

Appendix E. Funding Opportunity Announcements and Selections – Examples

This appendix lists examples of Hydrogen Program Funding Opportunity Announcements¹ (FOAs) and selections in calendar year 2024.

Funding Selection Announcement Examples

This list comprises examples of funding selections from FOAs that solicited hydrogen and fuel cell projects exclusively as well as hydrogen and fuel cell projects selected through FOAs with a broader technological focus.

- [\\$1.6 million](#) for four projects that will use advanced high-performance computing simulations and data analysis to improve manufacturing efficiency, reduce industrial emissions, and explore new materials for clean energy applications, funded by the Office of Fossil Energy and Carbon Management’s Hydrogen with Carbon Management Program (November 14, 2024)
- [\\$0.9 million](#) for a clean energy coalition in Arvada, Colorado—a suburb of Denver—to demonstrate the viability of hydrogen fleet vehicles in support of the Clean Cities and Communities initiative, funded by the Vehicle Technologies Office (October 30, 2024)
- [\\$7 million](#) for a small-scale biomass carbon removal and storage technology project that will utilize wood waste to demonstrate a gasification system for hydrogen production coupled with CO₂ capture, funded by the Hydrogen and Fuel Cell Technologies Office through a funding opportunity from the Office of Fossil Energy and Carbon Management (October 18, 2024)
- [\\$10 million](#) to support clean energy transitions for three communities, including a project in Northeastern Minnesota that will receive DOE support to develop hydrogen and renewable energy systems and a clean energy workforce to enable the deployment of a green iron plant, funded by EERE’s Clean Energy to Communities program (October 9, 2024)
- [\\$8 million](#) to support seven projects that will advance efficient, scalable, high-throughput, and high-quality processes for manufacturing fuel cell and electrolyzer materials through the Roll-to-Roll (R2R) Consortium, funded by the Hydrogen and Fuel Cell Technologies Office (September 30, 2024)
- [\\$18 million](#) for nine projects to accelerate research that supports the detection and quantification of hydrogen emissions throughout the supply chain, funded by the Advanced Research Projects Agency-Energy (September 10, 2024)
- [\\$17.1 million](#) for 15 Phase II Small Business Innovation Research – Small Business Technology Transfer projects for R&D of clean hydrogen and fuel cell applications, funded by the Hydrogen and Fuel Cell Technologies Office (September 3, 2024)
- [\\$62 million](#) for 20 projects across 15 states to advance critical elements of hydrogen fueling infrastructure, develop and demonstrate hydrogen-powered container-handling equipment for use at ports, and improve processes essential to the efficient, timely, and equitable deployment of hydrogen technologies, funded by the Hydrogen and Fuel Cell Technologies Office (August 30, 2024)
- [\\$8.8 million](#) for 11 university-based research and development projects to improve the performance of hydrogen-fueled turbines to enable the use of up to 100% clean hydrogen in gas turbines for low-carbon power generation, funded by the Office of Fossil Energy and Carbon Management (August 20, 2024)
- [\\$33 million](#) for nine projects across seven states to advance concentrating solar-thermal systems technologies to produce solar fuels—including clean hydrogen—and long-duration energy storage, funded by the Solar Energy Technologies Office (July 25, 2024)

¹ On October 1, 2024, the U.S. Department of Energy transitioned from using a Funding Opportunity Announcement (FOA) to using a Notice of Funding Opportunity (NOFO) as the primary means of announcing new financial assistance award opportunities, in accordance with the OMB update to the Uniform Guidance: Title 2 of the Code of Federal Regulations, <https://www.cfo.gov/coffa/uniform-guidance-coffa/2024/>.

- [\\$3.4 million](#) for 17 Phase I Small Business Innovation Research – Small Business Technology Transfer projects for R&D of clean hydrogen and fuel cell applications, funded by the Hydrogen and Fuel Cell Technologies Office (July 18, 2024)
- [\\$9.3 million](#) for six projects to develop cutting-edge technology solutions to advance hydrogen systems that convert varied waste feedstock materials into clean hydrogen, funded by the Office of Fossil Energy and Carbon Management (June 11, 2024)
- [\\$1.6 billion](#) in the form of a loan guarantee to Plug Power Inc. to help finance the construction of up to six facilities across several states to produce clean hydrogen utilizing the company's electrolyzer technology, funded by the Loan Programs Office (May 14, 2024)
- [Up to \\$1 billion](#) for two iron and steel projects that will demonstrate clean hydrogen technologies, including some of the world's first clean hydrogen-fueled direct reduced ironmaking facilities, funded by the Office of Clean Energy Demonstrations (March 25, 2024)
- [\\$750 million](#) for 52 projects across 24 states help advance electrolysis technologies and improve manufacturing and recycling capabilities for clean hydrogen systems and components and support DOE's Hydrogen Hubs and other large-scale deployments, funded by the Hydrogen and Fuel Cell Technologies Office (March 13, 2024)
- [\\$20 million](#) for 16 projects across 8 states to explore geologic hydrogen stimulation and reservoir management to accelerate the natural subsurface generation of hydrogen, funded by the Advanced Research Projects Agency-Energy (February 8, 2024)
- [\\$10 million](#) for a project to demonstrate hydrogen direct reduction at a steel plant in Toledo, Ohio, to reduce industrial greenhouse gas emissions and accelerate the development of innovative decarbonization technologies, funded by the Hydrogen and Fuel Cell Technologies Office through a funding opportunity from the Industrial Efficiency and Decarbonization Office (January 25, 2024)
- [\\$3.2 million](#) in vouchers for 31 small businesses and other entities to advance a range of clean hydrogen technologies, funded by the Office of Technology Transitions (January 22, 2024)
- [\\$10.5 million](#) for three projects focused on research, development, and demonstration of hydrogen combustion engines as an innovative and equitable clean mobility option, funded by the Vehicle Technologies Office (January 18, 2024)
- [\\$90 million](#) in grants to support projects in California, Colorado, and Texas that will deploy clean hydrogen fueling infrastructure for medium- and heavy-duty vehicles help build hydrogen refueling infrastructure across the United States, funded by the Joint Office of Energy and Transportation. (January 11, 2024)
- [Funding](#) for a consortium to help accelerate commercial liftoff of the clean hydrogen economy and support the launch of the Regional Clean Hydrogen Hubs by designing and implementing demand-side support mechanisms, funded by the Office of Clean Energy Demonstrations (January 17, 2024)

2024 DOE Hydrogen-Related FOA Examples

The table below comprises examples of recently released FOAs, lab calls, and cooperative research and development agreement (CRADA) calls supporting one or more hydrogen and fuel cell topics. Values in the funding column represent total funds available for the opportunity across all topics.

FOA/Lab Call Number	FOA/Lab Call Title	Issuing DOE Office	Funding	Date Released
DE-FOA-0003439	Advanced Hydrogen and Fuel Cell Technologies to Drive National Goals	HFTO	\$46,000,000	October 23, 2024
DE-LC-000L124	Fiscal Year 2025 Technology Commercialization Fund Base Core Laboratory Infrastructure for Market Readiness (CLIMR) Lab Call	OTT	\$36,000,000	October 17, 2024
ARIES H2@Scale CRADA Call	FY 2025 H2@Scale CRADA Call Supporting Advanced Research on Integrated Energy Systems (ARIES)	HFTO	\$5,000,000	October 9, 2024
DE-FOA-0003366	Oxygen-conducting SOFC and SOEC Research and Development for Hydrogen Production	FECM	\$4,000,000	September 26, 2024
DE-FOA-0003394	Gasification of Alternative Feedstocks	FECM	\$15,000,000	September 23, 2024
693JJ324NF00017	Charging and Fueling Infrastructure Discretionary Grant Program ROUND 2	JOET	\$1,321,200,000	May 30, 2024
R2R Consortium CRADA Call	Development Assistance Opportunity for Roll-to-Roll Manufacturing of Hydrogen Fuel Cell and Water Electrolyzer Materials	HFTO	\$8,000,000	May 6, 2024
DE-FOA-0002784 (Modification 11)	Exploratory Topics: H2SENSE	ARPA-E	\$18,000,000	April 25, 2024
DE-FOA-0003082	Carbon Negative Shot Pilots	FECM	\$100,000,000	February 12, 2024