want to go back to—do you agree with what Secretary Kerry said, that the council is made up of doubters and deniers?

Mr. HAGEL. I said I do not know who is on the council.

Mr. JORDAN. So is it an accurate statement? If we do not know who is on the council—in fact, we not only do not know who is on the council, there has been no council formed. How can you conclude it is a council of deniers and doubters?

Mr. HAGEL. Take that up with Secretary Kerry.

Mr. JORDAN. Secretary Kerry?

Mr. KERRY. I made it clear in the beginning——

Mr. JORDAN. I am asking the Honorable Secretary a question.

Mr. KERRY. I made it clear in the beginning that the prelude to the actual language of the draft Executive order, which was obviously leaked by somebody who was deeply concerned about it, said

very clearly that it claims to authoritatively link climate change. It is——

Mr. JORDAN. I am not asking about the Executive order. I am asking about what you told us three hours ago. You said definitively, you said——

Mr. KERRY. The names——

Mr. JORDAN [continuing]. it is a council of doubters and deniers, and I am just asking the fundamental question: How can it be a council of doubters and deniers when it has not even been formed?

Mr. KERRY. Well, it would be. Congressman, you are quibbling. It would be.

Mr. JORDAN. It would be.

Mr. KERRY. Clearly——

Mr. JORDAN. Now we know you can foretell the future. That is——

Mr. KERRY. No, because there are several names that have been also leaked about the people who have been approached with respect to membership on this, and so, you know, I can submit their names if you really want that. But I do not think it is necessary. For my judgment to be made, it was made on the basis of Mr. Happer's experience, his background, his lack of being a climatologist, and various other statements he has made publicly, including——

Mr. JORDAN. I am not here to defend Mr. Happer. I am just asking about a simple statement you made. You already know who is on the council——

Mr. KERRY. I stand by my statement.

Mr. JORDAN [continuing]. you already know—well, I know you stand by your statement.

Mr. KERRY. The purpose of this council——

Mr. JORDAN. You already know who is on the council, and you already know the conclusions they are going to reach, even though there has been no council formed——

Mr. KERRY. No, I do not know—I do not know——

Mr. JORDAN [continuing]. and no Executive order creating the council in the first place.

Mr. KERRY. I do not know at this point in time who all the members are. I know enough members, and I know the purpose of it, and I know with clarity what it is doing. What is the secrecy about it? Why don't they ask some of the top people in the country——

Mr. JORDAN. There is no secrecy about it because it has not been formed.

Mr. KERRY. Well, come on. You are playing games now, Mr. Ranking Member.

Mr. JORDAN. No, I am not. You are playing games.

Mr. KERRY. Yes, it is really——

Mr. JORDAN. You are taking all kinds of latitude with an Executive order that has not been issued.

Mr. KERRY. No. I am hoping it never will be issued——

Mr. JORDAN. I guess I am out of time.

Mr. KERRY [continuing]. and I trust that because I and others have raised this issue about it, 58 national security concerned people, that this will never be issued because it does not deserve to be——

Mr. JORDAN. Maybe you are right. Maybe you are right. I do not know.

Mr. KERRY. Well, it could be that they have been warned off by this hearing and by other things.

Mr. JORDAN. I just think we have had three hours of talking about something that has not even been formed.

Chairman CUMMINGS. Ms. Wasserman Schultz? Ms. Wasserman Schultz.

Ms. WASSERMAN SCHULTZ. Thank you, Mr. Chairman.

Mr. Secretaries, it is good to see you both, and thank you both for your real serious devotion to making sure that we can actually get the facts out about global warming and climate change.

Secretary Kerry, I do just want to point out—this is not what I intend to ask you about, but I do want to point out that if we are going to talk about the so-called White House Panel on Climate Change, that apparently it has been widely reported that William Happer has been spearheading the proposed White House Panel on Climate Change, and he believes that CO2 has undergone decade after decade of abuse for no reason, and that he has compared carbon dioxide similarly to the treatment that Jews received under Hitler.

So would you say that it is legitimate to suggest that someone spearheading a proposed White House Panel on Climate Change that had those beliefs perhaps was a doubter or someone who had no idea what they were talking about?

Mr. KERRY. Obviously, for sure, which is what we said earlier.

Ms. WASSERMAN SCHULTZ. Okay. So, Mr. Chairman, I have an article here from Vanity Fair that describes the individual, Mr. Happer, which I would like to ask unanimous consent to enter into the record.

Chairman CUMMINGS. Without objection, so ordered.

Ms. WASSERMAN SCHULTZ. Thank you.

[The Vanity Fair article referred to is available at: *docs.house.gov.*]

Ms. WASSERMAN SCHULTZ. Now, to ask you both—I want to thank you both for being here. President Trump and his appointees really have seemed intent on casting doubt on the science of climate change, and they are joined by our colleagues, unfortunately, on the other side of the aisle. There is already a consensus on climate change. The Federal Government's definitive statement is the National Climate Assessment. The assessment represents the consensus view of 13 Federal agencies and more than 300 experts from Federal, state, and local governments, universities, and the private sector. The entire 1,500-page report was peer-reviewed by the National Academies. This document represents the zenith of current scientific understanding of the dangers of climate change. The report said that climate change will have a startling impact on the American economy, costing us hundreds of billions of dollars per year by the end of the century.

I see this happening at home in South Florida as well where properties are sinking into the sea, beaches are eroding, and algae blooms get worse every few years. It is disappointing but not surprising that President Trump, who has repeatedly demonstrated an

irrational hostility toward science, disbanded the advisory committee that provides guidance to the Government based on the assessment.

So Secretary, both Secretaries, do you agree that the National Climate Assessment went through a rigorous scientific review process?

Mr. HAGEL. Yes, it did.

Ms. WASSERMAN SCHULTZ. Secretary Kerry?

Mr. KERRY. Yes.

Ms. WASSERMAN SCHULTZ. Do you agree the assessment represents a consensus view on the science of climate change?

Mr. HAGEL. Yes.

Mr. KERRY. Yes.

Ms. WASSERMAN SCHULTZ. Do you know of any reason why the American public should not trust the results of the assessment?

Mr. HAGEL. No.

Mr. KERRY. No. I don't either.

Ms. WASSERMAN SCHULTZ. Thank you. Now I chair the Military Construction Veterans Affairs Appropriations Subcommittee. And so I have a very specific understanding how the Department of Defense has been struggling with the consequences of extreme weather, and it's taking a toll.

The Air Force is looking for $5 billion to restore Tyndall Air Force Base, in my home state of Florida. Offutt Air Force Base, in your home state of Nebraska, Mr. Secretary, has been devastated by historic flooding along the Missouri River. It drowned a third of Offutt under water. Hurricane Michael bulldozed Tyndall Air Force Base. The marines need more than $3 billion to restore Camp Lejeune after Hurricanes Florence and Michael tore through North Carolina.

Secretary Hagel, you understood the criticality of missions at Offutt as secretary, but you also represented the base as a senator, and you know better than most what the consequences of record flooding there could entail.

The new U.S. Strategic Command, STRATCOM, headquarters was built on higher ground because they were aware of some flood risk, albeit probably not the extent that what actually occurred. There were levees that were ultimately breached, but those levies gave the air force time to prepare for the flood.

Secretary Hagel, what if someone convinced STRATCOM that there was no threat of flooding? What if they were told there was no need to build levees or come up with flood evacuation plans? What if they built STRATCOM on lower ground in harms way, and it was knocked out by the flood? What if someone directed DOD to ignore the risk? What would the mission consequences be, and how would an incident like that impact our national security?

Mr. HAGEL. Well, reality is reality, and when the base was built many, many years ago, and upgraded, and those dikes were built, and upgraded, it was anticipation of flooding, not historic. I mean it's biblical——

Ms. WASSERMAN SCHULTZ. Right.

Mr. HAGEL [continuing]. proportions.

Ms. WASSERMAN SCHULTZ. Right.

Mr. HAGEL. But it was never intended it would be that bad. But they knew, 20 years ago they knew. When I was in the Senate, I remember talking then with Defense officials at Offit about the possibility of devastating flooding. They weren't prepared. They had dikes built. But what happened this time is something that the people out there and in the Pentagon had considered possible with the climate change and the environment changing.

John Kerry said something exactly right on this. The rate of change, the rate of destruction that we're seeing around the world in every way, flooding, hurricanes, typhoons, wildfires, we didn't even anticipate even close to that, knowing that we had to anticipate something.

So we've got to factor this into future planning, and build accordingly. Probably what it is going to mean is some bases are going to have to be changed, moved, or in some way adjusted, because the seriousness of this is not going to go away.

Ms. WASSERMAN SCHULTZ. And I know my time has expired, Mr. Chairman, but I will just note that all of those provisions that were prepared, were prepared based on climate science.

Mr. HAGEL. Yes.

Ms. WASSERMAN SCHULTZ. Actual hard data. Thank you. I yield back the balance of my time. And thank you both for your service.

Mr. GROTHMAN. Thank you.

First of all, Secretary Kerry, I just want to point out something that I do not feel was accurate, or at least implied as inaccurate, that you said leading off today, particularly with so many children around.

You started off by saying during the cold war no one in public would have been taken seriously if they did not offer a policy to counter the Soviets. I am old enough to remember a lot of the cold war. I am old enough to remember tens of thousands of people marching "Ho, Ho, Ho, Ho Chi Minh," who clearly wanted victory for the Atheistic Totalitarians who lived in North Viet Nam. And I remember a lot of politicians kowtowing to those people at the time, and eventually they kind of got their wish when they defunded the war, and we had over a million people die in Cambodia, and all the churches shut down in South Viet Nam.

And I just think it is something for any of the young people listening here, they ought to look into all of the politicians who seem to be on the other side at that time of our history.

Now I want to talk to you a little bit about being open-minded, Secretary Kerry. I mean I am old enough to remember—just as I remember people who wanted the United States to lose in Viet Nam, I am old enough to remember experts being quoted in Newsweek or Time in the 1970's about global cooling.

And at the time we were assured by people who were experts in the field that food production was going to go down, and we were going to have huge problems because of it by the turn of the century. So when that did not happen, it kind of makes me a little bit skeptical, and I don't always believe everything any, I'll call them global alarmist, says.

I know that over 20 years ago there were experts before the United Nations who talked about if we didn't do something within 10 years this global warming thing would be a disaster, and we

couldn't turn back from that. That was back in 1989, and those global alarmists have since proven to be false.

I have with me here an article that appeared in the Financial Post a couple years ago strongly questioning your 97 percent figure, and they say that among the American Meteorological Association it is way under that figure. There are all sorts of people who believe that global warming or manmade global warming doesn't exist.

How much do you, Secretary Kerry, do you ever interact with people who don't share your worldview here, particularly, because so many times in the past the alarmists have proven to be wrong? Do you ever show up with them?

I know today we set up a situation which have two likeminded people testifying before us, which is very unfortunate. But do you ever spend any time dealing with these people who may have a different view than your own, people who maybe predicted all along we wouldn't have a disaster by the year 2000?

Mr. KERRY. I have spent a lot of time with a lot of people who have different points of view on many different issues. I seek them out, and I spend time trying to examine my own issues versus theirs. Sure.

Mr. GROTHMAN. Have you read articles, you know, that——

Mr. KERRY. Yes, I have. And I have talked to many—I have talked to, you know, people who allege that climate change isn't as bad as it thinks, and why they think it, and——

Mr. GROTHMAN. I encourage you to keep doing it. I encourage our chairman to have another hearing in which we are able to bring in people who maybe don't—have another opinion other than yourselves. Like I said, I'd like to put into the record an article in the Financial Post that strongly——

Mr. KERRY. Let me just say to you, Congressman, I have spent now——

Mr. GROTHMAN. No. That's Okay. I only have a limited amount of time, and I'd like to yield the rest of my time to my good friend from Kentucky, Thomas Massie.

Mr. MASSIE. Thank you, Mr. Grothman.

People ask me is the next generation going to be better or worse off than our generation. And I think it's a crazy question. Of course, they're going to be better off, because you've got engineers, and entrepreneurs, and inventors laboring in a system of free markets, capitalism, and strong intellectual property. And so for politicians to sit here and take credit for solar power is a little bit like the rooster taking credit for the sunrise.

But I think we're on the verge of, in our lifetimes, we are going to have an energy revolution, and it's going to be because of those entrepreneurs. And our job here is not to screw that system up, because if we do, there is going to be suffering.

I mentioned before that China has installed a lot of solar in the past few years. They have capped it now, because there are technological limitations. You put any more on their grid it's going to destabilize it, and we're going to be in the same situation soon, and that's why we are waiting on a better battery. Right now it takes 30 cents a kilowatt hour to put power in and take it back out. Nobody's going to pay that.

So that's what we're facing now. We need a technological breakthrough. We don't need another government program, and the free market will do that.

Thank you, I yield back.

Chairman CUMMINGS. Mr. Gomez.

Mr. GOMEZ. Thank you, Mr. Chairman.

I said also, not on just Oversight, but I also said on the Committee of Ways and Means, when it comes to this Administration, I notice a reoccurring theme. They view the practice of transparency as a nuisance. Whereas most Americans see transparency as essential to our democracy, this Administration responds to oversight requests as if they are Presidential harassment.

So I'm not surprised that I've heard reports that the White House could structure their proposed climate panel to avoid the requirements of the Federal Advisory Committee Act, or FOCA. FOCA requires committee meetings and records to be open to the public. So if the White House conducts their panel, their climate change panel in secrecy, the public would have no idea whether the panel was meeting with fossil fuel lobbyists or campaign donors.

Secretary Hagel, do you agree that any White House committee on climate change should be open and transparent?

Mr. HAGEL. Yes.

Mr. GOMEZ. FOCA also requires committee membership to be "fairly balanced in terms of the points of view represented and the functions to be performed." Avoiding FOCA would make it easier for the White House to stock the panel with climate change deniers.

Secretary Hagel, do you think a panel made up entirely of individuals who do not believe in climate change is likely to make any meaningful recommendations about climate science or policy?

Mr. HAGEL. No.

Mr. GOMEZ. In contrast, the National Climate Assessment was developed through a process that was entirely in public view. The assessment represents the consensus view of over 300 experts from both government and the private sector, and was peer-reviewed by the National Academies of Science, Engineering, and Medicine.

What's more, the author conducted a "series of regional engagement workshops that reach more than 1,000 individuals and over 40 series." The author also had listening sessions, webinars, and public comment periods to receive input from Americans from all walks of life.

Secretary Hagel, based on reporting so far, is it fair to say that the proposed White House panel may be far less transparent than the National Climate Assessment?

Mr. HAGEL. Well, what we know, but we don't know anything yet. There's no executive order, as Mr. Jordan has pointed out, so we don't know what we've got.

Mr. GOMEZ. Okay.

Mr. HAGEL. So it's all speculation on everyone's part.

Mr. GOMEZ. Given that the National Climate Assessment was a result of a transparent process, has it already been peer-reviewed as a non-transparent White House panel likely to add value?

Mr. HAGEL. Is it—I'm sorry?

Mr. GOMEZ. Would the panel add value if it's not transparent and open to the public for review?

Mr. HAGEL. I don't believe so, because there will be a question of trust and confidence in the panel, the makeup, if it's not transparent.

Mr. GOMEZ. And I'm also concerned that the White House climate panel will be no different than the Vice President Dick Cheney's energy taskforce, which was famously—held secret meetings with oil companies, lobbyists, and republican donors. Perhaps, unsurprisingly, the Cheney taskforce recommended giving handouts to oil and gas companies.

Secretary Kerry, should we be concerned that the White House climate panel would cater to the oil and gas industry like the Cheney taskforce did?

Mr. KERRY. Well, I think it is one fair concern.

Mr. GOMEZ. Doesn't the public have a right to know who's on the panel and who's meeting with it, and how they would arrive at their conclusions?

Mr. KERRY. Absolutely.

Mr. GOMEZ. One of the things I asked to—I was trying to get the ranking member to yield to me, because I think a fair request is if any panel that's conducted by this administration should meet the FOCA requirements. Do you agree with that statement?

Mr. KERRY. I do.

Mr. GOMEZ. And before I end, I just want to kind of make a statement. We've heard a lot of criticism from our republican colleagues about the Green New Deal. The Green New Deal is a bold and ambitious at its goals. It doesn't really stipulate how to get there. But I believe it has to be ambitious. Decades of inaction on climate change have put our country in a position where we need bold action.

Just like our Nation's infrastructure. The more it decays, the more it falls apart, the more costly it becomes. We dealt with that in California, and we're paying the price for it.

If Congress had taken steps years ago when the climate science was clear, you know, we would be able to just have incremental changes. California started on this path almost 15 years ago. Many more years ago actually if you've taken, you know, the gas—our tail pipe emissions standards, and the like. So being bold is just to make up for the lack of urgency that previous administrations, previous Congresses failed to really address this issue.

So I know there will be a lot more discussion on this topic, but I want to just say that we believe that we need to act now for future generations.

And I thank you, and I yield back.

Chairman CUMMINGS. Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman, ranking member, members of the committee. Thanks for the opportunity to share my thoughts and pose a few questions to the witnesses.

And first, let me apologize, if I have any excess emotion over my normal level, I just returned from an internment of a special operator over at Arlington who died in Syria. He is from my district. I represent Fort Campbell, Kentucky area.

I think everyone here recognizes that our planet is an amazing place, and while we should look at all the climate theories with a critical eye, we can all admit that we can harm our planet, and we should always cleanup after ourselves, and we should focus ourselves on sustainability, as our farmers have for many years.

My concern for this briefing is that we are focusing on the wrong agency, particularly to address these concerns. And let me explain what I mean if I were to ask our witnesses the purposes of the Department of Defense, I assume they would answer it, "Sir, it is to defend our Nation against all enemies and war, and to deter war through strength." With that purpose in mind, we could also ask the question that is there's $1 in the budget spent on, say, climate research or excessive costs of energy, that is a dollar that is not spent on flight training, or tank maintenance, or weapon marksmanship, or ship readiness.

If I ask that, I'm certain that the witnesses would agree that if we spend a DOD dollar on non-warfighting capability, it decreases the potential of our warfighting capability.

Since this hearing is about the national security ramifications of climate change, I assume a possible scenario that the witnesses might propose or would be concerned about are the potential wars that might be started after famine or other natural disasters allegedly caused by climate change.

But let's think about what that means. The end result is potentially war. And there's one department in the U.S. Government that exists about determining when those wars, should they happen, shouldn't we then let them use all of their resources to train to deter war, and win it, if necessary. And I say yes.

I propose some non-hypothetical questions. These are not hypotheticals. This is just the current assessment in the open-source information about where our military is. I ask the question how many fighter pilots are we short in the United States military. It's not classified. It's well over 1,000.

How many ships are we short if we go back to winning the two strategies as opposed to the current strategic imperative of one contingency, and deter another contingency? If we go back to winning two simultaneously, and if this is such a great crisis that's going to produce those needs for military, we should go back to that two scenario—how many ships are we short? Fifty-six.

What's the percentage of our combat battalions at the top line of readiness? Again, open-source information. Thirty-three percent. Thirty-three percent.

What's the average age of our aircraft? Twenty-eight years. The oldest in the history of the United States.

Mr. Secretary, let me just tell you, when I went to war in 2003 and 2004, our force was second to none, and it was honestly an unfair fight. It was just an unfair fight. If we're preparing for some national security crisis second to climate change, it would be an injustice to send American's sons and daughters to war where they did not have the very best equipment, training, and leadership, and that costs money.

In the business world we confront the opportunity costs of our decisions every day. To put it bluntly, the Department of Defense has one purpose, and that is to kill our enemies. Your use of the

national security threats surrounding this issue prove my point. There are tigers in the world, and we need men and women that we train to fight those tigers to be elite at every level.

Forcing them to spend money, forcing the department to spend money on anything but preparations to do their mission has the opportunity costs, and it's measured in tombstones in Arlington. We must not use a single dollar of the Department of Defense budget to address the climate change issue. And that is my statement for today, period.

Mr. Chairman, I'd like to yield the remainder of my time to the gentleman from Kentucky, Mr. Massie—to the ranking member then, Mr. Chairman.

Chairman CUMMINGS. Ms. Norton?

Ms. NORTON. Yes. And I want to speak to the gentleman's notion that no money should be used for our military to combat climate change. First, I want to say how grateful I am for this hearing, Mr. Chairman. Congress as an institution has failed the American people by failing to do something about what I regard as the most important issue for our country and for the world today.

I'm pleased that we have a select committee on the climate crisis, and that this committee has a new subcommittee on the environment. And I want to directly respond to this notion relating to the military with facts and figures that we have to face now. And my question really goes to the impact on national security of climate change, notwithstanding this administration, and some of my friends on the other side.

The Defense Department itself has issued a report to examine the vulnerability of 79 military bases to climate-related events. And they issue these sobering results, 36 bases are vulnerable to wildfires. Forty-three are vulnerable to drought. Fifty-three of our bases face recurrent flooding caused by sea-level rise and storm surges. That's the Defense Department speaking.

Secretary Hagel, how does the vulnerability of our military bases to extreme weather impact national security?

Mr. HAGEL. Well, it's a centerpiece for national security, because not only does it affect the infrastructure, it affects readiness and preparation, just as we know from the destruction of Tyndall Air Force Base in Florida. Seventeen of our F–22s were damaged, some of them significantly damaged. They're out of the lineup now. Seventeen F–22s are out of the lineup because of the damage during that hurricane.

Readiness affects the bases in North Carolina, Fort Bragg, and others, where they can't train. They've got to rebuild. They have to shift their people, and their structures, and their readiness, and their planning, and move those people to different places.

And you could go on and on, the differences and the dynamics, and the results, and the consequences——

Ms. NORTON. That's very explicit, Mr. Secretary.

Mr. HAGEL. But it is very clear that planning—let me just finish. Planning for climate change is not some frivolous waste of time, a waste of money. It is essential to our troops and to their wellbeing, and the national security of this country.

Ms. NORTON. Thank you, Secretary.

It is not coming. It is here. And that is why I cited those base statistics. And I want to cite some more, because of the effect on several of our military installations. Offutt Air Force Base, in your home state, Secretary Hagel, is the headquarters of the U.S. Strategic Command, which is responsible for nuclear weapons already hit by climate change.

Tyndall Air Force Base took a direct hit from Hurricane Michael. That was the strongest storm on record of the Florida Panhandle.

The Air Force estimates repairs will cost $3 billion. Hurricane Florence slammed North Carolina in September to cause massive damage to Camp Lejeune. California, the Vandenberg Air Force Base has experienced multiple wildfires, including one that delayed a satellite launch.

Secretary Hagel, do you agree that climate change continues to change the costs of repairing our military facilities and will increase as we face more climate change?

Mr. HAGEL. Yes.

Ms. NORTON. What do the armed forces need to do to become more resilient to these climate change threats that they're already facing?

Mr. HAGEL. Well, they have to plan for the reality that we are going to have more. And they will be more severe. And that means probably having to relocate some bases, especially in Norfolk, for example, very vulnerable, our Atlantic Fleet, on the coast.

But bases within those numbers, those statistics that you cited, are all going to have to be looked at and reviewed as to how serious it could—more, and probably more disastrous climate change events happen, and what would be done to those bases, and what would be the consequences if they didn't do anything, if they didn't move, or change, or dikes, or something.

So this is reality. This is what they have to plan for.

Ms. NORTON. Your testimony has been very helpful, and I yield back.

Chairman CUMMINGS. Mr. Cloud.

Mr. CLOUD. Hello. Thank you for being here, continuing on with this, and for the time you've taken to be here for this committee.

Is the world demand for energy growing or shrinking?

Mr. KERRY. Growing. It will probably double in the next 15, 20 years.

Mr. CLOUD. Right. And if the United States were to suddenly stop production of fossil fuels, where would the world get its energy?

Mr. KERRY. Well, nobody is talking, I don't think—I mean we're not talking about stopping or use fossil fuels. We're going to use fossil fuels, as I said, for some time in the future.

Mr. CLOUD. Right.

Mr. KERRY. The question is how, which one, and at what rate are we going to transition to try to hit a low carbon, no carbon economy by 2050.

Mr. CLOUD. I appreciate the fact that we need to look at a mixed energy portfolio, but there have been proposals out there that suggest that in the next 10, 12 years we need to get rid of fossil fuels.

Generally speaking, do U.S. companies produce energy cleaner or more responsibly than those in developing nations?

Mr. KERRY. Generally speaking, in developing nations, yes, absolutely. We put together a $100 billion fund in the Paris agreement, which was supposed to help those countries to leapfrog, so that they could develop, create stability, grow, but do so in a responsible way. And unfortunately, there's almost no money in the Green Climate Fund, is at $5 billion.

Mr. CLOUD. Well, you mentioned that we're, as you put it, not in the game as a Nation. But carbon emissions in the U.S. has decreased by 42 million tons in 2017. So it seems that we're one of the world's leaders in carbon emission——

Mr. KERRY. We were. 2017 was a very good year. And as I mentioned earlier, in 2017, 75 percent of the new electricity that came online in the United States came from solar power. That's good. Unfortunately, this year we're going up again in terms of emissions, as is Europe and other parts of the world.

So we've had a good year. We made some gains. But now we're moving in the wrong direction.

Mr. CLOUD. It seems to me that we're maybe moving in the right direction in the sense that a lot of our advancements have also been in the production of L&G.

Mr. KERRY. In what?

Mr. CLOUD. L&G.

Mr. KERRY. Yes, it has. Yes.

Mr. CLOUD. And in the sense of, we're talking about national security today, that if the amazing transition that our Nation is making from an energy-dependent nation to an energy-dominant nation is providing our allies and other nations across the world a new place to get energy. And to me, that's a national security win, a big national security win

Mr. KERRY. Absolutely. Congressman, I advocated for energy independence for years, and I welcome it. It's fantastic. It's a great tribute to American ingenuity, to our technology, and people deserve credit for it.

Natural gas is obviously a critical bridge fuel to help us create a virtuous grid, a smart grid, where we're minimizing our emissions. But, you know, some people are fighting to add coal to that. And that would be moving in the wrong direction.

Mr. CLOUD. Well, some people are also advocating that we get rid of fossil fuels in the next 10 years, and——

Mr. KERRY. Well, yes. And I don't think it's possible to do it in the next 10 years, needless to say. But over the next 50 years, 40 years, next 30 years, we have an incredible capacity to develop new fuels. And what we need to do is put enormous resources into mission innovation, enormous into consortium R&D.

Maybe hydrogen will be a fuel of the future, if we could bring it to scale. It's flammable. It's got some problems. But if we can bring it to scale, it's possible to do that. Possibly battery storage is going to have a massive breakthrough, which would be a gamechanger all across the board.

I have confidence in the future. What I'm afraid of is, as a country, we are not coming together, the Congress, the President, to push that future to create the incentives that will help it work.

I mean why is it that in 2019——

Mr. CLOUD. I only have 40 seconds. I'm sorry.

Mr. KERRY. I'm sorry. Okay. Go ahead. You've been very fair.

Mr. CLOUD. I agree with you that I think technology is the answer. I think the great huge push in something like the Green New Deal to shutter the progress we have made in energy, and that technological advancement is based on a thriving economy. That's how those advancements are funded, with market principles and such.

And so a diverse portfolio that makes us a world's leader in energy I do think is the best way to go for national security. I think that's a bipartisan issue.

We mentioned, you know, the importance of not taking crises and looking at them on the merits of the issues. I just ask in the context of national security, it's been said by our chairman here that the debt and the border are manufactured, are fake crises. Do you think that those two are real crises or fake crises?

Mr. KERRY. That the what?

Mr. CLOUD. Both our debt and the issues going on with the border.

Mr. KERRY. Our debt?

Mr. CLOUD. Our debt.

Mr. KERRY. Yes.

Mr. CLOUD. And our border.

Mr. KERRY. I think our——

Mr. CLOUD. Are those real or manufactured crises?

Mr. KERRY [continuing]. debt is increasing, and moving in the wrong direction. And we're going to have an increasing deficit problem, I believe.

I think we have a problem on the border. I wouldn't call it a crisis. I think there is an easy way to deal with it in a fair-minded way, and we are not being offered an opportunity to do that.

Chairman CUMMINGS. Thank you. Mr. Khanna.

Mr. KHANNA. Thank you, Mr. Chairman. Thank you, Secretary Kerry, Secretary Hagel for your service.

Let me say I actually agree with my friend, Representative Jordan, about the history, that the Green New Deal isn't a new idea. Thomas Friedman wrote a whole column about it in 2007, and President Obama adopted part of it in his platform in 2008. I know. I served in his administration, far lower level than either of you. I was a lowly deputy assistant secretary at Commerce. But I was proud of the work.

And Alexandria Ocasio-Cortez just came over. She's introduced the Green New Deal with new energy. But she reminded me that the Energy Department in the Obama Administration actually funded Tesla. And I know Representative Jordan wants to pick on the one or two things that didn't work.

Let me tell you, in Silicon Valley you'd be going to Kleiner Perkins and saying, "Well, you invested in all these wrong things. Oh, forget that you invested in Google." You know, we at least ought to talk about the things that succeeded.

Now here's why Tesla matters, and I'd like both of your thoughts on this. China, as I understand it, has 50 percent of the market on electric vehicles. Fifty percent. And China is going to spend $450 billion on clean energy. And China right now has about 20

percent solar and wind. We are at 10 percent. They're projected by 2025 to be 41 percent.

My question is this: Put aside even whether you believe in climate change or not, let's talk about a green energy race. Is there a single American, in your view, Secretary Kerry or Secretary Hagel, democrat, republican, I don't care what party, who believes that America should lose the green energy race to China?

Mr. KERRY. I hope not.

Mr. KHANNA. Secretary Hagel?

Mr. HAGEL. I'd be giving the same answer. I hope not.

Mr. KHANNA. So let me ask this, and I just want to put in the record that the Green New Deal resolution doesn't say anything about getting rid of fossil fuels in 10 years. I certainly don't think 10 years is some magical number.

But if you were going to be president of the United States in 2020, and Secretary Kerry, of course, you've run for president, and you were saying that a very simple promise to the American people, by 2024 or 2025, America will beat China when it comes to clean technology. That's it. We're going to do what it takes. What would you recommend that we need to do to make sure that we're ahead of China by 2025?

Mr. KERRY. Well, first of all, I think it would be very exciting. I think that would be our moon shot, so to speak. I think it would be one of the great challenges that the American people would respond to, providing it was accompanied by a realistic set of proposals for how we do it, to begin with.

As I said earlier, a massive commitment to technology R&D, reverse incentives. We ought to be providing incentives for—it has been a struggle. We managed to keep them temporarily, at least, on solar, wind, et cetera. But electric vehicles, we ought to be doing whatever is necessary to try to advance battery storage, battery capacity. That's going to be critical to leadership in the electric field.

And there are a number of other incentives, I think we could put—energy efficiency. There are huge gains to be made in efficiencies. It's probably the lowest hanging fruit of the energy choices that we face. But R&D is the biggest single piece of this.

Technology is what is going to do it, and if we put the right incentives in place, money is going to come pouring in from the private sector, because people want to be winners, whatever it's going to be, the next Sergey Brin, the next Bill Gates. That's what excites people's imagination. And this is the sector we ought to be doing it in.

Mr. KHANNA. Well, let me ask both of you this, a final question, because whether people agree or disagree with your particular ideology, I don't think anyone would question both of your patriotism and extraordinary service to the country and national security expertise.

And if this president is right, that China poses the long-term biggest strategic threat to the United States' competition, how critical do you think it is, from a pure national security perspective, that we win the energy race against China to maintain America's weight?

Secretary Hagel.

Mr. HAGEL. Thank you. Let me answer the other question, and then I'll get to that question.

Very simply, in addition to what Secretary Kerry said in answering your first question, smart government and regulatory policy, and let the market work. Those are the two big factors. Let the market work, because our market does produce better than anybody, and it's free. We have a nation of laws, the infrastructure, but the government and regulatory policy to go with it have to be smart.

Now your second question?

Mr. KHANNA. How critical is beating China on energy to make sure America——

Mr. HAGEL. I think it's absolutely—no question. It's absolutely necessary, essential that this country not lose that race to China, because it affects not just this country, but it affects the world. It affects other countries and technologies that they will buy and they will use. We just can't afford to give that up. We must lead.

Mr. KERRY. And while we're at it, Congressman, it is a very important question, it's critical that we also face up to the realities of what's happening with cyber. We need to make much more significant effort to create rules of the road in the same way that we reigned in the possibilities of nuclear confrontation in the 1950's, 1960's, 1970's, et cetera. We need to be working for much greater restraint with respect to cyber today. It's as big a threat as any of the other security challenges that we face.

Mr. KHANNA. Thank you.

Chairman CUMMINGS. Mr. Gosar.

Mr. GOSAR. Thank you, Mr. Chairman.

Today's hearing proves that democrat leadership is tone deaf and out of touch with the issues that the American people actually care about. A hearing to threats of our national security should be focusing on the ongoing crisis at our Southern border, as opposed to the publicity stunt that we see here today.

In fact, climate change has been changing all through the life of this planet. I've got a fossil right here from Western Wyoming, a desert, that once was under an ocean.

Now on March 18, more than 125 scientists, climate experts, and leaders on energy and environmental issues sent President Trump a letter urging him to set up a commission to conduct an independent review of the fourth national climate assessment. Mr. Chairman, I ask permission to submit the letter for the record.

Chairman CUMMINGS. So ordered.

[The Letter for the Record referred to is available at: *docs.house.gov.*]

Mr. GOSAR. Now Mr. Chairman, if the democrats are so confident that their fundamentally flawed report, written mostly by career bureaucrats under the Obama Administration, why are you opposed to having the science analyzed, and the report independently reviewed by a commission? If the science from the report is factual, then it should hold up under independent review, correct? But we all know the report was bogus, that it utilized computer models that predicted excessive warming, and negative impacts associated

with increased warming were derived from highly unrealistic scenarios that surface temperature data was also manipulated.

In fact, we're spending, as proposed by the Green New Deal, $93 trillion. You think you'd want to explore everything under the sun to make sure that it was right.

Now I'm pleased that Representative Cortez actually showed up today. We actually had an opportunity with the Western Caucus for her to actually have a discussion with it. She initially RSVP'd, and then backed out a day before.

Now for decades alarmists have been using scare tactics and false science to push environmental agendas. The Green New Deal is no more than rhetoric and the false narratives. On December 13, 2009, former president candidate Al Gore citing so-called scientific reports predicted there was a 75 percent chance that the entire north polar ice cap could be completely ice free in five years.

Mr. Kerry, is there any ice on the Arctic Cap today?

Mr. KERRY. Yes, there is, but it's——

Mr. GOSAR. What it basically shows is there's flaws to predictability, and that's what I'm pointing out.

Now according to the think tank data progress, the Green New Deal will ban plastic straws. Mr. Kerry, do you ban the use of plastic straws in America?

Mr. KERRY. Do we what?

Mr. GOSAR. Do you support banning plastic straws in America?

Mr. KERRY. I think it would be great to find a way to move on to a biodegradable straw, frankly. Yes, we should try.

Mr. GOSAR. Especially if they were nutritious.

Secretary Hagel, you testified that you supported the Paris climate agreement in 2015. The U.S. was the world leader in carbon emissions reductions not just in 2017, but 2016 and 2015.

Further, from 2005 to 2017, the U.S. cut 62 million tons, a 14 percent decline. Over the same period, global emissions increased by 26 percent, and China increased its emissions by 4 billion tons. And India increased its carbon dioxide emissions by 1.3 billion tons, with a B, a 70 percent increase.

Now I heard in the discussion earlier that we were going to incentivize people. Are we really going to incentivize India and China for best behavior? Really?

Now with an estimated price tag of $93 trillion over the first 10 years, Admiral Mullen said that our debt is our biggest national security problem. At 93 trillion, that is even going to be worse. So we better get this right.

Now the democrat socialists pushing the Green New Deal want to get rid of all energy sources, as quoted, except for wind, solar, and batteries by 2030.

Mr. Kerry, how are we going to do that when wind and solar only produced 8.2 percent of our electric currently? And the reason why they're so far ahead of us in electric is they control this, they have a monopoly on rare earths. Where's the incentivization right here? This isn't a real plan, because we don't see that. This comes from the Mojave Desert out in Arizona. It's all over the desert. Yet, we have no ambition, whatsoever. We are anti-mining on the other side. We don't want to do any of this. So how are we going to do

that when we allow China to be the monopoly? Batteries are the problem.

Mr. Chairman, you know, I'd love to see the debate. That's how we actually discovered that the earth was not flat. We actually had people that said it was different, and they sailed to the far reaches, and found out that there was a planet. It was round.

And I yield back.

Chairman CUMMINGS. Thank you very much.

Mr. Steube.

Mr. STEUBE. Thank you, Mr. Chairman. Secretary, Mr. Secretary, my questions are for Secretary Kerry.

I just want to kind of drill down on, you know, we had a lot of discussion today about the Green New Deal, which would move America to 100 percent clean and renewable energy in 10 years. You had stated that you want zero carbon emissions by 2050.

Mr. KERRY. Net. Zero net.

Mr. STEUBE. Zero net. 2050.

Mr. KERRY. Net means that you would have carbon in certain places, but you'd have offsets against it, so that you are net at zero. I know we can't do zero—I understand that. I've made that clear in my testimony, and I made it clear, certainly, with respect to the 10 years. But that is what scientists tell us we must achieve in order to have a balance globally with respect to the amount of carbon dioxide in the atmosphere.

Mr. STEUBE. So I guess I'd like to ask if you were still in the U.S. Senate, then would you have voted against the Green New Deal if it were brought up for a vote.

Mr. KERRY. Well, I'm not going to get—I learned long ago in the Senate not to do hypotheticals. And I'm not in the Senate, and I'm not voting, happily.

But what I would say is this, that I know the difference, after 28 years in the Senate, between a serious effort to try to legislate something, and a political game that's going on.

We just had a five-minute presentation about all the reasons we can't do this or that without any legitimate, you know, question or dialog. I understand how it's played. But the fact is——

Mr. STEUBE. I'm asking you a question right now. I'm having a dialog. I'm asking you if you would vote for it. And I'll——

Mr. KERRY. No. Where was the dialog?

Mr. STEUBE. How about this? I won't give you a hypothetical.

Mr. KERRY. Okay.

Mr. STEUBE. Do you support moving America to 100 percent clean or renewable energy in 10 years?

Mr. KERRY. It's a wonderful ambition to have. I don't think you can quite pull that off, given where we are. But I applaud the ambition. I applaud the notion that this is a serious issue, and we need to be dealing with it. And I would love to see what, you know, everybody else is proposing as an alternative, or as a better way of doing it.

That's how we used to legislate here. We'd get together. We'd work on the legislation. We'd come up with something. It wasn't perfect. Neither side loved it, which is usually a good piece of legislation. That doesn't seem to happen now.

Mr. STEUBE. Well, I agree with you. I haven't had a conversation with the other side, nor have they approached me to work with on issues.

You had said that it would take enormous resources. In Ms. Cortez's fact sheet it says massive investment. Like, what type of dollars would you expect to make this transition to a 100 percent clean and renewable energy?

Mr. KERRY. Well, it depends over what period of time you're talking about.

Mr. STEUBE. Well, hers is 10 years. And the facts say 35 trillion to $70 trillion.

Mr. KERRY. There are estimates.

Mr. STEUBE. My question to you would be, is: How are we as Americans going to pay for this transition to no fossil fuels?

Mr. KERRY. Well, we make choices all the time legislating around here in the budget. If this is, indeed, a national security crisis, which I hope a consensus will finally agree on at some point in time, and people are dying today, and billions of dollars of property damage are occurring today, and the vast majority of scientific evidence is indicating that if we don't take steps, we're going to pay a lot more, in the high trillions. If we have a .5-degree increase in the earth's temperature in the next 12 years, it could cost us, I am told, $54 trillion. If we go up to two degrees, it could cost us 69 trillion.

Mr. STEUBE. Well, I haven't seen anything that——

Mr. KERRY. You better start making a judgment about what we're prepared to invest in to avoid catastrophe and avoid these large expenses——

Mr. STEUBE. I just don't see how you're going to pay for $70 trillion when we have $22 trillion in debts, and all the other problems that we have in our country right now.

Mr. KERRY. Well, we're the richest country on the face of the planet, and we have to begin to decide what we're going to invest in that is important or not. We can bend the cost curve in healthcare, believe me, in big ways. We're spending more money than any other country in the world on healthcare, and we get worse results than about 26 other nations. We could make that better.

We could gain some ability to put some money into other things. Infrastructure can pay for itself in many different ways.

Mr. STEUBE. Well, I do not see how any of these natural disasters are directly scientifically related to climate change. I represent the state of Florida, and we——

Mr. KERRY. Well, I am sorry you do not, but——

Mr. STEUBE. Irma came through my backyard, in fact. We were without power for a week. We had hurricanes——

Mr. KERRY. Well, scientists——

Mr. STEUBE. I remember growing up and having hurricanes in the state of Florida.

Mr. KERRY. And I experienced them as a kid.

Mr. STEUBE. I am the one with my time here. I do not see any scientific evidence that says that because we had Hurricane Irma that came through my district and devastated the citrus growers in my district, that that is related to half a millimeter, half a rise

in the ocean's rise or a degree change in the climate from last year, and I do not see that.

With that I would yield—well, I am out of my time. Thank you, Mr. Chairman.

Mr. KERRY. The evidence is, and scientists will back this up, that because the oceans are warming at a rate 40 percent faster than they were—40 percent faster than any time recorded previously, there is increased moisture that is going into storms because of the warming——

Mr. STEUBE. So how would us curbing our CO2 emissions, when China and India are not doing anything to curb theirs, make any difference globally?

Mr. KERRY. Actually, that is a legitimate complaint. If others do not also reduce, we are all cooked. The question is who is going to lead? Who is going to step up and show how this can happen?

Mr. STEUBE. We are leading. Ours have gone down over the last several years.

Mr. KERRY. Well, I am not——

Chairman CUMMINGS. Mr. Roy, your time is running.

Mr. Roy?

Mr. ROY. Okay, starting out. Thank you, Mr. Chairman.

I am going to yield for 30 seconds to my friend from Kentucky.

Mr. MASSIE. I have a quick question that does apply to national security and foreign policy and relates to energy. Germany earlier this year announced they are going to phaseout all of their coal production. Is that not really a commitment to Putin and to Russia? Because, as you mentioned, Secretary Kerry, they have to have those peak plants, they have to have natural gas, and unless the American taxpayer is ready to subsidize gas companies in the United States to export that to Germany, really Germany is going to be more dependent on Russia. And I do believe you are qualified also, Secretary Hagel. You are both qualified to answer that question.

Mr. KERRY. That is true, and it is a concern, and that is why we oppose the Nord Stream Pipeline. We thought it was a mistake and we were concerned about the security implications.

Mr. ROY. Secretary Hagel, do you want to quickly respond?

Mr. HAGEL. Yes. I would not add anything to John's comment. The only thing I would say is what John's last point was. We have opposed this, and we have been working with the Germans trying to explain to them what is down the road here if you make yourself dependent that way on Russia.

Mr. MASSIE. That is just the downstream consequence of their commitment to reducing CO2, and it is geopolitically unstable.

Mr. ROY. I appreciate that. And thank you for being here, Secretary Kerry, Secretary Hagel. I apologize for being a little bit late. I took my dad, a Texas Tech alum, to Minneapolis last night, which would seem like a magnanimous gesture for a son to his father, except that I went to the University of Virginia. So we had a nice family experience last night. But I appreciate you all's time here today.

I would have liked to have been here a little bit more, and I will followup with some questions. I just wanted to followup on the question of could you be more specific about the timing at which

you think the earth is at a particular level of risk based on the current trajectory? I would like just a quick answer.

Mr. KERRY. Well, I base my judgment on the science. I am not a scientist but I have read as much as I can, studied it, worked with a lot of people, and my judgment is that if the scientists are telling us that you have 12 years within which to try to prevent the 0.5 additional degrees of warming, to bring us to 1.5, we want to try to avoid it. Is that going to be the end of the earth? No. But it is going to be profound changes in how we live on earth, and in crises, and that will take us up closer to the 2 degrees.

The problem we have is right now we are on track to hit four or 4.5 degrees. That is unlivable. That is a different world from anything we have imagined.

Mr. ROY. Reclaiming my time, let me ask this question. If that is as apocalyptic as some make it out to be, then do you support moving to a full nuclear strategy in order to avoid emissions?

Mr. KERRY. A full what?

Mr. ROY. Nuclear strategy.

Mr. KERRY. I think it has to be one of the options, and I have advocated for fourth-generation modular and for some more R&D. I think there ought to be a government effort to try to help re-kindle the pipeline. One of the reasons nuclear is so expensive today, and in the program we have down in Carolina and Georgia, is that it is a one-off. Everything is a one-off, so it drives the prices up.

Mr. ROY. If I could just——

Mr. KERRY. It has to be part of the menu.

Mr. ROY. Okay, good to hear, and I am glad to hear that.

Do you also agree that moving to clean-burning natural gas is a step in the right direction, and that the emissions that we are reducing in the United States, that that is a benefit to the country——

Mr. KERRY. Absolutely.

Mr. ROY [continuing]. and liquefied natural gas being distributed around the world is beneficial both geopolitically for the United States and the world, and for the emissions that would go off in the atmosphere?

Mr. KERRY. Absolutely.

Mr. ROY. That is good.

Do you also agree that the benefit to the world of abundant, clean energy is particularly important when we have upwards of 1 to 2 billion, depending on how you define it, people around the world who do not have access to the kind of power and resources and quality of life that we have? Would we agree to that?

Mr. KERRY. Sure.

Mr. ROY. And would we agree that you have life expectancies around the world that have risen dramatically where reliable access to energy has increased?

Mr. KERRY. Yes.

Mr. ROY. Right? And would we think it is probably immoral to deny Third World countries access to a better standard of living if we were to adopt policies that might negatively impact countries that do not have our standard of living by denying them access to power if we are perpetuating policies that would prohibit that access to power?

Mr. KERRY. I would just change your formulation slightly. I believe it is important to get power, but it is important to get the right kind of power in the right mix with respect to that particular country so that you are not doing them worse downstream harm or contributing to the larger problem.

Mr. ROY. I understand that, and I will finish with this, Mr. Chairman, my last question, which is just to say I happen to believe that the world has been extraordinarily made better by the abundant availability of fossil fuel energy in terms of the quality of life, in terms of hospitals that are powered, in terms of the tools and resources that we use, in terms of access to power to warm houses, air conditioning in the summer, in terms of life-saving technologies, babies being on incubators that are powered instead of bags like you have in certain countries around the world, and I would just suggest that we do not want to be following the line—and I will wrap up right now, Mr. Chairman—of Europe, where you have 54 million people choosing between heating and eating because of prices increasing, because of policies that I think could be harmful. So I think that should be a part of our discussion.

I thank you, Mr. Chairman.

Chairman CUMMINGS. No problem.

I want to thank you all for your testimony today. You have given us four hours of your life.

[Laughter.]

Chairman CUMMINGS. And I do not say that lightly.

Mr. KERRY. It has been a life-changing experience, Mr. Chairman.

[Laughter.]

Chairman CUMMINGS. But the fact is that you are here because you care about somebody other than yourselves. That is what this is all about. You are looking far into the future. Like I said, when we are dancing with the angels, hopefully the world will have benefited from what you are doing. I honestly and deeply appreciate what you are doing, and I encourage you to continue to do what you are doing. I had hope that our hearing would not be whether we had a problem—we have one—but how we would go about solving it.

I do believe that minds will be opened, that we will get this done, because we have no choice, and that is my opinion.

With that, I would like to again thank you all.

Let the record show that, without objection, all members will have five legislative days within which 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 promptly, as you are able to.

Just one last thing. I think it was Mr. Gosar who made a comment with regard to Ms. Ocasio-Cortez. He said that she rarely shows up, or something to that effect. I just want to correct the record. I have been here for every minute of every hearing, and she probably has the best attendance of any member. So I just wanted to put that on the record.

Mr. ROY. I would concur, Mr. Chairman. I have seen our colleague from New York here regularly, so I agree with that.

Chairman CUMMINGS. Big time.
All right. We are adjourned.
[Whereupon, at 2:10 p.m., the committee was adjourned.]

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