



The CLEAN Future Act

The Climate Leadership and Environmental Action for our Nation's (CLEAN) Future Act is a comprehensive proposal of sector-specific and economy-wide solutions to address the climate crisis. Critically, the CLEAN Future Act formally adopts the goal of achieving a 100 percent clean economy by 2050. The draft bill incorporates both proven and novel concepts, presenting a set of policy proposals that the Energy and Commerce Committee believes will put the United States on the path to a clean and prosperous economy.

Among the more novel approaches are a climate bank to help states, local communities, and the private sector transition to a clean economy, as well as a Buy Clean Program to move the economy toward low-carbon construction materials and products used in projects receiving federal funds. It also includes new state-federal partnerships for climate action, referred to as State Climate Plans. This provision has deep roots in time-tested provisions of the existing Clean Air Act, empowering states to lead the transition to a clean economy.

Above all, the draft bill reflects the Committee's belief that comprehensive climate policy demands a multi-pronged strategy, and that addressing the climate crisis fully and swiftly is central to preserving our nation's competitive edge now and into the future. Legislation must reduce pollution and hazardous waste, rebuild and modernize infrastructure, deploy clean energy while developing the workforce to sustain it, and protect the health and safety of all communities. Together, these principles will enable sustainable and clean economic growth that will benefit all sectors of American society throughout the 21st century.

The CLEAN Future Act seeks significant reductions of greenhouse gas (GHG) emissions and other harmful toxic pollutants in all communities, a fair and inclusive transition for all Americans, and long-term policy certainty – all while providing flexibility to respond to changing market conditions and technological advances.

I. HOW WE GOT HERE

On [July 23, 2019](#), Chairmen Pallone, Tonko, and Rush announced [a bold plan](#) to achieve a 100 percent clean economy by 2050. This target reflects the scientific consensus that all countries must shift to net-zero GHG emissions by 2050 to avoid the most devastating consequences of climate change.¹ Since then, the need for ambitious climate action has only become clearer. On November 26, 2019, the United Nations warned that global temperatures are on track to increase by as much as 3.9 degrees Celsius above preindustrial levels by the end of the century – more than double the limit needed to avoid the worst effects of climate change.²

¹ Intergovernmental Panel on Climate Change, *Special Report on Global Warming of 1.5°C* (Oct. 2018).

² United Nations Environment Programme, *Emissions Gap Report 2019* (Nov. 26, 2019).

With this urgency in mind, the Committee on Energy and Commerce has been hard at work developing policy solutions to address the climate crisis and put the United States on track to achieve net-zero GHG emissions by 2050. With the release of this memo – followed later this month by the legislative text of the CLEAN Future Act – the Committee is taking its next major step towards building a clean economy.

The CLEAN Future Act reflects extensive feedback gathered from months of expert testimony and stakeholder engagement. Throughout the 116th Congress, the Subcommittee on Environment and Climate Change and the Subcommittee on Energy held a series of hearings focused on identifying and developing pathways to deep decarbonization. These hearings provided invaluable insight as the Committee began assessing legislative options for climate action.

Witnesses provided testimony on the opportunities and challenges associated with decarbonization, highlighting areas where policy solutions exist and others that require additional development. This hearing series included:

- Building a 100 Percent Clean Economy: Solutions for Economy-wide Deep Decarbonization (December 5, 2019)
- Building a 100 Percent Clean Economy: The Challenges Facing Frontline Communities (November 20, 2019)
- Building a 100 Percent Clean Economy: Solutions for the U.S. Power Sector (October 30, 2019)
- Building a 100 Percent Clean Economy: Solutions for Planes, Trains and Everything Beyond Automobiles (October 23, 2019)
- Building a 100 Percent Clean Economy: Solutions for the U.S. Building Sector (September 20, 2019)
- Building a 100 Percent Clean Economy: Pathways to Net Zero Industrial Emissions (September 18, 2019)
- Building America's Clean Future: Pathways to Decarbonize the Economy (July 24, 2019)

The Committee also heard witness testimony during several hearings held prior to the announcement of its plan in July, including:

- Driving in Reverse: The Administration's Rollback of Fuel Economy and Clean Car Standards (June 20, 2019)
- Oversight of FERC: Ensuring Its Actions Benefit Consumers and the Environment (June 12, 2019)
- Investing in America's Energy Infrastructure: Improving Energy Efficiency and Creating a Diverse Workforce (April 10, 2019)
- Lessons from Across the Nation: State and Local Action to Combat Climate Change (April 2, 2019)

- Wasted Energy: DOE’s Inaction on Efficiency Standards and Its Impact on Consumers and the Climate (March 7, 2019)
- We’ll Always Have Paris: Filling the Leadership Void Caused by Federal Inaction on Climate Change (February 28, 2019)
- Clean Energy Infrastructure and the Workforce to Build It (February 27, 2019)
- Time for Action: Addressing the Environmental and Economic Effects of Climate Change (February 6, 2019)

The Committee also led an in-depth stakeholder engagement process, in which Majority staff heard from leading voices in the labor community, environmental justice communities, environmental organizations, think tanks, the clean energy and energy efficiency industries, the power sector, the oil and gas sector, the agricultural sector, the industrial sector, and the transportation sector. Altogether, staff met with hundreds of stakeholders to collect feedback on their priorities, concerns, and recommendations.

These meetings offered a unique opportunity to solicit candid input from stakeholders. Staff learned about the challenges each sector faces in reducing emissions, as well as the ways in which policy can help overcome those barriers. By engaging early and thoughtfully with such a wide array of industries and communities, the Committee ensured that a diverse range of voices had a chance to be heard.

In addition, the Committee solicited feedback from hundreds of stakeholders through a widely distributed climate policy questionnaire. The questionnaire was intended to jumpstart a broader conversation about which actions and policies will be needed to achieve net-zero emissions by 2050. Written responses complemented feedback gathered from the Committee’s hearings and stakeholder meetings, and they ultimately contributed to development of the CLEAN Future Act.

II. OVERVIEW OF THE CLEAN FUTURE ACT

A. Title I: National Climate Target

On July 24, 2019, the Subcommittee on Environment and Climate Change held a [hearing](#) entitled, “Building America’s Clean Future: Pathways to Decarbonize the Economy.” Witnesses testified that GHG emissions must reach net-zero no later than 2050 to limit global temperature rise to 1.5 degrees Celsius above preindustrial levels by the end of the century.³ That target is consistent with the findings of the Intergovernmental Panel on Climate Change (IPCC), which concluded that limiting warming below that level would avoid the most damaging effects of climate change.⁴

³ “Net-zero emissions” refers to balancing the amount of GHGs emitted and the amount removed from the atmosphere through natural or technological means.

⁴ See note 1.

The CLEAN Future Act adopts the science-based goal of transitioning the United States to a 100 percent clean economy – defined as producing net-zero emissions – by 2050, based on legislation championed by Reps. A. Donald McEachin (D-VA), Deb Haaland (D-NM), Debbie Dingell (D-MI), Earl Blumenauer (D-OR), Paul Tonko (D-NY) and Chellie Pingree (D-ME).

To that end, the bill directs federal agencies to use all existing authorities to put the United States on a path toward meeting the net-zero emissions target. Rather than stipulating which energy sources qualify, the Act takes a technology-neutral approach to reaching net-zero emissions by mid-century. In order to ensure that federal agencies’ collective efforts remain on track to achieve this goal, the CLEAN Future Act directs the Environmental Protection Agency (EPA) to evaluate each agency’s plans, make recommendations to strengthen them as needed, and report on progress each year. The bill also establishes a stakeholder advisory committee to provide recommendations on one or more interim goals.

Additionally, the CLEAN Future Act directs the National Academies of Sciences (NAS) to study how EPA should evaluate progress towards the net-zero emissions target. The NAS analysis will propose metrics for measuring that progress, including best practices for assessing lifecycle GHG emissions for regulated sectors.

B. Title II: Power Sector

On October 30, 2019, the Subcommittee on Energy held a [hearing](#) entitled, “Building a 100 Percent Clean Economy: Solutions for the U.S. Power Sector.” The hearing focused on reducing emissions from the power sector, which is the second largest source of GHG emissions in the United States.⁵ Witnesses offered testimony highlighting a theme heard throughout the Committee’s hearing series – that the power sector will be the linchpin for deep decarbonization of the U.S. economy.

A low-carbon electricity system will be key to reducing emissions in other segments of the economy, including the industrial, transportation, and buildings sectors. Electrification of those other sectors has the potential to dramatically reduce emissions, but only if the electricity is sourced from a low-carbon power sector.

Accordingly, the CLEAN Future Act includes a suite of measures to decarbonize the U.S. electricity system. The bill proposes a nationwide Clean Electricity Standard (CES), requiring all retail electricity suppliers to obtain 100 percent of their electricity from clean energy sources by 2050. The CES in the CLEAN Future Act incorporates concepts from separate legislative proposals developed by Reps. Diana DeGette (D-CO) and Ben Ray Lujan (D-NM).

The included CES proposes defining “clean energy” as electricity generated at a facility with an annual carbon intensity lower than 0.82 metric tons of carbon dioxide (CO₂) equivalent per megawatt-hour. Non-emitting generators receive full credit for the electricity they produce, whereas coal- and gas-fired generators with carbon intensities lower than 0.82 metric tons of

⁵ U.S. Environmental Protection Agency, *Sources of Greenhouse Gas Emissions* (epa.gov/ghgemissions/sources-greenhouse-gas-emissions) (Sept. 13, 2019).

CO₂ (for example, those that capture their emissions) receive partial credit after accounting for upstream fossil emissions. The Committee seeks analysis of alternative baseline options, including the merits and implications of setting a lower emissions threshold, such as 0.4 metric tons of CO₂-equivalent per megawatt-hour, or lowering the carbon emissions intensity limit prior to 2050.

The proposed CES mandates that all retail electricity suppliers provide an increasing supply of clean electricity to consumers starting in 2022, rising to 100 percent clean energy by 2050. Regulated suppliers must possess a sufficient quantity of “clean energy credits” at the end of each year, or they may otherwise make an “alternative compliance payment.” Suppliers may buy and trade clean energy credits from one another or purchase them via auction.

CES proposals are often complemented by strong energy efficiency provisions, such as an energy efficiency resource standard (EERS).⁶ The CLEAN Future Act does not include an EERS, but instead incorporates a robust suite of energy efficiency measures in Title III. The Committee encourages comments on alternative approaches to integrating energy efficiency into a CES.

Beyond the CES, the CLEAN Future Act includes several reforms aimed at modernizing U.S. energy markets, starting with the Federal Energy Regulatory Commission (FERC). The Act addresses some of the market barriers for new entrants and emerging technologies, facilitates the integration of clean and renewable resources into the grid, and provides for retail choice of clean energy. It also directs FERC to consider climate change as part of its public interest determination under the Natural Gas Act, removing any ambiguity and arguments regarding the D.C. Circuit’s holding in *Sabal Trail*; updates natural gas eminent domain laws to better protect landowners; and expands the stakeholder engagement process at FERC.

Additional federal energy regulatory reforms include increasing oversight of the nation’s transmission system, setting requirements for interregional transmission planning, and mandating the interconnection and coordination of facilities under an independent system operator (ISO) or regional transmission organization (RTO).

Although these measures will modernize and strengthen the transmission system, they do not include overarching reforms to the transmission permitting and siting process. The Committee believes transmission permitting and siting have a critical part to play in enabling a clean energy economy and seeks input on siting reforms.

The CLEAN Future Act also modernizes the Public Utility Regulatory Policy Act of 1978 (PURPA). The bill amends PURPA to ensure that states consider energy storage systems in their resource planning processes, promotes the use of “non-wires solutions,” and protects qualifying facilities’ right-to-contract.

⁶ See, e.g., Center for Climate and Energy Solutions (C2ES), *Clean Energy Standards: State and Federal Policy Options and Implications* (Nov. 2011) and American Council for an Energy-Efficient Economy (ACEEE), et al., *A Comprehensive Approach to Setting Clean Energy Standards for the Electricity Sector* (Apr. 2009).

The CLEAN Future Act takes additional action to improve and invest in electric grid infrastructure. The bill provides grants for grid modernization, resilience, and storage; reauthorizes and increases funding for Department of Energy (DOE) programs to assist Native American tribes; creates a grant program to develop energy storage and microgrid projects in rural communities; promotes the development of microgrids for critical infrastructure; provides grants to deploy more efficient transformers; and establishes a Strategic Transformer Reserve to reduce grid vulnerability.

The CLEAN Future Act also expands access to clean energy throughout the United States. The bill establishes loan and technical assistance grant programs within DOE to deploy distributed energy systems that increase the use of clean energy, improve grid resiliency and reliability, and enhance demand-side management. In addition, the Act creates a loan and grant program to install solar panels in low-income communities; introduces a long-term power purchase agreement (PPA) model for zero-emissions technologies; establishes a PPA pilot program for advanced nuclear technology; provides incentives for efficiency improvements at hydroelectric facilities; improves the hydroelectric licensing process; and reauthorizes the Low-Income Home Energy Assistance Act of 1981 (LIHEAP).

C. **Title III: Buildings and Efficiency**

On September 20, 2019, the Subcommittee on Energy held a [hearing](#) entitled, “Building a 100 Percent Clean Economy: Solutions for the U.S. Building Sector.” The hearing focused on barriers to reducing emissions from buildings, which now account for one-fifth of GHG emissions in the United States, as well as solutions to overcome those barriers.⁷ Witnesses highlighted how slow turnover rates and complex ownership models often delay investment in building performance improvements. Given these challenges, as well as the expansive footprint of the U.S. building stock, they agreed that there is a critical role for the federal government to play in enabling deep decarbonization. Strong policy signals and incentives can achieve that goal by spurring investment in energy efficiency, material efficiency, and electrification.

The CLEAN Future Act aims to improve the efficiency of new and existing buildings, as well as the equipment and appliances that operate within them. The Act establishes national energy savings targets for continued improvement of model building energy codes, leading to a requirement of zero-energy-ready buildings by 2030. This section further provides assistance for states and Tribes to support adoption of updated model building energy codes and support full compliance. The CLEAN Future Act also incorporates the HOMES Act, introduced by Rep. Peter Welch (D-VT), which establishes a Home Energy Savings Retrofit Rebate Program to provide funding for residential energy efficiency improvements.

In addition, the CLEAN Future Act amends the Energy Policy and Conservation Act of 1975 (EPCA) to support strong state energy efficiency standards. Importantly, the bill allows states to set their own energy efficiency standards for appliances when the federal government fails to meet its statutory obligations to finalize applicable standards.

⁷ See note 5.

The CLEAN Future Act incorporates several additional measures to reduce building emissions, including reauthorizing and expanding the Weatherization Assistance Program; improving energy efficiency in public buildings, including through the use of energy savings performance contracts and a newly established Federal Smart Building Program; reauthorizing and modernizing the Energy Efficiency and Conservation Block Grant Program to promote the use of alternative fuels, including electricity; establishing a smart energy and water efficiency management grant program; and improving energy efficiency in public schools, federally-owned data centers, and buildings owned by nonprofit organizations.

D. Title IV: Transportation

The Subcommittee on Environment and Climate Change held two hearings focused on the transportation sector. On June 20, 2019, the Subcommittee held a joint [hearing](#) with the Subcommittee on Consumer Protection and Commerce entitled, “Driving in Reverse: The Administration’s Rollback of Fuel Economy and Clean Car Standards,” which examined the importance of protecting strong fuel economy and tailpipe emissions standards for light-duty vehicles. On October 23, 2019, the Subcommittee held a [hearing](#) entitled, “Building a 100 Percent Clean Economy: Solutions for Planes, Trains and Everything Beyond Automobiles,” which examined strategies for reducing emissions from medium- and heavy-duty transportation (i.e., trucks, buses, ships, aircraft, and rail).

Witnesses at both hearings testified that reducing transportation emissions is critical to any comprehensive climate strategy. Transportation is now the largest source of GHG emissions in the United States.⁸ In the absence of policy action, transportation-related energy consumption is expected to increase in the coming years.⁹ The CLEAN Future Act aims to reverse this trend by improving vehicle efficiency, accelerating the transition to low- and zero-carbon fuels (including electricity), and building the infrastructure needed for a clean transportation system.

For decades, strong vehicle performance standards have played a critical role in reducing emissions of both conventional pollutants and GHGs.¹⁰ Reducing emissions of greenhouse gases must be the focus of these programs moving forward in order to achieve net-zero emissions by 2050. Accordingly, the CLEAN Future Act proposes a framework to ensure continued vehicle efficiency improvements and to help states reduce emissions from transportation. The bill directs EPA to set new, increasingly stringent greenhouse gas emission standards for light-

⁸ See note 5.

⁹ U.S. Energy Information Administration, *Annual Energy Outlook 2019* (Jan. 24, 2019).

¹⁰ See, e.g., Union of Concerned Scientists, *A Brief History of US Fuel Efficiency Standards* (ucsusa.org/resources/brief-history-us-fuel-efficiency) (Dec. 6, 2017); Consumers Union, *Fueling Savings: Higher Fuel Economy Standards Result In Big Savings for Consumers* (Sept. 7, 2016); The Rhodium Group, *The Biggest Climate Rollback Yet?* (rhg.com/research/the-biggest-climate-rollback-yet) (Aug. 2, 2018); and Energy Innovation, *Trump’s Fuel Economy Standard Rollback Will Cost \$450 Billion Through 2050, Increase Emissions 11% Through 2035* (Jul. 2018).

medium-, and heavy-duty vehicles, including non-road modes of transportation. It further requires year-over-year improvements to those standards – and that the level of the standards be set in accordance with the path to net-zero emissions by 2050.

The CLEAN Future Act includes a suite of measures to support this shift to low- and zero-carbon transportation fuels. The bill encourages electric vehicle charging infrastructure deployment by supporting state and local government, as well as private sector, planning and investment in charging networks; sets aggressive goals to transition federal fleets to alternative fuel and low- or zero-emissions vehicles; and encourages states to consider updating their electric utility regulations to enable electrification of surface transportation. The Act also directs DOE to ensure that policies to accelerate the deployment of alternative fuel and low- or zero-emissions vehicles consider the transportation needs of underserved and disadvantaged communities.

The CLEAN Future Act includes various additional provisions to accelerate deployment of low- and zero-emissions vehicles. These include reauthorizing and increasing funding for the Diesel Emissions Reduction Act; establishing a pilot program to electrify short-haul refrigerated trucks; establishing a program to retrofit or replace diesel-fueled school buses with low- and zero-emissions buses; and bolstering DOE’s Clean Cities Coalition Program to reduce petroleum-based fuel consumption, expand the use of alternative transportation fuels and vehicles, and improve air quality at the local level.

At the October 23 hearing, witnesses stressed the importance of developing low-carbon alternative fuels for heavy-duty transportation, including aviation and shipping. For those modes of transportation, where electrification may be technically infeasible or prohibitively expensive in the near- and medium-term, federal support is needed to lower the barriers to entry for next-generation fuels. The CLEAN Future Act directs EPA to accelerate the approval of pathways for low-carbon alternative transportation fuels under the Renewable Fuel Standard. The bill also modernizes DOE’s Advanced Technology Vehicles Manufacturing (ATVM) program to refocus on decarbonization. It directs ATVM to make grant and loan eligibility requirements based on GHG emissions, rather than fuel economy; expands the program to include medium- and heavy-duty vehicles; and increases public-private cost-share levels. Over the coming months, the Committee will continue to develop solutions to decarbonize the heavy-duty transportation sector.

E. Title V: Industry

On September 18, 2019, the Subcommittee on Environment and Climate Change held a [hearing](#) entitled, “Building a 100 Percent Clean Economy: Pathways to Net Zero Industrial Emissions.” The hearing focused on reducing emissions from the U.S. industrial sector – one of the most technically and economically challenging sectors to decarbonize. In some cases, GHG emissions are unavoidable byproducts of industrial processes. In others, low-carbon alternatives are either prohibitively expensive or underdeveloped. Several industrial subsectors also compete in highly competitive global markets, and manufacturers may choose to relocate production overseas rather than invest in emissions mitigation technologies. These energy-intensive and trade-exposed (EITE) industries consequently face steep barriers to deep decarbonization.

Despite these challenges, witnesses agreed that solutions are not only attainable, but that deep decarbonization presents a unique opportunity to revitalize manufacturing in the United States. Specifically, Dr. Julio Friedmann of Columbia University testified that “a new innovation focus on clean heavy industry would help maintain a muscular U.S. heavy industry, help us remain globally competitive, and could prove the cornerstone for future.”

The Committee believes that industrial decarbonization will require both industry- and process-specific solutions, as well as cross-cutting measures. It is imperative that Congress and the Executive Branch put in place policy measures across all committee and agency jurisdictions to preserve the global competitiveness of EITE industries and manufacturers in the United States. The CLEAN Future Act includes measures within the Committee’s jurisdiction to enable those solutions.

The CLEAN Future Act establishes a Buy Clean Program that sets performance targets to steadily reduce emissions from construction materials and products used in projects that receive federal funding. According to Dr. Friedmann, federal, state, and city governments buy or fund the purchase of enormous volumes of industrial products – including some 90 percent of cement and concrete and 50 percent of steel – giving government procurement enormous leverage in those markets. A national “buy clean” standard would immediately create demand for low-carbon industrial products and stimulate private investment in decarbonizing industrial sources. The Buy Clean Program in the draft bill would help transform these carbon-intensive industries by ensuring that projects funded by government dollars only use the cleanest construction materials. The program strengthens the competitiveness of the U.S. manufacturing sector while reducing emissions by promoting the development and use of low-carbon materials and expanding the market for cleaner products.

The CLEAN Future Act also expands DOE’s role in improving industrial efficiency. The bill creates an Assistant Secretary for Manufacturing and Industry within DOE to oversee these efforts and coordinate the Department’s industrial efficiency initiatives. The Act also modernizes the Section 1703 Loan Guarantee Program to extend eligibility to industrial decarbonization projects and lower barriers to entry for applicants. In addition, it supports efforts to capture carbon emissions by establishing a technology commercialization program for carbon capture and utilization, as well as a prize for direct air capture.

Additional industrial decarbonization measures in the CLEAN Future Act include reauthorizing the Combined Heat and Power (CHP) Technical Assistance Partnership Program to facilitate the deployment of energy efficient CHP systems; directing the Secretary of Energy to develop a national strategy for developing and deploying smart manufacturing technologies; and providing rebates to facilities that purchase or install more efficient electric motor systems.

F. Title VI: Environmental Justice

On November 20, 2019, the Subcommittee on Environment and Climate Change held a [hearing](#) entitled, “Building a 100 Percent Clean Economy: The Challenges Facing Frontline Communities.” The hearing focused on issues related to environmental justice, including the

impact of climate change and extreme weather events on legacy toxic exposures. Witnesses discussed the disproportionate impacts of climate change and other environmental hazards on communities of color, low-income communities, and other at-risk populations. In the absence of strong federal action, these communities will continue to bear the brunt of a changing climate.

The CLEAN Future Act takes bold action to protect historically underserved and marginalized communities from the impacts of climate change and legacy toxic exposures.

This title incorporates several measures developed by Rep. Raul Ruiz (D-CA) to codify Executive Order 12898, issued by President Clinton in 1994.¹¹ That order established an interagency working group on environmental justice and required federal agencies to integrate environmental justice into their missions and develop comprehensive, agency-wide environmental justice strategies. The bill codifies those requirements in response to recommendations provided by the Government Accountability Office that codification could improve compliance and effectiveness.

The CLEAN Future Act introduces environmental justice considerations into the approval of state plans for clean air and safe disposal of hazardous waste, ensuring that approved state plans will address disproportionate exposures to legacy toxic chemicals. It also addresses toxic exposures from fossil fuel energy production through strong, new coal ash disposal requirements, protections for underground drinking water sources from enhanced oil recovery, and repeals of oil and gas production exemptions from landmark environmental laws.

Additionally, the draft legislation includes provisions to protect communities from the adverse impacts of extreme weather events. It directs EPA to set financial responsibility requirements for facilities that have the potential to release toxic chemicals because of extreme weather and identify measures those facilities can take to minimize the risks they pose. The Act also amends the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as Superfund) to clarify that polluters are liable after extreme weather events connected to climate change. And the bill provides additional funding for resilience and adaptation of drinking water utilities.

Furthermore, the Act provides two new types of technical assistance grants to support and empower local communities. These grants will help communities get the assistance needed to participate in federal regulatory decision-making processes regarding the health and safety impacts of waste disposal and air permits in their neighborhoods.

Finally, the CLEAN Future Act incorporates additional measures championed by Rep. Matt Cartwright (D-PA) to protect Americans from the public health effects of climate change. The bill directs the Secretary of Health and Human Services to develop a national strategic action plan to ensure that public health and health care systems are prepared for the impacts of climate change. In addition, it supports state and local efforts to develop climate preparedness plans; expands research into the intersection of climate change and health; and enhances the federal government's ability to track the spread of infectious diseases due to climate change.

¹¹ Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 11, 1994).

G. Title VII: Super Pollutants

On July 24, 2019, the Subcommittee on Environment and Climate Change held a [hearing](#) entitled, “Building America’s Clean Future: Pathways to Decarbonize the Economy.” Witnesses testified that deep decarbonization will require steep reductions of all heat-trapping pollutants, including non-CO₂ GHG emissions (i.e., short-lived climate pollutants, otherwise known as “super pollutants”). These powerful pollutants, which account for one-fifth of GHG emissions in the United States, are associated with a wide range of industrial sectors and processes.¹²

Witnesses at the July 2019 hearing focused, in particular, on the importance of reducing methane emissions. Methane, a potent greenhouse gas with 35 times the heat-trapping effect of CO₂ over a 100-year period, is the most abundant non-CO₂ GHG emitted in the United States.¹³ The CLEAN Future Act accordingly takes definitive action to reduce emissions of this powerful super pollutant.

The bill directs EPA to regulate methane emissions from the oil and gas sector – the largest source of domestic methane emissions.¹⁴ Under the proposed requirements, existing sources must reduce emissions 65 percent below 2012 levels by 2025 and 90 percent below 2012 levels by 2030. In addition, the draft legislation prohibits routine flaring for new sources, and limits routine flaring for existing sources to 80 percent below 2017 levels by 2025 and completely phases out the practice by 2028. The CLEAN Future Act further directs EPA to address emissions from liquified natural gas facilities and offshore oil and gas operations.

The bill also creates a grant program within DOE to help states reduce methane emissions from natural gas infrastructure. That program, championed by Reps. Mikie Sherrill (D-NJ) and Lisa Blunt Rochester (D-DE), provides funding through the states to accelerate natural gas distribution companies’ efforts to inspect, repair, or replace aging pipeline infrastructure. In addition, it provides financial support to offset any rate increases that would be imposed on low-income customers.

In addition, the CLEAN Future Act includes measures to reduce emissions of black carbon (often referred to as “soot”). The bill directs EPA to examine whether existing rules and regulations are adequate to reduce black carbon emissions; if EPA determines that existing rules are insufficient, then the legislation authorizes the Agency to promulgate new regulations. The Act also directs EPA to participate in international efforts to reduce black carbon emissions and provides support for Arctic indigenous communities affected by black carbon.

¹² The White House, *United States Mid-Century Strategy for Deep Decarbonization* (Nov. 16, 2016).

¹³ U.S. Environmental Protection Agency, *Overview of Greenhouse Gases* (epa.gov/ghgemissions/overview-greenhouse-gases#methane) (Apr. 11, 2019) and U.S. Global Change Research Program, *Fourth National Climate Assessment, Chapter 2: Our Changing Climate* (Nov. 2018).

¹⁴ See note 5.

H. Title VIII: Economy-wide Policies

On December 5, 2019, the Subcommittee on Environment and Climate Change held a [hearing](#) entitled, “Building a 100 Percent Clean Economy: Solutions for Economy-Wide Deep Decarbonization.” The hearing examined economy-wide approaches to climate action, including the need for cross-cutting measures to reduce emissions across sectors. Witnesses provided a range of policy options and proposals, but across the board, they agreed that federal action is needed to meaningfully address the climate crisis. The draft legislation includes four specific economy-wide policies that will empower states to lead the transition to a clean economy; provide investment in federal, state, local, and private sector clean economy transition efforts; train the clean economy workforce of the future; and integrate climate change into U.S. national security planning.

1. *State Climate Plans*

The CLEAN Future Act draft incorporates one of the novel proposals presented at the December 2019 hearing: a state-federal partnership for climate action, which has its roots in the time-tested provisions of the existing Clean Air Act. This model reflects the critical role states can and should play in addressing climate change. Most major environmental statutes in the United States include the cooperative federalism framework, with roles and responsibilities for regulators at both the federal and state level.¹⁵ This approach also provides flexibility to the States to determine how best to meet the environmental standards set forth by Congress and the executive branch.

The Act sets a national climate standard of net-zero GHG emissions in each state by 2050. States are then granted flexibility to develop plans to meet (or exceed) the 2050 and interim standards based on their policy preferences, priorities, and circumstances. Each state must submit a state climate plan to EPA, which then reviews, approves, or disapproves each plan. States may work independently or cooperatively as they develop their plans to meet the national climate standard. Once a state reaches net-zero GHG emissions under these provisions, it must maintain that level (or work towards negative emissions).

To ensure that states have ample guidance and expertise at their disposal, the bill directs EPA to develop a set of model control strategies, which states can choose to incorporate into their plans. Those control strategies include a climate pollution phaseout control program, a performance-based fuels standard, adopting California’s low- and zero-emissions vehicle standards, establishing a carbon removal control program, and deploying demand-side energy management programs. The bill also creates new grant authorities to support the states both in the development of their plans and with achieving emission reductions through a “Race to Net-Zero” program. States may use those funds for a variety of activities, including those that improve energy efficiency, electrify building appliances, replace conventional vehicles with low- or zero-emissions vehicles, or support carbon capture, utilization, and storage.

¹⁵ Environmental Council of the States, *Cooperative Federalism 2.0: Achieving and Maintaining a Clean Environment and Protecting Public Health* (Jun. 2017).

The proposed framework includes strong protections to ensure that states meet the national climate standard. Should a state fail to submit or obtain approval of a state climate plan, in-state GHG emissions sources (i.e., those with emissions greater than 25,000 metric tons of CO₂-equivalent per year) would be automatically subject to a backstop carbon fee. If a state misses an interim standard or the 2050 net-zero standard, the bill includes increasingly stringent, mandatory emission reduction requirements that the states must implement until they meet the applicable standard.

The Committee invites feedback on how to translate science-based near- and medium-term targets (i.e., the IPCC's conclusion that emissions must decline 40 to 60 percent below 2010 levels by 2030)¹⁶ into interim targets under the proposed framework.

2. National Climate Bank

The CLEAN Future Act establishes a first-of-its-kind National Climate Bank to help states, cities, communities, and companies in the transition to a clean economy. The Bank, championed by Rep. Debbie Dingell (D-MI), will mobilize public and private investment to provide financing for low- and zero-emissions energy technologies; climate resiliency; building efficiency and electrification; industrial decarbonization; grid modernization; agriculture projects; and clean transportation. The provision requires the Bank to prioritize investments in communities that are disproportionately affected by the impacts of climate change, including frontline, rural, low-income, and environmental justice communities. In addition, the Bank must ensure that all investments are accompanied by strong labor protections.

The National Climate Bank builds on the successful track record of state and local green banks across the United States. These institutions, which have strong ties to their communities and deep understanding of local markets, have collectively driven nearly \$4 billion of public and private investment. To expand this model to all communities, the Act authorizes the National Climate Bank to provide technical assistance and start-up operating funds to launch new green banks where they do not yet exist.

3. Transitioning to a Prosperous Clean Economy Workforce

Throughout the Committee's deep decarbonization hearing series, witnesses underscored the importance of protecting American workers and EITE industries when developing climate policy. At the same time, they made the case that climate action offers a rare opportunity to reinvigorate American manufacturing and make the United States a leader in clean energy innovation. The CLEAN Future Act seizes this opportunity and enables a thriving American workforce.

The transition to a clean economy will require a skilled and diverse clean energy workforce. To that end, the CLEAN Future Act incorporates the Blue Collar to Green Collar Jobs Development Act of 2019, introduced by Rep. Bobby Rush (D-IL). Among other measures,

¹⁶ See note 1.

the bill establishes the Office of Economic Impact, Diversity, and Employment within DOE and directs the Secretary of Energy to establish and implement an energy workforce development program. It further requires the Secretary of Energy to provide direct financial and technical assistance to educational institutions, local workforce development boards, state workforce development boards, non-profit organizations, labor organizations, and apprenticeship programs.

The CLEAN Future Act also includes several cross-cutting provisions to protect American workers. First, the bill requires any project funded to construct, alter, maintain, or repair a public building or public work must use iron, steel, and manufactured goods produced in the United States. Second, it mandates that any laborers and mechanics employed on projects underwritten by the Act be paid no less than the local prevailing wage. Third, it allows federal agencies to require the use of project labor agreements, on a case-by-case basis, when awarding contracts under provisions of the Act.

The Committee believes that more must be done to protect workers, communities, and industries that may be affected by the transition to a low-carbon economy. Over the coming months, the Committee will continue working with the labor community, the private sector, and other stakeholders as it develops solutions to protect EITE industries, ensure worker protections, and deliver a just and equitable transition for communities.

4. Integrating Climate Change into U.S. National Security Planning

Finally, the CLEAN Future Act ensures that the federal government integrates climate change into its national security strategy. The Act incorporates legislation introduced by Rep. Stephen Lynch (D-MA), which mandates that the federal government consider the impacts of climate change when developing relevant national security policies. This provision also establishes a Climate and National Security Working Group to develop an action plan on climate change and national security and requires federal agencies to develop individual plans to address the impact of climate change on their national security missions.

III. NEXT STEPS FOR THE CLEAN FUTURE ACT

Over the coming months, the Committee will continue to develop and refine the CLEAN Future Act. This process will include additional hearings focused on various topics raised throughout this document and ongoing stakeholder engagement. The Committee particularly looks forward to working with Members on both sides of the aisle to develop bipartisan solutions as part of this process and in the hope of achieving consensus on climate action to the maximum extent possible.

It is important to note that while the CLEAN Future Act draft is extensive, there are several important policy areas that are not yet included in the draft bill. Specifically, the CLEAN Future Act does not yet include detailed provisions related to workforce and community transition; adaptation and climate resilience; agriculture; financial issues, including climate risk disclosure; international cooperation; recycling and waste management; transmission siting; and, trade-related issues, including preserving the global competitiveness of U.S. EITE manufacturers.

The Committee believes that these topics are critically important and should be part of comprehensive climate legislation. In some cases, the draft bill includes measures related to these topics. For instance, Title II of the CLEAN Future Act includes provisions to enhance grid resiliency and modernize U.S. transmission; Title IV establishes new pathways to develop agriculturally-derived sustainable transportation fuels; and Title VIII incorporates measures to build a clean energy workforce.

Climate action requires meaningful engagement throughout Congress, including the development of complementary policies from other committees. The Committee believes that any policy option that brings the United States closer to net-zero GHG emissions by 2050 should be on the table and looks forward to working with other House committees as they develop proposals within their jurisdictions.

The Committee also welcomes policy solutions from across the political spectrum to build on bipartisan provisions already incorporated into the CLEAN Future Act. These include measures to support advanced nuclear energy technologies (based on H.R. 3306, the Nuclear Energy Leadership Act); to enable the use of energy savings performance contracts in public buildings (H.R. 3079, the Energy Savings Through Public-Private Partnerships Act of 2019); and to expand clean energy programs in rural communities (H.R. 4447, the Expanding Access to Sustainable Energy Act of 2019), among many others. The Committee wishes to thank the many Members not previously mentioned whose work and ideas contributed to the CLEAN Future Act, including Reps. Cardenas (D-CA), Casten (D-IL), Castor (D-FL), Clarke (D-NY), Eshoo (D-CA), Kaptur (D-OH), Kelly (D-IL), Kinzinger (R-IL), Lamb (D-PA), Loeb sack (D-IA), Luria (D-VA), Malinowski (D-NJ), Matsui (D-CA), McKinley (R-WV), McNerney (D-CA), O'Halleran (D-AZ), Peters (D-CA), Rigg leman (R-VA), Sarbanes (D-MD), Schakowsky (D-IL), Stanton (D-AZ), Takano (D-CA), Veasey (D-TX), Wittman (R-VA), and others.

Finally, the Committee invites and eagerly awaits detailed feedback on the CLEAN Future Act draft from all interested parties. Feedback can be sent to Clean.Future@mail.house.gov.