BLUEGREEN ALLIANCE

CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

3/21/22

Response to Request for Information: Regional Clean Hydrogen Hubs Implementation Strategy

Docket No. DE-FOA-0002664.0002

On behalf of the BlueGreen Alliance (BGA), a coalition of the nation's largest labor unions and environmental organizations, collectively representing millions of members and supporters, we thank the President and his Administration for prioritizing emissions reduction across the economy as a means to address the climate crisis, support and create good union jobs, advance environmental justice, and build a stronger, fairer economy. Additionally, we thank the U.S. Department of Energy (DOE) for seeking input on the implementation of the Hydrogen Hubs (H2Hubs) program as established by the Bipartisan Infrastructure Law (BIL).

Our coalition is committed to supporting the Administration in our shared goal of transforming our economy in a way that reduces greenhouse gas (GHG) emissions, improves health and environmental outcomes in communities harmed by environmental injustice, and creates and maintains good, family-supporting jobs across the United States. Implemented carefully, we believe hydrogen can play a critical role in achieving these goals and establishing a stronger, cleaner, and more equitable economy.

Hydrogen is an interesting opportunity to put people to work in the clean economy using the careers and skill-sets that they have today. Hydrogen is currently produced for a number of uses in the U.S., and reducing emissions from that process will allow workers to retain jobs while we make progress on climate goals. The industry also requires existing skill-sets in construction and operations and maintenance and hydrogen as a fuel can substitute for fossil fuels for some industrial processes.

As discussed in greater detail below, to serve the Administration's goal of strengthening prosperity by expanding good, safe union jobs and supporting job growth through investments in domestic manufacturing, DOE should strategically target funding. This should include a focus on geographies that already have high union density in energy production or energy infrastructure, and areas that have a high union density history but have experienced a loss due to past energy transition. Further, this program should target H2Hubs investment at deindustrialized regions and communities with dislocated workers, or are at risk of dislocation, by the energy transition. Strategically targeted funding could help workers participate in the clean economy using skills they already have.

Hydrogen is also a critical technology for reducing emissions in hard to abate sectors of the economy. In particular, clean hydrogen is one of the few promising pathways to reduce emissions from heavy industry, which will allow the US to retain good jobs in the industrial sector while making progress on climate goals. The industrial sector represents a significant and growing source of U.S. emissions, accounting for

29% of GHG emissions in 2019 when including its electricity use. Additionally, the economic stakes of decarbonizing and reinvesting in the industrial sector, of which manufacturing is the largest part, is enormous. Manufacturing directly employs about one in 11 American workers, and contributes $2 trillion a year to the gross domestic product (GDP). At the same time, decades of bad policy, offshoring, and outsourcing have weakened supply chains and lost jobs, and the United States has not been taking full advantage of the opportunity to support and strengthen domestic manufacturing.

Overseas, competitors are already deploying early-stage clean hydrogen in steelmaking. In Hamburg, Germany, ArcelorMittal launched a pilot project in 2019 to test steelmaking with hydrogen-based direct reduced iron on an industrial scale. In Sweden, SSAB, a global steel company, joined with LKAB, Europe's largest iron ore producer, and Vattenfall, one of Europe's largest electricity producers, on a project to produce steel using green hydrogen that is on track to be produced commercially by 2026. The U.S. must keep up.

Our response to this RFI primarily addresses questions from Category 1 subsections 1, 3, 4, 5 and 7 as well as Category 2.

Category 1 (1): Proximity;

The BIL defines a "regional clean hydrogen hub" as "a network of clean hydrogen producers, potential clean hydrogen consumers, and connective infrastructure located in close proximity." This focus on proximity can help to both maximize the economic impact of the H2Hubs and limit possible leakage of hydrogen. Ensuring a close proximity of producers, end users, and transport infrastructure can allow for economic benefits generated by greater ease of communication between market participants. Possible hydrogen leakage becomes an increasing risk as the distance between producers and consumers grows. Leakage can lead to wasted hydrogen, climate impacts, and can be dangerous for communities and workers. This concern must be balanced against economic necessities of the hydrogen markets facilitated by these hubs and an interest in reaching a wide number and range of end-users.

Category 1 (3): Feedstock diversity; Category 1 (4) End use Diversity; Category 2 H2Hubs Implementation Strategy

The RFI asked for comments on whether DOE should prioritize the repurposing of historic fossil infrastructure in the regional hub(s) focused on production from fossil fuels. Focusing initial H2Hub investment in reducing emissions from existing hydrogen production facilities, such as those at refineries, and using existing fossil fuel infrastructure to transport hydrogen can be key strategies for achieving an energy transition that is fair for workers and communities.

Balancing with a need to sufficiently fund each hub, DOE should focus on maximizing the number of H2Hubs created under this program. Creating 4-10 hydrogen hubs would allow the program to demonstrate a number of different production pathways and end uses within each statutorily defined category (e.g., demonstrating H2 use for multiple varieties of industrial facilities). Maximizing the

practicable number of H2Hubs would also help DOE to achieve the geographic diversity goal of the program.

Additionally, DOE should build flexibility into its solicitation process to ensure hydrogen end uses that are feasible now can be rolled out as soon as possible while making space for hydrogen end uses that may take more time for successful implementation, like use of hydrogen in the steel industry or in aviation.

Category 1 (5) Geographic Diversity

As part of its focus on ensuring a geographic diversity, DOE should target H2Hubs investments towards workers and communities experiencing the economic impacts of energy transition as part of a broader set of investments to build a clean and equitable economy for all. This is consistent with other provisions of the BIL that DOE will be implementing, such as the Advanced Energy Manufacturing and Recycling Grants program, which provides $750 million to support Small and Medium-sized Enterprises (SMEs)'s to build new or retrofit existing manufacturing and industrial facilities to produce or recycle advanced energy products in communities where coal mines or coal power plants have closed – with a priority for low-income and dislocated worker communities and minority-owned facilities.

Category 1 (7): Employment

The Bipartisan Infrastructure Law (BIL) directs DOE to "give priority to regional clean hydrogen hubs that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents of the region."

As DOE works to implement the H2Hubs program, we must ensure that these investments support workers and communities and translate into not only quality, family-sustaining, union jobs, but accessible jobs for workers of color and other segments of the population historically left out of these jobs.

This includes supporting and growing pathways into good union jobs in the construction projects, operations and maintenance, and along the supply chain associated with hydrogen production, transportation, storage, and end-use as well as retaining good union jobs in industries that can use hydrogen as a pathway for emissions reduction.

To demonstrate a broad and strong commitment to these considerations, DOE should include the following measures in its implementation of the H2Hubs program.

1. **Family-sustaining, union jobs must be created and retained across the clean hydrogen sector and the associated manufacturing supply chain**. To do this, high-road labor standards must be utilized, such as: union neutrality; sound wages and benefits, occupational health and safety standards and programs; and avoidance of misclassification, excess use of contracted or temporary employees. Any construction funded under the H2 Hubs Program must adhere to Davis Bacon prevailing wage provisions in the BIL and should require project labor agreements (PLAs) and other high-road labor standards.

Growing the clean hydrogen sector can also be a key strategy in mitigating the economic and workforce impact of transitioning to a clean economy with a recognition that the best approach is one that prevents economic disruption and employment loss in the first place. To achieve this goal, technologies and projects that use jobs and skill sets associated with traditional energy production should be prioritized. Projects to deploy hydrogen in the industrial sector, for instance, should prioritize retention of industrial jobs and employment for workers dislocated from traditional energy sectors. Selecting hubs that include end users that are union organized (e.g., a union organized industrial facility or power plant) would create opportunities for skilled training and long-term employment to the greatest number of residents of the region. Targeting investment at geographies with already existing high union density in energy-intensive industries would help to ensure the creation of good jobs in the hydrogen sector.

2. **Ensure use of domestic content in the construction of hydrogen hubs**. As the Build America, Buy America provisions in the Bipartisan Infrastructure Law (BIL) come into effect and strengthen the Buy America requirements associated with federal investments, the positive market and employment effects of the H2Hubs program will be further magnified.Supply chain reporting and disclosure should also be encouraged while incentivizing assembler/supplier commitments and accountability.

3. **Benefits must be maximized for workers and communities that need it most**. This should be done by:
    a. targeting investments in hard-hit communities with a focus on deindustrialized, impacted, or underinvested communities;
    b. utilizing hiring and procurement policies that benefit low-income communities, people of color, and women; and requiring or incentivizing community benefit/community workforce agreements that increase economic opportunities for communities and local workers—especially for people of color and low-income communities.
    c. Ensure investments and policies are in line with the scale of change needed to meet global climate targets by prioritizing projects that will result in the greatest net decrease in GHG emissions;
    d. Safeguard the health and safety of workers and communities and promote environmental justice by measuring and limiting any toxic emissions resulting from hydrogen use; and by implementing advanced process safety rules at facilities.

4. **Training and jobs should be invested in together**, and the pathways into family-supporting manufacturing and technical careers must increase and improve.

    a. To do this, the H2Hubs program should encourage investment in work-based training and retraining throughout and across careers. When evaluating applicants, DOE should prioritize potential hubs that include training programs which:
        i. Encourage a pipeline (starting in high school and including all adult entry points into a career) of education and vocational apprenticeships that result in nationally and sectorally recognized and accredited qualifications;

ii. Ensure sound, negotiated, and ongoing technical and on the job training and retraining in line with defined career paths in the clean hydrogen sector; and that results in industry recognized certification and ensures workers are paid for the skills they have or acquire;
iii. Utilize registered union apprenticeships, pre-apprenticeships, and/or labor management training programs;
iv. Further develop occupational standards and high-road training that incorporates career paths; and
v. Mandate investment in retraining existing workers where technology changes.

b. DOE should establish a joint hydrogen workforce development program with the Department of Labor and other federal agencies that support workforce training and provide technical assistance to help expand registered apprenticeship programs, engaging with trade associations, labor unions, companies, and local vocational and higher education facilities, and community based organizations to establish relevant training programs and curricula, including registered apprenticeship programs. These programs should be accessible to all and cover relevant skill sets including construction, equipment manufacturing, facility operation, and regulatory requirements. Special attention should be placed on capacity-building and training programs in communities experiencing displacement from fossil fuel intensive sectors and in historically underserved communities, including through outreach to HBCUs, tribal universities and community based organizations.
c. Additionally, job access must increase and improve, and DOE must ensure equitable pathways into family-sustaining careers in the clean hydrogen sector. This can be supported by integrating training programs with community-based "wrap around" services to maximize retention of disadvantaged and underrepresented workers as they enter industrial and manufacturing careers

All of DOE's investments in H2Hubs made pursuant to this RFI should require, incentivize, or reward commitments that meet these kinds of high road labor standards and responsible labor and community benefit practices.

Conclusion

As the United States ramps up efforts to deploy clean hydrogen, making these investments right will give us the opportunity to lead globally, rebuild and retain good, union jobs in industrial and manufacturing communities across the nation that have been struggling, and improve health and environmental outcomes. At the same time, moving forward without putting the right policies in place to lift up the quality of the jobs created, prioritize safety and environmental justice, and ensure workers and communities see the benefits of these investments would put the burdens of economic transition on workers and risk undermining the climate benefits of this new technology.

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