

Funding Opportunities September 12, 2022

Department of Energy, Advanced Manufacturing Office

Industrial Efficiency & Decarbonization | Concept Paper: October 12, 2022, Full

Application: December 20, 2022

Summary: The research, development, and demonstration (RD&D) activities to be funded under this FOA will support the government-wide approach to the climate crisis by driving the innovation that can lead to the deployment of clean energy technologies, which are critical for climate protection. Specifically, this FOA will fund high-impact, applied research and development and prototype or pilotscale technology validation and demonstration projects in order to expedite the adoption of transformational industrial technology necessary to increase energy efficiency across industry and in high GHG-emitting industrial subsectors, reducing both energy usage and GHG emissions. This includes cross-sector industrial decarbonization approaches via opportunities in energy efficiency; industrial electrification; low carbon fuels, feedstocks and energy sources; and industrial carbon capture and utilization.

AMO intends to fund high-impact, applied R&D and pilot-stage technology validation and demonstration activities through this FOA. All applications in Topics 1 through 6 are strongly encouraged to include an industry partner on the project team. Areas of Interest include:

Decarbonizing Chemicals

- Advanced Separations
- Advanced Reactions and Reactor Systems
- Alternative Production and Process Heating Technologies

Decarbonzing Iron and Steel

- Enabling Decarbonization
- o Electrification and Clean Fuels

Decarbonizing Food and Beverage Products

- Low Carbon Process Heating Solutions
- Decarbonzing Cement and Concrete
 - Next Generation Cement/Concrete Formulations and Production Route

- Low Carbon Fuels
- Carbon Capture Technologies

Decarbonizing Paper and Forest Products

- Novel Paper and Wood Drying Technologies
- o Innovative Pulping and Paper Forming Technologies
- Cross-Sector Decarbonization Technologies
 - High Operation Temperature Thermal Energy Storage
 - o Electric Generation from Low Temperature Waste Heat

Estimated Funding: EERE expects to make a total of approximately \$104,000,000 of federal funding available for new awards under this FOA, subject to the availability of appropriated funds. EERE anticipates making approximately 20-38 awards under this FOA. EERE may issue one, multiple, or no awards. Individual awards may vary, ranging between up to \$750,000 and up to \$10 million, depending on Topic Area and Tier, as outlined in the table below.

Topic Area Number	Topic Area Title	Anticipated Number of Awards	Anticipated Minimum Award Size for Any One Individual Award (Fed Share)	Anticipated Maximum Award Size for Any One Individual Award (Fed Share)	Approximate Total Federal Funding Available for All Awards	Anticipated Period of Performance (months)
1	Decarbonizing Chemicals	15-30	\$1,000,000	Tier 1: \$3 million Tier 2: \$10 million	\$85,000,000	24-36
2	Decarbonizing Iron and Steel		\$1,000,000	Tier 1: \$4 million Tier 2: \$10 million		24-36
3	Decarbonizing Food and Beverage Products		\$1,000,000	Tier 1: \$3 million Tier 2: \$6 million		24-36
4	Decarbonizing Cement and Concrete		\$1,000,000	Tier 1: \$4 million Tier 2: \$10 million		24-36
5	Decarbonizing Paper and Forest Products		\$1,000,000	Tier 1: \$3 million Tier 2: \$8 million		24-36
6	Cross-sector Decarbonization Technologies	5-8	\$750,000	Tier 1: \$3 million Tier 2: \$5 million	\$19,000,000	24-36

Additional Information: DE-FOA-0002804