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Citizens for Responsible Energy Solutions (CRES) Forum

To the U.S. House of Representatives, Select Committee on the Climate Crisis

For the Hearing "International Climate Challenges and Opportunities"

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210 Cannon House Office Building

Chairwoman Castor, Ranking Member Graves, and Members of the Committee, thank you for the opportunity to testify today on "International Climate Challenges and Opportunities."

My name is Charles Hernick, and I am the Vice President of Policy and Advocacy for Citizens for Responsible Energy Solution (CRES) Forum. We are a 501(c)(3) non-profit that educates the public and influences the national conversation around clean energy and climate solutions that are actionable, market-friendly, and responsible. My testimony is shaped by my experience not just here in the U.S. but on the ground in over a dozen countries in Africa, Latin America, and the Caribbean working to advance American interests abroad as a consultant to U.S. Agency for International Development.

In April, during "Earth Week," our executive director testified before this committee on ways that climate-focused goals could also create new jobs and catalyze economic growth. Although much has happened in a short period of time since that testimony, we continue to focus on three guiding principles for judging climate policy from a conservative perspective:

- Cut energy prices, not energy choices
- Export American Innovation, not American jobs
- Reduce global emissions, not America's economy

Nowhere do these principles matter more than in international climate negotiations, which are designed to advance common solutions to a truly **global problem**. To that end, I hope you will remember *three points* from my testimony:

First, there is no substitute for U.S. leadership in innovation. Low-cost, low-emissions technologies and goods will be critical to successful climate policy.[1] Anything short of widespread adoption will fail to address this global issue, and American innovation will be the key driver. People in every country look to the U.S. for the next Ford or Tesla, IBM or Apple, 3M or General Mills to develop and deploy quality consumer products around the world. In our climate conscious era: quality means low-carbon, net-zero, or negative emissions technologies. Innovative and low-cost climate solutions are needed for global uptake in developing countries in Africa, Latin America, and Asia, where too many people still lack basic services.

The most important role for the U.S. government in reducing greenhouse gas emissions around the world is to **make strategic investments in research and development (R&D), such as those included in the Energy Act of 2020**, which serves as a strong foundation to an *all-of-the-above* approach: renewables, nuclear, fuel and energy efficiency, hydrogen, electrification (i.e., electric vehicles), and carbon capture utilization and storage must all on the table. And it must not pick winners and losers in the marketplace.

Second, aid and trade should drive economic growth and opportunity. The U.S. leads the world in aid and development assistance.[2] We should be proud of that fact—and continue our global commitments. But more important than the amount of dollars of direct aid is America's role cultivating the right outcome: economic growth, a low carbon future, and strong

[1] See more about CRES Forum's Climate Policy Directives at: https://cresforum.org/climate-policy-directives/.
[2] OECD. https://www.oecd-ilibrary.org/sites/45472e20-en/index.html?itemId=/content/component/5e331623-en&_csp_=b14d4f60505d057b456dd1730d8fcea3&itemIGO=oecd&itemContentType=chapter

ties with our democratic allies. That means also assuring that U.S. solutions are brought to the world through international trade policy, at a cost that developing nations are able and willing to pay.

To make a dent in global emissions, climate solutions must be as accessible and locally appropriate. This means driving down the cost of innovation as quickly as possible by eliminating unnecessary regulatory barriers, forcefully protecting the intellectual property of our homegrown innovations, and enabling the right market conditions for our companies to scale up manufacturing and distribution without delay.

Trade policy should reward American companies with high environmental performance and assure they will not be undercut by countries and foreign businesses lagging in the race to reduce emissions.[3] Our geopolitical adversaries are willing to undercut American interests no matter what the implications are for climate change.

The U.S. government must lead the world to **harness the power of free markets as we reexamine regulation, trade, and intellectual property protection.** That means avoiding mandates and subsidies. We live in an era where even in the depths of a pandemic, companies large and small have voluntarily committed to carbon neutrality by definitive dates. Government should empower companies to achieve their self-set goals, not pursue heavy-handed, top-down mandates that drive up costs or reduce options in the U.S. and around the world.

Third, greenhouse gas emissions are the bogeyman! Not fossil fuels. Coal and oil and natural gas are indispensable to the global energy system. In 1971, coal, oil, and natural gas fueled around 86 percent of the global energy supply; and in 2019, this decreased only slightly to

[3] Based on https://cresforum.org/climate-policy-directives/

81 percent.[4] While I am a champion of renewables—and very proud that solar and wind have taken off in the U.S. growing at 11 percent last year—when you look at the globe (total primary energy supply), the mix is about the same as it has ever been. A dramatic reengineering of the global energy system has not happened since President George H.W. Bush brough the U.S into the United Nations Climate Framework in 1992. It is possible, but unlikely that such dramatic change will happen in the next decade. While renewables will—and must—grow to tackle climate change, Congress can take pride in the fact that for a world dependent upon fossil fuels for the near future, U.S oil and gas is far cleaner than the equivalent fuels from anywhere else in the world. For example, Russian-produced natural gas shipped by pipeline to Europe has approximately 41 percent higher life-cycle emissions (carbon dioxide (CO2) equivalent) than U.S. liquefied natural gas (LNG) shipped to the same destination.[5] Russian-produced natural gas shipped by pipeline to China has 47 percent higher life-cycle emissions than U.S. LNG exported to China.[6] In addition, heavy oil produced in Venezuela has 50 percent higher life-cycle emissions than light oil produced in Wyoming.[7] Of course, having the whole world consume U.S. oil and gas is not realistic or possible, but if we are serious about reducing emissions we cannot afford to take American oil and gas off the table.

When a resource is taken off of the table, innovation in that area grinds to a halt. That is why Congress should continue its **support of carbon capture utilization and storage**. Government does not need to mandate the adoption of these technologies and practices;

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[4] International Energy Agency (IEA), *World Energy Balances,* https://www.iea.org/reports/world-energy-balances-overview/world.
[5] Selina Roman-White et al., "Life Cycle GHG Perspective on Exporting LNG From the U.S. 2019 Update," *National Energy Technology Laboratory,* (September 2019). https://www.energy.gov/sites/prod/files/2019/09/f66/2019%20NETL%20LCA-GHG%20Report.pdf
[6] Ibid.
[7] Deborah Gordon et al., "Know Your Oil: Creating a Global Oil-Climate Index," *Carnegie Endowment for International Peace*, (March 2015). http://oci.carnegieendowment.org/

companies are adopting it themselves to meet consumer demand. Low-carbon fossil fuels must be an important tool for climate policy as we transition to cleaner energy sources, not just in the U.S. but because the rest of the world also uses fossil fuels. Completely cutting out all fossil fuels in the short term is simply not realistic, given the high percentage of the energy mix they still provide, the reliability they ensure, as well as the increasing number of options that are available to reduce the carbon footprint of these fuels. Turning our back on the opportunities for innovation that can ensure that fossil energy emits significantly lower emissions would also be harmful for U.S. competitiveness.

Finally, there's a significant security concern with targeting U.S. fossil fuels in the current global marketplace. America calling on OPEC to increase production undercuts our economic and national security objectives. Policies that restrict U.S. fossil fuel production, transportation, and exports in the name of climate change in fact have the opposite effect. They contribute to more global emissions, not less, at a significant cost to America's reputation, security, and economic outlook.

Good policy, not good rhetoric is needed to solve the climate problem

With the 26th UN Climate Change Conference of the Parties (COP26) starting in a few days, it is important to be realistic about the 2030 target that the Biden Administration has embraced and how it is related to U.S. credibility in international climate politics.

I am concerned that many of the policies implied to meet that target would threaten economic growth because they put government in the position to pick winners and losers and measure success in terms of dollars spent, irrespective of real inflation and deficit concerns. We need a suite of policies cutting across the major sectors, along with the necessary modernization in permitting that would enable the deployment of the clean energy infrastructure that we need.

The Biden pledge under the Paris Agreement – a 50 percent to 52 percent reduction by 2030, compared to 2005 – does not include specifics on how the US will meet this goal and eliminate 3 gigatons from our carbon balance sheet. According to the Energy Information Administration (EIA), while CO2 emissions fell by 11 percent in 2020,[8] they are expected to grow roughly 8 percent this year.[9] Next year, EIA expects no change in CO2 emissions.[10] Thus, America would need to reduce emissions by about 2 gigatons by the end of 2030 – roughly one quarter of a gigaton a year. Since 1990, we have only reduced emissions by that amount twice: as a result of the financial crisis in 2008-2009 and COVID in 2020. The economic hardship from these crises should not be part of our climate plan.

Effective climate policy will rely on the power of free markets. Big government mandates favor incumbent technologies and large companies and are blind to what the free market can do. Additional bureaucracy is disproportionately threatening to small businesses and start-ups. Appetite for clean energy—by people and companies—has been growing steadily for decades and as a result, the private sector and effective state-level policies have achieved the goals of President Obama's Clean Power Plan carbon reductions 10 years ahead of time.[11] Indeed, it is a favorable American business environment that gives space for a record number of companies to put themselves on a path to net zero and differentiate themselves on "clean." Congress should encourage more of that race to the top, and successful climate policy can be measured based on whether the free market is incentivizing behavior and activities that support our climate goals.

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[8] "U.S. energy-related CO2 emissions declined by 11% in 2020," U.S. Energy Information Administration (EIA), 12 April 2021, https://www.eia.gov/todayinenergy/detail.php?id=47496.

[9] "U.S. Economic Assumptions and Energy-Related Carbon Dioxide Emissions," EIA, 13 October 2021, https://www.eia.gov/outlooks/steo/report/renew_co2.php.

[10] "Short-term energy outlook," EIA, 13 October 2021, https://www.eia.gov/outlooks/steo/.

[11] Bloomberg NEF and Business Council for Sustainable Energy (BCSE). *Sustainable Energy in America 2021. Factbook*. https://bcse.org/factbook/.

And finally, America's interests and American jobs should be our number one priority when developing climate policy. The U.S. is more energy independent than we have been in decades and we should not lose that in the race to reduce emissions. This means that we need to address the entire supply chain of materials and technologies. It is encouraging that companies like Ford, General Motors, Tesla, and Volkswagen are building electric vehicles and battery plants in the U.S. to align supply chains with emerging markets. Domestically sourced critical minerals and metals utilized by domestic manufacturing facilities could supply the development of a clean energy transportation sector at home and abroad—but closing off areas for mining here in the U.S is problematic. For example, the Biden Administration's ordering of a study that could lead to a 20-year ban on mining upstream from the Boundary Waters Canoe Area Wilderness poses challenges to companies like Twin Metals Mining that are aiming to use environmental best practices to safely mine minerals critical to clean energy technology. Steps like this risk hemorrhaging more domestic jobs along the full clean energy and technology supply chain overseas. We must directly measure the effectiveness of our climate policy in our greenhouse gas emissions, job numbers, manufacturing metrics, the security of our supply chain, and our Gross Domestic Product.

1. Innovation

U.S. leadership in advancing global action to address climate change is indispensable. However, we need to get away from a 1990's climate policy conversation (a U.S.-centric view of the world) when the United States was a quarter of global emissions and the rest of the developed world was another 25 percent. When we could pursue unilateral policy – perhaps in coordination with a few other economies – that could make a major dent in global emissions. But we are not there anymore.

Today, more than 85 percent of all global greenhouse gas emissions occur outside U.S. borders—a share that will increase to over 90 percent by the end of the next decade. Worldwide emissions are increasing, as global energy demand is rising. The primary driver of this demand is developing economies as they increase their energy use and living standards rise. As a group, they are estimated to account for over 100 percent of the anticipated increase in global emissions through 2050.

Accordingly, we need to figure out how to best leverage U.S. climate and energy policy to innovate and develop commercialization pathways that work in India, Nigeria, and Indonesia. We need to be clear headed about what poor countries can and will do.

Recommendation: Make strategic investments in research and development (R&D).

At the close of 2020, the COVID relief and year-end omnibus also included a broad modernization of our nation's energy policies. The *Energy Act of 2020* was the culmination of many years of significant bipartisan effort and marks the first comprehensive energy legislation passed in over a decade. It combined several bipartisan provisions and reflects the priorities of many members of Congress to accelerate the development of technologies needed to meet our environmental and economic challenges. The Act provides a timely and critical investment in the advancements in energy efficiency, energy storage, advanced nuclear, carbon capture, carbon removal, renewable energy, and other approaches needed to decarbonize our economy. Importantly, it brought bipartisan compromise on the phaseout of hydrofluorocarbons, which are greenhouse gases with extremely high warming potential.

The bipartisan *Energy Act of 2020* was an important down payment on energy innovation, but affordability also matters here at home. The impacts of the pandemic-induced recession have not been evenly distributed across America, nor are historic environmental

burdens or the likely economic and health impacts of effects of climate change. Price increases make life even harder for these Americans. We can measure the success of our climate policy based on the availability of new energy innovations and whether they are priced for easy and widespread adoption.

As COVID-19 has been brought under control, the economy has recovered faster than many expected. The case for additional stimulus is limited, and overspending risks overheating the economy and further stoking the fires of inflation. Congress should fully fund *Energy Act of 2020.*

2. Aid and trade should drive economic growth and opportunity.

When history books are written about how we solved the climate problem, these years of the global COVID-19 pandemic will be a surprising turning point. There is a new, encouraging baseline. Companies across the U.S. economy voluntarily committed to renewable energy, as evidenced by more than 10.6 GW of corporate renewable energy purchases occurring in 2020, according to the Renewable Energy Buyers Alliance.[12] Companies across retail, big tech, and hospitality, among other sectors, have stepped up and made voluntary commitments to decarbonize their operations. That is why multi-billion or trillion-dollar pledges will not be a sign of success. Capital markets—driven by large investors and common stockholders alike—are focused on delivering a low-carbon future. Investors like Wells Fargo, Goldman Sachs, Bank of America, HSBC, Morgan Stanley, and Barclays have all committed to net-zero portfolios by mid-century.[13] More investors are factoring climate change into their portfolios, and it is easier

[12] Ben German. "Ranking 2020's corporate clean energy deals." *Axios*, February 11, 2020. https://www.axios.com/renewable-energy-companies-amazon-google-18db639c-e1e5-416f-8887-848e601131c6.html.
[13] American University. *Carbon Removal Corporate Action Tracker*. https://docs.google.com/spreadsheets/d/1vf--uXsf6fo7MuNpPya2Kz82Dxte0hHgtOXimgpRA3c/edit#gid=0.

than ever for Americans to align their 401(k) plans with a carbon-free future. There is no shortage of finance for mature clean energy technologies. Trillions in scattershot spending—in the U.S. and abroad—could crowd-out private sector investment. First and foremost, we should measure the success of our climate policy based on how well it encourages, not competes, with investment from America's financial industry.

This new baseline needs to be kept in mind as we revisit regulation, trade, and intellectual property protection. Frequently, policy that is ostensibly designed to address global climate change does not achieve the goals we seek. Entrepreneurs are rewarded with sales as customers seek suppliers that best fulfill their demands.

Mandates and subsidies, however, actively undermine this dynamic – by shifting costs from one party onto another. For their part, subsidies harm competition by alleviating inefficient producers of the need to cut costs to increase revenues, while unsubsidized competitors, which may be more efficient, are forced out of the market.

Studies by the Information Technology and Innovation Foundation (ITIF) have confirmed that such governmental policies harm innovation. In comparing subsidized Chinese solar module producers to U.S. manufacturers, for example, American companies invested less in innovation as they struggled to raise revenue in the face of competitors that were buoyed by Chinese governmental support. Our failure in solar manufacturing is a case study worthy of consideration. Solar was invented in the United States and then stolen by China, which has used predatory trade practices and nearly destroyed our related manufacturing. The story is similar for manufacturing of solar cells and modules. Imports of those products supplied 88 percent of U.S. domestic demand in 2017.

Recommendation: Normalizing transparency and reporting for sustainability markets such as voluntary carbon trading will help drive competition and investment.

America's private and public sectors have made great strides in deploying clean energy and reducing emissions, but there is currently no way for these accomplishments to be documented and organized so that their collective impact can be better understood by investors and consumers.

Normalizing systems for carbon reporting will increase transparency and accountability, increase investment in clean energy and offsets, and further decrease U.S. greenhouse gas emissions without imposing unnecessary mandates, costs, or bureaucracy.

This type of limited federal effort could help protect investors and maintain fair and orderly functioning of voluntary carbon markets. State compliance markets would still need their own enforcement mechanisms. But for private actors in the voluntary carbon space, following federal transparency and reporting guidance could crowd-in investment the way that Energy Star mainstreamed energy efficiency in the early 1990s through a voluntary program. Perhaps most importantly, government can facilitate certainty and trust in voluntary, industry-established greenhouse gas emissions registries and bring greater definition to tradable carbon offsets without inventing a new federal system that attempts to supersede state progress.

In addition to helping industry meet climate change goals, this framework for carbon transparency would help U.S. companies outcompete foreign rivals, particularly Chinese companies that depend on high-carbon sources of energy for industry. Indeed, our polling shows that 72 percent of all voters, and 61 percent of Republicans, support requiring both foreign and domestic companies to label their products based on the type of energy used in production, and equal numbers support requiring government contractors to disclose carbon emissions in the

production of their goods and materials.[14] Consumers want to know that their hard-earned dollars support companies that do not harm the planet. Providing easy access to that information will drive business back to American industry, boosting American jobs, our economy, and our national security.

3. Keep the focus on greenhouse gas emissions

Here in the United States, there's a lot of talk about transitioning away from fossil fuels – but you don't have that conversation in the developing world. While there is strong support for low carbon technologies in those countries, they all support traditional fossil fuel energy as well.

Consequently, we should develop a climate strategy anchored in the real world of today. The United States needs to leverage its policies to accelerate the overseas deployment of low carbon technologies to reduce or avoid increases in global emissions. Poor countries are unwilling to pay the green premium that we're willing to pay – they're focused on poverty eradication and energy access. Many of them also have fossil fuels, particularly coal, and there will be a strong incentive to tap those indigenous resources to enhance their own energy security, create jobs, and improve their balance of payments. Because developing countries are going to reject increasing the costs of conventional fuels, we must focus on driving down the cost of low carbon technologies to create a commercialization strategy that works for their market – and not just for ours.

Here in the United States there's a strong push to reduce greenhouse gas emissions by blocking fossil fuel infrastructure, including pipelines and terminals that would ultimately result in exporting that energy overseas. This is a misguided approach and detrimental to efforts to

[14] Citizens for Responsible Energy Solutions (CRES). *Poll: Republican, Democratic Voters Support Commonsense, "All-of-the-Above" Climate Solutions*. https://citizensfor.com/pressreleases/poll-republican-democratic-voters-support-commonsense-all-of-the-above-climate-solutions/.

reduce global emissions. While it is important to push other countries to deploy low carbon technologies and systems, we must recognize that countries, even those in the European Union, will continue to use fossil fuels.

In reducing global emissions, the use of U.S. natural resources is key. As stated previously, the greenhouse gas life-cycle emissions of fossil fuels vary by supplier — often significantly. The potential emissions reductions from intra-fuel switching are significant. For example, if the European Union (EU) replaced its Russian natural gas for electricity production with U.S. natural gas, the associated global emissions would fall approximately 72 million metric tons annually.[15] For comparison, the EU estimates that it needs to reduce its emissions by 78 million metric tons each year to reach its 2030 targets.[16]

Recommendation: Welcome approaches that decarbonize oil and gas and coal, specifically carbon capture utilization and storage

With current technologies, it is possible to reduce, and perhaps someday fully decarbonize, the oil and gas sector. Oil and gas companies are focused on reducing upstream emissions, as well as sequestering and offsetting carbon. Despite incredible economic challenges this past year, oil and gas majors Total and Royal Dutch Shell announced ambitious plans to reach net zero greenhouse gas emissions by 2050, echoing similar announcements made by BP and Repsol in 2019. Total, for example, aims to achieve net-zero Scope 1 and 2 emissions by 2050 and it is targeting carbon neutrality for all its Scope 3 production and energy products sold in Europe by 2050.[17] Oxy Low Carbon Ventures, a subsidiary of Houston based Occidental

[15] Assuming 35 percent of EU electricity generated from natural gas is sourced from Russia (244 million megawatt hours) and 297 kgCO2e lower life-cycle emissions per megawatt hour from U.S. supply.
[16] "Gas 2019," *International Energy Agency*, (2019). https://www.iea.org/reports/market-report-series-gas-2019
[17] Francois De Beaupuy. "Oil Giant Total Targets Carbon Neutrality in 2050." *Bloomberg Green*, May 5, 2020. https://www.bloomberg.com/news/articles/2020-05-05/total-targets-carbon-neutrality-in-2050-as-profit-plunges-35?cmpid=BBD051220_GREENDAILY&utm_medium=email&utm_source=newsletter&utm_term=200512&utm_campaign=greendaily

Petroleum, delivered its first batch of "carbon-neutral oil" this past January.[18] Fueling up with carbon-neutral gasoline can only be part of the future through an all-of-the-above approach that is open to innovation in all sectors.

Government does not need to mandate this behavior; companies are adopting it themselves to meet consumer demand. Zero-emission fossil fuels can be an important tool for climate policy as we transition to cleaner energy sources, but only if we make it possible for oil and gas companies to deliver on those promises. Government can do that by removing barriers that currently inhibit transparency, certainty, and trust in carbon offset markets.

Conclusion

Over the past decade, America has reduced its carbon emissions more than any other country. This was achieved through an all-of-the-above energy policy combined with public and private sector investments in American innovation. There is no need to reinvent this wheel.

U.S. government efforts related to international climate policy can build upon our past success by maintaining American leadership through strategic R&D and innovation investments; harnessing instead of hampering the power of free markets; and focusing on reducing emissions from fossil fuels—not they are the most glamourous climate solutions—but because we must take a realistic view of energy supply and demand here in the U.S. and in the developing world.

[18] Eklavya Gupte and Paula VanLaningham. "US' Occidental supplies first cargo of 'carbon-neutral crude' to India's Reliance." *S&P Global*, January 29, 2021. https://www.spglobal.com/platts/en/market-insights/latest-news/oil/012921-us-occidental-supplies-first-cargo-of-carbon-neutral-crude-to-indias-reliance.