



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Informational Webinar:
RESEARCH IN BASIC PLASMA SCIENCE AND ENGINEERING
DE-FOA-0002889

FOA Issue Date:	December 8, 2022
Submission Deadline for Pre-Applications:	January 12, 2023, at 5 PM Eastern Time
Pre-Application Response Date:	January 26, 2023, at 5 PM Eastern Time
Submission Deadline for Applications:	March 6, 2023, at 11:59 PM Eastern Time

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December 16, 2022

Disclaimer : *This presentation summarizes the contents of the FOA. Nothing in this webinar is intended to add to, take away from, or contradict any of the requirements of the FOA. If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the controlling document.*

Basic Plasma Science and Engineering

- ▶ The DOE Office of Science (SC) is the Nation's largest Federal sponsor of basic research in the physical sciences.
- ▶ The purpose of this Funding Opportunity Announcement (FOA) is to advance the frontiers of basic and low temperature plasma science.
- ▶ SC Fusion Energy Sciences (FES) General Plasma Science (GPS) Program is seeking new or renewal single-investigator or small-group research applications to carry out frontier-level R&D in basic plasma science and engineering.

FOA Research Areas

- ▶ **Basic Plasma Science** - dynamical processes in laboratory, space, and astrophysical plasmas, such as magnetic reconnection, dynamo, shocks, turbulence cascade, structures, waves, flows and their interactions
- ▶ **Dusty/Nonneutral Plasma Physics** - behavior of dusty plasmas, non-neutral, single-component matter or antimatter plasmas, and ultra-cold neutral plasmas
- ▶ **Low Temperature Plasma Science** - plasma chemistry and processes in low temperature plasma, interfacial plasma, synthesis of nanomaterials, and interaction of plasma with surfaces, materials or biomaterials
- ▶ Integrated research projects, involving detailed experiments, observation data, theory, modeling, and/or validation, are encouraged.
- ▶ Applicants are encouraged to choose their best research idea and develop it into a well-focused, well-organized, clearly written application with timeline, milestones, and deliverables
- ▶ Please see the FOA for specific areas of interest

Requirements

- ▶ Pre-applications are required and should be limited 3 pages
- ▶ If a multi-institutional team is submitting collaborative applications, only the lead institution should submit a pre-application that should include all institutional Co-PIs information.
- ▶ Pre-applications will be reviewed for responsiveness of the proposed work to the research topics identified in this FOA.
- ▶ DOE will send a response by email to each applicant encouraging or discouraging the submission of an application by the date indicated on the cover of the FOA.
- ▶ Application's project narrative must not exceed a page limit of 16 pages

Eligibility

- ▶ All domestic applicants from universities, non-profit organizations, and industries are eligible
- ▶ DOE/National Nuclear Security Administration (NNSA) National Laboratories, other Federal agencies, and another Federal agency's FFRDCs are not eligible
- ▶ An individual may participate as a PI on no more than one lead application (or pre-application)
- ▶ An institution may participate on no more than two lead applications (or pre-applications)
- ▶ If a multi-institutional team is submitting collaborative applications, only the lead institution should submit a pre-application that should include all institutional Co-PIs information

Awards and Funding Levels

- ▶ Awards are expected to be made for a period of three years (an additional year may be requested when an extensive research scope is sufficiently justified)
- ▶ Approximately \$5 million total in current and future fiscal year funds are expected to be available to support awards under this FOA, subject to availability of appropriated funds
- ▶ Previously, typical average award funded under comparable program has been approximately \$500-600K for three years
- ▶ For collaborative projects, each institution may submit its own application with an identical common research narrative. Alternately, multi-institutional teams may choose to apply using a prime and subaward model with one application submitted by the lead institution.

Promoting Inclusive and Equitable Research Plan

- ▶ A new requirement this year for all SC proposals is the submission of a **Promoting Inclusive and Equitable Research** (PIER) plan
- ▶ The PIER plan reflects the SC commitment to Diversity, Equity, Inclusion, and Accessibility (DEIA)
- ▶ The PIER plan should describe the activities and strategies of the applicant to promote equity and inclusion as an intrinsic element to advancing scientific excellence in the research project.
- ▶ Reviewers will have to answer an additional merit review criterion on the “Quality and Efficacy of the Plan for Promoting Inclusive and Equitable Research.”
- ▶ Additional information on the PIER plan is included in the FOA and in <https://science.osti.gov/grants/Applicant-and-Awardee-Resources/PIER-Plans>

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