



National Association of  
State Energy Officials

November 28, 2022

Dr. Sunita Satyapal  
Director, Hydrogen and Fuel Cell Technologies Office,  
Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

**RE: U.S. Department of Energy’s (DOE) National Clean Hydrogen Strategy and Roadmap Draft**

Dear Dr. Satyapal,

The National Association of State Energy Officials (NASEO) appreciates the opportunity to submit comments regarding DOE’s National Clean Hydrogen Strategy and Roadmap draft developed in accordance with the Infrastructure Investment and Jobs Act (IIJA). NASEO represents the governor-designated State Energy Directors and their offices from each of the 56 states, territories, and the District of Columbia. NASEO has been supporting State Energy Offices as they look to advance clean hydrogen production in their states and regions through a number of publications, a working group, and educational webinars. Through the Western Green Hydrogen Initiative (WGHI), NASEO and the Green Hydrogen Coalition brings together eleven states to explore clean hydrogenrelated issues on a regional basis. In response to the September 2022 draft of the roadmap, we encourage DOE to consider the following points in developing the final document:

**1. Expand the role of states in facilitating hydrogen development and forming partnerships**

State Energy Offices are leading efforts to advance policy and programmatic initiatives to further the development of clean hydrogen across the country. In each of the 56 states, territories, and the District of Columbia, State Energy Offices play key roles in advising the governor and state legislature on energy issues, informing regulatory processes, fostering public-private partnerships, supporting and financing clean energy research, development, and deployment (RD&D) projects, and advancing equity and economic development priorities through workforce programs and other means. Across the nation, State Energy Offices are leading efforts to explore pathways for innovative new technologies, such as clean hydrogen, that provide avenues to decarbonize heavy industry and provide new solutions for long-duration energy storage to enhance reliability and to reduce greenhouse gas emissions.

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For example, the Wyoming Energy Authority is administering the Western Inter-States Hydrogen Hub on behalf of a four-state coalition which brings together state and local governments, community groups, tribes, and the private sector to explore additional opportunities in the region. In Kentucky, the State Energy Office helps lead a regional Hydrogen Hub Workgroup. The Louisiana State Energy Office supports a billion-dollar hydrogen production with carbon capture project under development with Air Products.

Therefore, states and particularly State Energy Offices, should be referenced in the strategy and roadmap as important players in advancing clean hydrogen production. NASEO encourages DOE to directly reference State Energy Offices and the expertise they can bring in the policy, planning, workforce development, stakeholder engagement, and RD&D space. Regional collaboration is critical, and State Energy Offices are often in a position to facilitate connections with neighboring states and strategize on addressing barriers to deployment. State leadership will be important in financing some of the projects (for example through state financing mechanisms), facilitating the build out of transport infrastructure (especially considering the limited federal regulatory environment for pipelines for hydrogen transportation and the potential for State Energy Offices to provide leadership and collaboration strategies), and evaluating opportunities to utilize clean hydrogen in state and regional markets. State Energy Offices also play a pivotal role in engaging the private sector to find “offtakers” and use cases for clean hydrogen.

## **2. Encourage development of State roadmaps**

A national roadmap provides important guidance on an overarching strategy to address barriers to hydrogen production, consider regional approaches, and outline key end-use opportunities. NASEO encourages DOE to further emphasize the role that state and regional roadmaps will have in building out the opportunities addressed in the national roadmap. State Energy Offices in Wyoming, New York, Colorado, and Oregon have already developed or are developing roadmaps that outline priority end-uses for hydrogen, how to develop a strong workforce and community infrastructure, and leverage private sector partnerships, among other critical considerations. State roadmaps can also outline state-specific needs or challenges and how to address them (I.e., through regulatory changes or community engagement). These roadmaps will also provide DOE with a better understanding of state and regional priorities and allow federal, state, and regional stakeholders to collaborate and align efforts. At the same time, support for state roadmaps could provide states with a pathway to develop a clean hydrogen economy outside of a regional hydrogen hub. Additional DOE funding for these roadmaps would also allow states to access technical assistance and accelerate the research process. DOE could also develop additional modeling tools (I.e., cost forecasts, economic and workforce development analyses, and grid impacts based on different deployment scenarios and geographic resources) and connect states with existing resources to inform their planning and analysis. NASEO leads a Clean Hydrogen State Working Group for State Energy Offices to share best practices, discuss topics of interest, and inform development of resources such as state roadmaps.

### **3. Emphasize the opportunities provided by state policies and incentives to help lower costs**

State Energy Offices advance energy policies that can lead to the implementation of greenhouse gas reduction rules or other decarbonization efforts. These provide critical opportunities to encourage development of innovative technologies such as clean hydrogen. The New York State Energy Research and Development Authority (NYSERDA) is working with the National Renewable Energy Laboratory (NREL) to develop a hydrogen strategy that aligns with their emissions mandates. They are also providing over \$12 million in grants to support exploration of long-duration energy storage technologies including hydrogen. This kind of RD&D assistance is vital to building out a market for hydrogen that will allow these technologies to find a foothold in the marketplace and bring down costs. California's Low Carbon Fuel Standard is another example of a market strategy to help increase demand for clean hydrogen to lower costs. NASEO encourages DOE to highlight the role of states in establishing policies and incentives that contribute to a reduction in the cost of clean hydrogen. These actions will have a particularly important role on the state and regional level and can serve as a model for other states interested in exploring ways to address cost concerns.

### **4. Clarify how the Clean Hydrogen Production Standard will align with existing state efforts and definitions**

The DOE roadmap highlights the role of the Clean Hydrogen Production Standard (CHPS) in supporting clean hydrogen production and providing clarity on what can be classified as clean hydrogen. NASEO encourages DOE to consider state determined definitions of clean hydrogen that align with their goals and strategies when releasing additional guidance on verification and implementation of CHPS. For example, Oregon legislation defines renewable hydrogen as "hydrogen derived from energy sources that do not emit greenhouse gases."<sup>1</sup> These state definitions may be broader or narrower than the CHPS. Although compliance with CHPS is not required, NASEO recommends DOE clarify how achievement of the standard will be incorporated into agency funding decisions and to work with states to streamline the process for verifying compliance, especially when projects already meet state-determined standards or definitions for clean hydrogen. DOE could also provide clarity on the life cycle analysis boundaries and provide standardization guidance. Given states' critical role in the energy policy and regulatory landscape, there is an opportunity for deeper collaboration between state and federal leaders when developing and enacting clean hydrogen standards.

We appreciate the opportunity to provide comments and look forward to continuing our partnership with DOE in supporting states on hydrogen production, transport, storage, and use.

Best regards,



David Terry  
Executive Director, NASEO