MIT Office of the Vice President for Research
Research Administration Services

Department of Energy
FY24 DE-FOA-000
Full Research Proposal Checklist

This checklist applies to the DOE Office of Science (SC) FY2024 open broad solicitation DE-FPA-0003177. This FOA provides general proposal preparation guidelines covering the required sections of full research proposals submitted to DOE. Please note, when applying to a specific program solicitation the instructions within a specific funding opportunity announcement (FOA) may differ from these general instructions. Please review the specific FOA and contact your RAS contract administrator with any questions.
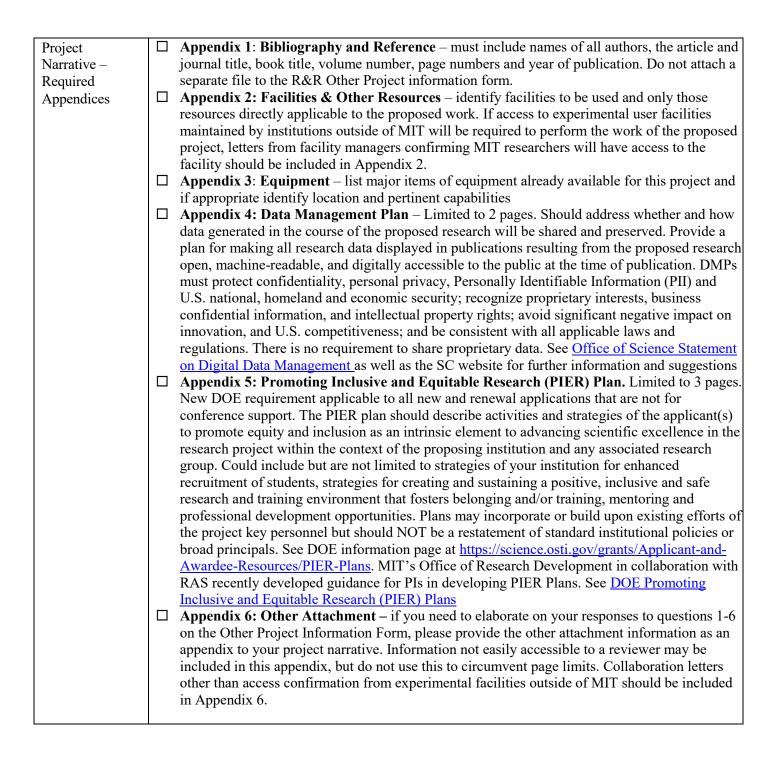
REQUIRED FORMATTING:
- Page size 8.5" x 11"
- Margins: must be one inch on all sides
- Font size must be 11 point or larger
- Do not include any URLs that provide supplementary information that constitutes part of the application
- All documents must be flattened PDFs without access restrictions or passwords

SUBMISSION: Applications in response to this FOA must be submitted through Grants.gov. If MIT PIs or DLCIs need assistance registering for access to grants.gov please reach out to ra-help@mit.edu

REQUIRED COMPONENTS:

Dates and Deadlines	☐ The SC open solicitations are typically open for 12 months. FOA remains open until 11:59pm Eastern Time on the date of expiration or until succeeded by another issuance whichever comes first. Check the Open FOAs page be sure the Grants.gov application is linked to the most current solicitation ☐ Applications for conferences or workshop support must be submitted at least six months prior to the proposed meeting date and not later than April 1, 2024 to be considered for FY 2024 funding ☐ DOE will accept new, renewal and supplemental applications under this FOA ☐ Renewal applications compete with all other applications and must be submitted at least six months before the scheduled expiration of the current award's project period.
Grants.Gov Access	☐ Ensure your RAS contract administrator and the relevant DOE agency liaison have been added to the grants.gov workspace.
Personnel, Project Roles	☐ MIT PI status is required for all MIT PIs and Co-PIs ☐ All MIT PIs/Co-PIs/ and any named Senior/Key Personnel must complete KC Proposal certification/COI screening to comply with DOE Interim Conflict of Interest Policy Requirements. KC has been updated to include DOE in the PHS hierarchy for proposal certifications. See RAS Update on DOE Interim Conflict of Interest Policy . ☐ DOE considers Senior/Key persons as those who contribute in a substantive, meaningful way to the scientific development or execution of the project, whether or not salaries are requested.
Certifications & MIT Internal Attachment requirements:	☐ MIT requires a letter quoting any named consultant's role, expertise, and established consultant rate for internal purposes. See RAS: Proposal Preparation Basics ☐ Be sure to enter correct Activity Type in KC Proposal details.

Organization/ Locations	☐ Enter any subaward or other performance sites in KC under Proposal > Basics > Organization and Location. If Organization does not already exist in KC, request it be added at [KC: Request New Subawardee Organization](#)
SF424 (R&R) Form	☐ Complete Field 4.a. for renewal and supplement applications ONLY ☐ Ensure correct Type of Application. Supplement applications should be marked as "Revision" and applications requesting additional funding for a continuation should be marked as "Renewal" ☐ DOE SC does not use Resubmission or Continuation options ☐ Answer the question YES/NO is this application being submitted to other agencies and complete the subsequent field if applicable ☐ For Multi-Institutional Teams: see instructions in FOA as there are two mechanisms to support teams of multiple institutions and the specific instructions explain the deviations to the standard form and attachment guidance.

Research & Related Other Project Information Form	☐ Complete questions in fields 1 – 6. See notes in FOA regarding environmental impact ☐ Upload Project Summary / Abstract to Field 7 of the form following FOA instructions for formatting. ☐ Upload the Application Project Narrative to Field 8 of the form – see further guidelines below and see FOA for any page limits. If none listed then none apply. ☐ DO NOT attach any of the required appendices to fields 9, 10, 11 of this form. Follow the instructions in the FOA for including required appendices to the Project narrative. ☐ Attach list of Merit Reviewer Conflicts to Field 12 per the FOA.
Project Summary / Abstract	☐ The project summary / abstract is a 2 page document consisting of: ☐ A Cover sheet containing the name of the applicant, project title, PI and PIs institutional affiliation, and any coinvestigators and their institutional affiliation ☐ A one page summary that includes objectives of the project, description, including methods to be employed, and the potential impact of the project (i.e., benefits, outcomes) ☐ The Description of the project may not exceed one page.

Project Narrative	☐ The application must begin with a title page to include the items outlined in the FOA
	☐ You must create one single machine-readable PDF file that contains the DOE Title Page, project narrative, all required appendices, and any applicable other attachments. The single PDF may not be scanned from a printed document and must be attached to Field 8 of the Research and Related Other Project Information Form
	☐ Title Page Supplement for Collaborative Applications: See specific FOA instructions for additional information to be included. This does not count toward the narrative page limit.
	☐ Do not include any websites (URLs or hyperlinks)
	Project Narrative Organization Guidance:
	  • **Background/introduction**
	  • **Progress Report (for renewal applications only)**
	  • **Project Objectives**
	  • **Proposed Research and Methods**
	  • **For Collaborative Applications ONLY –** each institution in a multi-institutional team submitting collaborative applications must submit an identical common narrative, including all appendices. Collaborative applications will be longer than single-institution applications. The common narrative must identify which tasks and activities will be performed by which of the institutions in every budget period of the proposed project. The budget and budget justification are unique to each institution. It is very important that every application in the team be identical (including the title) with exception of the budget and budget justification pages.
	  • **Buy America Requirements –** does not apply to MIT -as we don't engage in construction/repair/maintenance of public infrastructure

Project Narrative – Required Appendices	☐ **Appendix 1**: **Bibliography and Reference** – must include names of all authors, the article and journal title, book title, volume number, page numbers and year of publication. Do not attach a separate file to the R&R Other Project information form.
	☐ **Appendix 2: Facilities & Other Resources** – identify facilities to be used and only those resources directly applicable to the proposed work. If access to experimental user facilities maintained by institutions outside of MIT will be required to perform the work of the proposed project, letters from facility managers confirming MIT researchers will have access to the facility should be included in Appendix 2.
	☐ **Appendix 3**: **Equipment** – list major items of equipment already available for this project and if appropriate identify location and pertinent capabilities
	☐ **Appendix 4: Data Management Plan** – Limited to 2 pages. Should address whether and how data generated in the course of the proposed research will be shared and preserved. Provide a plan for making all research data displayed in publications resulting from the proposed research open, machine-readable, and digitally accessible to the public at the time of publication. DMPs must protect confidentiality, personal privacy, Personally Identifiable Information (PII) and U.S. national, homeland and economic security; recognize proprietary interests, business confidential information, and intellectual property rights; avoid significant negative impact on innovation, and U.S. competitiveness; and be consistent with all applicable laws and regulations. There is no requirement to share proprietary data. See Office of Science Statement on Digital Data Management as well as the SC website for further information and suggestions
	☐ **Appendix 5: Promoting Inclusive and Equitable Research (PIER) Plan.** Limited to 3 pages. New DOE requirement applicable to all new and renewal applications that are not for conference support. The PIER plan should describe activities and strategies of the applicant(s) to promote equity and inclusion as an intrinsic element to advancing scientific excellence in the research project within the context of the proposing institution and any associated research group. Could include but are not limited to strategies of your institution for enhanced recruitment of students, strategies for creating and sustaining a positive, inclusive and safe research and training environment that fosters belonging and/or training, mentoring and professional development opportunities. Plans may incorporate or build upon existing efforts of the project key personnel but should NOT be a restatement of standard institutional policies or broad principals. See DOE information page at https://science.osti.gov/grants/Applicant-and-Awardee-Resources/PIER-Plans. MIT's Office of Research Development in collaboration with RAS recently developed guidance for PIs in developing PIER Plans. See DOE Promoting Inclusive and Equitable Research (PIER) Plans
	☐ **Appendix 6: Other Attachment –** if you need to elaborate on your responses to questions 1-6 on the Other Project Information Form, please provide the other attachment information as an appendix to your project narrative. Information not easily accessible to a reviewer may be included in this appendix, but do not use this to circumvent page limits. Collaboration letters other than access confirmation from experimental facilities outside of MIT should be included in Appendix 6.

Research and Related Key Person Form (expanded)	☐ Complete the form for all PIs, Co-PIs and all senior/key personnel who will be identified by name in Section A of the application's budget.
	☐ List all other personnel who contribute in a substantive, meaningful way to the scientific development or execution of the project, whether or not salaries are requested.
	☐ Consultants should be included in this form if they meet the above definition.
	☐ In the "credential" field enter the persons PAMS username, if known
	
	☐ **Current and Pending Support:** DOE requires use of an NSF approved format for the current and pending is required. That is SciENcv. For more information on approved formats see [NSF's documents required for Senior Personnel](#)
	☐ The PI and each senior/key person must provide list of all sponsored activities, awards and appointments whether paid or unpaid; provided as a gift with terms or conditions or provided as a gift without terms or conditions; full-time, part-time or voluntary; faculty, visiting, adjunct or honorary; cash or in-kind; foreign or domestic; government or private-sector, directly supporting the individual's research or indirectly supporting the individual by supporting students, research staff, space, equipment or other research expenses. All foreign government-sponsored talent recruitment programs must be identified in current and pending support. Each list must include:
	   • sponsor of the activity or source of funds
	   • award or other identifying number
	   • title of the award
	   • total cost or value including direct and indirect costs
	   • award period
	   • person months of effort
	   • if required to identify overlap, duplication of effort, or synergistic efforts, append a description of the other award or activity to the current and pending support.
	
	☐ **Biosketch:** Limited to 3 pages unless otherwise stated in the FOA. Must use the format approved by the National Science Foundation (NSF). That is SciENcv . For more information see [NSF's biosketch information](#). The following sections are required.
	   • **Education and Training** – undergraduate, graduate and postdoctoral training, provide institution, major/area, degree and year
	   • **Research and Professional Experience -** start with current position, list professional / academic positions in chronological order with brief description. List all current academic, professional or institutional appointments, foreign or domestic; at the applicant institution or elsewhere, whether or not renumeration is received and whether full-time, part-time or voluntary.
	   • **Publications** – list up to 10 publications most closely related to the proposed project. Identify all authors, article title, book or journal title, volume number, page numbers, year of publication and website if available.
	   • **Synergistic Activities:** List no more than five professional and scholarly activities related to the effort proposed.
	   • DOE requires the use of the format approved by the National Science Foundation (NSF) which is SciENcv

Budget (Including Justification)	☐ Complete Research and Related Budget form in accordance with the instructions on the form. ☐ Must complete a separate budget for each year of support requested. The form will generate a cumulative budget for the total project period. ☐ Organize the justification by listing items in the same order as presented on the budget form. ☐ Ensure narrative matches budget in dollar amounts and language ☐ If costs are estimated, provide a basis for the estimate. Explain if costs are based on prior experience of similar activities) ☐ If including an inflationary factor for future budget periods, explain the basis for it. ☐ Provide details of all personnel (key or other) regardless of the source of their compensation.

Explain their source(s) of compensation if it is not from this award

☐ Include current indirect cost rate agreement as part of the budget justification

Personnel: funds requested for personnel must be justified as the product of their effort on the project and institutional base salary. Funds requested for fringe benefits must be calculated and, if present, the negotiated fringe benefit rate contained in an institution's negotiated indirect cost rate. Include a written narrative in the budget justification that justifies the need for the requested personnel.

Equipment: equipment is designated as item of property with acquisition cost of $5,000 or more and expected service life of more than one year (this is only for proposal budgeting and differs from the DOE definition of capital equipment). List **EACH item separately and justify each in the budget justification.**

Travel: List each trip's destination, dates, estimated costs, number of staff, purpose of travel and how it relates to the project. Indicate the basis for the cost estimate (quotes, past experience, other). To qualify for support, attendance at meetings or conferences must enhance the investigator's capability to perform the research, plan extensions of it, or disseminate results. Domestic and foreign travel must be justified separately.

Participant/Trainee Support Costs: If applicable, submit training support costs. Educational projects that intend to support trainees must list each trainee cost that includes stipend levels and amounts, tuition, travel and any related training expenses. Participant costs are those associated with conferences, workshops, or institutes and should include number of participants, costs for each, purpose of the event, dates and places of meetings and related administrative expenses. Indicate basis of cost estimate (quotes, prior, other).

Other Direct Costs:
- **Materials and Supplies** – indicate general categories such as chemicals, glassware and include amount for each category. Categories less than $1,000 do not need to be itemized. Indicate basis for cost estimate (quote, past, other)
- **Publications** – may request funds for the cost of documenting, preparing, publishing or otherwise making available to others the finding and products of the work conducted under the award. Including supporting information and basis for cost estimate
- **Consultants** – in justification identify each consultant, services to be performed, number of days, travel costs and estimate costs. Indicate basis for cost estimate.
- **ADP/Computer Services** – Cloud computing costs must be included under this item. Include the established computer service rates at the proposing organization if applicable
- **Subawards/Consortium/Contractual** – in justification justify the details of each subaward
- **Equipment or Facility Rental/User Fees** – in justification identify each rental/user fee and justify. Include basis for cost estimate
- **Alteration and Renovation** – itemize by category in the justification including repairs, painting, etc. Where applicable include square footage and costs.
- **Other** – add as needed.

Indirect Costs: Include the cognizant federal agency and contact information if using a negotiated rate agreement. Within the budget justification, explain the use of multiple rates, if multiple rates are used.

Subawards:
☐ Must provide a separate R&R Budget form and budget justification for each subrecipient. Download the R&R Subaward Budget Attachments forms from Workspace.
☐ Ensure files received from subrecipients are the PDF files extracted from the subaward budget form. Errors will be created if a subrecipient sends a prime applicant a budget form

	that was not extracted from the application package. NOTE: if an application proposes subawards to a DOE/NNSA National Laboratory, a federal agency, or another Federal agency's FFRDC (such as MIT-LL), the value of such proposed subaward may be deducted from any resulting award: those classes of organizations may be paid directly by SC. However, the details of such proposed budgets are essential for understanding and analyzing the proposed research
Project/Perform ance Site Location (s)	☐ Indicate the primary site where the work will be performed. Including any subaward sites.
Disclosure of Lobbying Activities (SF-LLL)	☐ MIT does not lobby but if any subrecipient has activities to declare they should provide such on the SF-LLL form.

Identification of Merit Reviewer Conflicts	☐ Provide a list of any individuals who should not serve as a merit reviewer of this application,
	☐ Attach this form to Field 12 of the Research and Related Other Project Information Form.
	☐ Lists must be in tabular format, preferably as Microsoft Excel (.xls or .xlsx) files
	☐ A template is available at DOE's Grant/Cooperative Agreement Forms
	☐ Provide the following information for each and every senior/key person who is planned to be or is identified in Section A of the R&R Budget for the applicant and any proposed subrecipients:
	    • Advisees (graduate or postdoc) of the senior/key person
	    • Advisors of the senior/key person while a graduate student or postdoc
	    • Close associates of the senior / key person over the past 48 months
	    • Co-Authors over the past 48 months
	    • Co-editors over the past 48 months
	    • Co-Investigators over the past 48 months
	    • Collaborators over the past 48 months
	☐ Do not identify any personnel at the applicant institution or subrecipient or team institution. Those personnel are prohibited from serving as merit reviewers.
	☐ Large collaborations of 10 or more researchers do not require that all collaborators be identified, rather only list the researchers with whom the senior/key person actually collaborated
	☐ For all identified individuals provide the following information:
	    • The senior/key person to whom the individual was the advisee, advisor etc., identified by first name and last name
	    • The individuals first name and last name
	    • The individuals Open Research and Contributor ID (ORCiD), if known
	    • The individual's institutional affiliation spelling out acronyms (for joint appointments, separate each institution with a slash. Do not list departmental affiliations
	    • The reason for listing the individual (advisee, advisor, etc.)
	    • The year when the individual was last a close associated, co-author, co-editor, co-investigator or collaborator.

Administrative and National Policy Requirements **Determination of Exceptional Circumstance**	☐ This FOA includes a DOE Determination of Exceptional Circumstance (DEC) under the Bayh-Dole act. All awards including subawards under this FOA shall include the U.S. Competitiveness Provision in accordance with Section VII of the FOA. ☐ DLCIs and PIs (including subawards) should be made aware of this term and that it modifies the standard patent rights clause for small businesses and non-profit awardees. The applicant (and subawards) must agree to a U. S. Competitiveness provision requiring any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Recipient can show to the

	satisfaction of DOE that it is not commercially feasible.
	☐ If an entity cannot meet the requirements of the U.S. Competitiveness Provision, the entity may request a modification or waiver of the requirement. If granted DOE will modify the award terms accordingly. More information on the waiver process is available
	☐ RAS CAs should notify MIT TLO (email to tlo-comp@mit.edu) with information on the PI and proposal and this term. If awarded, RAS CAs will utilize the special term codes and supplemental information flags available in KC for reporting/tracking and notify TLO at award stage.
	☐ The Recipient is typically asked to draft and submit a U.S. Manufacturing Plan after award. PIs should consult their MIT-TLO officer to review these plans prior to submission to DOE.
Prohibition on Participation in Foreign Government Talent Recruitment Programs (FGTRP)	FGTRP Disclosure Language:
	☐ This FOA includes language requiring disclosure by project personnel (PI, Co-PI, key persons, other) of participation in any Foreign Government Talent Recruitment Programs (FGTRP).
	☐ RAS CAs are advised to share this term with the PI and DLCI so they are aware and have included information on all foreign collaborations in their Current and Pending including those of subrecipients.
	FGTRP Certification Language – Some DOE and DOE National Lab solicitations contain certification requirements that ask applicants to certify that no individuals proposed to work as part of the research are participants in a FGTRP. This information is included for reference. If you see FGTRP certification language in a solicitation or you aren't sure please check with a DOE liaison.
	☐ MIT has an internal process for obtaining certifications from PIs, Co-PIs and any named senior/key persons to confirm they are not participants in a FGTRP.
	☐ The MIT PI (and other senior / key persons) are asked to sign MIT's internal PI Affirmation form. This does not get submitted DOE but will be uploaded to the KC proposal files.
	☐ For subrecipients to MIT – should be made aware of the terms as it applies to subrecipients
	☐ If awarded, RAS CA will use internal term codes and supplemental information flags for tracking/and reporting on awards with certification requirements.
	☐ If awarded and DOE requests additional information contact your RAS CA for guidance.