Chairwoman Finkenauer, Ranking Member Joyce, and Members of the Subcommittee, thank you for the opportunity to testify today on the topic of growing the clean energy economy.

My name is Lynn Abramson, and I am the President of the Clean Energy Business Network, or CEBN. My organization serves as the small business voice for the clean energy economy, with a network of more than 3,000 small and midsize business leaders across all 50 states and approximately 350 Congressional districts.

My remarks today will focus on growth: The growth of the clean energy economy as a whole and the growth opportunity that each small business across this nation represents. I will outline a vision for how policymakers can help these businesses deliver on their potential to create a cleaner, more affordable, more reliable energy future for all Americans.

As brief background on my organization, CEBN started in 2009 as a project of The Pew Charitable Trusts with the goal of informing and engaging clean energy businesses in policy issues impacting their industry. Two years ago, we spun out of Pew to incorporate as a nonprofit organization in our own right. We became an independent, small business-focused subsidiary of the Business Council for Sustainable Energy (BCSE)—a coalition of the leading sector-specific trade associations and corporations in the energy efficiency, renewable energy, and natural gas sectors. Our mission is to enhance opportunities for small and midsize clean energy providers through policy support, business development, and market and technology education.1

Some of my testimony today will reflect the needs of the clean energy industry as a whole, while other aspects will focus on the unique challenges facing small businesses.

The Growth Opportunity for the Clean Energy Economy

The 2019 Sustainable Energy in America Factbook—a report produced by the Business Council for Sustainable Energy (CEBN’s parent organization) and Bloomberg New Energy Finance—documents that a significant transformation of our nation’s energy sector is underway.2

Renewable energy, energy efficiency, and natural gas comprise the growth sectors of the U.S. energy economy, now supplying more than half our electricity and employing 3.4 million American workers. Our economy is doing more with less energy, with an overall trend in

1 https://www.cebn.org/cebn-overview-for-policymakers/
2 https://www.bcse.org/factbook/
decoupling between gross domestic product growth and energy use over the past decade despite a slight uptick in 2018. Renewable energy and energy-smart technologies attracted $64 billion in private investment to our economy last year, the second-highest amount worldwide.

This transformation is happening not just in the United States but across the world. Bloomberg New Energy Finance forecasts that zero-carbon fuels will supply two-thirds of global electricity by 2050, with almost half the world’s power provided by wind and solar alone. Renewable energy will attract 77 percent of the $13.3 trillion in new power generation assets through this timeframe.

CEBN’s companion project to the Factbook, called Faces Behind the Facts, showcases leaders from clean energy businesses, large and small, behind these trends. I will share some case studies in my testimony today to illustrate the breadth of the clean energy economy and the business impacts of policy decisions.

The Growth Opportunity for Small Businesses in the Clean Energy Economy

Small businesses comprise more than 99 percent of U.S. companies and employ 47.5 percent of American private-sector workers. As the clean energy economy grows, so too will the economic impact of small businesses working in these low- and zero-carbon energy sectors.

As I noted earlier, our network includes more than 3,000 business leaders in all 50 states—and this is only the tip of the iceberg among the 3.4 million Americans working across the clean energy economy. Within the states represented by members of this Subcommittee, CEBN’s reach spans more than 300 clean energy professionals, with at least 31 located in your respective Congressional Districts.

The technologies and services these companies offer are as broad as their geographies: renewable energy, energy efficiency, combined heat and power, waste heat to power, natural gas, grid technologies, storage, fuel cells, batteries, alternative fuels and vehicles, and carbon utilization or sequestration.

And their stories show that the clean energy economy is not only powered by tech giants in Silicon Valley. It’s powered by the neighbors we run into at the grocery store—like “BioJoe” and Beth Renwick. More than a decade ago, this South Carolina-based couple experimented with making biodiesel in their garage to save money on gas. Over the years, they’ve built and grown Green Energy Biofuel, a purified biofuel business that now has two production centers, regional distribution throughout the southeast, and several dozen local jobs that can’t be outsourced. Companies like theirs are providing clean energy technologies and services in communities all across the nation, spurring local economic development and creating jobs.

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3 https://about.bnef.com/new-energy-outlook
4 Ibid.
5 https://www.cebn.org/faces-behind-the-facts/
7 https://www.cebn.org/cebn-overview-for-policymakers/
8 https://www.cebn.org/faces/biojoe-beth-renwick/
Like the rising clean energy sectors in which they work, these small businesses represent the promise of growth and a better future. But how can we help them deliver on that promise?

In 2017, we surveyed our membership to assess the needs and priorities of small clean energy businesses. The findings are consistent with the themes that have emerged in countless discussions we’ve had with small businesses over the years.

When asked about the most significant challenges facing their businesses, policy was at the top of the list for many.

In fact, fifty percent of respondents reported that government or utility barriers to deployment posed a significant challenge for their companies, the highest response rate received out of any challenge identified. In roundtable discussions, business leaders highlighted the struggle of attracting investors and customers in a constantly evolving policy landscape. Even the non-policy related challenges they raised—for example, on customer and investor education, finance, and workforce issues—have the potential to be addressed in part through policy support.

Our parent organization (BCSE) and the leading corporations it represents consistently call for the need for stable, long-term policy frameworks. But if policy uncertainty is hard for a Fortune 500 company, just imagine how it is for a small business.

What can be done to remove barriers and create opportunities for small businesses across the clean energy landscape? This brings me to the importance of policy signals.

Policy Signals to Accelerate the Growth of the Clean Energy Economy

Congress can accelerate the growth of the clean energy economy—and small businesses within it—by establishing clear, stable, market-based policy signals that work toward the following goals:

- Maintaining a diverse portfolio of energy technologies
- Establishing a level playing field for competition
- Achieving emissions reductions to improve air quality and mitigate climate change
- Strengthening the reliability and resilience of energy infrastructure
- Providing affordable energy to all consumers
- Promoting economic growth, job creation, and the development of new industries and manufacturing capabilities.

In addition to the high-level recommendations that follow, the footnotes in my written testimony include links to several policy letters—cumulatively signed by hundreds of small businesses—outlining specific recommendations in more detail.

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9 [https://www.cebn.org/faces/biojoe-beth-renwick/](https://www.cebn.org/faces/biojoe-beth-renwick/)
1. Tax

For many decades, tax policy has been an effective tool to accelerate deployment of all energy technologies, incumbent and new. The dozens of energy-related measures across the tax code have historically helped scale up deployment, bring down technology costs, leverage private-sector capital, and promote the growth of new industries and jobs.

Providing more stable, long-term tax policy signals is one of the most important things Congress can do to accelerate the continued growth of the clean energy economy.

Just ask Gary Fechter, who runs the combined heat and power development arm of UGI—a natural gas utility in Pennsylvania. He’s passionate about showing customers how CHP can cut costs, improve reliability, and reduce fuel use by efficiently generating heat and power from a single fuel source. But often, the customers’ final decision comes down to financing. When the investment tax credit lapses, he is forced to compete for bids with technologies receiving more favorable treatment in federal or state policy.

Recommendations:
- Congress should retroactively reinstate and provide a forward-looking extension of expired energy tax incentives for renewable energy, energy efficiency, and clean transportation/alternative fuel technologies. Ideally, this would provide a multi-year extension of clean energy tax incentives to create more certainty for businesses, investors, and customers and establish a level playing field across all technologies.
- Congress should also clarify that the entire portfolio of energy storage and waste heat to power technologies qualify for the Section 48 investment tax credit.
- Moving beyond these technology-specific credits, a range of technology-neutral, goal-based approaches have been proposed on both sides of the aisle. Congress should proactively explore these new ideas in consultation with industry and stakeholders, seeking to understand how various proposals might address the unique facets of particular technology types, business models, and pathways to deployment.

2. Appropriations

Department of Energy applied research is behind most of the transformations the United States has experienced over the past few decades in both the incumbent and emerging energy sectors. From new oil extraction methods and hydraulic fracturing, to energy-efficient windows and dramatic declines in the cost of wind turbines and solar panels, these changes have impacted us all.

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10 [https://www.cebn.org/faces/gary-fechter/](https://www.cebn.org/faces/gary-fechter/)
At the CEBN, we have worked with entrepreneurs across the nation who have brought new technologies to market through partnerships with the Department of Energy, ARPA-E and the National Laboratories.

As an example, Kay Aikin of Introspective Systems, a company based in Maine, has leveraged multiple Department of Energy grants to develop advanced operational controls for microgrids. Her company’s technology and software solutions enable customers to better control electricity demand, manage intermittent renewable energy sources, and integrate storage. She is now deploying these innovations in the field, and is about to complete a project on Maine’s Isle of Haut that will provide a more reliable power source to the island using solar and storage.

In our work with these businesses, we have seen that energy innovation knows no geographic boundaries. Within the eight Congressional districts served by the members of this Subcommittee alone, U.S. Department of Energy grants over the past five years have allocated more than $1 billion towards projects to develop, commercialize, or deploy energy technologies (Table 1). Maintaining and building upon this federal support is critical to accelerating the growth of the clean energy economy.

### TABLE 1. U.S. DEPARTMENT OF ENERGY GRANTS (FY2015-2019) TO RECIPIENTS OR PROJECTS WITHIN DISTRICTS SERVED BY 116th CONGRESS MEMBERS OF THE HOUSE SMALL BUSINESS COMMITTEE, SUBCOMMITTEE ON RURAL DEVELOPMENT, AGRICULTURE, TRADE, AND ENTREPRENEURSHIP

<table>
<thead>
<tr>
<th>Subcommittee Member</th>
<th>District</th>
<th>Grants to Recipients Located In-District, FY2015-2019</th>
<th>Grants to Projects Performed In-District, FY 2015-2019</th>
</tr>
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<tbody>
<tr>
<td>Rep. Abby Finkenauer (D), Chairwoman</td>
<td>IA-01</td>
<td>$17,142,232.90</td>
<td>$1,916,100.90</td>
</tr>
<tr>
<td>Rep. John Joyce (R), Ranking Member</td>
<td>PA-13</td>
<td>$16,955,409.00</td>
<td>$141,507,824.45</td>
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<tr>
<td>Rep. Jason Crow (D)</td>
<td>CO-06</td>
<td>$87,515,283.13</td>
<td>$75,091,066.13</td>
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<tr>
<td>Rep. Angie Craig (D)</td>
<td>MN-02</td>
<td>$4,536,775.00</td>
<td>$1,360,580.00</td>
</tr>
<tr>
<td>Rep. Jared Golden (D)</td>
<td>ME-02</td>
<td>$111,157,731.14</td>
<td>$73,880,009.14</td>
</tr>
<tr>
<td>Rep. Jim Hagedorn (R)</td>
<td>MN-01</td>
<td>$5,592,119.76</td>
<td>$1,652,419.76</td>
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<tr>
<td>Rep. Trent Kelly (R)</td>
<td>MS-01</td>
<td>$755,823,777.79</td>
<td>$4,377,726.79</td>
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<tr>
<td>Rep. Aumua Amata Coleman Radewagen (R)</td>
<td>AS</td>
<td>$2,320,368.00</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$1,001,043,696.72</strong></td>
<td><strong>$302,106,095.17</strong></td>
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</table>

*Source: USASpending.gov*
*Recipient and project columns may contain some overlapping data*

14 [https://microgridknowledge.com/microgrids-transactive-energy/](https://microgridknowledge.com/microgrids-transactive-energy/)
15 Data compiled from [www.usaspending.gov](http://www.usaspending.gov)
Recommendations:

- Congress should work to finalize appropriations legislation for FY2020 that maintains—and ideally builds upon—FY2019 funding for the Department of Energy (DOE) overall and key programs within the agency.16
- It is important to fund not only basic science and early-stage energy research—but also the applied programs that help businesses scale, demonstrate, and commercialize their innovations.
- A handful of critical programs that should be supported within the DOE include Energy Efficiency and Renewable Energy, Electricity Delivery and Energy Reliability, Fossil Energy, the Office of Science, the Loan Programs Office, and the Advanced Research Projects Agency–Energy.

3. Infrastructure

A variety of clean and efficient energy technologies are readily available to improve the reliability, security, and flexibility of our nation’s energy and transportation infrastructure.17

Across all federal programs relating to infrastructure, Congress should recognize that energy is an essential component of our nation’s infrastructure. Clean energy solutions such as combined heat and power, microgrid applications of renewable energy and storage, advanced grid technologies, and load management can strengthen the resilience of critical facilities and that of the grid as a whole. Infrastructure to support the deployment of cleaner fuel sources can also further reduce our dependence on foreign oil and protect our national security interests.

Recommendations:

- In new or regularly-reauthorized programs such as the Farm Bill,18 disaster recovery legislation,19 transportation bills, or other infrastructure measures, Congress should seek to promote a more advanced electric grid, more resilient building and transportation infrastructure, more responsive load centers, and more secure power and fuel supplies.

4. Regulatory Certainty, Simplicity, and Transparency

Finally, with each new election there is understandably a readjustment of policy positions and priorities. However, when the policy landscape oscillates dramatically every few years on important matters such as emissions regulations, renewable fuels standards, or fuel economy standards, these changes create considerable uncertainty. It is very difficult for businesses to build long-term infrastructure when the ground is constantly shifting beneath their feet.

In addition to this uncertainty, businesses face an extensive degree of regulatory complexity across many federal energy programs and policies—from matters of siting and permitting to navigating or competing for available contracting or grant opportunities. It is extremely

17 https://www.cebn.org/media_resources/fuel-for-discussion-episode-1-powering-through-the-storm/
challenging for small businesses with limited resources and staff to wade through all of these matters, particularly if regulations or procedures change frequently.

And finally, many federal contracting, grant, or regulatory policies are very prescriptive when it comes to technology solutions. Where possible, the federal government should establish goals for the outcomes of these programs, and allow businesses to innovate and compete to offer the most effective and affordable technology solutions.

**Recommendations:**

- In legislation and oversight, lawmakers on both sides of the aisle should work collaboratively together and with each new Administration—to establish long-term, national energy policy goals and stable pathways to achieving those goals.
- Federal policy should encourage market-based approaches and competition among technologies that can most effectively and affordably achieve these goals.
- Congress and federal agencies should seek to make federal grant and contracting opportunities more accessible to small businesses, enabling innovators to bring the best technology solutions to bear. Potential improvements include streamlining “first-round” application requirements; applying more uniform procedures across federal agencies; and providing more opportunities for technology transfer, contracting, and commercialization of technologies that have previously received government funding.

I’ll also note that CEBN is engaged in a stakeholder process to identify ways to help small businesses compete more effectively for federal research and development programs, specifically Small Business Innovation Research (SBIR) awards. We will share our detailed recommendations with the Small Business Committee shortly, ahead of your consideration of these programs in the coming weeks.

**Conclusion**

There is nothing more fundamentally American than a small business owner setting out to build a company. We are a nation whose core values assert that any challenge can be overcome with sufficient ingenuity and grit, and that anyone with a good idea and strong work ethic can succeed if given the right opportunity. We need lawmakers to stand beside our nation’s small businesses in providing the opportunity to rise and compete in the growth sectors of the U.S. energy economy.

The clean energy economy has already arrived—and it will increasingly power our future. As we weigh national energy policy decisions, Congress should embrace this opportunity, accelerate it, and ensure that the energy technologies of the future are made here in America.

Thank you again for inviting me to testify, and I look forward to addressing your questions.