Via E-Mail

September 28, 2021

Executive Director
U.S. Department of Energy, Loan Programs Office
Attn: Renewable Energy Projects and Efficient Energy Projects Applications
1000 Independence Avenue, SW
Washington, D.C. 20585

RE: Hy Stor Energy Project

Dear Director:

On behalf of Nel Hydrogen ("Nel"), I wanted to express our company’s support for the planned Mississippi Clean Hydrogen Hub under development by Hy Stor Energy LP ("Hy Stor Energy"). Nel is a global, dedicated hydrogen company, delivering solutions to produce, store and distribute hydrogen from renewable energy. Today, our hydrogen solutions cover the entire value chain, including the ability to manufacture electrolysers that enable the production of green hydrogen in a decarbonized manner. We have worked with a number of cutting edge and innovative hydrogen-related projects across the world, and based on that experience, believe that the Mississippi Clean Hydrogen Hub proposed by Hy Stor Energy is truly groundbreaking and can serve as a model for green hydrogen efforts going forward.

The proposed hub is comprehensive in its approach to develop, store, and transport hydrogen as a power and energy source in an entirely decarbonized manner. The hub will rely on wind and solar generating resources to provide renewable energy that will power electrolysers supplied by our company, which in turn will be used to isolate hydrogen from water sources. From there, the hydrogen can be compressed and stored in bulk in salt domes that Hy Stor Energy has obtained or is obtaining permits to develop and use for hydrogen storage. Alternatively, Hy Stor Energy can directly transport the hydrogen for use as a fuel for generating electric power or for powering vehicles, relying on the extensive infrastructure already in place for transmission as well as planned enhancements to these capabilities. When the hub is complete, Hy Stor Energy estimates that it will be able to produce approximately 110 million kg of green hydrogen per year with a storage capacity of approximately 69 million kg of green hydrogen. This project has an expansive scope and promises to transform the clean and renewable energy marketplace.

As a leading hydrogen solutions provider and a supplier of electrolysers for this project, we have a unique perspective on the project’s capabilities. Based on our experience in the field, we think the proposed hub is well-positioned for success. It is extremely valuable that the hub will produce the green hydrogen and store it in the same location. This greatly simplifies the logistics of the operations and significantly reduces costs, making the hydrogen more accessible and more affordable. Indeed, having the salt caverns onsite available to store compressed hydrogen solves a significant challenge that impedes many renewable energy projects that lack the same means to store produced energy in a cost effective and reliable manner. The capacity to store a large supply of energy that is readily accessible during periods of high-demand or need makes this project uniquely situated in the marketplace for hydrogen.
Another challenge to producing green hydrogen at scale commercially is identifying reliable sources of renewable power to supply the electricity for electrolyzing hydrogen from water. Fortunately, the location of this hydrogen hub offers a large amount of sunlight and wind that should provide a steady and large supply of power for the electrolyzers. Again, these abundant natural resources should help make the planned hub both reliable and economically viable.

Hy Stor Energy has developed an impressive business plan leveraging the existing resources in the region that make its proposed hydrogen hub an exciting business venture that furthers clean energy efforts and promises to increase economic growth in the region. We think the federal government’s support for this project and its success will provide a useful blueprint for future green hydrogen projects. The favorable geographic and market features that make Mississippi a great location for this project can be replicated and expanded in other Mississippi or regionally close locations when the Hy Stor Energy Clean Energy Hub proves successful.

Therefore, we strongly believe that the Department of Energy should approve the loan guarantee application and other financial support for this project. While green hydrogen projects are becoming more economical, they still require assistance from the government, in part, to overcome lingering skepticism in the lending and capital markets that leads to higher borrowing rates and renders projects financially impractical. The government’s support here can provide an important signal to the marketplace that green hydrogen projects are needed and ready to be launched on a commercial scale. Given our work with hydrogen across many platforms, we certainly think that is the case, and stand ready to assist Hy Stor Energy and other green energy producers in bringing their projects to market.

We appreciate the Department affording us this opportunity to share our views on the matter, and please let us know if we can provide any additional information or be of further assistance.

Respectfully submitted,

Matthew Weaver
Business Development Manager, North America
10 Technology Drive,
Wallingford, CT 06492 USA
Office: (203) 678-2195
mweaver@nelhydrogen.com
www.nelhydrogen.com