

Funding Opportunities December 23, 2022

The opportunities listed here may be limited submissions. Please contact the **Research Office** to determine if there is an active or upcoming internal process for any opportunity of interest.

Department of Energy – Hydrogen and Fuel Cells Technologies Office (NOI) Clean Hydrogen, Electrolysis, Manufacturing and Recycling

Summary: To unlock the market potential for clean hydrogen, DOE launched the Hydrogen Energy Earthshot (Hydrogen Shot) in June 2021, to reduce the cost of clean hydrogen by 80 percent to \$1 per 1 kilogram in 1 decade ("1 1 1"). This FOA will support Hydrogen Shot and catalyze both innovation and manufacturing at scale, stimulating private sector investments, spurring development across the hydrogen supply chain, and dramatically reducing the cost of clean hydrogen. Efforts will also support robust supply chains including for any needed critical materials and design for environmental and climate stewardship, efficiency, durability, and recyclability to ensure a strategic and sustainable build out of the clean hydrogen industry.

Specifically, the BIL Clean Hydrogen Electrolysis, Manufacturing, and Recycling FOA will support the following objectives: Reduce the cost of clean hydrogen produced using electrolyzers to less than \$2 per kilogram by 2026; Advance new manufacturing technologies and techniques for clean hydrogen production and use equipment, specifically for electrolyzer and fuel cell technologies; Research, develop, and demonstrate innovative and practical approaches to increase the reuse and recycling of clean hydrogen technologies. It is anticipated that the FOA may include the following topics:

Area of Interest 1: Clean Hydrogen Electrolysis Program

- Topic Area 1: Low-Cost, High-Throughput Electrloysis Program
- Topic Area 2: Electrolyzer Component and Supply Chain Development
- Topic Area 3: Advanced Electrolyzer Technology and Component Development

Area of Interest 2: Clean Hydrogen Manufacturing and Recycling

- Topic Area 4: Fuel Cell MEA and Stack Manufacturing and Automation Topic
- Topic Area 5: Fuel Cell Supply Chain Development
- Topic Area 6: Recycling and Recovery Consortium

EERE plans to issue the FOA on or about February 2023 via the EERE eXCHANGE website

Estimated Funding/Number of Awards: The activities to be funded under this FOA support Sec. 40314 of the Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law, or BIL), which amended Title VIII of the Energy Policy Act (EPAct) of 2005 to include a new section 815, "Clean Hydrogen Manufacturing and Recycling" and a new section 816, "Clean Hydrogen Electrolysis Program." Through these provisions, the BIL will invest \$500 million for the development of manufacturing and recycling of clean hydrogen technologies, and \$1 billion for electrolyzer development for the five (5) year period encompassing Fiscal Years (FYs) 2022 through 2026.

Additional Information: DE-FOA-0002921/002922

Department of Energy – Hydrogen and Fuel Cells Technologies Office (NOI) Hydrogen and Fuel Cell Technologies in Support of Hydrogen Shot

Summary: The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Hydrogen and Fuel Cell Technologies Office, a Funding Opportunity Announcement (FOA) entitled "Hydrogen and Fuel Cell Technologies Office FOA in Support of Hydrogen Shot." This FOA will support research, development, and demonstration (RD&D) of affordable hydrogen and fuel cell technologies, as aligned with the vision outlined in DOE's draft national clean hydrogen strategy and roadmap This FOA will focus on key hydrogen delivery and storage technologies as well as affordable and durable fuel cell technologies, particularly for heavy duty trucks to reduce carbon dioxide emissions and eliminate pollution from the tailpipe.

EERE anticipates that the FOA may include the following Areas of Interest (AOI):

- Hydrogen Carrier Development
 Onboard Starons Systems for I
- Onboard Storage Systems for Liquid Hydrogen
- Liquid Hydrogen Transfer/Fueling Components and Systems
- M2FCT: High Performing, Durable MEAs with innovative Low-Platinum Group Metal (PGM) Catalysts for Medium- and Heavy-duty Applications

EERE plans to issue the FOA on or about January 2023 via the EERE eXCHANGE.

Estimated Funding/Number of Awards: For all topic areas, EERE envisions awarding financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award will be approximately two to four years.

Additional Information: DE-FOA-0002919/0002920

Department of Energy – National Energy Technology Laboratory (NOI) Underserved & Indigenous Community Microgrids

Summary: The objective of this planned FOA is to develop and implement replicable microgrid solutions for underserved and Indigenous communities in remote and islanded regions throughout the United States. To achieve intended objectives, each microgrid solution proposed under this FOA should range from 100 kilowatts (kW) to 10 megawatts (MW) of aggregated generation capacity; and support improving the metrics of reliability, resilience, decarbonization, and affordability.

Awards are expected to be made be made under each of the three areas of interest described below.

- Area of Interest 1 (AOI 1): Modular Microgrid Systems with Standardized Control/Communication Functionalities for a Range of System Sizes and Renewable Contributions
- Area of Interest 2 (AOI 2): Multi-port Medium Voltage DC (MVDC) Converter Research and Development (R&D) for Integration of Microgrids and Clean Energy
- Area of Interest 3 (AOI 3): Regional Initiatives to Support Microgrid Deployments within Underserved and Indigenous Communities

The DOE plans to make the FOA available by the end of January 2023.

Estimated Funding/Number of Awards: The anticipated numbers of awards are three to four under AOI 1, one under AOI 2, and two to three under AOI 3. The DOE plans to contribute up to \$1,250,000, \$2,000,000, and \$700,000 for each award negotiated under AOI 1, 2, and 3, respectively, with each award having a period of performance lasting up to 24 months.

Additional Information: DE-FOA-0002933