Statement of the U.S. Chamber of Commerce

ON: "Solving the Climate Crisis: Drawing Down Carbon and Building Up the American Economy"

TO: U.S. House of Representatives
Select Committee on the Climate Crisis

DATE: April 30, 2019

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My name is Christopher Guith and I am the Acting President of the Global Energy Institute, an affiliate of the U.S. Chamber of Commerce ("Chamber"). The mission of the Global Energy Institute is to unify policymakers, regulators, business leaders, and the American public behind a common sense energy strategy to help keep America secure, prosperous, and clean. The Chamber appreciates the opportunity to testify today on the important role of technology and innovation in addressing climate change.

Introduction

The Chamber's mission is to take on the challenges facing the American business community at home and around the world. Global climate change is one of those challenges.

Global climate change is one of the most complex and far-reaching issues facing governments and the businesses community. The Chamber recognizes that the climate is changing, humans are contributing to these changes, and these changes pose risks. The question for businesses and policymakers is how to best manage these risks, capture opportunities, and maintain our global economic leadership. Inaction is not an option.

The Chamber believes there is much common ground on which all sides of this discussion could come together to craft a practical, flexible, predictable, and durable approach to climate change that acknowledges the costs of action and inaction and the competitiveness of the U.S. economy.

Climate change is one of the most complex issues facing governments, businesses, and our communities. Addressing it, as well as not addressing it, will affect economies, companies, and communities in significant and often unpredictable ways, affecting investments, operations, planning, supply and value chains, and trade, among other issues. Accordingly, climate change should be addressed as part of an agenda that increases economic prosperity, reduces greenhouse gas (GHG) emissions, mitigates associated risks, and enhances energy security. Because the business community will be integral to developing and providing cost-effective solutions and building resilient infrastructure, it will be at the table.

Climate Change is a Technology Challenge

At its most fundamental level, reducing carbon dioxide emissions from energy is a technology challenge that, as a 2002 article in *Science* famously noted, "cannot be simply regulated away."[1]

The Chamber believes that technology and innovation, supported by sound and durable policies, offer the best solution for managing climate risks and reducing emissions across the United States and the globe. Instead of regulating our way to lower emissions, a realistic, effective, and lasting climate policy should focus on innovating our way to technological solutions that can thrive in commercial markets.

[1] Hoffert, M. *et al.* 2002. Advanced technology paths to global climate stability: energy for a greenhouse planet. *Science* 298: 981.

Breakthroughs in commercially-viable technologies are necessary to enable significant cuts in GHG emissions without harming economic growth or the competitiveness of energy-intensive trade-exposed industries. Indeed, the development of technology and its commercial adoption are among the most important factors determining how quickly and at what cost greenhouse gas emissions can be reduced. Existing technologies have started us on this path, but they are not capable of significantly reducing greenhouse gas emissions on a global scale and at an acceptable cost. New, and in some cases revolutionary, energy technologies will have to be developed and adopted commercially along with the infrastructure to support them. There is a great deal of uncertainty about how fast, or even if, all of these technologies will progress.

The U.S. must maintain a leadership role in developing and commercializing technologies, such as advanced nuclear, energy efficient systems and building materials, and large-scale renewables, energy storage and batteries, high-efficiency low-emission power plants, and carbon capture and storage and utilization by supporting an aggressive, broad-based public- and private-sector technology portfolio. It is also important to support a vibrant scientific enterprise more broadly. Advances in fields as varied as materials research, nanotechnology, supercomputing, and biotechnology, to name a few, may hold the keys to breakthroughs in many emerging energy technologies.

Energy efficiency remains a crucial component of the approach to energy and climate change. Energy efficiency generally has been the fastest, least expensive way to improving the energy supply picture and reduce GHG emissions. It, too, must play a central role.

A technology-neutral solutions-focused climate change policy is best positioned to stand the test of time and deliver cost-effective, achievable, and meaningful greenhouse gas emissions reductions. When alternate technologies are able to compete on price, reliability, and scalability, the range of politically and economically acceptable policy options to address climate change will broaden accordingly.

In the meantime, we should continue to develop our domestic energy resources, the world's largest. America's abundance of affordable, reliable energy provides businesses a critical operating advantage in today's intensely competitive global economy. International Energy Agency data show a huge comparative energy advantage in natural gas and electricity for U.S. industry compared to its Organization for Economic Co-operation and Development (OECD) competitors, with prices for these energy sources in the United States often two to four times less.[2] We should work to preserve that advantage, recognizing that disproportionate international commitments could cause American industrial capacity to move to other countries through carbon leakage.

Strong Public Support for Technology and Innovation

An energy policy that promotes continued economic growth and environmental progress through sustained focus on technology development—what we call the "cleaner, stronger" approach—is

[2] International Energy Agency. 2018. *Key World Energy Statistics*. Available at: https://webstore.iea.org/key-world-energy-statistics-2018.

much more popular with the voting public compared to an approach centered on expanded government regulation.

GEI commissioned a telephone survey[3] of 1,000 likely 2020 voters across the United States conducted by FTI Consulting from March 7-12, 2019 found:

- 73% of voters support a "cleaner, stronger" energy agenda that uses more American energy and continues environmental progress;
- "Cleaner, Stronger" is favored over a Green New Deal approach by more than 3:1;
- 89% of Americans support using American's energy resources responsibly, including domestic natural gas, oil, nuclear, coal and renewable resources;
- 79% of voters agree that the best way to address climate change is through investments into innovation and technology;
- Utilizing innovation and technology has a 24-point advantage over increased government regulation as an approach to address climate change; and.
- 79% of likely voters support streamlining or expediting the permitting process to improve, modernize or construct critical energy infrastructure like renewables, pipelines, power plants, transmission lines and export facilities.

Our new survey demonstrates that voters are concerned about energy, the environment, and climate change, but they are also concerned about the costs and practicality of an approach to those issues driven primarily by government regulation. Given the current state of technology, a regulatory approach involves significant price increases.

These results underpin the Chamber's efforts to promote federal policies and investments that spur research and development of energy technologies that can reduce environmental impacts and compete on price and reliability.

Business is Taking Action

It will be largely up to the business community to develop, finance, build, and operate the solutions needed to power economic growth worldwide, mitigate greenhouse gas emissions, and build resilient, lower-carbon infrastructure. Thousands of businesses already have made emissions pledges and are taking action to reduce emissions in their own operations and along their value chains by investing in technology solutions and enhancing their efficiency. The Chamber is providing a platform for these companies to share their experiences and learn about technology developments, and operational innovations.

Energy Innovates: To draw attention what the energy industry is doing, last year GEI launched a new initiative to highlight the technologies and people in the energy industry that are improving our modern way of life. "*EnergyInnovates*" is a multi-platform initiative that showcases innovators, projects, and technologies that have shaped and will shape America's energy landscape. *EnergyInnovates* highlights specific innovative projects and technologies, as

[3] Poll results are available at: https://www.globalenergyinstitute.org/american-energy-cleaner-stronger.

well as the forward thinkers, engineers, and manufacturers responsible for their development. Some of the initiatives we are featuring include:

- San Diego Gas & Electric Company (a Sempra Energy utility) has built a lithium ion battery storage facility in Escondido, California, the largest in North America and a key component of the smart grid technology that will maximize the potential and availability of intermittent renewable energy resources.

- NuScale's small modular nuclear reactor with a simplified design, making it safe, scalable, cost efficient, and able to perform a wide range of applications, including desalinating, supporting renewables, and providing highly reliable power.

- NET Power's innovative power plant leverages technology designed to capture carbon dioxide emissions at no extra cost, before compressing and recirculating the gas into the system. Called the Allam Cycle, the system will allow efficient, zero-emission energy production using fossil fuels.

- Alabama Power's Smart Neighborhood™ features a collection of 62 homes that feature high-performance, efficient systems, cutting edge interconnectivity, and a dedicated micro-grid featuring solar, battery storage, and natural gas power supplies. The project is a public-private partnership between Southern Company, Signature Homes, the U.S. Department of Energy's Oak Ridge National Laboratory, and others.

Our companies and entrepreneurs will continue to lead by bringing innovation, technology, and ingenuity to this challenge, just as they have done with other environmental challenges.

Energy Access and Technology

Climate change is a global challenge, and U.S. technological leadership will be no less important in addressing developing country emission trends.

Virtually all future GHG emissions growth is expected to come from developing countries, where economic development and eradication of energy poverty are pressing issues. The International Energy Agency's most recent forecast indicates that while energy-related carbon dioxide emissions from OECD countries are expected to drop from about 1 to 2.6 billion metric tons (-8% to -23%) between 2017 and 2040, emissions from non-OECD countries are expected to increase 5.3 to 10.0 billion metric tons (27% to 50%), offsetting developed country reductions by a large margin. Much of these increases are related to a sharp increase in coal-fired electricity generating capacity expected to be built in developing countries.[4] Technology and innovation will be no less important in addressing developing country emission trends.

Make no mistake, this is not an argument for inaction, as we have stated, inaction is not an option. However, failure to recognize the global nature of climate change leads to a solution set that is ineffective.

[4] International Energy Agency. *World Energy Outlook 2018*. Available at: https://www.iea.org/weo2018/.

Modern life is inconceivable without adequate supplies of energy, and there exists a very strong and unsurprising correlation between peoples' living standards and energy use. Nearly a billion people worldwide still lack access to modern energy services; the situation in Africa is especially acute. Between the energy haves and the have-nots, there also are too many energy "have-littles," that is, people with access only to small and usually unreliable supplies of energy. Access to energy has to be consequential if it is to raise living standards significantly.

Data from the World Bank[5] indicate that—even more important than GDP or energy use per capita—access to electricity is the single best indicator for how well a country performs in key development measures such as infant and maternal mortality, life expectancy, vaccinations (many of which require refrigeration), girls in school, undernourishment, and other measures of health and welfare.

We must recognize and embrace the aspirations of people everywhere for economic growth, access to abundant and affordable energy, and improved quality of life. U.S. leadership can help achieve these goals.

With the suite of technologies available today, energy policies that strive to provide rapid and universal access to affordable and modern energy services for the poor are in tension with climate change policies that may increase energy costs and limit access to reliable energy services. Advanced technologies that compete with traditional fuels on cost, reliability, and scalability can reconcile these two competing visions. Given the expected growth in coal-fired generation, development of carbon capture and storage and/or use technologies will be particularly important. It is also important that we encourage the use of the most efficient and advanced technologies for fossil fuel use currently available, such a High-Efficiency, Low-Emissions—or HELE—coal plants, which can make a tremendous difference.

Demand for advanced technologies, especially in emerging markets, will offer opportunities for growing exports of American technologies, products, and services. Technology cooperation, public-private partnerships, innovative financing, and capacity building are all necessary for facilitating commerce in climate solutions stamped "Made in the USA."

Conclusion

Technology, supported by sound policy, will be the key to tackling the challenges and capitalizing on the opportunities presented by climate change. The Chamber will continue to support an accelerated program to improve performance, lower the cost, and increase the scalability of alternate energy and technologies.

There are a number of near-term actions on which there is sufficient consensus—such as technology and innovation—that the Chamber supports and on which Congress could act. Specifically, the Chamber encourages you and your Senate colleagues to take up the following priorities:

[5] World Bank Development Indicators are available at: https://data.worldbank.org/indicator.

- Improving energy efficiency by enacting provisions of the bipartisan Energy Savings and Industrial Competitiveness Act;
- Supporting greater utilization of carbon sequestration by
    - Enacting the bipartisan Utilizing Significant Emissions with Innovative Technologies Act (USE IT Act),
    - Expanding the allowable uses of private activity bonds to include investments in carbon capture infrastructure, and
    - Facilitating the construction of interstate carbon dioxide pipelines through accelerated permitting;
- Modernizing U.S. transportation infrastructure to improve efficiency and resiliency and speed the adoption of new technologies, including by
    - Enacting a multi-year highway bill with increases in overall funding financing through an increase in the motor vehicle fuel tax, and
    - Maintaining the Advanced Technology Vehicles Manufacturing Loan Program;
- Modernizing U.S. energy infrastructure to facilitate the transportation of low and zero-emission energy, including by providing the Federal Energy Regulatory Commission greater authority to site electric transmission lines and natural gas pipelines;
- Supporting the continued use of emissions-free nuclear power by finally providing for the permanent storage of used nuclear materials at Yucca Mountain;
- Reducing short-lived climate pollutants such as hydrofluorocarbons by ratifying the Kigali Amendment; and
- Significantly increasing funding in federal research, including the Advanced Research Projects Agency – Energy (ARPA-E), by dedicating a specific amount of any increased spending provided through a budget cap adjustment deal to clean energy research.

America's business community is ready, willing, and able to provide the solutions to reduce emissions while growing the economy. Our companies and entrepreneurs will continue to lead by bringing innovation, technology, and ingenuity to this challenge, just as they have done with other environmental challenges. With a sensible policy environment that plays to America's strengths and business leadership, we can continue to make our economy cleaner and stronger by leveraging America's edge in energy, technology, and innovation going forward. An approach focusing on solutions offers a practical path forward that makes good sense—and good business sense.

Biography of
Christopher Guith
Acting President Global Energy Institute
U.S. Chamber of Commerce

Christopher Guith is acting president at the U.S. Chamber of Commerce's Global Energy Institute (GEI). He is responsible for developing the Institute's policies and initiatives as they apply to the legislative, executive, and regulatory branches of the federal and state governments. Specifically, Guith primarily focuses on the development of GEI's policies and messaging relating to oil and natural gas, generation, and nuclear energy. He led the Chamber's Shale Works for US campaign, which analyzed and promoted the widespread benefits of shale energy development in America.

Guith offers expertise on an array of energy and environmental issues. He educates policymakers, businesses, energy stakeholders, coalitions, and the public about the importance of a diversified energy portfolio and how it can ensure an efficient, reliable, prosperous, and secure energy future. He also leverages his broad energy expertise as a spokesperson with local, state, and national media.

Guith travels frequently to speak to stakeholder groups, raising awareness of the impact of policy decisions on America's energy future and encouraging groups to share their perspectives with policymakers. In addition, he consults with state and local chambers of commerce and business groups, advising them how to quantify the importance of safe, reliable American energy to their businesses, as well as how to amplify that message when communicating with energy decision makers.

Prior to joining the Chamber in 2008, Guith served as deputy assistant secretary for nuclear energy at the U.S. Department of Energy (DOE), where he developed the administration's nuclear energy policies and coordinated the department's interactions with Congress, stakeholders, and the media. He was also deputy assistant secretary for congressional affairs at DOE and a chief representative of the administration during the drafting and debate of the Energy Policy Act of 2005.

Earlier in his career, Guith served as Rep. Bob Barr's (R-GA) legislative director and Rep. Tim Murphy's (R-PA) counsel and policy adviser. He was also legislative counsel for the Environment, Technology & Regulatory Affairs at the U.S. Chamber of Commerce.

Guith is a graduate of Syracuse University-College of Law and the University of California-Santa Barbara.