



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Informational Webinar:

Fusion Energy Sciences – Reaching New Energy Science Workforce (FES-RENEW) Funding Opportunity Announcement (FOA)

DE-FOA-0002937

FOA Issue Date:	January 9, 2023
Submission Deadline for Pre-Applications:	February 20, 2023, at 5PM Eastern Time
Letter of Intent Response Date:	February 27, 2023, at 5PM Eastern Time
Submission Deadline for Applications:	April 10, 2023, at 11:59 PM Eastern Time

Guinevere Shaw
Office of Fusion Energy Sciences
1/19/2023

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.*

Today's Agenda

- ▶ [Introduction to RENEW](#)
- ▶ [RENEW FOAs](#)
- ▶ [Fusion Energy Science Mission](#)
- ▶ [Solicitation Context](#)
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- ▶ [Multi-Institutional Teams \(Sec. I\)](#)
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- ▶ [Multi-Institutional Teams – continued](#)
- ▶ [Checklist for avoiding common errors](#)
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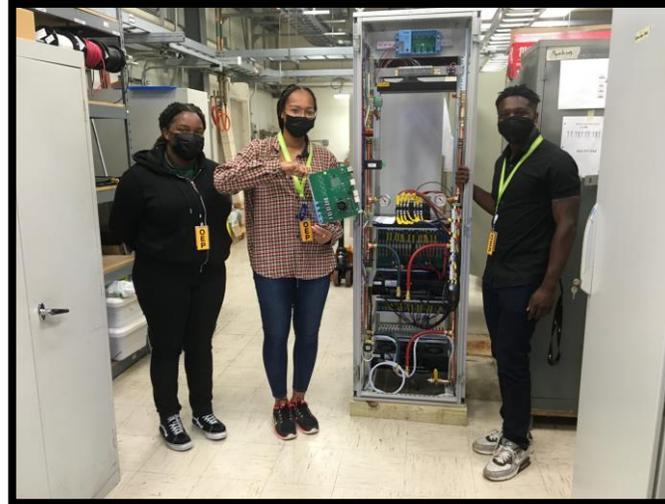
Reaching a New Energy Sciences Workforce (RENEW)

FY 2022 Awards: \$32M across 6 Programs; 7 FY 2023 FOAs totaling \$56M

Building foundations through undergraduate and graduate training opportunities for students and institutions historically underrepresented in the SC research portfolio



- SC conducted outreach and listening sessions in FY21-22 on barriers to participation in SC opportunities to inform FY 2022 FOAs



- FY 2022 FOAs are piloting models of support that directly address barriers to participation in SC supported fields of research; Models will be evaluated



- FY 2023 doubles investment and commitment to advance discovery and innovation by increasing the diversity of individuals and institutions supported

<https://science.osti.gov/initiatives/RENEW>

Office (FOA linked)	Total Funding	Award Size and Duration	Eligibility (Lead/Partner)	Deadlines
Advanced Scientific Computing Research	\$10M	\$50K - \$500K per institution per year; \$1.5M total per year for multi-institution teams; 3-year awards	Lead: All institutions, including DOE National Labs Partner: All institutions, including DOE National Labs Pre-Applications: Limited to 3 per institution	Pre-Application: February 21 Pre-Application Response: March 14 Application: April 18
Basic Energy Sciences	\$10M	\$500K - \$750K per year; 3-year awards	Lead: non-R1 MSI Coordinating Partner: 1 DOE National Lab or 1 R1 MSI Other Partners (optional): non-R1 MSIs Pre-Applications: Limited to 1 per PI; 3 per institution	Pre-Application: February 21 Pre-Application Response: March 24 Application: May 2
Biological and Environmental Research	\$6M	Up to \$800K total award; 3-year awards	Lead: non-R1 MSI Coordinating Partner: BRC and/or DOE National Lab Other Partners (optional): additional BRC and/or DOE National Lab Pre-Applications: Limited to 1 per PI; 3 per institution	Pre-Application: February 21 Pre-Application Response: March 8 Application: April 25
Fusion Energy Sciences	\$6M	\$200K - \$500K per year; 3-year awards	Lead: non-R1 or MSI Partner: all institutions, including DOE National Labs Pre-Applications: Limited 1 per PI, no institutional limit	Pre-Application: February 20 Pre-Application Response: February 27 Application: April 10
High Energy Physics	\$8M	\$50K - \$500K per year; 3-year awards	Lead: All institutions, including DOE National Labs Partner: DOE National Lab, SC User Facility, R1, MSI or HBCU Pre-Applications: Limited 1 per PI; 3 per institution	Letter of Intent: February 21 Application: March 31
Nuclear Physics	\$6M	\$10K - \$500K per year; 2-5 year awards	Lead: All institutions, including DOE National Labs Partner: All institutions, including DOE National Labs Pre-Applications: Unlimited	Pre-Application: February 20 Pre-Application Response: March 6 Application: April 17
Isotope R&D and Production	\$10M	\$100K-\$500K for MSI & single partner per year; \$100K-\$1M for MSI & multiple partners per year; 5-year awards	Lead: MSI Partner: DOE IP production facility (required subaward). Other Partner (optional): DOE National Lab, SC User Facility, R1, R1 MSI, non-R1 MSI also possible. Pre-Applications: Unlimited	Pre-Application: February 21 Pre-Application Response: February 22 Application: March 31

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Fusion Energy Science Mission

To expand the fundamental understanding of matter at very high temperatures and densities and to build the scientific foundation needed to develop a fusion energy source.

- ▶ Advance the fundamental science of magnetically confined plasmas to develop the predictive capability needed for a sustainable fusion energy source;
- ▶ Support the development of the scientific understanding required to design and deploy the materials needed to support a burning plasma environment;
- ▶ Pursue scientific opportunities and grand challenges in high energy density plasma science to better understand our universe, and to enhance national security and economic competitiveness;
- ▶ Increase the fundamental understanding of basic plasma science, including both burning plasma and low temperature plasma science and engineering, to enhance economic competitiveness and to create opportunities for a broader range of science-based applications.



Image source: <https://usfusionenergy.org/>

Solicitation Context

- ▶ The FES-RENEW FOA seeks new applications aimed to establish sustained research and student training opportunities involving non-R1 and MSIs, underrepresented in the FES research portfolio, engaging students, postdoctoral researchers, and faculty from these institutions.
- ▶ Additionally, the fusion and plasma science and technology communities concluded that there is the need for a more inclusive and diverse workforce. There are significant opportunities for recruitment of established scientists and engineers working in areas other than fusion and plasma into both the federal program and private fusion and plasma-focused companies. It is FES's goal to utilize the RENEW program to address some of these workforce development needs.
 - ▶ Long-Range Plan "Powering the Future: Fusion and Plasmas" developed by the Fusion Energy Sciences Advisory Committee (FESAC): https://science.osti.gov/-/media/fes/fesac/pdf/2020/202012/FESAC_Report_2020_Powering_the_Future.pdf
 - ▶ National Academies of Sciences, Engineering, and Medicine. 2021. Bringing Fusion to the U.S. Grid. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25991>
 - ▶ White House Summit on Developing a Bold Decadal Vision for Commercial Fusion Energy, [linked here](#)
- ▶ Awards must support research opportunities within the research subjects in the FES portfolio as articulated in the Fusion and Plasma Science Research Areas of the FOA.

Solicitation Scope

- ▶ The SC RENEW effort seeks to support individuals and institutions historically underrepresented in the SC research portfolio. Critical to this initiative are institutional efforts for recruiting diverse participation and creating and maintaining positive, inclusive, and professional research and learning environments, including but not limiting to providing mentoring and professional development resources to students and early career researchers and fostering a sense of belonging among all research personnel
- ▶ The FES-RENEW FOA seeks new applications aimed to establish sustained research and student training opportunities involving non-R1 and MSIs underrepresented in the FES research portfolio, engaging students, postdoctoral researchers, and faculty from these institutions.
- ▶ **Non-R1 or MSI must be the lead of the application**



Multi-Institutional Teams (Sec. I)

- ▶ SC uses two different mechanisms to support teams of multiple institutions. Regardless of the mechanism used, SC seeks to ensure that collaborators directly participating on RENEW awards, particularly from institutions historically underrepresented in SC research such as non-R1 institutions and Minority Serving Institutions, are fully engaged in substantive roles on the project. Those substantive roles should be reflected in both the research narrative as well as the proposed budget(s).
- ▶ Applications for multi-institutional teams must ensure that the lead institution requests more funding from FES than any other team member. Requests to change the institution receiving the greatest funding after an application is submitted will result in the application being declined unless the request is the result of the lead PI's death, incapacitation, or relocation.
- ▶ **Applications for multi-institutional teams must ensure that the lead institution is either a non-R1 institution or an MSI.**

Award Information (Sec. II)

- ▶ **Total Funding:** \$6M
- ▶ **Estimated Award Size and Duration:** \$200k - \$500k per year; 3-year awards
- ▶ **Eligibility (Lead/Partner):**
 - ▶ **Lead:** non-R1 or MSI
 - ▶ **Partner:** all institutions, including DOE National Labs
 - ▶ **Pre-Applications:** Limited 1 per PI, no institutional limit
- ▶ **Deadlines:**
 - ▶ **Pre-Application:** February 20, 2023 at 5pm ET
 - ▶ **Pre-Application Response:** February 27 at 5pm ET
 - ▶ **Application:** April 10 at 11:59pm ET

Pre-Applications (Sec. IV)

- ▶ Required
- ▶ Must be submitted by an authorized institutional representative
- ▶ If a multi-institutional team is submitting a collaborative application, only the lead institution should submit a pre-application.
- ▶ Must include a letter of collaboration from partnering investigator – this is not a letter of recommendation (not allowed)
- ▶ Must include a list of individuals who should not serve as merit reviewers

Full-applications (Sec. IV)

▶ **Abstract**

- ▶ Lead and Partner(s)

▶ **DOE Title Page**

- ▶ Important Instructions to the Sponsored Research Office of Submitting Institutions (p.30)

▶ Collaborative applications only – Title Page

▶ **Project Narrative**

- ▶ 12-page limit
- ▶ Provide a clear project narrative of the specific objectives/aims of the student program and the proposed research that the students will be performing.

▶ **Appendix:**

- ▶ Bibliography & references cited
- ▶ Facilities & other resources
- ▶ Equipment
- ▶ Data Management Plan
- ▶ Promoting inclusive and equitable research (PIER) plan **<- NEW**
 - ▶ Even though you may have answered some of this in the project narrative. Review the PIER requirements and included it in this appendix.
- ▶ Other Attachment
- ▶ Partner Institution Letter of Commitment



Multi-Institutional Teams - continued

Collaborative Applications (p. 18 & 19)

- ▶ Pre-app: Only the lead institution submits the pre-application
- ▶ Full App: Must indicate a part of a collaborative project/group
- ▶ Full App: Each partner must submit an application through its own sponsored research office.
- ▶ Full App: Each partner must submit their own SF-424 (R&R), unique budget, and unique budget justification
- ▶ Full App: Title page, narrative, and required appendices must be identical

Subaward (p. 18 & 19)

- ▶ Pre-app: Only the lead institutions submits the pre-application
- ▶ Full App: Multi-institutional teams may submit one application from a designated lead institution with all other team members proposed as subrecipients.

Checklist for avoiding common errors: (not a comprehensive list of all FOA requirements)

- ▶ **Tables:** FOA requires a table of collaborators and conflicts of interest with the application
 - ▶ List of individuals who should not serve as reviewers (FOA p.25)
- ▶ **Promoting Inclusive and Equitable Research Plans**
 - ▶ Additional Guidance about PIER plans are available at <https://science.osti.gov/grants/Applicant-and-Awardee-Resources/PIER-Plans>**A Data Management Plan**
- ▶ **Data Management Plan**
 - ▶ Additional Guidance on Digital Data Management (Effective 1/1/2022): <https://science.osti.gov/Funding-Opportunities/Digital-Data-Management#agddm2>



Where to find more information

- ▶ FOA: [DE-FOA-00027937](#)
- ▶ This webinar is being recorded; slides and the recording will be posted on the [RENEW page](#)
- ▶ Questions about the FOA? Check out the [FAQ](#)

Question & Answers

Please submit questions using Zoom Q&A window, which should be accessible at the bottom of your zoom window

If your question is not answered today, or you have additional questions about the presentation, please submit to guinevere.shaw@science.doe.gov

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