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Onsite Distributed Hydrogen Production and End Use Solicitation Concept

Additional submitted attachment is included below.

CEC Onsite Distributed Hydrogen Production and End Use Solicitation Concept

1. Are the Project Elements in Section IV of this document realistic, reasonable, and feasible?

   Production Technology

   - There have been many incentives for electrolytic hydrogen but in order to reach the state's carbon neutrality goals, the funding needs to support alternative methods to producing hydrogen as well. Gasification of biomass to hydrogen is a new production technology for hydrogen that can create carbon-negative hydrogen when coupled with CCS and utilizing waste wood residue.

   Project Siting

   - Building larger hydrogen production facilities requires considerable land. For facilities that exceed the minimum requires of hydrogen production (5MT), is it possible to have the production facility located at different site from the end user?
   - To achieve the required CI score, many projects will need to utilize CCS. In is more economical for the facilities to collocate with the CO2 storage site than it is with the hydrogen offtake user.

   Project Schedule

   - The construction schedule of 4 years is a bit short considering there is also a requirement for 10-month demonstration. It would be more feasible for a 5 year schedule if the 10 month demonstration schedule is inclusive of the project schedule. For projects with larger capacity we anticipate 5 years to first operations.

2. What would be the appropriate level of project funding that would leverage private investments associated with the work proposed in this draft concept, and why? How would limiting the use of grant funds to Eligible Project Costs in Section III impact the project? What changes do you recommend if any, and why?

   - All state funding helps to reduce the capital costs, however a 1MW electrolytic hydrogen production with compression is approximately 10 million and requires a minimum of 3 years to be operational. Understanding there is a minimum capacity for hydrogen production of 5MT, perhaps the funding available can be directly proportional to the output of the facility.

3. Provide any feedback on the two-phase solicitation approach. Are the 1-month abstract deadline and 3-month full application deadline realistic?

   - In order to get the necessary project partners including land (if co-location is required) it takes significant time to put the team together. If possible 6-8 weeks for the abstract would be better, with 3 months for the full application.

4. To ensure that funded projects and their impacts can inform future deployment of hydrogen in California, should the CEC consider additional performance metrics beyond those proposed for the M&V plan in Section IV?
   Additional parameters to consider:
   - Land requirements
   - Electricity requirements (to calculate kw/kg)

5. What type of technical assistance is needed to ensure equitable participation and project success, if any?
   CEC providing market data on expected hydrogen demand, expected market price, available hydrogen production in CA each year of the project duration, average cost of renewable electricity via onsite production and through PPA, assistance with connecting projects with community groups looking to be engaged in the energy transition.

1. Are there specific end uses we should target with the one to five metric ton hydrogen capacity? If so, why?
2. Are there any concerns with this solicitation allowing the use of CCUS for a project to be carbon neutral? If so, why?
3. Please provide relevant comments regarding other considerations not explicitly listed above.