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THE CLEAN FUTURE ACT:
INDUSTRIAL CLIMATE POLICIES TO CREATE
JOBS AND SUPPORT WORKING COMMUNITIES

THURSDAY, MARCH 18, 2021

House of Representatives,
Subcommittee on Environment and Climate Change,
Committee on Energy and Commerce,
Washington, D.C.

The subcommittee met, pursuant to call, at 11:01 a.m. via Webex, Hon. Paul Tonko [chairman of the subcommittee], presiding.

Present: Representatives Tonko, DeGette, Schakowsky, Sarbanes, Clarke, Ruiz, Peters, Dingell, Barragan, McEachin, Blunt Rochester, Soto, Pallone (ex-officio); McKinley, Johnson, Mullin, Hudson, Carter, Duncan, Palmer, Curtis, Crenshaw, and Rodgers (ex-officio).

Staff Present: Jeff Carroll, Staff Director; Jacqueline Cohen, Chief Environment Counsel; Adam Fischer, Professional Staff Member; Waverly Gordon, General Counsel; Tiffany

Guarascio, Deputy Staff Director; Caitlin Haberman, Professional Staff Member; Perry Hamilton, Deputy Chief Clerk; Zach Kahan, Deputy Director Outreach and Member Service; Rick Kessler, Senior Advisor and Staff Director, Energy and Environment; Mackenzie Kuhl, Press Assistant; Brendan Larkin, Policy Coordinator; Dustin Maghamfar, Air and Climate Counsel; Elysa Montfort, Press Secretary; Kaitlyn Peel, Digital Director; Tim Robinson, Chief Counsel; Chloe Rodriguez, Deputy Chief Clerk; Nikki Roy, Policy Coordinator; Andrew Souvall, Director of Communications, Outreach, and Member Services; Rebecca Tomilchik, Policy Analyst; Sarah Burke, Minority Deputy Staff Director; Michael Cameron, Minority Policy Analyst, CPC, Energy, Environment; Jerry Couri, Minority Deputy Chief Counsel for Environment; Nate Hodson, Minority Staff Director; Peter Kielty, Minority General Counsel; Mary Martin, Minority Chief Counsel, Energy & Environment; Brandon Mooney, Minority Deputy Chief Counsel for Energy; Peter Spencer, Minority Senior Professional Staff Member, Energy; and Michael Taggart, Minority Policy Director.

*Mr. Tonko. Well, good morning, everyone. The Subcommittee on Environment and Climate Change will now come to order.

Today's hearing is entitled, "The CLEAN Future Act: Industrial Climate Policies to Create Jobs and Support Working Communities,'' and we will examine several provisions of the recently-introduced H.R. 1512.

Due to the COVID-19 public health emergency, today's hearing is being held remotely. All members and witnesses will be participating via video conferencing.

As part of our hearing, microphones will be set on mute for purposes of eliminating inadvertent background noise. Members and witnesses, you will need to unmute your microphone each time you choose to speak.

Documents for the record can be sent to Rebecca Tomilchik at the email address we have provided to staff. All documents will be entered into the record at the conclusion of the hearing.

I now recognize myself for 5 minutes for an opening statement.

I grew up and continue to live in a mill town, Amsterdam, New York, formerly one of the largest carpet-producing cities in the world. And when I was young, the mills closed. My grandparents were among those workers who, through no fault of their own, lost their jobs. Those mills

went to the southern States, and then eventually offshore. And the people and community left behind had little to no support for many, many years.

I have spent my life, along with other community leaders, working to revitalize our city, to rebuild by building new infrastructure, redevelop waterfront industrial properties, and attract new and innovative businesses. It has taken 60 years, and there is still more work to be done.

These types of economic disruptions have happened before. They are happening right now, and they will continue happening, whether or not we pass the CLEAN Future Act. There is always some risk when a community relies on one employer or one industry. We can pretend this is not the case, or we can work together and do better for the people and communities facing this challenge today than was done for my grandparents and my home town.

With a national commitment, as is proposed in the CLEAN Future Act, we can treat energy workers with respect. We can provide the resources to accelerate local economic redevelopment and diversification, and we can provide fairness for the workers and communities that have powered our country for decades.

The bill proposes a framework for a national energy transition strategy. This has been done for other issues of national importance that cut across several federal agencies.

For example, the Office of National Drug Control Policy; the Office of Science and Technology Policy; and the Council on Environmental Quality.

And importantly, this approach recognizes that it is not for me or anyone else in Washington to try to dictate these transitions. It must be a community-driven process, since every affected community will have different needs, different wants, and different assets. The CLEAN Future Act provides federal resources and technical assistance to empower local community leaders to manage their own economic transitions.

This hearing will also examine some of the bill's provisions regarding the industrial sector. We know the industrial sector is diverse, and does account for a large amount of emissions. Some subsectors are energy-intensive, trade-exposed, and difficult to decarbonize. Decarbonizing the United States industry requires investing in the United States industry. And investing in our manufacturers is the key to America's long-term global competitiveness.

The CLEAN Future Act includes several provisions to make those investments. This includes the Clean Energy and Sustainability Accelerator, which provides access to financing to make investments across numerous sectors in support of our Nation's clean energy transition.

The CLEAN Future Act also includes an innovative Buy Clean proposal that leverages public procurement to support

low-emissions industrial products. Well over 22 percent of the U.S. climate emissions are from the industrial sector. A small number of facilities make up a very large share of that total.

Many of these products, including cement and steel, are purchased in large quantities by the public sector. In the United States, nearly one half of all cement, and a fifth of steel, is purchased with tax dollars. These products are critical to our goals of rebuilding America's infrastructure, and we have the opportunity to support building with cleaner, more innovative materials than ever before.

Buy Clean brings transparency to the market. It standardizes how to calculate embodied emissions of products so that the private sector and state and local governments can indeed make informed decisions about what they purchase.

It also supports federal leadership by requiring federal use of products with a proposed Climate Star label, a voluntary label similar to the popular Energy Star and Water Sense programs.

Buy Clean leverages things that are already occurring in the private sector, through environmental product declarations, while seeking to improve data quality, guard against unfair foreign competition, and reward investments in U.S. manufacturing.

The CLEAN Future Act's industrial sections are critical

to the growth and the retention of U.S. manufacturing jobs, and the promotion of markets for new and innovative products. And the worker and community title is critical to fulfilling our commitment that no one is left behind during this energy transition.

I believe these are areas where we should be able to find bipartisan support. I am looking forward to today's testimony, and hope we can work together to improve these sections of the committee's proposal.

[The prepared statement of Mr. Tonko follows:]

**********COMMITTEE INSERT**********

*Mr. Tonko. With that I now yield to the chair -- excuse me, the ranking member -- of the Subcommittee on Environmental and Climate Change, our ranking member, Mr. McKinley, for 5 minutes for his opening statement.

Representative McKinley?

*Mr. McKinley. Thank you, Mr. Chairman. We are here to examine the CLEAN Future Act, but it reminds me, during the Vietnam War an American general was paraphrased as saying, "We had to destroy the town to save it. We had to destroy the town to save it.'' It reminds me of the motivation behind this proposal.

The goal of the Act is to decarbonize the U.S. economy by 2050, have net-zero emissions from power plants by 2035, 80 percent by 2030. In so doing, we are going to destroy livelihoods, disrupt families, decimate communities, increase utility bills, threaten the stability of the of the -- of our grid, and we will still experience negative effects of climate change, since the rest of the world isn't following suit.

Look, Chairman, we agree we need to work to reduce carbon emissions. But we also need to understand the consequences before we rush into such a punitive action.

Let's keep in mind, last year 60 percent of our power came from fossil fuels: coal, gas, and oil. It is reasonable to understand that this total transformation, it

may be -- is it reasonable to undertake this total transformation of our electric grid in less than 14 years, or even 9?

Look at solar energy. They are predicting -- in their publication this week, they are predicting they are going to quadruple their capacity in solar in the next 10 years. That -- now, make sure we understand, that means they are going from 2.3 percent of the mix to 9 percent. But remember, coal and gas are still 60 percent. According to the utilities we have consulted, decarbonizing our power sector by 2035 and 80 percent by 2030 will take a miracle.

So, Paul, at what cost, if we increase costs for families with higher utility bills? According to the Institute for Energy Research, $2,000 per household, annually.

It will destroy jobs, not just coal miners and pipeliners, but all the secondary jobs that rely on them: the railroad workers, the barge operators, and machinists, the fabricators. I could go on and on. Where will these workers go? Many of them are making 70, 80, $100,000.

We get -- yes, we get these vague promises about making solar panels, or windmills. About these promises, Terry Sullivan, the president of the Labor International Labor Union, said it is pie-in-the-sky BS -- and he didn't say BS -- about these green jobs being good, middle-class jobs, he

said, because they are not.

As a result, single-industry towns like Welch, West Virginia; Gillette, Wyoming; Hazard, Kentucky; Cadiz, Ohio, they are going to be crushed. Not to mention we will be left with a grid that is far less reliable and resilient, with more frequent blackouts. Haven't we learned anything from California and Texas about how fragile our grid is?

And for what gain? Even if America totally decarbonizes, the rest of the world is still increasing its consumption of fossil fuels. We still have wildfires on the West Coast, droughts and flooding in the Midwest, and hurricanes on the East.

Mr. Chairman, we want to work in a bipartisan fashion to address climate change and utilize all-of-the-above energy resources. This committee has demonstrated a history of bipartisanship. And if you will let us, we can do it again.

Let's not destroy the village in order to save it.

So we have -- on our panel we have Kevin Sunday, from the Pennsylvania Chamber of Commerce who is going to be testifying today. He will explain Pennsylvania's dependence on fossil fuel resources for economic growth and job creation, and discuss the devastation, the impact this legislation will have on his state.

I look forward to this conversation today, and I hope that we can work with Frank Pallone and his -- and all of you

on this committee, how we can make this a bipartisan bill, or start with something that is bipartisan from the very beginning.

[The prepared statement of Mr. McKinley follows:]

**********COMMITTEE INSERT**********

*Mr. McKinley. So I thank you, and I yield back my time.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the very busy chair of the full committee, Mr. Pallone, for 5 minutes for his opening statement.

Chairman Pallone?

*The Chairman. Thank you, Chairman Paul Tonko. I like the characterization of busy. Thank you.

Today we are holding our first legislative hearing on H.R. 1512, the CLEAN Future Act, which is our comprehensive and ambitious legislation to combat the climate crisis and achieve 100 percent clean economy by no later than 2050.

And I just want to say to my friend, Mr. McKinley, the ranking member, look, we obviously want to do things on a bipartisan basis. I will keep repeating that over and over again. But I also want to stress, you know, this is the innovation committee. This is the innovation country. And we can't be left behind.

I guess, you know, I know that climate change is viewed, obviously, as an environmental issue, a health issue, but it is also a security issue. And, you know, I constantly say to Mrs. Rodgers that, you know, I agree with her that China is the enemy, that China is the competition. But I am just so afraid that, if we don't innovate, if we don't think about the future, if we don't think of what is going to happen in

10 or 20 years, that China is going to eat our lunch, and they are going to take our jobs, and they are going to -- you know, and we are just going to be left behind in this global competition.

So, you know, keep a -- keep -- when you say, like my colleague from West Virginia, that, you know, that we have to look at this long term, that is exactly what we are trying to do. We are trying to look at this long term, and be innovative and creative in what we do, because we don't want to be left behind.

But anyway, I just wanted to say that this CLEAN Future Act is the product of nearly 30 hearings and countless ideas and recommendations from members. At the heart of our bill is the commitment to achieving net-zero greenhouse gas pollution no later than 2050, with an interim goal of reducing pollution by 50 percent from 2005 levels by 2030. And science is the impetus for our goal, innovation is the impetus.

The climate crisis presents one of our greatest challenges, but it also prevents -- presents one of our greatest opportunities. And I want to stress the opportunities through innovation. Today's hearing will examine clean future provisions that seize the opportunity to use climate action to create jobs and support working communities.

First we have the federal Buy Clean program, which would steadily reduce emissions from construction materials and products used in federally-funded projects. This innovative program leverages government funding and procurement power to fundamentally transform and strengthen the competitiveness of the U.S. manufacturing sector.

And next, and first of its kind, we have the Clean Energy and Sustainability Accelerator, which would help states, communities, and companies transition to a clean economy. Capitalized with $100 billion, the accelerator will mobilize public and private investment.

Finally, the worker and community transition title ensures every worker and community has federal-level support and resources during the nation's transition to a clean economy. The legislation creates a new Office of Energy and Economic Transition in the Executive Office of the President, and this office develops programs that support dislocated workers, and provide financial assistance to local governments. This assistance, coupled with the bill's infrastructure investments, will support economic development.

Now, collectively, these three provisions provide new opportunities to decarbonize the industrial sector, but also bolster our economy.

And, you know, I also wanted to mention before I close

that there are pathways to industrial decarbonization that already exist. We have many technologies and programs available now that, with meaningful funding and wider deployment, would drive industrial sector improvements. Just today EPA announced that 95 manufacturing plants earned Energy Star certification in 2020 for being amongst the most energy-efficient plants in industries like automotive, baking, cement.

And I know that the Republicans believe in efficiency, believe in resiliency. They talk to me about it all the time. Energy efficiency is crucial as part of a decarbonization strategy, and this Energy Star industrial program will help us reach our clean economy goals.

So I guess what I really want to stress is I believe that these and other climate policies in the CLEAN Future Act will empower America's workers with new, good-paying jobs, and ensure that we do not fall behind in global competition. They will revitalize our communities with the support they need to rebuild from the pandemic, and leave no one behind. So I just think that, you know, we are working on protecting the environment, protecting our health. But at the same time, through innovation, we can get there and create more jobs, and be competitive, and not be left behind.

And so, you know, I understand what you are saying, Mr. McKinley.

I don't disagree with a lot of the things you say, but let's think of ways that we can do this together, which is, I think, our common goal.

[The prepared statement of The Chairman follows:]

**********COMMITTEE INSERT**********

*The Chairman. Thank you, Chairman Tonko.

*Mr. Tonko. The chair yields back. The chair now recognizes Representative Rodgers, the ranking member of the full committee, for 5 minutes for her opening statement.

Representative Rodgers.

*Mrs. Rodgers. Thank you. Thank you, Mr. Chairman Tonko and Chairman Pallone. I appreciated what you had to say there. We have shared goals around protecting our health, protecting our environment, leading the world in innovation.

Our concern is, first of all, America is leading. America is leading in bringing down carbon emissions today. We are doing that through American innovation, American technology. We are doing it through carbon capture, advanced nuclear. We are leading the world in advanced nuclear technology that is absolutely fundamental to the goals around bringing down carbon emissions.

Our concern is that the agenda, as we hear being promoted right now by many Democrats, is one that is focused on solar and wind and batteries that are controlled by China. And so I am very concerned that there is a lack of recognition that 90 percent of the solar panels, 80 percent of the wind machines, 90 percent of the rare-earth minerals, the batteries, are in Asia or in China.

And so the future, a clean energy future that is based

upon those kind of solutions that are dominated by China, is really a pro-China agenda. It is making us vulnerable. Have we not learned anything through COVID and the concern around supply chains as to the vulnerability and the dependence that we have on China for basic, fundamental needs?

So that is -- I think that summarizes why there is a fundamental concern with the direction that is being laid out right now.

We -- you know, the Republicans on this committee -- we are ready, and we are ready to work with you to address the climate risk. We must pursue policies that will not undermine our communities or our national security. It means protecting energy affordability, and reliability, and building a stronger economy.

We should also work together to help the nation confront all future risk. We should preserve what is best for our nation, our communities, our families, and the freedom and dignity of workers. This is the path to securing a cleaner energy future. You can achieve a clean future by relying upon free enterprise and private initiative. This will unleash innovation and transform how we make and do things with massive benefits for our society. It is how America has led the world in lifting people out of poverty, and empowering people to build better lives.

America will win the future by building on our assets

and our strengths. That includes our abundant resources, which helps us preserve and strengthen our strategic relationships to confront the national security challenges. This is the practical path that Republicans support in our legislative work to update permitting and reduce regulations in order to deploy new, cleaner technologies more quickly and at a lower cost. This path rejects one-size-fits-all central planning -- as experience tells us, is suitable only for special interest and federal regulators.

So today we are talking about the CLEAN Future Act. It is a 1,000-page bill, and it seeks to transform the nation's economy, its energy systems, the way people live on a timeframe and at a scale that far surpasses anything practical. For example, energy technology expert Mark Mills testified before this panel last month on the scale of this transformation, if it were possible just for the power sector. He said this about meeting the goals of 2035: "It would require a continuous construction program at least 600 percent bigger than any single peak year for utility construction that has occurred in the U.S., China, or Germany over the past half century.''

Given technological and market realities, this bill would increase American reliance on China, and do little to reduce global emissions or improve America's competitive edge. This is not the policy outcome we want. But we will

be on this path if we rush down the top-down, regulatory controls over our power, transportation, and industrial sectors.

The problem is, at this pace, it is a rush. And it makes no allowance for technological readiness. Carbon capture for natural gas or industrial processes are tough. It is very tough. And it is chilling. It is a chilling impact for energy workers today in America.

Let's reject the central planning. Let's free our innovators by reducing regulations.

[The prepared statement of Mrs. Rodgers follows:]

**********COMMITTEE INSERT**********

*Mrs. Rodgers. And with that, I yield back, Mr. Chairman.

*Mr. Tonko. Thank you. The gentlewoman yields back.

The chair would like to remind members that, pursuant to committee rules, all members' written statements, opening statements, shall be made part of the record.

I now will introduce the witnesses that we have for today's hearing.

First, Dr. Rebecca Dell, Ph.D., director of the industry program at Climate Works Foundation.

Mr. Bob Perciasepe, president, Center of [sic] Climate and Energy Solutions, C2ES, on behalf of the Renewable Thermal Collaborative.

Mr. Kevin Sunday, director of government affairs, Pennsylvania Chamber of Business and Industry.

And finally, Mr. Jason Walsh, executive director of the BlueGreen Alliance.

At this time I recognize Dr. Dell for 5 minutes to provide an opening statement.

And again, welcome, Dr. Dell.

STATEMENT OF REBECCA DELL, PH.D., DIRECTOR, INDUSTRY PROGRAM, CLIMATEWORKS FOUNDATION; BOB PERCIASEPE, PRESIDENT, CENTER FOR CLIMATE AND ENERGY SOLUTION (C2ES), ON BEHALF OF THE RENEWABLE THERMAL COLLABORATIVE; KEVIN SUNDAY, DIRECTOR OF GOVERNMENT AFFAIRS, PENNSYLVANIA CHAMBER OF BUSINESS AND INDUSTRY; AND JASON WALSH, EXECUTIVE DIRECTOR, BLUEGREEN ALLIANCE

STATEMENT OF REBECCA DELL

*Ms. Dell. Thank you very much. Good morning, Mr. Chairman and Ranking Member, and thank you to the entire subcommittee for the invitation to testify on the CLEAN Future Act.

Today I will address the importance of Buy Clean for rebuilding our infrastructure, investing in American manufacturing, and addressing the climate crisis.

As you all know, this bill establishes a Buy Clean program to steadily reduce greenhouse gas emissions from federal construction. I will explain what Buy Clean is, and why it is important for addressing bipartisan concerns like infrastructure and national competitiveness. I will mention -- and I will mention some complementary actions that Congress can take to accelerate progress in American manufacturing.

We all know that we need a major national infrastructure investment. The American Society of Civil Engineers recently gave our infrastructure an overall grade of C-. Climate change will only accelerate this need. So why should we support by Buy Clean?

First, Buy Clean is important because it targets the most important sectors. As Chairman Pallone reminded us, this bill sets a national target of 50 percent reduction of greenhouse gas emissions by 2030 and 100 percent by 2050. We simply cannot achieve these goals without dramatically reducing industrial emissions, which account for a quarter or more of national emissions. These emissions are heavily concentrated in a small number [inaudible] making building materials, like steel and cement. The government is the largest consumer of building materials, buying nearly half of cement and a fifth of steel. Buy Clean policies require or incentivize the government to buy building materials made with cleaner processes.

The environmental stakes are not small. Without Buy Clean, the infrastructure bill passed through the House last year could lead to an additional 200 million tons of CO2 emissions from making the associated building materials. As you consider a major infrastructure reinvestment as part of the economic recovery from COVID-19, it is more urgent than ever that we modernize our infrastructure in a way that does

not contribute to the climate crisis.

Second, Buy Clean is powerful because it uses government leverage to increase innovation and competitiveness in manufacturing. Countries and companies around the globe have realized that climate-safe manufacturing and construction practices are essential for their long-term competitiveness. We are significantly behind many other large economies in Europe and Asia in this respect.

Buy Clean offers companies that want to invest in clean manufacturing the opportunity to profit by it. It is not a burden on American manufacturing, but an investment in high-quality jobs. It prevents foreign producers from getting around the rules, and domestic producers would have the same advantages they always have had, like Buy America requirements.

The best part is that Buy Clean is affordable. Cement is responsible for the largest share of emissions in public construction. But it only accounts for about one percent of the cost of projects. Because it is such a small portion of the total cost, even if clean cement is more expensive than conventional cement in the near term, it won't significantly change the overall cost of infrastructure.

Finally, Buy Clean -- in order for Buy Clean to be successful, it needs leadership and innovation investment. Buy Clean policies should be complemented by dramatically

increased investments in industrial innovation and commercialization of critical industrial technologies. This is long overdue.

Manufacturing and construction generate more employment and almost as much GDP as the health care industry. Yet health care is supported by the innovation activities of NIH, with an annual budget of $42 billion, or 5,000 percent of what the government spends on industrial innovation. Congress should fund programs to commercialize critical new industrial technologies at a much larger scale than currently.

To succeed, this entire agenda needs high-level leadership. Currently, the highest-ranking person in the federal government whose job it is to advance the future of American manufacturing has the rank of acting office director. In order for both innovation investments and Buy Clean programs to be successful, Congress should create an additional assistant secretary of energy for manufacturing and industry, as recommended in this bill.

In conclusion, Buy Clean supports American innovation and competitiveness, it reduces greenhouse gases and local pollution, and it does not significantly increase costs. We should use Buy Clean, supported by expanded and elevated investments in industrial innovation, to affordably address the climate crisis and increase the competitiveness of

American manufacturing.

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

[The prepared statement of Ms. Dell follows:]

**********COMMITTEE INSERT**********

*Mr. Tonko. Thank you very much, Dr. Dell. And now we will move to Mr. Perciasepe.

You are recognized, sir, for 5 minutes, please.

STATEMENT OF BOB PERCIASEPE

*Mr. Perciasepe. Okay, thank you. Thank you, Mr. Chairman and Ranking Member McKinley. Thank you all for inviting me today. I am here to testify, as you mentioned, on behalf of the Renewable Thermal Collaborative.

I am the president of Center for Climate Energy Solutions. And before joining the Center 7 years ago, I was the deputy administrator of the Environmental Protection Agency.

The Renewable Thermal Collaborative is a global coalition of companies and institutions committed to scaling-up renewable heating and cooling at their facilities, thus reducing carbon emissions. The collaborative was founded in 2017, and it is facilitated by C2ES, the David Gardiner & Associates, and the World Wildlife Fund.

The industrial sector is very challenging to decarbonize due to its very tremendous -- its tremendous amount of diversity, and its reliance on a large quantity of energy and heat. And the fundamental nature of many of the core manufacturing processes also produce greenhouse gases. Industrial emissions account for about 29 percent of the emissions in the United States, and they are projected to grow over the next decade under our current situation, as the -- and become, potentially by 2030, the largest source of

emissions in the United States.

The goals of the Thermal Collaborative are to create a community of corporate buyers of technology, of service to establish policy support, and to put us on a path so that the industrial sector can reduce its thermal emissions by 30 percent by 2030, with a goal of full sector decarbonization by the middle of the century, in 2050.

Policy, and the use of policy, has been an underutilized resource for achieving decarbonization in the industrial sector. And the Thermal Collaborative recently published a report which surveyed leading policies across the world, in Europe and in the United States, on advancing low-carbon technologies. We explored a number of policy approaches to catalyze a wide variety of renewable thermal technologies, including geothermal, beneficial electrification, green hydrogen, solar thermal technologies, renewable natural gas, biomass, and biogas, and others.

The -- advancing the low-carbon solutions -- the level of policies at the state level are often targeted to specific technologies, or specific companies, or specific corporate and business sectors, and they tend to be fragmented. At the federal level, if you used it as an example of what has been done in the power sector, the production tax credit and the investment tax credit has spurred billions of dollars of investment, and reduced the cost of renewable energy in the

power sector.

We identified a number of policies that could really help in the industrial sector: expanded research and development; demonstration and deployment; grant programs; and a national financial facility that could provide grants, as well as crucial financing; deployment initiatives; procurement, as you just heard from Dr. Dell; and renewable thermal portfolio standards that could help.

The CLEAN Future Act is on track on a number of these points, and I will mention three things in particular.

The Clean Energy Manufacturing Grant Program would support a range of zero and low-emitting technologies, including some of the technologies mentioned in the opening comments already today. The carbon -- the -- and there is a special attention to the carbon and energy-intensive industries.

The Carbon Mitigation Fund would support beneficial electrification, and could be benefited by expanding the eligibility to other low-carbon renewable thermal technologies that meet a robust sustainability criteria.

And the third one I will mention is the Clean Energy Sustainability Accelerator. In many ways I look at this as the accelerator of innovation. You have lots of innovation taking place already, as many have already mentioned. But what we have here is a financial facility that will help

accelerate the deployment of those innovations as they occur, getting to that next step of implementation and deployment, which is very important. And it has a wide variety of flexibilities enabled to -- to enable it to accomplish those goals.

Let me just say, in conclusion here, that fragmented policies that apply only to certain locations or certain technologies or certain kinds of business classes will result in uneven approaches. Federally-based financial incentives, such as are envisioned in the CLEAN Futures [sic] Act, would really help accelerate the innovation that we need in the industrial sector.

And I will stop with that, and look forward to your questions. Thank you, Mr. Chairman and Ranking Member.

[The prepared statement of Mr. Perciasepe follows:]

**********COMMITTEE INSERT**********

*Mr. Tonko. Well, thank you, Mr. Perciasepe, for your input. And now we will move to Mr. Sunday.

And again, welcome, Mr. Sunday. It is good to have you joining us, and you are recognized for 5 minutes, please.

STATEMENT OF KEVIN SUNDAY

*Mr. Sunday. Thank you, sir, and good morning, Chairman Tonko, Ranking Member McKinley, and members of the committee. Thank you for the honor and privilege to appear before you today to represent the Pennsylvania Chamber of Business and Industry.

We are the largest business advocacy organization in the state of Pennsylvania, which itself is the number-2 state for natural gas development, energy production, and nuclear power. We are the biggest power producer in the 13-state PJM grid, and we are also a leader in a number of manufacturing segments.

My testimony talks about how Pennsylvania's energy and industrial base have helped put this country in the catbird seat for sustainable economic growth. And I re-emphasize that our workers and companies are up to the task in meeting the many challenges of the 21st century. Let me make a few summary points in my testimony.

First, the development of Marcellus Shale has led to massive investment in the new pipeline, energy, and manufacturing infrastructure. And projects like the Shell petrochemical facility in southwest Pennsylvania are totally changing the course of a region that was left behind a generation ago.

We are seeing natural gas and renewable resources being paired together to develop resilient microgrid projects at critical infrastructures like airports and the Navy Yard in Philadelphia. Combined heat and power projects are helping universities, hospital systems, and manufacturers in pulp and paper and food product segments manage costs and improve sustainability. And manufacturers in Pennsylvania are underway with a project to use carbon capture and natural gas liquids to sustainably produce ammonia, hydrogen, and fertilizer.

And at the same time, air quality in our state is improving dramatically. We are in statewide attainment, or very close to it, for all national ambient air quality standards. Since 2005 no state has reduced CO2 emissions more than Pennsylvania, but 1. And, as EPA officials recently noted, the nationwide 2030 goals of the Obama Administration's Clean Power Plan have already been achieved, due to market forces.

In part because of Pennsylvania's resource base to help this country reduce emissions and send power prices in our regional grid down to generational lows, no country has the story to tell like that of the United States when it comes to reducing costs and emissions while growing the economy. The United States has lapped the European Union in growth over the past decade-and-a-half, while reducing emissions more.

And our energy prices are much lower.

And so, while it is reasonable to discuss setting long-term goals, we have real challenges today, and we need smart policy that will unlock further investment and environmental gains. A more predictable, rational, and flexible air quality permit process, including reforms to new-source review, will allow for more investment in domestic facilities, including carbon capture, and a stronger domestic manufacturing base, instead of production in other countries who don't share our country's commitment to stewardship.

In addition, whether it is a bridge, or port, or an energy infrastructure component, it takes entirely long [sic] to build any new infrastructure in this country if that project is touched by the National Environmental Policy Act. And it is imperative we streamline the federal decision-making process if America is going to have the infrastructure to compete.

The pandemic and recent energy crisis in multiple states have shown the need for smart, durable, bipartisan policy that accommodates resilient energy resources and that allows manufacturers to quickly retool. It is vital we leverage our human capital and knowledge bases in a host of traditional industries to meet the challenges of tomorrow, especially given the economic data showing the only rural regions of the country that are keeping up, in terms of productivity and

wage growth, are those with natural resource economies.

And moreover, energy security in the coming decades will require policy that accommodates expanded mining for critical minerals, efficient build-out of energy and telecommunications infrastructure, and continued investment into exploration and production of hydrocarbons and nuclear power.

Finally, given our nation's environmental requirements are much more stringent than other countries', it is imperative that regulatory policy doesn't end up offshoring key industries like refining, steel, cement, concrete, aggregates, and timber, all resources that we are going to need, regardless of what the energy mix looks like.

In closing, because our state's success has helped the United States keep energy costs lower than nearly every other developed nation while outpacing them in growth, I hope you consider our contributions and assets as you work towards producing durable, bipartisan, effective policy that keeps the United States in a flagship position in this increasingly challenging and dynamic global marketplace.

Again, thank you for the opportunity to appear before you this morning, and I am happy to take any questions you may have, and look forward to the discussion.

Thank you.

[The prepared statement of Mr. Sunday follows:]

**********COMMITTEE INSERT**********

*Mr. Tonko. Thank you, Mr. Sunday, for your contribution to today's hearing.

And finally, we will move to Mr. Walsh.

Mr. Walsh, you are recognized for 5 minutes, and welcome.

STATEMENT OF JASON WALSH

*Mr. Walsh. Thank you, Chairman Tonko and Ranking Member McKinley, distinguished members of the subcommittee. My name is Jason Walsh. I am the executive director of the BlueGreen Alliance. On behalf of my organization, our labor and environmental partners, and the millions of members and supporters they represent, I want to thank you for convening this hearing today regarding the CLEAN Future Act and how it can help us rebuild our economy, while creating good jobs, reducing pollution, and revitalizing communities.

Congress has taken historic action to address the COVID-driven health and economic crisis, yet significant challenges facing our nation remain. We went into this pandemic with three ongoing and interconnected crises: income inequality, racial injustice, and climate change, each of which exacerbates the other. Legislation should tackle these crises at the same time with intersecting solutions. And the CLEAN Future Act is one such piece of legislation.

The Act will help revitalize American manufacturing, support workers and communities impacted by our nation's energy transition, and invest in clean infrastructure to create good, accessible union jobs.

First, the CLEAN Future Act includes an important focus on the industrial sector. As an integral part of a strategy

to address the climate emergency head on, we have the opportunity to modernize and transform our industrial base to make it the cleanest and most competitive in the world, creating a new generation of good, union manufacturing jobs, making clean technology, and making all products in cleaner ways.

The CLEAN Future Act includes a number of key provisions aimed at this outlined in my written testimony. What I will flag today is the Buy Clean provisions in the bill, which ensure that federal procurement supports cleaner domestic manufacturing of the materials that go into our public infrastructure projects.

I want to note, in particular, the establishment of an interagency transparency and disclosure program to enhance the quality and availability of data used to calculate emissions of eligible materials, and strengthen our understanding of the competitiveness of U.S. manufacturers across industries. We believe this is an important and necessary first step, and, coupled with robust reinvestment in domestic manufacturing, can help ensure that the United States leads the world in manufacturing the technologies and products of the future in an increasingly carbon-constrained global economy.

The CLEAN Future Act is a great first step, but we urge additional enhanced loan and grant funding for wide-scale

deployment of emissions-reducing processes across energy-intensive manufacturing subsectors in America, as well as to fill critical supply gaps in clean technology and material supply chains. These policies will help upgrade and modernize the U.S. industrial base, and drive a new generation of industrial development that rebuilds good American jobs and is clean, safe, and equitable for workers and communities alike.

As we work to rebuild our economy while tackling the underlying crises of climate change and economic and racial inequality, we must prioritize equitable rebuilding and investments in those workers and communities most in need, including those impacted by changes in our nation's energy economy. America's energy transition is well underway, but a transition that is fair for workers and communities isn't something that will happen organically.

We need a broad, holistic, government-wide response. This response must keep workers and communities whole, revitalize and diversify local economies, and address inequities, while ensuring the retention and creation of good paying jobs. And we should be clear that the best approach to energy transition among workers and communities and sectors not already impacted is one that prevents economic disruption and employment loss before it happens.

BGA strongly supports several structural reforms

established in the CLEAN Future Act to realize these goals. We believe these reforms must go hand in hand with additional policies outlined in my written testimony, such as the establishment of an interagency grant program; a broad system of support for workers; the reclamation of damaged lands and waters; and bankruptcy reform.

Lastly, the CLEAN Future Act includes a number of provisions aimed at ensuring that critical infrastructure investments made across the bill will boost our economy and create jobs, while simultaneously reducing pollution, combating climate change, and strengthening our communities. Thanks to key, cross-cutting Buy America, prevailing wage, project labor agreement, and community benefit provisions in the bill, these investments will deliver quality, family-sustaining jobs, and accessible pathways into those jobs for all Americans.

In closing we want to thank the committee for beginning this conversation, and look forward to providing additional feedback and working with you as we move forward on this bill and your broader agenda for the 117th Congress.

Thank you again for the opportunity to testify today.

[The prepared statement of Mr. Walsh follows:]

**********COMMITTEE INSERT**********

*Mr. Tonko. You are most welcome, and thank you, Mr. Walsh, and thank you to all of our witnesses for the input that is tremendously valuable to the discussion of this phase of activity in the CLEAN Future Act.

So with that we will now move to member questions. I will start by recognizing myself for 5 minutes.

Addressing the needs of people and communities that may be disrupted by the energy transition, which is already underway, isn't going to be easy. We should be honest about that. But our current course of action is to do very little in an uncoordinated manner. We need a range of policies and investments, including economic development, workforce development, environmental remediation, and public benefits to ensure fairness for workers and communities in transition.

So, Mr. Walsh, let's go to you. How can we most effectively deploy this mix of tools in a coordinated way, so that policies are implemented as efficiently as possible?

And can we leverage existing state and federal programs?

*Mr. Walsh. Thank you, Congressman. There are several provisions providing support for workers and communities in title 10, which I think are foundational and necessary to achieve the kind of fair and equitable transition that you are talking about, and make it one of sufficient scale and ambition.

So this includes the establishment of an Office of

Energy and Economic Transition to the Executive Office of the President to coordinate and align activities across the resources of the Federal Government. You mentioned previous precedents and examples like the Office of National Drug Control Policy that we have placed within the EOP. We are going to need that kind of leadership and coordination at the White House level to really drive this transition in a fair and equitable way.

There are other provisions, like an interagency task force and stakeholder advisory committee, to enhance coordination of relevant programs. There is a program to provide financial assistance to local governments that have lost significant amounts of revenue due to permanent facility closures, and assist local governments.

And there is also a program within title 10 to fund 1-stop community-based organizations that can help local communities access federal funds and other kinds of funds, and provide technical assistance to those communities, as they grapple with some of these challenges. So I think title 10 is a really good first start.

*Mr. Tonko. Thank you. And having a skilled workforce is a community asset. Having good infrastructure is a community asset. Mr. Walsh, as Congress thinks about infrastructure or economic recovery packages, how can these things be leveraged or improved upon to put potentially

affected communities in a better position to deal with local economic disruption?

*Mr. Walsh. Well, let's talk about infrastructure. I mean, I think there are a number of infrastructure investments that are badly needed in energy transition communities. Let's start with coal communities, right, where investments in water infrastructure, in broadband, in the reclamation of abandoned mine lands and waters are all crucial, not just for community health, but are also prerequisites for economic development and economic diversification opportunities.

We are also going to need a fuller package of supports for workers who are making the transition. I realize that is outside the jurisdiction of this committee, but there are a number of ideas that we have and would be happy to talk with members of the committee about.

*Mr. Tonko. Thank you. Thank you very much.

Dr. Dell, your Build Clean report makes it clean [sic] that we need a holistic approach with several types of industrial policies to achieve our goals for the sector. And we have tried to cover at least some of those ideas in the CLEAN Future Act.

But today United States policy to support manufacturing pales in comparison to our foreign competitors like Germany and like China. Do you have advice on how we should elevate

these policies as part of both a national economic strategy and a climate strategy?

*Ms. Dell. Thank you, Chairman Tonko, for -- that is a really important question.

For a long time, our manufacturing policy in the United States has been quite fragmented, and often pushed down to relatively junior levels of the federal bureaucracy, which makes it very difficult for us to have coherent policy that ties together all of the important issues that have already come up, including workforce development, infrastructure, creation of markets for key new opportunity areas, investments in innovation, all of these.

And so what we need are -- is greater focus and attention, and higher-level leadership across multiple parts of the Federal Government. The Department of Energy is a very important part, from the -- on the innovation side. But a holistic approach would also require the Environmental Protection Agency, the Department of Commerce, the Department of the Treasury, and many other parts of the government, which would have to be coordinated from -- at the level of the White House.

*Mr. Tonko. Thank you very much. And I certainly think it is important that these policies are built on a transparent, standardized, and high-quality data foundation. So thank you so much for your input.

*Ms. Dell. Thank you.

*Mr. Tonko. I have exhausted my 5 minutes, and so now will recognize -- I will recognize Representative McKinley, subcommittee ranking member, for 5 minutes, sir, to ask questions.

Mr. McKinley?

*Mr. McKinley. Thank you, Chairman. And I just want to remind the committee that Kevin Sunday's wife is about to deliver a baby, his second son. So we all have to appreciate the attention that we are getting, his attention, on this very important day.

But let me direct some questions to you to see how alert you, Kevin. So the first is, are you aware that the International Energy Agency and others have stated that it is virtually impossible to reach net-zero carbon emissions without carbon capture?

*Mr. Sunday. Yes, sir.

*Mr. McKinley. Okay. And so, to capture carbon, won't power plants and industrial facilities need a new source review permit to add this equipment?

*Mr. Sunday. It is fact-specific if they will need -- if NSR would apply, but they are going to at least need to go through the lengthy determination process.

*Mr. McKinley. Thank you. And since NSR is a complex and convoluted process, EPA has issued more than 690

guidelines and policy documents on it over the recent years. Would you agree that this process discourages implementing carbon capture and other clean energy technologies?

*Mr. Sunday. Yes, I would agree with that.

*Mr. McKinley. Okay. So in your testimony, you said we need -- therefore, we need to reform NSR. My question is, is there NSR reform in this package?

*Mr. Sunday. Not based on my reading of the bill, no.

*Mr. McKinley. Thank you. So why should we expect anyone across this country is going to do carbon capture?

So when you factor in it takes 2 to 3 years to get a permit, an NSR permit that costs millions of dollars to achieve [inaudible] 2 or 3 years without litigation, and then add the 5 to 6 years for the engineering design, the permitting by the states, and the installation of this equipment, we are talking about -- it is conceivable that a utility company or manufacturer -- it could take 7 to 10 years to install carbon capture.

So I am back to you, Sunday, is it reasonable then to assume that we can expect an 80 percent reduction in CO2 emissions by 2030?

*Mr. Sunday. No, sir, I believe that would be a very tall order without further reforms.

*Mr. McKinley. It would. And what about a 100 percent reduction in CO2 emissions by 2035 in power plants?

*Mr. Sunday. No, same thing.

*Mr. McKinley. Okay. So let me change just -- direction just a little bit on this, and go to plastics, because that is part of it, under section 902.

During the pandemic, do you recall the shortage of plastic masks, gloves, shields, and gowns that are PPE?

*Mr. Sunday. Yes, yes.

*Mr. McKinley. And America was -- it was painful and life-threatening for our health care workers to not have access to PPE.

So if the current manufacturers were unable to meet the demand last year and the year before, why -- then wouldn't it make more sense to make more facilities, have more facilities to produce more masks, gowns, shields, and gowns [sic]?

*Mr. Sunday. Yes, we should have a streamlined permit process to accommodate that type of dynamic market.

*Mr. McKinley. So it is fundamental here. Now, so you turn to section 902 of this bill, it withholds permits, new permits, for facilities that would produce plastics or the raw materials to use to produce plastics. Could this section, therefore, prevent the opening of the new petrochemical complex north of Pittsburgh and Monaca, Pennsylvania, or the one being planned in eastern Ohio?

*Mr. Sunday. Yes, I believe that language would jeopardize future investment into those types of facilities.

*Mr. McKinley. So seriously, we just experienced a shortage of PPE, and this bill calls for more restrictions on the plastics industry. Mr. Sunday, am I missing something?

*Mr. Sunday. No, sir. And beyond PPE, we use plastics in automotive devices, weatherizing homes, recreational products like canoes and backpacks. We actually use some petrochemicals in, not just storing and transporting the vaccine, but the component itself, to capture the messenger RNA so it can cross the bloodstream. These are vital, life-sustaining products and medical devices that we rely on, as you mentioned.

Just to be clear, my wife is not going into labor, like, at this moment. We are a couple of days away from that, so I am not being negligent by any means, but I appreciate the well wishes there, and the opportunity to speak before you this morning.

*Mr. McKinley. Well, thank you again, Mr. Sunday. I have got to say it is just bizarre that, in a bill of this importance, that there is something in there under section 902. I just hope we look at that very seriously, the impact it could have on us.

And I yield back my time.

*Mr. Tonko. The gentleman yields back. And Mr. Sunday, to you and your wife, all the best on the pending new arrival.

The chair now recognizes Representative Pallone, full committee chair.

Chairman Pallone, you are recognized for 5 minutes, please.

*The Chairman. Thank you, Chairman Tonko. I wanted to talk about decarbonizing the industrial sector. In the CLEAN Future Act we have provisions that will help drive down emissions in the industrial sector, but at the same time rebuilding the country's infrastructure and economy. So let me start with Ms. Dell.

How can we most effectively use a federal Buy Clean program, which we have in the CLEAN Future Act, to ensure a new infrastructure is developed in a climate-friendly manner?

And why is that crucial that we do that?

*Ms. Dell. Thank you so much for the question. I think that the most important reasons why we should invest in a federal Buy Clean program are, one, that the Federal Government has enormous leverage over emissions, over greenhouse gas emissions, so this is how we actually reduce emissions; and second, this allows us to make a major investment in critical manufacturing sectors.

The members of the committee may or may not be aware that, in the last 6 months, all five of the largest steel companies in the world have committed to bring their emissions to net-zero by 2050. These are companies in China,

Japan, South Korea, and Europe. No American steel company has made that commitment. So around the world, companies in these critical industries are realizing that their future competitiveness, their long-term success, is tied to their ability to manufacture in a climate-safe way. And I am very concerned that this is a fast train leaving the station, and American firms are waiting on the platform.

And so, what Buy Clean will do is provide market conditions that allow companies to make a profit by investing in their long-term competitiveness with clean manufacturing, and make a profit by investing in the good jobs that come with that.

*The Chairman. Thank you. I want to ask Mr. Walsh the same question.

How can we most effectively use a federal Buy Clean program to ensure new infrastructure is developed in a climate-friendly manner?

But if you could just answer in a minute, because I have a question for Mr. Perciasepe, too, that I would like to get to. Mr. Walsh?

*Mr. Walsh. Yes, I mean, I will echo Rebecca's statements. It is incredibly important that we create markets, right, for producing some of these products in lesser-emission ways.

We work closely with a number of industry leaders in the

iron and steel industries and the cement industries, and the only thing, really, standing in their way is clear demand signals that the Federal Government can be a market leader in producing.

I do think the emphasis in title 5 on other forms of investment in clean technology manufacturing are also really important. I think we are particularly interested in and excited by the Clean Energy Manufacturing Grant Program, which also invests in the kind of supply chains that we are going to need as we make this transformation.

*The Chairman. Well, thank you.

So, we also need additional policies and incentives to reach net-zero greenhouse gas emissions in the industrial sector. And to that end the Renewable Thermal Collaborative recently released a suite of policy recommendations for Congress to consider. So, Mr. Perciasepe, can I ask you, how could we use existing laws and policies to quickly curb greenhouse gas emissions from the industrial sector?

And hi, how are you doing, by the way?

*Mr. Perciasepe. Hello. It is great to see all of you, really.

Well, there is -- there are plenty of existing policies in the Federal Government that are designed to provide technical assistance to or advice to many different manufacturers: the advanced manufacturing program at the

Department of Energy, and even some of the technical assistance programs at EPA.

But what the Clean Futures [sic] Act does is take -- harnesses some of that, and expands on that. And I think that is a really important part, Mr. Chairman, for us to accelerate those activities that the Federal Government is able to do.

We have a fragmented system. And I think Dr. Dell mentioned that, that you don't have a cohesive component in the Federal Government looking at this. So there is an ability for the government to coordinate that, even without legislation, and they should do that.

*The Chairman. Thank you so much.

Thank you, Chairman Tonko.

*Mr. Tonko. You are welcome.

The gentleman, the chair, yields back. The chair now recognizes Representative Rodgers, full committee ranking member, for 5 minutes to ask questions.

Representative Rodgers, please?

*Mrs. Rodgers. Thank you, Mr. Chairman, and thank you, everyone, for joining us here today.

The Republican policies to address climate change and the risks that face us are driven by an appreciation for the beneficial creations of free enterprise, capitalism, private initiative, versus the stifling role of federal regulatory

control and central planning.

Innovation doesn't come from the Federal Government. It comes from the ideas in the garages and in the kitchens of people all over this country. And businesses and innovators should build and deploy clean technologies that take advantage of the abundant, affordable energy that we enjoy today, as Americans. It is a competitive advantage that I am concerned will be lost through legislation like is before this committee today.

It is also so important to our national security, which is why we seek the regulatory and the permitting reforms in the package that we put together.

You know, I was -- when I was elected to Congress, it was interesting. The U.S. was very concerned about the rising cost of natural gas. We were focused on building more import facilities in order to meet the energy needs in our country.

And then, soon after that, 11 years ago now, in 2009, Waxman-Markey, cap and trade, passed the House. And at that time, nobody accounted for the American shale revolution. Private companies have taken the technological ideas from the labs, and tested them, and improved them on their own dime, and really took the federal planners by surprise, creating tremendous new economic and security benefits, while reducing emissions.

Mr. Sunday, you have seen the benefits of this energy renaissance. Given today's industrial focus, would you talk about what you see as the biggest threats of proposals like CLEAN Future Act on industrial progress, and the benefits in your region?

*Mr. Sunday. Thank you for the question, Congresswoman. I think one of the biggest threats is we don't take into account the reliability and cost impacts of a sudden and abrupt transition.

We know the labor unions estimate the goals of this magnitude would cost about a million-and-a-half jobs over the next decade-and-a-half. The high energy prices would simply result in offshoring of key industries. And, as I have noted in my testimony, higher energy prices don't necessarily translate to better environmental outcomes, but they do translate to worse economic performance for our state and country.

*Mrs. Rodgers. Thank you. As a follow-up, I have seen in eastern Washington, where I represent, and across the country the positive work to implement technological advances in communities by major companies like Land O' Lakes's American Connection Project. And these companies aren't waiting for the government to take action, they know that they can do it better and faster than the Federal Government.

What work do energy companies in Pennsylvania do to be

good stewards of their communities?

*Mr. Sunday. Thank you. In addition, as I mentioned, to keeping energy prices low and reducing emissions to put the United States in a world leadership position, it can touch on a number of community initiatives, whether that is constructing turkey habitat in conjunction with the National Wild Turkey Federation, or working with local trade schools to stand up curriculum and, through EITC programs, donate the type of high-tech equipment that kids that maybe colleges and -- not everyone needs to go to college, but they do need a good education. And so going and having the skilled trades programs is the focus of a lot of our members, so they can draw on the local high-schoolers, and put them to work in a family-sustaining job that supports American energy independence.

*Mrs. Rodgers. Thank you.

Mr. Walsh, I just wanted to turn to the topic of Buy Green -- or Buy Clean, Buy Clean, which is a major provision in this legislation. From your testimony it appears that the Buy Clean legislative provisions are based upon a program that has been mandated in California, and the California program has not been fully implemented. For example, this is the first year that contractors have had to show compliance.

We often have concerns about the aggressive and unworkable policies of California that are -- we see

resulting in blackouts and increasing energy costs for families and communities. We don't even know how this program is working in California. I just wanted to ask if you could supply for the record evaluations from stakeholders regarding the competitive impacts of this program.

*Mr. Walsh. I only have a few seconds left -- happy, happy to do that, Congresswoman.

You are right, they are just moving into full implementation this year. But the whole idea of Buy Clean is to level the playing field for U.S. manufacturers, and to ensure that taxpayers get the biggest bang for their buck in terms of jobs in this country, and reductions in pollution.

So happy --

*Mrs. Rodgers. Thanks.

*Mr. Walsh. Happy to engage in a further conversation with you.

*Mrs. Rodgers. Okay, that would be great. And anything you can supply would be helpful.

I yield back.

*Mr. Tonko. The gentlewoman yields back, and thank you. The chair now recognizes the subcommittee chair of oversight of the standing committee, Representative DeGette of Colorado for 5 minutes.

*Ms. DeGette. Thank you so much --

*Mr. Tonko. Chair DeGette, please --

*Ms. DeGette. Thank you so much, Mr. Chairman, and thank you for holding this hearing, and for your important legislation as well, because I think workforce transition is really important for everybody to have.

We had a hearing last week in my subcommittee, in the Oversight Subcommittee, about -- it was actually about the EPA. But the issue of transitioning in coal-related communities came up with a -- in a very powerful way with a witness, actually, from West Virginia. And he was talking about the disruption we are seeing in coal-dependent communities.

But frankly, Mr. Walsh, I would like to go with you. I would like to start with you. This disruption we are seeing in these communities is not necessarily as a result of environmental laws, but of changing market forces where natural gas, wind, and solar energy are out-competing coal, even in the absence of a federal climate policy. Is that accurate?

*Mr. Walsh. That is accurate, Congresswoman. And in fact, over the 4 years of the Trump presidency, we saw coal mining jobs continue to decline, and coal production hitting its lowest levels since the 1960s, as both utilities and consumers continued to shift to cleaner and cheaper forms of energy.

*Ms. DeGette. And surely, under the Trump

Administration, that was not due to federal energy policies. In fact, the President told the coal miners that he would preserve their jobs. And I believe he wanted to preserve their jobs. But the market just is shifting away from coal. Is that accurate?

*Mr. Walsh. That is accurate. I would call that a false promise, which raised some some false hopes, unfortunately.

*Ms. DeGette. But what is a real situation, though, is in these communities people are losing their jobs. And I don't think we can brush that under the rug. We need to figure out something to do, which is why we are discussing this bill today. Would that be fair?

*Mr. Walsh. That would be fair. And actually, I think your state of Colorado provides something of an example in that regard.

*Ms. DeGette. Well, thank you for raising that, because in Colorado we have the Colorado Office for Just Transition. And that has been a model for important elements of my bill and the CLEAN Future Act. Are you familiar with that Colorado initiative?

*Mr. Walsh. Yes, we had the pleasure of working with Colorado policymakers and our allies to craft the legislation that created that office.

*Ms. DeGette. And can you briefly describe for folks

what that does?

*Mr. Walsh. Sure. What it does is to set up a centralized office of just transition within state government in Colorado to play a role that is -- it is actually quite analogous to the office that is established under title 10, at a federal level, of the CLEAN Future Act, basically aligning, coordinating, in particular, different economic and workforce development programs across state government to invest in coal communities and workers, and provide support for those communities and workers.

I think it is really worth flagging that they will be the first to tell you that they can't do that alone, as a state.

*Ms. DeGette. Right.

*Mr. Walsh. But the Federal Government has to be a full partner, particularly when it comes to making investments in workers and communities.

*Ms. DeGette. Well, and also, Colorado has a much more diverse economy than just coal, for example. So you really need a unified national plan to help states like West Virginia and other states that have an economy much more dependent on coal. Wouldn't that be fair to say?

*Mr. Walsh. Yes. And in fact, I think the hallmark of transition is that it happens very differently in very different parts of the country. And it is based on the

economic profile of that community or region, and the labor markets of that community and region.

*Ms. DeGette. Some of the efforts in the past to retrain workers in coal and other energy-dependent communities have not succeeded. Can you tell us a little bit about why those programs haven't succeeded, and what would be different about an initiative like the one we are discussing today?

*Mr. Walsh. We could talk about that for a while, Congresswoman. I will just say, really quickly, that it is absolutely critical that we link job training, workforce development with economic development and economic diversification, because it doesn't do any good to train people for jobs that aren't there. And unfortunately, it is characteristic of coal-reliant communities that they have a very narrow economic base, which is one of the reasons we need to invest in those communities.

*Ms. DeGette. Great, great.

Thank you so much, Mr. Chairman. I am looking forward to continuing to work with you on these issues, and I yield back.

*Mr. Tonko. Thank you, Chair DeGette, and we now will recognize Representative Johnson of Ohio for 5 minutes, please.

Representative Johnson?

*Mr. Johnson. Thank you, Mr. Chairman. I am going to shift gears a little bit, and go a little bit of a different direction in my questions.

You know, I know that some of my friends on the Republican side today will argue this legislation is a Green New Deal Light. But I would argue that this is actually the tactical implementation plan for the Green New Deal. It is the Green New Deal put into action. The Green New Deal, in its current form, is a short but broad resolution outlining the dangerous and unworkable goals of the radical environmental left. But what we are discussing today, the 900-plus-page CLEAN Future Act, fills in a lot of the blanks.

Today we are discussing decarbonizing industrial sectors. And unfortunately, this legislation is filled with top-down mandates and one-size-fits-all incentives, instead of adopting a true market-driven, all-of-the-above approach, letting American entrepreneurs and innovators lead the way, which is what American workers are so well known for.

If implemented, we will look awfully foolish a decade or so from now, millions of tons of carbon-intensive manufactured materials and billions of dollars later, only to find out that advanced nuclear technologies have arrived that can provide zero-carbon power, including innovative industrial applications with a fraction of the resources my Democratic colleagues want to use for large-scale wind and

solar.

So, Mr. Sunday, your examples of the economic vitality in Pennsylvania are encouraging, especially the central role an all-of-the-above energy approach has played there. I have seen it across the border, in my state of Ohio, as well. We need more American energy innovation expanding into industrial uses.

But I am worried we aren't focusing on the right policies today. Removing unnecessary barriers and modernizing licensing is critical, which is why I have reintroduced the Strengthening American Nuclear Competitiveness Act. This legislation would improve our strategic competitiveness in nuclear technology, and will facilitate investment in U.S. nuclear technology by our allies. It will promote efficient licensing for new industrial uses of nuclear energy, and for new techniques to help build American nuclear reactors faster, safer, and at lower cost. Advanced small modular reactors under development are capable of being safely placed next to existing industrial infrastructure.

So imagine the uses of these applications to produce hydrogen, or generate heat with zero emissions. After all, isn't that the ultimate goal of the Green New Deal, zero emissions?

So, Mr. Sunday, does this sound like a sound policy?

And could you see these innovations in nuclear technology coupled with the diverse industrial and manufacturing industries in Pennsylvania, Ohio, and across the country?

*Mr. Sunday. Thank you for the question, Congressman. Yes, I think you are exactly right. That is the type of building on the tradition -- the traditional industries and knowledge base we have.

What comes to mind for me is we have great research institutions like Penn State and Carnegie Mellon, who are graduating nuclear engineering students who want to be involved in a growing industry, and advanced nuclear capabilities into their manufacturing space could be just that. That lets them stay in states like ours, and grow the domestic base in high-energy uses, whether that is refining, whether that is hydrogen, whether that is nanotechnology, whether that is data centers, all the back-into-the-cloud computing that we take for granted.

Again, a lot of things that we rely on, there is a high energy use, and it is very possible in the future that advanced nuclear fits that. And there is really no credible zero-carbon strategies out there that don't -- that wouldn't include carbon capture and advanced nuclear. And it is important that we keep those options on the table.

*Mr. Johnson. Well, thank you.

Mr. Walsh, do your members believe nuclear technology should be part of the clean energy solution?

*Mr. Walsh. The partners of BGA believe that zero-emission electricity -- and nuclear, of course, is an example of that -- are absolutely critical to achieving net zero by 2050.

*Mr. Johnson. Good.

*Mr. Walsh. I --

*Mr. Johnson. Mr. Perciasepe, how about you?

*Mr. Perciasepe. I have to remember to unmute. I am here today speaking on behalf of the Renewable Thermal Collaborative, and we feel -- let me just say quickly that we feel a significant amount of the lower energy thermal needs of the industrial sector can quickly and easily, with some incentives, be decarbonized with renewable energy.

But speaking as a general matter to your bigger question beyond why I am here today, of course, some of the higher temperature issues in industry will need other technologies, and we see incentives for those in the -- in these bills, in this --

*Mr. Johnson. Okay, all right. Well, Mr. Chairman, I have extended my period, so I yield back.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the chair of the Subcommittee on Consumer Protection and Commerce, Representative Schakowsky, for 5

minutes.

Representative Schakowsky from Illinois, you are recognized now.

*Ms. Schakowsky. Thank you so much, Mr. Chairman.

Since 1999 the EPA voluntary Energy Star program has been in effect. And as someone who has absolutely taken advantage of that when I bought some washer-dryer appliances, I think it is really, really terrific. And I know that we now have -- are looking at, as part of the legislation we are talking about, a Energy Star program. And I want to just tell you how important it could be to an important business in my district.

There is a major cement manufacturer, Lafarge. It is the -- it is headquartered in my district. And so I am especially interested in this new program, because they have both a decarbonized version of their product, and the one that has been traditionally used. And the costs are pretty similar, but there is no way to distinguish them, and to encourage the use of the less-carbonized version.

So, Ms. Dell, if you could elaborate on the Climate Star program and -- you know, I think people know I am not always for voluntary, but this seems to be working, doesn't it? Or it certainly has in terms of the Energy Star program. Could you talk about that?

*Ms. Dell. Sure. Pardon me.

*Mr. Tonko. Bless you.

*Ms. Dell. Thank you so much for the question.

So this bill contains a provision for something called Climate Star, which is closely analogous to Energy Star, but looks at greenhouse gas emissions instead of energy consumption per se. This is a particularly important distinction in the cement industry, which you mentioned, because, if you imagine, for example, if you use carbon capture and storage to reduce your emissions, you might not reduce your energy consumption, but you would still be a Climate Star, even if you weren't an Energy Star.

And so one thing that has been a real barrier to the broader diffusion of existing lower-carbon alternatives has actually been the public sector's reluctance to use it in public construction. And that exists at the state, federal, and local level.

So one of the -- so Climate Star will provide information and transparency, and allow customers to feel confident that the thing they are buying is actually better for the climate than the conventional alternative. But it will be even more effective paired with the broader Buy Clean requirements that will move the public sector from being a laggard to being a leader on this issue.

*Ms. Schakowsky. Thank you so much. You mentioned the issue of transparency.

And I wanted to ask Mr. Walsh, from your organization's perspective, why are the transparency measures in the Clean Future program so important?

[Pause.]

*Ms. Schakowsky. Mr. Walsh?

*Mr. Walsh. Because we need the data. We need to know the emissions intensity of these different products. We need to verify it, and we need to learn from it.

There -- the system that it builds on that is already being used by many manufacturers' environmental product declarations is called out in the bill. I think we also need, through the Buy Clean program, to understand whether that fully captures lifecycle emissions and emissions connected to transportation. But data is absolutely going to be critical, and we are not going to get it without full transparency.

*Ms. Schakowsky. So that is a requirement, not a voluntary, right, in the bill?

*Mr. Walsh. Yes, I mean, it all builds on transparency. This -- we have to have that in place as a foundation for the rest of the program to move forward.

*Ms. Schakowsky. Well, thank you very much.

And I just have a few seconds, so I will yield back. Thank you.

*Mr. Tonko. The gentlewoman yields back. We now

recognize Representative Duncan of South Carolina.

Representative, you are recognized for 5 minutes, please.

*Ms. Schakowsky. What -- is anything going on on the floor?

*Mr. Duncan. Okay, thank you, Mr. Chairman. I want to thank Mr. DeGette from Colorado for mentioning market forces and how they actually affect what the United States and other countries do with regard to climate versus government regulations.

But I want to address some of the ramifications from an environmental security and competitiveness standpoint. Should we pursue market manipulation, manipulating globalist policies supported by President Biden and the Democrats' Clean Futures [sic]]Act?

I agree with President Biden's Buy American agenda, but that starts with buying American energy, and supporting policies to create an environment conducive to supporting American manufacturing. The Clean Futures [sic] Act and most all energy and environmental policy coming out of the Biden Administration undercuts the Buy America idea across the board.

We don't give enough credit to the environmental progress the U.S. has made as a result of the American energy renaissance. We got here by innovation in the energy

industry, not through mandates and regulations. The United States has become the number-one oil and gas producer in the world, while simultaneously outpacing most of the world in reducing emissions. In 2019 U.S. emissions reached our lowest level since 1992. Market forces drove this, not government policies.

I want to thank Mr. Johnson from Ohio for discussing the role that nuclear power and innovation plays in lowering our carbon footprint, while also providing very-good-paying jobs within the energy sector.

Energy Secretary Jennifer Granholm delivered her first international address as Energy Secretary this week, and she said the U.S. should replicate Germany's 50 percent renewables. But the fallacy in that is this -- so she is holding Germany out as the model the U.S. should follow -- the fallacy is this: Germany began shutting down all their nuclear power plants after Fukushima. They only have a handful -- I think seven -- operating now, and are all scheduled to close. Germany imports electricity from France, which -- 75 percent of which is generated from nuclear power. It is the only way Germany's renewables actually work.

The only way Germany can get to the 50 percent or lower renewables is by importing French nuclear-generated electricity. The price of German electricity is twice that of the average French household. Germany's shift to

renewables is why countries like Poland are also looking to expand their electricity generation capacity, buying nuclear power plants. They know they can make a fortune off selling power to Germany because of Germany's desire to feel good and their pretension of being green.

And so if we are talking about global carbon reductions and global energy, nuclear power has got to be a big part of this. Mr. Sunday, you note that, as we develop new technology solutions in both fossil and zero-carbon resources, it is imperative trade and energy policies support the continued export of these solutions to developing countries. I couldn't agree more.

We can help improve the lives of people across the globe by exporting U.S. energy sources, clean-burning natural gas that helps them have electricity and get off of the more climate-producing dirtier energy. Can you speak to some of the geopolitical ramifications of the U.S. not exporting our energy, Mr. Sunday?

*Mr. Sunday. Thank you for the question, Congressman. There is a few.

India is a growing market, carbon intensive, a billion people there want reliable, low-carbon energy. LNG is an answer there.

In the Middle East we have seen some turmoil for decades. I was always -- the Strait of Hormuz, if an oil

tanker went down, it was cause for war. We had that recently, two springs ago. And because of the LNG assets, it has given greater optionality that we didn't descend into another war over that, because we are less reliant on those fuels.

Sending LNG to Southeast Asia to shore up their security reduces their footprints, and have to rely less on Chinese and Russian energy, and the same goes for our allies in Eastern Europe.

And we are landing LNG in Spain, in the Mediterranean, in Turkey. And that is allowing them to have the option of turning away and saying, "No, Russia, we would rather have energy from a country that is interested in democracy.''

*Mr. Duncan. There is no doubt about that. And look, Russia and China are way ahead of us on emerging nuclear technologies. The United States needs to get in gear. We are a true leader in nuclear power. But instead of dealing with bills like the CLEAN Future Act, we need to put our resources toward modernization and innovation in the nuclear power realm, and exporting that. It is less carbon footprint, cleaner burning.

And with that, Mr. Chairman, I will yield back.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the gentleman from Maryland.

Representative Sarbanes, you are recognized for 5

minutes, please.

*Mr. Sarbanes. Thank you very much, Mr. Chairman, and thank you for convening today's hearing on the CLEAN Future Act. I want to thank the witnesses for their very valuable testimony.

I am particularly interested today in the focus on communities and, in particular, how the CLEAN Future Act can take action to protect and uplift communities across the country and in my state of Maryland.

I represent parts of Baltimore, which, as many of you here know, was once a thriving industrial hub. Over time that base shrank, unfortunately, creating a lot of economic hardship across many communities. And it is vital that we have conversations like we are today on how you can revitalize and reinvigorate our local economies.

The CLEAN Future Act does more than just start that conversation. I have to say it takes action. The measures like the Clean Energy and Sustainability Accelerator and the community transition provisions in title 10 are an example of this. It is a promise to invest in economically distressed communities across the country. And these investments and programs can bring new clean industries to places like Baltimore, which, in turn would create jobs, expand economic opportunity, and so forth.

Mr. Perciasepe, first of all, thank you for all your

incredible work over the years, your career of commitment on the environment, your service in the past to the State of Maryland, which we are all very proud of.

Can you speak to the accelerator's potential to jumpstart investment in clean and innovative industries, especially in parts of our country that have seen this kind of decline in industrial activity?

*Mr. Perciasepe. Thank you. Thank you, Congressman, for that question and for the shout-out. Baltimore is a favorite -- a very important place in my heart.

You know, there are a number of provisions in the Futures Act [sic] that really address and look at the paramount issue that we need to have in a decarbonizing world, and that is how to strengthen American industry and American manufacturing in that environment.

So you have things like the Clean Energy Manufacturing Grant Program, which have a focus on small and modest-sized businesses. But you also have the Clean Energy Sustainability Accelerator, which has provisions in it to not just look at funding a particular technology, but also funding a -- economic development around a decarbonized future for our manufacturing and industrial sector.

And here is where a facility like the accelerator can not only stimulate innovation, which I think is paramount, but also pull in private capital, giving the confidence that

the Federal Government is there with them. Private capital will be needed, as well, as we look at these communities in a broader economic development program.

So I think the accelerator has a lot of mechanisms, and it has a lot of authority in the bill to look at those things more broadly, and provide that broader economic development stimulus, which I think will be essential, for not only urban areas, but also rural areas, as agriculture and forestry are also part of that.

*Mr. Sarbanes. Thank you very much. I think it is a terrific idea, this accelerator, and I would emphasize your phrasing here, that it can help stimulate innovation, because we hear this suggestion, that somehow the Federal Government is trying to become the chief innovator, and crowd out or push away all of the sort of private-sector innovators out there that are getting started.

That is not what we are doing here. We want to stimulate innovation in creative ways. And the Federal Government has done that many times before, and can do it through this accelerator program.

I have got about 45 seconds left, but, Mr. Walsh, maybe you can speak, as well, to what you think the potential offer through the accelerator program is.

*Mr. Walsh. I mean, I think it is significant, and I just want to say that we strongly support the prioritization

of investments in the accelerator to disproportionately impacted communities. We think that is really essential, not just in Baltimore, but across the country.

I think we would love to work with you to broaden the definition of what constitutes qualified projects. But I think, as written, this is a really great start.

*Mr. Sarbanes. Great, thank you very much.

Mr. Chairman, thank you. I yield back.

*Mr. Tonko. You are most welcome. The gentleman yields back. The chair now recognizes the gentleman from Utah.

Representative Curtis, you are recognized for 5 minutes, please.

*Mr. Curtis. Thank you, Mr. Chairman. Chairman Pallone, in his opening remarks, reminded us that science was to be our impetus. And I am not a scientist. So at a very surface level, I would like to look at the science of the CLEAN Future Act.

Now, let's suppose hypothetically, just hypothetically, that we take a moonshot, and we are able to reduce our greenhouse gas emissions to zero. Hypothetically, not by 2050, but by 2030.

So I ask -- and it is somewhat of a rhetorical question -- I ask members of this committee and our witnesses, what would be the impact on worldwide greenhouse gas emissions if we were 100 percent successful with that moonshot?

Now, looking at the Paris Accord -- you will know where I am going -- China will reach its peak of carbon emissions in 2030. And so I believe the science tells us that, even if we are wildly successful, we will fail in our goal of reducing worldwide carbon emissions, even if this bill is implemented. And we all know that there would be more carbon in the air, not less, because of these other countries.

And any one of our witnesses that would like to dispute that or tell me I am wrong, I would love to hear from you.

And I believe that is because, in the name of the U.S. showing leadership, we are proposing that the U.S. sacrifice U.S. jobs and, at the same time, we are willing to give a pass to a human rights-violating dictator.

And let's be honest, in the year 2030 the U.S. could take our greenhouse gas emissions to zero, and we would fail in what I believe is a shared goal, reducing worldwide greenhouse gas emissions.

Now, Mr. Sunday, the U.S. has -- I am told -- has reduced emissions more in the last decade than the next 12 emission-reducing countries, combined. In your testimony you said something, and it caught my attention, and you said -- I am paraphrasing -- "No country has the story to tell like the United States.'' Why aren't we telling the story, Mr. Sunday?

Why don't we hear this -- in your opinion, why aren't we

shouting this from the housetops?

*Mr. Sunday. Well, that is, in part, why I am so honored to be here today, to help let folks know what Pennsylvania has done to contribute to that story. It is a story that can't be told. It is a story we shouldn't be ashamed of. And it is trends that we would -- should want to continue, continued emissions reductions outpacing the developed world on growth, and keeping consumers' energy costs low --

*Mr. Curtis. I have got a --

*Mr. Sunday. -- batting three for three.

*Mr. Curtis. Yes, I have got a theory, and I would like to ask you if you feel like you could verify it. We could lower more greenhouse gas emissions by exporting U.S. natural gas to China and India than by implementing the CLEAN Future Act. Do you have a response to that?

*Mr. Sunday. Not having an advanced degree of mathematics, intuitively, yes. It makes sense, right?

*Mr. Curtis. Yes.

*Mr. Sunday. I would definitely agree with that, yes.

*Mr. Curtis. And so, like, this whole concept of, like, we don't need to kill fossil fuels -- fossil fuels, according to your testimony, is our secret weapon to dramatically lower worldwide greenhouse gas emissions.

So I am quite limited on time, but I would like to kind

of switch gears for a minute. And Mr. Walsh, I have listened carefully to your testimony, and I believe you are very, very sincere in your desire to help these communities.

I represent a county, and the name of that county is called Carbon County. So you can imagine what they do in this county. And I watched closely the exchange between you and Representative DeGette about how programs have not succeeded there. Are you aware of any programs that have succeeded in these coal countries?

And I don't know that you need to elaborate all of them now, but are we being successful anywhere in this concept?

*Mr. Walsh. I believe we have a lot of really promising examples from the power grant program that we started during the Obama Administration and continued through the Trump Administration. A lot of that was focused on Appalachia. For a bunch of reasons, in part because we didn't have a whole-of-government approach, and an office at the White House, we had a harder time driving investment to coal communities out west, in the district that you represent. But I think there are many examples out there, be happy to share some of them with you for the record, if that would be helpful.

*Mr. Curtis. Yes, I am going to run out of time, so -- but I would love to do that offline with you, because I share this goal with you. And I have a theory in this regards,

too, is that one of the problems is that our dialogue so often villainizes these people in coal country, and that is a hard way to start. Does that make sense?

And I would love us to think about how we address these communities, and how they feel, before we even come in with these plans because of this villainization.

I regret that I am out of time. I would love to explore that more offline with you.

*Mr. Walsh. Will the chairman indulge me, just to respond to that?

I want to strongly agree with you, Congressman. In fact, we need to start from the premise that workers in these communities, these communities themselves, have kept the lights on in this country for generations. They deserve our respect. They deserve our support, which is exactly why we need the kind of policy constructs envisioned by title 10 of the CLEAN Future Act. So we would love to continue that conversation.

*Mr. Curtis. Thank you.

Thank you, Mr. Chairman.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the gentleman from California.

Representative Peters, you are recognized for 5 minutes, please.

*Mr. Peters. Thank you so much, Mr. Chairman. And I

also want to begin by acknowledging some of the comments from my colleagues on the other side.

Of course, we have to work internationally to solve this problem. I certainly don't disagree with that.

I believe there is a role for nuclear. I believe there is a role for looking at streamlining permitting, particularly for renewables. And I would love to work with you on all that stuff.

But I do have to one -- make the one comment again about reducing our emissions. It is great that we reduce our emissions by the use of natural gas, but let's remember that all of the climate benefits of natural gas are lost unless we deal with methane. And I am talking to my colleagues about that, as well. So -- and I think we should not pat ourselves -- break our arms patting ourselves on the back about natural gas without dealing very frankly with the methane threat.

I do want to talk to Dr. Dell, and in particular about the comment you made in your testimony, "In order for Buy Clean to be as successful as possible, it should be complemented by investments in innovation and the commercialization of strategic new technologies in the industrial sector.'' I couldn't agree with you more.

As you well know, concrete is the second-most-used material on Earth after water, and its main binding agreement -- ingredient, Portland cement, accounts for fully seven

percent of global carbon emissions. The Buy Clean program in the Futures [sic] Act would require building materials and products procured with federal funds to achieve a minimum GHG standard. This provides a strong incentive to reduce the quantity of carbon emissions.

And similar to California's Buy Clean threshold model, the -- our Buy Clean approach goes one step further, and includes a program called the Climate Star Program that would establish a voluntary labeling mechanism to identify and promote products with significantly lower embodied emissions than comparable products, while meeting strict performance standards in order to reduce GHG emissions and encourage the use of products with lower embodied emissions.

I think that is great. I do have to acknowledge that one of the most popular sports in this committee is to beat up on California. I have to say I heard about rolling blackouts. No one has changed their talking points, apparently, since since Texas had their problems.

But let me just say that I heard about a Buy Clean model in New York and New Jersey. So I would like to talk about that, and see whether you thought that was a good approach. It is called the Low Embodied Concrete Leadership Act [sic], or LECCLA. And the basic concept is concrete producers would bid on public projects based on the global warming potential values of their concrete, in addition to costs. And those

with the highest-performing global warming potential scores get a discount rate applied to their bid price, making their bids functionally less expensive and more competitive, relative to lower-performing bids.

For products that use any carbon capture utilization or storage technologies to manufacture their concrete, a discount would be applied. Now, my interest in this is that it might actually incentivize producers to work beyond any threshold that we might set, if the incentive was good enough. So I wanted to hear, if you are able -- if you are familiar with the bill, what you thought the benefits of that approach might be, and how an approach like this might fit into existing legislation and plans.

Dr. Dell?

*Ms. Dell. Thank you so much for the question, Congressman Peters. And if you will indulge me, I will say I used to be your constituent, back when I was a scientist at the Scripps Institution of Oceanography.

*Mr. Peters. If you indulge me, I am sympathetic that you had to move someplace else.

*Ms. Dell. You know, I remember at the time one of my colleagues commenting that, when it came to lifestyle, we are the one percent. San Diego is a very beautiful part of the world.

But on your substantive question, I think that the broad

point that you are making is incredibly important, that what we need in our Buy Clean programs is to both ensure that everybody is using current best practices, but also that we are providing incentives for people to innovate, or for people to do new things, and to get, you know, new and even better-than-current best practices systems in place, and to make that profitable.

And so I actually think that the New York and New Jersey model is fantastic. I am a big fan of it. And my reading of the Clean Futures [sic] Act, of this title of the Clean Futures [sic] Act, is -- tells me that there is -- the current legislative text retains a lot of flexibility about exactly how the program would be structured that, ideally, would be used to both incentivize innovation and current best practice.

*Mr. Peters. Thank you. I have run out of time. I wanted to -- but I would just say that, although they always like commenting on California, my subcommittee chair and full committee chair might like an idea from New York and New Jersey, so I think we should pursue it, and I yield back.

*Mr. Tonko. The gentleman is absolutely right. We would appreciate that. And he yields back.

So now we now will -- the chair will recognize the gentleman from Alabama.

Mr. Palmer, you are recognized for 5 minutes, please.

*Mr. Palmer. Thank you, Mr. Chairman.

Mr. Sunday, the hearing is about creating jobs and working in communities. Would banning the development of natural gas and other fossil fuels create jobs for working communities in Pennsylvania?

*Mr. Sunday. No, that would cause enormous economic disruptions in our state.

*Mr. Palmer. Do you think that would be true in other states?

*Mr. Sunday. Yes.

*Mr. Palmer. Do you think that if we just completely eliminated the production of steel and petrochemicals, that the world would just quit using steel and petrochemicals?

*Mr. Sunday. No, and that speaks to the folly of supply-side intervention. There is still a demand, globally, for these products, and it does us no good to lose the domestic base and just have them manufactured somewhere else.

*Mr. Palmer. My next question is do you think that these would simply move offshore, as so many of our industries did during the Obama Administration? Do you think that might happen?

*Mr. Sunday. Yes, that is quite likely.

*Mr. Palmer. Can you briefly discuss how NEPA prevents newer and cleaner infrastructure from being built?

*Mr. Sunday. Sure. We are part of the Unlock American

Investment Coalition, which includes all sorts of builders, groups, contractors, manufacturers, developers. If a federal -- a federally-approved or federally-permitted project touches NEPA, we are looking on upwards of 5 years for the federal agency to get the paperwork done on that. On transportation infrastructure projects, it is upwards of 7 or 8 years.

Where -- we have got a rail project outside of Philadelphia to expand public transit that has been under NEPA review since 2012. If we want to upgrade our infrastructure, we have got to get our act together on permitting.

*Mr. Palmer. I think the same thing would apply if we wanted to upgrade our electric grid. I am -- I assume that most of my Democratic colleagues are aware that we don't have one single grid, that it is a patchwork, and it would be enormously expensive to replace that grid.

I want to talk a little bit more about -- under section -- under title 5 of the CLEAN Future Act, we will spend billions of dollars to support manufacturing clean energy technologies and components. Some of the covered technologies and components likely include batteries for electric vehicles and solar panels. Both of those require substantial amounts of critical rare-earth materials.

If we are not mining in the U.S. for these materials,

where are we going to get them?

*Mr. Sunday. Well, at present, most of the mining and refining base for those products is China.

You mentioned the word "rare.'' They are definitely critical. We have some of those assets here. The problem is a lot of folks are opposing new mining and refining for those types of minerals. So absolutely, smart national energy policy would encourage mining of these types of materials, domestically.

*Mr. Palmer. We have just established, I think, that if this bill were to pass and become law, that a lot of these industries would move offshore to other countries, everything from steel manufacturing, petrochemicals, to mining and production, and refinement of rare-earth metals, probably to China and India and some other places.

Do you have an idea of what their records are, what their laws are regarding environmental issues, emissions, things like that?

*Mr. Sunday. Yes, I think, you know, a cursory look at their emissions output per GDP, much more carbon-intensive, much more particulate matter coming out of their factories. And then it makes its way across the Pacific, and contributes to why some of our western states have such persistent ozone issues, because there is so much air pollution from international sources that we still feel the impacts of,

believe it or not, halfway across the world.

*Mr. Palmer. Are you aware that 25 -- according to the EPA, 25 -- up to 25 percent on any given day of the air pollution, the particulate matter over the skies of Los Angeles, are from China?

And they project in a few years 30 percent of all the emissions over the State of California will be from China.

And also, we had a hearing on the Select Committee on Climate Crisis, and I asked the Democrat witnesses -- all three of whom were scientists, one of whom was one of the lead authors and editors of the International Panel on Climate Change report -- and I asked them, if we completely eliminated all CO2 emissions, went to absolute zero in the U.S. and the entire world, would it stop climate change, and the answer was no.

So I might suggest that, if this were to become law, we implement it only in Democrat congressional districts, and see how that works out.

I yield back.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the gentlewoman from Michigan.

Representative Dingell, you are welcome to question now for 5 minutes, please.

*Mrs. Dingell. Thank you, Chairman Tonko, and thanks for having this important hearing on the Clean Futures [sic]

Act.

[Inaudible] from the industrial sector present both technical and financial challenges. And I am from the Midwest, and I am watching this happen. But there are solutions to those challenges, and I am thrilled that this hearing is focused on such solutions.

One of the solutions, which I am proud to be spearheading [inaudible and sustainable accelerator. The accelerator is based on the Green Bank model that has been successfully deployed across cities and states, including my own home state of Michigan. Similar legislation passed the House twice last Congress. And so thank you for including it in the CLEAN Future Act, again.

Capitalized with $100 billion over a 6-year period, the accelerator will leverage public and private funds to invest in low and zero-carbon technologies, clean infrastructure buildings and transportation, sustainable agriculture, and so much more. It would also support the development of new state and local green banks. And importantly, it would direct 40 percent of investments to communities on the front lines of climate change, a key pillar of the thrive agenda.

And I would like to thank the Coalition for Green Capital for all their help in developing and advancing the bill.

Mr. Perciasepe, your testimony outlines some of the

benefits of establishing the accelerator, particularly for the industrial sector. Can you elaborate on how this type of financing institution differs from other tools in our toolbox, why it is so important for us to establish a program like the accelerator to help overcome barriers to financing projects that reduce emissions in the U.S.?

*Mr. Perciasepe. Yes, thank -- Congresswoman, thank you so much for that question, and all that you have been doing, working on these issues.

Let me just give a few highlights of that. Otherwise, we could spend the rest of the hearing on it.

But the key thing here -- and you have already outlined it -- is the holistic approach taken here in this financial facility. It looks not just at a particular kind of technology, or a particular kind of server, it looks at all of it that is combined. It has to be pulled together to really make sure that we strengthen our economic situation and our economic development as we move forward.

It also has the ability, as you pointed out, to help facilitate local financial facilities. But more importantly, it sends a huge signal to the private markets. We have talked a lot on this hearing so far about market mechanisms versus command and control. Well, here is a massive market mechanism.

Once the Federal Government makes this kind of

significant commitment, which in today's dollars isn't a lot different than what we did in the moonshot, and we send that signal to the private sector, as you have pointed out, it is going to leverage hundreds of billions of dollars of private investment, which is what we need.

The last point I will make. We have innovation going on in this country. When innovators are working, one of the things they see in their future is what do I do -- how do I get it commercialized? How do I move to the point where things can be implemented? This facility has the ability to take the innovation and -- that is developed in research and development programs and move it to that next level.

So I think there is a lot of opportunity here, and we are very supportive.

*Mrs. Dingell. Mr. Perciasepe, I have a ton of questions, and I am almost out of time. So let me ask you one more.

Can you -- Mr. Chairman, I want to do some for the record.

But can you explain why and how a program like the accelerator is so critical to unleashing private investment in clean technology and infrastructure, especially in areas of our economy like the industrial sector?

*Mr. Perciasepe. Yes. Well, certainly, the industrial sector is one of the more difficult to visualize how we are

going to deal with the great diversity of industrial processes that go on there. Some of those have been mentioned already, including, you know, for instance, LafargeHolcim and cement manufacturing.

The idea of being able to assist in those very varied ways in a more holistic approach with something like the accelerator is really going to provide that impetus for that public-private partnership, and drive the market forces of private investment in the same direction.

So I could give you a lot longer explanation, and I would be happy to reply for the record when you send those questions.

*Mrs. Dingell. I will do that.

Mr. Chairman, I yield back zero seconds.

*Mr. Tonko. Thank you so much.

The gentlewoman yields back. Next the chair recognizes the gentleman from Georgia.

Representative Carter, you are recognized for 5 minutes, please.

*Mr. Carter. Thank you, Mr. Chairman, and thank all of you for being part of this most important discussion. And, Mr. Perciasepe, I want to ask you, Georgia is the number-one forestry state in the nation. We have more --

*Mr. Tonko. Excuse me --

*Mr. Carter. We have more forestry than any other state

in the nation, and it is extremely important to us. And biomass is something that we have really concentrated on. In fact, we have biomass plants in my district that provide biomass for a number of different industries, as well as we send biomass for heating purposes to Europe, and they use a lot of it, as well.

So I wanted to ask you. During the Obama Administration the EPA's Office of Air and Radiation had sent out a memorandum in November of 2014 on the carbon benefits of forest-derived biomass. And the memorandum said -- and I quote -- "Use of waste-derived feedstocks and certain forest-derived feedstocks are likely to have minimal or no net atmospheric contribution to biogenic CO2 emissions, or even reduce such impacts, when compared with an alternative disposal.''

I know that you have written op eds, as well -- in fact, I think you wrote an op ed in The Hill almost a year ago -- citing the benefits of biomass. And I wanted to ask you, since you have noted and EPA has noted that the decarbonization benefits of forest-derived biomass -- do you agree that it makes sense for the EPA to recognize the benefits of bioenergy produced from forest products that -- manufacturers?

*Mr. Perciasepe. Oh, I am still unmuted, great.

Yes, you know, the Renewable Thermal Collaborative lists

biomass as one of their key components of the options available to decarbonize parts of the thermal needs of American manufacturing and industry.

The counterbalance to that, and what is always the hangup in everybody's analysis -- and my op ed, not representing the Renewable Thermal Collaborative, but representing myself, pointed out that most of the forest land in the United States is privately owned. And to maintain those forests needs to be an economic incentive for those forests to be maintained.

And so finding that balance of all the proper sustainable foresting practices to assure that the balance is correct, in terms of the carbon neutrality of the use of those forest products, is what the discussion is about. And I am confident that we can -- we, as a country -- can work through that. And I think some of the innovation that will be stimulated by some of the provisions in this bill can, I hope, help move those industries closer together.

*Mr. Carter. Well, I appreciate you saying that very much. I serve on the Select Committee for Climate Change, and I have just -- sometimes I run up against a brick wall when I talk about biomass as being carbon neutral. And people just don't want to accept it. But it is carbon neutral.

And if you think about it, you know, with the

sustainable forests and everything that we are doing with our forests here in America, that is certainly an egg in the egg basket, if you will, that we need to be using to fight carbon emissions. Would you agree?

*Mr. Perciasepe. Look, we need to preserve the American forest and allow even additional forest to grow. And this is another whole conversation. Again, I think there are some incentives in this bill that will stimulate innovation in this area.

But whether it is 100 percent carbon neutral or 93 percent carbon neutral or 95 percent, that is -- that can be determined. And I am going to guess here, without any scientific analysis, that there will be some discounting there because of, you know, transportation issues and other things, but -- and management practices. But certainly there are significant benefits. And, you know, certainly the Renewable Thermal Collaborative that I am representing today sees biomass as an important component of decarbonizing industrial heat.

*Mr. Carter. Right. Well, thank you for that very much. I appreciate it.

Mr. Sunday, very quickly, because I am running out of time here, under title 9 of this bill all the permits that would essentially be -- would -- all permits would essentially be stopped for plastic. And not only that, but

this means that recycling of plastics would also be stopped.

How is that going to impact -- killing the recycling, cutting-edge technology that we are working on, how is that going to provide us a realistic path forward?

*Mr. Sunday. It would do nothing but shoot ourselves in the foot. And again, it calls us to rely on manufacturing in other countries.

*Mr. Carter. Right. Well, I am out of time, but thank you, and I yield back, Mr. Chairman.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the gentlewoman from California.

Representative Barragan, you are recognized for 5 minutes, please.

*Ms. Barragan. Thank you, Chair Tonko, for holding this important hearing in reducing industrial emissions and a just transition. This is an important issue for me.

My district has heavy industry, including oil refineries in Carson, California and Wilmington, California that pollute the air in what is a majority Latino and African-American communities. But also these jobs support -- are union jobs.

As we transition away from fossil fuels to a clean energy economy, it is critical we make the necessary investments to ensure that every community can breathe clean air, and that no worker is left behind.

Mr. Perciasepe, the industrial sector is a significant

contributor for greenhouse gas emissions, and it is also a major cause of the environmental injustice in low-income communities and communities of color. Can you describe how electrifying industry and increasing the amount of clean energy used by the industrial sector can help to reduce the impact of pollution in communities?

*Mr. Perciasepe. Yes, that -- and thank you for that question. As I mentioned in my testimony, the industrial sector is one of the more complicated ones to decarbonize, because of the diversity of the different manufacturing processes.

But here -- but almost 50 percent of the emissions are coming from the need for heat. And heat is something that is ubiquitous across all industrial sectors. They need to heat things, or to create products to drive them -- you know, all -- for all different needs. But how that heat is created is about 50 percent of the greenhouse gas emissions. I am rounding here, it might be upper 40 percent.

And so reducing the emissions from that heat, which many have already done, has been pointed out here. There has been some fuel switching to cleaner natural gas, but there is a real opportunity to continue to use things like electrification, using renewable energy for that, or biomass -- I was just talking about -- but with all -- obviously, with the proper pollution controls on it.

The other place that is really important, Congresswoman, is in the innovation of the industrial processes. How can those industrial processes be modified to reduce the emissions that they produce, as well?

And I think looking at that holistically are what some of the measures in the Clean Futures [sic] bill tries to do.

*Ms. Barragan. Well, thank you for that.

Now, I think it is helpful to look at incentives that can be helpful in reducing emissions and setting standards for different sectors of our economy. You know, it is critical to reducing fossil fuel usage and reaching 100 percent clean energy.

We already have fuel economy standards for transportation. And the CLEAN Future Act proposes a clean electricity standard for utilities. Should we also have standards for the industrial sector to address climate and environmental justice issues?

And maybe you can elaborate a little bit on what that would look like.

*Mr. Perciasepe. Well, the -- certainly, the thermal part of the industrial sector can be subjected to performance standards similar to a clean energy standard. It is -- there -- you know, there is still energy being used. But the industrial process part of it, you know, the making of cement, the cracking of chemicals at a refinery to make

plastics and other goods, the moving of iron ore to elemental iron, all of these things require not only heat, but also they have chemical processes.

And so those processes aren't able to -- there is innovation that could be occurring there that will help reduce those emissions. But a clean energy-type standard or performance standard could be applied to the thermal aspects of industrial heat.

*Ms. Barragan. Thank you. Mr. Walsh, in California there are 35,000 abandoned oil wells sitting idle, many leaking methane and harmful chemicals in communities of color. Across the country there are millions of abandoned wells. Could investing in communities to plug and remediate these wells be part of a just transition program that creates immediate job opportunities?

*Mr. Walsh. Quickly, absolutely. It has the combined effect of cleaning up polluted sites, but also creating jobs in the short term.

Let me just speak to your other question. I think one of the most important opportunities provided by pursuing solutions around industrial decarbonization is to also reduce criteria pollutants from the industrial sector. And there are ways in which -- of deploying technologies that can do both. And that is what is so exciting, I think, about this industrial title.

*Ms. Barragan. Great, thank you, sir.

With that, Mr. Chairman, I yield back.

*Mr. Tonko. The gentlewoman yields back. The chair now recognizes the gentleman from Texas.

Representative Crenshaw, you are recognized for 5 minutes, please.

*Mr. Crenshaw. Thank you, Mr. Chairman. Thank you all for being here. Look, I want to focus on costs and benefits and tradeoffs.

Policymaking is about tradeoffs, not necessarily solutions. And when you have a preferred solution in mind, well, then there is a large incentive to exaggerate problems, exaggerate benefits associated with that solution, and diminish the costs associated with that. So there is a lot of things to cover here.

I want to hit the transition of jobs, or the supposed transition of jobs. The reality is that this bill creates one job, and that is a director of a task force that would have -- would supposedly transition workers to green energy jobs. The problem is -- and this has already been acknowledged in this hearing -- that if there is no opportunity on the other end of that, well, these government programs never work.

The Washington Post had to fact-check John Kerry using Bureau of Labor Statistics data when John Kerry claimed that

the fastest-growing jobs in America, or some of them, were renewable energy jobs. Here is the thing. By percentage-wise, that might be true. But in reality, when you actually look at the -- in absolute numbers, it is only about 10,000 new jobs over the next 10 years. Here's the other thing. These jobs, on average, pay about $20,000 less than oil and gas jobs.

This idea that we are just going to transition jobs is a myth. It is a fantasy.

I want to hit on the Buy Clean program, and this question will be directed to Ms. Dell, just a quick question.

If the plan was implemented perfectly, we didn't lose any industry, let's say, which, of course, is quite the assumption, how much would we actually reduce carbon emissions?

*Ms. Dell. Thanks so much for the question. The first thing I would say is that one of the most important aspects of Buy Clean is that it has no incentive whatsoever to offshore production. Exactly the same standards are applied to overseas production --

*Mr. Crenshaw. Please answer the question. I have such -- if we had an hour, I would love to talk with you. But please answer the question that I asked.

*Ms. Dell. Sure, that is all I wanted to say. And so building materials in the U.S. represent a few percent of our

total emissions. So if we brought those to zero, we might see an impact of a few hundred million tons of CO2.

*Mr. Crenshaw. Okay, so a few percent meaning three percent of U.S. emissions?

*Ms. Dell. Well, that depends very sensitively on how much money Congress decides to spend on infrastructure.

*Mr. Crenshaw. Let's say it is ten percent. All right? Let's say we reduce U.S. emissions by ten percent. U.S. emissions account for about 15 percent of global emissions. This would equal about one percent decrease in global emissions, which is kind of nothing, practically speaking, at a huge cost.

I realize you claim that there is no cost to this. I notice you said that in your testimony, too, but you did not cite any references. Do you have any references now for why there would be no cost? Have you consulted with industry about this?

*Ms. Dell. Yes, so in my written testimony there are extensive footnotes which provide all the numbers. But I didn't say there would be no costs. I said the costs would be very modest.

*Mr. Crenshaw. Okay --

*Ms. Dell. Typically --

*Mr. Crenshaw. A lot of people in industry would vehemently disagree.

I want to move on and ask another question --

*Ms. Dell. Very modest compared to the cost of the infrastructure project, not necessarily very modest compared to the cost of the old way of making cement.

*Mr. Crenshaw. Okay. Again, cost benefits is what I am trying to get at.

On plastic manufacturing -- so there would be a pause on new plants in the next 3 years. On this question, what benefits do we expect from doing that?

Is the benefit directed towards emissions, or plastics recycling, or are we afraid plastics are going in the ocean?

What is the expected benefit?

*Ms. Dell. So I was not invited to testify on the plastics title of the bill.

*Mr. Crenshaw. Okay. Does any other witness want to answer that question?

[No response.]

*Mr. Crenshaw. Okay, well, I am going to say it is both, right? I am going to say that maybe my colleagues are expecting both, okay? So it is emissions and we don't like plastic in the oceans.

I don't like emissions. I want to reduce emissions. I also don't like plastic in the oceans.

Here's the thing. Let's look at this study: Danish Ministry of Environment and Food found that you would have to

use a cotton bag 20,000 times just to have less environmental impact than a simple plastic bag. Now, look, I am a Millennial. I take that cotton bag to Whole Foods. I do. But I know I am virtue signaling. I know that it is actually bad for the environment. We need to acknowledge this reality.

In California you can't get a plastic bag.

Here's the other thing. If we are concerned about plastic in the oceans, let's be honest, you are in America. Your straw isn't going into the ocean. It just isn't. Ten rivers contribute to ninety percent of plastic in the oceans. It is not your straw.

Mr. Sunday, in my limited time left, can you hit this theme of the costs that are being ignored by this bill?

*Mr. Sunday. Sure. I think, broadly speaking, we see significant public intervention in the marketplace. You see a glut of the thing that the government is trying to buy, and scarcity and high prices for the things that the market actually needs. So that has been an under-explored aspect of all of this.

If private companies' management wanted to make a significant change, then we would need to see some modeling, some analysis, some real extensive understanding of tradeoffs before we would jump on that sort of massive shift in approach on the private side.

So from where we sit in Pennsylvania -- like, again, we have done everything we should be doing, in terms of air quality, energy costs, and manufacturing, and we want to see those trends continue.

*Mr. Crenshaw. Thank you, and I yield back no time. Thank you, Mr. Chairman.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the gentleman from Virginia.

Representative McEachin, you are recognized for 5 minutes, please.

*Mr. McEachin. Thank you, Mr. Chairman, and thank you for your excellent leadership in this area, and for the introduction of the CLEAN Future Act.

You know, to my mind there is nothing more important than combating our climate crisis. I have said it before and I will say it again, it is the most important issue of the 21st century. We have exactly one opportunity to get it right, and we can't afford to miss the mark. I will go ahead and skip right to my questions.

Mr. Walsh, first of all, thank you for the wonderful and outstanding work that you and the others on the BlueGreen Alliance are doing. You previously worked on coordinating interagency efforts through the POWER initiative. Can you give us a sense of the importance of having a formalized process to reach across agencies and to incorporate

stakeholder input in the design and implementation of federal programs?

How critical is participation through an advisory committee otherwise -- of affected workers or community members to the success of these efforts?

It is a 2-part question.

*Mr. Walsh. A coordinated office is essential. What we did during the Obama Administration, as you and I have talked about, was kind of ad hoc, kind of jury-rigged. I think we got a lot done, but what we were missing was a structural system in place that would allow different offices, different agencies to work together. So that was vitally important.

On the point of public participation, look, you know, the best kind of economic development is from the bottom up, right? The way you get that is getting full buy-in and full participation from community members, economic developers, other stakeholders in local communities about their vision, their plan for the economic future of their community. So it is absolutely vital.

*Mr. McEachin. Thank you, that is a nice segue into my next question about empowering local leaders. Can the Federal Government play a role in the community-driven economic redevelopment by supporting capacity building, technical assistance, and financial support?

*Mr. Walsh. Yes, it can, and I think in title 10 the --

you see some clear examples of that, in particular the establishment of, essentially, community hubs, right, that would put into practice what I just described about bottom-up planning, and also really help navigate -- help these local communities and workers navigate the federal resources that are out there. That, in my experience, is incredibly important.

*Mr. McEachin. Sir, I am sure you will agree with me that remediation is an awfully important aspect of what we have to do to get to where we need to be by 2050: the cleaning up of abandoned mine field -- I mean abandoned mines, Superfund sites, orphan oil wells, orphan gas wells, and brownfield sites. How can these remediation activities help provide jobs, protect public health, and lay the groundwork for future economic growth in these communities?

*Mr. Walsh. Well, I mean, they create jobs for a number of different trades in the cleanup itself, some of which is actually highly skilled. So there is an immediate job creation incentive right there.

But it also recognizes that you are not really going to get economic development in places that are badly polluted, right? Businesses aren't going to locate there, new businesses aren't going to grow there. People aren't going to want to live there. If you have got a watershed, for example, that is poisoned by acid mine drainage, then that is

not an attractive place to build a new business or a new industry sector. So it is a vital precondition for economic diversification to clean up the mess that was left behind.

I would also say, look, we talked about -- you heard a little exchange before about costs. Let's also be clear that -- the costs of pollution, right?

You know, the University of Minnesota issued a report in 2019 that found that poor air quality is responsible for more than 100,000 deaths in the United States due to heart attacks, strokes, lung cancer, and other diseases. And these, of course, are impacts that disproportionately impact communities of color and low-income communities.

If we are going to have a full conversation about costs, we need to be talking about those costs, as well. And cleaning up those costs, cleaning up that pollution not only addresses that, but creates jobs and creates the conditions for sustainable, more resilient economic development.

*Mr. McEachin. Well, thank you for that very fine answer. You know, we -- historically, we have undervalued the societal cost of pollution, and we appreciate you bringing our attention back to that.

Mr. Chairman, I am out of time. I yield back.

*Mr. Tonko. Yes, the gentleman yields back. The chair now recognizes the gentlewoman from Delaware.

Representative Lisa Blunt Rochester, you are recognized

for 5 minutes, please.

*Ms. Blunt Rochester. Thank you, Mr. Chairman, for calling this important hearing on the CLEAN Future Act. And thank you to all the witnesses for your testimony today.

As has been said, and as we all know, the climate crisis continues to threaten our country and the world. And in order to avoid the worst effects of climate change, we need to move to a 100-percent clean energy future.

Transitioning to a clean energy future is not only an imperative for our planet, but it is also an opportunity to rebuild our economy in the wake of the COVID-19 pandemic. And millions of new construction, skilled trades, and engineering jobs needed to build a clean energy future will help us to create a cleaner, healthier, more equitable and sustainable country.

Mr. Walsh, I would like to start with you. In response to Representative Crenshaw's question, and as someone who works closely with unions, how do you view the relationship between tackling the climate crisis and jobs?

And does it create more net jobs or not?

And then secondly, if you could just talk about how people from varying skills and educational levels will also be able to partake.

*Mr. Walsh. Thank you for the question, Congresswoman. It is our view that rebuilding and repairing our

infrastructure and our industrial base to be modern, safe, less polluting is an enormous job-creation opportunity. We can cite different metrics. Some have actually been referenced in this committee in the past.

But I want to emphasize just how much work will be involved in doing all of those things in the industrial sector, in the energy sector, in the building sector, as you know well, in environmental remediation. These are enormously big projects that we need to take on, and that will create a lot of jobs.

Now, the key is to make sure that the jobs created are high quality, and the jobs are accessible to the broadest range of the American people, right? And so we have some work to do in that regard. It is the case that the job quality of jobs that are in the wind and solar industries right now is really mixed. It is not good enough. But what that doesn't mean is that we should try to stand in the way of this transformation. What that means is that we should use well-established policy levers to improve the quality of jobs in those sectors, right?

*Ms. Blunt Rochester. Yes.

*Mr. Walsh. This Act does that, right? It uses a prevailing wage.

*Ms. Blunt Rochester. Yes.

*Mr. Walsh. It uses project labor agreements. It uses

community benefits. So I just want to be really clear about that point.

*Ms. Blunt Rochester. Thank you for clarifying.

And I think that it is important to say that this isn't easy work. As you may know, I served as secretary of labor in Delaware, and also head of state personnel. And so jobs are a passion for me, which is why I created our first-of-its-kind, bipartisan Future Work Caucus in the Congress to look at challenges and opportunities.

And earlier this week, just this week, I got to visit the Port of Wilmington, where they are showing us how they are using automation and ways to not displace workers -- they have worked with the union with a guarantee that no one would lose their job, but they are also now being able to expand.

And so, in shifting to a clean energy future, how can we alleviate even some of the fears of automation in the industrial sector?

*Mr. Walsh. Talk to the bricklayers. What they will tell you is that -- I mean, as folks who know -- and you know the construction trades -- this is incredibly skilled work. It is also dangerous work, and it is hard on the body, right?

If you can surgically use robotics to lift things on a construction site, you are not only going to be increasing productivity, but you are going to be helping that bricklayer that is, you know, right next to that machine that is helping

that person do their work. So I think that is part of the conversation that we need to be having.

*Ms. Blunt Rochester. Yes, thank you.

And Dr. Dell, what role does data play in our evolution to a clean energy future?

And how can we use data to support our low-carbon investments?

*Ms. Dell. Thank you for the question. As has come up already in the hearing, data and transparency are going to be critical for this, because we want to be -- we want to design our policies to reward people who -- and firms that are using the cleanest and most modern techniques. And in order to do that, we need to have accurate information about what are the environmental performance of not just domestic firms, but also international firms that want to participate in domestic markets.

*Ms. Blunt Rochester. Thank you so much. My time has expired, but I want to thank the chairman for his leadership and his vision in this area.

Thank you, I yield back.

*Mr. Tonko. Thank you very much. The gentlewoman yields back. Next the chair recognizes the gentleman from Florida.

Representative Soto, you are recognized for 5 minutes, please, and thank you for your patience.

*Mr. Soto. Thank you, Chairman. I want to start with a history lesson. Quote, "As we sign this bill in this room, we can look back and say, 'In the Roosevelt Room, on the last day of 1970, we signed a historic piece of legislation that put us far down the road toward a goal that Theodore Roosevelt, 70 years ago, spoke eloquently about, a goal of clean air, clean water, and open spaces for future generations of Americans'.'' That was a quote by Republican President Richard Nixon during the Clean Air Act signing ceremony.

When the Clean Air Act was first -- became law in 1970, it passed in the Senate unanimously, and only one person voted against it, one member of the House voted against it. What a shining environmental achievement. So what has happened since then?

I realize this is hard for many of you, since there are major coal, oil, or gas industries in your states that provide jobs. And we need to work together to ensure transition in these communities. Because we know why; we face a climate crisis.

We must reduce carbon emissions to avoid intensifying hurricanes -- we know that in Florida -- rising sea levels -- we also know that in Florida -- extreme heat in the summer and extreme cold in the winter. Its effects are even worse. Our agriculture could start to fail, and more Americans will

go hungry. We can see the entire southern United States find themselves as climate refugees. Add political destabilization, war, and famine across the world, and you fully begin to understand the impacts that happen.

In addition, I have heard countless arguments about China and India. Let me say it again. Their failures don't define American excellence. We do. And as we develop these technologies, we will sell them abroad, and position ourselves for continued economic dominance in the 21st century.

So once again, our nation has to come together with a comprehensive plan. That is what the Clean Futures [sic] Act is. It moves us towards carbon neutrality by 2050, with decarbonization of government, transportation, utilities, manufacturing, and agriculture. And we will continue to convert our transportation system with electric vehicles.

The facts that my colleagues -- the fact that my colleagues across the aisle aren't motivated by the climate crisis, perhaps other things will motivate you, like the fact that the private sector is already moving forward with all this. Look no further than Ford or GM and the electric vehicles. They are rolling on the market faster than you could think. Millennials, the biggest generation, they are moving along. Consumer preferences, insurance companies, reinsurance markets, boardrooms are moving forward.

You blocked the Clean Power Plan, utilities still moved forward. You blocked the auto fuel efficiency standards, auto manufacturers still moved forward. So we could either work on this bill, or communities you represent can be left behind. And sooner or later, they will realize that it is your fault, that we should have worked together on this.

Lastly, I want to mention that this would include solar, and it would include hydro, and it would include wind, and it would also include nuclear power. President Biden's climate plan includes nuclear power. Let me repeat that. President Biden's plan includes nuclear power. It calls for the development of small, modular reactors, SMRs. So I offer to work with you all.

Let me end just by talking to Mr. Perciasepe. We know we have in Florida the Martin Next Generation Solar Energy Center located in Indiantown, and concentrating solar power has been a real potential.

Can you go into some of the roles that CSP can play in expanding the use of renewables in the industrial sector, Mr. Perciasepe?

*Mr. Perciasepe. Thank you. Thank you for that question.

Yes, concentrated solar power is different, in a way, than what we traditionally think with the photovoltaic cells. It is a -- taking -- concentrating the forces of the sun into

a more defined point or space, which can create very high temperatures.

And so, for some industrial operations that need high temperatures and have the space for that kind of a collection system, you can definitely achieve some exceedingly high temperatures, which is really one of the more challenging parts of the industrial sector. But if you are looking at an industrial park, or some other large industrial complex, usually it will be harder to implement that.

So it has a role, it is an important part of the solution, but it will have that geographically limited ability.

*Mr. Soto. Thank you, Mr. Perciasepe. My time has expired, and I yield back.

*Mr. Tonko. The gentleman yields back. The chair now recognizes the former vice chair of the standing Committee on Energy and Commerce, and a fellow New Yorker.

Representative Clarke, you are recognized for 5 minutes, please.

*Ms. Clarke. Let me thank you, Mr. Chairman and Ranking Member McKinley, for convening today's hearing, a hearing on an important set of provisions within the CLEAN Future Act. And thank you to our witnesses for your testimony.

We have heard from our witnesses it is crucial that we scale up investment in the clean technologies and

infrastructure.

Just a couple of weeks ago I was speaking with a minority-owned clean energy startup called WeSolar CSP, which has an office in my district. Their unique solar thermal technology allows them to provide scalable clean energy for a variety of applications, including industrial. Now that we -- now what they need is the financing opportunity to put their technology into action. I think that the Clean Energy Sustainability Accelerator included in the CLEAN Future Act is a perfect example of how the Federal Government can help address this need.

In my home state of New York we have seen firsthand just how beneficial these types of programs can be. Since its inception, the New York Green Bank has used $1.2 billion of public funds to stimulate over 3.4 billion in total investment in clean energy and energy-efficiency projects across New York State.

But that is not all. I am proud to say that New York City is home to the first local green bank in the United States, known as the New York City Energy Efficiency Corporation. In my district in Brooklyn this program helped finance an affordable, multi-family solar and storage microgrid at the Marcus Garvey Apartments, serving 625 units. This investment has resulted in a clean and resilient energy system that also provides major savings on energy costs for

community residents.

Across the nation, state and local green banks have helped communities save money, improve efficiency, and reduce emissions. Now it is time we bring this model to the federal level.

So, Mr. Perciasepe, do you agree that establishing a national accelerator will help reduce the cost of climate action and expedite the transition into a cleaner, healthier, and more prosperous economy?

[Pause.]

*Ms. Clarke. Mr. Perciasepe?

*Mr. Perciasepe. Yes, I am -- can you guys hear me?

*Ms. Clarke. We can now.

*Mr. Perciasepe. I am sorry, I hope it is not my side over here, but I am on my personal Internet here.

The accelerator is broadly constructed to look at solutions, and cooperating with the local green banks, as well. So I think it has a great opportunity to help accelerate the work that is underway by existing green banks, but also filling gaps where those existing green banks haven't yet gone, in the more broader --

*Ms. Clarke. And why is it so important that we make financing for clean technology and clean infrastructure more accessible, all the way down to the community level?

*Mr. Perciasepe. Well, one of the barriers, obviously,

to transition and also to innovation is that next step. And whether it is transitioning at the community level, or becoming more resilient at a community level, which is also part of the portfolio of the accelerator, all of these things require that insertion of investment.

And so this is a real opportunity to bring together both the green and clean technology, and accelerating that, and providing financing for it to move toward being commercialized, and at the same time looking at the infrastructure and other needs at the local community level as part of that resiliency component.

*Ms. Clarke. Yes, I couldn't agree more. The ability to focus investments on local circumstances is critical to addressing the needs of local communities, particularly environmental justice communities. I am very glad to see that our committee's accelerator proposal places this issue front and center by directing 40 percent of investments to frontline and disadvantaged areas.

I thank my colleague, the gentlelady from Michigan, Rep. Dingell, for her leadership on the accelerator, and I look forward to working with her and the committee to advance this program.

With that, Mr. Chairman, I yield back.

*Mr. Tonko. The gentlewoman yields back. And now we go to, I believe, our last colleague to question, and that would

be the gentleman from Virginia.

Representative Griffin, thank you for your patience, and you are recognized for 5 minutes, please.

*Mr. Griffith. Thank you very much for letting me waive on, Mr. Chairman, I greatly appreciate it, and it is a policy of -- it is a bipartisan policy this committee has had for some time. It allows us to get into issues that we consider important, even if we are not on the subcommittee, if we are on the full committee. So I do appreciate it.

Mr. Sunday, I have appreciated your perspective today and in your testimony on how we can leverage our historical leadership in energy and industry to continue leading the world in clean and affordable electricity. On page nine of your testimony you state that the cost of triggering NSR, new source review, has caused companies in your state to cancel projects that would have reduced emissions, lowered operating costs, and improved public health and our environment.

I would like to describe -- I always like to describe this as forcing a company to swallow the apple whole, whereas I think, if we take bites, or if we allow the company to take bites out of that apple, they would be able to consume the apple. In other words, get the improvements that are needed out there. But if they are forced because of NSR to take it all in at one time, then they just don't do it.

Do you agree with that assessment or analysis?

*Mr. Sunday. Yes, I do. It is certainly an obstacle to enhancing the operations of domestic facilities and getting cleaner. It is a very perverse regulatory approach that discourages cleaner operations from our facilities.

*Mr. Griffith. And in fact, I will tell you that -- and I have said this before in committee in other contexts -- that, you know, whether they could get around it or not, I have a furniture manufacturing facility in my district that now has a conveyor belt to nowhere. It goes out, oh, I don't know, 75, 50 -- 75, 100 yards, and comes back because at one time part of their paint process was at the other end of the conveyor belt.

But they had been advised by their attorneys, because of NSR, not to take that conveyor belt out because then that would trigger the entire set of the Clean Air Act rules coming down on their heads. And they are like, okay, it costs us a couple of seconds in manufacturing of each piece of furniture that we do, case goods, but, even though we are fighting every second to get it better to compete with the Chinese, we can't afford to have -- suddenly to have all these new rules placed on us at one time.

Is that -- do you have similar stories, or have you heard stories like that, as well?

*Mr. Sunday. Yes, it comes up in a number of contexts. Maybe you come out of an economic recession, and your factory

wants to run more. NSR is going to hit you if your emissions -- if you are going to make a significant modification.

In other circumstances, maybe you want to add another shift, and NSR again comes into play. As you mentioned, it discourages efficiency improvements.

And, you know, and we have had the opportunity at the Chamber to come down in front of this committee in the past and talk about, you know, your potential solutions, other ways to make NSR better.

Whatever we want to make in this country, whether it is solar panels, telecommunications assets, et cetera, NSR reform has got to be on the table if we are going to talk about competitiveness.

*Mr. Griffith. And I appreciate that. And people need to remember that NSR is just one piece of the complicated Clean Air Act regulatory puzzle, and providing much-needed clarity to this complex program does not take away from other provisions under the Clean Air Act. And it is clear that providing greater certainty through common-sense, targeted reforms would replace some of the ambiguity and confusion surrounding NSR, and result in a more effective and efficient program.

And you mentioned that I have legislation, and I do, the NSR Improvement Act, and it would do that. But there is nothing in the CLEAN Future Act or the Climate Leadership and

Environmental Action for our Nation's Future Act. There is nothing in there that deals with NSR reform, is there?

*Mr. Sunday. No, sir.

*Mr. Griffith. Yes. Let me ask you this. What adopting an hourly emissions rate test like the one used in the EPA's new source performance standard program, enhance the new source review, or NSR program, so that companies can update their facilities and install technologies like carbon capture? Would that be helpful?

*Mr. Sunday. Yes, and that is a solution we have endorsed in the past.

*Mr. Griffith. Yes, I think that makes sense. And in fact, as you may recall, the language that was in the underlying bills that started the NSR and started the new source performance standard, that language is virtually identical. But because of interpretations in different divisions of the EPA, we have a completely different application. Is that not your understanding, as well?

*Mr. Sunday. Yes, it really depends on the regional office. Yes.

*Mr. Griffith. Yes. And that makes it hard for businesses to make decisions, does it not?

*Mr. Sunday. Yes, or at least causes certain parts of the country to lose out on investment.

*Mr. Griffith. And that investment would make the air

cleaner, correct?

*Mr. Sunday. Correct. Again, we are always -- we can't just put blinders on and pretend that it is only what is going on in the United States. It is a globally competitive market.

*Mr. Griffith. I am for getting the air cleaner. Let's pass some NSR reform. Thank you for your testimony.

I yield back.

*Mr. Tonko. The gentleman yields back. And I believe that completes the list of colleagues who had chosen to ask questions.

I again thank our witnesses for joining us at today's hearing. Their input is extremely appreciated.

I do remind members that, pursuant to committee rules, they have 10 business days by which to submit additional questions for the record to be answered by our witnesses. I ask that each witness please respond promptly to any such questions that you may receive.

Before we adjourn, I know that a number of documents have been asked to be entered into the record by our colleagues, so I hereby ask unanimous consent for the following documents to be entered into the record: a letter from Fortera; a report from a Analysis Group entitled, "Accelerating Job Growth and an Equitable Low-Carbon Energy Transition: The Role of the Clean Energy Accelerator''; a

report from Brattle entitled, "Clean Energy and Sustainability Accelerator: Opportunities for Long-Term Deployment''; a statement from the American Forest and Paper Association; a statement from the Ultra Low-Carbon Solar Alliance; a report from Coalition for Green Capital entitled, "Accelerating Investment in Clean Energy and Climate Infrastructure to Create Jobs and Drive an Equitable and Just Transition: Policy analysis of the Clean Energy and Sustainability Accelerator''; a letter from the Industrial Energy Consumers of America; a report from ClimateWorks entitled, "Build Clean: Industrial Policy for Climate and Justice''; a report from the Just Transition Fund entitled, "National Economic Transition Platform''; a report from the State of Colorado's Department of Labor and Employment entitled, "Colorado Just Transition Action Plan''; a report from the State of Colorado's Department of Labor and Employment entitled, "The Need for Federal Support to Ensure Just Transitions for Local Energy Economies''; a letter from the Biotechnology Innovation Organization; a letter from the Portland Cement Association; a report from the Lawrence Livermore National Library entitled, "Permitting Carbon Capture and Storage Projects in California.''

Without objection, so ordered.

[The information follows:]

**********COMMITTEE INSERT**********

So with all of that, we again encourage our witnesses to respond promptly to any questions that are submitted after this formal part of the hearing.

And at this time the subcommittee is adjourned.

[Whereupon, at 1:40 p.m., the subcommittee was adjourned.]