

Testimony of Lisa Jacobson, President, Business Council for Sustainable Energy

**United States House of Representatives
Committee on Small Business
Subcommittee on Contracting and Infrastructure**

Hearing on “Moving America’s Infrastructure Forward”

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Chairman Golden, Ranking Member Stauber, and Members of the Subcommittee, thank you for the opportunity to testify today on the importance of U.S. infrastructure in supporting continued growth of clean energy sectors.

My name is Lisa Jacobson, and I serve as the President of the Business Council for Sustainable Energy, or BCSE. On behalf of the Council, I would like to express the organization’s appreciation for the longstanding work of the Committee on Small Business and the leadership of the Subcommittee on Contracting and Infrastructure related to the federal government’s role in improving our nation’s infrastructure assets.

Upgrades and investment in infrastructure have broad bipartisan support. Investment in American infrastructure will improve the nation’s economic competitiveness, it will increase our national security and resilience, and has the potential to create tens of thousands of jobs.

Small businesses comprise more than 99% of U.S. companies and employ 47.5% of the American private-sector workforce.¹ As the clean energy economy continues to grow, so too will the economic impact of small businesses in these sectors. Maintaining modern, safe and reliable infrastructure enhances the ability of businesses to succeed.

My remarks will focus on the rapid changes in the U.S. energy economy and the importance of energy infrastructure investments.

About the BCSE

BCSE is a coalition of companies and trade associations representing the energy efficiency, natural gas and renewable energy sectors. Founded in 1992, the Council advocates for policies that expand the use of commercially available clean energy technologies, products and services. Its membership includes project developers, industrial manufacturers, equipment and technology providers, independent electric power producers, investor-owned utilities, public power and energy and environmental service providers.

BCSE is pleased to have an independent initiative under its banner, the Clean Energy Business Network (CEBN). CEBN represents small- and medium-size businesses providing clean energy technologies, products and services.

¹ <https://www.sba.gov/sites/default/files/advocacy/2018-Small-Business-Profiles-US.pdf>

Together, BCSE and CEBN represent a broad scope of the clean energy economy, from Fortune 100 companies to small businesses working in all 50 states and over 350 Congressional districts. On a national basis, the energy efficiency, natural gas and renewable energy sectors support over 3.2 million U.S. jobs and it is estimated that 70% of these jobs are in small businesses.

BCSE and CEBN members have a wide range of policy interests. As broad-based coalitions of businesses and trade associations, not all BCSE and CEBN members take positions on or endorse the views offered in this testimony.

The U.S. Energy Transformation: 2010 to 2019

To set the context for the policy perspectives offered in my testimony, I will present some of the findings of the [2020 Sustainable Energy in America Factbook](#). The *Factbook* is a report produced by the Business Council for Sustainable Energy and Bloomberg New Energy Finance. Now in its eighth year, the report details the significant transformation of our nation’s energy sector.² The 2020 edition was released earlier this month and provides both a ten-year retrospective between 2010-2019 as well as year on year changes from 2018 and 2019. A complementary compendium from CEBN entitled [Faces Behind the Facts](#) highlights some of the small to medium-sized clean energy entrepreneurs who are helping to drive this transformation.

The 2010s was a rapid period of change in the energy sector, and particularly for the portfolio of energy efficiency, natural gas and renewable energy. This clean energy portfolio represents the growth sectors of the U.S. energy economy, and now supplies more than half of U.S. electricity and employs over 3.2 million American workers.

During this period of energy transformation, the U.S. economy experienced sustained economic growth, falling greenhouse gas emissions and low energy costs for consumers. Other key characteristics of this period include the ability of the U.S. economy to do more with less energy and a clear decoupling of GDP growth with energy use. Further, in the 2010s, renewable energy and energy-smart technologies expanded and attracted \$390 billion in investment, with a record breaking \$55 billion in investment in 2019 alone.

Additional findings from the *2020 Factbook* include:

- **Clean energy is now driving the U.S. energy sector.** Sustainable energy meets and exceeds America’s needs in terms of maintaining grid reliability and safety, while boosting economic growth and reducing environmental impacts.
- **Today the cheapest energy is also the cleanest.** Retail electricity costs fell, while consumers have the same services and, in some cases, more options. Consumers are now spending 22% less on energy, on average, compared to the start of the decade.
- **Energy efficiency choices have proliferated,** with federal programs helping high-efficiency appliances reach mass markets and state codes bolstering building efficiency.

² <https://www.bcse.org/factbook/>

- **The economy grew every year in the past decade and energy use fell in five of the ten years.** U.S. energy productivity (GDP/energy consumption) improved 18% between 2010 and 2019, benefiting businesses and households.
- **Renewable energy became the cheapest new generation source in many U.S. power markets.** The U.S. has over 2 times more renewable power generating capacity today than a decade ago. The portfolio of renewable energy technologies – biomass, biogas, geothermal, hydropower, solar, waste to energy and wind now provide 18% of U.S. electricity, up from 11% at the start of the decade.
- **Between 2010 and 2019 domestic natural gas production jumped 50%,** and natural gas went from providing 24% of the nation’s electricity to 38%. The U.S. increased its export capacity to exceed its import capacity, building stronger trade relationships around the world. In 2019, the U.S. exported more gas than it imported. Further, the number of residential natural gas customers grew by 8% in the last decade while overall residential consumption of gas rose by 5% due to energy efficiency.

The Growth Opportunity for Small Businesses in the Clean Energy Economy

As I noted earlier, BCSE has an independent, small business-focused subsidiary Clean Energy Business Network (CEBN). CEBN has a network of more than 3,000 business leaders in all 50 states—and this is only the tip of the iceberg among the over 3.2 million Americans working across the clean energy economy.³

The clean energy economy is powered by businesses like Cerahelix in Maine, located within Subcommittee Chairman Golden’s district. With support from the Department of Energy (DOE), Cerahelix has developed a novel membrane technology that assists with a variety of wastewater reuse applications, including waste-to-energy production.

The clean energy economy is also powered by entrepreneurs like Ski Milburn in Boulder, Colorado, who, leads VAIREX Air Systems. VAIREX has developed a novel way with DOE support, to supply air for the chemical reactions in fuel cells that improves its efficiency. Of relevance to the topic of today’s hearing, VAIREX is now winning contracts with major fuel cell suppliers working with fuel cell buses and trucks – as well as a range of other applications.

In 2017, CEBN surveyed its membership to assess the needs and priorities of small clean energy businesses.⁴ When asked about the most significant challenges facing their businesses, policy was at the top of the list for many. This includes supportive policies that spur investment to modernize U.S. infrastructure.

³ <https://www.cebn.org/cebn-overview-for-policymakers/>

⁴ <https://www.cebn.org/faces/biojoe-beth-renwick/>

Energy is Critical Infrastructure, and Powers Critical Infrastructure

Energy powers our lives and is at the heart of the U.S. economy.

The extensive power grid and natural gas system in the U.S. have fueled the nation’s economic growth and ensured its global competitiveness. However, the country’s energy infrastructure lacks the required attributes necessary to meet the demands of the 21st century.

In addition, the U.S. economy and its energy infrastructure are becoming more digitally driven. Ensuring the resilience and “smartness” of our energy infrastructure, in the face of numerous threats – from natural disasters and extreme weather to cyber security and terrorism is now more critical than ever.⁵

It is estimated that the U.S. has a \$5 trillion gap in funding for infrastructure investment between now and 2040,⁶ and identifies a need for over \$565 billion in additional energy infrastructure spending alone.

This spending gap exists even with U.S. electric and natural gas utilities already spending hundreds of billions of dollars annually on infrastructure. To effectively address this gap, the public and private sectors must work together to update market rules and to establish modern policy frameworks. This should include market structures that facilitate long-term planning and infrastructure investment as well as creating market signals for investments in energy efficiency.

This public-private collaboration can help ensure the delivery of affordable, reliable, and clean energy products and services to businesses and households. Public-private partnership is also vital to the operation of other essential infrastructure systems, including security, water and waste management, transportation, communications, the built environment, and industrial sectors.

Please read [*BCSE Principles on Federal Energy Infrastructure Priorities*](#) for more information on the Council’s views on federal infrastructure issues.⁷

Perspectives on the “Moving America and the Environment Forward Framework”

BCSE appreciates the serious consideration Congress is providing to modernizing and investing to improve and expand U.S. infrastructure. This objective is of prime importance to clean energy sectors. The federal government plays a unique role in that it can enable policies that will incentivize and leverage private sector participation and capital that will spur even greater improvement of our nation’s infrastructure.

⁵ See *BCSE Principles for Federal Energy Infrastructure Priorities*, <https://www.bcse.org/images/2019%20FPC/BCSE%20Principles%20on%20Federal%20Energy%20Infrastructure%20Priorities.pdf>

⁶ <https://www.infrastructurereportcard.org/>

⁷ <https://www.bcse.org/images/2019%20FPC/BCSE%20Principles%20on%20Federal%20Energy%20Infrastructure%20Priorities.pdf>

The *Moving America and the Environment Forward* framework provides a broad set of proposals. BCSE and CEBN look forward to reviewing these proposals and providing feedback to Congress in the coming months. BCSE appreciates the framework’s recognition of the energy system as a critical infrastructure asset and supports the framework’s consideration of climate change and resilience as part of its proposals.

The *Moving America and the Environment Forward* framework includes several elements that are of interest to BCSE and I will discuss a few of them today:

Siting, Permitting, and Regulatory Reforms – Streamlining of siting and permitting processes for electric grid, electric transmission, natural gas pipelines, power generation, hydropower projects, energy storage, and materials management are critical for infrastructure investment. Further, federal government leadership is needed to promote and adopt policies that foster effective transmission and infrastructure planning. This includes ensuring that clean energy projects can be developed by implementing workable regulations for federal land management, wildlife, military, and aviation interactions.

Resilient Infrastructure Investments – BCSE and its members work to improve the resilience of federal infrastructure investments through policy advocacy and resilience planning projects. Specifically, BCSE supported the enactment of the Disaster Recovery Reform Act (DRRA) in 2018⁸ and is currently working to implement the Building Resilient Infrastructure and Communities program that was established as part of the DRRA.⁹ Under these programs, there are opportunities to support pre-disaster investment to enhance the resilience of critical infrastructure as well as to reform the federal regulations that enable projects to “build back better.” It is essential that federal programs and resources be able to utilize new and improved technologies, materials and applications. BCSE has also worked at the local level in Texas and Puerto Rico as a partner in a Readiness for Resilience project.¹⁰ This initiative is helping communities impacted by hurricanes Harvey, Maria and Irma in 2017 with resilience planning across many areas of focus – telecommunications and energy in particular. These experiences confirm BCSE’s view that infrastructure planning and investment should consider opportunities to enhance resilience and support public private partnerships.

Clean Energy and Energy Efficiency Infrastructure – The *Moving America and the Environment Forward* framework includes several areas to accelerate the deployment of clean energy technologies and resources in the energy, transportation and buildings sectors. Specifically, the framework includes \$4 billion to support electric grid security, resilience and modernization. It also includes over \$20 billion for programs to improve the energy efficiency, including weatherization, building retrofits and community level projects.

Infrastructure Financing Tools – To catalyze the capital investments needed in U.S. infrastructure, Congress should seek to strengthen and expand existing financial tools and

⁸ <https://www.fema.gov/disaster-recovery-reform-act-2018>

⁹ <https://www.bcse.org/bcse-urges-fema-to-include-clean-resilient-energy-infrastructure-for-disaster-mitigation-july-15-2019/>

¹⁰ <https://www.bcse.org/readiness-for-resilience-project-hosts-workshops-in-texas-july-9-2019/>

consider new mechanisms. These tools should catalyze and leverage private sector investment. Related to this, municipal facilities make up a significant portion of infrastructure assets, and proposals should consider investment and support in municipal projects – this spans waste, water, transportation, lighting and energy infrastructure. Financing is often cited as a key barrier when retrofits are being considered by building owners and managers, but market-based alternatives exist to attract and leverage private capital. Energy Savings Performance Contracts (ESPCs) are an established and widely accepted private financing mechanism that is used to alleviate capital costs especially in the education, healthcare sectors and at the federal, state and municipal levels of government. Additional solutions that spur lower-cost financing such as loan guarantees or bonding authority for projects are needed. This can be achieved through the tax code, infrastructure banks, or other means. For some sectors, research, development, and deployment funding should also be provided.

Conclusion

The last decade has demonstrated that energy is critical infrastructure. Further, the U.S. energy sector is undergoing a fundamental transformation that is powered by a robust, affordable, reliable and clean portfolio of commercially available energy resources. Clean energy sectors provide over 3.2 million U.S. jobs, with about 70% of those jobs in small businesses.

Modern, safe, resilient and reliable infrastructure underpins a growing economy. The federal government has a role to plan to assist with planning and financial tools to catalyze private sector investment.

The *Moving America and the Environment Forward* framework is a comprehensive approach to address the challenges and opportunities the country faces as it strives to modernize and strengthen its infrastructure, across the economy. BCSE looks forward to working with Congress as it reviews this proposal.

Thank you.