

Testimony of Lynn Abramson, President, Clean Energy Business Network

United States House of Representatives Committee on Small Business Subcommittee on Oversight, Investigations, and Regulations

Hearing on “SBA’s Role in Climate Solutions”

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Chairman Phillips, Ranking Member Van Duyne, and Members of the Subcommittee, thank you for the opportunity to testify today on the topic of SBA’s role in climate solutions. I also want to take a moment to thank the Committee on Small Business for its actions to provide critical lifelines of support for small businesses throughout the COVID-19 pandemic, including through the creation and repeated funding of the Paycheck Protection Program. As you will hear in my testimony, these resources were essential to helping many energy businesses weather this global health and economic crisis.

My name is Lynn Abramson, and I am the President of the Clean Energy Business Network (CEBN). My organization serves as the small business voice for the clean energy economy, with a network of more than 5,000 small and midsize business leaders across all 50 U.S. states and a very broad spectrum of zero- and low-carbon energy technologies. Our mission is to enhance opportunities for clean energy providers through policy support, business development, and market and technology education.¹

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. In 2017, we spun out of Pew to incorporate as a nonprofit, nonpartisan 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. Together, BCSE and CEBN represent a broad scope of the clean energy economy, from Fortune 100 companies to small businesses in nearly every congressional district.

Small businesses comprise more than 99 percent of U.S. companies and employ 47.5 percent of American private-sector workers.² In the energy efficiency, renewable energy, and natural gas sectors, small businesses employ an estimated 70 percent of workers.³ Both as energy consumers and providers, these small firms are a critical player in our nation’s response to climate change.

Policy support is needed across the spectrum of these companies to tackle the problem of climate change, from helping small businesses reduce their energy consumption, to enhancing market opportunities for small solar installers and energy efficiency auditors, to unlocking the bold ideas of startups tackling the climate technologies that have yet to be invented.

¹ <http://www.cebn.org>

² <https://www.sba.gov/sites/default/files/advocacy/2018-Small-Business-Profiles-US.pdf>

³ <https://www.bcse.org/factbook/>

I would like to share with you my perspective of clean energy as an economic engine, the role of small businesses, the unique challenges small firms have recently faced, and finally, what policies can best support our nation's cleantech entrepreneurs.

A Decade of Growth in the Clean Energy Economy

Clean energy drives a competitive economy.

This is shown in the *2021 Sustainable Energy in America Factbook*—a report produced by the Business Council for Sustainable Energy (CEBN's parent organization) and Bloomberg New Energy Finance—which documents the transformation of the energy economy over the past decade.⁴ A complementary compendium from CEBN entitled *Faces Behind the Facts* highlights some of the business leaders who are helping to drive this transformation.⁵

- The 2010s was a rapid period of change in the energy industry, and particularly for energy efficiency, natural gas and renewable energy. The United States continued to see record wind and solar installations in 2020 despite the economic downturn.
- Other key characteristics of the past decade include the ability of the U.S. economy to do more with less energy and a clear decoupling of GDP growth with energy use.
- Today, over 3 million Americans earn a living in the clean energy economy, and we could support hundreds of thousands of new jobs with federal policy.⁶ In fact, wind and solar now account for the fastest-growing occupations in America.⁷
- The U.S. clean energy industry generated \$240 billion in revenue in 2020 and is poised to expand to continue serving world-wide demand.⁸
- The cleanest energy is increasingly becoming the cheapest. America's clean energy transformation has kept power prices low, supporting prosperity for all.⁹

As businesses reopen and communities reemerge, the growing clean energy industry represents a tremendous opportunity to infuse a much-needed boost to our economy. However, we must ensure the policy and market landscape are conducive to helping the smallest businesses rise, grow, and compete in the evolving energy economy.

The Role of Small Businesses in the New Energy Economy

By making smart federal investments, we can use the power of American ingenuity to create the jobs of today and the future. The people leading the charge towards new energy technologies are right here in America, and they are worth our investment. They are our neighbors, construction workers, manufacturers, doers, fixers, and makers.

⁴ <https://www.bcse.org/factbook/>

⁵ <https://www.cebn.org/faces-behind-the-facts/>

⁶ <https://www.usenergyjobs.org/>; <https://energyinnovation.org/publication/studies-converge-on-the-benefits-of-a-rapid-clean-energy-transition/>

⁷ <https://www.bls.gov/ooh/fastest-growing.htm>

⁸ <https://energyefficiencyalliance.org/advanced-energy-now-2021-market-report/>

⁹ <https://bcse.org/factbook>

They include innovators like Exergi Predictive in Saint Paul, Minnesota, which is developing application programming interface (API) and cloud computing to develop connected energy management systems for electric vehicle (EV) fleet owners. With federal support, the company is working to accurately predict the range of last-mile delivery EVs for a given route and to reduce the need for expensive on-route charging.

And they include UHV Technologies in Fort Worth, Texas, which with federal support, has developed an X-ray technology that can easily sort light metal alloys used in cars to increase fuel efficiency, strength, and economic value. This will enable faster processing of scrap metals for aluminum and other light metals in the turnover of vehicle fleets.

Small businesses are the backbone of American ingenuity and promise. To help them achieve this promise, we must remove obstacles to success.

Small businesses in general struggle with access to opportunity, funding, knowledge, and support—challenges which are even more pronounced in the energy industry than in the general workforce, given the capital-intensive, highly-regulated, and complex nature of the industry. Through numerous surveys, stakeholder roundtables, and interviews with small businesses over the past few years, CEBN has identified several common challenges for small energy businesses:¹⁰

- Lack of customer education, and resistance to adopting new technologies
- Difficulty accessing project finance to upgrade antiquated infrastructure
- The valley of death to commercializing new technologies
- Regulatory or utility barriers to deployment— particularly with respect to on-site or distributed generation
- And an overall environment of policy uncertainty, and lack of coordinated national climate and energy goals

Need for a Swift and Equitable Economic Recovery

The struggle of building an energy business became even more pronounced in the wake of COVID-19 and the economic recession, which exacerbated existing challenges while introducing entirely new ones, such as business closures, supply chain disruptions, and strains on state and local governments, customers, and investors.

Small businesses in the clean energy sectors relied upon the Paycheck Protection Program at double the rate of the national average across industries.¹¹ Nearly three-quarters of clean energy businesses reported negative impacts from the pandemic, and nearly half a million clean energy workers (17 percent of the workforce) remained unemployed at the end of December 2020.¹²

¹⁰ https://www.cebn.org/media_resources/cebn-planning-results-and-2018-dashboard/;

https://www.cebn.org/media_resources/cebn-launches-the-junction-box-clean-energy-stakeholder-dialogues/

¹¹ <https://www.thirdway.org/memo/survey-clean-energy-businesses-need-federal-assistance-now>

¹² <https://e2.org/reports/clean-jobs-covid-economic-crisis-december-2020/>

Anecdotally, the experiences we heard about from small businesses varied tremendously. Some faced substantial disruptions in supply chains, investment, or project construction that jeopardized the survival of their companies. Others actually thrived during the pandemic, pivoting their energy innovations in new directions such as providing cleaner and more efficient air circulation in buildings. All of these companies have a role to play in rebuilding our economy and providing good-paying clean energy jobs.

As I mentioned before, clean energy represented the growth sectors of the U.S. energy economy before this crisis. And for better or worse, COVID-19 has in many ways hastened the decline of incumbent industries and more antiquated infrastructure. As we work to rebuild our economy, we can also rebuild a stronger, healthier, more resilient future for our nation in the process.

The need to accelerate this rebuilding is particularly great within historically marginalized demographics and communities, who have suffered the most from the economic recession.

Women represent only 23-32 percent of the workforce across various energy sectors (as compared to 47 percent economy-wide) and a number of energy sectors are less racially diverse than the national workforce.¹³ Only 7-8 percent of the Department of Energy’s Small Business Innovation Research (SBIR) grants in fiscal year 2019 went to woman-owned or socially and economically disadvantaged firms, and only 30 percent of awards from 2014-2018 were to first-time awardees.¹⁴ Moving forward, we must ensure that all communities have access to clean energy economic growth, jobs, and a cleaner, healthier future.

Investing in American Ingenuity

How do we bolster clean energy innovation, economic growth, and solutions to climate change?

1. Supporting Energy Innovation:

First, many of the entrepreneurs we work with have benefitted from federal energy innovation programs such as the Advanced Research Projects Agency-Energy (ARPA-E)—which invests in transformative, early-stage research and development; Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)—a 3.65 percent set-aside of extramural funds from the federal research agencies to support grants to small businesses; and American-Made Challenges—a series of cash prize competitions to help entrepreneurs rapidly develop and scale new technologies.

These programs are incredibly important sources of non-dilutive capital to help prove out early-stage technologies that will not only mitigate climate change but also create new businesses and jobs in communities across the nation. As a Power Connector for the American-Made Challenges program, CEBN has worked closely alongside these entrepreneurs and witnessed firsthand the value of federal energy innovation programs in helping new ideas get off the ground. We urge Congress to provide robust funding for energy innovation programs in FY 2022.

¹³ <https://www.usenergyjobs.org/>

¹⁴ <https://www.cebn.org/wp-content/uploads/The-Junction-Box-2-SBIR-Reform-3.4.21-1.pdf>

2. **Strengthening America’s Seed Fund:**

Dubbed “America’s Seed Fund,” SBIR/STTR are incredibly impactful programs but have room for improvement. CEBN has convened a number of stakeholder conversations on ways to make SBIR/STTR even more impactful and accessible to small businesses.

Our recommendations for Congress and the Administration are detailed in a letter signed by 115 small business and nonprofit leaders, and we hope the Committee will advance these provisions in the Small Business Administration reauthorization bill during the 117th Congress.¹⁵ These recommendations include expanding technical assistance to teams, making permanent certain pilot programs to improve administrative excellence and promote commercialization, providing more flexibility on how technical and business development funds can be spent, and authorizing direct-to-Phase II authority across all agencies.

Addressing our recommendations will be helpful to all applicants but may be particularly important for entrepreneurs from underrepresented demographics with limited access to resources.

3. **Building an Ecosystem of Entrepreneurial Support:**

To help entrepreneurs turn promising technology ideas into thriving businesses, it is important to build an ecosystem of entrepreneurial support across the nation through regional support centers such as National Laboratories, incubators and accelerators, and small manufacturers. Congress and the Executive Branch should continue to invest in programs such as Lab-Embedded Entrepreneurships, i-Corps, and Small Business Vouchers to help entrepreneurs plug into the expertise and testing capabilities at our nation’s laboratories and universities.¹⁶

4. **Expanding Capital for Technology Demonstration:**

SBIR/STTR bring technology to a point where it is near-ready for commercialization, but then entrepreneurs often face a final valley of death in financing demonstration/proof of concept projects and iterative research and development with early customers.

Entrepreneurs must typically rely on venture capital (VC) at this stage, but VC financing is competitive, and investors aren’t always interested in technologies that will take a long time to achieve a return on investment (ROI). Additionally, VC financing dilutes equity in the company and creates pressure to achieve a quick ROI, which can influence management decisions and hinder the freedom to test out different market pathways/types of customers and further iterate their technologies.

¹⁵ <https://www.cebn.org/wp-content/uploads/CEBN-SBIR-STTR-Letter-SBC-and-Science-117th-Congress.pdf>

¹⁶ <https://www.cebn.org/wp-content/uploads/CEBN-Letter-to-HSST-on-COVID-19-Reponse-04.13.20.pdf>
https://www.cebn.org/media_resources/us-supply-chain-review

Small Business Administration loans are not a viable source of working capital for energy companies; the timeframes for repayment and collateral requirements are simply not a good fit for technology-intensive companies with a long horizon to profitability.

The Department of Energy's Loan Programs Office (LPO) has served as a successful model for providing access to debt capital for first-of-a-kind projects and other high-impact energy-related ventures in a way that private lenders often can't or won't. Unfortunately, due to the complex and rigorous application, due diligence, and legal process associated with these loans, LPO does not currently serve as a useful source of funding for small businesses or smaller-scale demonstration projects. In fact, the smallest LPO loan issued to date has been for \$43 million.¹⁷

Through stakeholder dialogues, we have developed a proposal to facilitate smaller loan amounts (up to \$50 million) to support demonstration or manufacturing projects by small businesses. We also recommend funding the newly-created Milestone-Based Demonstration Program within the Office of Technology Transitions, which was authorized in the Energy Act of 2020 as a grant program for demonstration projects.¹⁸

Addressing gaps in working capital and demonstration project finance would fuel a critical economic engine for small businesses, bolster the nation's innovation ecosystem, and enhance our global competitiveness. Additionally, it would ensure a greater taxpayer return on investment by ensuring that technologies that have been developed with federal grants eventually reach the market and create high-paying jobs and tax revenues.

5. Accelerating Deployment of Clean, Efficient, Resilient Infrastructure:

And finally, we applaud the significant funding for clean energy demonstration projects and infrastructure deployment included in the Senate's bipartisan Energy Infrastructure Act and the House's Leading Infrastructure for Tomorrow's America (LIFT America) Act and urge Congress to move forward on these provisions.

Last year, we submitted letters to Congress signed by more than 200 business leaders urging actions to help put communities back to work in the wake of COVID-19. These included extensions and modifications of various energy tax incentives, the addition of direct pay for these incentives, funding for research and development, and investments in infrastructure resilience.¹⁹ Our parent organization, BCSE, recently submitted a letter to the Senate Energy and Natural Resources Committee supporting the broad range of programs and demonstration funding included in the Energy Infrastructure Act currently pending in the Senate.²⁰

¹⁷ <https://www.energy.gov/lpo/portfolio>

¹⁸ <https://www.cebn.org/wp-content/uploads/CEBN-Comments-on-the-DOE-Loan-Programs-Revitalization-Act.pdf>, <https://www.cebn.org/wp-content/uploads/CEBN-FY2022-Appropriations-Letter-House.pdf>

¹⁹ <https://www.cebn.org/wp-content/uploads/Cleantech-in-Economic-Stimulus-08.10.2020-House.pdf>

²⁰ <https://bcse.org/images/2021%20Comms/Summer%20Campaign/Energy%20Infrastructure%20Act%20Letter/BCSE%20Energy%20Infrastructure%20Act%20Letter%207.08.2021%20Final.pdf? t=1625685079>

We urge Congress to act swiftly on an infrastructure package that includes funding for clean and resilient infrastructure. Additionally, in implementation of the package, we hope to work alongside Congress and the Administration to ensure this infrastructure funding is accessible for small firms.

Role of the Small Business Administration

Finally, as this hearing is focused on the Small Business Administration's (SBA's) role in climate solutions, I wanted to close with a few thoughts on ways to engage the SBA in addressing the policy recommendations I have outlined.

1. SBIR/STTR Reform:

First, the SBA is due for reauthorization by next year, and we hope to work with the Committee to address our recommendations for SBIR reform in the process.

One of the challenges we've identified is that each federal agency differs significantly in its administration of SBIR/STTR, including the extent of technical assistance provided, cost share requirements, application procedures, and opportunities for follow-on/demonstration funding. For example, the Department of Energy and Department of Health and Human Services offer particularly robust technical support for first-time applicants. The National Science Foundation offers comparatively open/less prescriptive funding solicitations and more dedicated program manager support compared to other agencies—and this may be part of the reason why NSF has a more diverse portfolio of awardees and more first-time awardees compared to some other agencies.²¹ The Department of Defense's strength is in making follow-on awards to support demonstration and commercialization of new technologies through federal procurement opportunities.

The SBA can help play a coordinating role in working with the various agencies to exchange data and best practices about what is working well, what is not, and ways to apply the most effective approaches more uniformly across the board.

2. Inter-Agency Coordination and Communication to Small Business Stakeholders:

There are innumerate programs across the federal government to support entrepreneurs—from the Small Business Administration to the Department of Commerce to the Department of Energy—yet it is nearly impossible for small businesses to navigate the breadth of available resources let alone the rules and requirements to access them. Larger companies can spend thousands of dollars on lobbyists and consultants to assist with securing funds and contracts, but most small businesses cannot—leaving good ideas and opportunities for economic development on the table. Better coordination among agencies is needed to catalogue and promote federal resources to entrepreneurs. SBA can help by curating and promoting information about available federal resources and how to access them.

²¹ <https://www.thirdway.org/memo/survey-clean-energy-businesses-need-federal-assistance-now>

SBA's Small Business Development Centers (SBDCs) do provide support to local entrepreneurs. However, the needs of a small coffee shop and a small fuel cell manufacturer are radically different. It's unrealistic to expect SBDCs to be experts in every federal, state, and local program available to every small business.

This speaks again to the importance of enhancing coordination and information exchange among federal agencies and developing channels to communicate opportunities down to local SBDCs and other community support centers.

Also, some communities simply don't have a local SBDC or other source of support. For example, one of CEBN's members recently testified before this Committee about her experience with SBIR, and noted that she had to travel regularly from Albany to New York City to access an i-Corps program to support her work. Ideally, the silver lining of the pandemic is that the transition to virtual business will help promote more connectivity for businesses from rural or underserved communities that have historically not enjoyed much access to local support systems.

3. Developing New Sources of Capital:

Finally, I spoke earlier about the importance of providing access to working capital for demonstration of new technologies. While a nail salon or clothing shop might be able to access SBA-backed loans from a local bank, the structure of these loans is unworkable for a high-tech company. We've had many stakeholder discussions about the right home for commercialization funding and our general thought is that the technology agencies (such as DOE) might be the most suitable place for this financing. However, the SBA should also explore ways to engage private lenders in adapting financing to the unique needs of technology companies.

In closing, SBA must be adequately resourced to provide the various inter-agency coordination and technical support functions that are needed to support entrepreneurs building the technologies of the future. Also, SBA cannot accomplish these recommendations alone; a concerted effort and bold leadership is required among all the federal agencies to improve coordination and communication.

Conclusion

As we rebuild our economy, investing in new clean energy technologies is one of the best things we can do to create good jobs for regular people right now while reaping long-term benefits for decades to come.

Investing in American technology has a history of paying off. From landing a man on the moon, to putting computers in our pockets, to developing COVID vaccines, government investment has been a key to America's success.

By empowering America's small clean energy businesses, we can help unlock their most brilliant ideas for tackling climate change while building the energy economy of the future.