

July 7, 2021

The Honorable Jennifer Granholm, Secretary  
U.S. Department of Energy (DOE)  
1000 Independence Avenue, SW  
Washington, DC 20585

Re: Request for Information (RFI) on the U.S. Department of Energy's Hydrogen Energy Earthshot initiative

Dear Secretary Granholm,

The [Business Council for Sustainable Energy](https://www.bcsen.org/) (BCSE) is pleased to submit the following comments in response to the June 7, 2021 Request for Information (RFI) on the U.S. Department of Energy's Hydrogen Energy Earthshot initiative to enable low cost, clean hydrogen at scale.

Founded in 1992, BCSE is a coalition of energy efficiency, natural gas and renewable energy companies and associations. Its membership includes investor-owned and public utilities, independent power producers, manufacturers, technology providers, energy services companies, and sector-specific trade organizations.

BCSE is pleased to have an independent small business division under its banner, the Clean Energy Business Network (CEBN). Together, BCSE and CEBN represent a broad range of the clean energy economy, from Fortune 100 companies to small businesses working in all 50 states. Together, these industries support over 3 million U.S. jobs.

BCSE members have a strong understanding of the key policy, regulatory and market drivers that are necessary to help accelerate the production, storage, delivery, and end use of clean, affordable hydrogen in the United States. BCSE appreciates the opportunity to share our members' perspectives on some of the issues we believe are important for the U.S. Department of Energy (DOE) to consider in its efforts to further define the scope and priorities of its hydrogen-related initiatives.

Further, several BCSE members intend to submit their own comments to the DOE during the RFI comment period, including the American Public Gas Association and Bloom Energy. BCSE has benefitted from their expertise in the development of this submission, and we encourage thoughtful review of their submissions.

Please note, as a diverse coalition, not all members take a position or endorse the recommendations that follow. These recommendations will cover the following areas:

- Supporting a Holistic Approach to the Use of Hydrogen Across Multiple Sectors and Applications
- Utilizing and Including a Wide Range of Hydrogen-based Technologies
- Addressing Issues Related to Scaling of Hydrogen Technologies
- Expanding Engagement with Clean Energy Industry Leaders
- Requesting Guidance from DOE on Specific Issues

## **Supporting a Holistic Approach to the Use of Hydrogen Across Multiple Sectors and Applications**

BCSE members offer a wide range of technologies, products and services across the energy storage, transportation, electricity generation, building, and industrial application sectors. Additionally, as a diverse coalition, BCSE members contribute to the various applications of hydrogen including its production, storage, delivery, and end use. As such, with appropriate federal incentives and broad-based support for hydrogen research, development, deployment, and demonstration (RDD&D) programs, BCSE members can aid in mitigating the impacts of climate change on communities, business operations, and the economy, while creating jobs in the hydrogen supply chain. Key to unlocking these benefits is evaluation of all the various hydrogen applications throughout the economy. Therefore, BCSE supports DOE's commitment to exploring opportunities for hydrogen across all industry sectors.

### Addressing Concerns Specific to Use of Hydrogen in Buildings

In relation to DOE's adoption of a holistic approach, BCSE members ask DOE to acknowledge the benefits of incorporating hydrogen for use in buildings, specifically that its use would lead to quick emission reductions in the space heating sector, especially in regions of the country or buildings that are hard to electrify. This path provides an opportunity for near-term emission reductions in the sector.

### Recognizing the Energy Storage Potential of Hydrogen

BCSE members understand the important role energy storage plays in reducing emissions. Therefore, BCSE requests DOE to investigate and provide incentives for those in the private sector who are researching and developing hydrogen techniques that enable energy storage.

### Working with State Governments and Industry on Hard to Decarbonize Sectors

DOE should look to help develop hydrogen for heavy duty trash and tractor trailer trucks, and for airplanes. These are two historically polluting sectors with extremely high greenhouse gas emissions. Hydrogen has a unique asset in these high-power energy sectors.

## **Utilizing and Including a Wide Range of Hydrogen-based Technologies**

BCSE members are ready to contribute to a market for hydrogen energy through a wide variety of technologies, which includes blended hydrogen. Allowing a broad cross section of technologies to benefit from the hydrogen market, at least in the short term, will stimulate the needed investment in hydrogen machinery and technology and lead to greater long-term reductions in carbon emissions and creation of jobs.

## **Addressing Issues Related to Scaling of Hydrogen Technologies**

BCSE members acknowledge the difficulties presented by scaling the market for hydrogen to meet the needs on a statewide, regional, and national level. BCSE requests that DOE analyze and include proper program incentives to scale hydrogen pilot programs. This would include expanding projects that DOE is already supporting as well as creating partnerships and providing funding to projects that are already underway and need to scale up. These types of support would provide larger data sets for a range of important issues, including safety, affordability, and scalability.

## **Expanding Engagement with Clean Energy Industry Leaders**

Communication between DOE officials and industry actors can enable the creation of practical policy backed by sound environmental and economic rationale. BCSE members can provide DOE with insight into how potential programs and initiatives will operate and affect hydrogen deployment, and which areas of the country could benefit most from the use of hydrogen. Industry viewpoints can also advise on how hydrogen can be incorporated into a variety of DOE initiatives, including the Building Technologies Office's grid efficient interactive buildings program, and the programs under the Advanced Manufacturing Office, among other areas. The BCSE urges DOE to develop a relationship with industry actors and utilize those industry connections as a resource in the development of DOE hydrogen initiatives. These private-public sector relationships will help to ensure the U.S. does not fall further behind in the development of its hydrogen market.

## **Requesting Guidance from DOE on Specific Issues**

### Regarding Transmission and Distribution

BCSE members seek clarity from the DOE regarding the transmission and distribution of hydrogen via existing natural gas pipelines. Analyzing ways to transport hydrogen to end-use customers will further enable the adoption and use of hydrogen throughout the United States. Specific analyses and demonstrations regarding this issue would be helpful to industry leaders looking to invest in hydrogen technology and infrastructure.

### Regarding Design Changes, Retrofit Packages, and New Sensors

BCSE members also seek guidance from DOE via its RDD&D on the potential design changes, retrofit packages, and additional or new sensors that may be necessary for the implementation and use of hydrogen technologies.

## **For Further Information**

The Business Council for Sustainable Energy appreciates the opportunity to participate in the Request for Information on the U.S. Department of Energy's Hydrogen Energy Earthshot initiative. Please contact [bcse@bcse.org](mailto:bcse@bcse.org) for any questions related to this submission.