

## Funding Opportunities

November 28, 2022

*National Science Foundation*

### **Major Research Instrumentation (MRI) Program: Instrument Acquisition or Development**

**Due: February 21, 2023**

**Summary:** The Major Research Instrumentation (MRI) Program serves to increase access to multi-user scientific and engineering instrumentation for research and research training in our Nation's institutions of higher education and not-for-profit scientific/engineering research organizations. An MRI award supports the acquisition of a multi-user research instrument that is commercially available through direct purchase from a vendor, or for the personnel costs and equipment that are required for the development of an instrument with new capabilities, thereby advancing instrumentation capabilities and enhancing expertise for instrument design and fabrication at academic institutions. MRI instruments are, in general, too costly and/or not appropriate for support through other NSF programs.

MRI provides support to acquire critical research instrumentation without which advances in fundamental science and engineering research may not otherwise occur. MRI also provides support to obtain next-generation research instruments by developing instruments with new capabilities that open new opportunities to advance the frontiers in science and engineering research. Additionally, an MRI award is expected to enhance research training of students who will become the next generation of instrument users, designers and builders.

An MRI proposal may request from NSF up to \$4 million for either acquisition or development of a research instrument. Each performing organization may submit in revised "Tracks" as defined below, with no more than two (2) submissions in Track 1 and no more than one (1) submission in Track 2. For the newly defined Track 3, no more than one (1) submission per competition is permitted. As a result, it is now possible for an institution to submit up to four MRI proposals within the Track limits as described above.

- Track 1: Track 1 MRI proposals are those that request funds from NSF greater than \$100,000 and less than \$1,400,000.
- Track 2: Track 2 MRI proposals are those that request funds from NSF greater than or equal to \$1,400,000 up to and including \$4,000,000.
- Track 3: Track 3 MRI proposals are those that request funds from NSF greater than or equal to \$100,000 and less than or equal to \$4,000,000 that include the purchase, installation, operation, and maintenance of equipment and instrumentation to conserve or reduce the consumption of helium.

**Estimated Funding/Number of Awards:** It is anticipated that approximately 100 awards and approximately \$75 million will be available, pending availability of funds and numbers/quality of proposals.

**Additional Information:** [NSF-23-519](#)

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### *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](#)