

## Notice of Intent No. DE-FOA-0002587

### Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0002588

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Hydrogen and Fuel Cell Technologies Office (HFTO), and in coordination across DOE offices, a Funding Opportunity Announcement (FOA) entitled "**Regional Clean Hydrogen Analysis.**"

Hydrogen and related technologies, such as electrolyzers, fuel cells, and turbines, can play a key role in decarbonizing industry, medium/heavy-duty transportation, and power generation, in support of the Biden Administration's goal to achieve a carbon-pollution free electric grid by 2035 and a net zero emissions economy by 2050. One key pathway to achieving largescale, commercially viable deployment of hydrogen is through matching the scale up of clean hydrogen supplies with a concomitant and growing regional demand. Co-locating large scale clean hydrogen production with multiple end uses at scale, can foster the development of low cost hydrogen infrastructure and jumpstart the hydrogen economy in various market segments, creating jobs and realizing emissions reduction benefits.

HFTO's Regional Clean Hydrogen Analysis FOA would solicit analysis projects to identify and characterize the value proposition of specific regional clean hydrogen deployments that could be successfully implemented over the coming years. Each analysis project solicited in this FOA would be focused on a single potential clean hydrogen deployment that includes production, delivery, storage, and end use, in a specific region (State or several adjacent States) within the United States. Each proposal would study potential hydrogen producers, hydrogen consumers, and the necessary connective hydrogen infrastructure, all located in close proximity, to enable deployment with substantial engagement of local and regional stakeholders. It is envisioned that future deployment projects would be capable of producing significant quantities of hydrogen (i.e., 20 to over 100 tonnes/day) and rely on hydrogen produced with a greenhouse gas intensity at least 80% below conventional natural gas steam methane reforming (SMR). Higher emissions reductions will be strongly encouraged.

Future deployments of interest are expected to leverage regional resources as appropriate, such as hydrogen production feedstock, energy resources (e.g., solar, wind, nuclear, etc.), and existing infrastructure that can be repurposed (e.g., fossil or nuclear assets, pipeline networks, large-scale storage, etc.). These potential deployments being studied should also include multiple hydrogen end-use technologies/sectors (e.g., industrial and chemical, grid energy storage and power generation, and transportation such as heavy-duty trucks, buses, etc.) and align with existing or anticipated regional goals. Specific key metrics of interest for each study would likely include decarbonization potential, system cost, quantity of hydrogen produced,

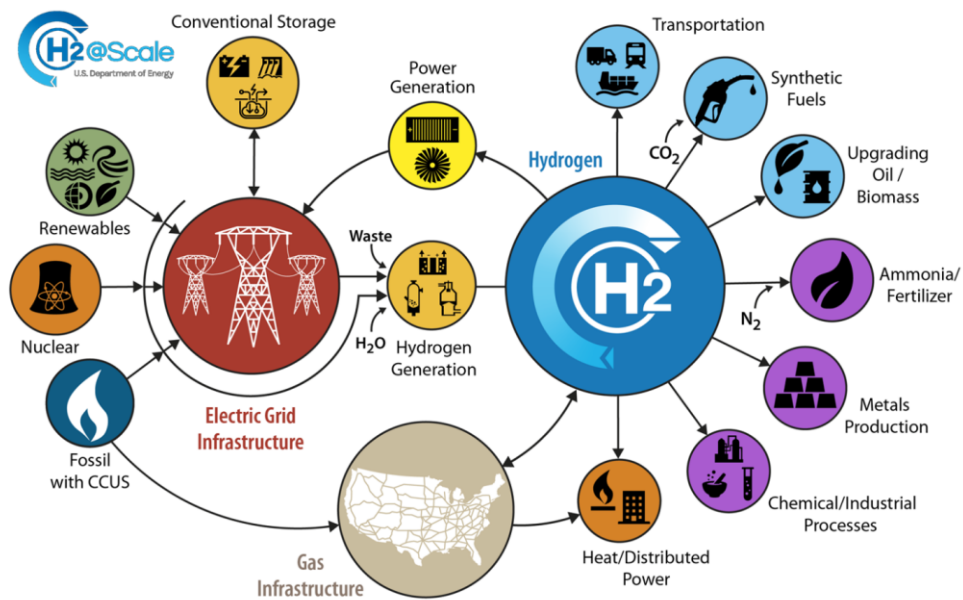
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specific off-taker agreements, sustainability metrics, revenue potential, and metrics for environmental justice, such as potential for regional economic growth, job creation, reduction in criteria pollutant emissions (in addition to greenhouse gas emissions), and creation of educational and workforce development opportunities.

EERE anticipates that the analysis projects solicited in this FOA would include stakeholders across diverse organizations (e.g., state and local government, regional coalitions/alliances, industry, and relevant non-government stakeholders and interested groups). National labs may be partners/subrecipients, but would not be eligible to apply as a prime recipient.

This FOA would continue HFTO’s ongoing analysis to inform future clean hydrogen deployments that enable innovations related to technology scale-up and manufacturing, as well as economies of scale. These pathways support the goals of DOE’s H2@Scale initiative (Figure 1) and the Hydrogen Energy Earthshot to reduce the cost of clean hydrogen by 80% to \$1 per 1 kilogram in 1 decade ("1 1 1"). The Hydrogen Shot is the first in a series of Energy Earthshots aimed at game-changing breakthroughs that will secure American leadership in enabling net-zero carbon technologies and support sustainable development around the world, to the benefit of all Americans.



**Figure 1. H2@Scale Conceptual Framework** - The H2@Scale initiative provides an overarching vision for enabling the large-scale production, delivery, storage and use of hydrogen across multiple sectors, to drive revenue opportunities, and reduce cost and emissions.

EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award would be up to 1 year. It is

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anticipated that the total DOE funding available for this FOA would be \$2M for a total of 4 to 6 awards, \$300K to \$500K per award, plus 10% cost share contribution from the applicant teams. These details are subject to appropriations, and they may change once the FOA is released.

This Notice is issued so that interested parties are aware of the EERE's intention to issue this FOA in the near term. All of the information contained in this Notice is subject to change. EERE will not respond to questions concerning this Notice. Once the FOA has been released, EERE will provide an avenue for potential Applicants to submit questions.

EERE plans to issue the FOA on or about November 2021 via the EERE Exchange website <https://eere-exchange.energy.gov/>. If Applicants wish to receive official notifications and information from EERE regarding this FOA, they should register in EERE Exchange. When the FOA is released, applications will be accepted only through EERE Exchange.

In anticipation of the FOA being released, Applicants are advised to complete the following steps, which are **required** for application submission:

- Register and create an account in EERE Exchange at <https://eere-exchange.energy.gov/>. This account will allow the user to register for any open EERE FOAs that are currently in EERE Exchange. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission. Questions related to the registration process and use of the EERE Exchange website should be submitted to: [EERE-ExchangeSupport@hq.doe.gov](mailto:EERE-ExchangeSupport@hq.doe.gov)
- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>
- Register with the System for Award Management (SAM) at <https://www.sam.gov>. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually.
- Register in FedConnect at <https://www.fedconnect.net/>. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at [https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect\\_Ready\\_Set\\_Go.pdf](https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf)
- Register in Grants.gov to receive automatic updates when Amendments to a FOA are posted. However, please note that applications will not be accepted through Grants.gov. <http://www.grants.gov/>. All applications must be submitted through EERE Exchange.

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