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Large-Scale Centralized Hydrogen Solicitation Concept

My comments are in regard to the overall objectives of the grant program, and the extent to which the required proposals and awards will help achieve those goals. In general, I think that the projects selected should be required to explain how any elements of their systems might be scaled up, preferably at that location, to serve as $\hat{a}\in\mathbb{C}$ arge-scale, centralized clean hydrogen production $\hat{a}\in\mathbb{C}$ systems.

The stated overall goal is to $\hat{a} \in \mathfrak{C}$ support the adoption of commercially available hydrogen technologies and kickstart large-scale, centralized clean hydrogen production through demonstration and scale-up in California. $\hat{a} \in \bullet$ Some hurdles listed were reducing electrolyzer cost, demonstrating production co-located with renewable energy resources, and ensuring adequate infrastructure for clean hydrogen storage and transportation. $\hat{a} \in \mathfrak{C}$ The award(s) resulting from this competitive solicitation will address challenges and opportunities to deploy large-scale quantities of clean hydrogen at centralized locations by leveraging economies of scale and colocating renewable energy resources to reduce overall system costs and distribute hydrogen to diverse end users. $\hat{a} \in \bullet$

It might be helpful to state what production capacity is expected from a large-scale, centralized clean hydrogen production system, in order to assess the potential of the awarded projects to contribute toward that development goal. The scale of the proposed system is relatively small at 5 metric tons per day production. I would expect that a large-scale system would be 30 to 100 times this size, or more, but that range is not defined in the solicitation.

The requirements for the demonstration production and storage project don't specify that it has to be scalable, or that it has to prove any elements of scalability in order to be considered. For example, the solicitation could be require submittal of a preliminary plans or alternatives for provision of needed water at scale, for renewable energy at scale, for storage at scale, etc., rather than just enough of each of these elements for the initial project.

These are difficult problems to address, and they will take a lot of research and analysis. The funding for the projects is primarily for purchase of equipment, but potentially more funding could be allocated to planning and addressing how the proposed initial system and location could help meet large scale development.

Thank you for this opportunity to comment on this solicitation.