



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Informational Webinar:

Basic Energy Sciences – Reaching a New Energy Sciences Workforce (BES-RENEW)

Funding Opportunity Announcement (FOA): DE-FOA-0002953

FOA Issue Date	01/09/2023
Submission Deadline for Pre-Applications	02/21/2023 at 5:00PM Eastern Time A Pre-Application is required. Pre-Applications must be submitted by an authorized institutional representative.
Pre-Application Response Date	03/24/2023 at 11:59PM Eastern Time
Submission Deadline for Applications	05/02/2023 at 11:59PM Eastern Time

BES-RENEW.FOA@science.doe.gov
Office of Basic Energy Sciences
January 23rd, 2023, 4PM EST

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.

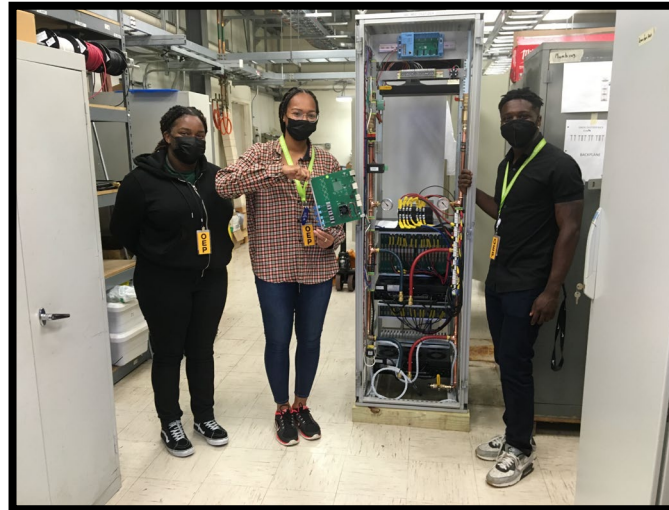
Reaching a New Energy Sciences Workforce (RENEW)

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

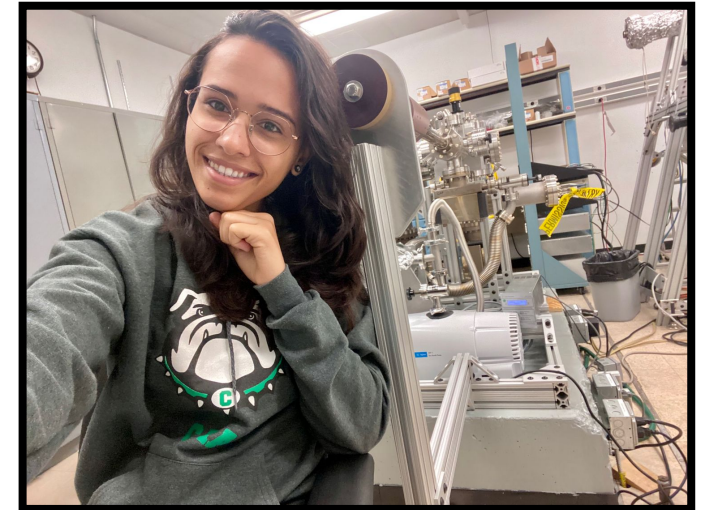
Building foundations through undergraduate and graduate training opportunities for students and institutions historically underrepresented in the SC research portfolio



- 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



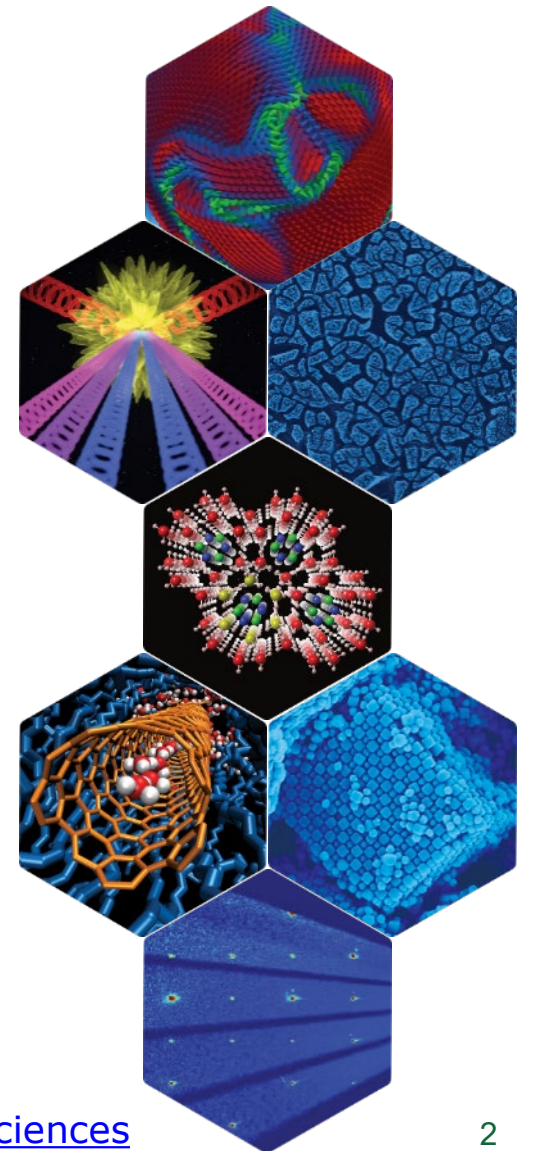
- FY 2023 doubles investment and commitment to advance discovery and innovation by increasing the diversity of individuals and institutions supported

Basic Energy Sciences (BES) Mission

To understand, predict, and ultimately control matter and energy at the electronic, atomic, and molecular levels.

BES fulfills its mission through:

- ▶ Supporting **basic research** to discover new materials and design new chemical processes that underpin a broad range of energy technologies,
- ▶ Operating **world-class** scientific national laboratories and **user facilities** in x-ray, neutron, and electron beam scattering as well as in nanoscale research,
- ▶ Managing **construction and upgrade projects** to maintain **world-leading** scientific user facilities.



BES RENEW Goals

- ▶ Increase participation of **underrepresented groups** in **BES's research portfolio**
- ▶ Advance a **diverse, equitable, and inclusive research community**, which is key to providing the scientific and technical expertise for U.S. scientific leadership
- ▶ Leverage partnerships with **DOE national laboratories, DOE user facilities, or R1 Minority Serving Institutions (MSIs)**
- ▶ Provide training (i.e., internships) and research opportunities for students, postdoctoral researchers, and faculty from **non-R1 MSIs**, including **Historically Black Colleges and Universities (HBCUs)**, currently underrepresented in the BES portfolio

BES RENEW Science Focus Area (see Section I of FOA)

BES-RENEW focuses on training opportunities as part of **basic** and **fundamental chemical and materials sciences research that responds to one of the following six topical areas:**

- ▶ **Scattering and Instrumentation Sciences Research**
x-ray scattering; neutron scattering; electron and scanning probe microscopies; and accelerator and detector research
- ▶ **Condensed Matter and Materials Physics Research**
experimental condensed matter physics; theoretical condensed matter physics; physical behavior of materials; and mechanical behavior and radiation effects
- ▶ **Materials Discovery, Design, and Synthesis Research**
materials chemistry; biomolecular materials; and synthesis and processing science
- ▶ **Fundamental Interactions Research**
atomic, molecular, and optical sciences; gas phase chemical physics; condensed phase and interfacial molecular science; and computational and theoretical chemistry
- ▶ **Chemical Transformations Research**
catalysis science; separation science; heavy element chemistry; and geosciences
- ▶ **Photochemistry and Biochemistry Research**
solar photochemistry; photosynthetic systems; and physical biosciences

BES RENEW Science Focus Area (see Section I of FOA)

Additional information on the breadth of BES supported research can found at:

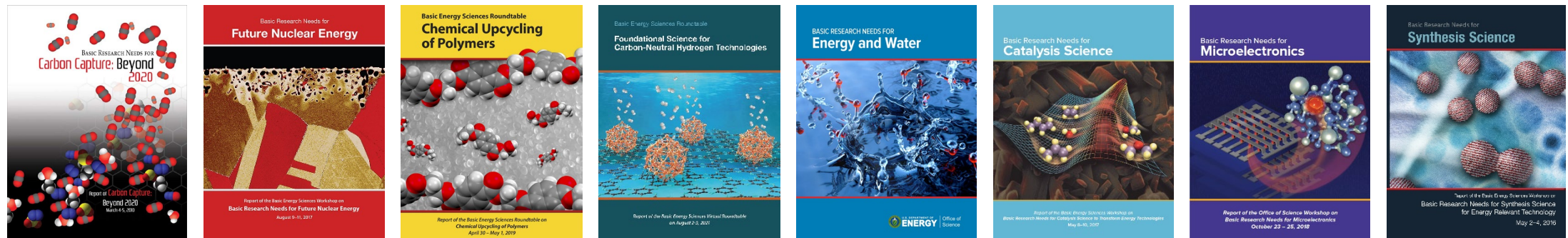
- ▶ PIs' Meetings

<https://science.osti.gov/bes/mse/Principal-Investigators-Meetings>

<https://science.osti.gov/bes/csgb/Principal-Investigators-Meetings>

- ▶ BES Reports

<https://science.osti.gov/bes/Community-Resources/Reports>



BES RENEW Eligibility (see Section III of FOA)

- ▶ For this FOA, the **lead institution** is restricted to domestic applicants classified as a **Minority Serving Institution (MSI)** and **NOT listed as a R1 Research Institution**.
 - MSI types for **Historically Black Colleges & Universities (HBCUs)** and **Tribal Colleges and Universities (TCUs)** are mandated by law and are based on the Integrated Postsecondary Education Data System (IPEDS) data from the U.S. Department of Education.
 - The other **MSI classifications** are based on the U.S. Department of Education 2022 Eligibility Matrix.
 - The **R1 (very high research activity) classification** is based on the Carnegie Classification of Institutions of Higher Education
- ▶ A **list of institutional eligibility** is provided at:
<https://science.osti.gov/grants/Applicant-and-Awardee-Resources/Institution-Designations>
 - An institution listed on the spreadsheet as an MSI that is not an R1 Research Institution either on the date this FOA is published, or the date pre-applications are due, will be eligible as a lead institution.

BES RENEW Teaming (see Section I of FOA) – Page 1

Teaming Arrangements:

- ▶ Teams must consist of **one** or **more non-R1 MSIs** in partnership with a **single DOE national laboratory or user facility**, or a **single R1 MSI**. [Other institution types are not eligible, even as a partner.]
- ▶ One **non-R1 MSI** must be identified as the **lead institution**.
- ▶ The **lead PI** must be affiliated with the **lead institution**.
- ▶ The **lead institution** must receive the **largest fraction** of the **proposed budget**.
- ▶ **15-25%** of the **proposed budget** must be allocated to the **national lab or R1 MSI partner** to ensure active participation and mentorship.
- ▶ Multi-institutional teams must submit one application from a designated lead institution with all other team members proposed as subrecipients.

BES RENEW Teaming (see Section I of FOA) – Page 2

Partnership Exploration:

- ▶ Non-R1 MSI institutions should contact the National Laboratory Points of Contact (POCs) with a **short description** of the **proposed research** and **potential lab PI(s)**, if known.
- ▶ National Laboratory POCs: <https://science.osti.gov/bes/Funding-Opportunities>

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Funding Opportunity Announcements (FOAs)

May be open to one or more institution types. For assistance with the Office of Science's Portfolio Analysis and Management System (PAMS) at <https://pamspublic.science.energy.gov>, please contact the Helpdesk at (855) 818-1846 (toll-free), (301) 903-9610, or sc.pams-helpdesk@science.doe.gov.

FY 2023 Continuation of Solicitation for the Office of Science Financial Assistance Program

Announcement Number: DE-FOA-0002844
Post Date: Friday, September 30, 2022
Close Date: Saturday, September 30, 2022

- Submission Deadline for Pre-Applications: February 7, 2023 at 5:00 PM Eastern Time
 - A Pre-Application is required
- Submission Deadline for Applications: April 11, 2023 at 11:59 PM Eastern Time
 - Pre-Applications must be submitted by an authorized institutional representative.

This FOA will remain open until September 30, 2022. It will be replaced by a successor FOA. Applications submitted any time during that period.

Scroll down

Additional Funding Opportunity Announcements

Reminder: Submit letters of intent, preapplications, and applications well ahead of stated deadlines.

Note: Department of Energy National Laboratories and other Federal Agencies should read Funding Opportunity Announcements carefully to see if they are eligible to apply to a particular solicitation. DOE National Laboratories may wish to respond to the program announcements listed under Open National Laboratory Announcements.

Basic Energy Sciences - Reaching a New Energy Sciences Workforce (BES-RENEW)

Announcement Number: DE FOA 0002953
Post Date: Monday, January 9, 2023
Close Date: Tuesday, May 2, 2023

- Submission Deadline for Pre-Applications: February 21, 2023 at 5:00 PM Eastern Time
 - A Pre-Application is required
 - Pre-Applications must be submitted by an authorized institutional representative.
- Pre-Application Response Date: March 24, 2023 at 11:59 PM Eastern Time
- Submission Deadline for Applications: March 24, 2023 at 11:59 PM Eastern Time

Identifying a DOE National Lab Partner for the BES RENEW FOA

BES: Webinar: January 23rd, 4 pm EST. [Register here.](#)

FY 2023 Funding for Accelerated, Inclusive Research (FAIR)

Announcement Number: DE-FOA-0002931
Post Date: Thursday, December 15, 2022
Close Date: Tuesday, April 11, 2023

- Submission Deadline for Pre-Applications: February 7, 2023 5:00 PM Eastern Time
 - A Pre-Application is required
 - Pre-Applications must be submitted by an authorized institutional representative.
- Pre-Application Response Date: March 7, 2023 at 11:59 PM Eastern Time
- Submission Deadline for Applications: April 11, 2023 at 11:59 PM Eastern Time

- An informational webinar was held Friday, January 6. Slides may be found [here](#). The recording is [here](#).
- Points of Contact may be found [here](#).
- Institution Designations and Classifications may be found [here](#).
- Frequently Asked Questions may be found [here](#).

BES RENEW Budget & Costs (see Section I of FOA) – Page 1

- ▶ All costs requested in a budget must adhere to standard requirements for all Federal awards.

Allowable costs include:

- ▶ **“Buying out” faculty time** dedicated to teaching or administrative responsibilities,
- ▶ Support for **administrative personnel** dedicated to the proposed activity,
- ▶ Support for **professional development, training, mentoring** of students and junior researchers,
- ▶ **Travel** related to collaborator meetings, internships at DOE lab, conferences/workshops,
- ▶ **Fringe benefits**, which must be paid in accordance with an institution’s negotiated rates agreement, institutional policies, and the individual’s appointment,
- ▶ **Temporary dependent-care costs** incurred during travel,
- ▶ **Membership costs** in relevant **professional societies**, including both scientific societies and those dedicated to research administration,

Allowable costs include (continued):

- ▶ **Instrumentation** required to conduct proposed research,
- ▶ **Equipment** (items with a useful life of more than 12 months and a per-item acquisition cost of more than \$5,000) required to conduct proposed research,
- ▶ **Stipends and benefits** for students and post-doctoral researchers, recognizing their dual nature as both trainees and employees,
- ▶ **Salary support** to cover time to participate in outreach for recruitment, internships, and training events, science team meetings, partnership development, or information gathering,
- ▶ **Other direct costs**, e.g., materials and supplies such as office supplies, desktop or laptop computer, and/or software licenses that are directly necessary to enable the proposed activities.

All requested costs must also conform to institutional policies: A cost cannot be charged to a Federal award if the institution's policies would prohibit paying for the cost. All requested costs must be directly related to the work being proposed.

Living Wages from the FOA

“SC is committed to ensuring that students, trainees, and postdoctoral fellows are paid a fair and equitable wage sufficient to allow a reasonable standard of living. Applicant institutions are strongly encouraged to examine their institutional pay scales to ensure that all personnel earn a living wage. The provision of fellowships, traineeships, stipends, honoraria, subsistence allowances, and other similar payments may be allowable expenses on SC financial assistance awards, per 2 CFR 200.430, § 200.431, and § 200.466. For graduate students, SC considers a reasonable living wage to be an annual income of \$45,000, excluding benefits.”

BES RENEW Award Information (see Section II of FOA)

- ▶ The FOA solicits **new applications** only.
- ▶ **Estimated funding:** Subject to availability of funds, a total of up to \$10 million in current and future fiscal year funds will be used to support awards under this FOA.
- ▶ **Period of performance:** DOE anticipates making awards with a project period of **3 years**, subject to the availability of future funds.
- ▶ **Minimum/maximum award size:**
 - **Floor:** \$500,000 per year
 - **Ceiling:** \$750,000 per year
- ▶ **Expected number of awards and award size:** The exact number of awards will depend on the number of meritorious applications and the availability of appropriated funds.
- ▶ **Limitations on submission:** Applicant institutions are limited to no more than **three (3) pre-applications or applications**. Institutions may be listed as a sub-recipient on other pre-applications or applications without limitation.
- ▶ Individuals are limited to be lead-PI on **one (1) pre-application or application**. However, the PI may also be listed as a senior or key personnel on separate submissions without limitation.

BES RENEW Pre-Application (see Section IV of FOA) – Page 1

- ▶ A **pre-application is required** and must be submitted by the date indicated on the cover of this FOA (2/21/2023).
- ▶ It must include a **clear** and **concise description** of specific **scientific, recruitment, mentoring, and inclusion objectives and plans** of the proposed project.
- ▶ Pre-applications will be reviewed for **responsiveness of the proposed work** to the research topics identified in this FOA. DOE may evaluate all or some portion of pre-applications to determine their **competitiveness within a scientific topic**. DOE will send a **response by email** to each applicant encouraging or discouraging the submission of an application.
- ▶ Pre-applications should include a **comprehensive listing of individuals** who should **not serve as merit reviewers** of a subsequent application (see section VIII.A.10 of the FOA). A [collaborator template](https://science.osti.gov/grants/Policy-and-Guidance/Agreement-Forms) is available here:
<https://science.osti.gov/grants/Policy-and-Guidance/Agreement-Forms>

The collaborator template is available here:

<https://science.osti.gov/grants/Policy-and-Guidance/Agreement-Forms>

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Grant/Cooperative Agreement Forms

The application forms for Office of Science use in applying for grants and cooperative agreements are available at the Grants.gov website. All Funding Opportunity Announcements published at Grants.gov contain information about the required forms, the application instructions, and details about how to submit the application. Grants and cooperative agreements will only be reviewed if their applications are on SF-424 (R&R) forms submitted through Grants.gov.

The Office of Science makes the template below available as a convenience in assembling lists of senior/key personnel and individuals who should not serve as reviewers of applications. * [Collaborator Template](#)

If an applicant is asked to submit a revised budget with a written justification, most requests will be made using the PAMS website. Otherwise, please use the government-wide standard grant form budget pages SF-424 (R&R). Non-fillable .pdf versions of the budget pages are available at Grants.gov. However, as a convenience, the Office of Science makes these Excel facsimiles of the SF-424 (R&R) available here:

- [Three Year Budget Request](#)
- [Five Year Budget Request](#)

These files are not protected; they may be edited in any way. The spreadsheets will automatically add the direct cost categories and calculate total direct costs, but they will not multiply indirect cost rates and bases. Any formula may be overwritten. Please exercise caution when using these forms.

Please submit any requested budget and budget justification as an email attachment addressed to the Office of Science personnel who requested the revised information. The cover email with attachments must bear the signature, physical or electronic, of an authorized institutional official. Emails are considered to bear the signatures of their senders.

BES RENEW Merit Review (see Section V of FOA)

Applications are subject to **scientific merit review** (peer review) and will be evaluated by Merit Review Panels against the following **five criteria** which are of **equal importance**:

- ▶ Scientific and/or Technical Merit of the Project,
- ▶ Appropriateness of the Proposed Method or Approach,
- ▶ Quality and Efficacy of the Promoting Inclusive and Equitable Research (PIER) Plan,
- ▶ Competency of Applicant's Personnel and Adequacy of Proposed Resources, and
- ▶ Reasonableness and Appropriateness of the Proposed Budget.

More detailed questions to each criteria are provided in the FOA and will serve as prompts to the merit reviewers.

BES RENEW FOA: Key Dates

- ▶ **Pre-Application due date:** 02/21/2023, by 5:00PM Eastern Time
 - Pre-applications must be submitted via the DOE Portfolio Analysis and Management System (PAMS) at <https://pamspublic.science.energy.gov>
- ▶ **Pre-Application Response date:** 03/24/2023 at 11:59PM Eastern Time
- ▶ **Application due date:** 05/02/2023, by 11:59PM Eastern Time
 - Applications must be submitted via www.grants.gov
- ▶ DOE anticipates that **award selection** will be completed by July 2023. It is expected that awards will be made in Fiscal Year 2023.

Checklist for avoiding common errors: Pre-Applications

(not a comprehensive list of all FOA requirements)

- ▶ **Scope:** No applied research or technology development.
- ▶ **Tables:** FOA requires a table listing “individuals who should not serve as reviewers” be submitted in Excel format by email to BES-RENEW.FOA@science.doe.gov
 - A template called “Collaborator Template” can be found at <https://science.osti.gov/grants/Policy-and-Guidance/Agreement-Forms>
 - More info on List of Individuals Who Should Not Serve as Reviewers in FOA Sec. VIII.A.10.
- ▶ The pre-application may only be submitted to DOE by a user at the PI’s institution with the “Submit to DOE” privilege in PAMS. [We recommend that you contact your Office of Sponsored Research early.]
- ▶ Submit pre-applications **via PAMS** at <https://pamspublic.science.energy.gov>, not via www.grants.gov (due February 21st, 5pm ET)
 - Program Manager to select when submitting a pre-application: Claudia Mewes
 - All questions about the FOA must be submitted to BES-RENEW.FOA@science.doe.gov
- ▶ **Late submissions** of pre-applications are rarely accepted (see Sec. IV.F.4 of the FOA)

Checklist for avoiding common errors: Applications

(not a comprehensive list of all FOA requirements)

- ▶ **Tables:** FOA requires “Identification of Merit Reviewer Conflicts” attached to Field 12 of the Research and Related Other Project Information Form.
 - This is the same “List of Individuals Who Should Not Serve as Reviewers” template you emailed to BES-RENEW.FOA@science.doe.gov for the pre-application (Section VIII.A.10 in FOA).
 - The template, in Microsoft Excel (.xls or .xlsx) format, is preferred.
- ▶ **Budget:** For multi-institutional projects, the lead institution must request a **larger percentage of the budget** than each of the other institutional partners. **15-25%** of the **proposed budget** must be allocated to the **lab or R1 MSI partner**.
- ▶ **Biographical sketch** and list of **current/pending support**
 - Required for each senior/key personnel; follow instructions in FOA, including the use of the NSF format.
 - Ensure complete list of activities regardless of source of funding.
 - Do not attach a list of individuals who should not be used as merit reviewers as part of the bio sketch.
- ▶ Submit application via www.grants.gov, not PAMS (due May 2nd by 11:59pm ET)
- ▶ **Late submissions** of applications are rarely accepted (see Sec. IV.F.4 of the FOA)

Where to find more information

- ▶ **FOA:** <https://science.osti.gov/bes/Funding-Opportunities>
- ▶ **Office of Science RENEW Program:** <https://science.osti.gov/Initiatives/RENEW>
- ▶ **Basic Energy Sciences (BES):** <https://science.osti.gov/bes>
 - **Materials Sciences and Engineering (MSE) PI Meetings:**
<https://science.osti.gov/bes/mse/Principal-Investigators-Meetings>
 - **Chemical Sciences, Geosciences, and Biosciences (CSGB) PI Meetings:**
<https://science.osti.gov/bes/csgeb/Principal-Investigators-Meetings>
- ▶ **This webinar is being recorded;** slides and the recording will be posted on the FOA page listed above
- ▶ **Helpdesks for technical submission questions:**
 - **PAMS Helpdesk (Pre-Application):**
<https://pamspublic.science.energy.gov/WebPAMSEPSEExternal/CustomInterface/Common/ContactUs.aspx>
 - **Grants.gov Helpdesk (Application):** 800-518-4726 (toll-free), support@Grants.gov
- ▶ **Questions about the FOA:** Please send an email with your question(s) to BES-RENEW.FOA@science.doe.gov

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, or MSI 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 (must be lead/prime) 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

Questions & 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:

BES-RENEW.FOA@science.doe.gov

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