

Funding Opportunities

November 7, 2022

Department of Energy, Advanced Manufacturing and Industrial Decarbonization Offices
(NOI) Decarbonization of Water Resources Recovery Facilities (D-WRRF)

Summary: The U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) intends issue a funding opportunity announcement (FOA) that will drive innovation to decarbonize the entire life cycle of Water Resource Recovery Facilities (WRRFs). These facilities, which treat wastewater from public water systems, are estimated to be directly and indirectly responsible for over 44 million metric tons (MMT) of greenhouse gas (GHG) emissions each year or the equivalent emissions from more than 9 million gasoline-powered passenger vehicles. The upcoming funding opportunity will accelerate research, development, and demonstration (RD&D) of technologies to help lower emissions from WRRFs and move the U.S. closer to a clean, decarbonized economy that benefits all Americans.

The FOA is expected to include the following topics:

- **Decarbonization of WRRF Unit Processes Research and Development:** This topic will focus on research and development projects to reduce GHG emissions from various unit processes within WRRFs. Applications under this area of interest are expected to focus on emission and cost reductions from particular unit processes.
- **Reducing overall greenhouse GHG emissions from WRRFs:** This topic will focus on pilot and demonstration projects to reduce GHG emissions and treatment costs for WRRFs. Proposals in this topic will address the GHG emissions profiles of a WRRF at larger scales and higher levels of technology readiness.

EERE plans to issue the FOA via EERE Exchange in December 2022.

Estimated Funding/Number of Awards: The funding opportunity is expected to include approximately \$14 million in federal funding. EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award will be approximately three to five years.

Additional Information: [DE-FOA-0002872](#)

Department of Energy, Office of Science
Environmental System Science

Pre-Application: December 1, 2022 | Full: February 23, 2023

Summary: The goal of the ESS program in BER is to advance an integrated, robust, and scale-aware predictive understanding of terrestrial systems and their interdependent microbial, biogeochemical, ecological, hydrological, and physical processes. To support this goal, the program uses a systems approach to develop an integrative framework to elucidate the complex processes and controls on the structure, function, feedbacks, and dynamics of terrestrial systems, that span from molecular to global scales, and extend from the bedrock through the soil, rhizosphere, and vegetation to the atmosphere. The ESS program scope advances foundational process knowledge with an emphasis on understudied ecosystems. This FOA will consider applications that focus on measurements, experiments, field data, modeling, and synthesis to provide improved understanding and representation of ecosystems and watersheds in ways that advance the sophistication and capabilities of models that span from individual processes to Earth-system scales.

This FOA will encompass three Science Research Areas: 1) improved understanding of hot spots and hot moments of biogeochemical cycling in terrestrial-aquatic interfaces; 2) investigations of cold-region ecosystem and watershed process responses to changing cold season climate drivers; and 3) synthesis studies using existing data that address testing of ESS relevant hypotheses and development of transferable insights across ecosystems, watersheds, and regions.

Estimated Funding/Number of Awards: The award size will depend on the number of meritorious applications and the availability of appropriated funds. Ceiling: \$1,000,000 (Areas 1 and 2) ; \$400,000 (Area 3) / Floor: \$100,000 for all Science Research Areas. Approximately 10 to 14 awards are expected.

Additional Information: [DE-FOA-0002849](#)

Department of Defense, Defense Sciences Office
Young Faculty Award (YFA)

Exec Summary: November 30, 2022 | Full: February 7, 2023

Summary: The Defense Advanced Research Projects Agency (DARPA) Young Faculty Award (YFA) program aims to identify and engage rising stars in junior research positions in academia and equivalent positions at non-profit research institutions, particularly those without prior DARPA funding, to expose them to Department of Defense (DoD) needs and DARPA's mission to create and prevent technological surprise. The YFA program will provide high-impact funding to elite researchers early in their careers to develop innovative new research that enables transformative DoD capabilities. Ultimately, the YFA program is developing the next generations of researchers focused on national security issues.

DARPA is soliciting innovative research proposals in the areas of interest to DARPA's six technical offices: Biological Technologies Office (BTO), Defense Sciences Office (DSO), Information Innovation Office (I2O), Microsystems Technology Office (MTO), Strategic Technology Office (STO), and Tactical Technology Office (TTO). Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems.

Estimated Funding/Number of Awards: Each award will include a 24-month base period (a maximum of \$500,000) and a 12-month option period (a maximum of \$500,000). DARPA anticipates multiple awards.

Additional Information: [DARPA-RA-23-01](#)

The White House, Washington

White House Releases Net-Zero Road Map

Summary: The White House announced the Net-Zero Game Changers Initiative, led by a working group of 147 federal agencies, which promises to deliver billions in funding toward 37 "game-changing" energy technologies, including advanced forms of nuclear, solar and geothermal power generation, advanced batteries, and direct air capture and removal, among other technologies. The plan also included a roadmap aimed at kickstarting the development of clean energy tech and research in five key areas including power grids, aviation, fusion energy, efficient buildings, net-zero fuels and industrial products.

Additional Information: [ROAD MAP](#) | [E&E News Article](#)